IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

DEBTORS' EXHIBIT LIST FOR
HEARINGS SCHEDULED FOR SEPTEMBER 23, 2025

Main Case No: 24-90448 (ARP)	**Name of Debtor**: Rhodium Encore LLC, *et al.*
Witnesses:	**Judge**: Alfredo R. Perez
Chase Blackmon	**Courtroom Deputy**: Akeita House
Charles Topping	**Hearing Date and Time**: September 23, 2025, at 1:00 p.m.
Juli Saitz	**Party's Name**: Rhodium Encore LLC, *et al.*
Dr. Al Ortega	**Attorneys' Name**: Patricia B. Tomasco, Elizabeth Brannen
Any witness called or designated by any other party	**Attorneys' Phone**: 713-221-7000
Any witness necessary to rebut the evidence or testimony of any witness offered or designated by any other party	**Nature of Proceeding**: Debtors' Summary Judgment Motion in Support of Amended Omnibus Objection to Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC (ECF No. 1484); Motion to Estimate Contingent and Unliquidated Claims

[1] The Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Rhodium Enterprises, Inc. (6290), Rhodium Technologies LLC (3973), Rhodium Renewables LLC (0748), Air HPC LLC (0387), Rhodium Shared Services LLC (5868), Rhodium Ready Ventures LLC (8618), Rhodium Industries LLC (4771), Rhodium Encore Sub LLC (1064), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), and Rhodium Renewables Sub LLC (9511). The mailing and service address of the Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

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	of Midas Green Technologies LLC and Grant Related Relief (ECF No. 1483); Debtors' Motion for Sanctions Relating to Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC (ECF No. 1602); Midas Green Technologies, LLC's Motion for Mandatory Withdrawal of Reference Pursuant to 28 U.S.C. § 157 and Rule 5011 of the Federal Rules of Bankruptcy Procedure for Abstention (ECF No. 1579)

EXHIBITS

EXHIBIT NO.	DESCRIPTION	OFFERED	OBJECTION	ADMITTED/ NOT ADMITTED	DISPOSITION
1.	Debtors' Amended Omnibus Objection to Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC (Sealed version at ECF No. 954; redacted version ECF No. 953)				
2.	Reply in Support of Debtors' Amended Omnibus Objection to Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC and Motion for Summary Judgment Briefing Schedule (ECF No. 1413)				
3.	Motion to Estimate Contingent and Unliquidated Claims of Midas Green Technologies LLC and Grant Related Relief (Sealed version at ECF No. 1483; redacted version at ECF No. 1485)				
4.	Debtors' Summary Judgment Motion in Support of Amended Omnibus Objection to Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC (Sealed version at ECF No. 1484; redacted version at ECF No. 1486)				

EXHIBIT NO.	DESCRIPTION	OFFERED	OBJECTION	ADMITTED/ NOT ADMITTED	DISPOSITION
5.	Debtors' Reply in Support of Summary Judgment Motion in Support of Amended Omnibus Objection to Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC (ECF No. 1534)				
6.	Reply in Support of Motion to Estimate Contingent and Unliquidated Claims of Midas Green Technologies LLC and Grant Related Relief (ECF No. 1534)				
7.	Midas Green Technologies, LLC's Motion for Mandatory Withdrawal of Reference Pursuant to 28 U.S.C. § 157 and Rule 5011 of the Federal Rules of Bankruptcy Procedure for Abstention (ECF No. 1579)				
8.	Debtors' Motion for Sanctions Relating to Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC (ECF No. 1602)				
9.	Declaration of Charles R. Topping in Support of Debtors' Motion for Sanctions Relating to Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC (ECF No. 1641)				
10.	'457 Patent				
11.	'446 Patent				
12.	'450 Patent				
13.	April 9, 2024 Hearing Transcript (District Court ECF No. 187)				
14.	Excerpts from the September 21, 2023, Deposition of Christopher Boyd				
15.	District Court ECF 106 - Midas TAC				

EXHIBIT NO.	DESCRIPTION	OFFERED	OBJECTION	ADMITTED/ NOT ADMITTED	DISPOSITION
16.	District Court ECF 113 - Rhodium's Answer to Midas TAC				
17.	District Court ECF 125 - Midas Answer to Rhodium's Counterclaims				
18.	District Court ECF 144 - Joint Status Report				
19.	District Court ECF 154 - Rhodium Mot. to Exclude (Public Cover Sheet)				
20.	District Court ECF 155 - Rhodium MSJ (Filed Under Seal)				
21.	District Court ECF 161 - Midas Opp. to Rhodium Mot. to Exclude (Filed Under Seal)				
22.	District Court ECF 164 - Midas Opp. to Rhodium MSJ (Filed Under Seal)				
23.	District Court ECF 168 - Rhodium Reply ISO Mot. to Exclude (Filed Under Seal)				
24.	District Court ECF 169 - Rhodium Reply ISO MSJ (Filed Under Seal)				
25.	Jan 30, 2025, Email from Clerk Corey Brown to Counsel				
26.	February 7, 2025 Joint Proposed Rulings				
27.	December 22, 2023 Expert Report of Dr. Himanshu Pokharna (Filed Under Seal)				
28.	December 22, 2023 Expert Report of J. Duross O'Bryan (Filed Under Seal)				
29.	August 2023 Email from Elizabeth Brannen to Counsel for Midas Green Technologies, LLC				
30.	Image of Immersed Miners in Tanks (Filed Under Seal)				
31.	Image of Empty Rhodium Tank (Filed Under Seal)				

EXHIBIT NO.	DESCRIPTION	OFFERED	OBJECTION	ADMITTED/ NOT ADMITTED	DISPOSITION
32.	Image of Rhodium Tank with Miner (Filed Under Seal)				
33.	Image of Tanks at Temple Facility (Filed Under Seal)				
34.	Image of R70 Tanks at Temple Facility (annotated by H. Pokharna) (Filed Under Seal)				
35.	Image of Fluid Aggregator and Piping (annotated by H. Pokharna) (Filed Under Seal)				
36.	Image of Kelvion Cooler Structure (annotated by H. Pokharna) (Filed Under Seal)				
37.	Image of Kelvion Cooler				
38.	Image of Saddle Sensor and Wire Housing (Filed Under Seal)				
39.	Image of Guntner Coolers at Rockdale Facility				
40.	July 8, 2025 Hearing Transcript				
41.	Al Ortega CV				
42.	Juli Satz CV				
43.	Rhodium Base Plate (to be supplied at a later date)				
44.	Deposition Transcript of Himanshu Pokharna				
45.	Deposition Transcript of J. Duross O'Bryan				
	Rebuttal exhibits (if any)				
	Any other pleading filed by a party in this case				
	Any exhibit identified or offered by any other party				

Debtors reserve the right to supplement or amend this Witness and Exhibit List at any time before the Hearing.

Respectfully submitted this 19th day of September, 2025.

QUINN EMANUEL URQUHART & SULLIVAN, LLP

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Counsel to the Debtors and Debtors-In-Possession

CERTIFICATE OF SERVICE

I hereby certify that a copy of the attached Exhibit List was served on the 19th day of September, 2025, via the Clerk of the Court through the CM/ECF system to all parties who have appeared in this case through counsel or who have submitted a request for service by CM/ECF.

/s/ Patricia B. Tomasco
Patricia B. Tomasco

EXHIBIT 1 - SEALED

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

REPLY IN SUPPORT OF DEBTORS' AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC AND MOTION FOR SUMMARY JUDGMENT BRIEFING SCHEDULE

Rhodium Encore LLC, and its affiliates, as debtors and debtors in possession (collectively, the "Debtors" or "Rhodium") in the above-captioned chapter 11 cases, hereby file this reply ("Reply") in support of *Debtors' Amended Omnibus Objection To Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC* (the "Objection") (ECF Nos. 952, 953).[2] In support of this Reply, the Debtors respectfully state as follows:

Introduction

1. Midas' Claims have already been litigated, and Midas cannot dispute that fact. Midas' proof of claim attached the same complaint it previously filed in district court, and it concedes that its Claims are based on the same patent infringement issues already considered and rejected by the District Court.

[1] The Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Rhodium Enterprises, Inc. (6290), Rhodium Technologies LLC (3973), Rhodium Renewables LLC (0748), Air HPC LLC (0387), Rhodium Shared Services LLC (5868), Rhodium Ready Ventures LLC (8618), Rhodium Industries LLC (4771), Rhodium Encore Sub LLC (1064), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), and Rhodium Renewables Sub LLC (9511). The mailing and service address of the Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

[2] Capitalized terms used but not otherwise defined herein have the meaning ascribed to them in the Objection.

2. After filing a proof of claim in these cases and thereby submitting itself to the jurisdiction of this Court, Midas now protests the Debtors' attempts to resolve its Claims, advocating indefinite delay (and leverage) as the parties await the District Court's formal written order. The Debtors requested that the automatic stay be lifted so that the parties could resolve Midas's meritless patent claim and the District Court could memorialize its ruling, preventing Midas from inserting ambiguity into the District Court's ruling where none exists. But delay outside Debtors' control has left this claim as an impediment to disallowance and resolution of this claim.

3. On the day of its ruling, the District Court cancelled the trial and declined to hear motions in limine. In the year since, the District Court did nothing to indicate it would allow further briefing or an amendment to Midas' expert report, which it excluded even before reaching its summary judgment ruling of noninfringement. The District Court clearly indicated its resolution of the case in the Debtors' favor.

4. These cases cannot be held indefinitely hostage to Midas' alleged $25-43 million Claims—claims that are large enough to impair the Debtors' ability to efficiently effectuate its plan of liquidation. In light of the District Court's oral ruling, this Court should deny Midas's Claims in their entirely, or in the alternative, limit further litigation to summary judgment briefing based on the existing, well-developed records of the District Court litigation and these bankruptcy cases.

Reply

I. The District Court's Summary Judgment Ruling Is A Final Ruling That Bars Midas Green's Claims

A. Issue Preclusion Bars Midas' Claims

5. The first two elements of collateral estoppel cannot be disputed: Midas agrees that its Claims concern the same issues the parties already litigated in the District Court, and it admits that the District Court issued an "oral ruling,"[3] which holds the same preclusive effect as a written order. *Ueckert v. Guerra*, 38 F.4th 446, 449, 450 (5th Cir. 2022) ("A bench ruling can be effective without a written order … if it is final" and it is final if the district court "intended that its order be effective immediately."). But in a final salvo, Midas latches onto one element of the issue preclusion analysis—finality, arguing that the District Court's clear statement that "the Court is going to Grant the motion for summary judgment of noninfringement. I think that fully takes care of the case for the time being" somehow does *not* constitute a final ruling. To support this argument, Midas points to selective quotes from the April 9, 2024 hearing transcript, reasoning that because the District Court did not follow its "fairly severe ruling" with an unequivocal rebuke, the District Court opted to reverse its grant of summary judgment immediately after ruling.[4]

6. Midas's argument defies the record, and omits key context concerning the events at the dispositive motions hearing. At the hearing, the District Court considered multiple issues, two of which are relevant here: (i) Rhodium's *Daubert* motion to exclude Midas' technical expert and, later, (ii) Rhodium's summary judgment motion. The District Court heard the *Daubert* motion first, ruled to exclude portions of Midas' expert report (on infringement), and granted Midas leave

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[3] *Midas Green Technologies, LLC's Response to Debtors' Amended Omnibus Objection to Claim Numbers 004, 062 and 068-072 Filed by Midas Green Technologies, LLC* [ECF No. 1069] (the "Response") ¶ 9.

[4] *Id.*

to amend the report.[5] Only then did the District Court hear summary judgment arguments.[6] After granting summary judgment, the District Court made clear that its ruling superseded its previous statement that it would allow amendment to Midas' expert report. In response to Midas' request to "readdress" the issue of summary judgment after amending its expert's report, the District Court said, "you've had your chance" and that it "d[id]n't think it [an amendment] would" benefit the court, but that it would let Midas know.[7]

7. In the year since its summary judgment ruling, the District Court never requested that Midas provide an amended expert report, nor has it allowed further argument. Instead, the District Court cancelled the scheduled trial and declined to rule on any related motions in limine.[8] Then, in January 2025, the District Court instructed the parties to "submit a joint proposed order reflecting the parties' understandings of **Judge Albright's rulings at the 4/9/2024 hearing**," and stated that it intended to "enter the order **reflecting those rulings** shortly thereafter."[9] The District Court never indicated, as Midas claims, that it was considering how to rule. This email from chambers shows that it intends to memorialize its existing ruling that bars Midas' claim. These actions make clear that the case is over. *Ueckert*, 38 F.4th at 450 (a court's ruling is final "if the judge intends to have nothing further to do—with … the case") (cleaned up). Accordingly, the District Court definitively resolved the core issue of Rhodium's infringement of Midas' cooling systems patents by a final judgment and Midas's proofs of claim must be disallowed. *See Ohio*

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5 Apr. 9, 2024 Tr., 13:12-18:6, 20:9-23.

6 *Id.*, 32:7-54:13.

7 *Id.*, 54:19-55:3.

8 *Id.*, 54:14-16.

9 *See* Jan 30, 2025 email from Clerk Corey Brown to counsel attached hereto as **Exhibit A.**

Willow Wood Co. v. Alps S., LLC, 735 F.3d 1333, 1342 (Fed. Cir. 2013) ("it is the identity of the issues that were litigated that determines whether collateral estoppel should apply.").

B. Claim Preclusion Bars Midas' Claims

8. In addition to implicating the same issues considered in the District Court Litigation, Midas' Claims rely on causes of action identical to those brought in the District Court. As a result, the Claims are barred under the doctrine of res judicata. Res Judicata—or claim preclusion—relieves parties from litigating claims that were adjudicated in in prior litigation. *SimpleAir, Inc. v. Google LLC*, 884 F.3d 1160, 1165 (Fed. Cir. 2018). As with issue preclusion, claim preclusion promotes the twin public policy goals of judicial economy and finality of court judgments. *Senju Pharm. Co. v. Apotex Inc.*, 746 F.3d 1344, 1348 (Fed. Cir. 2014).

9. Claim preclusion applies when "(1) the parties in the later action are identical to, or in privity with, the parties in the earlier action; (2) the judgment in the earlier case was rendered by a court with proper jurisdiction; (3) there has been a final judgment on the merits; and (4) the earlier case and later case involve the same cause of action." *Duffie v. United States*, 600 F.3d 362, 372 (5th Cir. 2010). These elements significantly overlap with those already established in the context of issue preclusion. As outlined above, the District Court's summary judgment ruling was a final judgment addressing the merits of Midas' patent infringement claim. Undisputedly, the District Court litigation involved identical parties, and the District Court had jurisdiction to enter a final judgment. And because Midas' Claims rely on the same complaint originally filed in the District Court litigation, it follows that its present Claims encompass the exact same causes of action.

10. Midas cannot require the Debtors to relitigate successive patent infringement claims against the exact same systems. *Indivior Inc. v. Dr. Reddy's Lab'ys, S.A.*, 752 F. App'x

1024, 1034 (Fed. Cir. 2018) (claim preclusion bars further litigation "if the scope of the asserted patent claims in the two suits is essentially the same"); *Mars Inc. v. Nippon Conlux Kabushiki-Kaisha*, 58 F.3d 616, 620 (Fed. Cir. 1995) ("The injury claimed by Mars in the two complaints therefore does not give rise to separate causes of action for purposes of claim preclusion analysis…every act underlying Mars' cause of action in this suit is intimately intertwined with events that were litigated in *Conlux USA.*'").

C. Law of the Case and the *Kessler* Doctrine Bars Midas' Claims

11. If the doctrines of collateral estoppel and res judicata were not enough, other preclusion doctrines apply. As discussed in the Objection, courts generally do not reopen questions that have been decided. And to fill in any gap left by other preclusion doctrines, courts apply the *Kessler* doctrine, a type of preclusion specific to patent law. *SimpleAir, Inc. v. Google LLC*, 884 F.3d 1160, 1170 (Fed. Cir. 2018) (the Kessler doctrine "protects 'an adjudged non-infringer' from 'repeated harassment for continuing its business as usual post-final judgment.'").

12. Pursuant to the Kessler doctrine, when a court finds that a product does not infringe a patent—as happened here when the Court granted summary judgment—its noninfringing status runs with the product and bars relitigation of whether that product infringes the same patent. *Wisconsin Alumni Rsch. Found. v. Apple Inc.*, 112 F.4th 1364, 1384–85 (Fed. Cir. 2024) (quoting *Rubber Tire Wheel Co. v. Goodyear Tire & Rubber Co.*, 232 U.S. 413, 418 (1914)) (the non-infringer's right to have the product "freely bought and sold without restraint or interference" …. "attaches to its product—to a particular thing—as an article of lawful commerce") (cleaned up). The doctrine also protects the product from subsequent actions alleging infringement of substantially similar patents. *See Corning Inc. v. Wilson Wolf Mfg. Corp.*, 569 F. Supp. 3d 920, 933 (D. Minn. 2021). Therefore, Rhodium's accused liquid immersion cooling systems at its

Temple and Rockdale facilities enjoy a "non-infringing status" that cannot be undone in or made the subject of a second action. The Response fails to address—and thus concedes—these arguments.

II. Midas Cannot Recover Damages for Anticipated Future Infringement

13. Consistent with Midas' plan to force an expensive and time-consuming redo of the District Court Litigation in this new forum, Midas claims damages based on a calculation method that the District Court already rejected. The asserted value of Midas's patent claim is greatly overstated for several reasons, including that Midas roughly doubled its alleged damages by impermissibly including future infringement—that is, acts of infringement it assumes will occur subsequent to the previously scheduled District Court trial, and to the Petition Date.[10] As the District Court noted, in granting-in-part Rhodium's Daubert motion to exclude Midas's damages expert, Midas was barred from seeking post-trial damages. Additionally, this sort of anticipatory damages cannot be used as the basis of its Claims against the Debtors. *See Porretto v. City of Galveston Park Bd. of Trs.*, 113 F.4th 469, 487 (5th Cir. 2024) ("…Porretto's claims all allege post-bankruptcy petition conduct. Generally, post-petition claims are not dischargeable in bankruptcy and, therefore, do not affect the estate.").

14. The unique context of these cases reveal the particularly odious nature of Midas' attempts to deplete estate resources based on future infringement that has not and will never occur. With this Court's approval, the Debtors have sold both the Temple and Rockdale cryptocurrency mining sites, as well as the purportedly infringing miners. As a result, there can be no ongoing infringement as the Midas patent claim presumes.

[10] Apr. 9, 2024 Tr., 21:19-24, 22:3-23:23.

III. Alternatively, the Court Should Issue a Summary Judgment Scheduling Order

15. The Debtors maintain that Midas' Claims have been resolved, but if the Court requires more information, the Debtors request that the Court enter a scheduling that limits further litigation to summary judgment briefing before the Court and to further insure that meritless claims do not further delay distributions to stakeholders. *See In re Canoco Inc.*, 323 F. App'x 306, 308 (5th Cir. 2009) ("Cimerring's objection to the Trust's proof of claim, although it did not initiate an adversary proceeding, created a contested matter under Bankruptcy Rule 9014. Bankruptcy courts can render summary judgment in contested matters.").

16. The Response makes much of the multiple years of resources already invested in this case, and on that point, the Debtors agree. It would be an exorbitant waste of estate resources to require the parties to engage in duplicative discovery, expert testimony, and trial of claims that have already been thoroughly litigated. Courts have recognized that patent litigation can prove uniquely costly, and this case is no exception. *See Studiengesellschaft Kohle mbH v. Eastman Kodak Co.*, 616 F.2d 1315, 1327 (5th Cir. 1980) ("…the courts have noted that patent litigation is often unusually complex, lengthy, and expensive…"); *Intell. Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1328 (Fed. Cir. 2016) (Mayer, J., concurring) (citing Shawn P. Miller, "*Fuzzy*" *Software Patent Boundaries and High Claim Construction Reversal Rates*, 17 Stan. Tech. L. Rev. 809, 810 (2014)) ("Patent litigation is so expensive it has been described as the sport of kings.").

17. When the District Court granted Rhodium's summary judgment motion, the parties were mere weeks from trial. The parties had already engaged in extensive discovery, including 25 depositions totalling over 130 hours, 6 expert reports, 699 pages of written discovery, and over 700,000 pages of production documents. The Debtors estimate that attorneys and experts spent close to 10,000 hours on the case, and a conservative estimate of the total combined fees and costs

for both sides exceeds $5 million. Relitigating the claims could cost the parties another seven-figure sum and would certainly delay the estate's emergence from bankruptcy.

18. Rather than require the parties to engage in further expensive discovery and argument, the Debtors request that the Court approve the scheduling order filed contemporaneously with this Reply. Summary judgment is appropriate where, as here, the record establishes "that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." *In re Pilgrim's Pride Corp.*, 453 B.R. 684, 687 (N.D. Tex. 2011); Bankr. R. 7056. The adjudication of Midas' Claims turn on the purely legal questions of preclusion and patent infringement, and no material fact is contested. Moreover, the parties and the Court have the benefit of an already developed record, and the Debtors will not object to the use of documents previously produced in the District Court Litigation. The Debtors may also seek estimation of Midas's Claims consistent with this same schedule pursuant to 11 U.S.C. §502(c).

Reservation of Rights

19. Nothing contained herein is intended to be or shall be deemed as (i) an admission as to the validity of any claim against the Debtors, (ii) a waiver or limitation of the Debtors' or any party in interest's rights to dispute the amount of, basis for, or validity of any claim, (iii) a waiver of the Debtors' rights under the Bankruptcy Code or any other applicable nonbankruptcy law, (iv) an agreement or obligation to pay any claims, (v) a waiver of any claims or causes of action which may exist against any creditor or interest holder, or (vi) an approval, assumption, adoption, or rejection of any agreement, contract, lease, program, or policy under section 365 of the Bankruptcy Code. Likewise, if the Court grants the relief sought herein, any payment made pursuant to the Court's order is not intended to be and should not be construed as an admission to the validity of any claim or a waiver of the Debtors' rights to dispute such claim subsequently.

Notice

20. Notice of this Reply will be provided to (i) the Office of the United States Trustee; (ii) counsel to the Creditors' Committee; (iii) Midas, (iv) any other party that has requested notice pursuant to Bankruptcy Rule 2002; and (v) any other party entitled to notice pursuant to Local Rule 9013-1(d).

WHEREFORE, the Debtors respectfully request entry of the proposed order granting the relief requested herein and such other and further relief as the Court may deem just and appropriate.

Respectfully submitted this 7th day of July, 2025.

QUINN EMANUEL URQUHART &
SULLIVAN, LLP

/s/ Patricia B. Tomasco
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Counsel to the Debtors and
Debtors-In-Possession

CERTIFICATE OF SERVICE

I, Patricia B. Tomasco, hereby certify that on the 7th day of July, 2025, a copy of the foregoing Objection was served by the Electronic Case Filing System for the United States Bankruptcy Court for the Southern District of Texas and to Midas Green Technologies, LLC, c/o Joseph Thomas, 18101 Von Karman Avenue, Suite 230, Irvine, CA 92612, email jthomas@twtlaw.com.

/s/ Patricia B. Tomasco
Patricia B. Tomasco

From: Corey Brown <Corey_Brown@txwd.uscourts.gov>
Sent: Thursday, January 30, 2025 2:25 PM
To: becca.skupin@solidcounsel.com; Elizabeth Brannen; gthomas@twtlaw.com; henry.pogorzelski@klgates.com; travis@gillamsmithlaw.com; jthomas@twtlaw.com; Ken Halpern; melissa@gillamsmithlaw.com; michael.smith@solidcounsel.com; Peter Brody; Sarah Rahimi; bkolegraff@twtlaw.com
Subject: Omnibus Order for 6.22.cv.0050

[External Email]
Counsel,

Given the time that has passed, it is necessary that the parties in this case submit a **joint** proposed order reflecting the parties' understandings of Judge Albright's rulings at the 4/9/2024 hearing (if there are disputes, please include proposed language in different colors). Please submit an omnibus order for all of the pretrial motions and a separate single order comprising all of the MILs. The Court will compare with its internal notes and enter the order reflecting those rulings shortly thereafter. Please prepare and submit these orders via response to this email (in Word form) by the end of day on February 7, 2024.

This will help this case begin to progress towards a resolution.

Regards,

Corey W. Brown
Law Clerk for the Honorable Alan D Albright
United States District Court, Western District of Texas
Direct: 254-750-1517
Corey_Brown@txwd.uscourts.gov

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

SCHEDULING ORDER FOR CONTESTED MATTER
(Relates to ECF Nos. 952, 953)

The Court enters this Scheduling Order regarding the *Debtors' Amended Omnibus Objection To Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC* ("the Objection") (ECF Nos. 952, 953). It is hereby ORDERED that the following deadlines and settings shall apply to this contested matter:

EVENT	DEBTOR DATE
Deadline for Parties to file Summary Judgment Motions	**Tuesday, July 29, 2025**
Deadline for Parties to Respond to Summary Judgment Motions	**Tuesday, August 12, 2025**
Deadline for Parties to Reply to Summary Judgment Motions	**Thursday, August 21, 2025**
Summary Judgment Hearing	**Tuesday, August 26, 2025**

It is further ORDERED that Federal Rule of Civil Procedure 8 shall apply to this matter.

[1] The Debtors in these chapter 11 cases and the last four digits of their corporate identification The Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Rhodium Enterprises, Inc. (6290), Rhodium Technologies LLC (3973), Rhodium Renewables LLC (0748), Air HPC LLC (0387), Rhodium Shared Services LLC (5868), Rhodium Ready Ventures LLC (8618), Rhodium Industries LLC (4771), Rhodium Encore Sub LLC (1064), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), and Rhodium Renewables Sub LLC (9511). The mailing and service address of the Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005

It is further ORDERED that the Court's approval and entry of this Scheduling Order shall constitute authority for the Parties to file documents, in connection with the deadlines and settings set forth in this Scheduling Order, designated as confidential under seal without the necessity of filing a separate motion under 9037-1 of the Bankruptcy Local Rules for the Southern District of Texas. Parties filing such documents under seal shall, to the extent feasible, also file redacted documents simultaneously.

It is further ORDERED that changes to the deadlines in this Scheduling Order may only be made by further order of this Court.

Dated: _____ 2025

ALFREDO R. PEREZ
UNITED STATES BANKRUPTCY JUDGE

EXHIBIT 3 - SEALED

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC
(Relates to ECF Nos. 953, 954, 1069, 1413)

IF YOU OBJECT TO THE RELIEF REQUESTED, YOU MUST RESPOND IN WRITING. UNLESS OTHERWISE DIRECTED BY THE COURT, YOU MUST FILE YOUR RESPONSE ELECTRONICALLY AT HTTPS://ECF.TXSB.USCOURTS.GOV/ BY TUESDAY, AUGUST 12, 2025. IF YOU DO NOT HAVE ELECTRONIC FILING PRIVILEGES, YOU MUST FILE A WRITTEN OBJECTION THAT IS ACTUALLY RECEIVED BY THE CLERK BY TUESDAY, AUGUST 12, 2025. YOU MUST SERVE A COPY OF YOUR RESPONSE ON THE PERSON WHO SENT YOU THE NOTICE; OTHERWISE, THE COURT MAY TREAT THE PLEADING AS UNOPPOSED AND GRANT THE RELIEF REQUESTED.

[1] The Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Rhodium Enterprises, Inc. (6290), Rhodium Technologies LLC (3973), Rhodium Renewables LLC (0748), Air HPC LLC (0387), Rhodium Shared Services LLC (5868), Rhodium Ready Ventures LLC (8618), Rhodium Industries LLC (4771), Rhodium Encore Sub LLC (1064), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), and Rhodium Renewables Sub LLC (9511). The mailing and service address of the Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

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Pursuant to Rule 56 of the Federal Rules of Civil Procedure, as made applicable to this proceeding by Federal Rule of Bankruptcy Procedure 7056, Rhodium Encore LLC, and its affiliates, as debtors and debtors in possession (collectively, the "Debtors" or "Rhodium") in the above-captioned chapter 11 cases, hereby file this summary judgment motion in support of *Debtors' Amended Omnibus Objection To Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC* (the "Objection") set for remote hearing at 8:30 am on August 22, 2025.[2] In support of this motion, the Debtors respectfully state as follows:

INTRODUCTION

1. Midas Green Technologies, LLC ("MGT," "Midas Green," or "Midas") submitted itself to this Court's jurisdiction by filing multiple proofs of claim seeking at least $25 million—and as much as $43 million. Its claims are based on alleged patent infringement at Debtors' former Temple and Rockdale locations. Midas's claims so utterly lack merit that Midas cannot maintain them in good faith. This is true for at least two independent reasons:

2. First, Midas already litigated its claims and lost. Midas's proofs of claim attached the same operative complaint it previously filed in District Court—without informing this Court that the District Court already considered the issues and claim and found in Rhodium's favor on summary judgment. The upshot is that multiple doctrines bar Midas from taking another bite at the apple in this forum. Midas's only counterargument is to assert that because it was unwritten, the District Court's noninfringement ruling is not final. That assertion misstates the facts and the law. And Midas has only attempted to respond to two of the doctrines that foreclose its claims (issue and claim preclusion). It has offered no answer to the other doctrines (law of the case, which

[2] Capitalized terms used but not otherwise defined herein have the meaning ascribed to them in the Objection.

does not require finality, and a doctrine unique to patent litigation called *Kessler*). All four doctrines shield Debtors as a matter of law from having to relitigate infringement.

3. Second, on the merits, Midas's infringement claim is baseless. The record before the District Court and this Court makes clear that Rhodium never used any invention patented by Midas. This is true for multiple reasons, but this motion focuses on one reason that applies to every claim in both of the Midas patents: Every claim of both patents contains a requirement that Rhodium's accused facilities obviously and demonstrably lacked. Specifically, every asserted claim in both patents requires a "control facility adapted to coordinate the operation of" two different fluid circulation facilities—a first and a second—"as a function of the temperature of the dielectric fluid in the tank," which holds and cools bitcoin miners.

4. Rhodium maintained tank cooling systems at Rockdale and Temple, an example of which is below:[3]

5. In each system, the tanks contained miners submerged in the liquid to help keep them cool while they mined bitcoin. Although every asserted claim of both Midas patents requires

[3] Rhodium used two models of accused tanks at its two facilities, but they operated similarly and did not differ in any way relevant to the infringement analysis.

the invention to have had or used a claimed "control facility" adapted to coordinate the operation of two different facilities for circulating the liquid based upon the temperature of the fluid in the tank, Rhodium had and did nothing of the sort. Not at Temple, where the main system Midas accused was never completely installed and was concededly inoperable. And not at Rockdale, at which Midas levied throw-away allegations it never meaningfully sought to defend or substantiate at summary judgment. At both facilities it is beyond dispute that Rhodium never measured or made any attempt to assess the temperature of the fluid in its immersion tanks. It did not use, and was not adapted to control or coordinate, anything based upon that tank-fluid temperature. In fact, Rhodium did not coordinate its two circulation facilities based on any temperature. Because its systems lacked necessary features, Rhodium did not infringe in the past. And because Rhodium has now sold both facilities, Rhodium cannot be found to infringe in the present or future.

6. Midas's claims thus fail as a matter of law, and the Court should enter summary judgment for Rhodium.

7. What's more, Midas has no good faith basis to continue maintaining its claims of alleged patent infringement against the Debtors. Pursuant to Rule 11 and 35 U.S.C. § 285, Midas should drop these claims immediately. If Midas elects to continue pressing its baseless claims after the Rule 11 safe harbor period, Debtors will seek compensation for costs and attorneys' fees the estate is forced to incur defeating the claims (again).

UNDISPUTED FACTS

I. The District Court Case

8. On January 13, 2022, Midas filed suit against Rhodium in the Western District of Texas (the District Court), *Midas Green Technologies, LLC v. Rhodium Enterprises, Inc. et al.*, Case No. 6:22-CV-00050-ADA, and amended its original complaint for patent infringement several times. It filed its operative complaint, the Third Amended Complaint ("TAC"), on March

29, 2023, naming defendants Rhodium Enterprises, Inc., Rhodium Technologies LLC, Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, Rhodium Encore LLC, Rhodium Renewables LLC, Rhodium Renewables Sub LLC, and Rhodium Ready Ventures LLC (collectively, "Rhodium" or "Debtors").

9. In the TAC, Midas alleged that the liquid immersion cooling systems Rhodium used at its previously owned Temple and Rockdale facilities infringe certain claims of two patents, U.S. Patent No. 10,820,446 (the "'446 Patent") and U.S. Patent No. 10,405,457 (the "'457 Patent")[4] both entitled "Appliance Immersion Cooling System."

10. Midas's TAC accused Rhodium of infringing several claims of both the '446 and 457 Patents. However, by the time the case reached summary judgment, Midas had dropped the '446 Patent entirely, and had abandoned its infringement arguments as to all but two claims of the '457 Patent – Claims 1 and 5. **Exhibit 14**. Claim 1 of the '457 Patent is an "independent" claim. Among its limitations, it requires:

> a control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

Exhibit 1, col. 9, ll. 56-69.

11. Claim 5 of the '457 Patent is "dependent" on Claim 1 – to cover a narrower invention (in the event Claim 1 were to be invalidated), it incorporates all of the limitations of Claim 1, including the control facility limitation, and then adds others (which are not germane to this motion).

[4] A true and correct copy of the '446 Patent is attached hereto as **Exhibit 2**.

12. As a result: to infringe Claims 1 and/or 5 of the '457 Patent, the only theories Midas sought to take to trial, Rhodium's tank systems must meet the control facility limitation.[5]

13. Rhodium's co-founder Chase Blackmon designed key aspects of its liquid immersion cooling systems at Temple and Rockdale, which were proprietary to Rhodium and did not use any inventions patented by Midas. As this Court may judicially notice, one of the patent applications that names Mr. Blackmon as an inventor and was pending during the district court litigation has now issued to Rhodium Technologies. **Exhibit 16** (U.S. Patent No. 12,317,450).

14. Rhodium's Answer and Counterclaims to the Midas Third Amended Complaint denied infringement, including because a key limitation of its patents does not exist in Rhodium's cooling systems. **Exhibit 12**. The parties engaged in extensive litigation including 699 pages of written discovery, and over 700,000 pages of production documents, 6 expert reports, and 25 depositions. Brannen Decl. at ¶ 3. Reflecting Midas's narrowing of the case, the parties' infringement/non-infringement and damages expert reports addressed only Claims 1 and 5 of the

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[5] Midas cannot attempt to revive infringement theories it has abandoned, particularly at this late date. But, even if it could, the claims it has abandoned each contain the same control facility limitation discussed in this motion, so each revived theory would fail as a matter of law.

Midas previously also asserted Claims 1, 2, 5-7, 10, 11, 14 and 15 of the '457 Patent. Claims 1 and 6 are independent. Claims 2 and 5 depend from Claim 1 (that is, they incorporate and add to Claim 1) and Claims 7, 10, 11, 14, and 15 depend from Claim 6. From the '446 Patent, Midas previously asserted Claims 1, 2, 5-7 and 10. Claims 1 and 6 are independent. Claims 2 and 5 depend from Claim 1 and Claims 7 and 10 depend from Claim 6.

Each of Midas's asserted claims, therefore, incorporated the limitations of either Claim 1 or Claim 6 of the respective patents. And each of those independent claims includes a control facility limitation. Claim 1 in both patents requires "a control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank." **Exhibit 1**, col. 9, ll. 56-69; **Exhibit 2**, col. 9, ll. 55-58. And, Claim 6 in both patents requires "a control facility adapted to control the operation of the primary fluid circulation facility as a function of the temperature of the dielectric fluid in the tank." As a result, each of the claims Midas has ever asserted fails for the reasons set out in this motion.

'457 Patent. In total, in the District Court Litigation Midas sought damages of up to $12 million through trial and almost $22 million.

15. Discovery closed on February 9, 2024. Trial was scheduled for April 22, 2024.

16. The parties filed numerous dispositive and other pretrial motions. On March 1, 2024, Rhodium filed the *Motion for Summary Judgement of Noninfringement* (the "Summary Judgment Motion")[6] arguing that Rhodium's immersion cooling systems lacked key features necessary for a finding of patent infringement. Specifically, Rhodium pointed out that Midas's patent describes a cooling system that uses the temperature of the fluid in the system's tank containing the bitcoin miners to control two different circulation facilities.[7] However, Rhodium's cooling systems do not even measure the temperature of the fluid in the tank, let alone use that temperature to control any of its processes.[8] Rhodium also filed *Daubert* motions aimed at Midas's technical and damages experts and certain motions in limine.

17. Midas subsequently filed responses opposing the motions. **Exhibit 4**; **Exhibit 7**. Rhodium filed replies. **Exhibit 5**; **Exhibit 8**.

18. The District Court held a pretrial conference on April 9, 2024.[9] At the conference, the Court granted Rhodium's *Daubert* motion to exclude challenged portions of Midas's technical expert, **Exhibit 9** at 13:12-18:6, 20:9-23, and the portions of Rhodium's damages *Daubert* motion with respect to lost profits (as opposed to reasonable royalty) damages, *id.* at 26-27, and with respect to damages calculated based upon sales projected to happen after trial, *id.* at 27-28. The

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6 A true and correct copy of the Summary Judgment Motion is attached hereto as **Exhibit 3**.
7 *See* **Exhibit 3** at 7.
8 *Id.*
9 A true and correct transcript of the April 9, 2024 hearing is attached hereto as **Exhibit 9**.

District Court indicated that the plaintiff would have the opportunity to have its expert redo the lost profits analysis. *Id.* at 27.

19. Later in the hearing—after considering extensive briefing and hearing argument on the Summary Judgment Motion—the District Court issued a bench ruling granting the Motion, ruling that Rhodium's systems do not infringe the asserted claims of Midas' '457 Patent. *Id.* at 54 at 10-13. The District Court declined to reach the motions in limine in light of its summary judgment ruling, and further concluded that its ruling "obviates the need for a trial." *Id.* at 54:16.

20. At the conclusion of the hearing, Midas requested the opportunity to re-address the District Court's ruling after revising its technical expert's report. *Id.* at 54 19-22. The Court expressed that it did not think there was anything additional an expert would say that would allow the plaintiff to re-address the summary judgment ruling and that it would let the parties know if that changed. *Id.* at 54-55. The Court never sought further submissions from the parties.

21. On February 3, 2025, the Debtors filed a Notice informing the District Court of this Court's ruling. The District Court clerk instructed the parties to submit their proposed form of order "reflecting" the Court's rulings, so that the Court could enter a written order "reflecting those rulings," *see* **Exhibit 15**, which they did on February 7, 2025. The District Court has not yet issued a written order.

II. The Proofs of Claim

22. On September 18 and November 21, 2024, Midas filed seven substantially similar proofs of claim alleging patent infringement against Debtors Rhodium Enterprises, Inc., Rhodium 10MW LLC, Rhodium 30MW LLC, Rhodium 2.0 LLC, Rhodium Technologies LLC, Rhodium

Renewables Sub LLC, and Rhodium Encore LLC.[10] To each claim, Midas attached its Third Amended Complaint filed in the District Court Litigation on March 29, 2023 (**Exhibit 11**), and listed a wide range as the claimed amount:

Claim Number	**Debtor**	**Claimed Amount**
004	Rhodium Enterprises, Inc.	No amount specified
062	Rhodium 30MW LLC	$933,685 – $2,422,095
068	Rhodium 10MW LLC	$410,351 – $913,154
069	Rhodium 2.0 LLC	$1,436,228 – $3,196,039
070	Rhodium Technologies LLC	$11,899,377 – $21,295,440
071	Rhodium Renewables LLC	$9,093,236 – $13,121,268
072	Rhodium Encore LLC	$1,025,877 – $2,282,885

23. In total, the Midas Claims amount to between approximately $25 million and $43 million in alleged damages. Midas has not attempted to substantiate those amounts, but they exceed what it claimed in the District Court and, based on its own expert analysis, necessarily include compensation for infringement continuing into the future—which is not possible after the sale of Temple and Rockdale.

24. Consistent with Midas's plan to force an expensive and time-consuming redo of the District Court Litigation in this new forum, Midas claims damages based on a calculation method that the District Court already rejected. The asserted value of Midas's patent claim is greatly overstated for several reasons, including that Midas roughly doubled its alleged damages by

[10] Midas does not appear to have filed a claim against Rhodium Renewables LLC – only Rhodium Renewables Sub LLC. However, Rhodium Renewables LLC is listed in Attachment A to each claim, whereas Rhodium Renewables Sub LLC is not.

impermissibly including future infringement—that is, acts of infringement it assumes will occur subsequent to the previously scheduled April 2024 trial, and to the Petition Date.[11] As the District Court noted, in granting-in-part Rhodium's *Daubert* motion to exclude Midas's damages expert, Midas was barred from seeking post-trial damages. Additionally, this sort of anticipatory damages cannot be used as the basis of its Claims against the Debtors. *See Porretto v. City of Galveston Park Bd. of Trs.*, 113 F.4th 469, 487 (5th Cir. 2024) ("…Porretto's claims all allege post-bankruptcy petition conduct. Generally, post-petition claims are not dischargeable in bankruptcy and, therefore, do not affect the estate.").

25. The unique context of these cases reveals the particularly odious nature of Midas' attempts to deplete estate resources based on future infringement that has not and will never occur. With this Court's approval, the Debtors have sold both the Temple and Rockdale cryptocurrency mining sites, as well as many of the purportedly infringing miner immersion cooling systems. As a result, there can be no ongoing or future infringement by Rhodium as the Midas patent claim presumes.

III. The Bankruptcy & Relevant Portions of the Bankruptcy Proceedings

26. On August 24, 2024 and August 29, 2024, the Debtors each filed a voluntary petition for relief under Chapter 11 of the United States Bankruptcy Code, 11 U.S.C. §§ 101-1330, as amended (the "Bankruptcy Code"), in the United States Bankruptcy Court for the Southern District of Texas (the "Bankruptcy Court"), *In re Rhodium Encore LLC et al.*, Case No. 24-90448 (Jointly Administered). On August 30, 2024, Rhodium filed a Suggestion of Bankruptcy in this Court (ECF No. 188), acknowledging this matter as stayed.

[11] **Exhibit 9** at 21:19-24, 22:3-23:23.

27. On January 7, 2025, the Debtors filed the *Debtors' Motion for Entry of an Order Granting Limited Relief from Automatic Stay to Continue District Court Litigation* (the "Stay Relief Motion") (ECF No. 611), seeking limited relief from the automatic stay to allow the District Court to issue an order memorializing its ruling. The Court entered an order granting the Stay Relief Motion on January 30, 2025.

28. On or about November 26, 2024, Temple was sold with this Court's approval (ECF No. 509). On or about April 8, 2025, Rockdale and substantially all of Rhodium's assets at the Rockdale facility were sold with this Court's approval (ECF No. 921).

ARGUMENT

I. Multiple Doctrines Bar Midas Green's Patent Infringement Claims

A. The District Court's Ruling is Final and Bars Midas's Claims as a Matter of Both Issue and Claim Preclusion

29. As Rhodium has previously explained, the doctrines of issue preclusion and claim preclusion bar Midas's patent infringement claims. The District Court considered the issue of Rhodium's infringement of Midas's liquid immersion cooling systems patents,[12] considered Midas's patent infringement claims, and "grant[ed] the motion for summary judgment of noninfringement."

30. As Debtors have previously explained, both doctrines thus bar Midas from asserting its patent infringement claim against them in these proceedings. (ECF Nos. 954, 1413) Issue preclusion bars parties from relitigating an issue that has already been decided by a final judgment of another court. *Montana v. United States*, 440 U.S. 147, 153 (1979). The doctrine works to "relieve parties of the cost and vexation of multiple lawsuits, conserve judicial resources, and, by

[12] Midas has previously conceded, as it must, that the District Court litigation concerns the same patent infringement at issue in this case. (ECF No. 1069 ¶ 5).

preventing inconsistent decisions, encourage reliance on adjudication." *Allen v. McCurry*, 449 U.S. 90, 94 (1980).

31. Res Judicata—or claim preclusion—relieves parties from litigating claims that have already been litigated. *SimpleAir, Inc. v. Google LLC*, 884 F.3d 1160, 1165 (Fed. Cir. 2018).[13] As with issue preclusion, claim preclusion promotes the twin public policy goals of judicial economy and finality of court judgments. *Senju Pharm. Co. v. Apotex Inc.*, 746 F.3d 1344, 1348 (Fed. Cir. 2014). It applies when "the scope of the asserted patent claims in the two suits is essentially the same." *Indivior Inc. v. Dr. Reddy's Lab'ys, S.A.*, 752 F. App'x 1024, 1034 (Fed. Cir. 2018).

32. Here, the patents and complaint are the same, and Midas concedes that it is pursuing the same causes of action it already litigated in District Court: its Claims are part of its effort to "pursue its claims for damages for patent infringement in District Court". (ECF No. 1069 ¶ 2). Midas thus cannot require the Debtors to relitigate successive patent infringement claims against the same systems. *Indivior Inc.*, 752 F. App'x at 1034 (claim preclusion bars further litigation "if the scope of the asserted patent claims in the two suits is essentially the same"); *Mars Inc. v. Nippon Conlux Kabushiki-Kaisha*, 58 F.3d 616, 620 (Fed. Cir. 1995) ("The injury claimed by Mars in the two complaints therefore does not give rise to separate causes of action for purposes of claim preclusion analysis…every act underlying Mars' cause of action in this suit is intimately intertwined with events that were litigated in *Conlux USA.*'"); *Ohio Willow Wood Co. v. Alps S., LLC*, 735 F.3d 1333, 1342 (Fed. Cir. 2013) ("Collateral estoppel protects a party from having to

[13] Claim preclusion applies when "(1) the parties in the later action are identical to, or in privity with, the parties in the earlier action; (2) the judgment in the earlier case was rendered by a court with proper jurisdiction; (3) there has been a final judgment on the merits; and (4) the earlier case and later case involve the same cause of action." *Duffie v. United States*, 600 F.3d 362, 372 (5th Cir. 2010).

litigate issues that have been fully and fairly tried in a previous action and adversely resolved against a party-opponent.").

33. In response, Midas has conceded that the District Court issued an "oral ruling," and "stated its intent to grant summary judgment in favor of the Debtors," (ECF No. 1069 ¶ 1), but has nevertheless taken the position that the District Court's ruling was not final. But the District Court's "grant of summary judgment constitutes a final adjudication" of Midas's patent claims. *Hibernia Nat. Bank v. Carner*, 997 F.2d 94, 104 (5th Cir. 1993), as clarified on denial of reh'g (Sept. 15, 1993); *In re Keaty*, 397 F.3d 264 (5th Cir. 2005) ("[C]ourts regularly apply the doctrine of issue preclusion in instances when there has not been a trial or evidentiary hearing in the first case....Courts also apply the doctrine of issue preclusion to issues decided on summary judgment—which itself does not require a trial or evidentiary hearing."); *see also* 18 James W. Moore et al., *Moore's Federal Practice* § 132.03 ("Issue preclusion generally applies when the prior determination is based on a motion for summary judgment.").

34. This is true even though the District Court ruled from the bench. "A bench ruling can be effective without a written order." *Ueckert v. Guerra*, 38 F.4th 446, 449 (5th Cir. 2022) (ruling is final if court "intended that its order be effective immediately"). "The fact that a ruling has not been memorialized in writing does not defeat the doctrine of collateral estoppel*." In re Armstrong*, 294 B.R. 344, 358 (B.A.P. 10th Cir. 2003), aff'd, 97 F. App'x 285 (10th Cir. 2004).

35. What matters is whether "the judge intends to have nothing further to do—with … the case." *Ueckert,* 38 F.4th at 450. If so, the ruling is final. *Id.* Here, the District Court cancelled trial, declined to hear the pending motions in limine, and requested a joint order reflecting its ruling. (Judge Albright stated: "[t]he Court is going to grant the motion for summary judgment of noninfringement. *I think that fully takes care of the case for the time being. I'm not going to take*

up the motions in limine *given my ruling* on that motion, which I think *obviates the need for a trial at this time*.") (emphasis added).

36. To contend, as Midas does, that the ruling was insufficiently final because Midas requested—and did not receive—a do-over defies reality. The position so lacks merit it is sanctionable. *Earlier in the hearing* the District Court had excluded Midas's technical expert while granting Rhodium's *Daubert* motion with leave to amend.[14] The District Court's *later* grant of summary judgment of noninfringement mooted that just as much as it obviated the need to decide the motions in limine or hold trial. In response to Midas's request to "readdress" the issue of summary judgment after amending its expert's report, the District Court said, "you've had your chance" and that it "d[id]n't think it [an amendment] would" benefit the Court, but that it would let Midas know.[15] The District Court never indicated, as Midas claims, that it was considering how to rule. Those polite statements do not negate the finality of its ruling, and Midas's arguments to the contrary represent a deliberate attempt to contort the record to serve its own ends.

37. In the year since, the only communication from the District Court to the parties occurred when its clerk instructed the parties to "submit a joint proposed order reflecting the parties' understandings of **Judge Albright's rulings at the 4/9/2024 hearing**," and stated that it intended to "enter the order **reflecting those rulings** shortly thereafter."[16] This email from chambers shows that it intends to memorialize its existing ruling that bars Midas's claim. These actions make clear that the case is over. This Court need go no further to deny Midas's bankruptcy claims as barred by issue and claim preclusion.

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[14] **Exhibit 9** at 13:12-18:6, 20:9-23.

[15] **Exhibit 9** at 54:19-55:3.

[16] *See* Jan. 30, 2025 email from Clerk Corey Brown to counsel attached hereto as **Exhibit 10**.

38. Nevertheless, Midas contends that a summary judgment *cannot* be valid without a fulsome explication of the Court's rationale. Wrong. Two of the cases Midas cites – Federal Circuit precedents—explicitly state that though preferable, explanation is *not* required. *Cable Elec. Prods., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1021 (Fed. Cir. 1985) (affirming summary judgment and noting "there is no legal requirement that the rationale behind a nonpartial grant of summary judgment, including a recitation of undisputed factual inferences and applications of legal principles, be made explicit."); *Telectronics Pacing Sys., Inc. v. Ventritex, Inc.*, 982 F.2d 1520, 1526 (Fed. Cir. 1992) ("While certainly preferable from the viewpoint of a reviewing court, a trial court does not have to explicitly set forth findings and conclusions to support its decision on summary judgment.").

39. Midas's remaining authorities state only that if the trial court's reasoning cannot be determined, an appellate court *may* remand for further explanation. *Nazomi Commc'ns, Inc. v. Arm Holdings, PLC*, 403 F.3d 1364, 1371 (Fed. Cir. 2005) (remanding for additional explanation of the court's claim construction ruling where "the court construed the claims differently than" either party; here, the District Court adopted Rhodium's position completely); *Superior Fireplace Co. v. Majestic Prods. Co*., 270 F.3d 1358, 1377 (Fed. Cir. 2001) (remanding for clarification when the court ruled on a motion requiring analysis of a multi-factor test "without oral argument and without issuing an opinion"; here, the District Court held oral argument and only one fact was in issue); *Bott v. Four Star Corp.*, 807 F.2d 1567, 1574-75 (Fed. Cir. 1986) (remanding where the Court did not make a specific factual finding required to award damages; here, there is no disputed predicate factual finding); *Application of Frilette*, 423 F.2d 1397, 1401 (C.C.P.A. 197) (remanding for further explanation where the Court's rationale could have applied under more than one statute (35

U.S.C. §§ 101 and 112) and multiple prongs of one statute (§ 112); there is no statutory ambiguity here).

40. There is no ambiguity here. Rhodium moved for summary judgment on one ground, applicable to each asserted claim: that the Temple and Rockdale systems do not infringe because they do not, and cannot, coordinate anything as a function of the temperature of the fluid in the tanks. **Exhibit 3** at 6.

41. Rhodium showed that there is not a scintilla of evidence that its products meet this limitation, and Midas presented nothing to the contrary. There was, and is, no fact question for a jury to decide. Rhodium did not make any other arguments on which the District Court could have based its decision.[17] And the hearing transcript confirms that the Court in fact based its decision on the single non-infringement argument presented: the "control facility" limitation. **Exhibit 9** at 54:10-16.

42. The District Court entered a final, valid summary judgment based on Rhodium's single merits argument, recognizing the inexorable conclusion that Midas had not, and cannot, show that Rhodium meets the "control facility" limitation. No clarification of the District Court's final order is needed. This Court should likewise enter summary judgment.

B. The District Court's Noninfringement Ruling is the Law of the Case

43. On summary judgment, the District Court determined that Rhodium's liquid immersion cooling systems at Temple and Rockdale did not infringe Midas's patent claims as a matter of law. That determination is the law of the case. *See, e.g., Christianson v. Colt Indus. Operating Corp.*, 486 U.S. 800, 816-17 (1988) (noting that "the doctrine applies as much to the

[17] Of course, Rhodium contends that other such grounds exist, and would have presented them at trial had its motion been denied.

decisions of a coordinate court in the same case as to a court's own decisions" and that it "expresses the practice of courts generally to refuse to reopen what has been decided") (cleaned up).

44. Midas has attempted no answer to this argument and offered no reason to subject the Debtors to re-litigating what has already been decided. This doctrine "has also been used as a rule of comity for decisions made by trial courts." *Gulliford v. Thrash,* 8 F. App'x 766, 768 (9th Cir. 2001) (recognizing that doctrine applies to decisions of a coordinate court in the same case). *Id.* Midas has not offered, and cannot offer, any reason why this Court should do anything other than adhere to and apply the law of the case to the District Court's summary judgment determination of noninfringement. *See United States ex rel. Kennard v. Comstock Res., Inc.*, 2009 WL 10708957, at *8 (E.D. Tex. Feb. 20, 2009) (applying law of the case based on 10th Circuit ruling).

C. The Kessler Doctrine Also Bars Midas's Claims

45. To the extent there is any gap left by other preclusion doctrines, courts apply the *Kessler* doctrine, a type of preclusion specific to patent law, to fill it. On this issue, too, Midas has attempted no response.

46. Under the *Kessler* doctrine, Rhodium's liquid immersion cooling systems at its former Temple and Rockdale facilities enjoy a "non-infringing status" that cannot be undone in a second action. *See, e.g.*, *Wisconsin Alumni Research Foundation v. Apple Inc.*, 112 F.4th 1364, 1384-86 (Fed. Cir. 2024). *Kessler* and its progeny protect Rhodium's systems from subsequent actions alleging infringement. *SimpleAir, Inc.,* 884 F.3d at 1170 (the Kessler doctrine "protects 'an adjudged non-infringer' from 'repeated harassment for continuing its business as usual post-final judgment.'"); *Corning Inc. v. Wilson Wolf Mfg. Corp.*, 569 F. Supp. 3d 920, 933 (D. Minn. 2021).

47. Rhodium's right to have its confirmed noninfringing systems "freely bought and sold without restraint or interference" attached to its accused miners and liquid immersion cooling infrastructure in Temple and Rockdale, which have been sold with this Court's approval. *Wisconsin Alumni Rsch. Found.*, 112 F.4th at 1384–85 (quoting *Rubber Tire Wheel Co. v. Goodyear Tire & Rubber Co.*, 232 U.S. 413, 418 (1914)) (the non-infringer's right to have the product "freely bought and sold without restraint or interference" …. "attaches to its product—to a particular thing—as an article of lawful commerce") (cleaned up).

II. On the Merits, Midas Green's Infringement Claims are Baseless and Fail as a Matter of Law

48. As the patent holder, Midas must prove infringement by a preponderance of the evidence. Infringement is assessed on a claim-by-claim basis. That means, for each asserted patent claim, Midas must be able to present evidence that Rhodium made, used, sold, or offered for sale in the United States a product or system meeting all of the requirements of (i.e., "covered by") that claim. 35 U.S.C. § 271(a). But Midas has no evidence, and no right to prevent or seek compensation from Rhodium for using any of its inventions, because Rhodium's systems did not use, and were not covered by, any of Midas's patent claims.

49. There are a number of reasons why this is true—a number of reasons why Rhodium's Temple and Rockdale systems did not contain the elements of any of the Midas patent claims. At the hearing on August 22, Rhodium may discuss more than one of these reasons.[18] For purposes of this motion, however, Debtors focus on the same single argument, relying on the same briefing and evidentiary record, upon which they prevailed in District Court: a key limitation of

[18] Midas cannot prove infringement by Rhodium for all of the reasons stated in Rhodium's Answer and Counterclaims to the Midas Third Amended Complaint (**Exhibit 12**). For example, Rhodium has additional noninfringement arguments because its accused systems lacked the claimed weir and other elements required by the asserted claims. Rhodium also maintains its invalidity and unenforceability defenses and counterclaims.

Midas's patents was missing. It never existed in Rhodium's accused liquid immersion cooling systems. Because infringement would require Rhodium's systems to have had that limitation, but the systems at Temple and Rockdale never possessed the required feature (or anything like it), the systems did not (and do not) infringe as a matter of law.

50. In addition, to recover damages on its patent claims after any finding of infringement, Midas would have to prove the amount of its damages. If proven, Midas would be entitled to "damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer. . . ." 35 U.S.C. § 285. But the evidentiary record before the District Court and this Court make clear that Rhodium never made any such use. Nor, after the sale of Temple and Rockdale, will Rhodium ever make such use. And the expert opinions Midas proffered regarding damages were far too speculative to be admissible. As a result, Midas's proof of claim in this Court fails as a matter of law for a second reason: Midas cannot prove damages.

A. For the Same Reasons Proved in District Court, Rhodium Never Infringed

51. Assessing infringement requires comparing the limitations (i.e., elements) recited in the asserted patent claims to the instrumentality (e.g., the device or system) accused of infringement. *Markman v. Westview Instruments*, 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). "To find literal infringement, each limitation of the claim must be present in the accused device. Any deviation from the claim precludes such a finding." *Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 1330 (Fed. Cir. 2001). Under the "doctrine of equivalents," infringement can also be shown if there are insubstantial differences, such that "the accused product performs substantially the same function in substantially the same way with substantially the same result" as claimed in the patent. *Crown Packaging Tech., Inc. v. Rexam Bev.*

Can Co., 559 F.3d 1308, 1312 (Fed. Cir. 2009); *Gemalto S.A. v. HTC Corp.*, 754 F.3d 1364, 1374 (Fed. Cir. 2014) ("A plaintiff must provide particularized testimony and linking argument to show the equivalents are insubstantially different.") (citation omitted).

52. Importantly, a plaintiff must show that the accused device infringes in its current state. *High Tech Med., Inc. v. New Image, Inc.*, 49 F.3d 1551, 1555 (Fed. Cir. 1995); *Telemac*, 247 F.3d at 1330 ("[T]hat a device is capable of being modified to operate in an infringing manner is not sufficient, by itself, to support a finding of infringement."). There is no infringement if a "new functionality not currently present" would have to be added for the device to meet the claim. *Nazomi Commc'ns v. Nokia Corp.*, 739 F.3d 1339, 1346 (Fed. Cir. 2014).

53. The asserted patent claims require two circulation facilities that must be governed by a "control facility," which is "adapted to coordinate" their "operation . . . ***as a function of the temperature of the dielectric fluid in the tank***." *See, e.g.*, **Exhibit 11** at ¶ 101 (describing limitations of '457 patent claims), 103 (describing limitations of '446 patent claims). In other words, to infringe Midas's asserted claims, Rhodium's cooling system must (1) take (or otherwise determine) the temperature of the dielectric fluid while it is in the tank, and (2) use that temperature to coordinate the two different circulation facilities.

54. As Rhodium's summary judgment briefing and supporting evidence presented in its opening and reply briefs established, Rhodium's cooling systems did not possess this limitation and were incapable of doing what it requires, for multiple reasons. They did not measure or even estimate the temperature of the dielectric fluid in the immersion tanks, and did not use that temperature to coordinate or control anything, let alone what Midas pointed to as the two different control facilities. It follows that Rhodium never used the patented inventions.

B. Rhodium's Temple Facility Lacked the "Control Facility" Limitation

55. In fact, as the summary judgment briefing and transcript from the District Court April 9, 2024, hearing make clear, the primary instrumentality Midas accused of infringement was a partially installed, inoperable system that a vendor (Prime Controls) had been engaged to install at Rhodium's former bitcoin mining facility located in Temple, Texas (the "Temple Facility"). That system was never completed and was incapable of measuring temperature, as Midas's expert witness on infringement conceded. He admitted that its temperature sensors were inoperable because they were not physically connected to the rest of the system:

> Q. Yeah, so I'm reading your testimony. "**Until the installation is completed by, among other things, connecting the sensors, it is not capable of sensing temperature, correct?**"
>
> And your answer was, "**Yeah, it's provisioned for, but it is not capable of right now.**"
>
> Are you changing that answer?
>
> A. **For it to be measuring the temperature, you need to connect it.** So it's provisioned for. **It's capable if you connect the sensor connectors together.**
>
> Q. **But in its present state, it is not capable of sensing temperature, correct?**
>
> A. **In the present state, it cannot measure temperature.**

Exhibit 3 at 222 (emphases added).[19] Because the system could not measure the temperature of the dielectric fluid, it obviously could not coordinate anything as a function of that temperature. Therefore, it was not and could not be "adapted to coordinate the operation" of other facilities "as

[19] See also **Exhibit 3** (Deposition Transcript of Rhodium 30(b)(6) witness Chase Blackmon) at 265 ("Q. Are there any temperature probes installed in the Kelvion coolers? A. Not to my knowledge."), 257-258, 263-265, 268 (Prime Controls installed saddles to leave option of adding sensors in future), 257-258 (there is no monitoring of fluid temperatures at the Temple facility).

a function of the temperature of the dielectric fluid in the tank," and could not meet the claim.[20] This is discussed more fully in Rhodium's summary judgment briefing. **Exhibit 3** at 13-14; **Exhibit 5** at 10-12.

56. Moreover, Temple's unfinished, unconnected sensors were not even located in the tanks, but in a different building. Thus, even if the sensors had been installed, they would have measured a different fluid temperature from the one in the tank—and could not infringe for that second, independent reason. Midas's infringement expert admitted the system was "designed to measure fluid temperature in the fluid pipes" entering and exiting the dry cooler, which was outside the building holding the tanks and "quite far away." **Exhibit 3** at 82, 233. These pictures from Dr. Pokharna's report show the path of the coolant fluid from the tanks through the pipes, to a separate building containing the dry cooler:

[20] Whether any of Rhodium's past or present systems *could*, if physically altered, coordinate its systems based on dielectric tank fluid temperature bears no relevance to the question of past or present infringement. *See Telemac*, 247 F.3d at 1330 ("[T]hat a device is capable of being modified to operate in an infringing manner is not sufficient, by itself, to support a finding of infringement.").

Exhibit 3 at 80.

57. Midas's expert admitted that the temperature in the pipes entering and exiting the dry cooler differed from the temperature in the tanks. **Exhibit 3** at 235-237; *but see id.* at 236 (admitting there would be heat loss from the fluid pipes during the winter). That difference alone means there can be no infringement. *Smith & Nephew, Inc. v. Arthrex, Inc.*, 2010 WL 457142, at *2 (E.D. Tex. Feb. 5, 2010) ("accused device [must] contain each limitation of the claim exactly; any deviation from the claim precludes a finding of literal infringement"). This is discussed more fully in Rhodium's summary judgment briefing. **Exhibit 3** at 14-19.

58. There is a third independent reason why there was no infringement: Rhodium's systems did not and could not use a temperature reading to coordinate the primary and secondary circulation facilities. Midas identified the structures that circulated fluid through the tank, including a pump and piping, as the primary fluid circulation facility. **Exhibit 3** at 79. For the secondary fluid circulation facility, Midas identified the dry coolers and their hardware. **Exhibit 3** at 81, 91, 100. But Midas presented no evidence that Rhodium's systems had "a control facility adapted to coordinate the operation of" these two facilities as a function of temperature. At most

it pointed to aspects of the systems that could allegedly affect one or the other, but not both. This does not meet the claim.

59. And even those inadequate assertions fall apart upon the slightest scrutiny. Midas pointed to a supposed "adaptive control system" for the Temple dry cooler that it claimed was "adapted to adjust the cooler's fan speed response to the temperature of the input and output fluid." **Exhibit 3** at 91. Even if true, that would show control of only the secondary facility (the dry cooler), not coordination of the secondary and primary facilities. This is discussed more fully in Rhodium's summary judgment briefing. **Exhibit 3** at 12; **Exhibit 5** at 14-15.

C. Rhodium's Rockdale Facility Also Had No "Control Facility"

60. The situation was the same for Rhodium's mining facility in Rockdale, Texas (the "Rockdale Facility"). At Rockdale, Rhodium could measure the fluid temperature *outside* of the immersion tanks—after it was pumped to another location for cooling, at the output point of the Guntner brand dry coolers (also called "evaporative coolers") located outside the building containing the tanks. As with Temple, that measurement was of a completely different temperature than the tank fluid, in a completely different location. Midas's expert report showed the dry coolers outside the building that contained the immersion tanks:

Exhibit 3 at 89.

61. Midas's expert conceded that in the Rockdale facility, the temperature sensors were located "in the output fluid line" and "sense[d] the temperature of the dielectric fluid flowing out of the evaporative cooler." **Exhibit 3** at 91. He admitted that this meant the temperature was measured after the fluid was cooled, when its temperature would be close to that of the outside air and similar to its temperature before it entered the tank. **Exhibit 3** at 239. Midas's expert conceded that was very different from the temperature of the dielectric fluid in the tank, where it is heated by anywhere from 36 to 54 degrees. *Id.* at 231-232. This obviously did not satisfy the limitation of the asserted claims of the '457 Patent (or the previously asserted and withdrawn '446 Patent) requiring the accused system to coordinate the two circulation facilities "as a function of the temperature of the dielectric fluid ***in the tank***." This is discussed more fully in Rhodium's summary judgment briefing. **Exhibit 3** at 19-20; **Exhibit 5** at 12-13.

62. As with Temple, Midas did not point to any system at Rockdale that was even arguably capable of coordinating the operation of the primary and secondary circulation facilities based on a temperature. Midas identified only a system that, it claimed, adjusted the fan speed of the dry cooler—that is *one* of the alleged circulation facilities, not both. **Exhibit 3** at 91. This is discussed more fully in Rhodium's summary judgment briefing. **Exhibit 3** at 12; **Exhibit 5** at 14-15.

D. Midas's Arguments Applicable to Both Facilities Failed the Red Face Test

63. For both facilities, Midas also made the absurd argument that Rhodium's use of software to reboot its miners when they overheated was an infringing act. But Midas did not even assert, much less show, that the rebooting of the miners coordinated the primary and secondary circulation facilities. The miners are not part of what Midas pointed to as the circulation facilities. And Midas presented no evidence whatsoever that the simple act of rebooting the miners coordinated the operation of either of those facilities, let alone both as the asserted claims require.

64. Nor did Midas present evidence that the temperatures of the chips and printed circuit boards in the miners were the same as the fluid temperature in the tank—its expert opined only that these temperatures were "correlated" with the tank fluid temperature in an unspecified way. **Exhibit 3** at 85. In other words, they are different from the fluid temperature in the tank, and using them to determine when to reboot could not be a function of the temperature of the dielectric fluid ***in the tank***. Midas's infringement theory fails for this additional, independent reason. This is discussed more fully in Rhodium's summary judgment briefing. **Exhibit 3** at 24-25; **Exhibit 5** at 13-14.

65. Midas also initially advanced various theories of infringement under the doctrine of equivalents, but these were so weak it omitted them entirely from its opposition to summary

judgment and thus waived them. *D&M Specialties, Inc. v. Apache Creek Props., L.C.*, Civ. Action No. SA-12-CA-588-FB, 2014 WL 12493290, at *3 (W.D. Tex. Aug. 21, 2014) ("Where a party fails to respond to arguments in the opposing party's motion for summary judgment, the points are conceded.") Rhodium's summary judgment briefing refuted these theories, and Midas did not attempt to defend them. **Exhibit 3** at 18 n. 39, 20-28; **Exhibit 5** at 7.

E. Midas's Bankruptcy Claim Also Fails Because Midas Cannot Prove Damages

66. The Court should also reject Midas's bankruptcy claims because Midas cannot possibly prove non-speculative damages. Midas's damages expert, J. Duross O'Bryan, offered two alternative calculations for Midas's supposed damages: a lost profits calculation and a reasonable royalty analysis. **Exhibit 6** at 42-43. O'Bryan offered these calculations both through the time of anticipated trial in the patent case and through 2026 (a calculation he reached by assuming that Rhodium would keep infringing even if it lost at trial). **Exhibit 6** at 173. The District Court easily rejected Midas' claims for post-trial damages, **Exhibit 9** at 27:17-28:14, which were based entirely on speculation, **Exhibit 6** at 17-19, and black-letter law confirms that Midas cannot recover post-petition damages via these claims, *Porretto*, 113 F.4th at 487 ("…Porretto's claims all allege post-bankruptcy petition conduct. Generally, post-petition claims are not dischargeable in bankruptcy and, therefore, do not affect the estate.").

67. But even if Midas were only to present O'Bryan's damages analysis through the time of trial (as scheduled before summary judgment), that analysis would be unreliable and inadmissible. The District Court excluded O'Bryan's lost profits analysis – and for good reason. **Exhibit 9** at 26:24-27:1. O'Bryan's lost profits analysis fails because O'Bryan cannot reliably testify that Midas would have captured Rhodium's sales in the absence of alleged infringement, **Exhibit 6** at 11-15, and inflated his conclusions by including millions of dollars in "convoyed

sales" (a patent doctrine allowing the seller of a patented invention to recover for sales of ancillary products with a "functional relationship" to the infringed device) by applying the wrong standard in an incomplete way. *Id.* at 15-17.

68. O'Bryan's reasonable royalty analysis is likewise unreliable. At the threshold, the analysis is entirely derivative of O'Bryan's inadmissible lost profits theory. *Id.* at 19-21. It is also rife with methodological errors, including that O'Bryan overlooked Midas's negotiations with its key customer (Riot) and did not address competing technologies. *Id.* at 21-25.

69. As a result: even if Midas might show infringement (and it can't), it will never be able to prove the amounts of its claims in any reliable way. (Instead, at most, it might be entitled to nominal damages. *Prism Techs., LLC v. Sprint Spectrrum L.P.*, 849 F.3d 1360, 1371-72 (Fed. Cir. 2017) (explaining that when a patentee fails to prove the amount of its injury, damages may be nominal); *see also Spex Techs., Inc. v. Western Digital Corp.*, 2025 WL 1748190, at *11 (C.D. Cal. June 16, 2025) (reducing a jury's award of $315.72 million to $1 because the damages amount was unsupported by evidence).) The Court should not let Midas waste estate resources on such futile claims.

CONCLUSION

The Court should enter summary judgment for Rhodium and dismiss Midas' claims.

RESERVATION OF RIGHTS

70. Nothing contained herein is intended to be or shall be deemed as (i) an admission as to the validity of any claim against the Debtors, (ii) a waiver or limitation of the Debtors' or any party in interest's rights to dispute the amount of, basis for, or validity of any claim, (iii) a waiver of the Debtors' rights under the Bankruptcy Code or any other applicable nonbankruptcy law, (iv) an agreement or obligation to pay any claims, (v) a waiver of any claims or causes of action which may exist against any creditor or interest holder, or (vi) an approval, assumption, adoption, or

rejection of any agreement, contract, lease, program, or policy under section 365 of the Bankruptcy Code. Likewise, if the Court grants the relief sought herein, any payment made pursuant to the Court's order is not intended to be and should not be construed as an admission to the validity of any claim or a waiver of the Debtors' rights to dispute such claim subsequently.

NOTICE

71. Notice of this Motion will be provided to (i) the Office of the United States Trustee; (ii) counsel to the Creditors' Committee; (iii) Midas, (iv) any other party that has requested notice pursuant to Bankruptcy Rule 2002; and (v) any other party entitled to notice pursuant to Local Rule 9013-1(d).

WHEREFORE, the Debtors respectfully request entry of the Proposed Order granting the relief requested herein and such other and further relief as the Court may deem just and appropriate.

Respectfully submitted this 29th day of July, 2025.

QUINN EMANUEL URQUHART & SULLIVAN, LLP

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Certificate of Service

I, Patricia B. Tomasco, hereby certify that on the 30th day of July, 2025, a copy of the foregoing Motion was served by the Electronic Case Filing System for the United States Bankruptcy Court for the Southern District of Texas and to Midas Green Technologies, LLC, c/o Joseph Thomas, 18101 Von Karman Avenue, Suite 230, Irvine, CA 92612, email jthomas@twtlaw.com.

/s/ Patricia B. Tomasco
Patricia B. Tomasco

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

DECLARATION OF ELIZABETH BRANNEN IN SUPPORT OF DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

I, Elizabeth R. Brannen, pursuant to section 1746 of title 28 of the United States Code, hereby declare under penalty of perjury that the following is true to the best of my knowledge, information, and belief:

1. I am the Managing Partner of Stris and Maher LLP ("Stris" or the "Firm") and serve as special litigation counsel for Debtors in the above-referenced action. I submit this declaration (the "Declaration") in support of *Debtors' Summary Judgment Motion in Support of Amended Omnibus Objection to Claim Numbers 004, 062, and 068-072 Filed By Midas Green*

[1] The Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Rhodium Enterprises, Inc. (6290), Rhodium Technologies LLC (3973), Rhodium Renewables LLC (0748), Air HPC LLC (0387), Rhodium Shared Services LLC (5868), Rhodium Ready Ventures LLC (8618), Rhodium Industries LLC (4771), Rhodium Encore Sub LLC (1064), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), and Rhodium Renewables Sub LLC (9511). The mailing and service address of the Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

Technologies LLC (the "Motion"), contemporaneously filed herein.[2] Except as otherwise indicated, all statements in this Declaration are based on my personal knowledge and my review (or the review of others under my supervision) of (i) the patents at issue; (ii) the relevant pleadings and exhibits in *Midas Green Technologies, LLC v. Rhodium Enterprises, Inc. et al.*, Case No. 6:2022-CV-00050-ADA (W.D. Tex. 2022) ("the District Court Litigation"); and (iii) the Objection and related briefing filed in this Court. If called as a witness, I could and would competently testify to the facts set forth herein.

2. Since April 10, 2023, I have served as lead counsel representing Rhodium in the District Court Litigation. I was intimately involved in all aspect of the case, including drafting Rhodium's Summary Judgment Motion and arguing the motion in front of the District Court.

3. In the District Court Litigation, the parties engaged in extensive discovery, including 25 depositions totaling over 130 hours, 6 expert reports, 699 pages of written discovery, and over 700,000 pages of production documents. The Debtors estimate that attorneys and experts spent close to 10,000 hours on the case, and a conservative estimate of the combined fees and costs for both sides exceeds $5 million.

4. Attached hereto as **Exhibit 1** is a true and correct copy of U.S. Patent No. 10,405,457(the "'457 Patent").

5. Attached hereto as **Exhibit 2** is a true and correct copy of U.S. Patent No. 10,820,446 (the "'446 Patent").

6. Attached hereto as **Exhibit 3** and filed under seal is a true and correct copy of Defendants' Motion for Summary Judgment of Noninfringement filed by Rhodium in the District

[2] Capitalized terms used but not defined herein shall have the meaning ascribed to them in the Motion. Unless otherwise specified, the Docket No. citations in this Declaration are to the docket in the District Court Litigation.

Court Litigation (Docket No. 155), along with the contemporaneously filed supporting declaration of Peter J. Brody (Docket No. 155-1), Exhibits 1 through 6 (Docket Nos. 155-2 through Docket Nos. 155-7), and the proposed order (Docket No. 155-8). Bookmarks and sequential page numbers have been added in the preparation of this exhibit to assist the Court's analysis.

7. Attached hereto as **Exhibit 4** and filed under seal is a true and correct copy of Plaintiff's Opposition to Defendants' Motion for Summary Judgment of Noninfringement filed by Midas Green in the District Court Litigation (Docket No. 164), along with the contemporaneously filed supporting declaration of Joseph E. Thomas (Docket No. 164-1) and Exhibits A through K (Docket Nos. 164-2 through Docket Nos. 164-12). Bookmarks and sequential page numbers have been added in the preparation of this exhibit to assist the Court's analysis.

8. Attached hereto as **Exhibit 5** and filed under seal is a true and correct copy of Defendants' Reply in Support of Motion for Summary Judgment of Noninfringement (Docket No. 169), along with the contemporaneously filed supporting declaration of Peter J. Brody (Docket No. 169-1) and Exhibits 7 and 8 (Docket No. 169-2 and Docket No. 169-3). Bookmarks and sequential page numbers have been added in the preparation of this exhibit to assist the Court's analysis.

9. Attached hereto as **Exhibit 6** and filed under seal is a true and correct copy of Defendants' Motion to Strike Opinions of and to Exclude Testimony of J. Duross O'Bryan filed by Rhodium in the District Court Litigation (Docket No. 154), along with the contemporaneously filed supporting declaration of Peter J. Brody (Docket No. 154-1) and Exhibits 1 through 15

(Docket Nos. 154-2 through Docket Nos. 154-16). Bookmarks and sequential page numbers have been added in the preparation of this exhibit to assist the Court's analysis.

10. Attached hereto as **Exhibit 7** and filed under seal is a true and correct copy of Plaintiff's Opposition to Defendants' Motion to Strike Opinions of and to Exclude Testimony of J. Duross O'Bryan filed by Midas Green in the District Court Litigation (Docket No. 161), along with the contemporaneously filed supporting declaration of Joseph E. Thomas (Docket No. 161-1), Exhibits A through G (Docket Nos. 161-2 through Docket Nos. 161-8), and the proposed order (Docket No. 161-9). Bookmarks and sequential page numbers have been added in the preparation of this exhibit to assist the Court's analysis.

11. Attached hereto as **Exhibit 8** and filed under seal is a true and correct copy of Defendants' Reply in Support of Defendants' Motion to Strike Opinions of and Exclude Testimony of J. Duross O'Bryan filed by Rhodium in the District Court Litigation (Docket No. 168), along with the contemporaneously filed supporting declaration of Peter J. Brody (Docket No. 168-1) and Exhibits 16 through 20 (Docket Nos. 168-2 through Docket Nos. 168-6). Bookmarks and sequential page numbers have been added in the preparation of this exhibit to assist the Court's analysis.

12. Attached hereto as **Exhibit 9** is a true and correct transcript of the April 9, 2024 District Court hearing (Docket No. 187).

13. Attached hereto as **Exhibit 10** is a true and correct copy of the January 30, 2025 email correspondence from the Corey W. Brown, law clerk for the Honorable Alan D. Albright, regarding the necessity for the parties to submit a joint proposed order reflecting the parties' understandings of Judge Albright's rulings at the April 9, 2024 hearing.

14. Attached hereto as **Exhibit 11** is a true and correct copy of Plaintiff's Third Amended Complaint for Patent Infringement filed by Midas Green in the District Court Litigation (Docket No. 106).

15. Attached hereto as **Exhibit 12** is a true and correct copy of Defendants' Answer to Plaintiff's Third Amended Complaint and Counterclaims filed by Rhodium in the District Court Litigation (Docket No. 113).

16. Attached hereto as **Exhibit 13** is a true and correct copy of Plaintiff's Answer to Defendants' Counterclaims filed by Midas Green in the District Court Litigation (Docket No. 125).

17. Attached hereto as **Exhibit 14** is a true and correct copy of a Joint Status Report filed by the parties in the District Court Litigation (Docket No. 144).

18. Attached hereto as **Exhibit 15** is a true and correct copy of a correspondence from Joseph E. Thomas to Corey W. Brown, law clerk for the Honorable Alan D. Albright, attaching joint proposed rulings on the motions in limine and pre-trial motions as requested in the January 30, 2025 email correspondence from the Court.

19. Attached hereto as **Exhibit 16** is a true and correct copy of U.S. Patent No. 12,317,450 (the "'450 Patent") issued to Rhodium Technologies on May 25, 2025.

I hereby declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information, and belief.

Dated: July 29, 2025

Respectfully submitted,

/s/ Elizabeth R. Brannen
Elizabeth R. Brannen

EXHIBIT 1

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

(12) **United States Patent**
Boyd et al.

(10) **Patent No.: US 10,405,457 B2**
(45) **Date of Patent: Sep. 3, 2019**

(54) **APPLIANCE IMMERSION COOLING SYSTEM**

(71) Applicants: **Christopher L. Boyd**, Austin, TX (US); **James P. Koen**, Round Rock, TX (US); **David Christopher Laguna**, Austin, TX (US); **Thomas R. Turner**, Georgetown, TX (US); **Kenneth D. Swinden**, Hutto, TX (US); **Mario Conti Garcia**, Austin, TX (US); **John Charles Tribou**, Austin, TX (US)

(72) Inventors: **Christopher L. Boyd**, Austin, TX (US); **James P. Koen**, Round Rock, TX (US); **David Christopher Laguna**, Austin, TX (US); **Thomas R. Turner**, Georgetown, TX (US); **Kenneth D. Swinden**, Hutto, TX (US); **Mario Conti Garcia**, Austin, TX (US); **John Charles Tribou**, Austin, TX (US)

(73) Assignee: **Midas Green Technologies, LLC**, Austin, TX (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 680 days.

(21) Appl. No.: **14/355,533**

(22) PCT Filed: **Dec. 13, 2013**

(86) PCT No.: **PCT/US2013/075126**

§ 371 (c)(1),
(2) Date: **Apr. 30, 2014**

(87) PCT Pub. No.: **WO2014/109869**

PCT Pub. Date: **Jul. 17, 2014**

(65) **Prior Publication Data**

US 2015/0181762 A1 Jun. 25, 2015

Related U.S. Application Data

(60) Provisional application No. 61/737,200, filed on Dec. 14, 2012, provisional application No. 61/832,211, filed on Jun. 7, 2013.

(51) **Int. Cl.**
H01L 23/44 (2006.01)
H05K 7/20 (2006.01)

(52) **U.S. Cl.**
CPC ***H05K 7/20236*** (2013.01); ***H01L 23/44*** (2013.01); ***H05K 7/20272*** (2013.01)

(58) **Field of Classification Search**
CPC H05K 7/20236; H05K 7/20272; H01L 23/42; H01L 23/44
(Continued)

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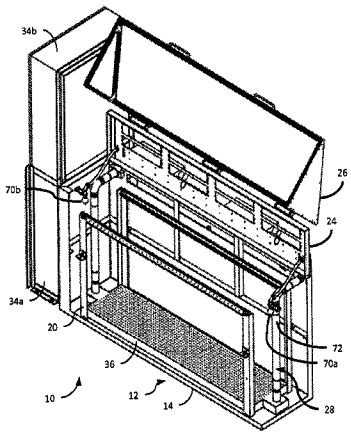
Primary Examiner — Devon Russell
(74) *Attorney, Agent, or Firm* — Jeffrey Van Myers

(57) **ABSTRACT**

A appliance immersion tank system comprising: a generally rectangular tank adapted to immerse in a dielectric fluid a plurality of appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, the long axis of the tank; a primary circulation facility adapted to circulate the dielectric fluid through the tank; a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulating in the primary circulation facility, and to dissipate to the environment the heat so extracted; and a control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank. A plenum, positioned adjacent the bottom of the tank, is adapted to dispense the dielectric fluid substantially uni-
(Continued)



formly upwardly through each appliance slot. A weir, integrated horizontally into a long wall of the tank, is adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot. All active and most passive components of both the primary and secondary fluid circulation facilities, and the control facility are fully redundant, and are adapted automatically to operate in a fail-soft mode.

16 Claims, 7 Drawing Sheets

(58) **Field of Classification Search**
USPC 361/699
See application file for complete search history.

(56) **References Cited**

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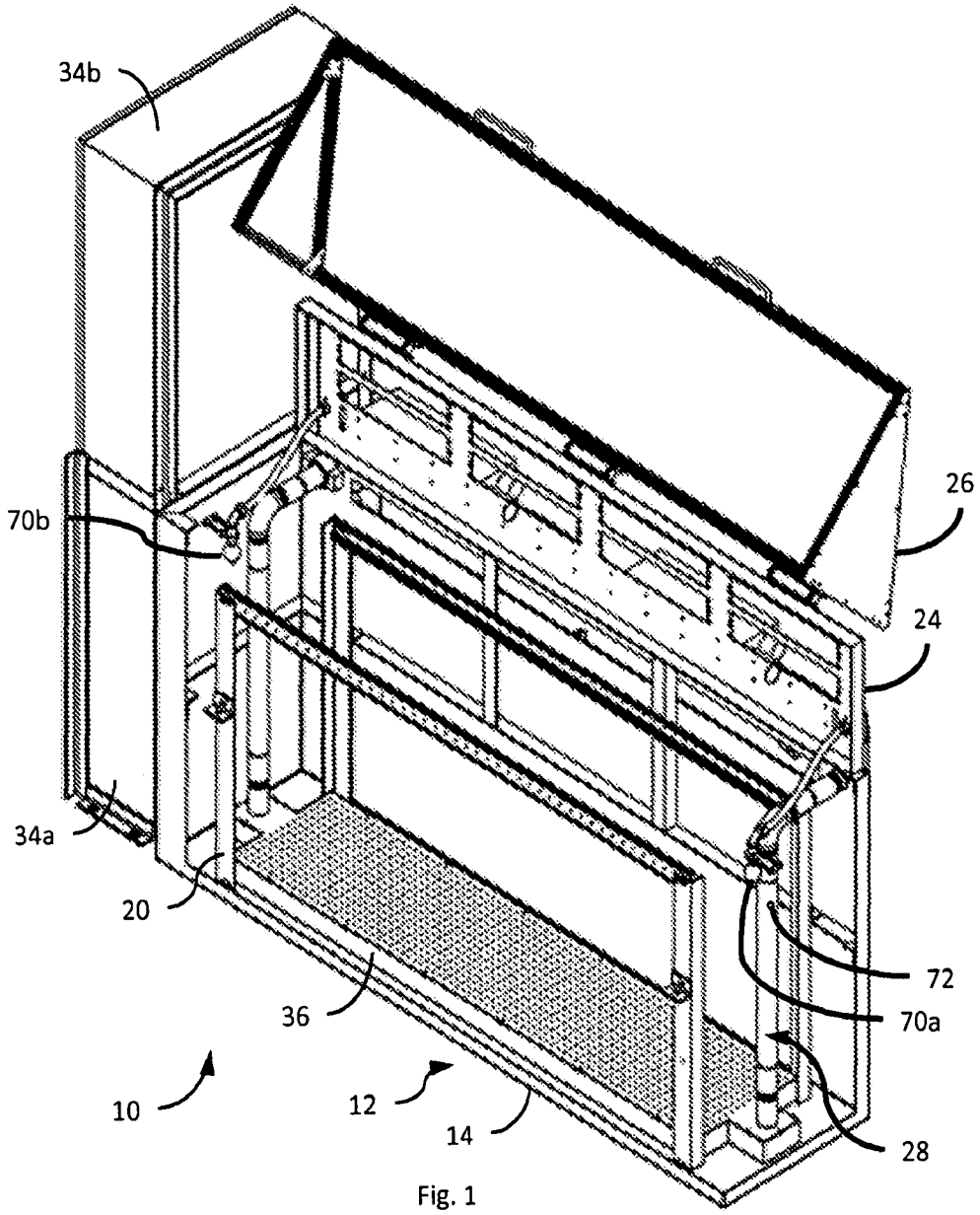


Fig. 1

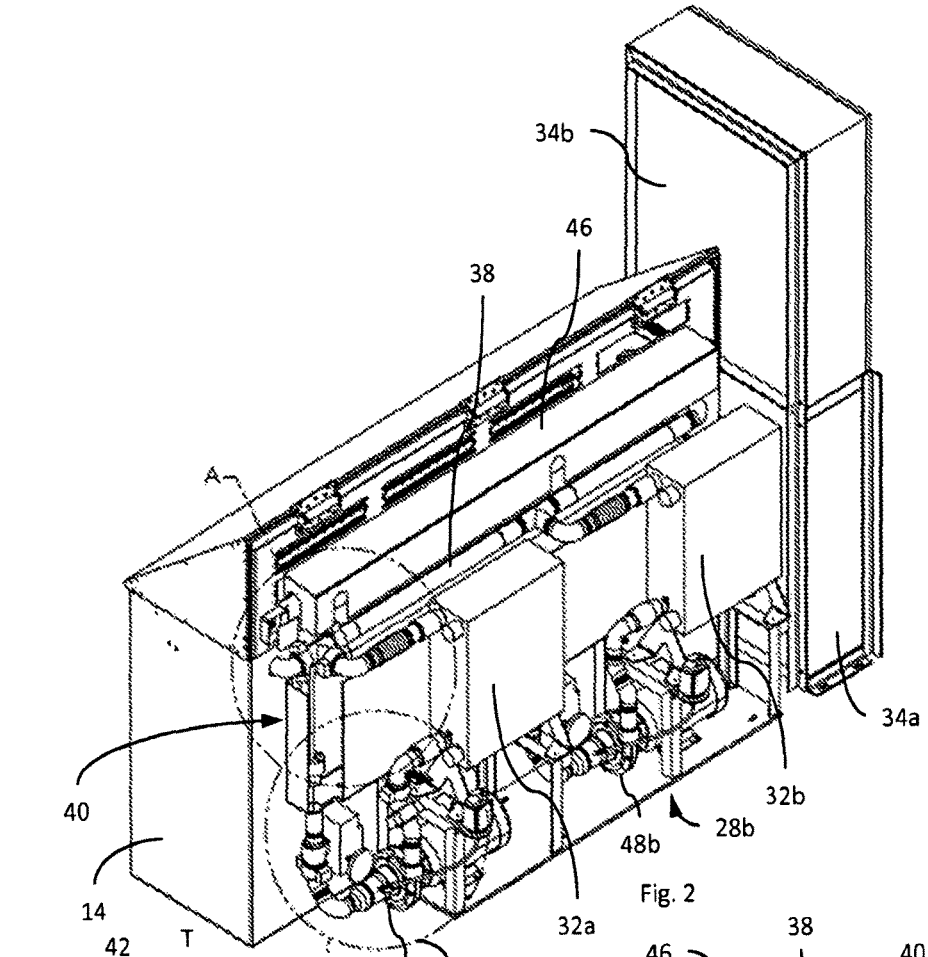


Fig. 2

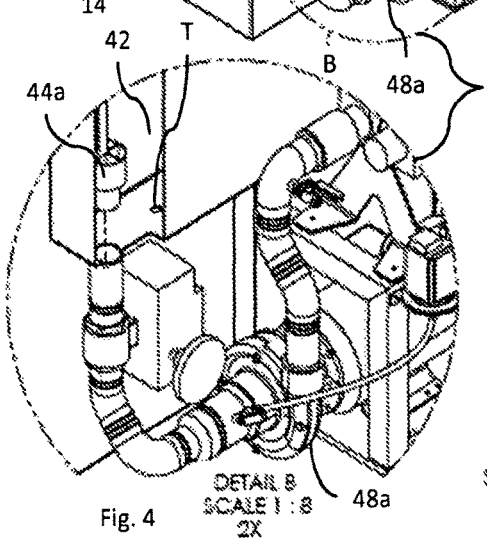


Fig. 4

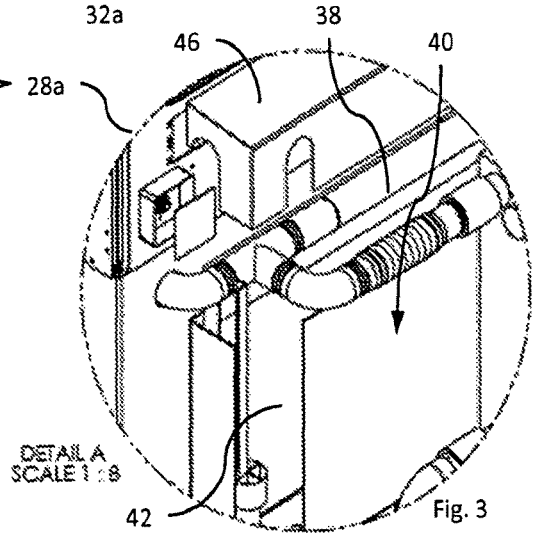


Fig. 3

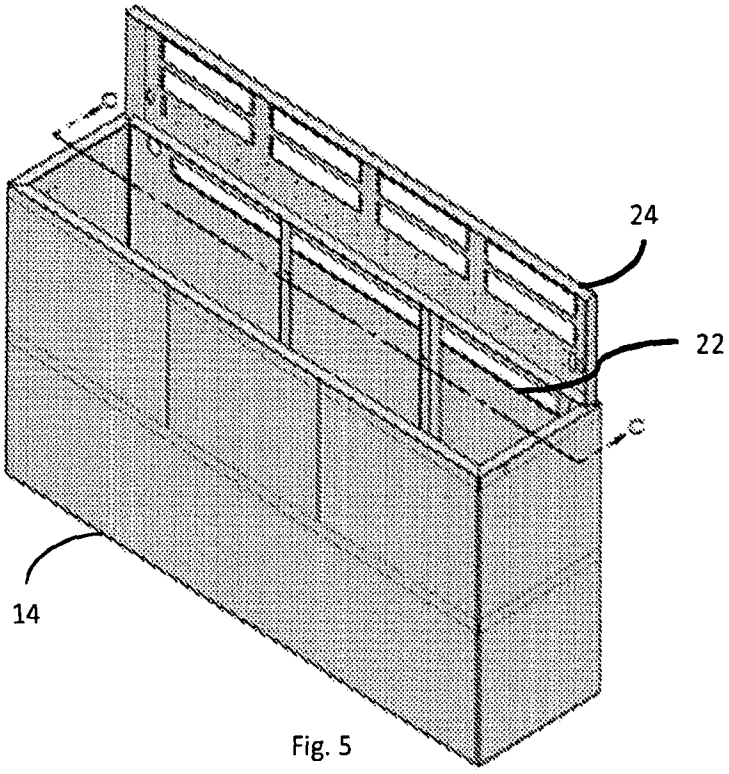
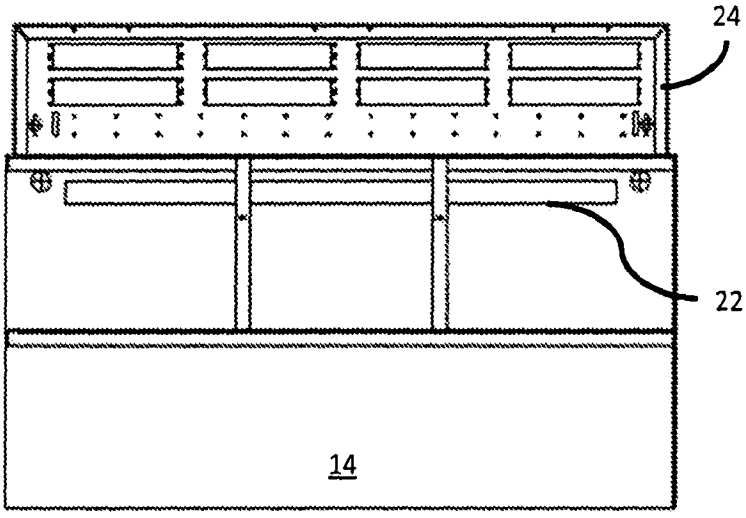


Fig. 5



Section C-C

Fig. 6

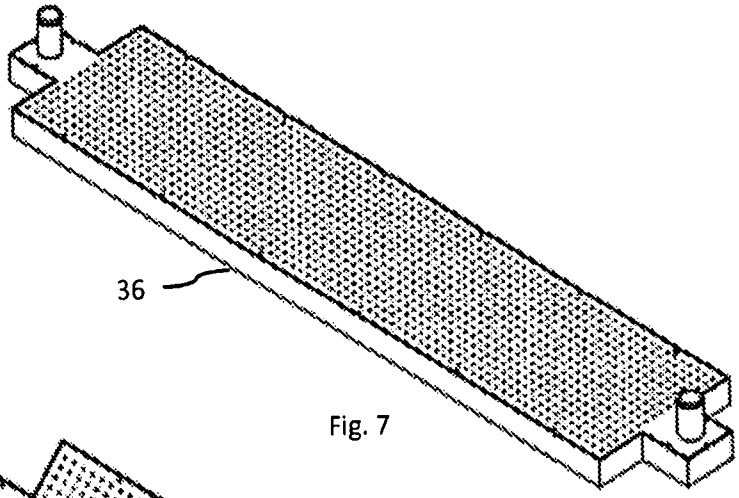


Fig. 7

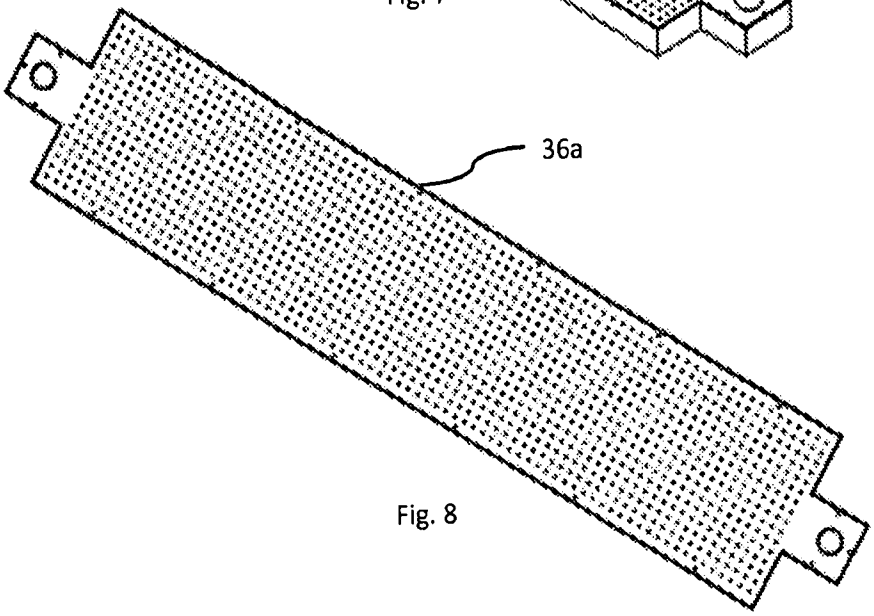


Fig. 8

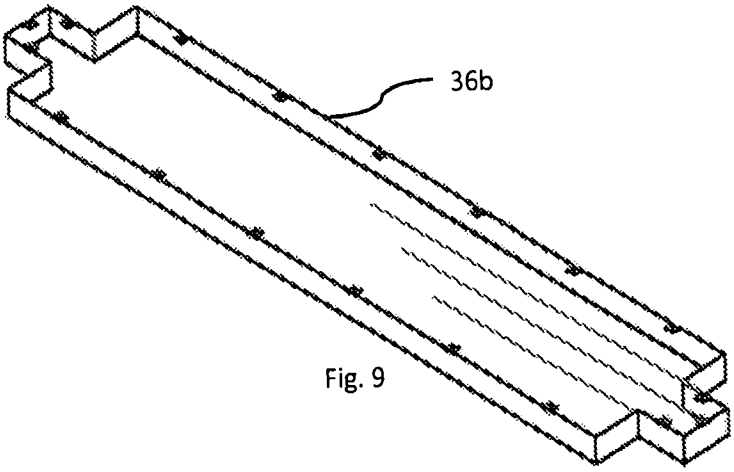


Fig. 9

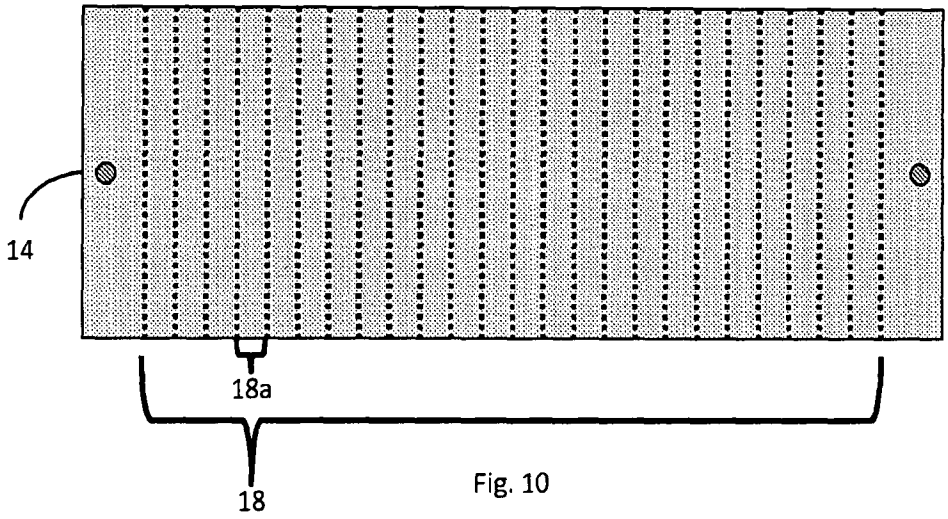


Fig. 10

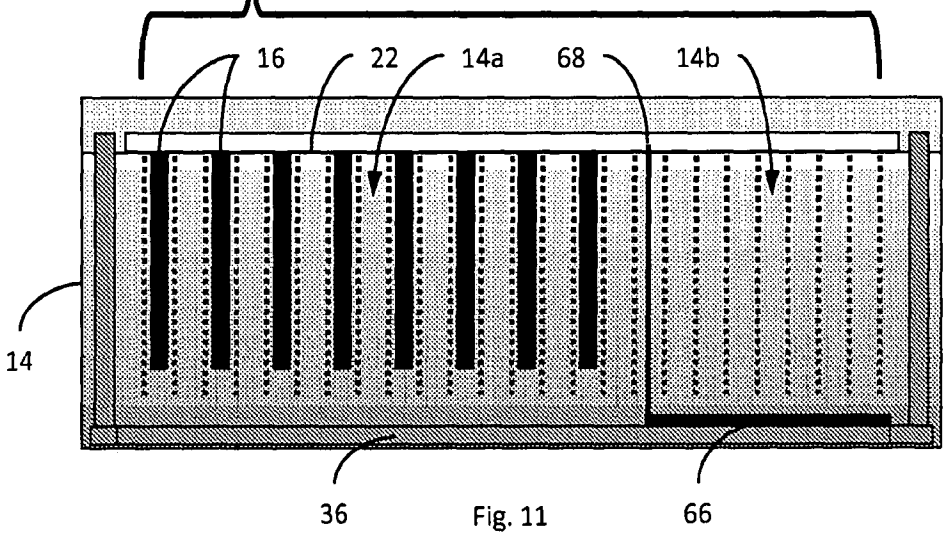


Fig. 11

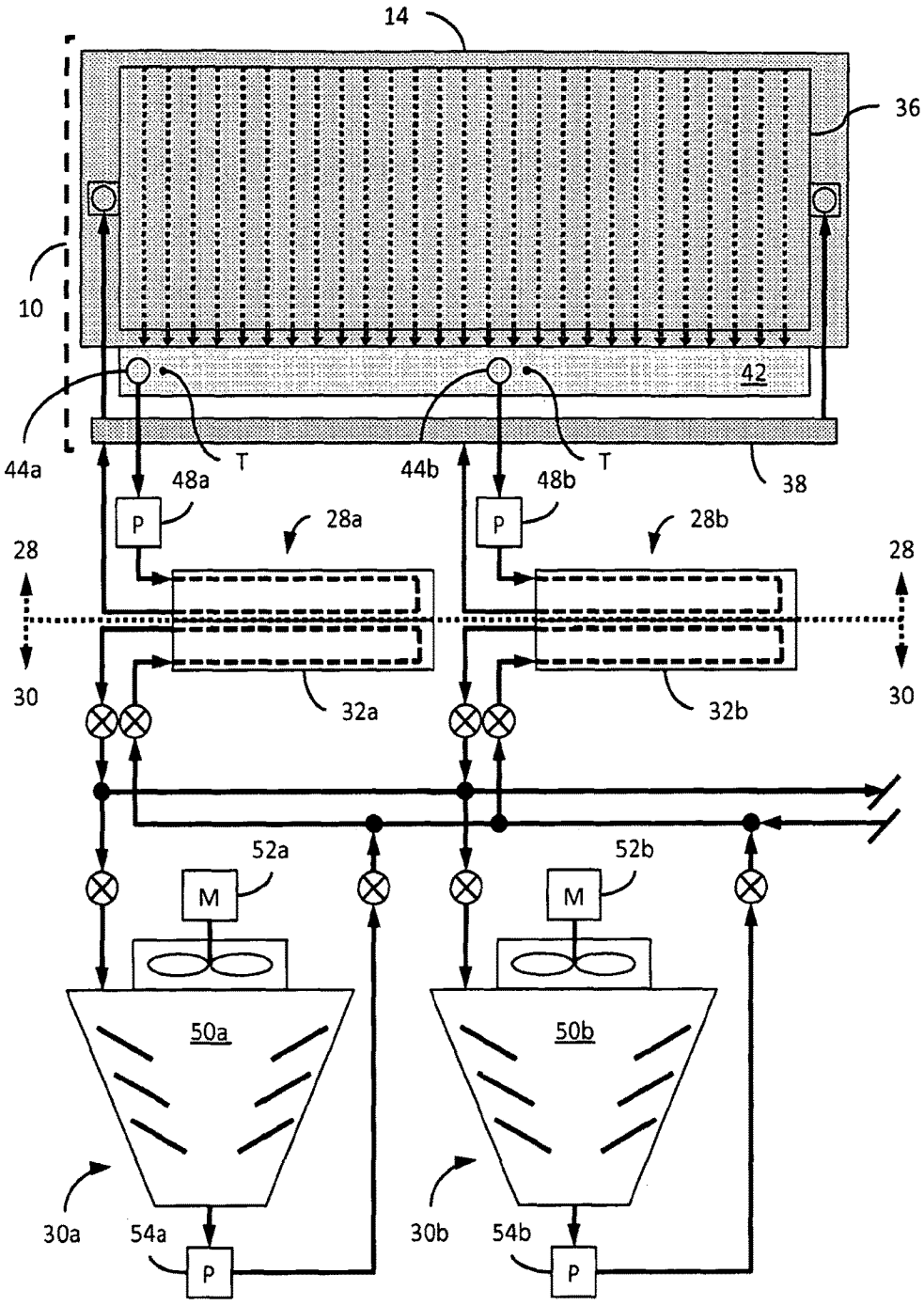

14
36
10
42
44a
T
44b
T
38
48a
48b
P
P
28a
28b
28
28
30
30
32a
32b
52a
52b
M
M
50a
50b
30a
30b
54a
54b
P
P

Fig. 12

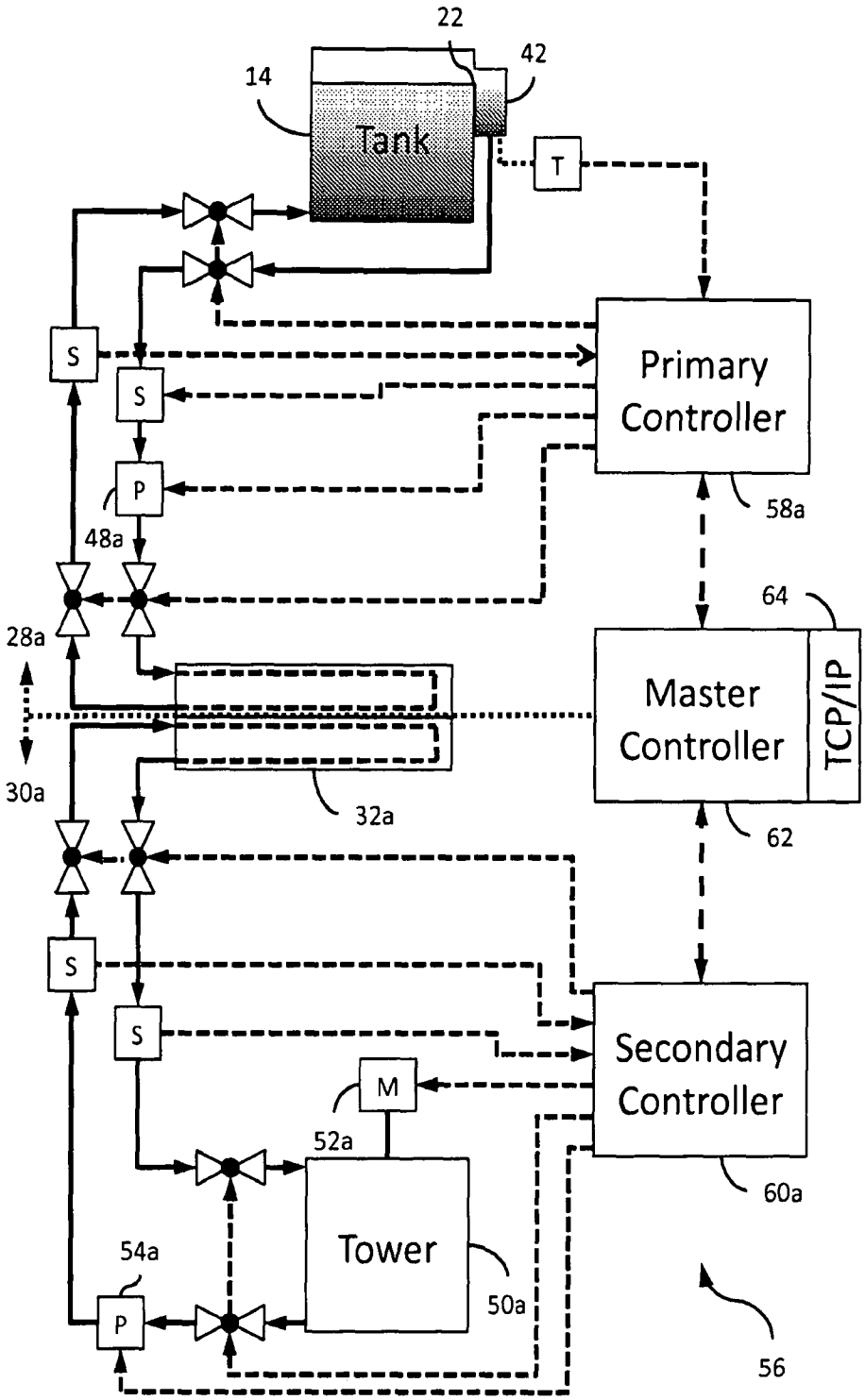

22
42
14
Tank
T
Primary Controller
58a
S
S
P
48a
64
28a
Master Controller
TCP/IP
30a
32a
62
S
S
Secondary Controller
M
52a
60a
Tower
54a
P
50a
56

Fig. 13

APPLIANCE IMMERSION COOLING SYSTEM

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is related to the following Provisional Applications:

1. Ser. No. 61/737,200, filed 14 Dec. 2012 ("First Parent Provisional"); and
2. Ser. No. 61/832,211, filed 7 Jun. 2013 ("Second Parent Provisional");

and hereby claims benefit of the filing dates thereof pursuant to 37 CFR § 1.78(a)(4). (Collectively, "Parent Provisionals"). The subject matter of the Parent Provisionals, each in its entirety, is expressly incorporated herein by reference.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to electrical appliance cooling systems, and, in particular, to an improved appliance immersion cooling system and method of operation.

2. Description of the Related Art

In general, in the descriptions that follow, we will italicize the first occurrence of each special term of art which should be familiar to those skilled in the art of immersion cooling systems. In addition, when we first introduce a term that we believe to be new or that we will use in a context that we believe to be new, we will bold the term and provide the definition that we intend to apply to that term.

U.S. Pat. No. 4,590,538, "Immersion Cooled High Density Electronic Assembly", Cray (filed 18 Nov. 1981 and issued 20 May 1986) ("Cray"), is an early example of an immersion system for cooling electronic components during normal operation. On information and belief, the machine disclosed therein was the Cray-2 super-computer ("Cray-2") manufactured by Cray Research, Inc. ("Cray Research"), of Chippewa Falls, Wis. Of particular interest to the present application is the description of the significant advantages resulting from using an electrically non-conductive or dielectric fluid to extract heat from electronic circuit assemblies during normal operation (see, e.g., col. 1, line 66-col. 2, line 29).

On information and belief, Cray Research released, in 1985, a marketing brochure entitled "The CRAY-2 Computer System" (a copy of which is submitted herewith) describing the Cray-2. Of particular interest in this brochure is the description therein of the significant advantages resulting from using a dielectric fluid to extract heat from electronic circuit assemblies during normal operation (see, pages 10 and 13).

U.S. Pat. No. 5,167,511, "High Density Interconnect Apparatus", Krajewski, et al. (issued 27 Nov. 1992) ("Krajewski"), discloses another example of an immersion system for cooling electronic components during normal operation (see, e.g., col. 2, lines 43-51). On information and belief, a machine implementing the Krajewski system was also marketed by Cray Research as a follow-on super-computer to the Cray-2.

One particular problem in the vertical-stack-type systems disclosed in the above references is the necessity of draining the cooling fluid whenever physical access to the electronic modules was required. In general, such an operation, besides being time consuming, requires the entire system to be switched off, especially if the component requiring attention

is an essential element in the system architecture, such as the central processing unit ("CPU"). One possible solution to this problem is to immerse circuit assemblies vertically into a tank containing the cooling fluid such that each of the various assemblies can be withdrawn independently from the tank for servicing, replacement, upgrade, etc. One interesting example of such a system is disclosed in a web-presentation entitled "Puget Custom Computer's mineral-oil-cooled PC", by Nilay Patel ("Puget") (posted 12 May 2007 at 11:57 AM; a copy of which is submitted herewith). As noted by the author, the lack of supplemental apparatus in the Puget system to extract waste heat from the oil inherently limited its operating capabilities.

Another problem with the Cray Research systems in particular is the nature and cost of the chosen cooling fluid: fluorocarbon liquids. As is known, other dielectric fluids, such as mineral oil, have better heat transfer characteristics; of course, being an oil, the use thereof does represent a greater residue problem on modules that may be repairable. Notwithstanding, the Puget system implemented precisely this design choice.

US Patent Application Publication 2011/0132579, "Liquid Submerged, Horizontal Computer Appliance Rack and Systems and Method of Cooling such a Appliance Rack", Best, et al. ("Best"), discloses a appliance immersion tank system, include support apparatus for extracting waste heat from the tank cooling fluid and dissipating to the environment the heat so extracted. Although an improvement in several respects over the prior art discussed above, this system exhibits, inter alia, the following problems: generally non-uniform flow patterns through the several appliance slots within the tank, potentially resulting in uneven cooling across all slots; constricted dielectric fluid supply and return ports resulting in unnecessarily high fluid flow velocities at the respective points of connection to the tank; poor scalability; and inadequate attention to fail-soft operation.

The subject matter of all of the prior art references discussed above, each in its entirety, is expressly incorporated herein by reference.

We submit that what is needed is an improved appliance tank immersion system and method of operation. In particular, we submit that such a system should provide performance generally comparable to the best prior art techniques but more efficiently and effectively than known implementations of such prior art techniques.

BRIEF SUMMARY OF THE INVENTION

In accordance with a preferred embodiment of our invention, . . .

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

Our invention may be more fully understood by a description of certain preferred embodiments in conjunction with the attached drawings in which:

FIG. **1** illustrates, in partial cut-away form, a front perspective of a tank module of an appliance immersion cooling system constructed in accordance with our invention;

FIG. **2** illustrates a rear perspective of the tank module shown in FIG. **1**;

FIG. **3** illustrates a close-up perspective of a detail A of FIG. **2**;

FIG. **4** illustrates a close-up perspective of a detail B of FIG. **2**;

FIG. **5** illustrates, in perspective view, several details of the tank shown in FIG. **1**, with special emphasis on the dielectric fluid recovery weir integrated into the long rear wall of the tank;

FIG. **6** illustrates, in cross-section view, the section C-C in FIG. **5**;

FIG. **7** illustrates, in perspective view, the plenum facility shown in FIG. **1**;

FIG. **8** illustrates, in top plan view, the orifice plate portion of the plenum facility shown in FIG. **7**;

FIG. **9** illustrates, in perspective view, the chamber portion of the plenum facility shown in FIG. **7**;

FIG. **10** illustrates, in top plan view, a plurality of appliance slots distributed vertically along, and extending transverse to, a long axis of the tank of FIG. **1**;

FIG. **11** illustrates, in longitudinal cross-sectional view, the plurality of appliance slots distributed vertically along, and extending transverse to, the long axis of the tank of FIG. **1**;

FIG. **12** illustrates, in flow schematic form, one instantiation of a flow arrangement suitable for implementing our invention; and

FIG. **13** illustrates, in control schematic form, one instantiation of a flow control facility suitable for implementing our invention.

In the drawings, similar elements will be similarly numbered whenever possible. However, this practice is simply for convenience of reference and to avoid unnecessary proliferation of numbers, and is not intended to imply or suggest that our invention requires identity in either function or structure in the several embodiments.

DETAILED DESCRIPTION OF THE INVENTION

Shown in FIG. **1** (front view) and FIG. **2** (rear view) is a tank module **10** adapted for use in an appliance immersion cooling system constructed in accordance with a preferred embodiment of our invention. For convenience of reference, we have illustrated in FIG. **1** the tank facility **12** of the immersion module **10** in partial cut-away to emphasize several important internal facilities; we have shown the tank facility **12** in isolation in FIG. **5**. In general, the tank facility **12** comprises: a tank **14** adapted to immerse in a dielectric fluid a plurality of electrical appliances **16**, e.g., contemporary computer servers (see, e.g., FIG. **11**), each in a respective appliance slot **18***a* distributed vertically along, and extending transverse to, a long axis of the tank **14** (see, generally, FIG. **10**); an appliance rack facility **20** of convention design adapted to suspend the appliances **16** (see, e.g., FIG. **11**) in respective appliance slots **18** (see, FIG. **10**); a weir **22** (best seen in isolation in FIG. **5** and FIG. **6**), integrated horizontally into one long wall of the tank **14** adjacent all appliance slots **18**, and adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each of the appliance slots **18**; an interconnect panel facility **24** attached to the upper rear edge of the tank **14** and adapted to mount various appliance power distribution equipment, cable interconnection panels and the like (none shown); and a cover **26** adapted to be opened and closed from the front of the tank **14** (and which may include a translucent portion to allow viewing of the interior of the tank **14** when in the closed position). In addition to the tank facility **12**, the immersion module **10** comprises: a primary circulation facility **28** (portions of which are shown in both FIG. **1** and FIG. **2**); a secondary fluid circulation facility **30** (of which only redundant heat exchangers **32***a* and **32***b* are shown in FIG. **2**); and control equipment cabinets **34***a* and **34***b*, each adapted to accommodate the module status and control equipment associated with a respective one of the primary circulation facilities **28***a* and **28***b* (see, FIG. **13**).

As can be best seen in FIG. **2**, the primary circulation facility **28** (comprising redundant sub-facilities **28***a* and **28***b*) comprises both passive (conduits, couplers, etc.) and active (valves, pumps, sensors, etc.) components; a subset of the passive components are shared, whereas, in general, the active components are duplicated and adapted to cooperate in operation as separate, redundant sub-facilities. Excluding the tank **14**, the primary shared component is the plenum facility **36** (see, FIG. **1** and FIG. **7**) comprising an orifice plate **36***a* (see, FIG. **8**) and a plenum chamber **36***b* (see, FIG. **9**). As can be seen in FIG. **1**, cooled dielectric fluid is pumped into both ends of the plenum facility **36** via a shared distribution header **38** (see, FIG. **2** and FIG. **3**). In general, the plenum plate **36***a* comprises at least one row of orifices vertically aligned with each appliance slot **18***a*, with the dimensions and flow rates of each set being adapted to provide substantially equal flow of the dielectric fluid upwardly into each appliance slot **18***a*. Preferably, each appliance slot **18***a* is supplied via several rows of orifices, thus generally tending to reduce the volume of the dielectric fluid exiting each orifice and to make the flow of dielectric fluid more uniform upwardly through the appliance slots **18**. One further shared component is the dielectric fluid recovery facility **40** (FIG. **2**) comprising a dielectric fluid recovery reservoir **42** (see, FIG. **3**, FIG. **4** and FIG. **13**) positioned vertically beneath the overflow lip of the weir **22** and adapted smoothly to receive the dielectric fluid as it flows over the weir **22**; the dielectric fluid recovery reservoir **42** is further adapted to allow the recovered fluid to be removed from the reservoir **42** via redundant recovery ports **44***a* and **44***b* (only port **44***a* can be seen in FIG. **2** as the port **44***b* is obscured by the heat exchanger **32***a*; but see FIG. **12**). As can be seen in both FIG. **3** and FIG. **4**, we consider it desirable to provide a vortex breaker at the input of each of the recovery ports **44**. Also, we provide a removable recovery reservoir cover **46** adapted to also cover a major portion of the distribution header **38**; note that, in both FIG. **2** and FIG. **3**, we have illustrated the reservoir cover **46** in a partially raised orientation so as to better depict details that would otherwise be obscured. Note that we have constructed the reservoir **42** such that the average height of dielectric fluid above the recovery ports **44** develops sufficient hydrostatic head to meet the requirements of the pumps **48**, while also tending to minimize the likelihood of breaking suction during normal operation.

At this point in the primary circulation facility **28**, we provide fully redundant sub-facilities **28***a* and **28***b*, each comprising a primary circulation pump (**48***a* and **48***b*) and associated passive and active components which, collectively, provide the motive power for circulating the dielectric fluid through the shared components and tank **14**. As can be generally seen, each of these sub-facilities **28***a* and **28***b* is adapted to recover the dielectric fluid exiting the tank **14** via the weir **22**, re-pressurize the recovered fluid, pass the re-pressurized fluid through a respective one of the heat exchangers **32***a* and **32***b*, and then back to the plenum facility **36** via the header **38**.

Shown in FIG. **12** is one flow arrangement suitable for integrating our tank module **10** into a fully redundant, appliance immersion cooling system, comprising the primary circulation facility **28** and the secondary fluid circulation facility **30**. In general, the secondary fluid circulation facility **30** comprises redundant secondary circulation sub-

facilities **30***a* and **30***b*, each of which is adapted to circulate a cooling fluid, e.g., treated water, through the respective heat exchanger **32***a* and **32***b* to extract heat from dielectric fluid counter-circulating therethrough and to dissipate to the environment the heat so extracted. In the illustrated embodiment, each of the secondary fluid sub-facilities **30***a* and **30***b* comprise conventional cooling towers **50***a* (including fan facility **52***a*) and **50***b* (including fan facility **52***b*), and secondary circulation pumps **54***a* and **54***b*. To facilitate flexible operation in installations including multiple immersion modules **10** in combination with a plurality of secondary circulation sub-facilities **30**, a common header arrangement can be implemented as illustrated in the secondary fluid circulation loop, with flow control valves located at key flow control points as is known.

Shown in FIG. **13** is a control facility **56** adapted to monitor and control the operation of both the immersion module **10** (including all active components of the primary circulation facility **28**), and the secondary fluid circulation facility **30**. As will be evident to those skilled in this art, efficient operation of our immersion module **10** requires continuous monitoring and control of several essential operating parameters, including fluidic temperatures, pressures, conductivity and pH at several points in the primary and secondary circulation loops. Although the several sensory and control functions can be implemented using traditional dedicated hardware components, we prefer to employ at least one programmable logic controller ("PLC"), commercially available from any of a number of respected vendors, e.g., the Allen-Bradley brand of PLCs from Rockwell Automation, Inc. In the instantiation illustrated in FIG. **13**, we have depicted: a primary controller **58***a* adapted to monitor and control the operation of the primary circulation sub-facility **28***a* as a function of the temperature of the dielectric fluid in the tank **14**; a secondary controller **60***a* adapted to monitor and control the operation of the secondary fluid circulation sub-facility **30***a* as a function of the temperature of the dielectric fluid flowing through the heat exchanger **32***a*; and a master controller **62** adapted to coordinate the activities of the primary controller **58***a* and secondary controller **60***a*. As can be seen, we have incorporated into the primary circulation sub-facility **28***a*: supply and return sensors, including a temperature probe, T, inserted into a thermowell (not shown) installed in the bottom of the reservoir **42** adjacent a respective return port **44***a* (note that, in FIG. **4**, only one of the holes that receive the thermowells is illustrated, but both holes are illustrated in FIG. **12**); a pair of sensor facilities, S, which may sense temperature, pressure and conductivity, as deemed desirable); and return (and, if desired, supply) flow control valves and controls for the primary circulation pump **48***a*; of course, a redundant set of these components exists for the primary circulation sub-facility **28***b*. In general, the goal is to maintain the temperature of the dielectric fluid in the tank **14** between a predetermined minimum temperature and a predetermined maximum temperature.

As noted above, we have provided separate control equipment cabinets **34***a* and **34***b*, each adapted to accommodate the several components comprising a respective one of the primary controllers **58***a* and **58***b*. For convenience of access, we prefer to co-locate with each of the cooling towers **50** a protective housing (not shown) for the respective secondary controller **60**. Of course, the control facility **56** can be instantiated as a single, multi-module PLC facility, with similar or other combinations of monitoring devices as deemed most appropriate for a particular installation. Alternatively, one or more, and perhaps all, of the functions performed by the controllers **58**, **60** and **62** may be implemented in the form of dedicated application-specific software executing on a conventional computer platform having the appropriate resources; indeed, it would be entirely feasible to implement the entire control facility **56** on a server **16** installed in a tank **14**.

One desirable enhancement that we recommend is a remote control facility, implemented, e.g., via the master controller **62** (or by way of a direct, per-controller interface), adapted to facilitate remote monitoring of system status (e.g., temperatures, pressures, etc.) and control over system control parameters (e.g., temperature and pressure limits, etc.) to the primary controllers **58** and secondary controllers **60**. For example, using a conventional data communication hardware module **64**, e.g., an ethernet card implementing the TCP/IP protocol, a modern web browser can be adapted to provide a graphical user interface ("GUI") with sufficient functionality to facilitate monitoring and control of an entire installation from a remote location. Such a GUI may be implemented using any of a number of programming paradigms, e.g., PHP, .NET and the like.

Operational control of redundant, continuous process flow systems is generally well known. Preferable, each of the several redundant sub-facilities are routinely activated to assure current functionality, and to allow the inactive sub-facility to be serviced according to an established schedule. We believe this continuous rotation of system resources to be so important that we recommend switching the sub-facilities at least once, and preferably, several times, per day; although this is possible to implement manually, we prefer to enable the master controller **62** to control the sequencing of the several switch-over operations. One further aspect of this sophistication in control is the ability to perform stress testing of the several sub-systems under controlled conditions so as to assure appropriate response to real-time emergencies.

In our First Parent Provisional, we have disclosed an alternate embodiment comprising an appliance immersion tank facility wherein the function of the plenum facility **36** is performed by a manifold facility comprising a ladder-arrangement of tubular spray bars, each bar of which supplies dielectric fluid to a respective appliance slot. As we noted, one particular advantage of this arrangement is that individual spray bars may be shut off if the respective appliance slot is not occupied and, thus, save energy. To further increase energy efficiency, we have provided optional vertical flow barriers adapted to partition the tank into an active portion, having active appliances, and a stagnant portion, having no active appliances. One further enhancement we disclosed is the provision of temperature sensors per appliance slot, such that the flow rate through each spray bar can be dynamically varied as a function of the temperature of the dielectric fluid exiting the respective slot. Other operative configurations will be readily perceived by those skilled in this art.

In a manner analogous to the embodiment described in our First Parent Provisional, it would be advantageous, from an energy point of view, to provide a plurality of flow barrier plates **66** (shown by way of example only in FIG. **11**), each adapted to be attached to the top of the plenum facility **36** so as substantially to block the flow of the dielectric fluid through the row(s) of orifices in the plenum plate **36***a* corresponding to at least a respective one of the appliance slots **18***a*; an elastomeric layer (not shown) could be provided on the interface surface of the plate(s) **66** to enhance the sealing effect. Such an arrangement would allow the total flow through the plenum facility **36** to be adjusted, in the

field, as a function of the actual number of active appliances **16** in the tank **14**. Further, this arrangement can incorporate a relocatable vertical baffle plate **68** (see FIG. **11**) adapted substantially to partition the tank **14** into an active portion **14***a* containing the active appliances **16** and an inactive portion **14***b* containing no appliances (or at least no active appliances **16**); preferably, the baffle plate **68** is adapted to be mounted in the appliance rack facility **28** in a manner similar to an actual appliance **16** (the baffle plate **68** need not fully block the flow of dielectric fluid between the active portion **14***a* and inactive portion **14***b*, but only significantly impede the flow between these portions). Note that, in the example scenario illustrated in FIG. **11**, we have shown one possible arrangement of a total of 8 active appliances **16** distributed across 16 appliance slots **18***a* so as to spread the total heat load across adjacent empty slots **18***a*. Such an optimal arrangement is possible only if less than a majority of the available appliance slots **18***a* are occupied by an active appliance **16**. Clearly, such optional adjunct facilities enhance flexibility in operation, accommodating dynamic adjustment of the flow rates in the primary circulation sub-facilities **28***a* and **28***b* under variable heat loads, while providing opportunities to conserve energy that might otherwise be expended moving the dielectric fluid through the inactive portion **14***b* of the tank **14**. Other operative configurations will be readily perceived by those skilled in this art.

In our Second Parent Provisional, we have disclosed another embodiment comprising a more conventional, less-modularized instantiation with appropriate flow and control facilities. In this embodiment, we chose to implement tank clusters, comprising, e.g., **4** appliance immersion tank facilities, with substantially all of the other equipment being constructed from stand-alone, commercially available components. Such an arrangement offers greater opportunities to select and install improved components, or to add enhancements to the installation, as deemed desirable after initial installation. Other operative configurations will be readily perceived by those skilled in this art.

As we noted above with reference to the embodiment illustrated in FIG. **12**, the secondary flow header facility is well adapted to allow any secondary circulation sub-facility **30** to be connected to any active heat exchanger **32**. Such a facility provides great flexibility in dealing with unusual system conditions, especially in installations wherein the secondary circulation sub-facilities **30***a* and **30***b* are each sized to support a cluster of tank modules **10**. Imagine, for example, that, while one of the secondary circulation facilities **30**, say sub-facility **30***a*, is being serviced, the activities of the set of appliances **16** in one tank **14** in the cluster are higher than normal, resulting in a rise in temperature in that tank **14** above the desired maximum. In response, the master controller **62** can direct Primary Controllers **58***a* and **58***b* assigned to tank **14** to operate both of the primary circulation sub-facilities **28***a* and **28***b* simultaneously, i.e., in parallel. Using the secondary flow header facility, the heat being extracted by both of the heat exchangers **32***a* and **32***b* may be dissipated using the resources of the single on-line secondary circulation sub-facility **30***b*. Thus, one clear advantage of this alternate embodiment is the ability dynamically to perform load balancing across all system resources. Other operative configurations to support sub-system load balancing will be readily perceived by those skilled in this art.

Preferably, one or more filters (not shown) are included in the flow path through each of the primary circulation sub-facilities **28***a* and **28***b* to remove any particulates or other undesirable foreign matter that may have been picked up by the dielectric fluid on its passage though the entire primary circulation facility **28**; chemical sensors may also be provided to detect the presence of unexpected chemicals that may indicate failure of sub-components within one of the appliances **16**. Similar components, such as pH sensors, may also included in the secondary fluid circulation facility **30**.

As can be seen generally in FIG. **1**, we provide a pair of low dielectric fluid level sensors **70***a* and **70***b* adapted to trigger an alarm signal in the event that, for whatever reason, the level of the dielectric fluid in the tank **14** drops below a predetermined minimum level. Additionally, the responsive primary controller **58** can initiate other actions to address the detected problem, including activating audio alarms, transmitting electronic alert signals and the like.

To solve a reciprocal problem, namely leakage from an external portion of the primary circulation loop **28** resulting in the dielectric fluid in the tank **14** being back-siphoned through the plenum facility **36**, we recommend incorporating a siphon breaker **72** (see, FIG. **1**) in the supply pipe at a predetermined location well above the plenum facility **36** but somewhat below the level of the weir **24**. Such a siphon breaker can be as simple as a relatively small diameter hole **72** drilled through the supply pipe at the selected location; due to the relatively high viscosity of the dielectric fluid, even when heated, any resulting leakage during normal operation will be relatively insignificant. Other operative responses to address these and other unusual fluidic conditions will be readily perceived by those skilled in this art.

As is known (see, e.g., Best), many conventional, commercially available electrical/electronic appliances include components that will not function correctly if immersed in a dielectric fluid, especially one as viscous as mineral oil: cooling fans and rotating media disk drives. In general, all cooling fans are unnecessary in an immersion cooling system and can be simply removed. The media drives, however, are usually necessary for normal appliance operation. One option is to remove each drive, totally seal the drive against fluid entry, and reinstall the now-sealed drive (pre-sealed drives are also available). Another option is to remove the drive and mount it on the interconnect panel facility **24**; typically special cabling will be required to re-attach the drive to the internal appliance socket. Yet another option is to replace the rotating media drive with a solid-state drive having no moving components. Other operative configurations will be readily perceived by those skilled in this art.

It will be recognized that, in all of the embodiments described herein, emphasis was placed on minimizing the total volume of the dielectric fluid circulating throughout each immersion module **10**. We submit that the key concept here is to move the secondary fluid to the point of heat exchange with the primary fluid, rather than to move the primary fluid to the point of heat exchange with the secondary fluid. Thus, in our preferred embodiment, all of the essential components of the primary circulation facility **28** are tightly co-located with the tank **14** so as to form a highly-integrated module. Further, our placement of the reservoir **42** outside of (but immediately adjacent to) the tank **14** tends to reduce the total volume of the dielectric fluid (as opposed to the alternative arrangement we proposed in our First Provisional, wherein a recovery trough was disposed within the tank **14**); then, we positioned the components comprising the primary circulation sub-facilities **28** so as to be vertically beneath the footprint of the reservoir **42**. In addition to conserving valuable floor space in a typical data center installation, the resulting modular configuration facilitates both easy initial installation and subsequent

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upgrade to efficiently satisfy increasing data center workloads. Indeed, our invention greatly enhances system scalability, a key concern to data center operators. Finally, our system-wide redundancy substantially assures fail-soft operation during periods of unusual environmental conditions, infrastructure instability or political unrest.

Although we have described our invention in the context of particular embodiments, one of ordinary skill in this art will readily realize that many modifications may be made in such embodiments to adapt either to specific implementations. By way of example, it will take but little effort to adapt our invention for use with electronic appliances other than contemporary servers; and to adjust the dimensions of the appliance accommodation slots accordingly. Similarly, practitioners in the art will readily recognize that other, known secondary circulation facilities may be employed effectively, including forced air, vapor compression systems, earth-water sink loops, waste heat recovery and recycling systems, and the like (see, e.g., the several alternatives discussed in Best). Further, the several elements described above may be implemented using any of the various known manufacturing methodologies, and, in general, be adapted so as to be operable under either hardware or software control or some combination thereof, as is known in this art.

Thus it is apparent that we have provided an improved system and method of operation for immersion cooling of appliances and the like. In particular, we submit that such a method and apparatus provides performance generally comparable to the best prior art techniques but more efficiently and effectively than known implementations of such prior art techniques.

What we claim is:

1. An appliance immersion cooling system comprising:

a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank, the tank comprising:

a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, having an overflow lip adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot; and;

a dielectric fluid recovery reservoir positioned vertically beneath the overflow lip of the weir and adapted to receive the dielectric fluid as it flows over the weir;

a primary circulation facility adapted to circulate the dielectric fluid through the tank, comprising:

a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot;

a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulating in the primary circulation facility, and to dissipate to the environment the heat so extracted; and

a control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

2. The system of claim **1** wherein the tank and primary circulation facility comprise a highly-integrated module.

3. The system of claim **1** wherein the tank further comprises:

an interconnect panel facility adapted to mount appliance support equipment.

4. The system of claim **1** wherein the primary circulation facility further comprises:

at least first and second primary circulation sub-facilities, each adapted to operate independently to circulate the dielectric fluid through the tank;

wherein the control facility is further adapted to coordinate the operation of the first and second primary circulation sub-facilities and the secondary fluid circulation facilities so to maintain the temperature of the dielectric fluid in the tank substantially between a predetermined minimum temperature and a predetermined maximum temperature.

5. The system of claim **1** wherein the control facility further comprises a communication facility adapted to facilitate monitoring and control of the control facility from a remote location.

6. A tank module adapted for use in an appliance immersion cooling system, the tank module comprising:

a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank, the tank comprising:

a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, having an overflow lip adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot; and;

a dielectric fluid recovery reservoir positioned vertically beneath the overflow lip of the weir and adapted to receive the dielectric fluid as it flows over the weir;

a primary circulation facility adapted to circulate the dielectric fluid through the tank, comprising:

a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot; and

a control facility adapted to control the operation of the primary fluid circulation facility as a function of the temperature of the dielectric fluid in the tank.

7. The module of claim **6** wherein the tank and primary circulation facility comprise a highly-integrated module.

8. The module of claim **6** wherein the tank further comprises:

an interconnect panel facility adapted to mount appliance support equipment.

9. The module of claim **6** wherein the primary circulation facility further comprises:

at least first and second primary circulation sub-facilities, each adapted to operate independently to circulate the dielectric fluid through the tank;

wherein the control facility is further adapted to coordinate the operation of the first and second primary circulation sub-facilities so to maintain the temperature of the dielectric fluid in the tank substantially between a predetermined minimum temperature and a predetermined maximum temperature.

10. The module of claim **6** wherein the control facility further comprises a communication facility adapted to facilitate monitoring and control of the control facility from a remote location.

11. A tank module (**10**) adapted for use in an appliance immersion cooling system, the tank module comprising:

a tank (**12**) adapted to immerse in a dielectric fluid a plurality of electrical appliances (**16**), each in a respective appliance slot (**18**) distributed vertically along, and extending transverse to, a long wall of the tank (**10**), the tank (**10**) comprising:

a weir **22**, integrated horizontally into the long wall of the tank (**10**) adjacent all appliance slots (**18**),

adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot (**18**);

a primary circulation facility (**28**) adapted to circulate the dielectric fluid through the tank (**10**), comprising:

a plenum (**36**), positioned adjacent the bottom of the tank (**10**), adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot (**18**); and

a control facility (**58**) adapted to control the operation of the primary fluid circulation facility (**28**) as a function of the temperature of the dielectric fluid in the tank (**10**).

12. The tank module of claim **11** wherein the tank further comprises:

an interconnect panel facility (**24**) adapted to mount appliance support equipment.

13. The module of claim **11** wherein the primary circulation facility further comprises:

at least first and second primary circulation sub-facilities (**28***a*, **28***b*), each adapted to operate independently to circulate the dielectric fluid through the tank;

wherein the control facility is further adapted to coordinate the operation of the first and second primary circulation sub-facilities so to maintain the temperature of the dielectric fluid in the tank substantially between a predetermined minimum temperature and a predetermined maximum temperature.

14. The module of claim **11** wherein the control facility further comprises a communication facility (**62**, **64**) adapted to facilitate monitoring and control of the control facility from a remote location.

15. An appliance immersion cooling system comprising a tank module according to any one of the preceding claims **11** through **14**.

16. An appliance immersion cooling system according to claim **15**, further comprising:

a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulating in the primary circulation facility, and to dissipate to the environment the heat so extracted.

* * * * *

EXHIBIT 2

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

US010820446B2

(12) **United States Patent**
Boyd et al.

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(45) **Date of Patent: *Oct. 27, 2020**

(54) **APPLIANCE IMMERSION COOLING SYSTEM**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

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Related U.S. Application Data

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(Continued)

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H01L 23/44 (2006.01)
H05K 7/20 (2006.01)

(52) **U.S. Cl.**
CPC ***H05K 7/20236*** (2013.01); ***H01L 23/44*** (2013.01); ***H05K 7/20272*** (2013.01)

(58) **Field of Classification Search**
CPC H05K 7/20236; H05K 7/20272; H05K 7/20327; H01L 23/44
See application file for complete search history.

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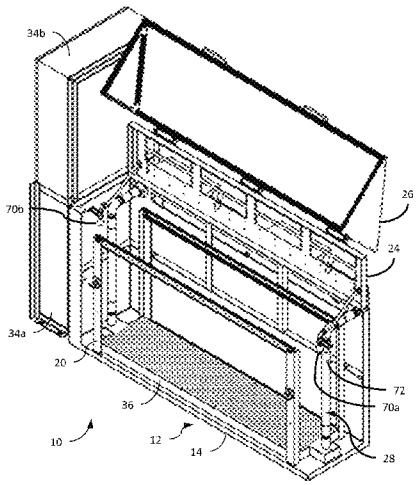
(57) **ABSTRACT**

A appliance immersion tank system comprising: a generally rectangular tank adapted to immerse in a dielectric fluid a plurality of appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, the long axis of the tank; a primary circulation facility adapted to circulate the dielectric fluid through the tank; a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulating in the primary circulation facility, and to dissipate to the environment the heat so extracted; and a control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank. A plenum, positioned adjacent the bottom of the tank, is adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot. A weir, integrated horizontally into a long wall of the tank, is adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot. All active and most passive components of both the primary and secondary fluid circulation facilities, and the control facility are fully redundant, and are adapted automatically to operate in a fail-soft mode.

10 Claims, 7 Drawing Sheets



Related U.S. Application Data

(60) Provisional application No. 61/832,211, filed on Jun. 7, 2013.

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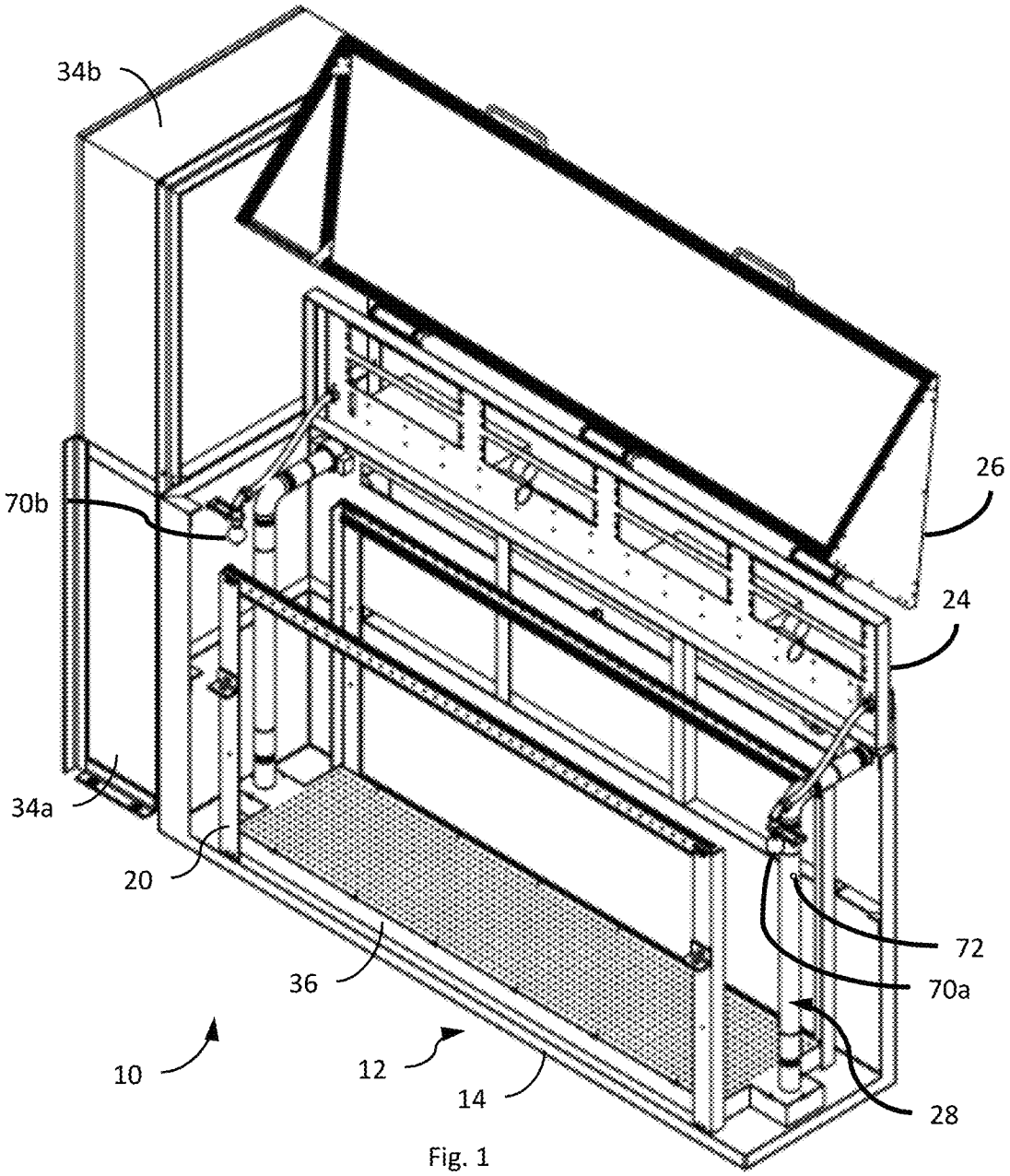


Fig. 1

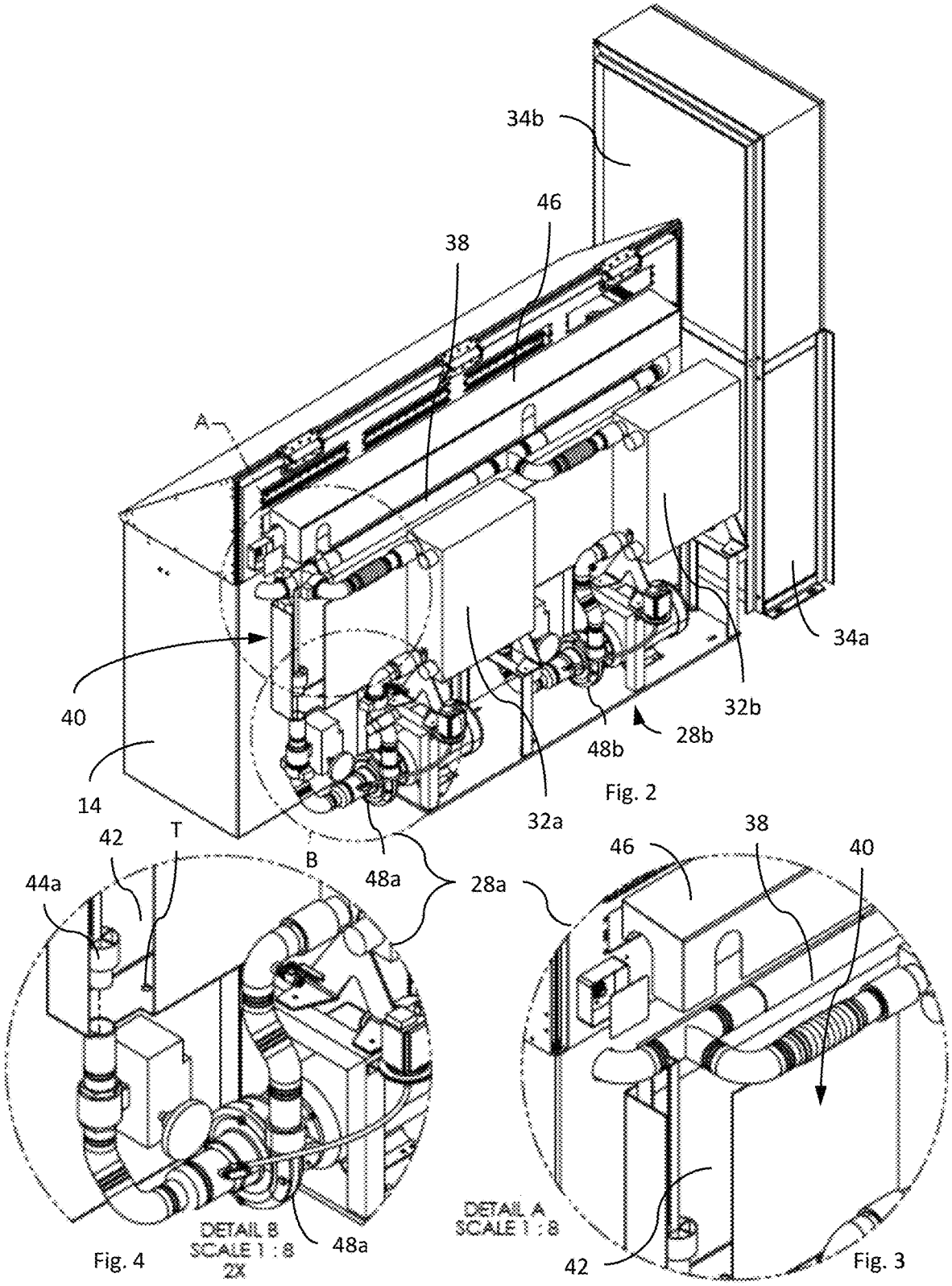


Fig. 2

Fig. 4

Fig. 3

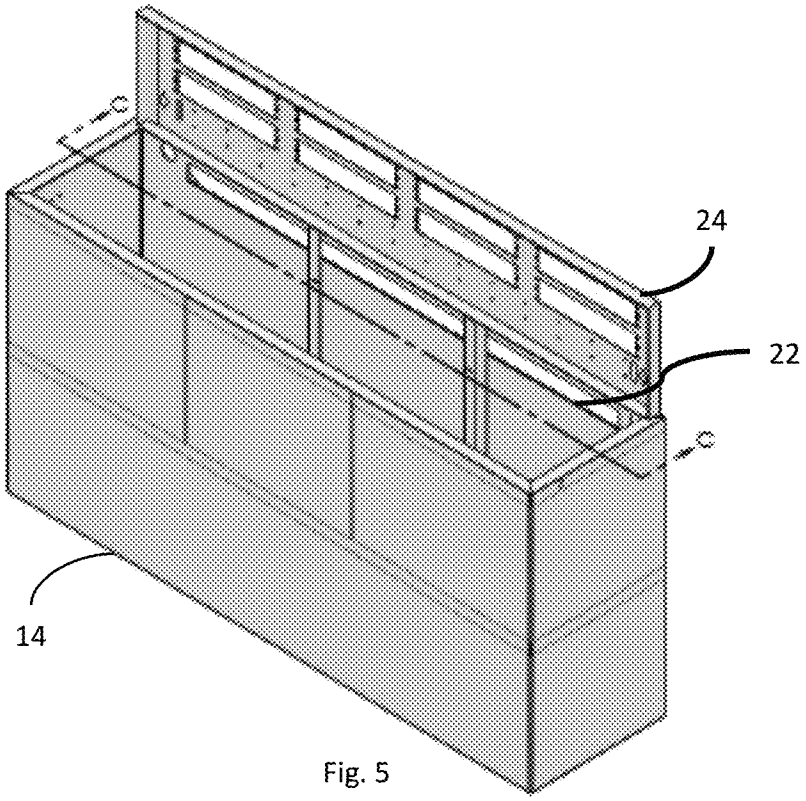
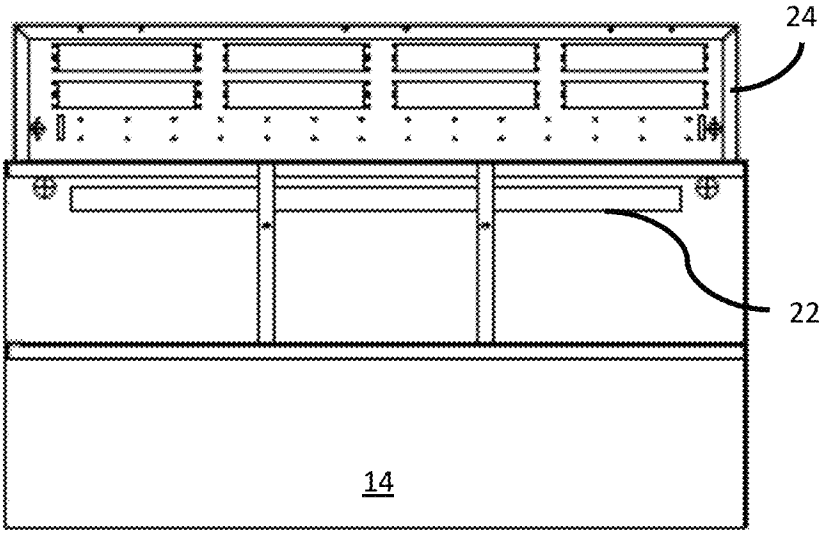


Fig. 5



Section C-C

Fig. 6

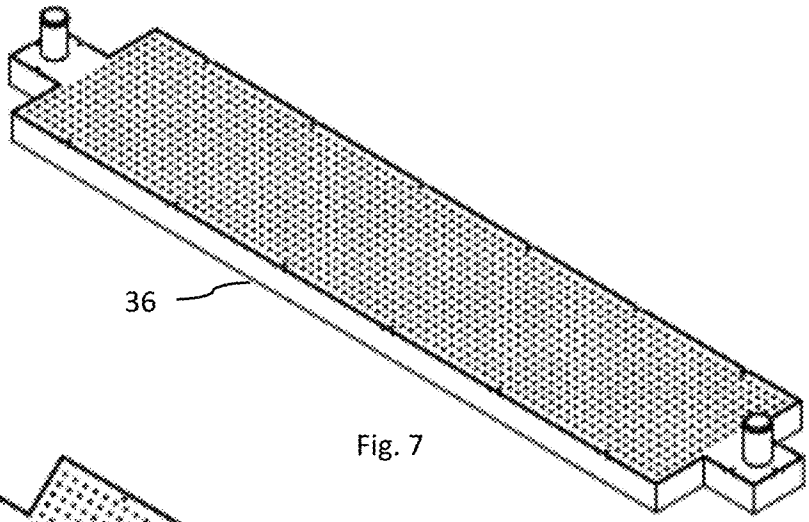


Fig. 7

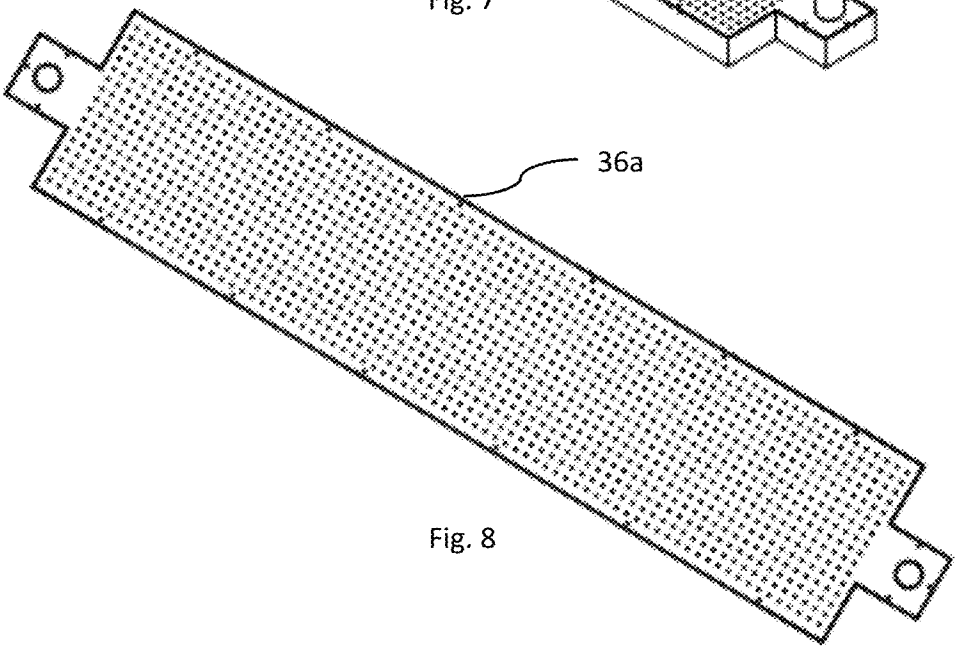


Fig. 8

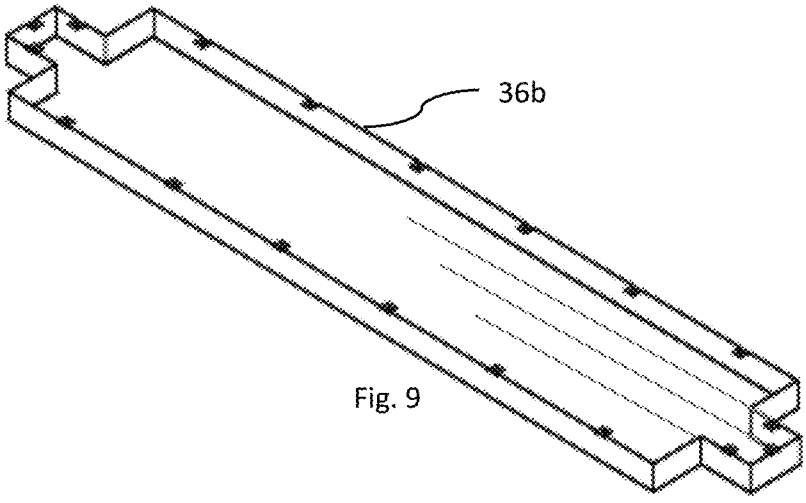


Fig. 9

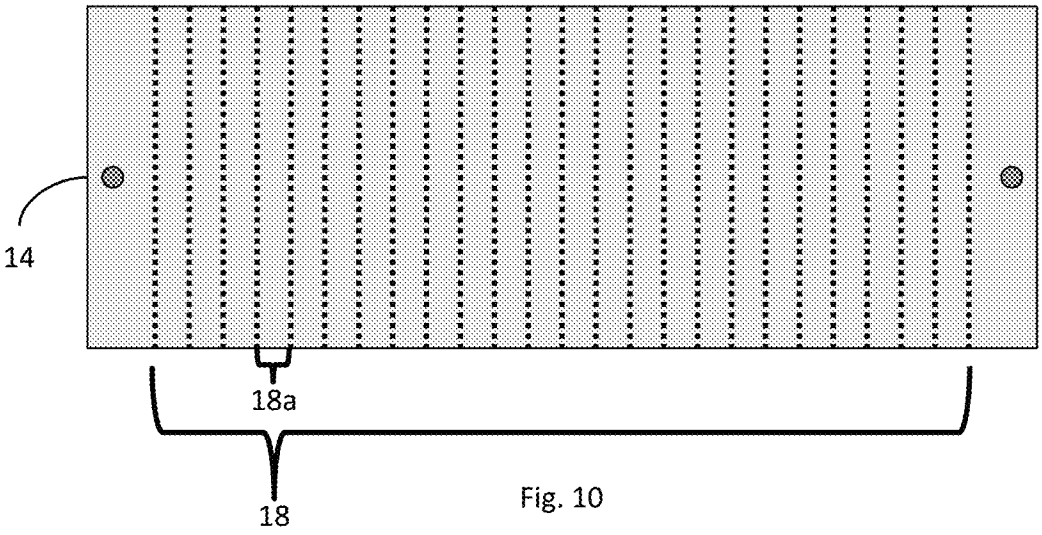


Fig. 10

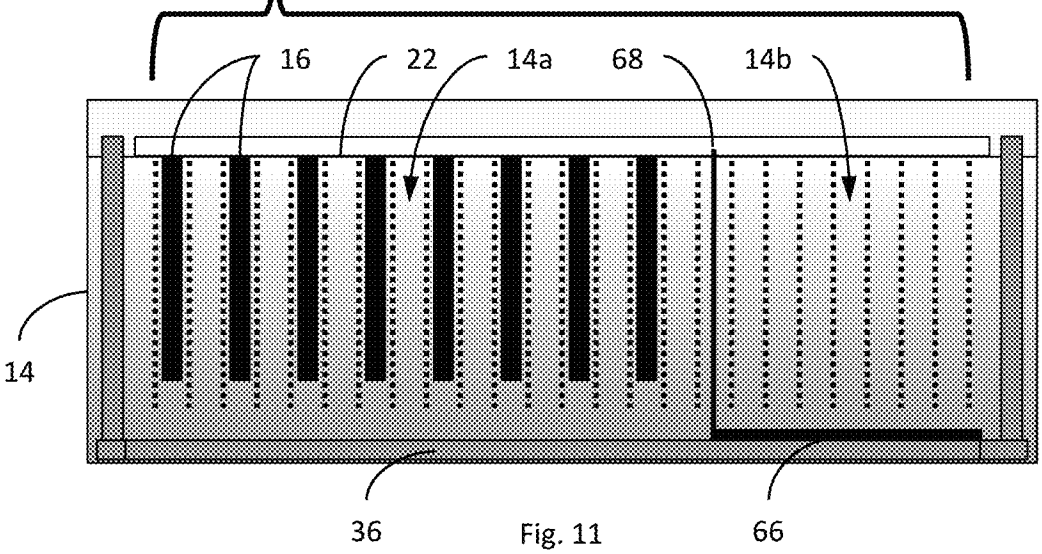


Fig. 11

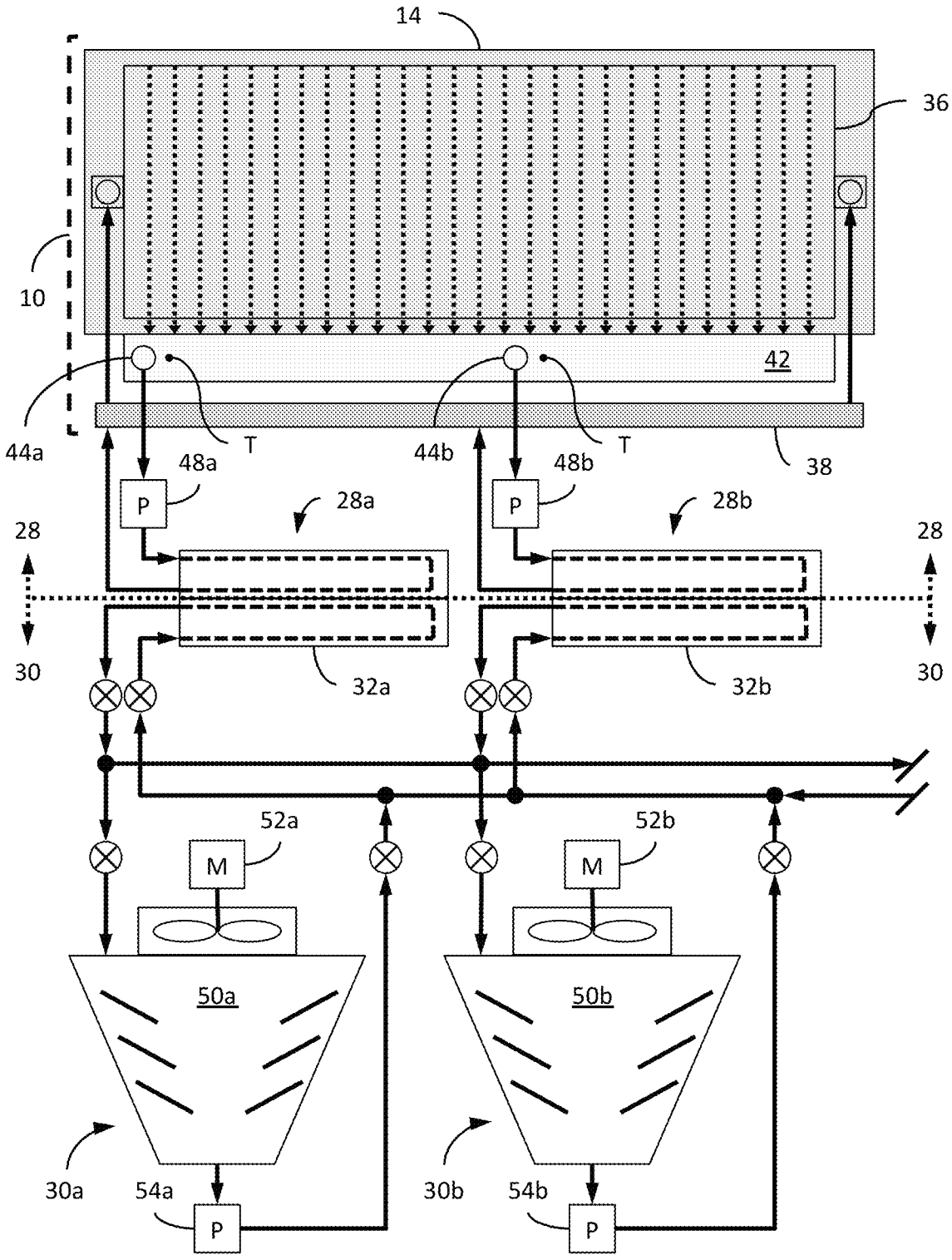

14
36
10
42
44a
T
48a
44b
T
48b
38
P
28a
P
28b
28
28
30
30
32a
32b
52a
52b
M
M
50a
50b
30a
54a
30b
54b
P
P

Fig. 12

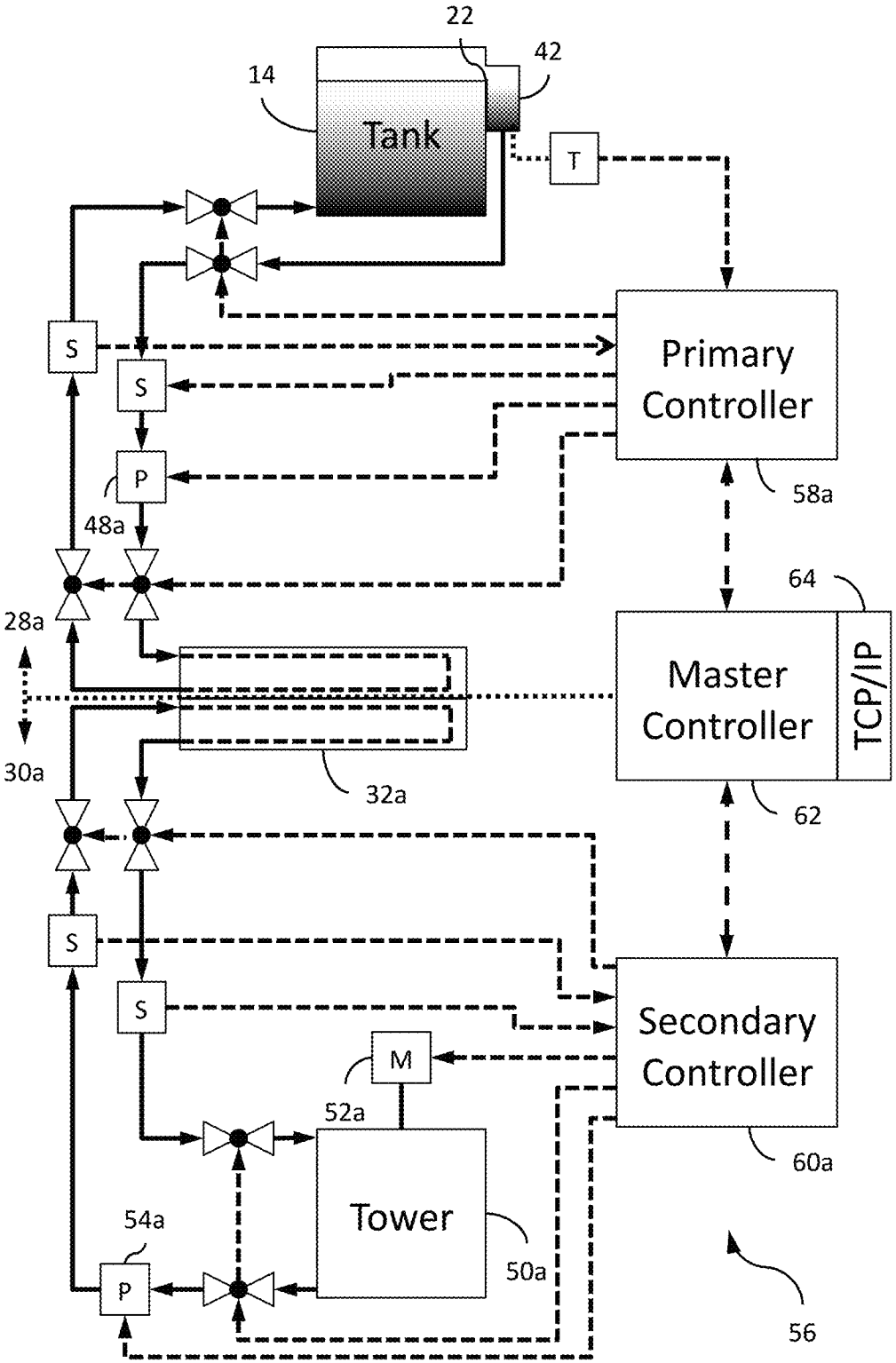

22
42
14
Tank
T
S
S
P
48a
Primary Controller
58a
64
28a
Master Controller
TCP/IP
30a
32a
62
S
S
M
52a
Secondary Controller
60a
Tower
54a
50a
P
56

Fig. 13

APPLIANCE IMMERSION COOLING SYSTEM

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is related to the following Provisional applications:

1. Ser. No. 61/737,200, filed 14 Dec. 2012 ("First Parent Provisional"); and

2. Ser. No. 61/832,211, filed 7 Jun. 2013 ("Second Parent Provisional");

and hereby claims benefit of the filing dates thereof pursuant to 37 CFR § 1.78(a)(4). (Collectively, "Parent Provisionals"). The subject matter of the Parent Provisionals, each in its entirety, is expressly incorporated herein by reference.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to electrical appliance cooling systems, and, in particular, to an improved appliance immersion cooling system and method of operation.

2. Description of the Related Art

In general, in the descriptions that follow, we will italicize the first occurrence of each special term of art which should be familiar to those skilled in the art of immersion cooling systems. In addition, when we first introduce a term that we believe to be new or that we will use in a context that we believe to be new, we will bold the term and provide the definition that we intend to apply to that term.

U.S. Pat. No. 4,590,538, "Immersion Cooled High Density Electronic Assembly", Cray (filed 18 Nov. 1981 and issued 20 May 1986) ("Cray"), is an early example of an immersion system for cooling electronic components during normal operation. On information and belief, the machine disclosed therein was the Cray-2 super-computer ("Cray-2") manufactured by Cray Research, Inc. ("Cray Research"), of Chippewa Falls, Wis. Of particular interest to the present application is the description of the significant advantages resulting from using an electrically non-conductive or dielectric fluid to extract heat from electronic circuit assemblies during normal operation (see, e.g., col. 1, line 66—col. 2, line 29).

On information and belief, Cray Research released, in 1985, a marketing brochure entitled "The CRAY-2 Computer System" (a copy of which is submitted herewith) describing the Cray-2. Of particular interest in this brochure is the description therein of the significant advantages resulting from using a dielectric fluid to extract heat from electronic circuit assemblies during normal operation (see, pages 10 and 13).

U.S. Pat. No. 5,167,511, "High Density Interconnect Apparatus", Krajewski, et al. (issued 27 Nov. 1992) ("Krajewski"), discloses another example of an immersion system for cooling electronic components during normal operation (see, e.g., col. 2, lines 43-51). On information and belief, a machine implementing the Krajewski system was also marketed by Cray Research as a follow-on super-computer to the Cray-2.

One particular problem in the vertical-stack-type systems disclosed in the above references is the necessity of draining the cooling fluid whenever physical access to the electronic modules was required. In general, such an operation, besides being time consuming, requires the entire system to be switched off, especially if the component requiring attention is an essential element in the system architecture, such as the central processing unit ("CPU"). One possible solution to this problem is to immerse circuit assemblies vertically into a tank containing the cooling fluid such that each of the various assemblies can be withdrawn independently from the tank for servicing, replacement, upgrade, etc. One interesting example of such a system is disclosed in a web-presentation entitled "Puget Custom Computer's mineral-oil-cooled PC", by Nilay Patel ("Puget") (posted 12 May 2007 at 11:57 AM; a copy of which is submitted herewith). As noted by the author, the lack of supplemental apparatus in the Puget system to extract waste heat from the oil inherently limited its operating capabilities.

Another problem with the Cray Research systems in particular is the nature and cost of the chosen cooling fluid: fluorocarbon liquids. As is known, other dielectric fluids, such as mineral oil, have better heat transfer characteristics; of course, being an oil, the use thereof does represent a greater residue problem on modules that may be repairable. Notwithstanding, the Puget system implemented precisely this design choice.

US Patent Application Publication 2011/0132579, "Liquid Submerged, Horizontal Computer Appliance Rack and Systems and Method of Cooling such a Appliance Rack", Best, et al. ("Best"), discloses a appliance immersion tank system, include support apparatus for extracting waste heat from the tank cooling fluid and dissipating to the environment the heat so extracted. Although an improvement in several respects over the prior art discussed above, this system exhibits, inter alia, the following problems: generally non-uniform flow patterns through the several appliance slots within the tank, potentially resulting in uneven cooling across all slots; constricted dielectric fluid supply and return ports resulting in unnecessarily high fluid flow velocities at the respective points of connection to the tank; poor scalability; and inadequate attention to fail-soft operation.

The subject matter of all of the prior art references discussed above, each in its entirety, is expressly incorporated herein by reference.

We submit that what is needed is an improved appliance tank immersion system and method of operation. In particular, we submit that such a system should provide performance generally comparable to the best prior art techniques but more efficiently and effectively than known implementations of such prior art techniques.

BRIEF SUMMARY OF THE INVENTION

In accordance with a preferred embodiment of our invention, . . .

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

Our invention may be more fully understood by a description of certain preferred embodiments in conjunction with the attached drawings in which:

FIG. **1** illustrates, in partial cut-away form, a front perspective of a tank module of an appliance immersion cooling system constructed in accordance with our invention;

FIG. **2** illustrates a rear perspective of the tank module shown in FIG. **1**;

FIG. **3** illustrates a close-up perspective of a detail A of FIG. **2**;

FIG. **4** illustrates a close-up perspective of a detail B of FIG. **2**;

FIG. **5** illustrates, in perspective view, several details of the tank shown in FIG. **1**, with special emphasis on the dielectric fluid recovery weir integrated into the long rear wall of the tank;

FIG. **6** illustrates, in cross-section view, the section C-C in FIG. **5**;

FIG. **7** illustrates, in perspective view, the plenum facility shown in FIG. **1**;

FIG. **8** illustrates, in top plan view, the orifice plate portion of the plenum facility shown in FIG. **7**;

FIG. **9** illustrates, in perspective view, the chamber portion of the plenum facility shown in FIG. **7**;

FIG. **10** illustrates, in top plan view, a plurality of appliance slots distributed vertically along, and extending transverse to, a long axis of the tank of FIG. **1**;

FIG. **11** illustrates, in longitudinal cross-sectional view, the plurality of appliance slots distributed vertically along, and extending transverse to, the long axis of the tank of FIG. **1**;

FIG. **12** illustrates, in flow schematic form, one instantiation of a flow arrangement suitable for implementing our invention; and

FIG. **13** illustrates, in control schematic form, one instantiation of a flow control facility suitable for implementing our invention.

In the drawings, similar elements will be similarly numbered whenever possible. However, this practice is simply for convenience of reference and to avoid unnecessary proliferation of numbers, and is not intended to imply or suggest that our invention requires identity in either function or structure in the several embodiments.

DETAILED DESCRIPTION OF THE INVENTION

Shown in FIG. **1** (front view) and FIG. **2** (rear view) is a tank module **10** adapted for use in an appliance immersion cooling system constructed in accordance with a preferred embodiment of our invention. For convenience of reference, we have illustrated in FIG. **1** the tank facility **12** of the immersion module **10** in partial cut-away to emphasize several important internal facilities; we have shown the tank facility **12** in isolation in FIG. **5**. In general, the tank facility **12** comprises: a tank **14** adapted to immerse in a dielectric fluid a plurality of electrical appliances **16**, e.g., contemporary computer servers (see, e.g., FIG. **11**), each in a respective appliance slot **18***a* distributed vertically along, and extending transverse to, a long axis of the tank **14** (see, generally, FIG. **10**); an appliance rack facility **20** of convention design adapted to suspend the appliances **16** (see, e.g., FIG. **11**) in respective appliance slots **18** (see, FIG. **10**); a weir **22** (best seen in isolation in FIG. **5** and FIG. **6**), integrated horizontally into one long wall of the tank **14** adjacent all appliance slots **18**, and adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each of the appliance slots **18**; an interconnect panel facility **24** attached to the upper rear edge of the tank **14** and adapted to mount various appliance power distribution equipment, cable interconnection panels and the like (none shown); and a cover **26** adapted to be opened and closed from the front of the tank **14** (and which may include a translucent portion to allow viewing of the interior of the tank **14** when in the closed position). In addition to the tank facility **12**, the immersion module **10** comprises: a primary circulation facility **28** (portions of which are shown in both

FIG. **1** and FIG. **2**); a secondary fluid circulation facility **30** (of which only redundant heat exchangers **32***a* and **32***b* are shown in FIG. **2**); and control equipment cabinets **34***a* and **34***b*, each adapted to accommodate the module status and control equipment associated with a respective one of the primary circulation facilities **28***a* and **28***b* (see, FIG. **13**).

As can be best seen in FIG. **2**, the primary circulation facility **28** (comprising redundant sub-facilities **28***a* and **28***b*) comprises both passive (conduits, couplers, etc.) and active (valves, pumps, sensors, etc.) components; a subset of the passive components are shared, whereas, in general, the active components are duplicated and adapted to cooperate in operation as separate, redundant sub-facilities. Excluding the tank **14**, the primary shared component is the plenum facility **36** (see, FIG. **1** and FIG. **7**) comprising an orifice plate **36***a* (see, FIG. **8**) and a plenum chamber **36***b* (see, FIG. **9**). As can be seen in FIG. **1**, cooled dielectric fluid is pumped into both ends of the plenum facility **36** via a shared distribution header **38** (see, FIG. **2** and FIG. **3**). In general, the plenum plate **36***a* comprises at least one row of orifices vertically aligned with each appliance slot **18***a*, with the dimensions and flow rates of each set being adapted to provide substantially equal flow of the dielectric fluid upwardly into each appliance slot **18***a*. Preferably, each appliance slot **18***a* is supplied via several rows of orifices, thus generally tending to reduce the volume of the dielectric fluid exiting each orifice and to make the flow of dielectric fluid more uniform upwardly through the appliance slots **18**. One further shared component is the dielectric fluid recovery facility **40** (FIG. **2**) comprising a dielectric fluid recovery reservoir **42** (see, FIG. **3**, FIG. **4** and FIG. **13**) positioned vertically beneath the overflow lip of the weir **22** and adapted smoothly to receive the dielectric fluid as it flows over the weir **22**; the dielectric fluid recovery reservoir **42** is further adapted to allow the recovered fluid to be removed from the reservoir **42** via redundant recovery ports **44***a* and **44***b* (only port **44***a* can be seen in FIG. **2** as the port **44***b* is obscured by the heat exchanger **32***a*; but see FIG. **12**). As can be seen in both FIG. **3** and FIG. **4**, we consider it desirable to provide a vortex breaker at the input of each of the recovery ports **44**. Also, we provide a removable recovery reservoir cover **46** adapted to also cover a major portion of the distribution header **38**; note that, in both FIG. **2** and FIG. **3**, we have illustrated the reservoir cover **46** in a partially raised orientation so as to better depict details that would otherwise be obscured. Note that we have constructed the reservoir **42** such that the average height of dielectric fluid above the recovery ports **44** develops sufficient hydrostatic head to meet the requirements of the pumps **48**, while also tending to minimize the likelihood of breaking suction during normal operation.

At this point in the primary circulation facility **28**, we provide fully redundant sub-facilities **28***a* and **28***b*, each comprising a primary circulation pump (**48***a* and **48***b*) and associated passive and active components which, collectively, provide the motive power for circulating the dielectric fluid through the shared components and tank **14**. As can be generally seen, each of these sub-facilities **28***a* and **28***b* is adapted to recover the dielectric fluid exiting the tank **14** via the weir **22**, re-pressurize the recovered fluid, pass the re-pressurized fluid through a respective one of the heat exchangers **32***a* and **32***b*, and then back to the plenum facility **36** via the header **38**.

Shown in FIG. **12** is one flow arrangement suitable for integrating our tank module **10** into a fully redundant, appliance immersion cooling system, comprising the primary circulation facility **28** and the secondary fluid circu-

lation facility **30**. In general, the secondary fluid circulation facility **30** comprises redundant secondary circulation sub-facilities **30***a* and **30***b*, each of which is adapted to circulate a cooling fluid, e.g., treated water, through the respective heat exchanger **32***a* and **32***b* to extract heat from dielectric fluid counter-circulating therethrough and to dissipate to the environment the heat so extracted. In the illustrated embodiment, each of the secondary fluid sub-facilities **30***a* and **30***b* comprise conventional cooling towers **50***a* (including fan facility **52***a*) and **50***b* (including fan facility **52***b*), and secondary circulation pumps **54***a* and **54***b*. To facilitate flexible operation in installations including multiple immersion modules **10** in combination with a plurality of secondary circulation sub-facilities **30**, a common header arrangement can be implemented as illustrated in the secondary fluid circulation loop, with flow control valves located at key flow control points as is known.

Shown in FIG. **13** is a control facility **56** adapted to monitor and control the operation of both the immersion module **10** (including all active components of the primary circulation facility **28**), and the secondary fluid circulation facility **30**. As will be evident to those skilled in this art, efficient operation of our immersion module **10** requires continuous monitoring and control of several essential operating parameters, including fluidic temperatures, pressures, conductivity and pH at several points in the primary and secondary circulation loops. Although the several sensory and control functions can be implemented using traditional dedicated hardware components, we prefer to employ at least one programmable logic controller ("PLC"), commercially available from any of a number of respected vendors, e.g., the Allen-Bradley brand of PLCs from Rockwell Automation, Inc. In the instantiation illustrated in FIG. **13**, we have depicted: a primary controller **58***a* adapted to monitor and control the operation of the primary circulation sub-facility **28***a* as a function of the temperature of the dielectric fluid in the tank **14**; a secondary controller **60***a* adapted to monitor and control the operation of the secondary fluid circulation sub-facility **30***a* as a function of the temperature of the dielectric fluid flowing through the heat exchanger **32***a*; and a master controller **62** adapted to coordinate the activities of the primary controller **58***a* and secondary controller **60***a*. As can be seen, we have incorporated into the primary circulation sub-facility **28***a*: supply and return sensors, including a temperature probe, T, inserted into a thermowell (not shown) installed in the bottom of the reservoir **42** adjacent a respective return port **44***a* (note that, in FIG. **4**, only one of the holes that receive the thermowells is illustrated, but both holes are illustrated in FIG. **12**); a pair of sensor facilities, S, which may sense temperature, pressure and conductivity, as deemed desirable); and return (and, if desired, supply) flow control valves and controls for the primary circulation pump **48***a*; of course, a redundant set of these components exists for the primary circulation sub-facility **28***b*. In general, the goal is to maintain the temperature of the dielectric fluid in the tank **14** between a predetermined minimum temperature and a predetermined maximum temperature.

As noted above, we have provided separate control equipment cabinets **34***a* and **34***b*, each adapted to accommodate the several components comprising a respective one of the primary controllers **58***a* and **58***b*. For convenience of access, we prefer to co-locate with each of the cooling towers **50** a protective housing (not shown) for the respective secondary controller **60**. Of course, the control facility **56** can be instantiated as a single, multi-module PLC facility, with similar or other combinations of monitoring devices as deemed most appropriate for a particular installation. Alternatively, one or more, and perhaps all, of the functions performed by the controllers **58**, **60** and **62** may be implemented in the form of dedicated application-specific software executing on a conventional computer platform having the appropriate resources; indeed, it would be entirely feasible to implement the entire control facility **56** on a server **16** installed in a tank **14**.

One desirable enhancement that we recommend is a remote control facility, implemented, e.g., via the master controller **62** (or by way of a direct, per-controller interface), adapted to facilitate remote monitoring of system status (e.g., temperatures, pressures, etc.) and control over system control parameters (e.g., temperature and pressure limits, etc.) to the primary controllers **58** and secondary controllers **60**. For example, using a conventional data communication hardware module **64**, e.g., an ethernet card implementing the TCP/IP protocol, a modern web browser can be adapted to provide a graphical user interface ("GUI") with sufficient functionality to facilitate monitoring and control of an entire installation from a remote location. Such a GUI may be implemented using any of a number of programming paradigms, e.g., PHP, .NET and the like.

Operational control of redundant, continuous process flow systems is generally well known. Preferable, each of the several redundant sub-facilities are routinely activated to assure current functionality, and to allow the inactive sub-facility to be serviced according to an established schedule. We believe this continuous rotation of system resources to be so important that we recommend switching the sub-facilities at least once, and preferably, several times, per day; although this is possible to implement manually, we prefer to enable the master controller **62** to control the sequencing of the several switch-over operations. One further aspect of this sophistication in control is the ability to perform stress testing of the several sub-systems under controlled conditions so as to assure appropriate response to real-time emergencies.

In our First Parent Provisional, we have disclosed an alternate embodiment comprising an appliance immersion tank facility wherein the function of the plenum facility **36** is performed by a manifold facility comprising a ladder-arrangement of tubular spray bars, each bar of which supplies dielectric fluid to a respective appliance slot. As we noted, one particular advantage of this arrangement is that individual spray bars may be shut off if the respective appliance slot is not occupied and, thus, save energy. To further increase energy efficiency, we have provided optional vertical flow barriers adapted to partition the tank into an active portion, having active appliances, and a stagnant portion, having no active appliances. One further enhancement we disclosed is the provision of temperature sensors per appliance slot, such that the flow rate through each spray bar can be dynamically varied as a function of the temperature of the dielectric fluid exiting the respective slot. Other operative configurations will be readily perceived by those skilled in this art.

In a manner analogous to the embodiment described in our First Parent Provisional, it would be advantageous, from an energy point of view, to provide a plurality of flow barrier plates **66** (shown by way of example only in FIG. **11**), each adapted to be attached to the top of the plenum facility **36** so as substantially to block the flow of the dielectric fluid through the row(s) of orifices in the plenum plate **36***a* corresponding to at least a respective one of the appliance slots **18***a*; an elastomeric layer (not shown) could be provided on the interface surface of the plate(s) **66** to enhance

the sealing effect. Such an arrangement would allow the total flow through the plenum facility **36** to be adjusted, in the field, as a function of the actual number of active appliances **16** in the tank **14**. Further, this arrangement can incorporate a relocatable vertical baffle plate **68** (see FIG. **11**) adapted substantially to partition the tank **14** into an active portion **14***a* containing the active appliances **16** and an inactive portion **14***b* containing no appliances (or at least no active appliances **16**); preferably, the baffle plate **68** is adapted to be mounted in the appliance rack facility **28** in a manner similar to an actual appliance **16** (the baffle plate **68** need not fully block the flow of dielectric fluid between the active portion **14***a* and inactive portion **14***b*, but only significantly impede the flow between these portions). Note that, in the example scenario illustrated in FIG. **11**, we have shown one possible arrangement of a total of 8 active appliances **16** distributed across **16** appliance slots **18***a* so as to spread the total heat load across adjacent empty slots **18***a*. Such an optimal arrangement is possible only if less than a majority of the available appliance slots **18***a* are occupied by an active appliance **16**. Clearly, such optional adjunct facilities enhance flexibility in operation, accommodating dynamic adjustment of the flow rates in the primary circulation sub-facilities **28***a* and **28***b* under variable heat loads, while providing opportunities to conserve energy that might otherwise be expended moving the dielectric fluid through the inactive portion **14***b* of the tank **14**. Other operative configurations will be readily perceived by those skilled in this art.

In our Second Parent Provisional, we have disclosed another embodiment comprising a more conventional, less-modularized instantiation with appropriate flow and control facilities. In this embodiment, we chose to implement tank clusters, comprising, e.g., 4 appliance immersion tank facilities, with substantially all of the other equipment being constructed from stand-alone, commercially available components. Such an arrangement offers greater opportunities to select and install improved components, or to add enhancements to the installation, as deemed desirable after initial installation. Other operative configurations will be readily perceived by those skilled in this art.

As we noted above with reference to the embodiment illustrated in FIG. **12**, the secondary flow header facility is well adapted to allow any secondary circulation sub-facility **30** to be connected to any active heat exchanger **32**. Such a facility provides great flexibility in dealing with unusual system conditions, especially in installations wherein the secondary circulation sub-facilities **30***a* and **30***b* are each sized to support a cluster of tank modules **10**. Imagine, for example, that, while one of the secondary circulation facilities **30**, say sub-facility **30***a*, is being serviced, the activities of the set of appliances **16** in one tank **14** in the cluster are higher than normal, resulting in a rise in temperature in that tank **14** above the desired maximum. In response, the master controller **62** can direct Primary Controllers **58***a* and **58***b* assigned to tank **14** to operate both of the primary circulation sub-facilities **28***a* and **28***b* simultaneously, i.e., in parallel. Using the secondary flow header facility, the heat being extracted by both of the heat exchangers **32***a* and **32***b* may be dissipated using the resources of the single on-line secondary circulation sub-facility **30***b*. Thus, one clear advantage of this alternate embodiment is the ability dynamically to perform load balancing across all system resources. Other operative configurations to support sub-system load balancing will be readily perceived by those skilled in this art.

Preferably, one or more filters (not shown) are included in the flow path through each of the primary circulation sub-facilities **28***a* and **28***b* to remove any particulates or other undesirable foreign matter that may have been picked up by the dielectric fluid on its passage though the entire primary circulation facility **28**; chemical sensors may also be provided to detect the presence of unexpected chemicals that may indicate failure of sub-components within one of the appliances **16**. Similar components, such as pH sensors, may also included in the secondary fluid circulation facility **30**.

As can be seen generally in FIG. **1**, we provide a pair of low dielectric fluid level sensors **70***a* and **70***b* adapted to trigger an alarm signal in the event that, for whatever reason, the level of the dielectric fluid in the tank **14** drops below a predetermined minimum level. Additionally, the responsive primary controller **58** can initiate other actions to address the detected problem, including activating audio alarms, transmitting electronic alert signals and the like.

To solve a reciprocal problem, namely leakage from an external portion of the primary circulation loop **28** resulting in the dielectric fluid in the tank **14** being back-siphoned through the plenum facility **36**, we recommend incorporating a siphon breaker **72** (see, FIG. **1**) in the supply pipe at a predetermined location well above the plenum facility **36** but somewhat below the level of the weir **24**. Such a siphon breaker can be as simple as a relatively small diameter hole **72** drilled through the supply pipe at the selected location; due to the relatively high viscosity of the dielectric fluid, even when heated, any resulting leakage during normal operation will be relatively insignificant. Other operative responses to address these and other unusual fluidic conditions will be readily perceived by those skilled in this art.

As is known (see, e.g., Best), many conventional, commercially available electrical/electronic appliances include components that will not function correctly if immersed in a dielectric fluid, especially one as viscous as mineral oil: cooling fans and rotating media disk drives. In general, all cooling fans are unnecessary in an immersion cooling system and can be simply removed. The media drives, however, are usually necessary for normal appliance operation. One option is to remove each drive, totally seal the drive against fluid entry, and reinstall the now-sealed drive (pre-sealed drives are also available). Another option is to remove the drive and mount it on the interconnect panel facility **24**; typically special cabling will be required to re-attach the drive to the internal appliance socket. Yet another option is to replace the rotating media drive with a solid-state drive having no moving components. Other operative configurations will be readily perceived by those skilled in this art.

It will be recognized that, in all of the embodiments described herein, emphasis was placed on minimizing the total volume of the dielectric fluid circulating throughout each immersion module **10**. We submit that the key concept here is to move the secondary fluid to the point of heat exchange with the primary fluid, rather than to move the primary fluid to the point of heat exchange with the secondary fluid. Thus, in our preferred embodiment, all of the essential components of the primary circulation facility **28** are tightly co-located with the tank **14** so as to form a highly-integrated module. Further, our placement of the reservoir **42** outside of (but immediately adjacent to) the tank **14** tends to reduce the total volume of the dielectric fluid (as opposed to the alternative arrangement we proposed in our First Provisional, wherein a recovery trough was disposed within the tank **14**); then, we positioned the components comprising the primary circulation sub-facilities **28** so as to be vertically beneath the footprint of the reservoir

42. In addition to conserving valuable floor space in a typical data center installation, the resulting modular configuration facilitates both easy initial installation and subsequent upgrade to efficiently satisfy increasing data center workloads. Indeed, our invention greatly enhances system scalability, a key concern to data center operators. Finally, our system-wide redundancy substantially assures fail-soft operation during periods of unusual environmental conditions, infrastructure instability or political unrest.

Although we have described our invention in the context of particular embodiments, one of ordinary skill in this art will readily realize that many modifications may be made in such embodiments to adapt either to specific implementations. By way of example, it will take but little effort to adapt our invention for use with electronic appliances other than contemporary servers; and to adjust the dimensions of the appliance accommodation slots accordingly. Similarly, practitioners in the art will readily recognize that other, known secondary circulation facilities may be employed effectively, including forced air, vapor compression systems, earth-water sink loops, waste heat recovery and recycling systems, and the like (see, e.g., the several alternatives discussed in Best). Further, the several elements described above may be implemented using any of the various known manufacturing methodologies, and, in general, be adapted so as to be operable under either hardware or software control or some combination thereof, as is known in this art.

Thus it is apparent that we have provided an improved system and method of operation for immersion cooling of appliances and the like. In particular, we submit that such a method and apparatus provides performance generally comparable to the best prior art techniques but more efficiently and effectively than known implementations of such prior art techniques.

What we claim is:

1. An appliance immersion cooling system comprising:
- a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank, the tank comprising:
  - a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot;
- a primary circulation facility adapted to circulate the dielectric fluid through the tank, comprising:
  - a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot;
- a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulating in the primary circulation facility, and to dissipate to the environment the heat so extracted; and
- a control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

2. The system of claim 1 wherein the tank and primary circulation facility comprise a tightly co-located module.

3. The system of claim 1 wherein the tank further comprises:
- an interconnect panel facility adapted to mount appliance support equipment.

4. The system of claim 1 wherein the primary circulation facility further comprises:
- at least first and second primary circulation sub-facilities, each adapted to operate independently to circulate the dielectric fluid through the tank;
- wherein the control facility is further adapted to coordinate the operation of the first and second primary circulation sub-facilities and the secondary fluid circulation facilities so to maintain the temperature of the dielectric fluid in the tank substantially between a predetermined minimum temperature and a predetermined maximum temperature.

5. The system of claim 1 wherein the control facility further comprises a communication facility adapted to facilitate monitoring and control of the control facility from a remote location.

6. A tank module adapted for use in an appliance immersion cooling system, the tank module comprising:
- a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank, the tank comprising:
  - a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot;
- a primary circulation facility adapted to circulate the dielectric fluid through the tank, comprising:
  - a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot; and
- a control facility adapted to control the operation of the primary fluid circulation facility as a function of the temperature of the dielectric fluid in the tank.

7. The module of claim 6 wherein the tank and primary circulation facility comprise a tightly co-located module.

8. The module of claim 6 wherein the tank further comprises:
- an interconnect panel facility adapted to mount appliance support equipment.

9. The module of claim 6 wherein the primary circulation facility further comprises:
- at least first and second primary circulation sub-facilities, each adapted to operate independently to circulate the dielectric fluid through the tank;
- wherein the control facility is further adapted to coordinate the operation of the first and second primary circulation sub-facilities so to maintain the temperature of the dielectric fluid in the tank substantially between a predetermined minimum temperature and a predetermined maximum temperature.

10. The module of claim 6 wherein the control facility further comprises a communication facility adapted to facilitate monitoring and control of the control facility from a remote location.

* * * * *

EXHIBIT 3

FILED UNDER SEAL

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

EXHIBIT 4

FILED UNDER SEAL

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

EXHIBIT 5

FILED UNDER SEAL

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

EXHIBIT 6

FILED UNDER SEAL

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

EXHIBIT 7

FILED UNDER SEAL

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

EXHIBIT 8

FILED UNDER SEAL

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

EXHIBIT 9

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

MIDAS GREEN TECHNOLOGIES, LLC *
*
VS. *
*
RHODIUM ENTERPRISES, INC., ET AL. *

April 9, 2024

CIVIL ACTION NO. 6:22-CV-50

BEFORE THE HONORABLE ALAN D ALBRIGHT
PRETRIAL HEARING (via Zoom)

APPEARANCES:

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Proceedings recorded by mechanical stenography, transcript produced by computer-aided transcription.

09:33 (Hearing begins.)

09:33 DEPUTY CLERK: A civil action in Case 6:22-CV-50, Midas Green Technologies, LLC versus Rhodium Enterprises, Incorporated, et al. Case called for a pretrial conference.

09:33 THE COURT: If I could have announcements from counsel, please.

09:33 MR. SMITH: Your Honor, for plaintiff Midas Green, Michael Smith. And with me today are Mr. Joe Thomas, Mr. Bill Kolegraff, and Mr. Grant Thomas; and we're ready to proceed.

09:33 MR. UNDERWOOD: Good morning, Your Honor. Travis Underwood on behalf of the Rhodium defendants. With me is my law partner Melissa Smith. We also have from the Stris & Maher firm our lead counsel, Liz Brannen, along with two other members from her firm, Peter Brody and Sarah Rahimi; and we're ready to proceed.

09:34 THE COURT: With this group, I feel like I'm an honorary Eastern District of Texas judge. What an honor. If I could have only been picked to serve there.

09:34 I will take up first the motion to correct inventorship. And I'll hear argument on that, please.

09:34 Mr. Thomas, I think that's you, or Mr. Kolegraff. Okay.

09:34 MR. KOLEGRAFF: Good morning. This is William Kolegraff.

09:34 THE COURT: Good morning to you, sir.

09:34 MR. KOLEGRAFF: Yes. So this patent was originally issued with seven named inventors. However, during the process of preparing for this case for trial, we discovered that six of the inventors should not have been named. We provided a correction of inventorship document, which was sent to the Patent and Trademark Office about a year ago. We're still waiting to hear back from them.

09:35 So what we did is, in an abundance of caution, just in case we don't get this resolved by the PTO by the time trial starts, we've asked the Court to order the director of the office to correct the inventorship. So right here, we believe we've met our burden for clear and convincing evidence. Every one of the --

09:35 THE COURT: Does that mean I get to tell Kathi Vidal what to do, or is it someone else?

09:35 MR. KOLEGRAFF: Yes. You do. I could help draft that order for you.

09:35 (Laughter.)

09:35 MR. KOLEGRAFF: But we do believe we've met the burden for clear and convincing evidence. First of all, the package that we have duplicated for you in the filing is the exact package that we submitted to the Patent and Trademark Office, which meets all the statutory requirements. All the six inventors that are being removed have signed declarations that they agree that they should be removed from the patent.

09:35 The remaining inventor, Christopher Boyd, has agreed that he is the sole inventor. And Midas Technology, the assignee of all the rights in interest in the patent, has also agreed to this change. So we don't see any reason why this can't be allowed because there's clear and convincing evidence to remove these inventors.

09:36 Now, Rhodium does try to muddy the water and they bring up the names of two other people that they say may be inventors, Rainone and Christian Best. That really is irrelevant to this particular motion.

09:36 This motion is merely to remove six named inventors that were wrongly named on the patent, and if they believe others should be added, then they can take that up at a separate -- separate matter. And just as a point of interest, they don't have any standing to do

09:36 this anyway because they don't represent Rainone or
09:36 Christian Best, as far as we know.
09:36 THE COURT: Okay. Response?
09:36 MS. BRANNEN: Good morning, Your Honor.
09:36 Elizabeth Brannen from Stris & Maher on behalf of the
09:37 Rhodium defendants.
09:37 I guess we really should have briefed the
09:37 point about Ms. Vidal, who -- Director Vidal, who I
09:37 remember fondly as Kathi Kelly Lutton, but the reason
09:37 we think this Court should not tell her agency what to
09:37 do:
09:37 First of all, I think they say in their
09:37 reply, they expect the agency to rule soon anyway. So
09:37 there is the chance that we can just see what the
09:37 Patent Office does. But the reason I would ask the
09:37 Court to deny the motion is that the correct
09:37 inventorship is a disputed issue in our litigation.
09:37 We do contend that there are two omitted
09:37 inventors, who they're not even trying to add. And we
09:37 don't think the record that they've submitted to this
09:37 Court even tries to meet their clear and convincing
09:37 burden to prove that all six of the guys they say
09:37 should come off actually didn't contribute.
09:37 You know, two of them, and we've cited
09:37 examples in our brief, testified that they contributed

09:37 to conception of one or more aspects of the claimed
09:38 invention. So I don't -- if you grant the motion, we
09:38 don't believe you'd be correcting anything. We just
09:38 don't think they met their burden. And at this point,
09:38 it may be best to see what the agency does.
09:38 THE COURT: Anything else from the
09:38 plaintiffs?
09:38 MR. KOLEGRAFF: Yeah. Just on the issue
09:38 of disputes of inventorship, there is no dispute on the
09:38 removal of these six. Those six, all six, have agreed
09:38 to do this. All six have testified that they're not
09:38 inventors. All six have testified that they are
09:38 comfortable with, and believe it's correct, that
09:38 Christopher Boyd is the sole inventor.
09:38 That's all, Your Honor.
09:38 THE COURT: Anything else?
09:38 MS. BRANNEN: Your Honor, in our brief,
09:38 we cited testimony from two of them to the effect that
09:38 they contributed to conception, and so that would not
09:38 make it proper to remove them. We don't think they've
09:38 met the clear and convincing burden.
09:38 THE COURT: Okay. I'll be back in a
09:38 second.
09:38 (Pause in proceedings.)
09:43 THE COURT: Okay. I'm going to grant the

09:43 dismissal of the six; but with regard to the additional
09:43 two, I'm not sure -- I'll hear from defendant. I'm not
09:43 sure, procedurally, that issue is in front of me. I
09:43 don't think you're raising it in a response to a motion
09:43 properly put in front of me.
09:44 I'm really asking you. Is that wrong?
09:44 I'm thinking if it were, like, in a pleading or
09:44 something, it would be in front of me, or it's an issue
09:44 that the Patent Office should take up.
09:44 MS. BRANNEN: Good morning, Your Honor.
09:44 I think we would agree that doesn't -- the point I was
09:44 trying to make on this motion is, it wouldn't, from our
09:44 perspective, be a correction. So we were hoping the
09:44 Court would deny this motion on that basis. But I
09:44 think we can present evidence to the jury about whether
09:44 the patent is invalid for failure to list those two
09:44 individuals who we believe should be listed, who
09:44 they're not even asking you to add.
09:44 THE COURT: And have you raised that
09:44 issue formally in the case?
09:44 MS. BRANNEN: We have, Your Honor.
09:44 THE COURT: Okay. Okay. Well, then
09:44 we'll take that up at trial.
09:44 Next up, I have -- give me one second --
09:44 the motion to exclude rebuttal report and testimony of

09:44 Dr. Alfonso Ortega.

09:45 And for the record, I have: Paragraphs 91, 92, 133 through 146, 178, 184, 189 and 90, 213, 222, 239 and 277.

09:45 I'll hear argument on that, please.

09:45 MR. THOMAS: Good morning, Your Honor. Joseph Thomas on behalf of the plaintiff Midas Green Technology.

09:45 Your Honor, this is a case that is, in my 40 years of practice, I've never seen. A law firm directly engage a party who was supporting an expert and use the privilege to shield from discovery all communications, all test data, all test parameters, and produce nothing but a simple result file, which is what happened here today -- or happened in this case.

09:46 We think the law's very clear under Rule 26 that anything the expert relies upon must be produced in a case, and had Mr. Ortega functioned, as the defendants claim, as his support staffer -- is the term that they've used -- all of this would have been discoverable, none of this would have been hidden from us.

09:46 And as it stands, the only thing we have access to is a simple result file that, of course, shows a result that Dr. Ortega likes and counsel for

09:46 Rhodium likes, but none of the underlying test
09:46 parameters, test conditions, test failures, the
09:46 convergence data has been produced. And this kind
09:46 of -- I guess it's almost a policy argument, I mean,
09:46 whether the Court would sanction and allow lawyers
09:46 to --
09:46 THE COURT: I got it. I got it.
09:47 Is there anything else you need to add?
09:47 MR. THOMAS: No, Your Honor. We briefed
09:47 this and it seems like you've read it. I would just
09:47 point out, we think the Cellular Communications
09:47 Equipment case is really on point here, and this report
09:47 should be excluded.
09:47 THE COURT: The portion -- the paragraphs
09:47 I just read out should be excluded, right?
09:47 MR. THOMAS: Well, we think the --
09:47 there's a basis to exclude the entire report. We've
09:47 also, alternatively, cited specifically paragraphs that
09:47 rely on and use in reference to this CFD report. I can
09:47 recite those for you if you want, Your Honor. They're
09:47 in our moving papers.
09:47 THE COURT: No. I -- okay.
09:47 I'll hear a response.
09:47 MS. BRANNEN: Good morning, Your Honor.
09:47 We think that the criticisms are wrong on

09:47 1 the facts about what happened, and also about the law.
09:47 2 So Dr. Ortega, to start with, opines that limitations
09:48 3 of the patent claims are missing and this motion, as I
09:48 4 think the Court has observed, only affects one
09:48 5 limitation, the plenum limitation.
09:48 6 And what Dr. Ortega did for that
09:48 7 limitation, it requires a plenum at the bottom of the
09:48 8 tank; and that has to be adapted to dispense the
09:48 9 dielectric fluid in the tank substantially uniformly
09:48 10 upwardly through each appliance slot.
09:48 11 The first thing that Dr. Ortega did was
09:48 12 to look at the design of the tank, the thing they're
09:48 13 pointing to is the plenum. One part of it has a bunch
09:48 14 of holes in it and it's designed to send the fluid
09:48 15 where things are hottest and need to be cooled the
09:48 16 most.
09:48 17 And he used his expertise to say this --
09:48 18 you know, this doesn't go substantially uniformly
09:48 19 upwardly. He reached that conclusion separately on the
09:48 20 plenum limitation.
09:48 21 Then he used data from the CFD analysis
09:48 22 that they challenge. Now, whether they're right, that
09:49 23 the -- his graduate student, who he trained how to do
09:49 24 CFD -- whether they're right, that that was an
09:49 25 independent expert, nontestifying expert, or whether

09:49 1 we're right, that that was his support staff, his
09:49 2 graduate student, the standard for what we had to do
09:49 3 was the same. Any of the data that Dr. Ortega relied
09:49 4 upon, reviewed and relied upon, we had to produce to
09:49 5 them. And we did that.
09:49 6 And their motion says we didn't give CAD
09:49 7 files, for example. That's flatly wrong. We can look
09:49 8 at their own expert's report at Paragraphs 132 and 52,
09:49 9 and he cites those CAD files because we produced them
09:49 10 in November.
09:49 11 They're also -- they also try to say that
09:49 12 there was cherry-picking. No. Dr. Ortega said,
09:49 13 here's -- that's a very large set of data. I want to
09:49 14 see the part that's right -- you know, he chose the
09:49 15 place he wanted to see it based on the claim language,
09:49 16 which requires the fluid to be going substantially
09:50 17 uniformly upwardly through the appliance slot.
09:50 18 That data that he relied upon, we have
09:50 19 produced to them. They never asked for additional data
09:50 20 from us in discovery. They never used this Court's
09:50 21 robust and efficient discovery dispute processes to say
09:50 22 we should have given them anything more.
09:50 23 And they're just wrong that
09:50 24 communications with support staff or nontestifying
09:50 25 experts get produced under Rule 26. They don't. The

09:50 thing that gets produced is what we have produced, what
09:50 the expert relied upon.
09:50 There is a case in response to the
09:50 argument they make in reply that I would like to call
09:50 the Court's attention to where the fact pattern is very
09:50 similar and the expert who was undisclosed was found to
09:50 be -- there was no exclusion of the testifying expert's
09:50 report. That is National Wildlife Insurance Company
09:50 versus Western National Life Insurance Company. It's a
09:51 2011 case, 2011 Westlaw 840976, from the Western
09:51 District of Texas on March 3rd of 2011.
09:51 And there is also a major goose/gander
09:51 violation going on here, because we haven't had a
09:51 privilege log or the production of any communications
09:51 with the support staff of any of Midas Green's experts.
09:51 They want to have their Dr. Lee testify
09:51 about claim charts that he admittedly did not prepare.
09:51 They want to have their damages expert Mr. O'Bryan be
09:51 able to rely on hearsay from his subordinates.
09:51 So with everything going on, there's
09:51 certainly no basis, no authority whatsoever, for
09:51 excluding the entirety of Dr. Ortega's opinions. But
09:51 even his opinions about the CFD that they're
09:51 challenging, there is no basis to exclude those, not
09:51 under the facts of what actually happened and not under

09:52 the law of what Rule 26 protects from discovery and
09:52 what it allows to be discoverable.
09:52 THE COURT: I'll be back in just a
09:52 second.
09:52 (Pause in proceedings.)
09:52 THE COURT: The Court is going to grant
09:52 the motion with respect to those paragraphs.
09:52 With respect to the issues that counsel
09:52 brought up at the end under the goose/gander standard,
09:52 if you have issues with what they've done, I'll
09:53 certainly entertain those separately.
09:53 Next I have the motion to exclude
09:53 Dr. Pokharna.
09:53 MS. BRANNEN: Good morning, Your Honor.
09:53 We are asking to control aspects of
09:53 Dr. Pokharna's expert report that we learned about for
09:53 the first time in the -- in his report itself that were
09:53 not in the final infringement contentions and also to
09:53 exclude his opinion about a system at the Temple
09:53 facility of my client that is admittedly inoperable
09:53 because they ran out of money and they never actually
09:53 finished installing what is accused. And so we think
09:53 it would not be -- it's just unreliable to convene a
09:53 jury, and there's no fact issue over that.
09:53 So to start with the new opinions that

09:53 1 were undisclosed, we set those forth in our brief, but
09:54 2 I would point out, Your Honor, this is a case where
09:54 3 they didn't even tell us they were planning to amend
09:54 4 the contentions. They didn't move to amend earlier,
09:54 5 give us any warning.
09:54 6 And so the prejudice that we are
09:54 7 complaining about is that if we had known that these
09:54 8 theories might be something Dr. Pokharna would present,
09:54 9 we would have had the ability to take fact discovery
09:54 10 and conduct our fact discovery with that in mind.
09:54 11 And it's not a simple case of just
09:54 12 getting to depose Dr. Pokharna again for an hour.
09:54 13 There are seven named inventors, six of whom are coming
09:54 14 off. There were two -- there was a corporate witness
09:54 15 for Midas Green and another witness for Midas Green
09:54 16 about their systems. There were many Rhodium
09:54 17 witnesses.
09:54 18 It's just really unfair, and it shows a
09:54 19 disrespect for the rules to have not even alerted us
09:54 20 that they wanted to amend the final infringement
09:54 21 contentions and to disclose these theories for the
09:54 22 first time there.
09:54 23 With regard to the systems that are
09:55 24 inoperable, that's just silly to have a trial about
09:55 25 that. There's no fact dispute over that, and it would

09:55 1 be a waste of judicial and party resources to do it.
09:55 2 So we would ask that that not -- you
09:55 3 know, the system was over two years ago. Our client
09:55 4 concededly ran out of money, never installed it.
09:55 5 Their expert has conceded it cannot
09:55 6 measure temperature. It's not wired in. There's just
09:55 7 nothing to present to the jury.
09:55 8 And it would be unreliable for
09:55 9 Dr. Pokharna to opine that systems in that state
09:55 10 practice any of the limitations.
09:55 11 THE COURT: A response?
09:55 12 MR. KOLEGRAFF: Yes. This is William
09:55 13 Kolegraff.
09:55 14 First of all, there's absolutely no --
09:55 15 nothing was hidden here from them. There's nothing new
09:55 16 that was put in Dr. Pokharna's report. For example,
09:55 17 this whole idea that Prime Controls, they were
09:55 18 surprised about, is, well, just very surprising.
09:56 19 Because on March 15th, 2023, we fully set
09:56 20 out to them in a supplement to Interrog 4 (sic), which
09:56 21 is Exhibit D here, the exact way that the Prime
09:56 22 Controls was set up and that Prime Controls was going
09:56 23 to be the infringing set of devices.
09:56 24 In response to our having done that
09:56 25 supplement to Rog 10, they came back in their

09:56 Supplement Rog 1 and said: As a result of the system
09:56 described in plaintiff's supplemental response to
09:56 Interrogatory No. 10 and accused in plaintiff's final
09:56 infringement contentions...
09:56 They admitted that what was in the final
09:56 infringement contentions were these Prime Control
09:56 devices. So there's absolutely no surprise here.
09:56 Also, this actually is in the
09:56 contentions. We don't say the name "Prime Controls"
09:56 with the name "Prime Controls," but it's actually set
09:56 out that says: The control -- from the contentions --
09:57 the control facility includes an automated controlling
09:57 with software that measures and monitors and controls
09:57 the pumps, dry coolers, and temperature of the fluid.
09:57 That's exactly what the Prime Control
09:57 systems does. So Prime Control has been fully set out,
09:57 including Exhibit E, which is a manual that we have
09:57 cited to, that is the exact Prime Controls manual.
09:57 As far as the Kelvion coolers, in the
09:57 contentions themselves, we lay out that there are two
09:57 Kelvion coolers. There's a Guntner coolers at the
09:57 Rockdale facilities; there's Kelvion coolers at the
09:57 Temple facility. And they form the second -- secondary
09:57 cooling facility.
09:57 Again, those are fully disclosed in the

09:57 contentions, and they were the basis for Dr. Pokharna's report.

09:57 As far as what was installed not being reliable, yes. It is true that they installed significant portions of the Prime Control systems at Temple, and then because they ran out of money, they did delay that process.

09:58 However, we do know that there is evidence that says that they are planning on re- -- turning that system on -- finishing that system and turning it on later.

09:58 So they have substantially installed the Prime Control systems. They're on the 99-yard line. They just haven't flipped the actual switch.

09:58 The system is still adapted to -- it's still capable of taking these measurements once they finish and flip the switch.

09:58 So they also have this issue where they don't believe that we have disclosed the slots, that they were surprised that we have the slots.

09:58 Well, again, if you look through the -- our opposition, we put pictures of the slots in the first amended complaint. We had -- in our supplement to No. 4, we actually had a picture of the tape with red lines showing where the slots were.

09:59 There's absolutely no surprise whatsoever to anything in the -- Dr. Pokharna's report.

09:59 THE COURT: I'll be back in just a second.

09:59 (Pause in proceedings.)

10:00 THE COURT: The Court grants that motion.

10:00 The next motion we have up is the motion the exclude James Lee. I'll hear from defendants on that.

10:00 MS. BRANNEN: Your Honor, on this motion, we had two aspects of it. Sorry. For a moment, I wasn't sure if you were calling on us or the other counsel.

10:00 But the first aspect is a correction -- what they call a correction, but it's really an addition to Dr. Lee's report that he served at the end of a deposition.

10:00 Their position just doesn't make any sense on this. They argue simultaneously that it is duplicative of what was already in his report and that it's necessary.

10:01 It can't be both. And all I know is that it's too late, and we ask Your Honor to exclude it.

10:01 The other thing that we are focusing on in this motion is the fact that Dr. Lee is their

10:01 rebuttal expert, not their opening expert.

10:01 And he gave an opinion that based on charts that he did not prepare, that apparently counsel prepared, as they say they had been produced in discovery, he gave an opinion that Midas' products practice the patents.

10:01 We think that opinion is unreliable. But in any event, it's too late -- too late for their damages expert, their opening expert to have relied upon it.

10:01 And that's basically about it for that opinion. It's not plausible, and it also is too late for the purposes they want to use it for in the case.

10:02 THE COURT: Who's going to respond to this?

10:02 MR. THOMAS: Joseph Thomas.

10:02 THE COURT: Is there any reason why -- I think I've gone over this -- why this couldn't be taken care of by just allowing this gentleman to be deposed now?

10:02 I'm asking you, Counsel.

10:02 MR. THOMAS: You're asking Mr. Thomas?

10:02 THE COURT: I'm asking you. I'm asking you. I don't know how to make it any clearer. I'm asking you to respond.

10:02 MR. THOMAS: The -- Mr. Thomas. Yes.

10:02 THE COURT: Yes.

10:02 MR. THOMAS: We're happy to let him be deposed again if they want to. We don't think they need to. They had his --

10:02 THE COURT: Well, I'm -- stop while you're ahead. I'm going to allow them -- I'm going to deny the motion and allow them to depose the witness.

10:02 Now, going back to Mr. -- or Dr. Pokharna. Is he your only infringement expert?

10:03 MR. THOMAS: Yes.

10:03 THE COURT: So what I'm going to do is -- it will obviously impact the trial setting, but I'm going to allow you to amend his report, see if you can fix it. And you all will need to get together with opposing counsel and figure out how long you think it'll take for Dr. Pokharna to address any of the issues that you think would make his opinion survive a future challenge.

10:03 And then y'all can set up a schedule to figure out how to deal with that in terms of rebuttal reports and all that. So I'm going to allow him to amend his report.

10:03 Next up I have the motion to exclude -- I don't know if it's a doctor or not. I don't think it

10:03 is -- Duross O'Bryan. This is the defendants' motion.

10:04 MS. BRANNEN: Thank you, Your Honor.

10:04 THE COURT: This one -- this one has both lost profits and a reasonable royalty analysis.

10:04 MS. BRANNEN: That's correct.

10:04 Is my screen successfully sharing? We prepared a few slides on this one.

10:04 Midas' damages opinion -- damages expert makes four main errors that we believe are substantial and not just matters that we should have to cross them on, Your Honor. The first error pervades both his lost profits and his reasonable royalty damages.

10:08 (Clarification by Reporter.)

10:08 (Recess taken.)

10:08 THE COURT: Let's go back on the record.

10:08 MS. BRANNEN: Thank you, Your Honor. This is Elizabeth Brannen, addressing the motion to exclude Midas' damages expert, Mr. O'Bryan.

10:08 The first error he made pervades his lost profits and reasonable royalty opinions, both of them. And he basically doubles his damages number by assuming that Rhodium would continue infringing for almost three years past trial, even if there's a jury verdict of infringement.

10:09 Now, the patent -- he's -- the patent

10:09 doesn't expire till something like 2035. He's not
10:09 giving an opinion about a fully paid-up license. This
10:09 is something different going on. He's saying he has
10:09 the ability to award damages after trial based on
10:09 speculation that my client would continue to infringe.
10:09 And there's just no basis for that. Certainly no
10:09 reliable basis.
10:09 If we look at the basis he said he had --
10:09 I'll try sharing my screen here to put some of this --
10:09 make some of this visible -- he's relying only on a
10:09 single projection, and that projection is something
10:09 that Rhodium filed in connection with a potential
10:09 merger transaction. And that document just says that
10:09 Midas -- that Rhodium -- excuse me -- plans to expand
10:09 its operations to full capacity if the merger goes
10:10 through.
10:10 Well, two problems. First of all,
10:10 expanding your operations doesn't say anything about
10:10 whether you would continue infringing or ignore an
10:10 infringing verdict. And even more importantly, that
10:10 merger never happened. It was canceled. And
10:10 Mr. O'Bryan omitted the -- didn't take into account the
10:10 fact that he just assumed that --
10:10 THE COURT: Let me interrupt you and hear
10:10 a response to that argument.

10:10 MR. THOMAS: Your Honor, the representations made in that S-1 were for a merger that was canceled, but the representations were not conditional. They did not say, If we get the merger, we'll do this expansion. They just said that our business plan is to expand.

That's what they told their investors. They had existing investors and the prospective new investors through the merger. So those representations are from Rhodium of their own expansion plans, which are reasonable for Mr. O'Bryan to rely upon.

THE COURT: Did he or did he not rely on that merger when he -- when he comes in and he says, This is what I did. I looked and there's this document that shows there's going to be a merger and -- to rely on and the merger didn't happen, is that what he's going to say?

MR. THOMAS: No. He's going to say these are representations that they issued that were not conditioned upon the merger. They were made in the public forum. And I'm going to rely on their representations to their investors that they had a plan -- they have a plan to expand.

THE COURT: Okay. Is there anything else you'd like to say with respect to the lost profits

10:11 argument that the defendant is making?

10:11 MR. THOMAS: Yes, Your Honor. The lost profit analysis was done correctly. It was based on information that was available to the experts. Both sides' experts have acknowledged there are no licenses. This is relatively brand-new technology in this field. This immersion cooling technology hasn't been licensed.

10:12 Mr. O'Bryan properly used the sales of the product as a basis, and there's good case law we cited for him to rely upon the sales as a basis to determine the reasonable royalty, and the profits from those sales to support that reasonable royalty analysis.

10:12 THE COURT: Would you give me an example?

10:12 MR. THOMAS: Yes. They -- they -- our deadlines made a significant sale to a company known as RITE. It's a public company. It's one of the largest bitcoin mining companies in the -- North America, if not the U.S. -- if not nationally -- internationally.

10:12 And those sales occurred well within months or within a year or so of the time that the license would have been negotiated. And under the Book of Wisdom, Mr. O'Bryan used those sales to forecast what the expected profits would be of my client in terms of making assumption on how to --

10:13 THE COURT: How does the Book of Wisdom, what does that have to do with lost profits?

MR. THOMAS: Well, the lost -- we believe that the sale of the --

THE COURT: No, no. What does the book of profits -- what does that have to do with lost profits? I don't understand.

MR. THOMAS: Well, the -- we believe that the case law allows Mr. O'Bryan --

THE COURT: Tell me any case that discusses the Book of Wisdom in a context of lost profits.

MR. THOMAS: Okay. Well, Your Honor, we don't need the Book of Wisdom. Rhodium installed 200 megawatts. He's using their actual installation as the basis to determine a sale that would have been made by my client to Rhodium of those products. And using those -- that sales information, he projected his lost profits.

THE COURT: Okay. I'll be back in just a second.

(Pause in proceedings.)

THE COURT: This question is for -- sorry for all the coughing -- either party, but I'll start with the party that is moving for this, the defendant.

10:15 What specific paragraphs in his -- in the
10:16 report are you asking me to strike on lost profits?
10:16 Can you articulate those into the record?
10:16 MS. BRANNEN: Your Honor, I would need a
10:16 moment to pull it up and articulate them into the
10:16 record, but we're asking to strike his entire lost
10:16 profits opinion, because he has no basis --
10:16 THE COURT: Is it -- I'm sorry. Is it
10:16 divided up, lost profits -- I'm making this up --
10:16 Page 1 through 10, reasonable royalty, 11 through 20.
10:16 Is it -- is it that clean?
10:16 MS. BRANNEN: I believe it's fairly
10:16 clean. Let me show my screen to give an example of one
10:16 page. Let me see if I can do it.
10:16 So here's an example of a table in his
10:16 report. And he's very clear at the top about what his
10:16 reasonable royalty number is. And then underneath
10:16 that, he's clear -- he's got a separate line item for
10:16 what his lost profits opinion is. And so the report is
10:16 well organized in the sense that his lost profits
10:16 opinions are coherent. And I apologize that I don't
10:17 know exactly those, but if we take a short break, I
10:17 can --
10:17 THE COURT: Here's what I'm going to do.
10:17 We've gone over -- I'm going to grant the motion with

10:17 respect to lost profits. Same deal. If the
10:17 defendant -- I'm sorry -- the plaintiff wants to have
10:17 their expert redo the lost profits and try and go
10:17 again, that's fine. You all need to figure out how to
10:17 do the schedule.
10:17 I'm going to deny the motion with respect
10:17 to the -- his reasonable royalty calculations.
10:17 Next up, I have the motion for summary
10:17 judgment of noninfringement. I'll hear from the
10:17 defendant on that, please.
10:17 MS. BRANNEN: Thank you, Your Honor.
10:17 May I clarify the Court's ruling on
10:17 Mr. O'Bryan? The posttrial damages period that he has
10:17 is in his lost profits, but it also pervades his
10:18 reasonable royalty. Is there a separate ruling on the
10:18 aspect of damages --
10:18 THE COURT: So I usually don't have a
10:18 problem with the jury answering future reasonable
10:18 royalty, because then at least we have a reasonable
10:18 royalty rate. And if the plaintiff is successful, then
10:18 the jury will have spoken as to the reasonable royalty
10:18 rate, which is probably what I would consider applying
10:18 on damages going forward, if you continued to make
10:18 sales.
10:18 And they're not going to get those

10:18 damages, future damages, unless you -- the sales were
10:18 actually made. And the way I've done it in the past,
10:18 both as a lawyer and as a judge, is let's say plaintiff
10:18 wins. Reasonable royalty rate -- I'll make up
10:18 something -- 5 percent. I would allow you -- allow the
10:18 defendant to continue to sell and -- but they would
10:18 have to put into the registry of the Court the
10:19 6 percent. If you stopped selling, there would be no
10:19 future damages under a reasonable royalty deal. Does
10:19 that sound -- is that what you were asking me?
10:19 MS. BRANNEN: Thank you, Your Honor.
10:19 Yes. I think it clarifies it. In other words, as I
10:19 understand it, lost profits, they've got to completely
10:19 redo it if they want to try to get it in.
THE COURT: Correct.
10:19 MS. BRANNEN: Reasonable royalty, they --
10:19 THE COURT: And I'll say right now, lost
10:19 profits -- is there -- let me ask the plaintiffs: Is
10:19 there no request for an injunction here?
10:19 MR. THOMAS: No. No, Your Honor. There
10:19 isn't.
10:19 THE COURT: Okay. Is there a reason
10:19 there's not a request for injunction?
10:19 MR. THOMAS: I'm sorry. I misspoke.
10:19 There is a request for an injunction.

10:19 THE COURT: Okay. So generally speaking again, what I will do is, with regard -- if it's a lost profits, I probably will have to -- I probably won't give them a question on future lost profits, but again, and this is because we don't know whether there'd be any, I will take up the injunction question because you all, I assume, are competitors or you wouldn't have lost profits.

And so but I will -- so don't anticipate getting a lost profits question going forward, but if you can redo it and you think you can get past a Daubert challenge, I'll do it for both prior. And then if -- again, only if the plaintiff wins, if the defendant comes in and says, No, you shouldn't give an injunction, well, then we'll have to figure out a way to be fair to the plaintiff to make sure how we assess damages going forward. And I'll take care of that.

So did I make it clearer or less clear on what I just said for everyone? I'm happy to answer any questions that you have.

MS. BRANNEN: Your Honor, this is Elizabeth Brannen for Rhodium. Just I think it's clear with respect to the original question I was asking.

So for their reasonable royalty, they're not going to get a damages award past trial

automatically, they have to present what it is through trial and then they can get a separate ruling on if Rhodium were to continue to infringe, what could the reasonable royalty be after that. Have I --

THE COURT: Right. And I've seen it handled two ways, and I would let you all argue what's fair. I've seen it where the jury's given an amount -- I'm making this up again -- 5 percent. And so you give the 5 percent. This is where the Book of Wisdom does come in. You know, they will have figured that out.

But I've also seen judges who have considered giving a slightly higher, going forward, because it's now -- the jury's now found infringement. So but they're -- I'm not going to award -- now, I didn't hear anyone talk about a lump sum. If there is a lump-sum award that goes through the end of the -- that would go through the end of the patent, whenever that is, which is a period going forward, but obviously, it's an amount that neither of y'all have done yet and that someone would say, as opposed to reasonable royalty, we would take -- the plaintiff would have taken a lump sum of X and y'all would have paid a lump sum of X and -- y'all have -- but y'all haven't done that. So that's not an issue here.

So as far as I can tell, from the way the

10:22 plaintiffs have structured their damages model, they
10:22 won't be getting future damages until we see if they
10:22 win and what I do on the injunction, and then if there
10:22 is not an injunction and you all do continue to sell
10:22 what the jury has determined to be infringing, I'll
10:22 make sure we come up with some way of making sure the
10:22 plaintiff is protected financially.
10:22 Anything else?
10:22 MS. BRANNEN: Just I would like to
10:22 clarify, my client is not a competitor of Midas Green,
10:23 not even allegedly. And that's part of why they have
10:23 such a trouble of meeting the lost profits standard.
10:23 THE COURT: Well, then they're going to
10:23 have a really tough time getting an injunction.
10:23 MS. BRANNEN: I don't even believe
10:23 there's a live injunction request, Your Honor. That
10:23 was news to me. I do not think they've preserved it.
10:23 I certainly don't think they have --
10:23 THE COURT: Well, they've told me there's
10:23 an injunction request. Maybe there is; maybe there
10:23 isn't. I don't know.
10:23 MS. BRANNEN: Thank you.
10:23 THE COURT: I'm up with the law, that
10:23 they only get one if y'all are competitors. And I
10:23 don't know -- I'll know much better after trial whether

10:23 or not I think you're competitors.

10:23 MR. THOMAS: Your Honor, that is a disputed issue in this case. We contend, Your Honor, we are competitors.

10:23 THE COURT: Well, I have no way of knowing which of you is right.

10:23 So next up we have the motion for summary judgment of noninfringement. I'll take that up.

10:23 MS. BRANNEN: Thank you, Your Honor.

10:23 So the technology at issue involves systems for pooling bitcoin miners. The computers that do the mining get very hot when they're mining bitcoin.

10:24 And in particular, the patent and the accused systems -- and you can see a picture -- some of the accused systems, they relate to their immersion cooling systems. Meaning, there are miners that get immersed in dielectric fluid. It doesn't conduct electricity. And as the liquid is circulated through the system, it removes heat from the miners.

10:24 We believe a lot of limitations are missing, but we focused our motion on a single claim limitation. And we believe it's the rare case where Midas doesn't have any evidence that Rhodium uses anything like this limitation that's shown here.

10:24 And it requires the system to have a

10:24 control facility, and that control facility has to be
10:24 adapted to coordinate the operation of two different
10:25 fluid circulation facilities, a primary facility and a
10:25 secondary facility.
10:25 And it has to be adapted to coordinate
10:25 their operation based on this recited variable as a
10:25 function of the temperature of the dielectric fluid in
10:25 the tank containing the bitcoin miners.
10:25 And we don't -- basically, for the
10:25 primary fluid circulation facility, you can think of
10:25 that as the pipes and pumps. That's what they say it
10:25 is. We may take issue with that at trial, but not for
10:25 purposes of this motion.
10:25 Similarly, for the secondary fluid
10:25 circulation facility, they point to these large coolers
10:25 that have fans in them. So you can think of the
10:25 primary as pumps and pipes; secondary, they say it's
10:25 the fans and the dry coolers.
10:25 And we pointed out in our motion that we
10:25 don't take the temperature of the fluid in the tank,
10:26 and we don't use it for anything, let alone to
10:26 coordinate either of those facilities, those fluid
10:26 circulation facilities.
10:26 Reading their opposition, you could be
10:26 forgiven for assuming that I'd be standing in front of

10:26 you asking for a very narrow special construction of
10:26 this term, but that's not what we're doing.
10:26 Our motion, we construed nothing. We
10:26 agree that this term gets its plain meaning, and we
10:26 don't have this limitation or anything like it.
10:26 And so in our motion, we went through all
10:26 the various theories their expert had put forth, some
10:26 of which have been addressed in the motion to exclude
10:26 Dr. Pokharna, where the opinions weren't in their final
10:26 infringement contentions.
10:26 But we went through all the various
10:26 theories of why they said this limitation was present,
10:26 and we debunked each of them. And we showed why the
10:26 limitation isn't there literally and why, in those
10:26 instances when he had offered an opinion under the
10:26 doctrine of equivalents, there was no -- nothing in the
10:27 report, no evidence that could satisfy that standard
10:27 for insubstantial differences for same
10:27 function-way-result.
10:27 So the first thing I'd like to hopefully
10:27 establish in this motion is that based on the DMM
10:27 Specialities case, which we cite in our reply at Page 2
10:27 and also just common sense, their opposition makes no
10:27 attempt whatsoever to defend or salvage any of
10:27 Dr. Pokharna's theories under the doctrine of

10:27 equivalents.

10:27 You can scour their opposition. The word
10:27 "equivalent" isn't there. "Equivalents" isn't there.
10:27 "DOE" isn't there. "Insubstantial" or "substantial
10:27 differences," it's just not discussed. They have
10:27 waived this.

10:27 And I'm happy also to go through each of
10:27 the things that they have -- all the various theories
10:27 they pointed to and show why there is a failure under
10:27 the plain meaning of this limitation to show that we
10:27 have anything like it.

10:28 But the first system that they accuse are
10:28 the Prime Controls and Kelvion sensors. Those are the
10:28 ones that are admittedly inoperable that I believe have
10:28 been excluded in connection with Dr. Pokharna's report.

10:28 And I don't think this is fixable, Your
10:28 Honor. There is no -- there's attorney argument, and
10:28 we heard some of the attorney argument from
10:28 Mr. Kolegraff.

10:28 But this is a system where most of the
10:28 sensors are missing and none of the sensors they're
10:28 pointing to is wired in. And perhaps more importantly,
10:28 their expert, you can see the interrogatory response
10:28 they cite to in their opposition at Page 13, saying:
10:28 Even where a sensor is connected, it is not wired in.

10:28 Their expert, Dr. Pokharna, conceded that
10:28 in its present state, this system cannot measure
10:28 temperature.
10:28 Now, even if this was operational, they
10:29 haven't explained what they believe the plain meaning
10:29 of this limitation is or why what this system was
10:29 designed to measure would actually be adapted to
10:29 coordinate both control facilities.
10:29 And so that's also another problem with
10:29 this whole theory, that you can see up here the
10:29 sensors, where they would go, are in an entirely
10:29 different building and they have a little sign they
10:29 have labeled -- their own expert has labeled that the
10:29 building containing the tanks with the miners is in a
10:29 completely different place.
10:29 This wouldn't be the variable they need
10:29 to show that we're using, and they also can't show that
10:29 it would be adapted to coordinate both fluid
circulation facilities.
10:29 The only evidence they give is shown
10:29 here, that it would be adapted to adjust the fan speed.
10:29 Well, that's what they say is the secondary circulation
10:29 facility. In order to survive summary judgment, they
10:29 should have to present evidence and explain how that
10:30 evidence could lead a reasonable juror to believe that

10:30 1 the claim language is satisfied with respect to both
10:30 2 circulation facilities and being adapted to coordinate
10:30 3 the operation of both of them. And they just can't do
10:30 4 that for the main thing that they spent the most time
10:30 5 on in their brief, which is this Prime Controls and
10:30 6 Kelvion coolers.
10:30 7 And by the way, they briefed those
10:30 8 separately, but Prime Controls and other vendors were
10:30 9 hired to build the monitoring system for the Kelvion
10:30 10 cooler. So even though they talk about the Prime
10:30 11 Control system and then they talk about the Kelvion
10:30 12 coolers, you can see, for example, from their brief at
10:30 13 Page 18, the thing they're citing to for the Kelvion
10:30 14 coolers as evidence that those infringe, that's all
10:30 15 design documents of Prime Controls. That was
10:30 16 admittedly never installed and is admittedly
10:30 17 inoperable, cannot measure any temperature.
10:30 18 So at the last page of their brief, they
10:30 19 give a couple throwaways to try to defend a theory of
10:31 20 infringement based on the Guntner coolers. These are
10:31 21 shown here. These are only at Rhodium's Rockdale
10:31 22 facility.
10:31 23 And again, the tanks containing the
10:31 24 miners are in one place, and the coolers they're
10:31 25 pointing to are outside the building. And what their

10:31 theory is here is that Rhodium measures the temperature
10:31 of the fluid after it comes out of the cooler.
10:31 Well, that obviously is not literally the
10:31 same thing as the fluid in the tanks nor is it even
10:31 arguably insubstantially different.
10:31 And they also -- for this one too, all
10:31 they say is that we might use it to adjust the fan
10:31 speed in these coolers. There's no evidence they can
10:31 point the Court to of how this is in any way adapted to
10:31 coordinate the operation of what they've pointed to as
10:31 the primary fluid circulation facility, the pumps and
10:31 the pipes.
10:31 So it's deficient in multiple respects.
10:31 And the single paragraph in their opposition that's
10:32 dedicated to try to revive this doesn't answer the
10:32 question of how this is using the right variable in any
10:32 way, let alone using any variable to control both fluid
10:32 circulation facilities. They only talk about fans.
10:32 Then the final thing that they also try
10:32 to revive is the fact that in both facilities, Temple
10:32 and Rockdale, Rhodium can measure the temperature of
10:32 the chips in the miners and the printed circuit boards
10:32 in the miners.
10:32 Their expert, though -- obviously
10:32 measuring a chip temperature or a board temperature is

not measuring the temperature of the tank fluid. And their expert admitted those are different. So there's no literal infringement. There's no analysis of why it would be insubstantially different.

And again, here too, all they say with PCB temperature is that we can monitor it. All they say with chip temperature is that we can shut off the miner or reduce power to the miner.

But what they haven't said is what evidence is there anywhere in the record that we could use either the chip or PCB temperature to coordinate the operation of the pumps and pipes or of the fans, which they say are the primary and the secondary circulation facilities.

There is no evidence. It's a rare case where none of their theories even make sense. And we hope they should have to articulate one that we can at least understand what this jury is going to be asked to decide before they would be allowed to proceed.

THE COURT: A response?

MR. KOLEGRAFF: Yes. So as -- there are just a lot of triable issues of material fact here. And what Rhodium has done to try to eliminate those facts is they've taken a very unusual reading -- a plain reading of Claim 1.

10:33 And what they're trying to say is that you have to have your temperature sensor in the tank to take the temperature of the fluid.

10:34 Their entire motion is based upon that premise, that they have to require a sensor in the tank taking the temperature of the fluid. But the claim just doesn't say that.

10:34 Now, this is extremely important to it. On Page 2 of their motion, they say: In other words, to infringe Midas' asserted claims, a cooling system must take advantage of the dielectric fluid while it is -- must take the temperature while it is in the tank.

10:34 They say the same thing on Page 4: Neither of the tanks have a fluid temperature in the tank.

10:34 This is repeated throughout their motion. That is the basis for this entire motion, is that there has to be a temperature sensor inside the tank in order to take the temperature.

10:34 If we look at Claim 1 and parse it, it talks about: A control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

10:35 That plain reading does not say where a temperature sensor has to be. It certainly doesn't place it in the tank. It certainly doesn't even say you have to take the measurement of the fluid itself.

10:35 All you have to do is collect enough information so that you can coordinate the operation of the two circulation facilities.

10:35 So here you can have that sensor -- that temperature sensor, you could have it in the tank. You don't have to. But you could have it on the pipe leading out of the tank. You could have it on the inlet pipe to the tank. You could have it further down towards the coolers.

10:35 Every one of those data points, every one of those points, is going to give you sufficient data in order to make decisions on how you want to run your pumps and fans.

10:35 For example, we are talking about the Guntner coolers, which are the coolers that sit out in the -- outside the building, there, we are measuring the fluid temperature that comes out of the cooler.

10:36 That is the exact same temperature as is going into the tank. So we are measuring the temperature of the fluid in the tank, and we adjust the fan speeds of that Guntner -- excuse me -- Rhodium

10:36 adjusts the fan speeds of the Guntner cooler to make sure that that inlet temperature to the tank remains very constant.

We know for a fact that the claim does not require that the temperature sensor be in the tank, and we know it for at least a couple of reasons.

First of all, if we look at Figure 13 of the patent, there are sensors that are shown not only in the reservoir, which is separate from the tank, but the temperature sensors are also shown in the fluid pipes and shown in the fluid pipes of the primary circulation facility and shown as the temperature sensors in the secondary facility.

So even the embodiments that we have in the patent do not show the sensor in the tank.

It's also shown in Figures 4 and 12 where you have the tank, which is numbered 14, the tank 14 does not have a sensor in it. The only sensor is in the recovery reservoir, which is No. 42. So again, even the embodiments that we have in the patent do not require that the sensor be in the tank.

So let's talk a little bit about Prime Controls. Prime Controls is a very sophisticated control system that has no other purpose in life but to control and manage the system at the Temple facility.

10:37 There are temperature sensors, there are pump controls, there are reporting facilities. They spent millions of dollars putting this thing in, and it has no noninfringing functionality.

Again, if you look at Exhibit G of our opposition, you can see that they have the layout of the complete system, the entire plumbing and design system. H shows a picture of the Kelvion and Temple coolers that have the temperature sensors installed. They're already there in the pipes.

They talked about saddles being installed. They purchased saddles to put on those pipes so they can make the finishing of the installation even easier.

If you look at Exhibit I, there is an issued-for-approval manual on how this whole system is supposed to be put together, this Prime Control system, and it shows all of these things working and in operation. So it's almost fully installed. They just haven't flipped the final switch.

And let's -- we're going to suggest here, is that they have just not turned on that switch because of this litigation. As soon as this litigation is over, you know, they're very likely to turn this thing back on because, again, they've got a million

10:39 dollars of sunk costs, that they're going to need to
10:39 turn on. And we have an e-mail, this is from a Depo
10:39 Exhibit 77, that says: Our plan -- and that's
10:39 referring to Rhodium -- Our plan is to get Prime
10:39 Controls paid back and then have Prime Controls finish
10:39 the rest of the work on the site.
10:39 So that is a huge issue of fact, whether
10:39 or not Rhodium is going to reactivate or activate this
10:39 Prime Controls when this litigation is over.
10:39 Also, so -- also, how much work they have
10:39 left to do is also a huge issue of fact as it goes to
10:39 Prime Controls.
10:39 As far as any waiver, we've waved
10:39 nothing. We attached the entire report of
10:40 Dr. Pokharna, where he goes not only through literal
10:40 infringement, he goes through doctrine of equivalents
10:40 infringement on all of these issues.
10:40 As far as the Kelvion systems at Temple,
10:40 that really reduces down to the same arguments we were
10:40 just talking about with Prime Controls. That is, the
10:40 temperature sensors are there. The computers are in
10:40 place. It's basically all set to go, they just have to
10:40 finish wiring it up and then they're going to be able
10:40 to control the Kelvion coolers based upon the
10:40 temperature of the coolant.

10:40 At Guntner, which is at the Rockdale facility, that we do know is in operation. They actually have the Guntner coolers that sense the temperature of the fluid as it's exiting the Guntner coolers. And based upon that temperature, they adjust the fan speed. This is in the Guntner motor managing manual.

They adjust the speed of the fans to keep that outlook temperature the same. That outlook temperature fluid is the temperature of the fluid as it's going into the tank.

Finally, we get to the Restful API, which is this idea that we're checking the temperature of the fluid in the tank by using functionality built into the miners. These miners, which are just very sophisticated computers, actually have a couple different sets of temperature gauges, sensors inside of the miners. One of those is to measure the temperature of the PCB board, the printed circuit board. And the printed circuit board is what's setting up against the fluid. So that is measuring the temperature of the fluid.

And based upon that, the system automatically puts more power on to the miner, if it can handle warming the fluid similar. If the fluid is

too warm, then it actually powers down the miner; it has the miner generate less power. That way it adjusts the amount of heat that is injected into the system, which is controlling the circulation of both the primary and the secondary circulation facilities.

So here we just have a lot of issues of fact as to whether or not Prime Controls is going to be actually finished. We've got questions of fact as to how the Guntner is actually managing the fan speed to control the temperature of the tank; and really, all gets down to their assertion that the temperature probe has to be in the tank, which is just not the plain meaning of this claim.

So with that, I'll turn it back.

MS. BRANNEN: May I respond?

THE COURT: Rebuttal?

Please.

MS. BRANNEN: Thank you.

So I'll try to make five or fewer points. First, I want to talk about what we did not hear. Normally, to oppose summary judgment where we would -- you would hear the plaintiff saying, This is what I think the plain meaning of this limitation is, and this is the evidence I'm pointing you to, Judge, where a reasonable jury could find that the temperature of the

10:43 fluid in the tank is part of the -- is adapted to
10:43 control both of these variables.
10:43 We've never heard that.
10:43 We've heard them saying that I'm asking
10:43 you to give an overly narrow claim construction. I'm
10:43 not. But they need to be doing something. If they're
10:43 not measuring it with a sensor in the tank, they need
10:43 to be explaining what evidence there is that we do
10:43 anything like using that temperature of the fluid in
10:43 the tank to coordinate the operation -- to be adapted
10:43 to coordinate the operation of two different control
10:43 facilities.
10:43 And I didn't hear counsel give an
10:43 explanation of what that limitation means or what
10:43 evidence satisfies it.
10:43 With respect to Prime Controls -- and
10:43 this applies to Prime Controls and the Kelvion coolers
10:43 where they were going to install sensors but never did.
10:43 The most -- this is where we heard counsel try to point
10:43 to evidence, but he points to some unidentified
10:44 deposition testimony that I'm not sure was even in the
10:44 opposition brief, and is from several years ago, I
10:44 believe, saying that at one point Rhodium planned to
10:44 have Prime Controls finish its work.
10:44 That is of no moment now.

10:44 If we're going to have a trial now, we can't have an advisory opinion about a system that isn't in place. And that would -- even if we could, that would be an enormous waste of resources. We need to have a trial over the system as it exists now. And Mr. Kolegraff is not pointing to any evidence that all Rhodium needs to do is turn on the switch. The evidence is to the contrary.

Their own evidence that they cite to this Court is that none of the sensors is wired in. Their expert concedes that the system is incapable of measuring temperature. We really ought not to have a trial over Prime Controls and Kelvion, which may never be finished, may be changed. It's not the province of federal courts to have a trial over something that might happen with a system in the future.

There also is no evidence of how these sensors, which are nowhere near the tank containing the bitcoin miners, if they were operational, would be used to coordinate the operation of both the fans and the coolers. That's what they say they would do, but how would that be adapted to coordinate the operation of what they say counts as the primary circulation facility, the pumps and the pipes?

We didn't hear that. We won't hear that,

10:45 from them or their expert, because they have no
10:45 evidence of that. And they haven't tried to point Your
10:45 Honor to that evidence now.
10:45 The third point I'd like to make is about
10:45 Guntner. Mr. Kolegraff misstated the record. I will
10:45 show -- this is their opposition brief, Docket 164.
10:46 Near the end, I think we're at Page 21. Yeah.
10:46 Page 21.
10:46 The Guntner coolers -- which he
10:46 acknowledges are outside the building -- the
10:46 temperature sensors there sense the temperature -- I'm
10:46 quoting from their brief -- sense the temperature of
10:46 the dielectric fluid flowing out of the evaporative
10:46 cooler.
10:46 The job of that cooler is to cool. So
10:46 it's obviously not the same as the temperature of the
10:46 liquid when it's in the tank with the miners. And
10:46 their expert concedes as much, and they have completely
10:46 abandoned any effort to explain how it's
10:46 insubstantially different or how, under the doctrine of
10:46 equivalents, this theory could survive.
10:46 And the second thing about Guntner, all
10:46 they say at that page of their brief is that the sensor
10:46 there in that Guntner cooler is adapted to adjust the
10:46 cooler's fan speed. Okay. So they have evidence to

10:47 get to the jury on one of the two circulation facilities that they need.

10:47 But we didn't even hear Mr. Kolegraff point to any evidence about coordination of the primary facility, the pumps and the pipes, because Guntner, there is no evidence from which a reasonable juror could conclude that this claim limitation is satisfied.

10:47 And finally, on Restful API, I will say, we heard attorney argument, but all they're really saying is that Rhodium can monitor the temperature of the chips. They're not pointing to any evidence that the chip temperature or the PCB board temperature is actually adapted to coordinate the operation of anything that they've pointed to as the primary or secondary circulation facilities.

10:47 And to -- just to conclude, at minimum, Your Honor, I hope we have at least made the case narrower on doctrine of equivalents, because they did not -- they can't save that by just saying, Oh, but we attached our expert report.

10:48 Well, our brief went through the expert report and explained why what the expert said couldn't count -- wasn't enough to get to a jury on doctrine of equivalents. And they made no attempt to defend that, and they shouldn't get to revive it now.

10:48 MR. KOLEGRAFF: Your Honor?

10:48 THE COURT: Yes, sir.

10:48 MR. KOLEGRAFF: May I address those points or...

10:48 Yes. So you asked if we ever described where we get our plain meaning that the temperature probe does not have to be in the tank. I don't want to repeat myself, but yes. We did have evidence that we've shown the Court today.

10:48 For example, Figure 4 and Figure 12 of the patent shows that the sensors don't have to be in the tank. Figure 13 actually shows that you could have the sensors on the fluid lines and the reservoir. You could have it on the -- on the coolant lines. You could have it in the primary. You could have it in the secondary.

10:48 You can put that -- those temperature probes wherever you want them and still control the primary and secondary circulation of those.

10:48 Something we have to understand when we look at the Rhodium system, because we're talking about primary versus secondary, here the primary is the portion of the system that takes the fluid and flows it through the tank, which extracts heat from the miner. The secondary's what happens out at the coolers, where

10:49 you take that fluid and cool it through the evaporative
10:49 cooler.
10:49 So where do we have to measure? This is
10:49 our Point No. 2.
10:49 So she's saying we haven't talked about
10:49 where we actually take the measurements. Well, if
10:49 you're talking about Prime Controls, they take the
10:49 measurements all over the place.
10:49 Their system has no noninfringing
10:49 functionality. It is adapted to take the temperatures
10:49 and control the fans.
10:49 True. At this exact moment in time the
10:49 wires haven't been hooked up, but we have evidence, we
10:49 have the e-mail that says they are planning to hook
10:49 these things up when they get the chance.
10:49 So they are going to use this system at
10:49 some point. It's just not believable that you're going
10:49 to have millions of dollars worth of control equipment
10:49 sitting there, all of these computers, a room full of
10:49 computers meant to control this facility, and you're
10:50 not going to turn it on.
10:50 So again, the same thing with the Prime
10:50 Control and the Kelvion. Even though it can't measure
10:50 today, it certainly is adapted to.
10:50 Now, again, Ms. Brannen said that I

10:50 misquoted how the Guntner works. I thought I got that
10:50 right, because I do understand that what's flowing --
10:50 what we are measuring is the output of the Guntner
10:50 cooler. That is true.
10:50 And that -- and I think I pointed out
10:50 that the output of the Guntner cooler is actually the
10:50 input to the tank.
10:50 So we are measuring the fluid temperature
10:50 of the temperature in the tank. It's just we're
10:50 measuring that at the input line rather than the output
10:50 line.
10:50 So she asked: How is that coordinating
10:50 primary and secondary?
10:50 Well, you have the fans on the Guntner
10:50 cooler, which are adjusting to keep that output at a
10:50 certain temperature or temperature range to make sure
10:50 the miners are being cooled. That is affecting the
10:51 temperature of the fluid as it flows through the
10:51 primary system and through the secondary system.
10:51 We are coordinating the control of the
10:51 facilities by using the output temperature from that
10:51 Guntner cooler.
10:51 As far as the Restful API, I think we've
10:51 shown pretty strongly in the expert report that we are
10:51 measuring at a temperature of the fluid using the PCB

10:51 inside the miner itself, and then that is used to reset
10:51 the miner to either increase power if it can be run
10:51 warmer or decrease power if you need it to run cooler.
10:51 So I think we've shown this in all of it.
10:51 Again, there's a -- plenty of genuine issues of fact
10:51 here for denying this motion.
10:51 THE COURT: I'll be back in a few
10:51 seconds.
10:51 (Pause in proceedings.)
10:54 THE COURT: The Court is going to grant
10:55 the motion for summary judgment of noninfringement. I
10:55 think that fully takes care of the case for the time
10:55 being.
10:55 I'm not going to take up the motions in
10:55 limine given my ruling on that motion, which I think
10:55 obviates the need for a trial at this time.
10:55 Is there anything else we need to take up
10:55 today?
10:55 MR. KOLEGRAFF: Your Honor, would we be
10:55 able to readdress this -- after we get Pokharna's
10:55 report redone, would we be able to readdress this issue
10:55 on the motion for summary judgment?
10:55 THE COURT: Well, you know, you have --
10:55 you've had your chance, but obviously, it's a fairly
10:55 severe ruling. Let me talk to my clerks and see if

10:55 they think anything additional that an expert would say
10:56 might benefit us. And if it is, we'll let you know.
10:56 As of right now, I don't think it would.
10:56 So anything besides that?
10:56 MR. SMITH: Your Honor, if I could ask
10:56 one more question about the Court's ruling.
10:56 There's been a fair amount of argument
10:56 today about how the systems are today versus after how
10:56 the systems are turned on or wired or whatever.
10:56 So I think we'd want to confirm the scope
10:56 of the Court's ruling so we would know whether a claim
10:56 against the facilities, once they're put into
10:56 operation, would be affected by the Court's ruling
10:56 today, or would that be a different set of facts?
10:56 THE COURT: That would be a different set
10:56 of facts. I don't know --
10:56 MR. SMITH: Thank you, Your Honor.
10:56 THE COURT: Yeah. I don't know that it
10:56 would change the ruling ultimately, but, you know, that
10:56 clearly is an issue in this case.
10:56 MR. SMITH: Okay. Thank you, Your Honor.
10:56 THE COURT: Okay. Have a good day. Take
10:56 care.
10:56 (Hearing adjourned.)

UNITED STATES DISTRICT COURT)

WESTERN DISTRICT OF TEXAS)

I, Kristie M. Davis, Official Court Reporter for the United States District Court, Western District of Texas, do certify that the foregoing is a correct transcript from the record of proceedings in the above-entitled matter.

I certify that the transcript fees and format comply with those prescribed by the Court and Judicial Conference of the United States.

Certified to by me this 11th day of April 2024.

/s/ Kristie M. Davis
KRISTIE M. DAVIS
Official Court Reporter
800 Franklin Avenue
Waco, Texas 76701
(254) 340-6114
kmdaviscsr@yahoo.com

10:56

EXHIBIT 10

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

From: Corey Brown <Corey_Brown@txwd.uscourts.gov>
Sent: Thursday, January 30, 2025 3:25 PM
To: becca.skupin@solidcounsel.com; Elizabeth Brannen; gthomas@twtlaw.com; henry.pogorzelski@klgates.com; travis@gillamsmithlaw.com; jthomas@twtlaw.com; Ken Halpern; melissa@gillamsmithlaw.com; michael.smith@solidcounsel.com; Peter Brody; Sarah Rahimi; bkolegraff@twtlaw.com
Subject: Omnibus Order for 6.22.cv.0050

[External Email]
Counsel,

Given the time that has passed, it is necessary that the parties in this case submit a **joint** proposed order reflecting the parties' understandings of Judge Albright's rulings at the 4/9/2024 hearing (if there are disputes, please include proposed language in different colors). Please submit an omnibus order for all of the pretrial motions and a separate single order comprising all of the MILs. The Court will compare with its internal notes and enter the order reflecting those rulings shortly thereafter. Please prepare and submit these orders via response to this email (in Word form) by the end of day on February 7, 2024.

This will help this case begin to progress towards a resolution.

Regards,

Corey W. Brown
Law Clerk for the Honorable Alan D Albright
United States District Court, Western District of Texas
Direct: 254-750-1517
Corey_Brown@txwd.uscourts.gov

EXHIBIT 11

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

Midas Green Technologies, LLC, Plaintiff, - vs. - **Rhodium Enterprises, Inc.;** **Rhodium Technologies LLC;** **Rhodium 10MW LLC;** **Rhodium 2.0 LLC;** **Rhodium 30MW LLC;** **Rhodium Encore LLC;** **Rhodium Renewables LLC;** **Rhodium Renewables Sub LLC; and** **Rhodium Ready Ventures LLC;** Defendants.	Case No. 6:22-cv-00050-ADA **Jury Trial Demanded**

THIRD AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Midas Green Technologies, LLC ("Midas" or "Plaintiff") hereby brings this action for patent infringement against the following: (1) Rhodium Enterprises, Inc., (2) Rhodium Technologies LLC, (3) Rhodium 10MW LLC, (4) Rhodium 2.0 LLC, (5) Rhodium 30MW LLC, (6) Rhodium Encore LLC, (7) Rhodium Renewables LLC, (8) Rhodium Renewables Sub LLC; and (9) Rhodium Ready Ventures LLC. (collectively, "Rhodium" or "Defendants").

Midas alleges infringement of U.S. Patent No 10,405,457, entitled "Appliance Immersion Cooling System" (the "'457 Patent") and U.S. Patent No. 10,820,446, entitled "Appliance Immersion Cooling System" (the "'446 Patent"), at least by reason of Defendants' continued operation of their infringing bitcoin mining facilities in Rockdale, Texas, Temple, Texas and a third location[1] in Texas.

True and correct copies of the '457 and '446 Patents (collectively, the "Asserted Patents") are attached as **Exhibits A and B**, respectively.

I. PARTIES

1. Plaintiff Midas Green Technologies, LLC is a Texas limited liability company with its principal place of business at 7801 N Capital of Texas Hwy # 230, Austin, TX 78731. Midas designs and builds immersion cooling solutions for use in data centers including cryptocurrency mining facilities. Midas has been an innovative pioneer in the application of immersion cooling technology.

2. Defendant Rhodium Enterprises, Inc. is a Delaware corporation formed on April 22, 2021. Rhodium Enterprises, Inc. conducts business in Texas, including in this District, and including in the Waco Division, including by way of its subsidiaries as described herein. According to its most recent SEC filing, Rhodium Enterprises, Inc. is a holding company and the sole managing member of Defendant Rhodium Technologies LLC. *See* SEC Amendment No. 6 to Form S-1 at F-16, Rhodium Enterprises, Inc. (Jan. 18, 2022), *see*

[1] The third location is information learned from Defendants' Further Supplemental Responses, of which is Attached as Exhibit D, page 9. The full text of Defendants' Further Supplemental Responses is not included in the body of the Complaint as they are marked Confidential-Outside Attorneys' Eyes Only and therefore filed under seal.

https://www.sec.gov/Archives/edgar/data/0001874985/000121390022002442/fs12022a6_rhodium.htm.

3. Defendant Rhodium Technologies LLC is a Delaware limited liability company formed on October 23, 2020. Rhodium Technologies LLC was formerly known as Rhodium Enterprises LLC. Rhodium Technologies LLC is a subsidiary of Defendant Rhodium Enterprises, Inc. Rhodium Technologies LLC conducts business in Texas, including in this District, and including in the Waco Division, including by way of its subsidiaries as described herein. According to the foregoing most-recent Amended SEC Form S-1 filing, Defendant Rhodium Technologies LLC is a holding company. In the foregoing most-recent Amended SEC Form S-1 filing, Defendant Rhodium Technologies LLC is known as "Rhodium Holdings."

4. Defendant Rhodium 10MW LLC is a Delaware limited liability company formed on March 12, 2021. Rhodium 10MW LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium 10MW LLC conducts business in Texas, including in this District, and including in the Waco Division.

5. Defendant Rhodium 2.0 LLC is a Delaware limited liability company formed on December 17, 2020. Rhodium 2.0 LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium 2.0 LLC conducts business in Texas, including in this District, and including in the Waco Division.

6. Defendant Rhodium 30MW LLC is a Delaware limited liability company formed on April 1, 2020. Rhodium 30MW LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium 30MW LLC conducts business in Texas, including in this District, and including in the Waco Division.

7. Defendant Rhodium Encore LLC is a Delaware limited liability company formed on January 1, 2021. Rhodium Encore LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium Encore LLC conducts business in Texas, including in this District, and including in the Waco Division.

8. Defendant Rhodium Renewables LLC is a Delaware limited liability company formed on March 17, 2021. Rhodium Renewables LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium Renewables LLC conducts business in Texas, including in this District, and including in the Waco Division.

9. Defendant Rhodium Renewables Sub LLC is a Delaware limited liability company formed on April 25, 2022, with a principal office at 4146 W. US Highway 79, Rockdale, Texas 76567-5278. Rhodium Renewables Sub LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium Renewables Sub LLC conducts business in Texas, including in this District, and including in the Waco Division.

10. Defendant Rhodium Ready Ventures LLC is a Delaware limited liability company formed on August 23, 2022, with a principal office at 4146 W. US Highway 79, Rockdale, Texas 76567-5278. Rhodium Ready Ventures LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium Ready Ventures LLC conducts business in Texas, including in this District, and including in the Waco Division.

11. The foregoing SEC filing describes each of Defendants Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, Rhodium Encore LLC, Rhodium Industries LLC, and Rhodium Renewables LLC, as operating subsidiaries of Rhodium Technologies LLC. This SEC filing (dated January 18, 2022) also refers to i Ventures Enterprises LLC (then doing business as Energy Tech LLC) as a related party. Accordingly, these defendants will be collectively be referenced herein as "the Rhodium Operating Subsidiaries."

12. After Midas filed this case on January 13, 2022, and after the January 18, 2022 date of the aforementioned SEC filing, Jordan HPC Sub LLC, Rhodium Renewables Sub LLC, and Rhodium Ready Ventures LLC were formed by certain of the other Defendants, ostensibly to be governed by Rhodium Technologies LLC. After the filing of this case and of the aforementioned SEC filing, Rhodium 10MW Sub LLC, Rhodium 30MW Sub LLC, Rhodium Encore Sub LLC, and Rhodium 2.0 Sub LLC were formed by certain of the other Defendants, ostensibly to be governed by Rhodium JV LLC. Accordingly, these companies, whether a

defendant or not, will be collectively referenced herein as "the Rhodium Post-Filing Operating Subsidiaries."

13. Chase Blackmon is a Texas resident, is a co-founder and the Chief Operating Officer of both Rhodium Enterprises, Inc., and Rhodium Technologies LLC. Chase Blackmon is a director nominee for the board of directors of Rhodium Enterprises. Chase Blackmon also owns shares of both Rhodium Enterprises and Rhodium Technologies by way of an entity called Imperium Investment Holdings LLC ("Imperium"). Imperium is the majority and controlling owner of both Rhodium entities. According to the foregoing SEC filing, Chase Blackmon controls 25% of the voting interests in Imperium. Chase Blackmon personally directed, participated in, authorized, and/or ratified the infringing conduct of the Defendants. For example, on information and belief, Chase Blackmon helped design Defendants' infringing immersion cooling systems, and he directs, participates in, and makes decisions regarding the making and use of the infringing immersion cooling systems.

14. Cameron Blackmon is a Texas resident, is a co-founder and the Chief Technology Officer of both Rhodium Enterprises, Inc., and Rhodium Technologies LLC. Cameron Blackmon is a director nominee for the board of directors of Rhodium Enterprises. Cameron Blackmon also owns shares of both Rhodium Enterprises and Rhodium Technologies through Imperium. According to the foregoing SEC filing, Cameron Blackmon controls 25% of the voting interests in Imperium. On information and belief, Cameron Blackmon personally directed, participated in, authorized, and/or ratified the infringing conduct of the Defendants. For example, on information and belief, Cameron Blackmon helped design and develop Defendants' infringing immersion cooling systems, and he directs, participates in, and makes decisions regarding the making and use of the infringing immersion cooling systems.

15. Nathan Nichols is a Texas resident, is a co-founder and the Chief Executive Officer of both Rhodium Enterprises, Inc., and Rhodium Technologies LLC. Nathan Nichols serves on the board of directors for Rhodium Enterprises. Nathan Nichols also owns

shares of both Rhodium Enterprises and Rhodium Technologies through Imperium. According to the foregoing SEC filing, Nathan Nichols controls 25% of the voting interests in Imperium. On information and belief, Nathan Nichols personally directed, participated in, authorized, and/or ratified the infringing conduct of the Defendants. For example, on information and belief, Nathan Nichols helped design and develop Defendants' infringing immersion cooling systems, and he directs, participates in, and makes decisions regarding the making and use of the infringing immersion cooling systems.

16. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, and the Defendant Rhodium Operating Subsidiaries have common stock ownership. Each of Chase Blackmon, Cameron Blackmon, and Nathan Nichols (the "Individuals") owns shares of both Defendant Rhodium Enterprises, Inc., and Defendant Rhodium Technologies LLC through Imperium. See SEC Amendment No. 6 to Form S-1 at 102. Rhodium Technologies LLC in turn directly or indirectly owns all of the outstanding equity interests in the Rhodium Operating Subsidiaries. *Id*. at 103-05. Rhodium Technologies LLC also directly or indirectly owns all of the outstanding equity interests in the Rhodium Post-Filing Operating Subsidiaries.

17. The Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries, share common directors and officers with Defendant Rhodium Enterprises, Inc., and Defendant Rhodium Technologies LLC.

18. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, and the Rhodium Operating Subsidiaries file consolidated financial statements. *Id.* at F-17 ("The condensed consolidated financial statements include the accounts of Rhodium Enterprises Inc. and its respective subsidiaries.")

19. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, the Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries were incorporated by Cameron Blackmon, acting on behalf of Imperium, a third party under the control of the Individuals.

20. The Rhodium Operating Subsidiaries, as well as the Rhodium Post-Filing Operating Subsidiaries, are presently undercapitalized and exist for the purposes of illegitimately shielding Defendant Rhodium Enterprises, Inc., and Rhodium Technologies LLC, and in turn the Individuals, from liability. On information and belief, the Rhodium Operating Subsidiaries, as well as the Rhodium Post-Filing Operating Subsidiaries, would be unable to satisfy any money judgement levied against them because of their undercapitalization and because their revenues flow directly to Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC.

21. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC finance the Rhodium Operating Subsidiaries, as well as the Rhodium Post-Filing Operating Subsidiaries.

22. Rhodium Shared Services LLC directly pays the salaries of all Rhodium officers and employees, with the exception that Rhodium Shared Services LLC indirectly pays the salary of Rhodium Chief Financial Officer Nicholas Cerasuolo by way of its subsidiary, Rhodium Shared Services PR Inc.

23. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, the Defendant Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries, use each other's properties as their own. For example, on information and belief, some or all of them operate out of the same Rockdale, Texas bitcoin mining facility, among other facilities.

24. The daily operations of Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, the Defendant Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries are not kept separate. For example, they collectively operate the same bitcoin mining operation. *Id.* At F-16 ("The Company, together with its subsidiaries, operates a digital mining operation"). As discussed above, on information and belief, some or all of them operate out of the same Rockdale, Texas bitcoin mining facility, among other facilities. On information and belief, they also have common

business departments.

25. The Rhodium Operating Subsidiaries, as well as the Rhodium Post-Filing Operating Subsidiaries, receive no business except through that allocated and arranged by Defendant Rhodium Enterprises, Inc. and/or Defendant Rhodium Technologies LLC. For example, Defendant Rhodium Enterprises, Inc. and/or Defendant Rhodium Technologies LLC negotiate contracts on behalf of the Defendant Rhodium Operating Subsidiaries and the Rhodium Post-Filing Operating Subsidiaries, or vice versa.

26. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, and the Defendant Rhodium Operating Subsidiaries do not observe corporate formalities, including keeping separate books. See *Id*. at F-17 ("The condensed financial statements include the accounts of Rhodium Enterprises Inc. and its respective subsidiaries. All inter-company accounts, balances, and transactions have been eliminated.") (emphasis added). On information and belief, the same is true with respect to the Rhodium Post-Filing Operating Subsidiaries.

27. Each Rhodium Operating Subsidiary and Rhodium Post-Filing Operating Subsidiary is an agent of Defendants Rhodium Enterprises, Inc., and Defendant Rhodium Technologies LLC (aka Rhodium Holdings) and their owners and operators, Chase Blackmon, Cameron Blackmon, and Nathan Nichols. Defendant Rhodium Enterprises, Inc. Defendant Rhodium Technologies LLC, the Defendant Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries therefore act as a common enterprise, their actions ultimately being directed by the Individuals. Specifically, the Individuals direct and control the activities of Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC, and those Defendants in turn direct and control the activities of the operating subsidiaries. The operating subsidiaries do not function as separate entities, but rather as controlled agents of the parent entities and the operating subsidiaries act on behalf of the parent entities. See, e.g., SEC Amendment No. 6 to Form S-1 at F-17 (referring to the operating subsidiaries as "the subsidiaries through which the Company operates its assets").

II. JURISDICTION

28. This is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 101 et seq. The Court therefore has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

29. Defendants are subject to this Court's specific and general personal jurisdiction, pursuant to constitutional due process and the Texas Long-Arm Statute, due at least to their extensive business in this District, including by reason of their infringement alleged herein. Specifically, and for example, Defendants own and operate an infringing bitcoin mining facility in Rockdale, Texas. See SEC Amendment No. 6 to Form S-1 at l (referring to Defendants' Rockdale location as the "initial Texas site"). Rockdale, Texas is located in Milam County, which is within the Western District of Texas. In addition, Defendants' second Texas site is in Temple, Texas. Temple, Texas is located in Bell County, which is also within the Western District of Texas. Further, Defendants' third Texas site[2] is within the Northern District of Texas.

30. Jurisdiction is also found as Defendant Rhodium Enterprises, Inc., and Defendant Rhodium Technologies LLC direct and control the infringing activities of the other Defendants. Further, Rhodium Enterprises, Inc. and Rhodium Technologies LLC purchase immersion cooling system tanks and other components, and then provide those infringing tanks for other Defendants to use. *See*, for example, **Exhibit C**, which is a manufacturing and purchase agreement whereby Rhodium Enterprises, Inc. purchases tanks and other immersion cooling products that infringe the Midas Asserted Patents, which Rhodium Enterprises, Inc. then provides either directly or indirectly to other Defendants. The entirety of the purchase agreement is marked Confidential-Outside Attorneys' Eyes Only and therefore filed under seal.

31. In further support of jurisdiction, each of the Defendant subsidiaries infringes

[2] The third location is information learned from Defendants' Further Supplemental Responses, the relevant portion of which is Attached as Exhibit D, page 9. The full text of Defendants' Further Supplemental Responses is not included in the body of the Complaint as they are marked Confidential-Outside Attorneys' Eyes Only and therefore are filed under seal.

the Midas patented immersion cooling system as claimed in the Assert Patents. The use of the tanks is admitted in Defendants' Further Supplemental Responses of which is Attached as **Exhibit D**. The entirety of the Defendants' Further Supplemental Responses is not included below as they are marked Confidential-Outside Attorneys' Eyes Only. Instead, citations are provided to where Rhodium admits use of the tanks.

Defendant Rhodium Operating Subsidiaries

Rhodium 10MW LLC - - page 8, at paragraph labeled "2"

Rhodium 2.0 LLC - - page 8, at paragraph labeled "2"

Rhodium 30MW LLC - - page 7, at paragraph labeled "1"

Rhodium Encore LLC - - page 8, at paragraph labeled "2"

Rhodium Renewables LLC - - page 8, at paragraph labeled "2"

Defendants also Identified as Rhodium Post-Filing Operating Subsidiaries

Rhodium Renewables Sub LLC - - page 9, first indented paragraph

Rhodium Ready Ventures LLC - - page 9, second indented paragraph

III. VENUE

32. Venue is proper in this district under 28 U.S.C. §§ 139l(b) and 1400(b). All Defendants have at least two places of business in this District and in the Waco Division, i.e., in Rockdale, Texas and in Temple, Texas. Defendants have committed acts of infringement, or a portion thereof, at these two locations within this District and within this Division.

IV. THE ASSERTED PATENTS

A. The'457 Patent

33. U.S. Patent No. 10,405,457, entitled "Appliance Immersion Cooling System," was duly and legally issued on September 3, 2019 by the U.S. Patent and Trademark Office. The underlying application, U.S. Patent Application No. 14/355,533, was filed on April 30, 2014. A true and correct copy of the '457 Patent is attached as **Exhibit A** and incorporated by reference.

34. Midas is the assignee of all right, title, and interest in the'457 Patent, including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the'457 Patent. Accordingly, Midas possesses the exclusive right and has standing to prosecute the present action for infringement of the '457 Patent by Defendants.

B. The'446 Patent

35. U.S. Patent No. 10,820,446 entitled "Appliance Immersion Cooling System," was duly and legally issued on October 27, 2020 by the U.S. Patent and Trademark Office. The underlying application, U.S. Patent Application No. 16/243,732, was filed on January 9, 2019, and is a continuation of the application which issued as the '457 Patent filed on April 30, 2014. A true and correct copy of the '446 Patent is attached as **Exhibit B** and incorporated by reference.

36. Midas is the assignee of all right, title, and interest in the'446 Patent, including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the'446 Patent. Accordingly, Midas possesses the exclusive right and has standing to prosecute the present action for infringement of the '446 Patent by Defendants.

V. RHODIUM AND ITS INFRINGEMENTS

37. Rhodium Defendants are part of "an industrial-scale digital asset technology company" that "mine[s] bitcoin" with a "fully integrated" liquid cooling system. *See* SEC Amendment No. 6 to Form S-1 at 1.

38. Rhodium's "founders spent the previous four years developing, testing, and collecting field operational data to optimize the application of [their] liquid-cooling technology to mining bitcoin." *Id.* Rhodium designs, builds, and operates data centers, also called "mining farms" consisting of "bitcoin miners" (i.e. high-powered computers) submerged in dielectric cooling fluid within specialized tank modules. *Id.* at 1, 22. The miners mine bitcoin and thus generate revenue. The liquid cooling system permits Rhodium

to "predictably and consistently mine more bitcoin with fewer miners" by "optimize[ing] the hash rate, or processing power" of the miners. *Id.* at 1.

39. According to the foregoing SEC filing, Rhodium does not sell immersion cooling products to third parties, but instead is a fully integrated bitcoin mining operation that designs, builds, and then operates its own allegedly proprietary immersion cooling systems to mine bitcoin and generate revenue. *Id.* at 1. Rhodium and its non-defendant subsidiaries operate as a common enterprise controlled by Rhodium Enterprises and/or by Rhodium Technologies, and/or by their officers and primary shareholders the Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols.

40. Rhodium Defendants own and operate a bitcoin mining facility in Rockdale, Texas. Below are images from Rhodium's Rockdale facility showing the infringing liquid immersion cooling systems and tank modules:

See, e.g., "Investor Presentation 17.02.2020. In connection with proposed acquisition of Distributed Ledger Technologies Ireland, Ltd, Element ASA" (February 17, 2020), downloaded from https://dltx.com/uploads/images/Reports-and-Documents/Presentations-and-Docs/Exemption-Doc/Element_Investor_Presentation_210217.pdf.

41. Accordingly, Defendants have directly infringed at least claims 1, 2, 5-7, 10,

11, 14 and 15 of the '457 Patent and at least claims 1, 2, 5-7 and 10 of the '446 Patent. Attached as **Exhibit E** is the claim chart for independent claims 1 and 6 of the '457 Patent. Attached as **Exhibit F** is the claim chart for independent claims 1 and 6 of the'446 Patent. These claim charts are excerpts from Midas' Final Infringement Contentions, which were served on Defendants on November 21, 2022. Midas provided claim charts for all asserted claims in its Final Infringement contentions. Exhibits E and F are designated Confidential-Outside Attorneys' Eyes Only and therefore filed under seal.

VI. DEFENDANTS' KNOWLEDGE OF THE ASSERTED PATENTS, THEIR INFRINGEMENTS, AND THE PRIOR CLAIM CONSTRUCTION ORDER

42. As detailed below, all Defendants have had actual notice of the Asserted Patents and their own infringements for some time. For example, the Individuals became aware of the '457 Patent and their infringements thereof no later than February 2020, when they received a notice letter from Midas addressed to another entity founded by the Individuals, i.e., Immersion Systems LLC. Further, the Individuals became aware of the '457 Patent and their infringements thereof, no later than November 24, 2020, when Midas amended its lawsuit against Immersion Systems to assert the '457 Patent.

43. Before founding any of their Rhodium entities, Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols began to commercialize certain liquid immersion cooling systems intended to be used in bitcoin mining operations. To sell those liquid immersion cooling systems to third parties, the Individuals formed an entity called Immersion Systems LLC in 2018. Exemplary YouTube videos show Chase Blackmon and Cameron Blackmon working on such immersion cooling systems. *See* AntMiner S9 - Immersion CoolingTest, Feb. 17, 2018. https://www.youtube.com/watch?v=DRck1Iegf2A (last accessed March 28, 2023); immersion Cooling- Beta Test 1, Feb. 17, 2018, https://www.youtube.com/watch?v=SzUO-PMtda4 (last accessed March 28, 2023); *see also* SEC Amendment No. 6 to F01m S-1 at 1 ("Our founders spent the previous four years developing, testing, and collecting field operational data to optimize the application of our

liquid-cooling technology to mining bitcoin.").

Cameron Blackmon

Chase Blackmon

44. From Immersion Systems' YouTube channel and Twitter feed, numerous images and videos are available of these liquid immersion cooling systems. For example, below is a picture from a November 12, 2019 tweet, depicting a stack of immersion cooling tank modules, from Immersion System's Twitter feed with the caption "Another shipment out! Here was have [sic] 5 Bitmain S9 tanks, fitting 42 miners each." *See* https://twitter.com/ImmersionSystem/status/1194318079758610438 (last accessed on March 28, 2023)

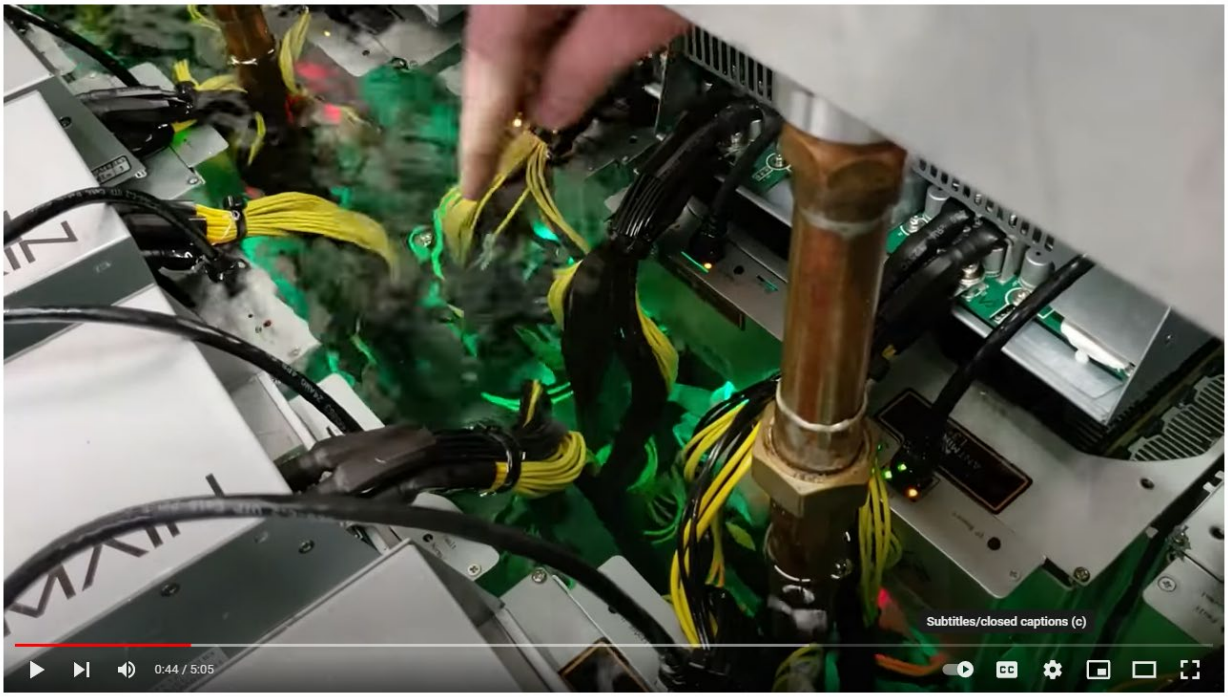
45. In another example, below is a picture from an October 15, 2019 tweet, with the caption "Another shipment ready to go at Immersion Systems! We deploy, at industrial scale, liquid immersion crypto-mining solutions. We provide free fluid extraction and tech replacement if you want to upgrade your miners on site. Contact us at sales@immersionsystems.io for more info."

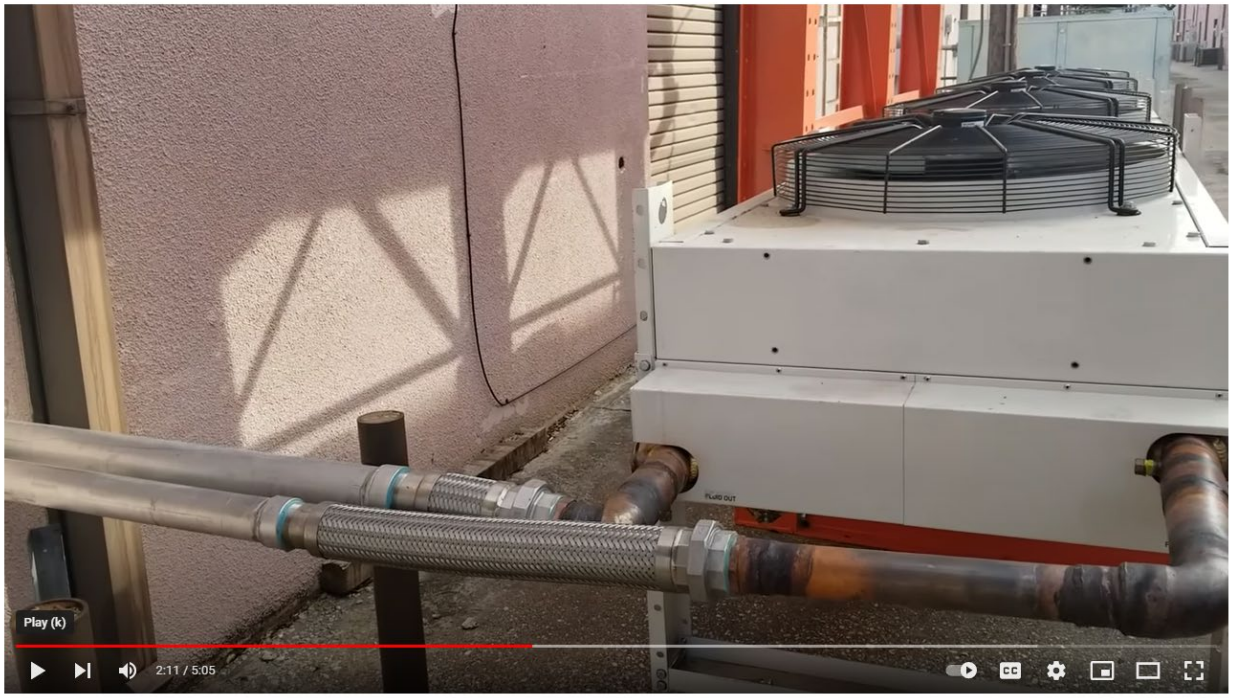
46. In another example, below is a picture from a July 21, 2019 tweet, with the caption "Preparing another order for shipping out this week! All of our systems are thoroughly tested prior to shipping. @ourbcma @MiningDisrupt #immersioncooling #mining #bitcoin."

47. In another example, Immersion System's YouTube channel 1oaded a five-minute video entitled "Introduction" on December 10, 2018. See https://www.youtube.com/watch?v=kQ6cycss5ds (last accessed March 28, 2023). That video features Individual Chase Blackmon and contains detailed explanations and videos clips of Immersion Systems' "flagship" immersion cooling system, designed by Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols.

48. The exemplar video shows the structure of the immersion cooling systems designed by Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols, including its central area with appliance slots, holed weir design, winged fluid recovery chambers on either side of the central area, the dielectric fluid flowing up through the central

area and the appliance slots, and the pump system sending the heated dielectric fluid to a dry cooler and then back. *See id.* at 0:44 ("In here, you can see this is BitCool that we use to pump up through the miners and then it exits the sides in a fluid recovery chamber.").





49. From approximately 2018 to 2020, Immersion Systems promoted infringing immersion cooling systems with this design to third parties for use in bitcoin mining operations.

50. On the basis of these videos and photos, Midas sent a detailed letter and claim chart to Immersion Systems on February 7, 2020, explaining that Immersion Systems' immersion cooling systems infringed the’457 Patent. On information and belief, each of the Individuals received and actually read Midas' February 7, 2020 letter around the time that it was sent. Immersion did not respond to that letter, or a second letter sent shortly thereafter.

51. After Immersion Systems did not respond to the second letter from Midas, Midas filed suit against Immersion Systems on May 29, 2020 in the Northern District of Texas, *Midas Green Technologies, LLC v. Immersion Systems LLC,* No. 4:20-cv-00555-O (hereafter, "the Immersion Systems Litigation."). On November 24, 2020, Midas amended its complaint to include detailed allegations of patent infringement for the’446 Patent.

52. The individuals decided to shut down Immersion Systems in 2020, shortly

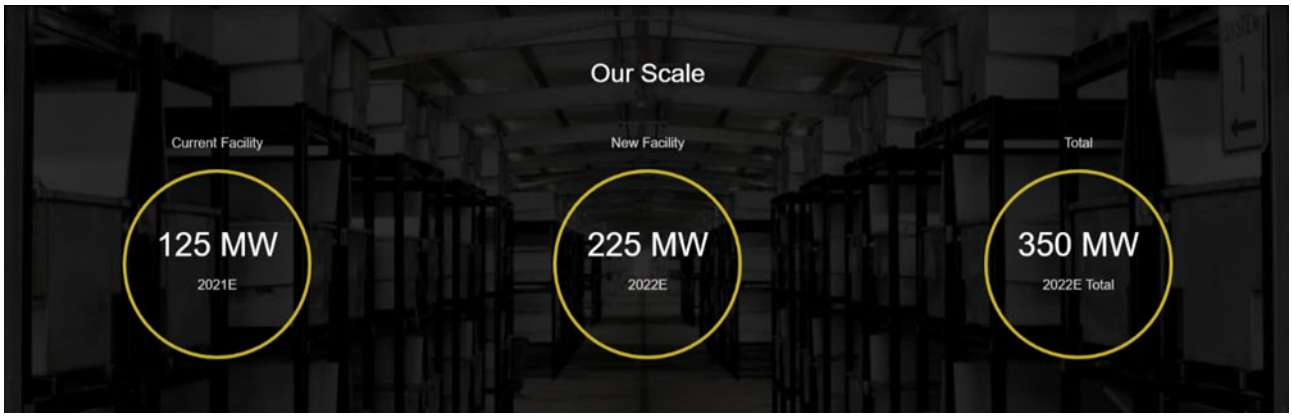
after receiving Midas' first letter on February 7, 2020. On information and belief, the Individuals made this decision to cease conducting business under Immersion Systems because they then knew that their particular immersion cooling systems infringed the'457 Patent.

53. Around this time, as detailed further below, the Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols formed their first Rhodium entity in April 2020, *i.e.,* Defendant Rhodium 30MW LLC. The purpose of this entity (and of the other Defendant Rhodium Operating Subsidiaries and Rhodium Post-Filing Operating Subsidiaries) was not to sell immersion cooling systems to third parties, but rather to use immersion cooling systems to mine bitcoin.

54. During the pendency of the Immersion Systems Litigation, the Individuals caused Immersion Systems to take steps to conceal the existence of the Individuals' new Rhodium businesses.

55. Exemplary photos from Defendants' Rockdale, Texas facility (see above), and as well as photos from Rhodium's website (rhdm.com, see below), appear to suggest that the immersion cooling systems of Rhodium are materially identical to the immersion cooling systems previously promoted by the Individuals by way of Immersion Systems.

56. Because the immersion cooling systems products previously promoted by Immersion Systems and the immersion cooling systems used by Rhodium appear to be materially identical, each of the Individuals had actual notice that the immersion cooling systems



of Rhodium infringed the'457 Patent, as of February 2020. Despite this knowledge, on information and belief, the Individuals acting through one or more of the Defendants, decided to utilize the particular immersion cooling systems that they had previously promoted via Immersion Systems, in the Defendants' new Rhodium-labelled bitcoin mining business ventures.

57. On information and belief, all of the Rhodium Defendants had actual and constructive notice and knowledge of the '457 Patent as of their founding, at least by virtue of the actual notice of the '457 Patent possessed by the Individuals.

58. On information and belief, all of the Rhodium Defendants had actual knowledge that their immersion cooling systems would infringe the '457 Patent as of their founding, at least by virtue of the knowledge of infringement possessed by the Individuals.

59. On information and belief, each of the Defendants gained actual notice of the '446 Patent in November of 2020, by virtue of the filing by Midas of its amended complaint in the Immersion Systems Litigation. Each of the Defendants had actual notice that the immersion cooling systems of Rhodium infringed the'446 Patent, by virtue of the filing by Midas of its amended complaint.

60. During the course of the Immersion Systems Litigation, Midas and Immersion Systems submitted a Joint Claim Construction Chart (Dkt. 82) in which the parties agreed to the

proper construction of two claim terms, i.e., "weir" and "plenum," and in which the parties further agreed that seventeen other claim terms should be afforded their plain and ordinary meaning. A true and correct copy of that filing is attached as **Exhibit G**.

61. On November 22, 2021, the Court in the Immersion Systems Litigation issued its claim construction order, rejecting arguments from Immersion System that the '457 and'446 Patents were invalid as indefinite, and adopting Midas' proposed constructions as plain and ordinary meaning, with regard to two disputed claim terms. A true and correct copy of the Court's claim construction order is attached as **Exhibit H**. In its claim construction order, the Court also adopted the proposed constructions for nineteen agreed-upon terms and phrases as set forth in the parties' Joint Claim Construction Chart (Dkt. 82).

62. As of their receipt of the foregoing claim construction ruling from the Immersion Systems Litigation in late November 2021, the Defendants knew or should have known that the Asserted Patents were valid and infringed by Defendants, to the extent they did not already possess such knowledge.

63. The Amended SEC Form S-1 filed by Defendant Rhodium Enterprises, Inc. on December 14, 2021 discloses the existence of the Immersion Systems Litigation, as well as acknowledging the possibility that Midas might file a patent infringement lawsuit against Rhodium. *See* SEC Amendment No. 4 to Form S-1 at 29, Rhodium Enterprises, Inc. (Dec. 14, 2021), *available at* https://sec.report/Document/0001213900-21-065116/fs12021a4_rhodium.htm. Notably, the Form S-1 does *not* state that the Rhodium systems or tanks are different in any material respect from the accused Immersion systems or tanks, amounting to a tacit admission that they are the same or similar in all material respects. *Id.* Even after Midas filed the Original Complaint in this action, Rhodium filed an amended Form S-1 acknowledging the lawsuit but not containing any statements that the Rhodium systems or tanks differ in any material respect from the infringing Immersion systems or tanks. SEC Amendment No. 6 to Form S-1 at 4. Defendants' disclosure of the Immersion Systems Litigation, and a corresponding litigation risk to the Rhodium entities, in its Form S-1 further demonstrates

its knowledge of the Asserted Patents and of its infringement.

64. As of the filing of this suit on January 13, 2022, each of the Defendants is well aware of the Asserted Patents, and each of the Defendants is well aware of their infringements thereof.

VII. CAUSES OF ACTION

Count 1: Infringement of U.S. Patent No. 10,405,457

65. Midas incorporates by reference the preceding paragraphs, as if set forth herein.

66. The '457 Patent was filed April 30, 2014, and legally issued by the United States Patent and Trademark Office on September 3, 2019. The '457 Patent is valid and enforceable and presumed as such pursuant to 35 U.S.C. § 282.

67. Without a license or permission from Midas, Defendants have directly infringed and continue to directly infringe one or more claims of the '457 Patent by making, having made, using, offering for sale, or selling products and devices that embody the patented invention in violation of 35 U.S.C. § 271.

68. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC directly infringe the '457 Patent under 35 USC §271(a) by (1) providing infringing immersion cooling systems to other Defendants; (2) controlling and directing the direct infringement of one or more of the other Defendants; and (3) benefitting and profiting from the infringement of one or more of the other Defendants. The other Defendants directly infringe the '457 Patent under 35 USC §271(a) by their admitted use of infringing immersion cooling systems.

69. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC further indirectly infringe the '457 Patent by (1) directing other third parties to design, build or install infringing products and devices; and (2) controlling and directing the direct infringement of one or more of the other Defendants.

70. Defendants' infringement has been, and continues to be, knowing, intentional, and willful, at least beginning February 7, 2020, with the delivery of Midas' noticed letter to Immersion Systems, of which the Individuals had contemporaneous notice.

71. Defendants' acts of infringement of the '457 Patent have caused and will continue to cause Midas damages for which Midas is entitled compensation pursuant to 35 U.S.C. § 284. Defendants' acts of infringement of the '457 Patent have caused and will continue to cause Midas immediate and irreparable harm unless such infringing activities are enjoined by this Court pursuant to 35 U.S.C. § 283. Midas has no adequate remedy at law.

A. Direct Infringement

72. Defendants have directly infringed one or more claims of the '457 Patent in the Western District of Texas, the State of Texas, and elsewhere in the United States, by at least making, having made, using, selling, and/or offering for sale appliance immersion cooling systems that satisfy every limitation of at least claims 1 and 6 of the'457 Patent. If any limitation of claim 1 or 6 is not practiced in a literal sense, then that limitation is present under the doctrine of equivalents.

73. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have directly infringed one or more claims of the '457 Patent in the Western District of Texas, the State of Texas, and elsewhere in the United States by way of: (1) directing and controlling the activities of the Defendant Rhodium Operating Entities and the Defendants identified as Rhodium Post-Filing Operating Subsidiaries; and (2) benefiting and profiting from the other Defendants infringing actions. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC also purchase infringing immersion cooling tanks and provided those infringing tanks to one or more of the other Defendants.

74. See **Exhibit E** which is an exemplary claim chart detailing representative infringement of claims 1 and 6 of the'457 Patent.

B. Induced Infringement

75. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have been and are inducing infringement of the '457 Patent by actively and knowingly inducing others, including other Defendants, to make, have made and/or use, the infringing

immersion cooling systems and tank modules that embody the invention claimed in the '457 Patent in violation of 35 U.S.C. § 271(b). Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have also induced infringement by willfully directing and controlling the infringing activities of other third parties, such as manufacturers and installers, to make, have made, or use the infringing immersion cooling systems and tank modules.

76. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have possessed specific intent to induce infringement of the'457 Patent. Specifically, Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have long been aware of the '457 Patent and the specific manner in which their immersion cooling system design infringes the'457 Patent, by virtue of detailed claim charts provided to the Individuals and either shared with all other Defendants or that all other Defendants have knowledge of their infringement through the knowledge of the Individuals, who are officers, directors, and owners of the Rhodium Defendants. Despite this knowledge of the patent and the infringing design, Defendants have induced third parties to take actions that they know will infringe, either directly or contributorily, through the actions described in this section and throughout this complaint. For example, Defendant Rhodium Enterprises, Inc. directed Ameritex Machine and Fabrication, LLC ("Ameritex") to make and sell its infringing immersion tanks. See Exhibit C.

77. Defendants have induced infringement by providing designs and instructions to third party manufacturers, such as Ameritex and contractors to have made infringing immersion cooling systems and tank modules. *Id.*

78. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have induced infringement by willfully providing infringing directions, instructions and designs for immersion cooling systems and tank modules to other Defendants, third party manufacturing companies, such as Ameritex and other contractors, for knowing use in infringing activity to mine bitcoin and generate revenue. *Id.*

Count 2: Infringement of U.S. Patent No. 10,820,446

79. Midas incorporates by reference the preceding paragraphs, as if set forth herein.

80. The ‘446 Patent was filed January 9, 2019, and legally issued by the United States Patent and Trademark Office on October 27, 2020. The ‘446 Patent is valid and enforceable, and presumed as such pursuant to 35 U.S.C. § 282.

81. Without a license or permission from Midas, Defendants have directly infringed and continue to directly infringe one or more claims of the’446 Patent, by making, having made, using, offering for sale, or selling products and devices that embody the patented invention in violation of 35 U.S.C. § 271.

82. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC directly infringe the ‘446 Patent under 35 USC §271(a) by; (1) providing infringing immersion cooling systems to other Defendants; (2) controlling and directing the direct infringement of one or more of the other Defendants; and (3) benefitting and profiting from the infringement of one or more of the other Defendants. The other Defendants directly infringe the ‘446 Patent under 35 USC §271(a) by their admitted use of infringing immersion cooling systems.

83. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC further indirectly infringe the ‘446 Patent by; (1) directing other third parties to design, build or install infringing products and devices; and (2) controlling and directing the direct infringement of one or more of the other Defendants. Defendants' infringement has been, and continues to be, knowing, intentional, and willful, at least beginning November 24, 2020, with the filing of Midas' amended complaint against Immersion Systems, of which the Individuals had contemporaneous notice.

84. Defendants' acts of infringement of the ‘446 Patent have caused and will continue to cause Midas damages for which Midas is entitled compensation pursuant to 35 U.S.C. § 284. Defendants' acts of infringement of the ‘446 Patent have caused and will

continue to cause Midas immediate and irreparable harm unless such infringing activities are enjoined by this Court pursuant to 35 U.S.C. § 283. Midas has no adequate remedy at law.

C. Direct infringement

85. Defendants have directly infringed one or more claims of the '446 Patent in the Western District of Texas, the State of Texas, and elsewhere in the United States, by at least making, having made, using, selling, and/or offering for sale appliance immersion cooling systems that satisfy every limitation of at least claims 1 and 6 of the'446 Patent. If any limitation of claims 1 or 6 is not practiced in a literal sense, then that limitation is present under the doctrine of equivalents.

86. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have directly infringed one or more claims of the '446 Patent in the Western District of Texas, the State of Texas, and elsewhere in the United States by way of (1) directing and controlling the activities of the Defendant Rhodium Operating Entities and the Defendants identified as Rhodium Post-Filing Operating Subsidiaries and (2) benefiting and profiting from the other Defendants infringing actions. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC also purchase infringing immersion cooling tanks and provided those infringing tanks to one or more of the other Defendants.

87. See **Exhibit F** which is an exemplary claim chart detailing representative infringement of claims 1 and 6 of the'446 Patent.

D. Induced Infringement

88. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have been and are inducing infringement of the '446 Patent by actively and knowingly inducing others, including other Defendants, to make, have made, and/or use, the infringing immersion cooling systems and tank modules that embody the invention claimed in the '446 Patent in violation of 35 U.S.C. § 27l(b). Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have also induced infringement by willfully

directing and controlling the infringing activities of other third parties, such as manufacturers and installers, to make, have made, or use the infringing immersion cooling systems and tank modules.

89. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have possessed specific intent to induce infringement of the'446 Patent. Specifically, Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have long been aware of the '446 Patent and the specific manner in which their immersion cooling system design infringes the'446 Patent, by virtue of detailed claim charts provided to the Individuals and either shared with all other Defendants or that all other Defendants have knowledge of their infringement through the knowledge of the Individuals, who are officers, directors, and owners of the Rhodium Defendants.

90. Despite this knowledge of the patent and the infringing design, Defendants have induced third parties to take actions that they know will infringe, either directly or contributorily, through the actions described in this section and throughout this complaint. For example, Defendant Rhodium Enterprises, Inc. directed Ameritex Machine and Fabrication, LLC ("Ameritex") to make and sell it infringing immersion tanks.

91. Defendants have induced infringement by providing designs and instructions to third party manufacturers, such as Ameritex, and contractors to have made infringing immersion cooling systems and tank modules.

92. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have induced infringement by willfully providing infringing directions, instructions and designs for immersion cooling systems and tank modules to other Defendants, third party manufacturing companies, such as Ameritex and other contractors, for knowing use in infringing activity to mine bitcoin and generate revenue.

Count 3: Willfulness and Egregiousness

93. Midas incorporates by reference the preceding paragraphs, as if set forth herein.

94. Defendants have willfully and maliciously infringed the '457 and’446 Patents at least since the date of their actual notice of the patents and their infringement. Specifically, despite receiving detailed claim charts both in letters and having received such information through the Immersion Systems litigation showing that their immersion cooling systems designs infringes Midas' patents, Defendants have continued to operate their infringing immersion cooling systems. Indeed, Defendants have aggressively sought to expand their operations and add additional immersion cooling systems, knowing throughout their existence that they infringe Midas' patents.

95. The Individuals (by way of Immersion Systems) actively sought to conceal the existence of their Rhodium business and did not reveal its existence during the course of the Immersion Systems litigation, despite clear discovery obligations to do so. The Individuals also actively sought to conceal that Immersion Systems had ceased business operations, continuing in the Northern District of Texas litigation for the true benefit of the Defendants.

96. At the same time, on information and belief, the Individuals, and/or Rhodium directly or indirectly bankrolled the filing and prosecution, nominally in the name of Immersion Systems, of an *Inter parties* review proceeding directed to attempt to invalidate the’457 Patent, as well as a Post-Grant review proceeding directed to attempt to invalidate the’446 Patent.

97. Defendants' infringement has been egregious, wanton, malicious, and in bad faith.

98. The Individuals, who are the officers, directors, and owners of the Defendants, possessed full knowledge that their immersion cooling systems design infringed the '457 and’446 Patents, knew these patents were valid, did not attempt to procure a license to these valid patents, and instead proceeded to start a new business using the same or substantially the same infringing design. As Rhodium advertises, this immersion cooling system design is critical to their business and a primary driver of their profitability, and yet Defendants have knowingly and maliciously stolen Midas' patented and innovative technology for their own profit without compensating the inventors of the technology.

Additional Allegations Relating to the Asserted Patents

99. The '457 Patent is directed to an improved appliance immersion cooling system and method of operation. Specifically, the '457 Patent seeks to solve at least two problems in the prior art of appliance immersion cooling systems: (1) the difficulty of maintenance and access to the electrical equipment in prior art vertical-stack-type systems, which necessitate draining the cooling fluid to gain access to the equipment; and (2) non-uniform flow patterns of the dielectric fluid within the tank and constricted dielectric fluid supply and return ports, resulting in uneven cooling and unnecessarily high fluid flow velocities. The invention of the '457 Patent is an improvement over the prior art and provides greater efficiency and effectiveness through ease of access to the electrical appliances in an open horizontal tank, substantially uniform fluid flow patterns through all appliance slots leading to substantially uniform cooling, and lower fluid flow velocities. The '457 Patent accomplishes these improvements through a unique, innovative design, as described below, that achieves substantially uniform flow of dielectric fluid upwardly through the tank, beginning from a plenum that substantially uniformly distributes the dielectric fluid across the bottom of the tank and then a weir that is adapted to facilitate substantially uniform recovery of the dielectric fluid that has cooled the appliances, where the fluid flows over the weir into fluid recovery reservoirs, to then be cycled and re-cooled, for recirculation into the tank. The '457 Patent therefore does not claim an abstract idea, law of nature, or natural phenomenon, but instead to a tangible, patent-eligible invention.

100. The '457 Patent claims, among other things, an appliance immersion cooling system that includes a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank. The tank includes a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, having an overflow lip adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot, and a dielectric fluid recovery reservoir positioned vertically beneath the

overflow lip of the weir and adapted to receive the dielectric fluid as it flows over the weir. The appliance immersion cooling system also includes a primary circulation facility adapted to circulate the dielectric fluid through the tank. The primary circulation facility includes a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot. The appliance immersion cooling system also, in some embodiments, includes a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulating in the primary circulation facility, and to dissipate to the environment the heat so extracted. The appliance immersion cooling system also includes a control facility adapted to coordinate the operation of the primary and, if included, the secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

101. The ‘457 Patent also claims, among other things, a tank module adapted for use in an appliance immersion cooling system. The tank module includes a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank. The tank includes a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, having an overflow lip adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot, and a dielectric fluid recovery reservoir positioned vertically beneath the overflow lip of the weir and adapted to receive the dielectric fluid as it flows over the weir. The tank module also includes a primary circulation facility adapted to circulate the dielectric fluid through the tank, including a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot, and a control facility adapted to control the operation of the primary fluid circulation facility as a function of the temperature of the dielectric fluid in the tank.

102. The ‘446 Patent is directed to an improved appliance immersion cooling system and method of operation. Specifically, the ‘446 Patent seeks to solve at least two

problems in the prior art of appliance immersion cooling systems: (1) the difficulty of maintenance and access to the electrical equipment in prior art vertical-stack-type systems, which necessitate draining the cooling fluid to gain access to the equipment; and (2) non-uniform flow patterns of the dielectric fluid within the tank and constricted dielectric fluid supply and return ports, resulting in uneven cooling and unnecessarily high fluid flow velocities. The invention of the '446 Patent is an improvement over the prior art and provides greater efficiency and effectiveness through ease of access to the electrical appliances in an open horizontal tank, substantially uniform fluid flow patterns through all appliance slots leading to substantially uniform cooling, and lower fluid flow velocities. The '446 Patent accomplishes these improvements through a unique, innovative design, as described below, that achieves substantially uniform flow of dielectric fluid upwardly through the tank, beginning from a plenum that substantially uniformly distributes the dielectric fluid across the bottom of the tank and then a weir that is adapted to facilitate substantially uniform recovery of the dielectric fluid that has cooled the appliances, where the fluid flows over the weir into fluid recovery reservoirs, to then be cycled and re-cooled, for recirculation into the tank. The '446 Patent therefore does not claim an abstract idea, law of nature, or natural phenomenon, but instead to a tangible, patent-eligible invention.

103. The '446 Patent claims, among other things, an appliance immersion cooling system that includes a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank. The tank includes a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot. The appliance immersion cooling system also includes a primary circulation facility adapted to circulate the dielectric fluid through the tank. The primary circulation facility includes a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot. The appliance immersion cooling system also includes, in at least

one embodiment, a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulation in the primary circulation facility, and to dissipate to the environment the heat so extracted, and a control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

104. The ‘446 Patent also claims, among other things, a tank module adapted for use in an appliance immersion cooling system. The tank module includes a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically long, and extending transverse to, a long wall of the tank. The tank includes a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot. The tank module also includes a primary circulation facility adapted to circulate the dielectric fluid through the tank, including a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot, and a control facility adapted to control the operation of the primary fluid circulation facility as a function of the temperature of the dielectric fluid in the tank.

VIII. JURY DEMAND

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Midas respectfully requests a trial by jury of any issues so triable by right.

PRAYER FOR RELIEF

Wherefore, Midas requests judgment against Defendants as follows:

A. Adjudging that all Defendants have directly infringed, the’457 Patent, in violation of 35 U.S.C. § 271(a);

B. Adjudging that Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have actively induced infringement of the’457 Patent, in violation of 35 U.S.C. § 271(b);

C. Adjudging that all Defendants have directly infringed the’446 Patent, in

violation of 35 U.S.C. § 27l(a);

D. Adjudging that Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have actively induced infringement of the'446 Patent, in violation of 35 U.S.C. § 271(b);

E. Permanently enjoining Defendants, their employees, agents, officers, directors, attorneys, successors, affiliates, subsidiaries, and assigns, and all of those in active concert and participation with any of the foregoing persons or entities from infringing, contributing to the infringement of, or inducing infringement of, the '457 Patent and of the'446 Patent;

F. Ordering Defendants to account for and pay damages adequate to compensate Midas for Defendants' infringement of, and inducement to infringe, the '457 Patent and the'446 Patent, including pre-judgment and post-judgment interest and costs, pursuant to 35 U.S.C. § 284;

G. Ordering an accounting by Defendants for any infringing activity not presented at trial and an award by the court of additional damages for any such infringing activity to Midas;

H. Ordering that the damages award by increased up to three times the actual amount assessed, pursuant to 35 U.S.C. § 284;

I. Declaring this case exceptional and ordering Defendants to pay the cost of this action, including all disbursements, and attorneys' fees as provided by 35 U.S.C. § 285, together with prejudgment interest; and

J. Awarding such other and further relief as this Court deems just and proper.

DATED: March 29, 2023

Respectfully submitted,

/s/ Joseph E. Thomas
Joseph E. Thomas (*admitted p.h.v.*)
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Counsel for Plaintiff
Midas Green Technologies, LLC

CERTIFICATE OF SERVICE

I hereby certify that counsel of record who have appeared electronically in this case are being served on March 29, 2023 via the email address that counsel provided to Court's ECF system.

/s/ Tierra Mendiola
Tierra Mendiola

EXHIBIT 12

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

Midas Green Technologies, LLC,	)	
	)	
Plaintiff,	)	Civil Action No. 6:22-CV-00050-ADA
	)	
v.	)	**JURY TRIAL DEMANDED**
	)	
Rhodium Enterprises, Inc.;	)	
Rhodium Technologies LLC;	)	
Rhodium 10MW LLC;	)	
Rhodium 2.0 LLC;	)	
Rhodium 30MW LLC;	)	
Rhodium Encore LLC;	)	
Rhodium Renewables LLC;	)	
Rhodium Renewables Sub LLC; and	)	
Rhodium Ready Ventures LLC.	)	
	)	
Defendants.	)	

DEFENDANTS' ANSWER TO PLAINTIFF'S THIRD AMENDED COMPLAINT AND COUNTERCLAIMS

Defendants Rhodium Enterprises, Inc., Rhodium Technologies LLC, Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, Rhodium Encore LLC, Rhodium Renewables LLC, Rhodium Renewables Sub LLC; and Rhodium Ready Ventures LLC. (collectively, "Rhodium" or "Defendants") hereby file their Answer to Midas Green Technologies, LLC ("Midas" or "Plaintiff")'s Third Amended Complaint for Patent Infringement.

I. PARTIES

Complaint Paragraph 1:

1. Plaintiff Midas Green Technologies, LLC is a Texas limited liability company with its principal place of business at 7801 N Capital of Texas Hwy # 230, Austin, TX 78731. Midas designs and builds immersion cooling solutions for use in data centers including cryptocurrency

mining facilities. Midas has been an innovative pioneer in the application of immersion cooling technology.

Response: Defendants admit, on information and belief, that Plaintiff is a Texas limited liability company with its principal place of business in Austin, Texas, that has offered immersion cooling solutions for sale. Defendants lack knowledge or information sufficient to form a belief about the business of Plaintiff's customers, and deny the remaining allegations of Paragraph 1.

Complaint Paragraph 2:

2. Defendant Rhodium Enterprises, Inc. is a Delaware corporation formed on April 22, 2021. Rhodium Enterprises, Inc. conducts business in Texas, including in this District, and including in the Waco Division, including by way of its subsidiaries as described herein. According to its most recent SEC filing, Rhodium Enterprises, Inc. is a holding company and the sole managing member of Defendant Rhodium Technologies LLC. *See* SEC Amendment No. 6 to Form S-1 *see* https://www.sec.gov/Archives/edgar/data/0001874985/000121390022002442/fs12022a6_rhodium.htm.

Response: Defendants admit that Rhodium Enterprises, Inc. is a Delaware corporation formed on April 22, 2021 and that it conducts business in Texas, including in the Waco Division of this District. Defendants admit that Rhodium Enterprises, Inc. is a holding company and the manager and a member of Rhodium Technologies LLC. To the extent that there are other allegations in this paragraph that require a response, Defendants deny those remaining allegations.

Complaint Paragraph 3:

3. Defendant Rhodium Technologies LLC is a Delaware limited liability company formed on October 23, 2020. Rhodium Technologies LLC was formerly known as Rhodium Enterprises LLC. Rhodium Technologies LLC is a subsidiary of Defendant Rhodium Enterprises,

Inc. Rhodium Technologies LLC conducts business in Texas, including in this District, and including in the Waco Division, including by way of its subsidiaries as described herein. According to the foregoing most-recent Amended SEC Form S-1 filing, Defendant Rhodium Technologies LLC is a holding company. In the foregoing most-recent Amended SEC Form S-1 filing, Defendant Rhodium Technologies LLC is known as "Rhodium Holdings."

Response: Defendants admit that Rhodium Technologies LLC is a limited liability company formed on October 23, 2020, and was formerly known as Rhodium Enterprises LLC. Defendants admit that Rhodium Technologies LLC is a subsidiary of Rhodium Enterprises, Inc. and that it conducts business in Texas, including in the Waco Division of this District. Defendants admit that Rhodium Technologies LLC is a holding company and is referenced as "Rhodium Holdings" in the referenced Amended SEC Form S-1 filing. To the extent that there are other allegations in this paragraph that require a response, Defendants deny those remaining allegations.

Complaint Paragraph 4:

4. Defendant Rhodium 10MW LLC is a Delaware limited liability company formed on March 12, 2021. Rhodium 10MW LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium 10MW LLC conducts business in Texas, including in this District, and including in the Waco Division.

Response: Admitted.

Complaint Paragraph 5:

5. Defendant Rhodium 2.0 LLC is a Delaware limited liability company formed on December 17, 2020. Rhodium 2.0 LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium 2.0 LLC conducts business in Texas, including in this District, and including in the Waco Division.

Response: Admitted.

Complaint Paragraph 6:

6. Defendant Rhodium 30MW LLC is a Delaware limited liability company formed on April 1, 2020. Rhodium 30MW LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium 30MW LLC conducts business in Texas, including in this District, and including in the Waco Division.

Response: Admitted.

Complaint Paragraph 7:

7. Defendant Rhodium Encore LLC is a Delaware limited liability company formed on January 1, 2021. Rhodium Encore LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium Encore LLC conducts business in Texas, including in this District, and including in the Waco Division.

Response: Defendants admit that Rhodium Encore LLC was formed in January 2021 (on January 8, 2021). Defendants admit the remaining allegations of Paragraph 7.

Complaint Paragraph 8:

8. Defendant Rhodium Renewables LLC is a Delaware limited liability company formed on March 17, 2021. Rhodium Renewables LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium Renewables LLC conducts business in Texas, including in this District, and including in the Waco Division.

Response: Admitted.

Complaint Paragraph 9:

9. Defendant Rhodium Renewables Sub LLC is a Delaware limited liability company formed on April 25, 2022, with a principal office at 4146 W. US Highway 79, Rockdale, Texas

76567-5278. Rhodium Renewables Sub LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium Renewables Sub LLC conducts business in Texas, including in this District, and including in the Waco Division.

Response: Admitted.

Complaint Paragraph 10:

10. Defendant Rhodium Ready Ventures LLC is a Delaware limited liability company formed on August 23, 2022, with a principal office at 4146 W. US Highway 79, Rockdale, Texas 76567-5278. Rhodium Ready Ventures LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium Ready Ventures LLC conducts business in Texas, including in this District, and including in the Waco Division.

Response: Admitted.

Complaint Paragraph 11:

11. The foregoing SEC filing describes each of Defendants Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, Rhodium Encore LLC, Rhodium Industries LLC, and Rhodium Renewables LLC, as operating subsidiaries of Rhodium Technologies LLC. This SEC filing (dated January 18, 2022) also refers to i Ventures Enterprises LLC (then doing business as Energy Tech LLC) as a related party. Accordingly, these defendants will be collectively be referenced herein as "the Rhodium Operating Subsidiaries."

Response: Defendants admit that the referenced SEC filing is dated Januay 18, 2022. The SEC filing speaks for itself.

Complaint Paragraph 12:

12. After Midas filed this case on January 13, 2022, and after the January 18, 2022 date of the aforementioned SEC filing, Jordan HPC Sub LLC, Rhodium Renewables Sub LLC, and

Rhodium Ready Ventures LLC were formed by certain of the other Defendants, ostensibly to be governed by Rhodium Technologies LLC. After the filing of this case and of the aforementioned SEC filing, Rhodium 10MW Sub LLC, Rhodium 30MW Sub LLC, Rhodium Encore Sub LLC, and Rhodium 2.0 Sub LLC were formed by certain of the other Defendants, ostensibly to be governed by Rhodium JV LLC. Accordingly, these companies, whether a defendant or not, will be collectively referenced herein as "the Rhodium Post-Filing Operating Subsidiaries."

Response: Defendants admit that Jordan HPC Sub LLC, Rhodium Renewables Sub LLC, and Rhodium Ready Ventures LLC were formed after January 13, 2022, that Jordan HPC Sub LLC is governed by Rhodium Technologies, LLC, and that Rhodium 10MW Sub LLC, and Rhodium 30MW Sub LLC are governed by Rhodium JV LLC. The remaining allegations are vague as to "certain of the other Defendants," "ostensibly to be governed," and the companies intended to be included in "these companies," and Defendants thus lack information sufficient to admit or deny them. On that basis, Defendants deny the remaining allegations of Paragraph 12.

Complaint Paragraph 13:

13. Chase Blackmon is a Texas resident, is a co-founder and the Chief Operating Officer of both Rhodium Enterprises, Inc., and Rhodium Technologies LLC. Chase Blackmon is a director nominee for the board of directors of Rhodium Enterprises. Chase Blackmon also owns shares of both Rhodium Enterprises and Rhodium Technologies by way of an entity called Imperium Investment Holdings LLC ("Imperium"). Imperium is the majority and controlling owner of both Rhodium entities. According to the foregoing SEC filing, Chase Blackmon controls 25% of the voting interests in Imperium. Chase Blackmon personally directed, participated in, authorized, and/or ratified the infringing conduct of the Defendants. For example, on information and belief, Chase Blackmon helped design Defendants' infringing immersion cooling systems, and

he directs, participates in, and makes decisions regarding the making and use of the infringing immersion cooling systems.

Response: Defendants admit Chase Blackmon is a Texas resident, deny that he is a nominee and admit that he is a current member of the board of directors of Rhodium Enterprises, Inc. Defendants admit that the SEC filing referenced in this paragraph states that Chase Blackmon controls 25% of the voting interests in Imperium. Defendants deny that they or Chase Blackmon have engaged in any infringing conduct, including that they have not designed, made, or used any systems that infringe any valid and enforceable claim of any asserted patent. To the extent that there are other allegations in this paragraph that require a response, Defendants deny those remaining allegations.

Complaint Paragraph 14:

14. Cameron Blackmon is a Texas resident, is a co-founder and the Chief Technology Officer of both Rhodium Enterprises, Inc., and Rhodium Technologies LLC. Cameron Blackmon is a director nominee for the board of directors of Rhodium Enterprises. Cameron Blackmon also owns shares of both Rhodium Enterprises and Rhodium Technologies through Imperium. According to the foregoing SEC filing, Cameron Blackmon controls 25% of the voting interests in Imperium. On information and belief, Cameron Blackmon personally directed, participated in, authorized, and/or ratified the infringing conduct of the Defendants. For example, on information and belief, Cameron Blackmon helped design and develop Defendants' infringing immersion cooling systems, and he directs, participates in, and makes decisions regarding the making and use of the infringing immersion cooling systems.

Response: Defendants admit Cameron Blackmon is a Texas resident and is a co-founder and the Chief Technology Officer of Rhodium Enterprises, Inc. Defendants admit that the SEC filing

referenced in this paragraph states that Cameron Blackmon controls 25% of the voting interests in Imperium. Defendants deny that they or Cameron Blackmon have engaged in any infringing conduct, including that they have not designed, made, or used any systems that infringe any valid and enforceable claim of any asserted patent. To the extent that there are other allegations in this paragraph that require a response, Defendants deny those remaining allegations.

Complaint Paragraph 15:

15. Nathan Nichols is a Texas resident, is a co-founder and the Chief Executive Officer of both Rhodium Enterprises, Inc., and Rhodium Technologies LLC. Nathan Nichols serves on the board of directors for Rhodium Enterprises. Nathan Nichols also owns shares of both Rhodium Enterprises and Rhodium Technologies through Imperium. According to the foregoing SEC filing, Nathan Nichols controls 25% of the voting interests in Imperium. On information and belief, Nathan Nichols personally directed, participated in, authorized, and/or ratified the infringing conduct of the Defendants. For example, on information and belief, Nathan Nichols helped design and develop Defendants' infringing immersion cooling systems, and he directs, participates in, and makes decisions regarding the making and use of the infringing immersion cooling systems.

Response: Defendants admit on information and belief that Nathan Nichols is a Texas resident and admit that he is a co-founder of Rhodium Enterprises, Inc. Defendants admit that the SEC filing referenced in this paragraph states that Nathan Nichols controls 25% of the voting interests in Imperium. Defendants deny that they or Nathan Nicols have engaged in any infringing conduct, including that they have not designed, made, or used any systems that infringe any valid and enforceable claim of any asserted patent. To the extent that there are other allegations in this paragraph that require a response, Defendants deny those remaining allegations.

Complaint Paragraph 16:

16. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, and the Defendant Rhodium Operating Subsidiaries have common stock ownership. Each of Chase Blackmon, Cameron Blackmon, and Nathan Nichols (the "Individuals") owns shares of both Defendant Rhodium Enterprises, Inc., and Defendant Rhodium Technologies LLC through Imperium. *See* SEC Amendment No. 6 to Form S-1 at 102. Rhodium Technologies LLC in turn directly or indirectly owns all of the outstanding equity interests in the Rhodium Operating Subsidiaries. *Id*. at 103-05. Rhodium Technologies LLC also directly or indirectly owns all of the outstanding equity interests in the Rhodium Post-Filing Operating Subsidiaries.

Response: Defendants admit that Rhodium Technologies LLC directly or indirectly owns all of the outstanding equity interests in the Rhodium Operating Subsidiaries. Otherwise denied.

Complaint Paragraph 17:

17. The Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries, share common directors and officers with Defendant Rhodium Enterprises, Inc., and Defendant Rhodium Technologies LLC.

Response: Denied.

Complaint Paragraph 18:

18. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, and the Rhodium Operating Subsidiaries file consolidated financial statements. *Id.* at F-17 ("The condensed consolidated financial statements include the accounts of Rhodium Enterprises Inc. and its respective subsidiaries.")

Response: Admitted with respect to the SEC filing referenced in this paragraph.

Complaint Paragraph 19:

19. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, the

Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries were incorporated by Cameron Blackmon, acting on behalf of Imperium, a third party under the control of the Individuals.

Response: Defendants admit that Cameron Blackmon signed the incorporation documents for Rhodium Technologies LLC, the Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries. Defendants deny the remaining allegations of this paragraph.

Complaint Paragraph 20:

20. The Rhodium Operating Subsidiaries, as well as the Rhodium Post-Filing Operating Subsidiaries, are presently undercapitalized and exist for the purposes of illegitimately shielding Defendant Rhodium Enterprises, Inc., and Rhodium Technologies LLC, and in turn the Individuals, from liability. On information and belief, the Rhodium Operating Subsidiaries, as well as the Rhodium Post-Filing Operating Subsidiaries, would be unable to satisfy any money judgement levied against them because of their undercapitalization and because their revenues flow directly to Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC.

Response: Denied.

Complaint Paragraph 21:

21. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC finance the Rhodium Operating Subsidiaries, as well as the Rhodium Post-Filing Operating Subsidiaries.

Response: Denied.

Complaint Paragraph 22:

22. Rhodium Shared Services LLC directly pays the salaries of all Rhodium officers and employees, with the exception that Rhodium Shared Services LLC indirectly pays the salary

of Rhodium Chief Financial Officer Nicholas Cerasuolo by way of its subsidiary, Rhodium Shared Services PR Inc.

Response: Admitted that Rhodium Shared Services LLC directly pays the salaries of all Rhodium employees. Otherwise denied.

Complaint Paragraph 23:

23. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, the Defendant Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries, use each other's properties as their own. For example, on information and belief, some or all of them operate out of the same Rockdale, Texas bitcoin mining facility, among other facilities.

Response: Defendants admit that Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, and Rhodium Encore LLC operate out of the same Rockdale, Texas bitcoin mining facility. Otherwise denied.

Complaint Paragraph 24:

24. The daily operations of Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, the Defendant Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries are not kept separate. For example, they collectively operate the same bitcoin mining operation. *Id.* At F-16 ("The Company, together with its subsidiaries, operates a digital mining operation"). As discussed above, on information and belief, some or all of them operate out of the same Rockdale, Texas bitcoin mining facility, among other facilities. On information and belief, they also have common business departments.

Response: Denied.

Complaint Paragraph 25:

25. The Rhodium Operating Subsidiaries, as well as the Rhodium Post-Filing

Operating Subsidiaries, receive no business except through that allocated and arranged by Defendant Rhodium Enterprises, Inc. and/or Defendant Rhodium Technologies LLC. For example, Defendant Rhodium Enterprises, Inc. and/or Defendant Rhodium Technologies LLC negotiate contracts on behalf of the Defendant Rhodium Operating Subsidiaries and the Rhodium Post-Filing Operating Subsidiaries, or vice versa.

Response: Denied.

Complaint Paragraph 26:

26. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, and the Defendant Rhodium Operating Subsidiaries do not observe corporate formalities, including keeping separate books. See *Id*. at F-17 ("The condensed financial statements include the accounts of Rhodium Enterprises Inc. and its respective subsidiaries. All inter-company accounts, balances, and transactions have been eliminated.") (emphasis added). On information and belief, the same is true with respect to the Rhodium Post-Filing Operating Subsidiaries.

Response: Denied.

Complaint Paragraph 27:

27. Each Rhodium Operating Subsidiary and Rhodium Post-Filing Operating Subsidiary is an agent of Defendants Rhodium Enterprises, Inc., and Defendant Rhodium Technologies LLC (aka Rhodium Holdings) and their owners and operators, Chase Blackmon, Cameron Blackmon, and Nathan Nichols. Defendant Rhodium Enterprises, Inc. Defendant Rhodium Technologies LLC, the Defendant Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries therefore act as a common enterprise, their actions ultimately being directed by the Individuals. Specifically, the Individuals direct and control the activities of Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC, and those

Defendants in turn direct and control the activities of the operating subsidiaries. The operating subsidiaries do not function as separate entities, but rather as controlled agents of the parent entities and the operating subsidiaries act on behalf of the parent entities. *See, e.g.*, SEC Amendment No. 6 to Form S-1 at F-17 (referring to the operating subsidiaries as "the subsidiaries through which the Company operates its assets").

Response: Denied.

II. JURISDICTION

Complaint Paragraph 28:

28. This is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 101 et seq. The Court therefore has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

Response: Defendants admit that this is a civil action for patent infringement arising under the patent laws of the United States and admit that the Court has subject matter jurisdiction, but deny that Defendants have committed any act of infringement and deny the legal sufficiency of Plaintiff's complaint.

Complaint Paragraph 29:

29. Defendants are subject to this Court's specific and general personal jurisdiction, pursuant to constitutional due process and the Texas Long-Arm Statute, due at least to their extensive business in this District, including by reason of their infringement alleged herein. Specifically, and for example, Defendants own and operate an infringing bitcoin mining facility in Rockdale, Texas. *See* SEC Amendment No. 6 to Form S-1 at l (referring to Defendants' Rockdale location as the "initial Texas site"). Rockdale, Texas is located in Milam County, which is within the Western District of Texas. In addition, Defendants' second Texas site is in Temple, Texas.

Temple, Texas is located in Bell County, which is also within the Western District of Texas. Further, Defendants' third Texas site[1] is within the Northern District of Texas.

Response: Defendants do not contest the exercise of personal jurisdiction and admit that there are Rhodium sites in Texas, including in Rockdale and Temple, but deny having committed any act of infringement.

Complaint Paragraph 30:

30. Jurisdiction is also found as Defendant Rhodium Enterprises, Inc., and Defendant Rhodium Technologies LLC direct and control the infringing activities of the other Defendants. Further, Rhodium Enterprises, Inc. and Rhodium Technologies LLC purchase immersion cooling system tanks and other components, and then provide those infringing tanks for other Defendants to use. *See*, for example, **Exhibit C**, which is a manufacturing and purchase agreement whereby Rhodium Enterprises, Inc. purchases tanks and other immersion cooling products that infringe the Midas Asserted Patents, which Rhodium Enterprises, Inc. then provides either directly or indirectly to other Defendants. The entirety of the purchase agreement is marked Confidential-Outside Attorneys' Eyes Only and therefore filed under seal.

Response: Defendants do not contest the exercise of personal jurisdiction and admit that Exhibit C to the Third Amended Complaint appears to be a copy of a Manufacturing Services Agreement between Rhodium Industries LLC and Ameritex Machine and Fabrication, LLC. Defendants admit that Exhibit C is marked "Confidential – Outside Attorneys' Eyes Only" and therefore was filed under seal. Defendants deny the remaining allegations of Paragraph 30.

[1] The third location is information learned from Defendants' Further Supplemental Responses, the relevant portion of which is Attached as Exhibit D, page 9. The full text of Defendants' Further Supplemental Responses is not included in the body of the Complaint as they are marked Confidential-Outside Attorneys' Eyes Only and therefore are filed under seal.

Complaint Paragraph 31:

31. In further support of jurisdiction, each of the Defendant subsidiaries infringes the Midas patented immersion cooling system as claimed in the Assert Patents. The use of the tanks is admitted in Defendants' Further Supplemental Responses of which is Attached as **Exhibit D**. The entirety of the Defendants' Further Supplemental Responses is not included below as they are marked Confidential-Outside Attorneys' Eyes Only. Instead, citations are provided to where Rhodium admits use of the tanks.

Defendant Rhodium Operating Subsidiaries

Rhodium 10MW LLC - - page 8, at paragraph labeled "2"

Rhodium 2.0 LLC - - page 8, at paragraph labeled "2"

Rhodium 30MW LLC - - page 7, at paragraph labeled "1"

Rhodium Encore LLC - - page 8, at paragraph labeled "2"

Rhodium Renewables LLC - - page 8, at paragraph labeled "2"

Defendants also Identified as Rhodium Post-Filing Operating Subsidiaries

Rhodium Renewables Sub LLC - - page 9, first indented paragraph

Rhodium Ready Ventures LLC - - page 9, second indented paragraph

Response: Defendants do not contest the exercise of personal jurisdiction and admit that Exhibit D to the Third Amended Complaint appears to be a copy of Defendants' Further Supplemental Interrogatory Responses to Plaintiff's First Set of Interrogatories, but deny having committed any act of infringement.

III. VENUE

Complaint Paragraph 32:

32. Venue is proper in this district under 28 U.S.C. §§ 139l(b) and 1400(b). All

Defendants have at least two places of business in this District and in the Waco Division, *i.e.*, in Rockdale, Texas and in Temple, Texas. Defendants have committed acts of infringement, or a portion thereof, at these two locations within this District and within this Division.

Response: Defendants do not contest the propriety of venue but deny having committed any act of infringement.

IV. THE ASSERTED PATENTS

A. The '457 Patent

Complaint Paragraph 33:

33. U.S. Patent No. 10,405,457, entitled "Appliance Immersion Cooling System," was duly and legally issued on September 3, 2019 by the U.S. Patent and Trademark Office. The underlying application, U.S. Patent Application No. 14/355,533, was filed on April 30, 2014. A true and correct copy of the '457 Patent is attached as **Exhibit A** and incorporated by reference.

Response: Defendants admit that what purports, on its face, to be U.S. Patent No. 10,405,457, entitled "Appliance Immersion Cooling System," and issued on September 3, 2019 claiming priority to an underlying application, U.S. Patent Application No. 14/355,533, filed on April 30, 2014, is attached to the Third Amended Complaint as Exhibit A. On information and belief, Defendants deny that the patent was duly and legally issued.

Complaint Paragraph 34:

34. Midas is the assignee of all right, title, and interest in the '457 Patent, including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the '457 Patent. Accordingly, Midas possesses the exclusive right and has standing to prosecute the present action for infringement of the '457 Patent by Defendants.

Response: Defendants lack knowledge or information sufficient to form a belief about the truth

of the allegations of paragraph 34 and therefore deny them.

B. The ‘446 Patent

Complaint Paragraph 35:

35. U.S. Patent No. 10,820,446 entitled “Appliance Immersion Cooling System,” was duly and legally issued on October 27, 2020 by the U.S. Patent and Trademark Office. The underlying application, U.S. Patent Application No. 16/243,732, was filed on January 9, 2019, and is a continuation of the application which issued as the ‘457 Patent filed on April 30, 2014. A true and correct copy of the ‘446 Patent is attached as **Exhibit B** and incorporated by reference.

Response: Defendants admit that what purports, on its face, to be U.S. Patent No. 10,820,446 entitled “Appliance Immersion Cooling System,” issued on October 27, 2020, and claiming priority to an underlying application, U.S. Patent Application No. 16/243,732, filed on January 9, 2019, is attached to the Third Amended Complaint as Exhibit B. Defendants admit that what purports, on its face, to be U.S. Patent No. 10,820,446 indicates that U.S. Patent Application No. 16/243,732 was a continuation of the application which issued as the ‘457 Patent. On information and belief, Defendants deny that the patent was duly and legally issued.

Complaint Paragraph 36:

36. Midas is the assignee of all right, title, and interest in the ‘446 Patent, including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the ‘446 Patent. Accordingly, Midas possesses the exclusive right and has standing to prosecute the present action for infringement of the ‘446 Patent by Defendants.

Response: Defendants lack knowledge or information sufficient to form a belief about the truth of the allegations of Paragraph 36 and therefore deny them.

V. RHODIUM AND ITS [ALLEGED] INFRINGEMENTS

Complaint Paragraph 37:

37. Rhodium Defendants are part of "an industrial-scale digital asset technology company" that "mine[s] bitcoin" with a "fully integrated" liquid cooling system. *See* SEC Amendment No. 6 to Form S-1 at 1.

Response: Admitted that this paragraph quotes excerpts from the cited SEC document, which speaks for itself.

Complaint Paragraph 38:

38. Rhodium's "founders spent the previous four years developing, testing, and collecting field operational data to optimize the application of [their] liquid-cooling technology to mining bitcoin." *Id.* Rhodium designs, builds, and operates data centers, also called "mining farms" consisting of "bitcoin miners" (i.e. high-powered computers) submerged in dielectric cooling fluid within specialized tank modules. *Id.* at 1, 22. The miners mine bitcoin and thus generate revenue. The liquid cooling system permits Rhodium to "predictably and consistently mine more bitcoin with fewer miners" by "optimize[ing] the hash rate, or processing power" of the miners. *Id.* at 1.

Response: Defendants admit that Paragraph 38 contains excerpts from SEC filings, which speak for themselves. Defendants admit that some of Rhodium's business involves operating and contributing to the design of certain data centers, some of which use tank modules and liquid cooling systems. Defendants deny that all of their bitcoin mining uses liquid cooling systems.

Complaint Paragraph 39:

39. According to the foregoing SEC filing, Rhodium does not sell immersion cooling products to third parties, but instead is a fully integrated bitcoin mining operation that designs,

builds, and then operates its own allegedly proprietary immersion cooling systems to mine bitcoin and generate revenue. *Id.* at 1. Rhodium and its non-defendant subsidiaries operate as a common enterprise controlled by Rhodium Enterprises and/or by Rhodium Technologies, and/or by their officers and primary shareholders the Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols.

Response: Defendants admit that they do not sell immersion cooling products to third parties. Defendants admit that they generate revenue through bitcoin mining operations. The referenced SEC fiing speaks for itself. Defendants otherwise deny the allegations of Paragraph 39.

Complaint Paragraph 40:

40. Rhodium Defendants own and operate a bitcoin mining facility in Rockdale, Texas. Below are images from Rhodium's Rockdale facility showing the infringing liquid immersion cooling systems and tank modules:

See, e.g., "Investor Presentation 17.02.2020. In connection with proposed acquisition of Distributed Ledger Technologies Ireland, Ltd, Element ASA" (February 17, 2020), downloaded from https://dltx.com/uploads/images/Reports-and-Documents/Presentations-and-Docs/Exemption-Doc/Element_Investor_Presentation_210217.pdf.

Response: Defendants admit to operating a bitcoin mining facility in Rockdale, Texas, which Defendants do not own. As of the date of this answer, the link cited in Paragraph 40 is broken. The referenced document speaks for itsef. Defendants deny that any of their systems infringe any valid and enforceable claim of any asserted patent.

Complaint Paragraph 41:

41. Accordingly, Defendants have directly infringed at least claims 1, 2, 5-7, 10, 11, 14 and 15 of the '457 Patent and at least claims 1, 2, 5-7 and 10 of the '446 Patent. Attached as **Exhibit E** is the claim chart for independent claims 1 and 6 of the '457 Patent. Attached as **Exhibit F** is the claim chart for independent claims 1 and 6 of the '446 Patent. These claim charts are excerpts from Midas' Final Infringement Contentions, which were served on Defendants on November 21, 2022. Midas provided claim charts for all asserted claims in its Final Infringement contentions. Exhibits E and F are designated Confidential-Outside Attorneys' Eyes Only and therefore filed under seal.

Response: Defendants admit that excerpts from Midas' Final Infringement Contentions served on or about November 21, 2022 are attached as Exhibits E and F, but deny having infringed any asserted claim of either patent.

VI. DEFENDANTS' [ALLEGED] KNOWLEDGE OF THE ASSERTED PATENTS, THEIR [ALLEGED] INFRINGEMENTS, AND THE PRIOR CLAIM CONSTRUCTION ORDER

Complaint Paragraph 42:

42. As detailed below, all Defendants have had actual notice of the Asserted Patents and their own infringements for some time. For example, the Individuals became aware of the '457 Patent and their infringements thereof no later than February 2020, when they received a notice letter from Midas addressed to another entity founded by the Individuals, *i.e.*, Immersion Systems LLC. Further, the Individuals became aware of the '457 Patent and their infringements thereof, no

later than November 24, 2020, when Midas amended its lawsuit against Immersion Systems to assert the '457 Patent.

Response: Defendants admit that, on information and belief, Immersion Systems received a letter from Plaintiff in February 2020. Defendants deny the remaining allegations of Paragraph 42, including that Defendants deny having committed any act of infringement and deny having actual notice of their own alleged infringement.

Complaint Paragraph 43:

43. Before founding any of their Rhodium entities, Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols began to commercialize certain liquid immersion cooling systems intended to be used in bitcoin mining operations. To sell those liquid immersion cooling systems to third parties, the Individuals formed an entity called Immersion Systems LLC in 2018. Exemplary YouTube videos show Chase Blackmon and Cameron Blackmon working on such immersion cooling systems. *See* AntMiner S9 - Immersion CoolingTest, Feb. 17, 2018. https://www.youtube.com/watch?v=DRck1Iegf2A (last accessed March 28, 2023); immersion Cooling- Beta Test 1, Feb. 17, 2018, https://www.youtube.com/watch?v=SzUO-PMtda4 (last accessed March 28, 2023); *see also* SEC Amendment No. 6 to Form S-1 at 1 ("Our founders spent the previous four years developing, testing, and collecting field operational data to optimize the application of our liquid-cooling technology to mining bitcoin.").

Cameron Blackmon

Chase Blackmon

Response: Defendants admit that Chase Blackmon and Cameron Blackman formed an entity called Immersion Systems LLC in 2018. Defendants admit that the business of Immersion Systems LLC involved liquid cooling systems and that the images shown are from certain YouTube videos titled "AntMiner S9 - Immersion CoolingTest," posted on Feb. 17, 2018, accessible at https://www.youtube.com/watch?v=DRck1Iegf2A; and "Immersion Cooling - Beta Test 1," posted on Feb. 17, 2018, and accessible at https://www.youtube.com/watch?v=SzUO-PMtda4. Defendants admit that Paragraph 43 contains excerpts from SEC filings, which speak for themselves. To the extent there are other allegations in this paragraph that require a response, Defendants deny those remaining allegations.

Complaint Paragraph 44:

44. From Immersion Systems' YouTube channel and Twitter feed, numerous images

and videos are available of these liquid immersion cooling systems. For example, below is a picture from a November 12, 2019 tweet, depicting a stack of immersion cooling tank modules, from Immersion System's Twitter feed with the caption "Another shipment out! Here was have [sic] 5 Bitmain S9 tanks, fitting 42 miners each." *See* https://twitter.com/ImmersionSystem/status/1194318079758610438 (last accessed on March 28, 2023)

Response: Defendants admit that the image shown appears to be from Immersion Systems' Twitter feed with the caption, "Another shipment out! Here was have [*sic*] 5 Bitmain S9 tanks, fitting 42 miners each." To the extent there are other allegations in this paragraph that require a response, Defendants deny them.

Complaint Paragraph 45:

45. In another example, below is a picture from an October 15, 2019 tweet, with the caption "Another shipment ready to go at Immersion Systems! We deploy, at industrial scale, liquid immersion crypto-mining solutions. We provide free fluid extraction and tech replacement if you want to upgrade your miners on site. Contact us at sales@immersionsystems.io for more info."

Response: Defendants admit that the image shown appears to be from Immersion Systems' Twitter feed with the caption, "Another shipment ready to go at Immersion Systems! We deploy, at industrial scale, liquid immersion crypto-mining solutions. We provide free fluid extraction and tech replacement if you want to upgrade your miners on site. Contact us at sales@immersionsystems.io for more info." To the extent there are other allegations in this paragraph that require a response, Defendants deny them.

Complaint Paragraph 46:

46. In another example, below is a picture from a July 21, 2019 tweet, with the caption "Preparing another order for shipping out this week! All of our systems are thoroughly tested prior to shipping. @ourbcma @MiningDisrupt #immersioncooling #mining #bitcoin."

Response: Defendants admit that the image shown appears to be from Immersion System's Twitter feed with the caption, "Preparing another order for shipping out this week! All of our systems are thoroughly tested prior to shipping. @ourbcma @MiningDisrupt #immersioncooling #mining #bitcoin." To the extent there are other allegations in this paragraph that require a response, Defendants deny them.

Complaint Paragraph 47:

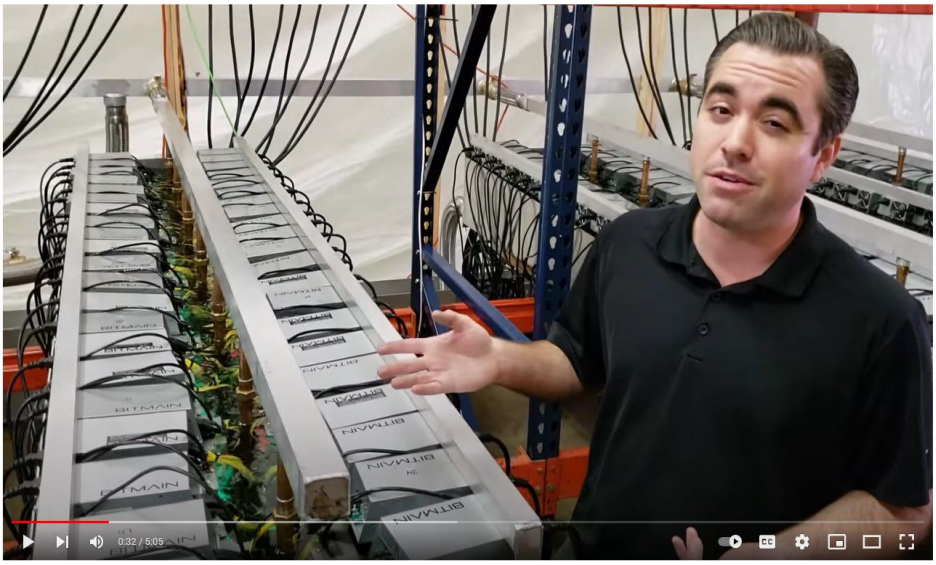
47. In another example, Immersion System's YouTube channel loaded a five- minute video entitled "Introduction" on December 10, 2018. *See*

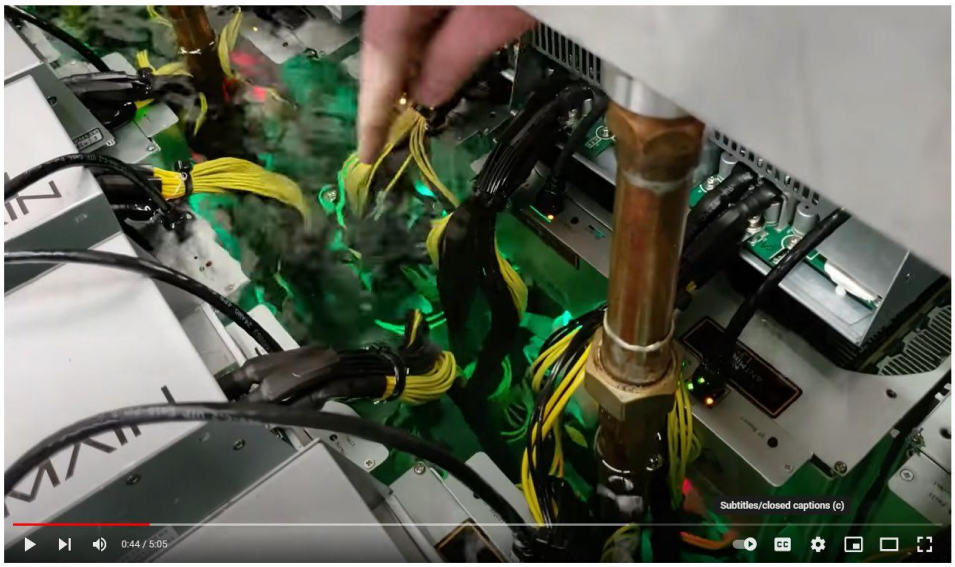
https://www.youtube.com/watch?v=kQ6cycss5ds (last accessed March 28, 2023). That video features Individual Chase Blackmon and contains detailed explanations and videos clips of Immersion Systems' "flagship" immersion cooling system, designed by Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols.

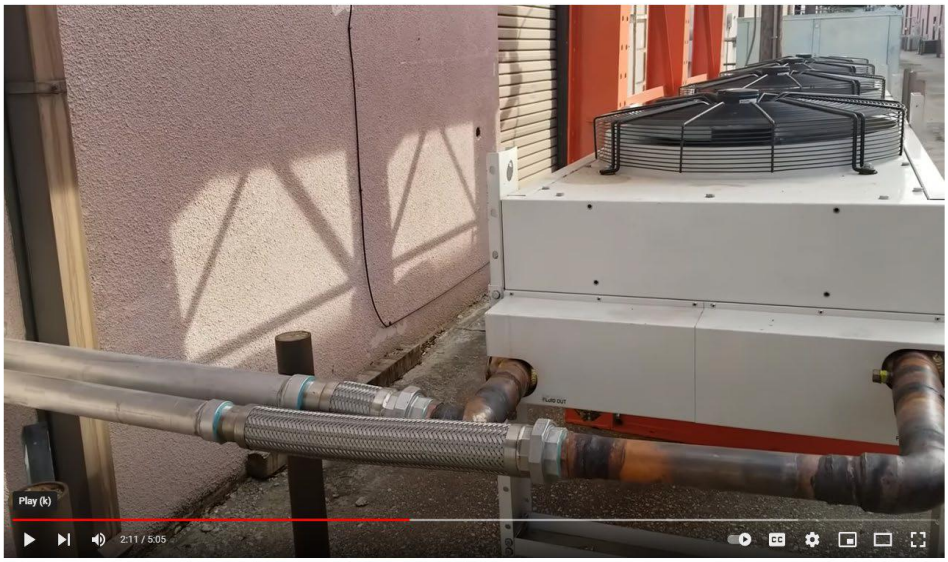
Response: Defendants admit that a video titled "Immersion Systems – Introduction," uploaded by a YouTube channel called "Immersion Systems" on December 10, 2018, is acceesible at https://www.youtube.com/watch?v=kQ6cycss5ds. The video speaks for itself. To the extent there are other allegations in this paragraph that require a response, Defendants deny them.

Complaint Paragraph 48:

48. The exemplar video shows the structure of the immersion cooling systems designed by Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols, including its central area with appliance slots, holed weir design, winged fluid recovery chambers on either side of the central area, the dielectric fluid flowing up through the central area and the appliance slots, and the pump system sending the heated dielectric fluid to a dry cooler and then back. *See id.* at 0:44 ("In here, you can see this is BitCool that we use to pump up through the miners and then it exits the sides in a fluid recovery chamber.").


BITMAIN
0:32 / 5:05


Subtitles/closed captions (c)
0:44 / 5:05



Response: Defendants admit that the images shown are from a video titled "Immersion Systems – Introduction," uploaded by a YouTube channel called "Immersion Systems" on December 10, 2018, accessible at https://www.youtube.com/watch?v=kQ6cycss5ds. The video speaks for itself. To the extent there are other allegations in this paragraph that require a response, Defendants deny those remaining allegations.

Complaint Paragraph 49:

49. From approximately 2018 to 2020, Immersion Systems promoted infringing immersion cooling systems with this design to third parties for use in bitcoin mining operations.

Response: Denied.

Complaint Paragraph 50:

50. On the basis of these videos and photos, Midas sent a detailed letter and claim chart to Immersion Systems on February 7, 2020, explaining that Immersion Systems' immersion cooling systems infringed the '457 Patent. On information and belief, each of the Individuals received and actually read Midas' February 7, 2020 letter around the time that it was sent. Immersion did not respond to that letter, or a second letter sent shortly thereafter.

Response: Admitted that, on information and belief, Midas sent a letter on or about February 7, 2020 proposing a license to the '457 Patent. Denied as to the remaining allegations.

Complaint Paragraph 51:

51. After Immersion Systems did not respond to the second letter from Midas, Midas filed suit against Immersion Systems on May 29, 2020 in the Northern District of Texas, *Midas Green Technologies, LLC v. Immersion Systems LLC,* No. 4:20-cv-00555-O (hereafter, "the Immersion Systems Litigation."). On November 24, 2020, Midas amended its complaint to include detailed allegations of patent infringement for the '446 Patent.

Response: Defendants admit that Midas filed suit against Immersion Systems on May 29, 2020, in the Northern District of Texas, *Midas Green Technologies, LLC v. Immersion Systems LLC*, No. 4:20-cv-00555-O. Defendants admit that on November 24, 2020, Midas amended its complaint. To the extent there are other allegations in this paragraph that require a response, Defendants deny them.

Complaint Paragraph 52:

52. The individuals decided to shut down Immersion Systems in 2020, shortly after receiving Midas' first letter on February 7, 2020. On information and belief, the Individuals made this decision to cease conducting business under Immersion Systems because they then knew that their particular immersion cooling systems infringed the '457 Patent.

Response: Denied.

Complaint Paragraph 53:

53. Around this time, as detailed further below, the Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols formed their first Rhodium entity in April 2020, *i.e.*, Defendant Rhodium 30MW LLC. The purpose of this entity (and of the other Defendant Rhodium

Operating Subsidiaries and Rhodium Post-Filing Operating Subsidiaries) was not to sell immersion cooling systems to third parties, but rather to use immersion cooling systems to mine bitcoin.

Response: Defendants admit that Rhodium 30MW LLC was formed in April 2020 not to sell immersion cooling systems to third parties, but rather to use immersion cooling systems to mine bitcoin. Defendants otherwise deny the allegations of Paragraph 53.

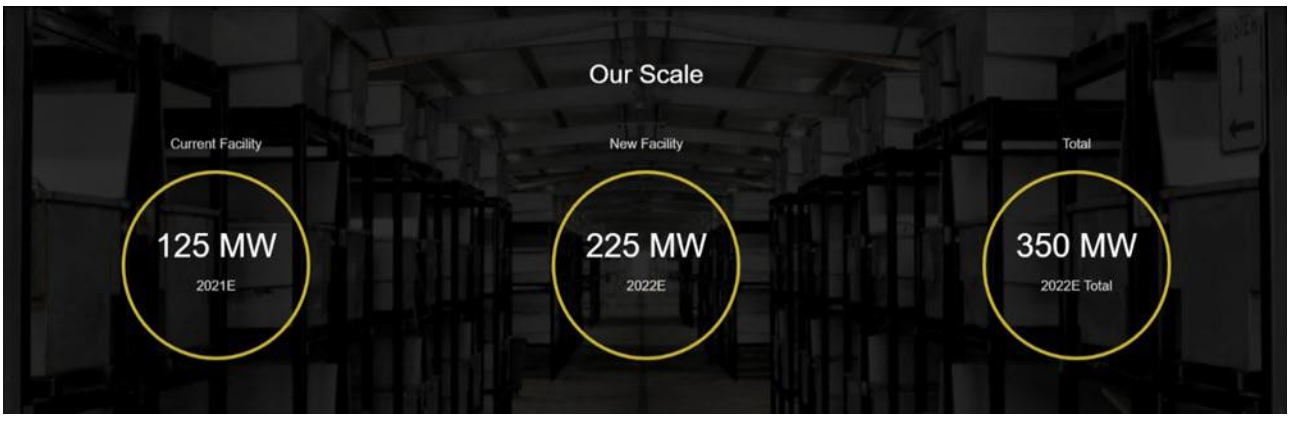
Complaint Paragraph 54:

54. During the pendency of the Immersion Systems Litigation, the Individuals caused Immersion Systems to take steps to conceal the existence of the Individuals' new Rhodium businesses.

Response: Denied.

Complaint Paragraph 55:

55. Exemplary photos from Defendants' Rockdale, Texas facility (see above), and as well as photos from Rhodium's website (rhdm.com, see below), appear to suggest that the immersion cooling systems of Rhodium are materially identical to the immersion cooling systems previously promoted by the Individuals by way of Immersion Systems.



Response: Defendants admit that the photo shown is from the website rhdm.com. Defendants otherwise deny the allegations of Paragraph 55.

Complaint Paragraph 56:

56. Because the immersion cooling systems products previously promoted by Immersion Systems and the immersion cooling systems used by Rhodium appear to be materially identical, each of the Individuals had actual notice that the immersion cooling systems of Rhodium infringed the '457 Patent, as of February 2020. Despite this knowledge, on information and belief, the Individuals acting through one or more of the Defendants, decided to utilize the particular immersion cooling systems that they had previously promoted via Immersion Systems, in the Defendants' new Rhodium-labelled bitcoin mining business ventures.

Response: Denied.

Complaint Paragraph 57:

57. On information and belief, all of the Rhodium Defendants had actual and constructive notice and knowledge of the '457 Patent as of their founding, at least by virtue of the actual notice of the '457 Patent possessed by the Individuals.

Response: Denied.

Complaint Paragraph 58:

58. On information and belief, all of the Rhodium Defendants had actual knowledge that their immersion cooling systems would infringe the '457 Patent as of their founding, at least

by virtue of the knowledge of infringement possessed by the Individuals.

Response: Denied.

Complaint Paragraph 59:

59. On information and belief, each of the Defendants gained actual notice of the '446 Patent in November of 2020, by virtue of the filing by Midas of its amended complaint in the Immersion Systems Litigation. Each of the Defendants had actual notice that the immersion cooling systems of Rhodium infringed the '446 Patent, by virtue of the filing by Midas of its amended complaint.

Response: Denied.

Complaint Paragraph 60:

60. During the course of the Immersion Systems Litigation, Midas and Immersion Systems submitted a Joint Claim Construction Chart (Dkt. 82) in which the parties agreed to the proper construction of two claim terms, *i.e.*, "weir" and "plenum," and in which the parties further agreed that seventeen other claim terms should be afforded their plain and ordinary meaning. A true and correct copy of that filing is attached as **Exhibit G**.

Response: Admitted.

Complaint Paragraph 61:

61. On November 22, 2021, the Court in the Immersion Systems Litigation issued its claim construction order, rejecting arguments from Immersion System that the '457 and '446 Patents were invalid as indefinite, and adopting Midas' proposed constructions as plain and ordinary meaning, with regard to two disputed claim terms. A true and correct copy of the Court's claim construction order is attached as **Exhibit H**. In its claim construction order, the Court also adopted the proposed constructions for nineteen agreed-upon terms and phrases as set forth in the

parties' Joint Claim Construction Chart (Dkt. 82).

Response: Defedants admit that the Court in the Immersion Systems Litigation issued an order On November 22, 2021 and that it is attached to the complaint as Exhibit H. The order speaks for itself. Defendants deny the complaint's characterization that the order "rejected arguments from Immersion Systems that the '457 and '446 Patents were invalid as indefinite." Defendants otherwise admit the allegations of Paragraph 61.

Complaint Paragraph 62:

62. As of their receipt of the foregoing claim construction ruling from the Immersion Systems Litigation in late November 2021, the Defendants knew or should have known that the Asserted Patents were valid and infringed by Defendants, to the extent they did not already possess such knowledge.

Response: Denied.

Complaint Paragraph 63:

63. The Amended SEC Form S-1 filed by Defendant Rhodium Enterprises, Inc. on December 14, 2021 discloses the existence of the Immersion Systems Litigation, as well as acknowledging the possibility that Midas might file a patent infringement lawsuit against Rhodium. *See* SEC Amendment No. 4 to Form S-1 at 29, Rhodium Enterprises, Inc. (Dec. 14, 2021), *available at* https://sec.report/Document/0001213900-21-065116/fs12021a4_rhodium.htm. Notably, the Form S-1 does *not* state that the Rhodium systems or tanks are different in any material respect from the accused Immersion systems or tanks, amounting to a tacit admission that they are the same or similar in all material respects. *Id.* Even after Midas filed the Original Complaint in this action, Rhodium filed an amended Form S-1 acknowledging the lawsuit but not containing any statements that the Rhodium systems or tanks

differ in any material respect from the infringing Immersion systems or tanks. SEC Amendment No. 6 to Form S-1 at 4. Defendants' disclosure of the Immersion Systems Litigation, and a corresponding litigation risk to the Rhodium entities, in its Form S-1 further demonstrate its knowledge of the Asserted Patents and of its infringement.

Response: Defendants admit that the referenced SEC filing discloses the existence of the Immersion Systems Litigation. The filing speaks for itself. Defendants otherwise deny the allegations of Paragraph 63.

Complaint Paragraph 64:

64. As of the filing of this suit on January 13, 2022, each of the Defendants is well aware of the Asserted Patents, and each of the Defendants is well aware of their infringements thereof.

Response: Denied.

VII. CAUSES OF ACTION

Count 1: [Alleged] Infringement of U.S. Patent No. 10,405,457

Complaint Paragraph 65:

65. Midas incorporates by reference the preceding paragraphs, as if set forth herein.

Response: To the extent that a response is required, Defendants repeat and reallege their responses to ¶¶ 1–64 of the Third Amended Complaint as if fully set forth therein.

Complaint Paragraph 66:

66. The '457 Patent was filed April 30, 2014, and legally issued by the United States Patent and Trademark Office on September 3, 2019. The '457 Patent is valid and enforceable and presumed as such pursuant to 35 U.S.C. § 282.

Response: Defendants do not understand the vague allegation that "[t]he '457 Patent was filed

April 30, 2014," and on that basis deny it. Defendants otherwise deny the allegations of Paragraph 66.

Complaint Paragraph 67:

67. Without a license or permission from Midas, Defendants have directly infringed and continue to directly infringe one or more claims of the '457 Patent by making, having made, using, offering for sale, or selling products and devices that embody the patented invention in violation of 35 U.S.C. § 271.

Response: Denied.

Complaint Paragraph 68:

68. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC directly infringe the '457 Patent under 35 USC §271(a) by (1) providing infringing immersion cooling systems to other Defendants; (2) controlling and directing the direct infringement of one or more of the other Defendants; and (3) benefitting and profiting from the infringement of one or more of the other Defendants. The other Defendants directly infringe the '457 Patent under 35 USC §271(a) by their admitted use of infringing immersion cooling systems.

Response: Denied.

Complaint Paragraph 69:

69. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC further indirectly infringe the '457 Patent by (1) directing other third parties to design, build or install infringing products and devices; and (2) controlling and directing the direct infringement of one or more of the other Defendants.

Response: Denied.

Complaint Paragraph 70:

70. Defendants' infringement has been, and continues to be, knowing, intentional, and willful, at least beginning February 7, 2020, with the delivery of Midas' noticed letter to Immersion Systems, of which the Individuals had contemporaneous notice.

Response: Denied.

Complaint Paragraph 71:

71. Defendants' acts of infringement of the '457 Patent have caused and will continue to cause Midas damages for which Midas is entitled compensation pursuant to 35 U.S.C. § 284. Defendants' acts of infringement of the '457 Patent have caused and will continue to cause Midas immediate and irreparable harm unless such infringing activities are enjoined by this Court pursuant to 35 U.S.C. § 283. Midas has no adequate remedy at law.

Response: Denied.

A. [Alleged] Direct Infringement

Complaint Paragraph 72:

72. Defendants have directly infringed one or more claims of the '457 Patent in the Western District of Texas, the State of Texas, and elsewhere in the United States, by at least making, having made, using, selling, and/or offering for sale appliance immersion cooling systems that satisfy every limitation of at least claims 1 and 6 of the '457 Patent. If any limitation of claim 1 or 6 is not practiced in a literal sense, then that limitation is present under the doctrine of equivalents.

Response: Denied.

Complaint Paragraph 73:

73. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC

have directly infringed one or more claims of the '457 Patent in the Western District of Texas, the State of Texas, and elsewhere in the United States by way of: (1) directing and controlling the activities of the Defendant Rhodium Operating Entities and the Defendants identified as Rhodium Post-Filing Operating Subsidiaries; and (2) benefiting and profiting from the other Defendants infringing actions. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC also purchase infringing immersion cooling tanks and provided those infringing tanks to one or more of the other Defendants.

Response: Denied.

Complaint Paragraph 74:

74. *See* **Exhibit E** which is an exemplary claim chart detailing representative infringement of claims 1 and 6 of the '457 Patent.

Response: Defendants admit that Exhibit E appears to be a claim chart. Defendants otherwise deny the allegations of Paragraph 74.

B. [Alleged] Induced Infringement

Complaint Paragraph 75:

75. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have been and are inducing infringement of the '457 Patent by actively and knowingly inducing others, including other Defendants, to make, have made and/or use, the infringing immersion cooling systems and tank modules that embody the invention claimed in the '457 Patent in violation of 35 U.S.C. § 271(b). Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have also induced infringement by willfully directing and controlling the infringing activities of other third parties, such as manufacturers and installers, to make, have made, or use the infringing immersion cooling systems and tank modules.

Response: Denied.

Complaint Paragraph 76:

76. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have possessed specific intent to induce infringement of the '457 Patent. Specifically, Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have long been aware of the '457 Patent and the specific manner in which their immersion cooling system design infringes the '457 Patent, by virtue of detailed claim charts provided to the Individuals and either shared with all other Defendants or that all other Defendants have knowledge of their infringement through the knowledge of the Individuals, who are officers, directors, and owners of the Rhodium Defendants. Despite this knowledge of the patent and the infringing design, Defendants have induced third parties to take actions that they know will infringe, either directly or contributorily, through the actions described in this section and throughout this complaint. For example, Defendant Rhodium Enterprises, Inc. directed Ameritex Machine and Fabrication, LLC ("Ameritex") to make and sell its infringing immersion tanks. *See* Exhibit C.

Response: Defendants admit that Exhibit C to the Third Amended Complaint, which was marked "Confidential – Outside Attorneys' Eyes Only" and filed under seal, is a copy of a Manufacturing Services Agreement between Rhodium Industries LLC and Ameritex Machine and Fabrication, LLC. The document speaks for itself. Defendants deny the remaining allegations of Paragraph 76.

Complaint Paragraph 77:

77. Defendants have induced infringement by providing designs and instructions to third party manufacturers, such as Ameritex and contractors to have made infringing immersion cooling systems and tank modules. *Id.*

Response: Denied.

Complaint Paragraph 78:

78. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have induced infringement by willfully providing infringing directions, instructions and designs for immersion cooling systems and tank modules to other Defendants, third party manufacturing companies, such as Ameritex and other contractors, for knowing use in infringing activity to mine bitcoin and generate revenue. *Id.*

Response: Denied.

Count 2: [Alleged] Infringement of U.S. Patent No. 10,820,446

Complaint Paragraph 79:

79. Midas incorporates by reference the preceding paragraphs, as if set forth herein.

Response: To the extent any response is required, Defendants repeat and reallege their responses to ¶¶ 1–78 of the Third Amended Complaint as if fully set forth therein.

Complaint Paragraph 80:

80. The ‘446 Patent was filed January 9, 2019, and legally issued by the United States Patent and Trademark Office on October 27, 2020. The ‘446 Patent is valid and enforceable, and presumed as such pursuant to 35 U.S.C. § 282.

Response: Defendants do not understand the vague allegation that “[t]he ‘446 Patent was filed January 9, 2019,” and on that basis deny it. Defendants deny the remaining allegations of Paragraph 80.

Complaint Paragraph 81:

81. Without a license or permission from Midas, Defendants have directly infringed and continue to directly infringe one or more claims of the ‘446 Patent, by making, having made,

using, offering for sale, or selling products and devices that embody the patented invention in violation of 35 U.S.C. § 271.

Response: Denied.

Complaint Paragraph 82:

82. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC directly infringe the '446 Patent under 35 USC §271(a) by; (1) providing infringing immersion cooling systems to other Defendants; (2) controlling and directing the direct infringement of one or more of the other Defendants; and (3) benefitting and profiting from the infringement of one or more of the other Defendants. The other Defendants directly infringe the '446 Patent under 35 USC §271(a) by their admitted use of infringing immersion cooling systems.

Response: Denied.

Complaint Paragraph 83:

83. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC further indirectly infringe the '446 Patent by; (1) directing other third parties to design, build or install infringing products and devices; and (2) controlling and directing the direct infringement of one or more of the other Defendants. Defendants' infringement has been, and continues to be, knowing, intentional, and willful, at least beginning November 24, 2020, with the filing of Midas' amended complaint against Immersion Systems, of which the Individuals had contemporaneous notice.

Response: Denied.

Complaint Paragraph 84:

84. Defendants' acts of infringement of the '446 Patent have caused and will continue to cause Midas damages for which Midas is entitled compensation pursuant to 35 U.S.C. § 284.

Defendants' acts of infringement of the '446 Patent have caused and willcontinue to cause Midas immediate and irreparable harm unless such infringing activities are enjoined by this Court pursuant to 35 U.S.C. § 283. Midas has no adequate remedy at law.

Response: Denied.

C. [Alleged] Direct infringement

Complaint Paragraph 85:

85. Defendants have directly infringed one or more claims of the '446 Patent in the Western District of Texas, the State of Texas, and elsewhere in the United States, by at least making, having made, using, selling, and/or offering for sale appliance immersion cooling systems that satisfy every limitation of at least claims 1 and 6 of the '446 Patent. If any limitation of claims 1 or 6 is not practiced in a literal sense, then that limitation is present under the doctrine of equivalents.

Response: Denied.

Complaint Paragraph 86:

86. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have directly infringed one or more claims of the '446 Patent in the Western District of Texas, the State of Texas, and elsewhere in the United States by way of (1) directing and controlling the activities of the Defendant Rhodium Operating Entities and the Defendants identified as Rhodium Post-Filing Operating Subsidiaries and (2) benefiting and profiting from the other Defendants infringing actions. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC also purchase infringing immersion cooling tanks and provided those infringing tanks to one or more of the other Defendants.

Response: Denied.

Complaint Paragraph 87:

87. *See* **Exhibit F** which is an exemplary claim chart detailing representative infringement of claims 1 and 6 of the '446 Patent.

Response: Defendants admit that Exhibit F appears to be a claim chart. Defendants otherwise deny the allegations of Paragraph 87.

D. [Alleged] Induced Infringement

Complaint Paragraph 88:

88. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have been and are inducing infringement of the '446 Patent by actively and knowingly inducing others, including other Defendants, to make, have made, and/or use, the infringing immersion cooling systems and tank modules that embody the invention claimed in the '446 Patent in violation of 35 U.S.C. § 271(b). Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have also induced infringement by willfully directing and controlling the infringing activities of other third parties, such as manufacturers and installers, to make, have made, or use the infringing immersion cooling systems and tank modules.

Response: Denied.

Complaint Paragraph 89:

89. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have possessed specific intent to induce infringement of the '446 Patent. Specifically, Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have long been aware of the '446 Patent and the specific manner in which their immersion cooling system design infringes the '446 Patent, by virtue of detailed claim charts provided to the Individuals and either shared with all other Defendants or that all other Defendants have knowledge of their infringement

through the knowledge of the Individuals, who are officers, directors, and owners of the Rhodium Defendants.

Response: Denied.

Complaint Paragraph 90:

90. Despite this knowledge of the patent and the infringing design, Defendants have induced third parties to take actions that they know will infringe, either directly or contributorily, through the actions described in this section and throughout this complaint. For example, Defendant Rhodium Enterprises, Inc. directed Ameritex Machine and Fabrication, LLC ("Ameritex") to make and sell it infringing immersion tanks.

Response: Defendants admit that Exhibit C to the Third Amended Complaint is a copy of a Manufacturing Services Agreement between Rhodium Industries LLC and Ameritex Machine and Fabrication, LLC, which was marked "Confidential – Outside Attorneys' Eyes Only" and filed under seal. Defendants deny the remaining allegations of Paragraph 90.

Complaint Paragraph 91:

91. Defendants have induced infringement by providing designs and instructions to third party manufacturers, such as Ameritex, and contractors to have made infringing immersion cooling systems and tank modules.

Response: Denied.

Complaint Paragraph 92:

92. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have induced infringement by willfully providing infringing directions, instructions and designs for immersion cooling systems and tank modules to other Defendants, third party manufacturing companies, such as Ameritex and other contractors, for knowing use in infringing activity to mine

bitcoin and generate revenue.

Response: Denied.

Count 3: [Alleged] Willfulness and Egregiousness

Complaint Paragraph 93:

93. Midas incorporates by reference the preceding paragraphs, as if set forth herein.

Response: To the extent any response is required, Defendants repeat and reallege their responses to ¶¶ 1–92 of the Third Amended Complaint as if fully set forth therein.

Complaint Paragraph 94:

94. Defendants have willfully and maliciously infringed the '457 and '446 Patents at least since the date of their actual notice of the patents and their infringement. Specifically, despite receiving detailed claim charts both in letters and having received such information through the Immersion Systems litigation showing that their immersion cooling systems designs infringes Midas' patents, Defendants have continued to operate their infringing immersion cooling systems. Indeed, Defendants have aggressively sought to expand their operations and add additional immersion cooling systems, knowing throughout their existence that they infringe Midas' patents.

Response: Denied.

Complaint Paragraph 95:

95. The Individuals (by way of Immersion Systems) actively sought to conceal the existence of their Rhodium business and did not reveal its existence during the course of the Immersion Systems litigation, despite clear discovery obligations to do so. The Individuals also actively sought to conceal that Immersion Systems had ceased business operations, continuing in the Northern District of Texas litigation for the true benefit of the Defendants.

Response: Denied.

Complaint Paragraph 96:

96. At the same time, on information and belief, the Individuals, and/or Rhodium directly or indirectly bankrolled the filing and prosecution, nominally in the name of Immersion Systems, of an *Inter parties* review proceeding directed to attempt to invalidate the '457 Patent, as well as a Post-Grant review proceeding directed to attempt to invalidate the '446 Patent.

Response: Denied.

Complaint Paragraph 97:

97. Defendants' infringement has been egregious, wanton, malicious, and in bad faith.

Response: Denied.

Complaint Paragraph 98:

98. The Individuals, who are the officers, directors, and owners of the Defendants, possessed full knowledge that their immersion cooling systems design infringed the '457 and '446 Patents, knew these patents were valid, did not attempt to procure a license to these valid patents, and instead proceeded to start a new business using the same or substantially the same infringing design. As Rhodium advertises, this immersion cooling system design is critical to their business and a primary driver of their profitability, and yet Defendants have knowingly and maliciously stolen Midas' patented and innovative technology for their own profit without compensating the inventors of the technology.

Response: Denied.

Additional Allegations Relating to the Asserted Patents

Complaint Paragraph 99:

99. The '457 Patent is directed to an improved appliance immersion cooling system and method of operation. Specifically, the '457 Patent seeks to solve at least two problems in the prior art of appliance immersion cooling systems: (1) the difficulty of maintenance and access to

the electrical equipment in prior art vertical-stack-type systems, which necessitate draining the cooling fluid to gain access to the equipment; and (2) non-uniform flow patterns of the dielectric fluid within the tank and constricted dielectric fluid supply and return ports, resulting in uneven cooling and unnecessarily high fluid flow velocities. The invention of the '457 Patent is an improvement over the prior art and provides greater efficiency and effectiveness through ease of access to the electrical appliances in an open horizontal tank, substantially uniform fluid flow patterns through all appliance slots leading to substantially uniform cooling, and lower fluid flow velocities. The '457 Patent accomplishes these improvements through a unique, innovative design, as described below, that achieves substantially uniform flow of dielectric fluid upwardly through the tank, beginning from a plenum that substantially uniformly distributes the dielectric fluid across the bottom of the tank and then a weir that is adapted to facilitate substantially uniform recovery of the dielectric fluid that has cooled the appliances, where the fluid flows over the weir into fluid recovery reservoirs, to then be cycled and re-cooled, for recirculation into the tank. The '457 Patent therefore does not claim an abstract idea, law of nature, or natural phenomenon, but instead to a tangible, patent-eligible invention.

Response: Denied.

Complaint Paragraph 100:

100. The '457 Patent claims, among other things, an appliance immersion cooling system that includes a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank. The tank includes a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, having an overflow lip adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot, and a

dielectric fluid recovery reservoir positioned vertically beneath the overflow lip of the weir and adapted to receive the dielectric fluid as it flows over the weir. The appliance immersion cooling system also includes a primary circulation facility adapted to circulate the dielectric fluid through the tank. The primary circulation facility includes a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot. The appliance immersion cooling system also, in some embodiments, includes a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulating in the primary circulation facility, and to dissipate to the environment the heat so extracted. The appliance immersion cooling system also includes a control facility adapted to coordinate the operation of the primary and, if included, the secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

Response: The patent speaks for itself. Defendants deny that the patent claims patent-eligible subject matter or anything sufficiently innovative to be patentable.

Complaint Paragraph 101:

101. The ‘457 Patent also claims, among other things, a tank module adapted for use in an appliance immersion cooling system. The tank module includes a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank. The tank includes a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, having an overflow lip adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot, and a dielectric fluid recovery reservoir positioned vertically beneath the overflow lip of the weir and adapted to receive the dielectric fluid as it flows over the weir. The tank module also includes a primary circulation facility adapted to circulate the dielectric fluid

through the tank, including a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot, and a control facility adapted to control the operation of the primary fluid circulation facility as a function of the temperature of the dielectric fluid in the tank.

Response: The patent speaks for itself. Defendants deny that the patent claims patent-eligible subject matter or anything sufficiently innovative to be patentable.

Complaint Paragraph 102:

102. The '446 Patent is directed to an improved appliance immersion cooling system and method of operation. Specifically, the '446 Patent seeks to solve at least two problems in the prior art of appliance immersion cooling systems: (1) the difficulty of maintenance and access to the electrical equipment in prior art vertical-stack-type systems, which necessitate draining the cooling fluid to gain access to the equipment; and (2) non- uniform flow patterns of the dielectric fluid within the tank and constricted dielectric fluid supply and return ports, resulting in uneven cooling and unnecessarily high fluid flow velocities. The invention of the '446 Patent is an improvement over the prior art and provides greater efficiency and effectiveness through ease of access to the electrical appliances in an open horizontal tank, substantially uniform fluid flow patterns through all appliance slots leading to substantially uniform cooling, and lower fluid flow velocities. The '446 Patent accomplishes these improvements through a unique, innovative design, as described below, that achieves substantially uniform flow of dielectric fluid upwardly through the tank, beginning from a plenum that substantially uniformly distributes the dielectric fluid across the bottom of the tank and then a weir that is adapted to facilitate substantially uniform recovery of the dielectric fluid that has cooled the appliances, where the fluid flows over the weir into fluid recovery reservoirs, to then be cycled and re-cooled, for recirculation into the tank. The

‘446 Patent therefore does not claim an abstract idea, law of nature, or natural phenomenon, but instead to a tangible, patent-eligible invention.

Response: The patent speaks for itself. Defendants deny that the patent claims patent-eligible subject matter or anything sufficiently innovative to be patentable.

Complaint Paragraph 103:

103. The ‘446 Patent claims, among other things, an appliance immersion cooling system that includes a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank. The tank includes a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot. The appliance immersion cooling system also includes a primary circulation facility adapted to circulate the dielectric fluid through the tank. The primary circulation facility includes a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot. The appliance immersion cooling system also includes, in at least one embodiment, a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulation in the primary circulation facility, and to dissipate to the environment the heat so extracted, and a control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

Response: The patent speaks for itself. Defendants deny that the patent claims patent-eligible subject matter or anything sufficiently innovative to be patentable.

Complaint Paragraph 104:

104. The ‘446 Patent also claims, among other things, a tank module adapted for use in

an appliance immersion cooling system. The tank module includes a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically long, and extending transverse to, a long wall of the tank. The tank includes a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot. The tank module also includes a primary circulation facility adapted to circulate the dielectric fluid through the tank, including a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot, and a control facility adapted to control the operation of the primary fluid circulation facility as a function of the temperature of the dielectric fluid in the tank.

Response: The patent speaks for itself. Defendants deny that the patent claims patent-eligible subject matter or anything sufficiently innovative to be patentable.

Complaint Prayer for Relief:

Wherefore, Midas requests judgment against Defendants as follows:

A. Adjudging that all Defendants have directly infringed, the'457 Patent, in violation of 35 U.S.C. § 271(a);

B. Adjudging that Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have actively induced infringement of the '457 Patent, in violation of 35 U.S.C. § 271(b);

C. Adjudging that all Defendants have directly infringed the'446 Patent, in violation of 35 U.S.C. § 27l(a);

D. Adjudging that Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have actively induced infringement of the '446 Patent, in violation of 35 U.S.C.

§ 271(b);

E. Permanently enjoining Defendants, their employees, agents, officers, directors, attorneys, successors, affiliates, subsidiaries, and assigns, and all of those in active concert and participation with any of the foregoing persons or entities from infringing, contributing to the infringement of, or inducing infringement of, the '457 Patent and of the '446 Patent;

F. Ordering Defendants to account for and pay damages adequate to compensate Midas for Defendants' infringement of, and inducement to infringe, the '457 Patent and the '446 Patent, including pre-judgment and post-judgment interest and costs, pursuant to 35 U.S.C. § 284;

G. Ordering an accounting by Defendants for any infringing activity not presented at trial and an award by the court of additional damages for any such infringing activity to Midas;

H. Ordering that the damages award by increased up to three times the actual amount assessed, pursuant to 35 U.S.C. § 284;

I. Declaring this case exceptional and ordering Defendants to pay the cost of this action, including all disbursements, and attorneys' fees as provided by 35 U.S.C. § 285, together with prejudgment interest; and

J. Awarding such other and further relief as this Court deems just and proper.

Response to Prayer for Relief: Defendants deny that Plaintiff is entitled to any of the relief it requests in its Prayer for Relief.

GENERAL DENIAL

Defendants further deny each and every allegation contained in Midas's Third Amended Complaint to which Defendants have not specifically admitted, denied, or otherwise responded to herein.

DEFENDANTS' AFFIRMATIVE DEFENSES

Subject to their responses above, and upon information and belief, Defendants allege and assert the following defenses in response to the allegations of the Third Amended Complaint, undertaking the burden of proof only as to those defenses deemed affirmative defenses by law, regardless of how such defenses are denominated herein. In addition to affirmative defenses described below, subject to their responses above, Defendants specifically reserve all right to allege additional affirmative defenses pursuant to any scheduling order or that may otherwise be lawfully asserted in this action for any reason, including because those that become known through the course of discovery or further investigation.

FIRST AFFIRMATIVE DEFENSE

(Failure to State a Claim)

Midas has failed to state a claim upon which relief may be granted.

SECOND AFFIRMATIVE DEFENSE

(Invalidity of '457 Patent)

The claims of U.S. Patent No. 10,405,457 (the "'457 Patent") are invalid for failure to comply with the requirements of Title 35, United States Code, including at least §§ 101, 102, 103, and/or 112.

THIRD AFFIRMATIVE DEFENSE

(Invalidity of '446 Patent)

The claims of U.S. Patent No. 10,820,446 (the "'446 Patent") are invalid for failure to comply with the requirements of Title 35, United States Code, including at least §§ 101, 102, 103, and/or 112.

FOURTH AFFIRMATIVE DEFENSE

(Non-Infringement of '457 Patent)

Defendants have not infringed and do not infringe any valid and enforceable claim of the '457 Patent.

FIFTH AFFIRMATIVE DEFENSE

(Non-Infringement of '446 Patent)

Defendants have not infringed and do not infringe any valid and enforceable claim of the '446 Patent.

SIXTH AFFIRMATIVE DEFENSE

(Limitation on Damages)

Midas's claims for monetary damages are limited by the statute of limitations and, pursuant to 35 U.S.C. § 286, K.Mizra is not entitled to any purported damages suffered more than six (6) years prior to the filing of the Complaint.

SEVENTH AFFIRMATIVE DEFENSE

(Failure to Mark)

Midas' claims for recovery are barred or limited, in whole or in part, prior to the date on which Defendants received actual notice of Midas' allegations in infringement concerning the '457 Patent and the '446 Patent, including under 35 U.S.C. § 287.

EIGHTH AFFIRMATIVE DEFENSE

(Equitable Doctrines)

Midas' claims are barred by one or more of the doctrines of waiver, acquiescence, estoppel (including without limitation equitable estoppel and prosecution history estoppel), unenforceability, and unclean hands.

NINTH AFFIRMATIVE DEFENSE

(No Entitlement to Injunctive Relief)

Midas is not entitled to injunctive relief. Among other things, Midas is not able to meet the standards for such relief as set forth in *eBay Inc. v. MercExchange, LLC*, 547 U.S. 388 (2006).

TENTH AFFIRMATIVE DEFENSE

(Failure to Disclaim)

On information and belief, Midas' claims for recovery are barred or limited, in whole or in part, by 35 U.S.C. § 288 (failure to disclaim invalid claim(s)).

RESERVATION OF RIGHTS

Defendants expressly reserve the right to assert any other legal or equitable defenses to which they are shown to be entitled, including all affirmative defenses under Rule 8(c) of the Federal Rules of Civil Procedure, the Patent Laws of the United States, and any other defenses that may now exist or in the future be available based on discovery or further factual investigation in this case.

I. PRAYER FOR RELIEF

WHEREFORE, Defendants seek the following relief:

A. That the Court enter judgment in Defendants' favor;

B. That Midas take nothing by its Third Amended Complaint and that its claims against Defendants be dismissed with prejudice;

C. That judgment be entered finding that Defendants have not infringed and do not infringe any valid and enforceable claim of either the '457 Patent or the '446 Patent, either literally or under the Doctrine of Equivalents;

D. A judgment that the '457 Patent and the '446 Patent are invalid for failure to meet the conditions of patentability and/or otherwise comply with the requirements of 35 U.S.C. §§ 101, 102, 103, and/or 112;

E. A declaration that the '457 Patent and the '446 Patent are unenforceable;

F. An order declaring that Defendants are the prevailing party and that this is an exceptional case, awarding Defendants their costs, expenses, disbursements, and reasonable attorneys' fees under 35 U.S.C. § 285 and all other applicable statutes, rules, and common law;

G. That Defendants be granted such other and additional relief as this Court deems just and proper.

II. DEMAND FOR A JURY TRIAL

In accordance with Rule 38 of the Federal Rules of Civil Procedure, Defendants respectfully demand a jury of all issues triable to a jury in this action.

DEFENDANTS' COUNTERCLAIMS

Defendants and Counterclaim-Plaintiffs Rhodium Enterprises, Inc., Rhodium Technologies LLC, Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, Rhodium Encore LLC, Rhodium Renewables LLC, Rhodium Renewables Sub LLC; and Rhodium Ready Ventures LLC. (collectively, "Rhodium" or "Counterclaim-Plaintiffs") repeat and reallege the allegations provided in their Answer as though fully set forth herein. Rhodium further alleges, on knowledge as to its own actions and on information and belief as to all other matters, as follows:

1. This Court has personal jurisdiction over Plaintiff and Counterclaim-Defendant Midas Green Technologies, LLC ("Midas Green"), which, on information and belief, is a Texas limited liability company with its principal place of business in Texas, and has consented to the

exercise of such jurisdiction by filing its original complaint and Third Amended Complaint for Patent Infringement against Rhodium.

2. This Court has subject matter jurisdiction over these counterclaims because they arise under the Federal Declaratory Judgements Act, Title 28 U.S.C. §§ 2201 and 2202, and the laws of the United States relating to patents, Title 28 U.S.C. § 1338(a).

3. By filing its claims for patent infringement against Rhodium in this Court, Midas Green has consented to the propriety of venue over these counterclaims.

4. In its complaint, Midas Green accuses Rhodium of infringement of one or more claims of two United States Patents: U.S. Patent No. 10,405,457 ("the '457 Patent"), and U.S. Patent No. 10,820,446 ("the '446 Patent") (together, "the Asserted Patents").

5. The Asserted Patents are invalid and/or Rhodium has not infringed any valid claim of the Asserted Patents, whether directly, indirectly, contributorily, through the doctrine of equivalents, or otherwise.

6. Consequently, as a result of at least the allegations of Midas Green's Third Amended Complaint, an immediate, real, and justiciable controversy exists between Rhodium and Midas Green as to whether Rhodium infringes the Asserted Patents, and as to whether the Asserted Patents are valid and enforceable.

FIRST COUNTERCLAIM

Declaration of Non-Infringement of U.S. Patent No. 10,405,457

7. Rhodium repeats and realleges the allegations in Paragraphs 1–6 of its Counterclaims as though fully set forth herein.

8. Rhodium has not infringed and does not infringe any valid and enforceable claim of the '457 Patent, either literally or under the Doctrine of Equivalents, because the Accused

Products do not practice or possess the elements of the claims of the '457 Patent. At minimum, for example, the Accused Products do not have the required "control facility adapted to coordinate the operation of the primary [and secondary] fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank."

9. Every claim of the '457 Patent, by virtue of independent claims 1, 6, and 11, requires an appliance immersion cooling system with a "control facility adapted to coordinate the operation of the primary [and secondary] fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank."

10. The Accused Products do not contain the claimed "control facility," and Midas has presented no evidence that they do. In fact, Midas does not even contend that the Accused Products contain this limitation. Rather, Midas alleges only that the Accused Products may be altered such that they would satisfy the limitation. *See, e.g.*, Plaintiff's Supp. Resp. to Interrog. No. 10 (asserting that Accused Products *can*, for example, have sensors installed). This is insufficient to show infringement. The Asserted Claims require an appliance immersion cooling system to have the claimed "control facility"—not the mere ability to be altered to have one.

11. Additionally, the Accused Products do not contain the alleged "control" features as described by Midas. They do not, and without modification cannot even allegedly, coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

12. Absent a declaration of non-infringement, Midas Green will continue wrongfully to assert the '457 Patent against Rhodium, thereby causing Rhodium irreparable injury and damage. A judicial declaration is also reasonably calculated to prevent needless litigation, and is

necessary to resolve the actual controversy that exists between Rhodium and Midas Green and to determine the parties' respective rights regarding the '457 Patent.

13. Rhodium thus seeks a judgment declaring that Rhodium does not infringe, either literally or under the Doctrine of Equivalents, any claims of the '457 Patent.

SECOND COUNTERCLAIM

(Declaration of Non-Infringement of U.S. Patent No. 10,820,446)

14. Rhodium repeats and realleges the allegations in Paragraphs 1–13 of its Counterclaims as though fully set forth herein.

15. Defendants have not infringed and do not infringe any valid and enforceable claim of the '446 Patent, either literally or under the Doctrine of Equivalents, because the Accused Products do not practice the elements of the claims of the asserted patent. At minimum, for example, the Accused Products do not have a "control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank."

16. Every claim of the '446 Patent, by virtue of independent claims 1 and 6, requires an appliance immersion cooling system, or a tank module for use in such a system, with a "control facility adapted to [coordinate]/[control] the operation of the primary and secondary fluid circulation [facility]/[facilities] as a function of the temperature of the dielectric fluid in the tank."

17. The Accused Products do not contain the claimed "control facility," and Midas has presented no evidence that they do. In fact, Midas does not even contend that the Accused Products contain this limitation. Rather, Midas alleges only that the Accused Products may be altered such that they would satisfy the limitation. *See, e.g.*, Plaintiff's Supp. Resp. to Interrog. No. 10 (asserting that Accused Products *can*, for example, have sensors installed). This is insufficient to

show infringement. The Asserted Claims require an appliance immersion cooling system or tank to have the claimed "control facility"—not the mere ability to be altered to have one.

18. Additionally, the Accused Products do not contain the alleged "control" features as described by Midas. They do not, and without modification cannot even allegedly, coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

19. Absent a declaration of non-infringement, Midas Green will continue wrongfully to assert the '446 Patent against Rhodium, thereby causing Rhodium irreparable injury and damage. A judicial declaration is also reasonably calculated to prevent needless litigation, and is necessary to resolve the actual controversy that exists between Rhodium and Midas Green and to determine the parties' respective rights regarding the '446 Patent.

20. Rhodium thus seeks a judgment declaring that Rhodium does not infringe, either literally or under the Doctrine of Equivalents, any claims of the '446 Patent.

THIRD COUNTERCLAIM

(Declaration of Invalidity of U.S. Patent No. 10,405,457)

21. Rhodium repeats and realleges the allegations in Paragraphs 1–20 of its Counterclaims as though fully set forth herein.

22. The '457 Patent is invalid for failure to meet the conditions of patentability and/or otherwise comply with one or more of 35 U.S.C. §§ 102, 103, and 112.

23. For example, the claims of the '457 Patent are invalid under 35 U.S.C. §§ 102 and/or 103 because prior art, such as The Green Revolution Cooling tank invented by Christiaan Best (the "Best Tank"), U.S. Patent Application Publication No. 2014/0211412A1 (the "Best Publication"), U.S. Patent No. 10,123,462B2 ("Best '463 Patent"), U.S. Patent No. 5,167,511

("Krajewski '511"), U.S. Patent Application Publication No. 2006/0126292A1 (the "Pfahnl Publication"), Russian Federation Patent No. 2,500,013 ("Gryzhin '013"), U.S. Patent No. 3,406,244 ("Oktay '244"), Japanese Patent No. JPH04116758 U ("JP '758"), and U.S. Patent No. 9,992,914B2 ("Best '914 Patent"), discloses or renders obvious the limitations of the claims of the '457 Patent—at least as Midas asserts them.

24. As another example, as Midas is well aware, the '457 Patent is invalid for improper inventorship under 35 U.S.C. § 101 and pre-AIA 35 U.S.C. §§ 101 and 102(f) for naming incorrect inventors and/or omitting at least one inventor (Christiaan Best) who should have been named.

25. The claims of the '457 Patent are also invalid under 35 U.S.C. § 112 at least because they are indefinite and/or because the specification of the '457 Patent does not contain sufficient written description and/or enabling disclosure to support the claims as asserted by Midas.

26. Absent a declaration of invalidity, Midas Green will continue wrongfully to assert the '457 Patent against Rhodium, thereby causing Rhodium irreparable injury and damage. A judicial declaration is also reasonably calculated to prevent needless litigation, and is necessary to resolve the actual controversy that exists between Rhodium and Midas Green and to determine the parties' respective rights regarding the '457 Patent.

27. Rhodium thus seeks a judgment declaring that the claims of the '457 Patent are invalid.

FOURTH COUNTERCLAIM

(Declaration of Invalidity of U.S. Patent No. 10,820,446)

28. Rhodium repeats and realleges the allegations in Paragraphs 1–27 of its Counterclaims as though fully set forth herein.

29. The '446 Patent is invalid for failure to meet the conditions of patentability and/or otherwise comply with one or more of 35 U.S.C. §§ 102, 103, and 112.

30. For example, the claims of the '446 Patent are invalid under 35 U.S.C. §§ 102 and/or 103 because prior art, such as The Green Revolution Cooling tank invented by Christiaan Best (the "Best Tank"), U.S. Patent Application Publication No. 2014/0211412A1 (the "Best Publication"), U.S. Patent No. 10,123,462B2 ("Best '463 Patent"), U.S. Patent No. 5,167,511 ("Krajewski '511"), U.S. Patent Application Publication No. 2006/0126292A1 (the "Pfahnl Publication"), Russian Federation Patent No. 2,500,013 ("Gryzhin '013"), U.S. Patent No. 3,406,244 ("Oktay '244"), Japanese Patent No. JPH04116758 U ("JP '758"), and U.S. Patent No. 9,992,914B2 ("Best '914 Patent"), discloses or renders obvious the limitations of the claims of the '446 Patent—at least as Midas asserts them.

31. As another example, as Midas is well aware, the '446 Patent is invalid for improper inventorship under 35 U.S.C. § 101 and pre-AIA 35 U.S.C. §§ 101 and 102(f) for naming incorrect inventors and/or omitting at least one inventor (Christiaan Best) who should have been named.

32. The claims of the '446 Patent are also invalid under 35 U.S.C. § 112 at least because they are indefinite and/or because the specification of the '446 Patent does not contain sufficient written description and/or enabling disclosure to support the claims as asserted by Midas.

33. Absent a declaration of invalidity, Midas Green will continue wrongfully to assert the '446 Patent against Rhodium, thereby causing Rhodium irreparable injury and damage. A judicial declaration is also reasonably calculated to prevent needless litigation, and is necessary to resolve the actual controversy that exists between Rhodium and Midas Green and to determine the parties' respective rights regarding the '446 Patent.

34. Rhodium thus seeks a judgment declaring that the claims of the ‘446 Patent are invalid.

FIFTH COUNTERCLAIM

(Declaration of Unenforceability of U.S. Patent No. 10,405,457)

35. Rhodium repeats and realleges the allegations in Paragraphs 1–34 of its Counterclaims as though fully set forth herein.

36. The ‘457 Patent is unenforceable based on inequitable conduct by at least Chris Boyd and Jim Koen. Each of Mr. Boyd and Mr. Koen owed a duty of candor to the USPTO, which included a duty to disclose to the USPTO all information known to them to be material to patentability. This included not only prior art, but also possible prior public uses, sales, offers to sell, derived knowledge, prior invention by another, and inventorship conflicts.

37. For example, despite knowing that the Best Tank was previously on sale, sold, publicly used, and in fact possessed by Midas Green, Mr. Boyd and Mr. Koen did not tell the USPTO about the existence of the Best Tank or the Best Publication, which are both material prior art to the ‘457 Patent and were known and available to Mr. Boyd and Mr. Koen during their prosecution of the ‘457 Patent.

38. Midas has admitted “that at least one individual associated with Midas was aware of the Best Tank prior to issuance of the Notice of Allowance for ‘457 Patent on September 14, 2018,” Plaintiff’s Resp. to Def’s. 1st Set of RFAs at 3, and also “that it did not disclose the Best Tank to the U.S.P.T.O. at any point prior to issuance of the Notice of Allowance for the ‘457 Patent on September 14, 2018,” *id.* at 6.

39. Mr. Boyd and Mr. Koen also failed to tell the USPTO that Christiaan Best was a coinventor as alleged above.

40. On information and belief, the single most reasonable inference that can be drawn is that Jim Koen and Chris Boyd intended to deceive the USPTO.

41. Absent a declaration of unenforceability, Midas Green will continue wrongfully to assert the '457 Patent against Rhodium, thereby causing Rhodium irreparable injury and damage. A judicial declaration is also reasonably calculated to prevent needless litigation, and is necessary to resolve the actual controversy that exists between Rhodium and Midas Green and to determine the parties' respective rights regarding the '457 Patent.

42. Rhodium thus seeks a judgment declaring that the claims of the '457 Patent are unenforceable.

SIXTH COUNTERCLAIM

(Declaration of Unenforceability of U.S. Patent No. 10,405,446)

43. Rhodium repeats and realleges the allegations of Paragraphs 1–42 of their Counterclaims as though fully set forth herein.

44. The '446 Patent is unenforceable based on inequitable conduct by at least Chris Boyd and Jim Koen. Each of Mr. Boyd and Mr. Koen owed a duty of candor to the USPTO, which included a duty to disclose to the USPTO all information known to them to be material to patentability. This included not only prior art, but also possible prior public uses, sales, offers to sell, derived knowledge, prior invention by another, and inventorship conflicts.

45. For example, despite knowing that the Best Tank was previously on sale, sold, publicly used, and in fact possessed by Midas Green, Mr. Boyd and Mr. Koen did not tell the USPTO about the existence of the Best Tank or the Best Publication, which are both material prior art to the '446 Patent and were known and available to Mr. Boyd and Mr. Koen during their prosecution of the '446 Patent.

46. Midas has admitted "that at least one individual associated with Midas was aware of the Best Tank prior to issuance of the Notice of Allowance for '446 Patent on April 16, 2020," Plaintiff's Resp. to Def's. 1st Set of RFAs at 4, and also "that it did not disclose the Best Tank to the U.S.P.T.O. at any point prior to issuance of the Notice of Allowance for the '446 Patent on April 16, 2020," *id.* at 7.

47. Mr. Boyd and Mr. Koen also failed to tell the USPTO that Christiaan Best was a coinventor as alleged above.

48. On information and belief, the single most reasonable inference that can be drawn is that Jim Koen and Chris Boyd intended to deceive the USPTO.

49. Absent a declaration of unenforceability, Midas Green will continue wrongfully to assert the '446 Patent against Rhodium, thereby causing Rhodium irreparable injury and damage. A judicial declaration is also reasonably calculated to prevent needless litigation, and is necessary to resolve the actual controversy that exists between Rhodium and Midas Green and to determine the parties' respective rights regarding the '446 Patent.

50. Rhodium thus seeks a judgment declaring that the claims of the '446 Patent are unenforceable.

PRAYER FOR RELIEF ON RHODIUM'S COUNTERCLAIMS

WHEREFORE, Rhodium seeks the following relief:

A. A declaration that Rhodium has not infringed and does not infringe any valid and enforceable claim of either the '457 Patent or the '446 Patent, either literally or under the Doctrine of Equivalents;

B. A declaration that the '457 Patent and the '446 Patent are invalid for failure to meet the conditions of patentability and/or otherwise comply with the requirements of 35 U.S.C. §§ 101, 102, 103, and/or 112;

C. A declaration that the '457 Patent and the '446 Patent are unenforceable;

D. That an order be entered enjoining Midas and its officer, agent, servants, employees, attorneys, and those in concert or participation with them from asserting infringement or instituting or continuing any action for infringement of the '457 Patent and the '446 Patent;

E. That pursuant to 35 U.S.C. § 285, Midas's conduct in commencing and pursuing this action be found to render this an exceptional case and that Defendants be awarded attorneys' fees in connection with this action;

F. A judgment in Rhodium's favor on all of its counterclaims; and

G. For such other and additional relief as this Court deems just and proper.

JURY DEMAND

Rhodium hereby demands a trial by jury on all issue so triable.

Dated: April 26, 2023

Respectfully submitted,

By: */s/ Melissa R. Smith*

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Attorneys for Defendants Rhodium Enterprises, Inc., Rhodium Technologies LLC, Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, Rhodium Encore LLC, Rhodium Renewables LLC, Rhodium Renewables Sub LLC; and Rhodium Ready Ventures LLC

CERTIFICATE OF SERVICE

The undersigned hereby certifies that counsel of record who are deemed to have consented to electronic service are being served today, April 26, 2023, with a copy of this document via the Court's CM/ECF system.

/s/ Melissa R. Smith

EXHIBIT 13

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

Midas Green Technologies, LLC, Plaintiff, - vs. - **Rhodium Enterprises, Inc.;** **Rhodium Technologies LLC;** **Rhodium 10mw LLC;** **Rhodium 2.0 LLC;** **Rhodium 30mw LLC;** **Rhodium Encore LLC;** **Rhodium Renewables LLC;** **Rhodium Renewables Sub LLC;** **Rhodium Ready Ventures LLC** Defendants.	Civil Action No. 6:22-cv-00050-ADA **Jury Trial Demanded**

PLAINTIFF'S ANSWER TO DEFENDANT'S COUNTERCLAIMS

Plaintiff and Counter-Defendant Midas Green Technologies, LLC, through its undersigned counsel, hereby answer Counter-claimants Rhodium Enterprises, Inc., Rhodium Technologies LLC, Rhodium 10mw LLC, Rhodium 2.0 LLC, Rhodium 30mw LLC, Rhodium Encore LLC, Rhodium Renewables LLC, Rhodium Renewables Sub LLC and Rhodium Ready Ventures LLC's (collectively, "Counter-claimants" or "Rhodium") Counterclaim demand as follows:

RESPONSE TO FIRST COUNTERCLAIM

(Declaration of Non-Infringement of U.S. Patent No. 10,405,457)

Response to Counterclaim Paragraph 1:

Midas Green ADMITS this Court has personal jurisdiction.

Response to Counterclaim Paragraph 2:

Midas Green ADMITS this Court has subject matter jurisdiction.

Response to Counterclaim Paragraph 3:

Midas Green ADMITS that venue is proper in this Court.

Response to Counterclaim Paragraph 4:

ADMITTED.

Response to Counterclaim Paragraph 5:

DENIED.

Response to Counterclaim Paragraph 6:

Midas Green asserts that Rhodium has, and is, willfully infringing the valid Asserted Patents. To the extent this creates a "justiciable controversy", ADMITTED. Otherwise DENIED.

RESPONSE TO SECOND COUNTERCLAIM

(Declaration of Non-Infringement of U.S. Patent No. 10,820,446)

Response to Counterclaim Paragraph 7:

Responses to Counterclaims 1-6 are incorporated by reference as though fully set forth herein.

Response to Counterclaim Paragraph 8:

DENIED.

Response to Counterclaim Paragraph 9:

Midas Green ADMITS that each of claims 1, 6 and 11 of the '457 patent has a limitation directed to a "control facility". Midas Green DENIES that each of claims 1, 6 and 11 are directed to an "appliance immersion cooling system". To the extent not expressly admitted, DENIED.

Response to Counterclaim Paragraph 10:

DENIED.

Response to Counterclaim Paragraph 11:

DENIED.

Response to Counterclaim Paragraph 12:

Midas Green admits it will continue to assert the '457 patent against Rhodium's infringement. Otherwise, DENIED.

Response to Counterclaim Paragraph 13:

To the extent any response is needed, DENIED.

Response to Counterclaim Paragraph 14:

Responses to Counterclaims 1-13 are incorporated by reference as though fully set forth herein.

Response to Counterclaim Paragraph 15:

DENIED.

Response to Counterclaim Paragraph 16:

Midas Green ADMITS that each of claims 1 and 6 of the '446 patent has a limitation directed to a "control facility". Midas Green DENIES that each of claims, 1 and 6 are directed to an "appliance immersion cooling system". To the extent not expressly admitted, DENIED.

Response to Counterclaim Paragraph 17:

DENIED.

Response to Counterclaim Paragraph 18:

DENIED.

Response to Counterclaim Paragraph 19:

Midas Green admits it will continue to assert the '446 patent against Rhodium's infringement. Otherwise, DENIED.

Response to Counterclaim Paragraph 20:

To the extent any response is needed, DENIED.

RESPONSE TO THIRD COUNTERCLAIM

(Declaration of Invalidity of U.S. Patent No. 10,405,457)

Response to Counterclaim Paragraph 21:

Responses to Counterclaims 1-20 are incorporated by reference as though fully set forth herein.

Response to Counterclaim Paragraph 22:

DENIED.

Response to Counterclaim Paragraph 23:

DENIED.

Response to Counterclaim Paragraph 24:

DENIED.

Response to Counterclaim Paragraph 25:

DENIED.

Response to Counterclaim Paragraph 26:

Midas Green admits it will continue to assert the '457 patent against Rhodium's infringement. Otherwise, DENIED.

Response to Counterclaim Paragraph 27:

To the extent any response is needed, DENIED.

RESPONSE TO FOURTH COUNTERCLAIM

(Declaration of Invalidity of U.S. Patent No. 10,820,446)

Response to Counterclaim Paragraph 28:

Responses to Counterclaims 1-27 are incorporated by reference as though fully set forth herein.

Response to Counterclaim Paragraph 29:

DENIED.

Response to Counterclaim Paragraph 30:

DENIED.

Response to Counterclaim Paragraph 31:

DENIED.

Response to Counterclaim Paragraph 32:

DENIED.

Response to Counterclaim Paragraph 33:

Midas Green admits it will continue to assert the '446 patent against Rhodium's infringement. Otherwise, DENIED.

Response to Counterclaim Paragraph 34:

To the extent any response is needed, DENIED.

RESPONSE TO FIFTH COUNTERCLAIM

(Declaration of Unenforceability of U.S. Patent No. 10,405,457)

Response to Counterclaim Paragraph 35:

Responses to Counterclaims 1-34 are incorporated by reference as though fully set forth herein.

Response to Counterclaim Paragraph 36:

To the extent that Mr. Boyd and Mr. Koen owed a duty of candor to the USPTO, ADMITTED. Otherwise DENIED.

Response to Counterclaim Paragraph 37:

To the extent that Midas Green was in possession of a first generation GRN tank during prosecution of the '457 patent, ADMITTED. Otherwise DENIED.

Response to Counterclaim Paragraph 38:

Midas Green ADMITS these are two partial statements extracted from Plaintiff's Response to Defendants' RFAs. These two extracted statements must be read in the entirety of their context, and in light of other discovery responses. To the extent Rhodium attempts to use these partial statements to infer any inequitable conduct as to the '457 patent by Mr. Boyd or Mr. Koen, DENIED.

Response to Counterclaim Paragraph 39:

Mr. Best is not a coinventor of the '457 patent, so Midas Green ADMITS it never made such an assertion to the USPTO.

Response to Counterclaim Paragraph 40:

DENIED.

Response to Counterclaim Paragraph 41:

Midas Green admits it will continue to assert the '457 patent against Rhodium's infringement. Otherwise, DENIED.

Response to Counterclaim Paragraph 42:

To the extent any response is needed, DENIED.

RESPONSE TO SIXTH COUNTERCLAIM

(Declaration of Unenforceability of U.S. Patent No. 10,405,446)

Response to Counterclaim Paragraph 43:

Responses to Counterclaims 1-42 are incorporated by reference as though fully set forth herein.

Response to Counterclaim Paragraph 44:

To the extent that Mr. Boyd and Mr. Koen owed a duty of candor to the USPTO, ADMITTED. Otherwise DENIED.

Response to Counterclaim Paragraph 45:

To the extent that Midas Green was in possession of a first generation GRN tank during prosecution of the '446 patent, ADMITTED. Otherwise DENIED.

Response to Counterclaim Paragraph 46:

Midas Green ADMITS these are two partial statements extracted from Plaintiff's Response to Defendants' RFAs. These two extracted statements must be read in the entirety of their context, and in light of other discovery responses. To the extent Rhodium attempts to use these partial statements to infer any inequitable conduct as to the '446 patent by Mr. Boyd or Mr. Koen, DENIED.

Response to Counterclaim Paragraph 47:

Mr. Best is not a co-inventor of the '446 patent, so Midas Green ADMITS it never made such an assertion to the USPTO.

Response to Counterclaim Paragraph 48:

DENIED.

Response to Counterclaim Paragraph 49:

Midas Green admits it will continue to assert the '446 patent against Rhodium's infringement. Otherwise, DENIED.

Response to Counterclaim Paragraph 50:

To the extent any response is needed, DENIED.

PLAINTIFF AND CROSS DEFENDANT'S AFFIRMATIVE DEFENSES

FIRST AFFIRMATIVE DEFENSE

(Lack of Declaratory Judgment Jurisdiction)

1. The court lacks jurisdiction under the Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202, because there is currently no case or controversy between the parties.

SECOND AFFIRMATIVE DEFENSE

(Failure to State a Claim for Declaratory Judgment of Non-Infringement U.S. Patent No. 10,504,457)

2. The Cross-Complaint fails to state a claim for a declaratory judgment of non-infringement upon which relief may be granted. In particular, the Cross-Complaint fails to compare any claim of the patent-in-suit to any product of Plaintiff and fails to identify any claim limitations that are not present in the product with the exception of the allegation that the asserted claims do not have a "control facility".

3. The Cross-Complaint, therefore, fails to comply with the pleading requirements of Fed. R. Civ. P. 8, and should be dismissed under Fed. R. Civ. P. 12(b)(6).

THIRD AFFIRMATIVE DEFENSE

(Failure to State a Claim for Declaratory Judgment of Non-Infringement For U.S. Patent No. 10,820,446)

4. The Cross-Complaint fails to state a claim for a declaratory judgment of non-infringement upon which relief may be granted. In particular, the Cross-Complaint fails to

compare any claim of the patent-in-suit to any product of Plaintiff and fails to identify any claim limitations that are not present in the product, with the exception of the allegation that the asserted claims do not have a "control facility".

5. The Cross-Complaint, therefore, fails to comply with the pleading requirements of Fed. R. Civ. P. 8, and should be dismissed under Fed. R. Civ. P. 12(b)(6).

FOURTH AFFIRMATIVE DEFENSE

(Failure to State a Claim for Declaratory Judgment of Invalidity under 35 U.S.C. § 102 or § 103 For U.S. Patent No. 10,504,457)

6. The Cross-Complaint fails to state a claim for a declaratory judgment of invalidity under either 35 U.S.C. § 102, 35 U.S.C. § 103 or under 35 U.S.C. § 112 upon which relief may be granted. In particular, the Cross-Complaint fails to identify any prior art that allegedly renders any claim of the patent-in-suit anticipated under 35 U.S.C. § 102 or obvious under 35 U.S.C. § 103. Furthermore, the Cross-Complaint fails to compare any claim of the patent-in-suit to any prior art and fails to state where or how the limitations of any claim of the patent-in-suit are found in the prior art.

7. The Cross-Complaint, therefore, fails to comply with the pleading requirements of Fed. R. Civ. P. 8, and should be dismissed under Fed. R. Civ. P. 12(b)(6).

FIFTH AFFIRMATIVE DEFENSE

(Failure to State a Claim for Declaratory Judgment of Invalidity under 35 U.S.C. § 102 or § 103 For U.S. Patent No. 10,820,446)

8. The Cross-Complaint fails to state a claim for a declaratory judgment of invalidity under either 35 U.S.C. § 102, 35 U.S.C. § 103 or under 35 U.S.C. § 112 upon which relief may be granted. In particular, the Cross-Complaint fails to identify any prior art that allegedly renders any claim of the patent-in-suit anticipated under 35 U.S.C. § 102 or obvious under 35 U.S.C. § 103. Furthermore, the Cross-Complaint fails to compare any claim of the patent-in-suit to any

prior art and fails to state where or how the limitations of any claim of the patent-in-suit are found in the prior art.

9. The Cross-Complaint, therefore, fails to comply with the pleading requirements of Fed. R. Civ. P. 8, and should be dismissed under Fed. R. Civ. P. 12(b)(6).

SIXTH AFFIRMATIVE DEFENSE

(Failure to State a Claim for Declaratory Judgment of Invalidity under 35 U.S.C. § 112 For U.S. Patent No. 10,405,457 & U.S. Patent No. 10,820,446)

10. The Cross-Complaint fails to state a claim for a declaratory judgment of invalidity under 35 U.S.C. § 112 upon which relief may be granted. In particular, the Cross-Complaint fails to identify which requirement of Section 112 is being invoked and fails to state a basis for the asserted failure to comply with Section 112, with the exception of the allegation that the asserted claims do not have a "control facility".

11. The Cross-Complaint, therefore, fails to comply with the pleading requirements of Fed. R. Civ. P. 8, and should be dismissed under Fed. R. Civ. P. 12(b)(6).

SEVENTH AFFIRMATIVE DEFENSE

(Estoppel under 35 U.S C. § 315)

12. Plaintiff was the petitioner or real party in interest in an inter partes review before the Patent Trial and Appeal Board instituted on June 23, 2021 under No. IPR 2021-01176 that resulted in a final written decision dated January 6, 2022.

13. The grounds for invalidity of the patent-in-suit under 35 U.S.C. § 102, § 103 and § 112 asserted in the Cross-Complaint constitute grounds that were raised or reasonably could have raised during the inter partes review.

14. Defendant and Cross-Complainant should also be barred by estoppel from raising any claims for invalidity of the patent-in-suit under 35 U.S.C. § 102, § 103 and § 112 raised, or which could have been raised, during the prosecution history.

15. Defendant and Cross-Complainant is, therefore, estopped from asserting such grounds for invalidity in this action under 35 U.S C. § 315(e)(2).

EIGHTH AFFIRMATIVE DEFENSE

(Unclean Hands)

16. By virtue of Defendant and Cross-Complainant's own careless, negligent, and other wrongful conduct, Defendant and Cross-Complainant should be barred from recovering against Defendant by the equitable doctrine of unclean hands.

NINTH AFFIRMATIVE DEFENSE

(Laches)

17. Defendant and Cross-Complainant's waited an unreasonable period of time before asserting its claims, if any, against Plaintiff and Cross-Defendant, and therefore is barred from asserting such claims under the doctrine of laches.

PRAYER FOR RELIEF

Accordingly, Midas respectfully requests that this Court rule on Rhodium's Counterclaims as follows:

1. Declare that Rhodium's Counterclaims fail, and that Midas is not liable to Rhodium;
2. Order that Rhodium take nothing on its counterclaims;
3. Order that Rhodium pay Midas' reasonable attorneys' fees and costs; and
4. Order such other and further relief to Midas as this Court deems just and equitable.

DATED: June 8, 2023

Respectfully submitted,
/s/ Joseph E. Thomas

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Midas Green Technologies, LLC

CERTIFICATE OF SERVICE

I hereby certify that counsel of record who have appeared electronically in this case are being served with this document on June 8, 2023 by way of the primary email address that said counsel supplied to the Court's CM/ECF system.

/s/ Joseph E. Thomas
Joseph E. Thomas

EXHIBIT 14

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

Midas Green Technologies, LLC, Plaintiff, - vs. - **Rhodium Enterprises, Inc.**; **Rhodium Technologies LLC**; **Rhodium 10mw LLC**; **Rhodium 2.0 LLC**; **Rhodium 30mw LLC**; **Rhodium Encore LLC**; **Rhodium Renewables LLC**; **Rhodium Encore Sub LLC;** **Rhodium Renewables Sub LLC; and** **Rhodium Ready Ventures LLC** Defendants.	Civil Action No. 6:22-cv-00050-ADA **Jury Trial Demanded**

JOINT STATUS REPORT

Plaintiff Midas Green Technologies, LLC and Defendant Rhodium Enterprises, Inc., Rhodium Technologies, LLC, Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, Rhodium Encore LLC and Rhodium Renewables LLC (collectively, "Rhodium") hereby provide the following status report.

RECITALS

1. According to the Scheduling Order, the parties are to conduct two meet and confers to discuss narrowing the number of claims asserted and prior art references at issue to triable limits.
2. The Court further ordered the parties to file a joint report on or before February 20, 2024 on the results of the meet and confer.
3. On or about December 20, 2023 and February 19. 2024, the parties met and conferred and hereby stipulate as follows:

NUMBER OF ASSERTED PATENTS AND CLAIMS

Plaintiff will be alleging infringement of 1 Patent and a total of 2 claims at trial. The asserted patent is U.S. Patent Number No. 10,405,457 (the '457 Patent"). Plaintiff will be alleging infringement of claims 1 and 5 of the '457 Patent.

1. Patents

Plaintiff will dismiss infringement allegations surrounding U.S. Patent No. 10,820,446 patent. The only patent at issue is the '457 Patent.

2. Claims

Plaintiff will dismiss claim 6 from the '457 Patent; The only Claims at issue are 1 and 5 of the '457 Patent.

3. Invalidity

Rhodium has agreed to drop previously asserted prior art references from their defense. Specifically, Rhodium has dropped the following prior art references: U.S. Patent 2,500,013 (Gryzhin); and U.S. Patent No. 5,167,511 (Krajewski). Rhodium has also withdrawn U.S. Patent 4,590,538 (Cray) as a charted reference but continues to rely on Cray for background/evidence of the state of the art.

4. Defendants

Midas has agreed to dismiss without prejudice the following defendants named in the Complaint from allegations of infringement of the '457 Patent:

Rhodium Encore Sub LLC; Rhodium Renewables Sub LLC; and Rhodium Ready Ventures LLC.

CERTIFICATE OF CONFERENCE

I certify that counsel for all Parties have conferred in good faith and this motion is joint.

/s/ Joseph E. Thomas

DATED: February 20, 2024

Respectfully submitted,
/s/ Michael C. Smith

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Attorneys for Defendants Rhodium Enterprises, Inc., Rhodium Technologies, LLC, Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, Rhodium Encore LLC and Rhodium Renewables LLC

CERTIFICATE OF SERVICE

I hereby certify that counsel of record who have appeared electronically in this case are being served with this document on February 20, 2024 by way of the primary email address that said counsel supplied to the Court's CM/ECF system.

/s/ Michael C. Smith

EXHIBIT 15

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

From: Joe Thomas <jthomas@twtlaw.com>
Sent: Friday, February 7, 2025 5:36 PM
To: Corey Brown
Cc: Ken Halpern; Elizabeth Brannen; Bridget Asay; travis@gillamsmithlaw.com; melissa@gillamsmithlaw.com; Sarah Rahimi; William Kolegraff; Grant Thomas; Tierra Mendiola; henry.pogorzelski@klgates.com; michael.smith@solidcounsel.com; Peter Brody
Subject: Proposed Omnibus Orders
Attachments: 2025-02-07 Midas v. Rhodium - Joint Pre-Trial Motions Ruling - Midas @ 1600 CST(508986917.1).docx; 2025-02-07 Midas v. Rhodium - Joint MIL Rulings.docx

[External Email]
To the Honorable Clerk of Judge Alan D. Albright:

As requested, attached are the joint proposed rulings on the Motions in Limine and Pre-Trial Rulings submitted jointly by Plaintiff Midas Green Technologies, LLC ("Midas") and Defendant Rhodium Enterprises Inc., et al. ("Rhodium"). As directed by Corey Brown, the disputed language proposed by Midas is in red and the disputed language proposed by Rhodium is in blue.

Please let the Parties know if you have any questions.

Document Break

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

Midas Green Technologies, LLC, Plaintiff, - vs. - **Rhodium Enterprises, Inc.**; **Rhodium Technologies LLC**; **Rhodium 10mw LLC**; **Rhodium 2.0 LLC**; **Rhodium 30mw LLC**; **Rhodium Encore LLC**; **Rhodium Renewables LLC**; Defendants.	CIVIL ACTION NO. 6:22-CV-00050-ADA **Jury Trial Demanded**

OMNIBUS ORDER ON PRE-TRIAL MOTIONS

This is a patent infringement case filed by the Plaintiff, Midas Green Technologies ("Midas"), against Defendants Rhodium Enterprises, Inc., Rhodium Technologies LLC; Rhodium 10MW LLC; Rhodium 2.0 LLC; Rhodium 30MW LLC; Rhodium Encore LLC; and Rhodium Renewables LLC (each a "Rhodium Entity" and collectively "Rhodium"). Although the Third Amended Claim for Patent Infringement that Midas filed on March 29, 2023 (Dkt. 106) asserted infringement of 2 patents, in a Joint Status Report filed on February 20, 2024 (Dkt. 144), the parties confirmed to the Court that all infringement claims relating to U.S. Patent No. 10,820,446 were dismissed, and that Midas would allege infringement at trial only of claims 1 and 5 of the sole remaining asserted patent, U.S. Patent No. 10,405,457 (*id.* at 2).

On April 9, 2024, after the parties submitted appropriate briefing, the Court held a pretrial conference to rule on the then-pending pretrial motions filed by the parties. The Court indicated from the bench how it intended to rule on these five motions. The Court ruled from the bench on five of those motions. No written orders were entered at that time.

Subsequently, on August 24, 2024 and August 29, 2024, the Rhodium Entities each filed a voluntary petition for relief under Chapter 11 of the United States Bankruptcy Code, 11 U.S.C. §§ 101-1330, as amended (the "Bankruptcy Code"), in the United States Bankruptcy Court for the Southern District of Texas (the "Bankruptcy Court"), *In re Rhodium Encore LLC et al.*, Case No. 24-90448 (Jointly Administered). On August 30, 2024, Rhodium filed a Suggestion of Bankruptcy in this Court [ECF 188], acknowledging this matter as stayed. On September 18, 2024 and November 20, 2024, Midas submitted proofs of claim against Rhodium, attaching its Third Amended Claim for Patent Infringement (Dkt. 106). On January 30, 2025, the Bankruptcy Court issued a limited relief from stay to allow "the District Court presiding over the patent infringement claim," i.e., this Court, "to enter a written order and judgment memorializing [its] April 9, 2024

bench ruling." *In re Rhodium Encore LLC et al.*, Case No. 24-90448, Dkt. 737. Notice of this Order was filed with this Court on February 3, 2025. [ECF 189]. This Court directed the parties to prepare a joint a joint omnibus proposed order on the pretrial motions. After review of the parties' joint submission the Court enters the following written order:

Midas' Motion for Summary Judgment to Remove Inventors Pursuant to 35 U.S.C. § 256

Midas' motion to correct inventorship pursuant to 35 U.S.C. 256. [ECF 149] is GRANTED. The Court hereby orders the United States Patent and Trademark Office to remove the following inventors as improperly listed: Kenneth D. Swinden; Mario Conti Garcia; John Charles Tribou; Thomas R. Turner; James P. Koen; and David Christopher Laguna. (Dkt. 187, 6:25-7:1.) The Court orders the date of the removal of these inventors shall be April 9, 2024.

Midas' Daubert Motion to Exclude the Rebuttal Report of Dr. Alfonso Ortega

Plaintiff Midas' Motion to exclude the Rebuttal Report and Testimony of Dr. Alphonso Ortega. [ECF 151] is GRANTED IN PART..

The Court grants Midas' Daubert Motion to Exclude the Rebuttal Report of Dr. Alfonso Ortega with reference to Computational Fluid Analysis, and hereby orders the following paragraphs excluded from evidence: 91, 92, 133-146, 178, 184, 189-190, 213, 222, 239, 277. (Dkt. 187, 7:22-8:4; 13:6-7.)

Rhodium's Daubert Motion to Exclude Portions of Dr. Himanshu Pokharna's Expert Report

Defendant Rhodium's Motion to Strike and Exclude the Testimony of Dr. Himanshu Pokharna. [ECF 152] is GRANTED IN PART.

The Court orders specifically that Dr. Pokharna's testimony regarding the "Prime Control's" Control System be excluded for failure to identify the System in Midas' Final Infringement Contentions. April 9, 2024 Pretrial Hearing Transcript 18:6. The Court grants leave to amend Dr. Pokharna's report to address any of the issues that Midas' believes would make Dr. Pokharna's opinion survive a future challenge. (Dkt. 187, 20:12-23.)

Defendant Rhodium's Motion to Strike and Exclude the Testimony of Dr. Himanshu Pokharna. [ECF 152] is GRANTED. (Dkt. 187, 18:6). Prior to reaching Defendants' summary judgment motion, the Court ruled that the motion was granted without prejudice so that Dr. Pokharna could amend his report to try to address any of the issues that Midas believed would make his opinion survive a future challenge (id. at 20:9-23); however, the subsequent summary judgment ruling mooted the need for any such attempt.

Rhodium's Daubert Motion to Exclude Portions of Dr. Jim Lee's Rebuttal Expert Report

Defendant Rhodium's Motion to Strike and Exclude the Testimony of Dr. James Lee. [ECF 153] is DENIED with leave to re-depose the witness.

The Court orders the parties to meet and confer regarding Rhodium's deposition of Dr. Jim Lee to the extent that a deposition is sought. (Dkt. 187, 20:6-8.)

Prior to reaching Defendants' summary judgment motion, the Court ruled that it would deny the motion and allow Defendants to depose Dr. Lee again (Dkt. 19:17-20:8); however, the subsequent summary judgment ruling rendered any such further deposition moot.

Rhodium's Daubert Motion to Exclude Duross O'Bryan's Expert Report

Defendant Rhodium's Motion to Strike and Exclude the Testimony of Duross O'Bryan. [ECF 154] is GRANTED IN PART.

The Court grants Rhodium's Daubert Motion to exclude Mr. O'Bryan's analysis of lost profits. April 9, 2024 Pretrial Hearing Transcript 26:24-27:1. The Court finds that the lost profits opinion is too unreliable to reach a jury. However, the Court grants Midas leave to amend the expert report. (Dkt. 187, 27:1-5.) The Court denies the Daubert Motion to exclude Mr. O'Bryan's analysis of reasonable royalties. (Dkt. 187, 27:6-7.) However, to the extent Midas seeks future, post-trial reasonable royalties, Midas must seek those separately based upon actual infringement, if any, rather than pre-trial projections. *Id.* 27:12-31:7.

Prior to reaching Defendants' summary judgment motion, the Court ruled that it would allow Midas leave to re-do the excluded portions of Mr. O'Bryan's damages expert report (Dkt. 27:1-5); however, the subsequent summary judgment ruling rendered any such amendment moot.

Rhodium's Motion for Summary Judgment

Defendant Rhodium's filed a Motion for Summary Judgment of Noninfringement. [ECF 155] is DENIED WITHOUT PREJUDICE.

The Court denies the Motion for Summary Judgment without prejudice to refiling following the previously referenced amendment of the expert report of Dr. Himanshu Pokharna. April 9, 2024 Pretrial Hearing Transcript 54:19-55:3.

Defendants' Motion for Summary Judgment of Noninfringement is **GRANTED**. For the reasons explained in Rhodium's briefing (Dkt. Nos. 155, 169) and discussed at the final pretrial conference (Dkt. No. 187 at 32:7-55:20), Rhodium's accused liquid immersion cooling systems do not infringe asserted claims 1 or 5 of U.S. Patent 10,405,457.

There is no evidence from which a reasonable juror could conclude that Rhodium's systems meet, literally or under the doctrine of equivalents, the plain meaning of the limitation requiring "a control facility adapted to coordinate the operation of the primary and secondary fluid

circulation facilities as a function of the temperature of the dielectric fluid in the tank."[1]

It is further **ORDERED** that the Clerk of Court is **DIRECTED** to enter Federal Rule of Civil Procedure 58 judgment in favor of Defendants in this matter.

SIGNED this ___ day of February, 2025

ALAN D ALBRIGHT

UNITED STATES DISTRICT COURT JUDGE

[1] If the Court were to adopt Rhodium's proposed text, Midas would respectfully request that the Court add the following text immediately following Rhodium's proposed text: "The Court's ruling is applicable to the Rhodium accused instrumentalities as they existed at the close of fact discovery." Rhodium does not agree to the foregoing additional text.

Document Break

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

Midas Green Technologies, LLC, Plaintiff, - vs. - **Rhodium Enterprises, Inc.**; **Rhodium Technologies LLC**; **Rhodium 10mw LLC**; **Rhodium 2.0 LLC**; **Rhodium 30mw LLC**; **Rhodium Encore LLC**; **Rhodium Renewables LLC**; Defendants.	CIVIL ACTION NO. 6:22-CV-00050-ADA **Jury Trial Demanded**

OMNIBUS ORDER ON MOTIONS IN LIMINE

This is a patent infringement case filed by the Plaintiff, Midas Green Technologies ("Midas"), against Defendants Rhodium Enterprises, Inc., Rhodium Technologies LLC; Rhodium 10MW LLC; Rhodium 2.0 LLC; Rhodium 30MW LLC; Rhodium Encore LLC; and Rhodium Renewables LLC (each a "Rhodium Entity" and collectively "Rhodium"). Although the Third Amended Claim for Patent Infringement that Midas filed on March 29, 2023 (Dkt. 106) asserted infringement of 2 patents, in a Joint Status Report filed on February 20, 2024 (Dkt. 144), the parties confirmed to the Court that all infringement claims relating to U.S. Patent No. 10,820,446 were dismissed, and that Midas would allege infringement at trial only of claims 1 and 5 of the sole remaining asserted patent, U.S. Patent No. 10,405,457 (*id.* at 2).

On April 9, 2024, the Court held a pretrial conference to rule on five separate pretrial motions filed by the parties, as well as a number of motions *in limine*. The Court declined to take up the motions *in limine* after hearing oral argument and ruling from the bench on the pretrial motions. No written orders were entered at that time.

Subsequently, on August 24, 2024 and August 29, 2024, the Rhodium Entities each filed a voluntary petition for relief under Chapter 11 of the United States Bankruptcy Code, 11 U.S.C. §§ 101-1330, as amended (the "Bankruptcy Code"), in the United States Bankruptcy Court for the Southern District of Texas (the "Bankruptcy Court"), *In re Rhodium Encore LLC et al.*, Case No. 24-90448 (Jointly Administered). On August 30, 2024, Rhodium filed a Suggestion of Bankruptcy in this Court [ECF 188], acknowledging this matter as stayed. On September 18, 2024 and November 20, 2024, Midas submitted proofs of claim against Rhodium, attaching its Third Amended Claim for Patent Infringement (Dkt. 106). On January 30, 2025, the Bankruptcy Court issued a limited relief from stay to allow "the District Court presiding over the patent infringement

claim," i.e., this Court, "to enter a written order and judgment memorializing [its] April 9, 2024 bench ruling." *In re Rhodium Encore LLC et al.*, Case No. 24-90448, Dkt. 737. This Court subsequently directed the parties to file a joint omnibus proposed order on the pretrial motions and a separate omnibus order on the motions in limine.

The following motions are DENIED WITHOUT PREJUDICE:

Plaintiff's Motion in Limine No. 1 [ECF 180]

Plaintiff's Motion in Limine No. 4 [ECF 173]

Plaintiff's Motion in Limine No. 23 [ECF 174]

Plaintiff's Motion in Limine No. [ECF 175]

Plaintiff's Motion in Limine No. [ECF 176]

Plaintiff's Motion in Limine No. [ECF 177]

Defendant's Motion in Limine No. 1 [ECF 172]

The Court declined to take up the pending motions *in limine* on April 9, 2024 (Dkt.Nos. 180, 172-77) given its ruling granting Defendants' summary judgment motion (Dkt. 187 at 54:10-16), and those motions are DENIED as moot.

SIGNED this ___ day of February, 2025

ALAN D ALBRIGHT

UNITED STATES DISTRICT COURT JUDGE

EXHIBIT 16

DEBTORS' SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

US012317450B1

(12) **United States Patent**
Blackmon et al.

(10) **Patent No.: US 12,317,450 B1**
(45) **Date of Patent: May 27, 2025**

(54) **FLUID CIRCULATION SYSTEMS AND METHODS FOR COOLING HAVING A COLLECTOR**

(71) Applicant: **Rhodium Technologies LLC**, Rockdale, TX (US)

(72) Inventors: **Chase Blackmon**, Rockdale, TX (US); **William Boardman**, Rockdale, TX (US)

(73) Assignee: **Rhodium Technologies LLC**, Rockdale, TX (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 269 days.

(21) Appl. No.: **17/982,333**

(22) Filed: **Nov. 7, 2022**

Related U.S. Application Data

(60) Provisional application No. 63/277,160, filed on Nov. 8, 2021.

(51) **Int. Cl.**
H05K 7/20 (2006.01)
G06F 1/20 (2006.01)

(52) **U.S. Cl.**
CPC ***H05K 7/20272*** (2013.01); ***G06F 1/206*** (2013.01); ***H05K 7/20236*** (2013.01); ***H05K 7/20263*** (2013.01)

(58) **Field of Classification Search**
CPC .. H05K 7/20; H05K 7/20236; H05K 7/20263; H05K 7/20272; H05K 7/203;
(Continued)

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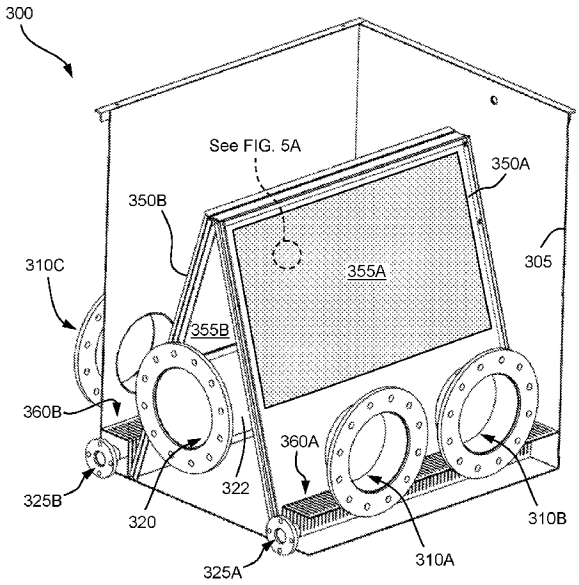
(Continued)

Primary Examiner — Amir A Jalali
(74) *Attorney, Agent, or Firm* — McDonnell Boehnen Hulbert & Berghoff LLP

(57) **ABSTRACT**

A fluid circulation system for cooling a plurality of computing devices with a dielectric fluid includes a fluid tank, a cooler, and a collector. The fluid tank includes a bottom having a plurality of apertures for receiving the dielectric fluid. The fluid tank is configured to hold the plurality of computing devices with a first computing device of the plurality of computing devices disposed over a first group of the apertures of the plurality of apertures. The cooler is configured to receive the dielectric fluid and remove thermal energy from the dielectric fluid. The collector includes a first cavity, a second cavity, a plate separating the first cavity from the second cavity, a collector inlet that opens into the first cavity and is configured to supply dielectric fluid into the collector, and a collector outlet. The fluid tank, cooler, and collector are fluidly connected in a fluid circuit.

20 Claims, 9 Drawing Sheets



(58) **Field of Classification Search**
CPC H05K 7/20318; H05K 7/20327; H05K 7/20772; H05K 7/208; H05K 7/20809; H05K 7/20818; G06F 1/20; G06F 1/206; B01D 18/0031; B01D 35/18; F25D 3/005; F28D 15/00; F28F 13/00; F01P 11/028
See application file for complete search history.

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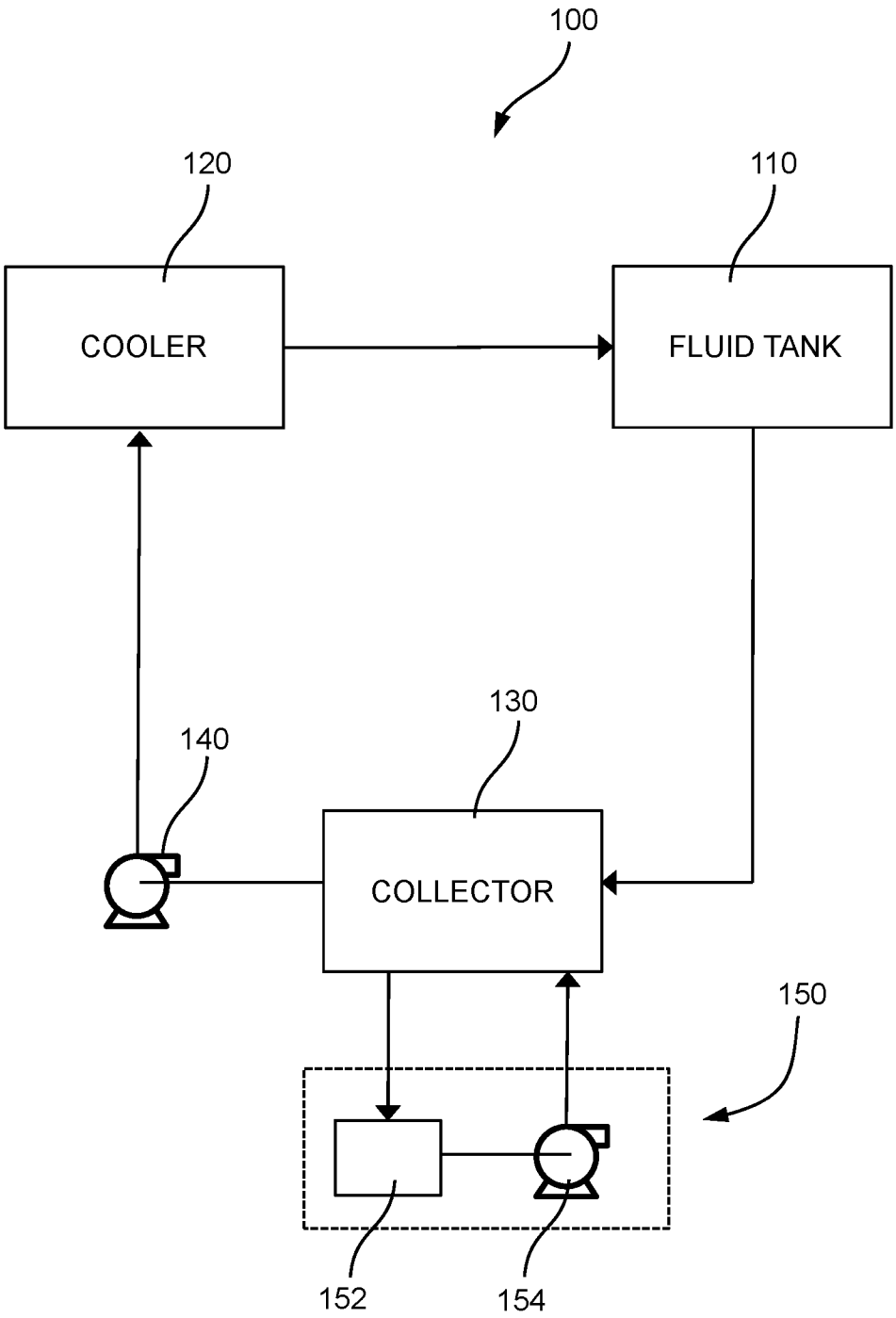


FIG. 1

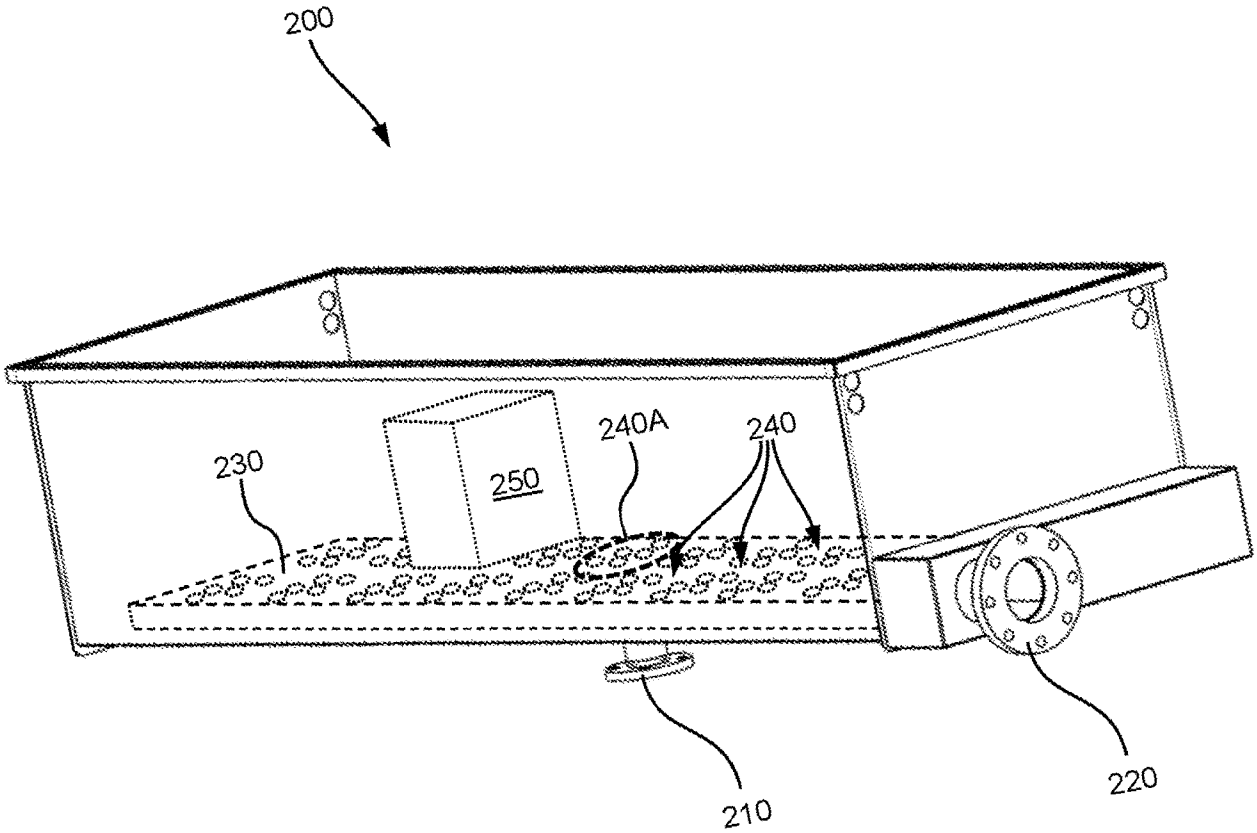


FIG. 2

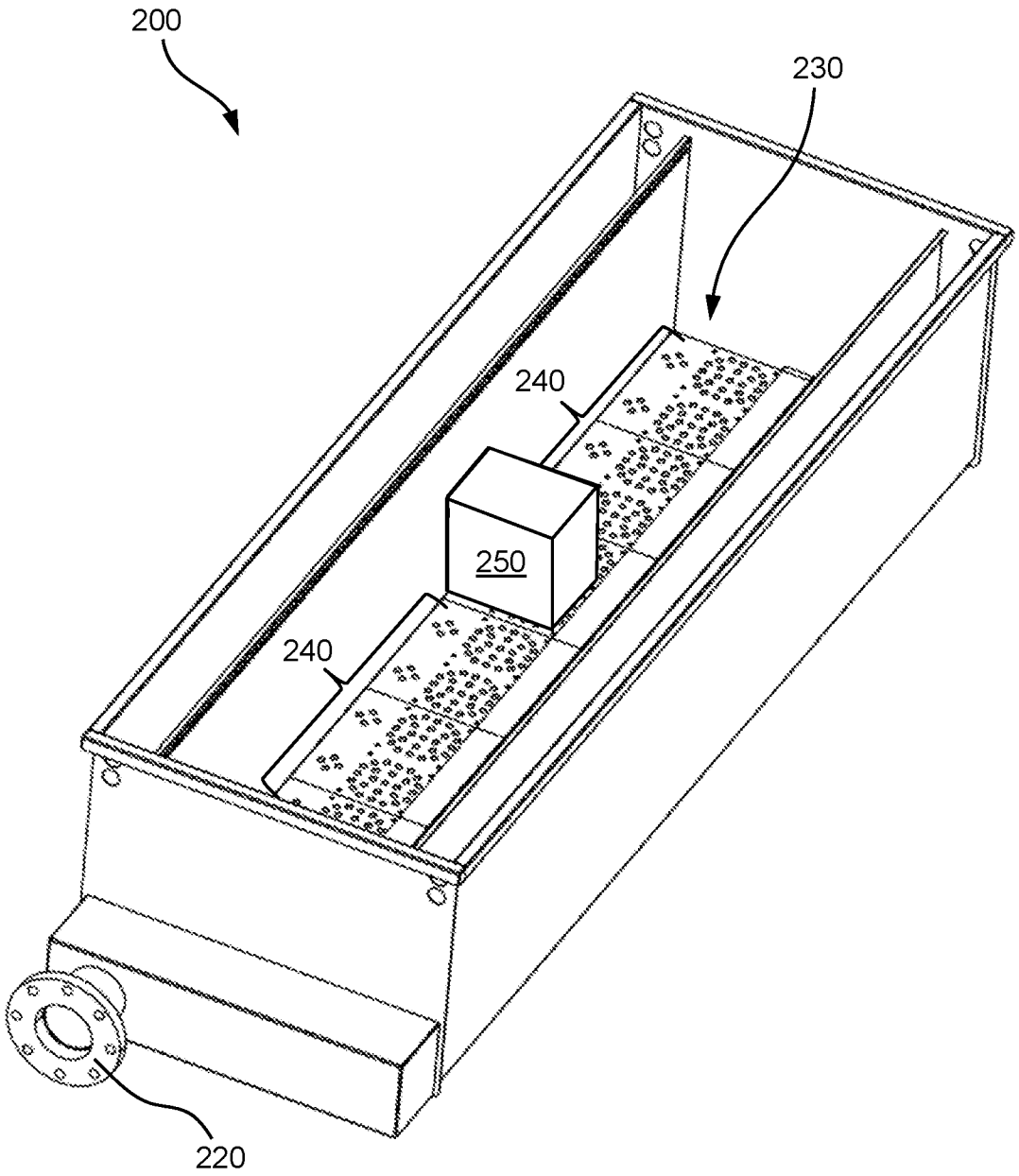


FIG. 2A

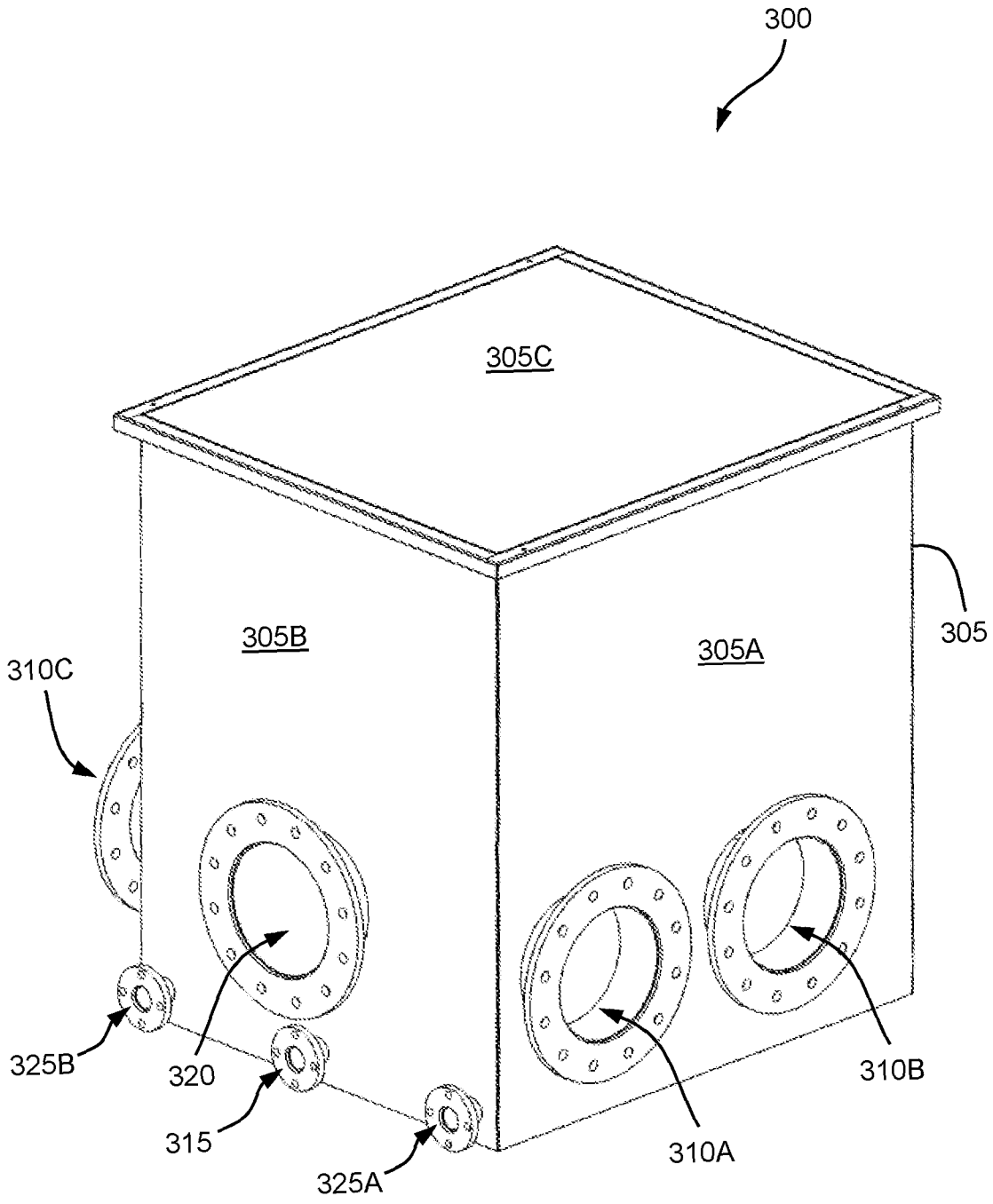


FIG. 3

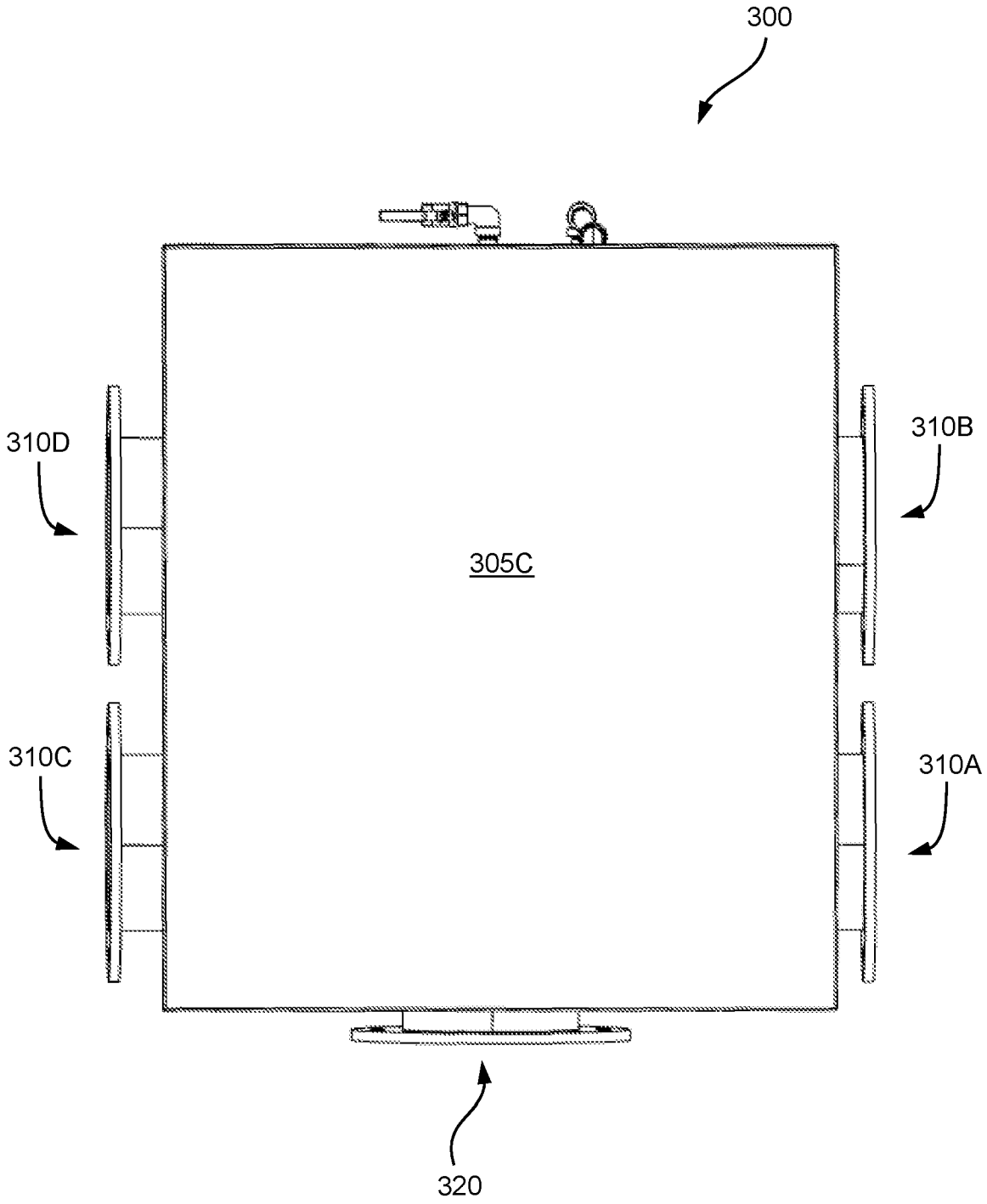


FIG. 4

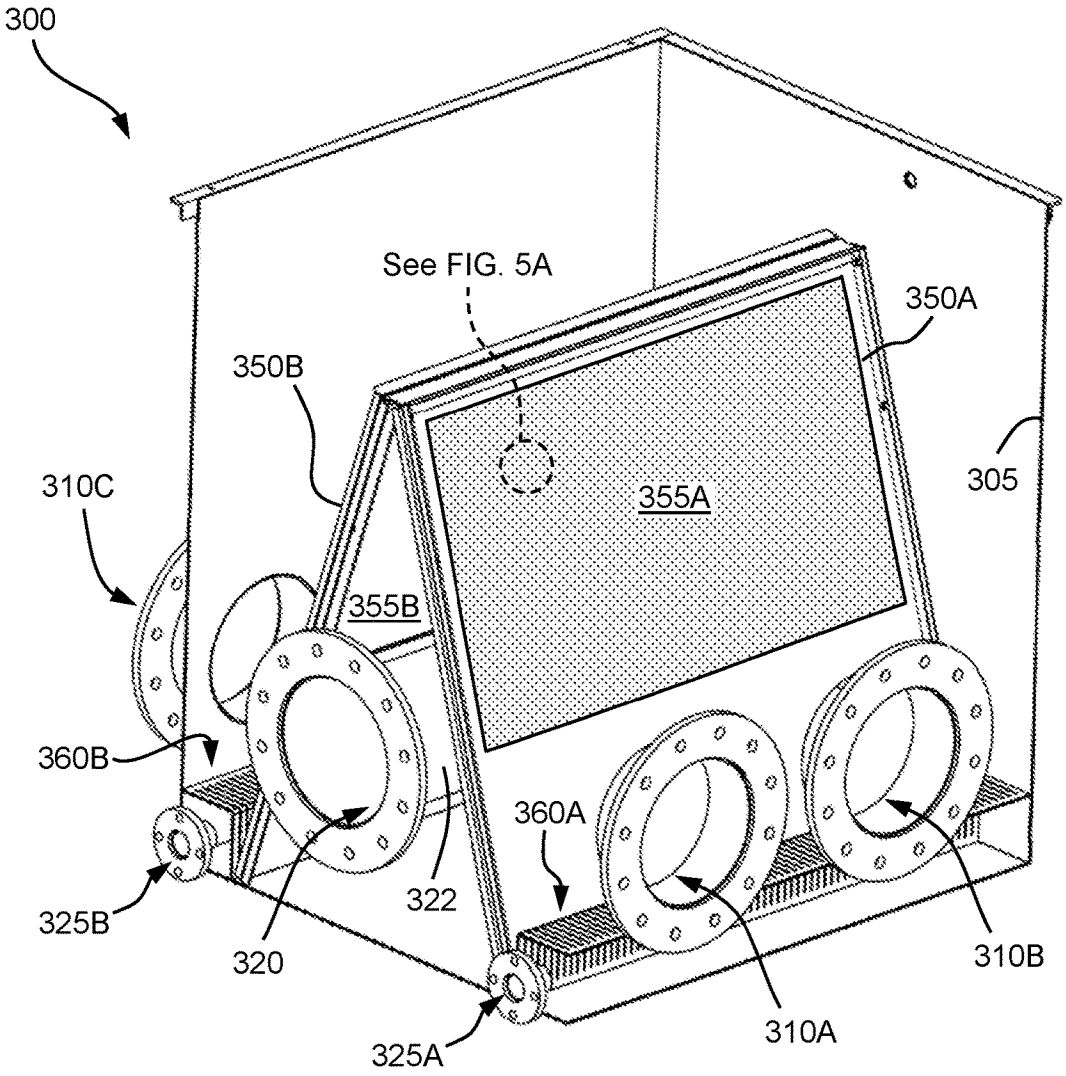

300
See FIG. 5A
350A
350B
310C
355A
305
355B
360B
360A
322
325B
320
310B
310A
325A

FIG. 5

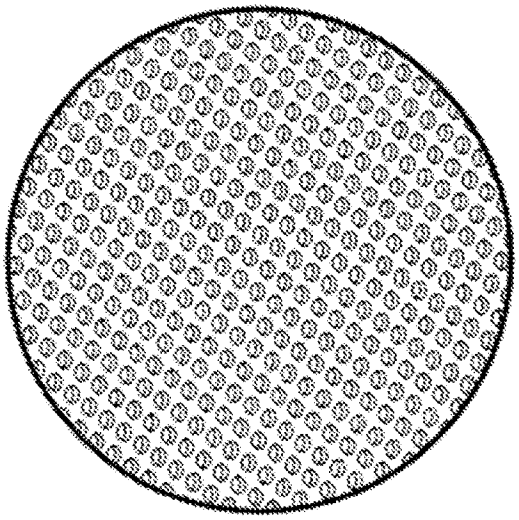
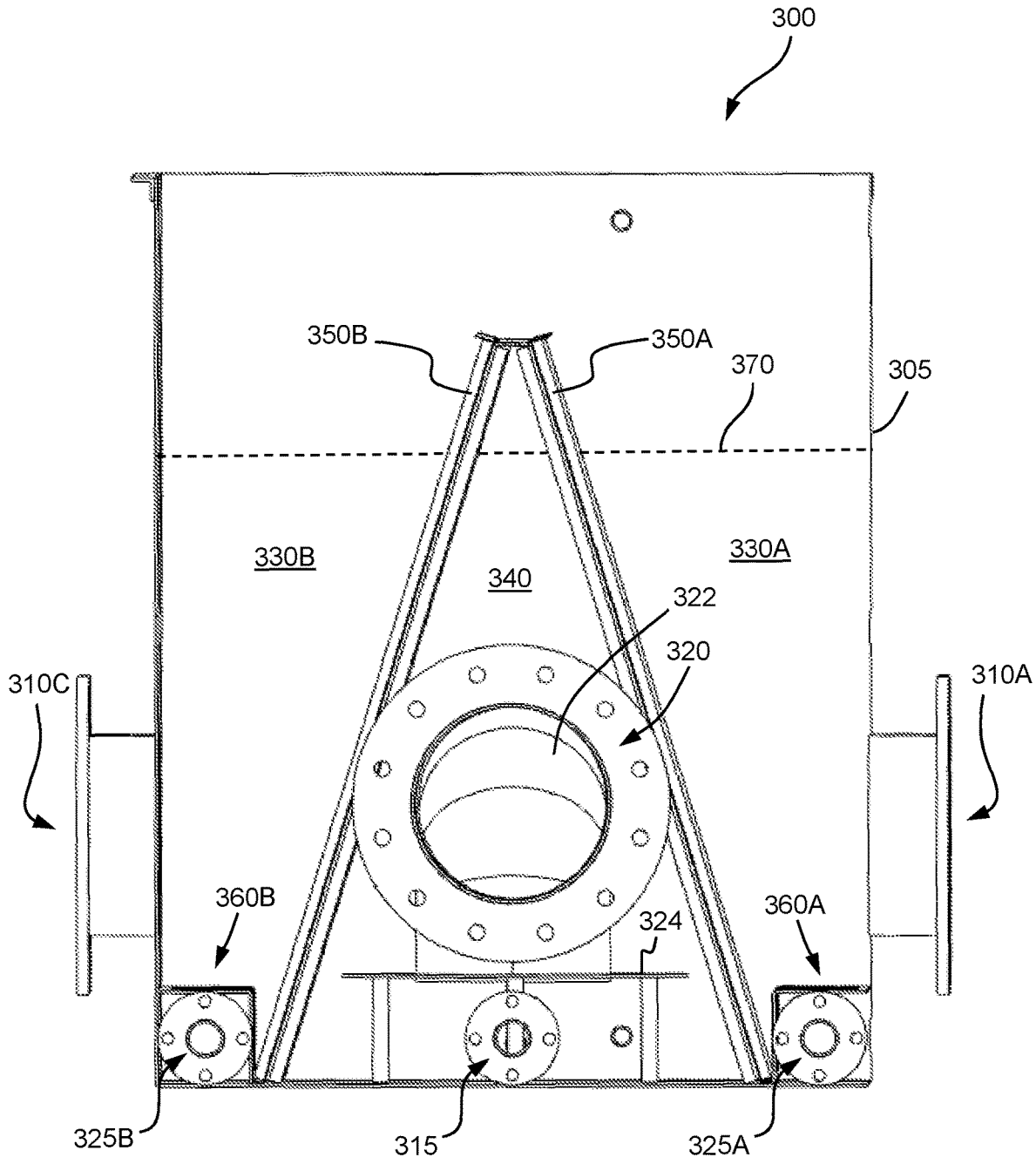


FIG. 5A


300
350B
350A
370
305
330B
340
330A
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320
310C
310A
360B
360A
324
325B
315
325A

FIG. 6

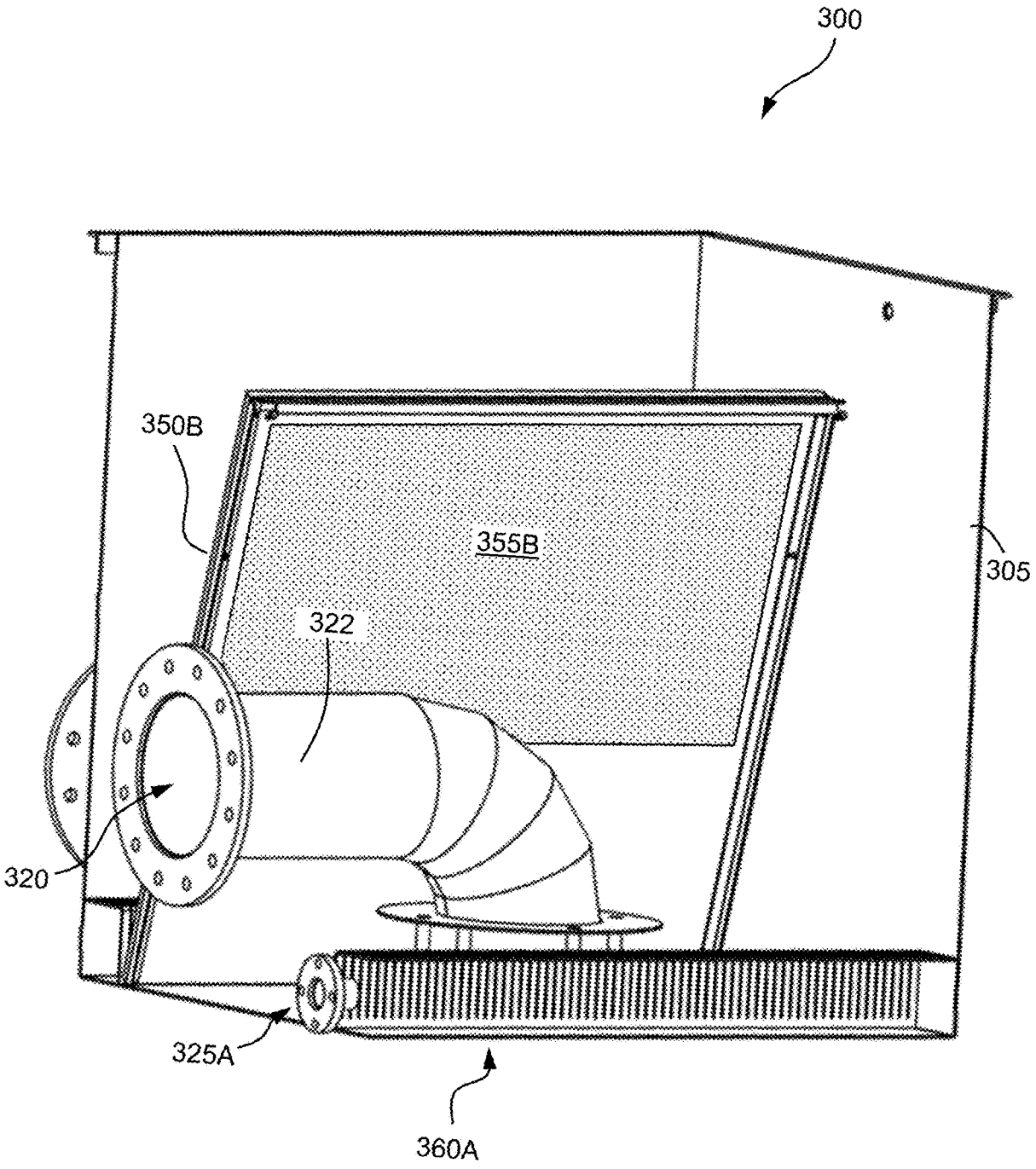

FIG. 7

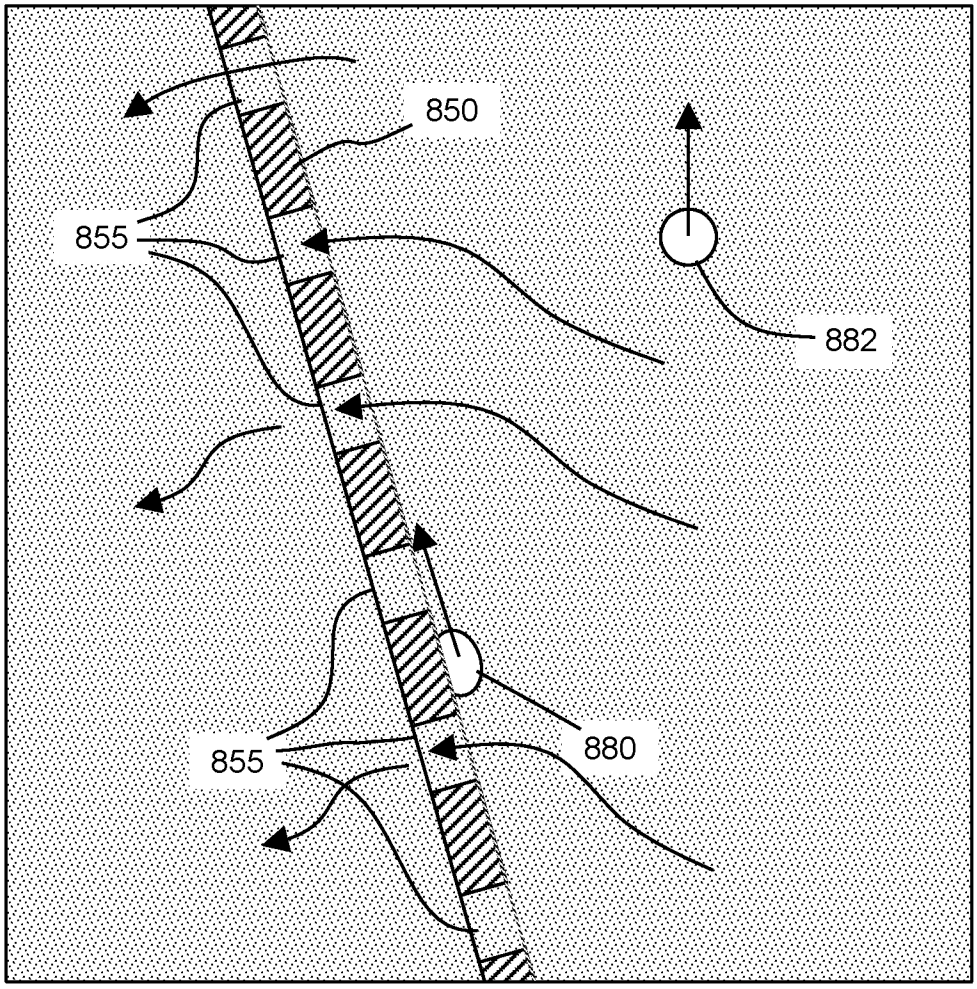

FIG. 8

FLUID CIRCULATION SYSTEMS AND METHODS FOR COOLING HAVING A COLLECTOR

CROSS-REFERENCE TO RELATED APPLICATION

The present application claims priority to U.S. Provisional Application No. 63/277,160, filed Nov. 8, 2021, which is hereby incorporated by reference.

BACKGROUND

Computing devices generate heat during operation. Thermal management systems may be used to dissipate heat that is generated by the computing devices.

SUMMARY

Embodiments described herein relate to fluid circulation systems and methods for cooling a plurality of computing devices with a dielectric fluid. Example fluid circulation systems described herein have a collector including cavities and a plate. The plate includes perforations that provide fluid access for moving the fluid from one cavity to another cavity. Beneficially, embodiments described herein may improve the heat transfer performance of the fluid circulation system.

In a first aspect, a fluid circulation system for cooling a plurality of computing devices with a dielectric fluid is disclosed. The fluid circulation system includes a fluid tank, a cooler, and a collector. The fluid tank includes a bottom having a plurality of apertures for receiving the dielectric fluid. The fluid tank is configured to hold the plurality of computing devices with a first computing device of the plurality of computing devices disposed over a first group of the apertures of the plurality of apertures. The cooler is configured to receive the dielectric fluid and remove thermal energy from the dielectric fluid. The collector includes a first cavity, a second cavity, a plate separating the first cavity from the second cavity, a collector inlet that opens into the first cavity and is configured to supply dielectric fluid into the collector, and a collector outlet. The plate is disposed at an angle such that a portion of the first cavity is positioned above a portion of the second cavity. The plate includes a plurality of perforations that provide fluid access for moving the dielectric fluid from the first cavity to the second cavity. The fluid tank, cooler, and collector are fluidly connected in a fluid circuit.

In an embodiment of the fluid circulation system, a first fluid path through the collector extends from the collector inlet, through the first cavity, through the plurality of perforations of the plate, through the second cavity, and to the collector outlet.

In another embodiment of the fluid circulation system, a cross-sectional area of the first cavity at an opening of the collector inlet is substantially greater than a cross-sectional area of the collector inlet so as to reduce a velocity of dielectric fluid entering the collector.

In another embodiment the fluid circulation system, the collector further includes a filtering chamber disposed under at least a portion of the first cavity and below the collector inlet.

In another embodiment of the fluid circulation system, a second fluid path through the collector extends from the collector inlet, through the first cavity, through the filtering chamber, and to a filter outlet.

In another embodiment of the fluid circulation system, the filter outlet is coupled to a filter, and the filter is coupled to a return configured to return dielectric fluid to the second cavity of the collector.

In another embodiment of the fluid circulation system, a majority of the plurality of perforations of the plate are disposed above the collector inlet so as to direct dielectric fluid in the first cavity upward and promote bubble dissipation in the first cavity.

In another embodiment of the fluid circulation system, one perforation of the plurality of perforations of the plate is smaller than one aperture of the plurality of apertures of the bottom of the fluid tank.

In another embodiment of the fluid circulation system, the system includes a pump configured to circulate the dielectric fluid through the fluid circuit.

In another embodiment of the fluid circulation system, the pump is disposed between the collector and the cooler.

In another embodiment of the fluid circulation system, the collector further includes a third cavity, a second plate separating the third cavity from the second cavity, and a second collector inlet that opens into the third cavity. The second plate is disposed at an angle such that a portion of the third cavity is positioned above a portion of the second cavity, and the second plate includes a plurality of perforations that provide fluid access for moving the dielectric from the first cavity to the second cavity.

In another embodiment of the fluid circulation system, the fluid tank is one of a plurality of fluid tanks including a second fluid tank, and a circulation path through the fluid circulation system comprises, in sequence, the plurality of fluid tanks, the collector, and the cooler.

In another embodiment of the fluid circulation system, the second collector inlet is opposite the collector inlet.

In another embodiment of the fluid circulation system, the plate and the second plate are oriented at opposite angles over the second cavity, and an upper end of the second plate contacts an upper end of the plate.

In another embodiment of the fluid circulation system, the fluid tank has an open volume.

In another aspect, a method of cooling a plurality of computing devices in a fluid circulation system is disclosed. The method includes pumping a dielectric fluid through a fluid circulation system such that the dielectric fluid flows along a plurality of paths through portions of the fluid circulation system. The plurality of paths includes a cooling path flowing through a fluid tank holding a plurality of computing devices, a restoring path flowing through a collector, and a heat exchange path flowing through a cooler so as to remove thermal energy from the dielectric fluid. The cooling path extends into the fluid tank through a plurality of apertures in a bottom of the fluid tank and upward past the plurality of computing devices so as to receive thermal energy from the plurality of computing devices. The restoring path extends through a collector inlet into a first cavity of the collector, from the first cavity of the collector through a plurality of perforations in a plate into a second cavity of the collector, and from the second cavity of the collector to a collector outlet.

In an embodiment of the method, the dielectric fluid is pumped through the fluid circulation system in a circuit including, in sequence, the cooling path, the restoring path, and the heat exchange path.

In another embodiment of the method, the plurality of computing devices are submerged in the fluid tank.

In another embodiment of the method, bubbles in the dielectric fluid rise in the first cavity and flow out of the restoring path.

In another embodiment of the method, a cross-sectional area of the first cavity at an opening of the collector inlet is substantially greater than a cross-sectional area of the collector inlet so as to reduce a velocity of dielectric fluid entering the collector thereby causing solids in the dielectric fluid to fall in the first cavity and flow out of the restoring path.

These as well as other aspects, advantages, and alternatives will become apparent to those of ordinary skill in the art by reading the following detailed description with reference where appropriate to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings are included to provide a further understanding of the systems and methods of the disclosure, and are incorporated in and constitute a part of this specification. The drawings are not necessarily to scale, and sizes of various elements may be changed for clarity. The drawings illustrate one or more embodiment(s) of the disclosure, and together with the description serve to explain the principles and operation of the disclosure. In the drawings, similar symbols typically identify similar components, unless context dictates otherwise.

FIG. **1** is a schematic depiction of a fluid circulation system, according to an example embodiment.

FIG. **2** is a perspective view of a fluid tank, according to an example embodiment.

FIG. **2**A is another perspective view of a fluid tank, according to an example embodiment.

FIG. **3** is a perspective view of a collector, according to an example embodiment.

FIG. **4** is a top view of a collector shown in FIG. **3**, according to an example embodiment.

FIG. **5** is a perspective view of aspects of the collector shown in FIG. **3**, according to an example embodiment.

FIG. **5**A is a detailed view of a portion of FIG. **5**.

FIG. **6** is a front view of aspects of the collector shown in FIG. **3**, according to an example embodiment.

FIG. **7** is a perspective view of aspects of the collector shown in FIG. **3**, according to an example embodiment.

FIG. **8** is a schematic depiction of fluid flow on a plate, according to an example embodiment.

DETAILED DESCRIPTION

The following detailed description describes various features and functions of the disclosed apparatus, system, and methods with reference to the accompanying figures. The illustrative apparatus, system, and method embodiments described herein are not meant to be limiting. It will be readily understood that certain aspects of the disclosed apparatus, system, and methods can be arranged and combined in a wide variety of different configurations, all of which are contemplated herein.

I. Introduction

An example fluid circulation system for cooling a plurality of computing devices with a dielectric fluid includes a fluid tank, a cooler, and a collector. The collector includes a first cavity, a second cavity, a plate separating the first cavity from the second cavity, a collector inlet that opens into the first cavity and is configured to supply dielectric fluid into the collector, and a collector outlet. The plate is positioned above a portion of the second cavity, and the plate includes a plurality of perforations that provide fluid access for moving the dielectric fluid from the first cavity to the second cavity. Beneficially, flowing dielectric fluid through the collector may reduce dissolved gases and the presence of bubbles in the dielectric fluid and/or reduce solids in fluid paths of the fluid circulation system.

An example method of cooling the plurality of computing device includes pumping dielectric fluid through a restoring path flowing through the collector. The restoring path extends through the collector inlet into the first cavity, from the first cavity through the plurality of perforations into the second cavity, and from the second cavity to the collector outlet.

II. Example Systems

FIG. **1** is a schematic depiction of a fluid circulation system **100**, according to an example embodiment. The fluid circulation system **100** includes a fluid tank **110**, a cooler **120**, and a collector **130** fluidly connected in a fluid circuit. In the fluid circulation system **100**, a dielectric fluid flows through at least the fluid tank **110**, collector **130**, and cooler **120**. Fluid paths are as indicated in FIG. **1** and flow direction of a fluid in a given fluid path is indicated by one or more arrows. FIG. **1** is illustrative only and other fluids, components (e.g., piping, valves, seals, sensors), and/or fluid paths may be included in embodiments of a fluid circulation system.

The fluid tank **110** is configured to hold a plurality of computing devices. Dielectric fluid may flow through the fluid tank **110** to receive thermal energy from the plurality of computing devices. By receiving thermal energy from the plurality of computing devices, the dielectric fluid may cool the plurality of computing devices.

The cooler **120** is configured to receive dielectric fluid and remove thermal energy from the dielectric fluid. The dielectric fluid may flow through the cooler **120** so as to remove thermal energy from the dielectric fluid. In some embodiments, the cooler **120** includes a cooling tower configured to receive air to absorb thermal energy from the dielectric fluid. The cooling tower may transfer thermal energy from the dielectric fluid to atmospheric air. The cooler **120** may take the form of other components that serve a similar thermal purpose as well, including a heat exchanger. The heat exchanger, such as a shell-and-tube heat exchanger, may be configured to receive water or another liquid coolant to absorb thermal energy from the dielectric fluid.

The collector **130** is configured to receive dielectric fluid. As described herein, the collector **130** may restore the dielectric fluid so as to improve the heat transfer performance of the fluid circulation system **100**. The collector **130** may be coupled downstream of the fluid tank **110** and upstream of the cooler **120**. However, in other embodiments, the collector **130** may be arranged in different positions in the fluid circulation system **100**, including downstream of the cooler **120** and upstream of the fluid tank **110**.

The fluid circulation system **100** may also include a pump **140** configured to circulate dielectric fluid through at least the fluid tank **110**, the cooler **120**, and the collector **130**. The pump **140** is fluidly connected to the fluid circuit. The pump **140** may be coupled downstream of the collector **130** and upstream of the cooler **120**. However, in other embodiments, the pump **140** may be arranged in different positions in the fluid circulation system **100**, including downstream of the cooler **120** and upstream of the fluid tank **110**. The pump **140**

may be formed by any actuator or mechanism that moves fluid, such as a rotary, piston, or other pumps. In some embodiments, the pump **140** may pump dielectric fluid through the fluid circulation system **100** at a constant speed or at variable speeds.

The fluid circulation system **100** may also include a filtering system **150** configured to filter dielectric fluid. The filtering system **150** is fluidly connected to the collector **130**. The filtering system **150** includes a filter **152** and a pump **154**. The filter **152** is configured to receive dielectric fluid and filter the dielectric fluid. The pump **154** is configured to circulate dielectric fluid through the collector **130** and the filter **152**. The pump **154** may take the form of or be similar in form to the pump **140**.

Although the fluid circulation system **100** is described above with respect to fluid tank **110**, in some embodiments, fluid tank **110** is one of a plurality of fluid tanks. In some embodiments, the plurality of fluid tanks may include 6 fluid tanks, 12 fluid tanks, 18 fluid tanks, or 24 fluid tanks. Dielectric fluid may flow through at least the plurality of fluid tanks, collector **120**, and collector **130**. In some embodiments, a circulation path through the fluid circulation system **100** includes, in sequence, the plurality of fluid tanks, the collector, and the cooler. The term dielectric fluid, as used herein, includes various dielectric fluids that are known in the art and can suitably be used in the systems and methods described herein. For example, the dielectric fluids may be an oil-based dielectric, such as a hydrocarbon-based oil dielectric or silicone oil dielectric, and may have a dielectric strength above 40 kV at 2 mm.

FIG. **2** is a perspective view of a fluid tank **200**, according to an example embodiment. The fluid tanks described herein may take the form of the fluid tank **200**. The fluid tank **200** includes an inlet **210**, an outlet **220**, and a bottom **230**. In some embodiments, the inlet **210** is coupled downstream of the cooler **120**, and the outlet **220** is coupled upstream of the collector **130**. However, in other embodiments, the inlet **210** and outlet **220** may be coupled to other components in the fluid circulation **100**. In FIG. **2**, a sidewall of the fluid tank **200** is removed for illustration. FIG. **2**A is another perspective view of the fluid tank **200**, according to an example embodiment.

The bottom **230** of the fluid tank **200** includes a plurality of apertures **240**. The fluid tank **200** is configured to hold a plurality of computing devices. Groups of apertures of the plurality of apertures **240** may be associated with a particular computing device of the plurality of computing devices. In FIG. **2**, a first computing device **250** of the plurality of computing devices is disposed over a first group of apertures of the plurality of apertures **240**. A second group apertures **240**A is shown in FIG. **2**. The term computing device, as used herein, includes devices configured to execute software, including servers and desktop computers. Computing devices may include one or more processors, memory, and input/output connections.

In the fluid circulation system **100**, dielectric fluid flows through the inlet **210** through the plurality of apertures **240** upward past the first computing device **250** and the other computing devices of the plurality of computing devices so as to receive thermal energy from the first computing device **250** and the other computer devices of the plurality of computing devices. The dielectric fluid, having received thermal energy from the plurality of computing devices, then flows through outlet **220**.

The fluid tank **200** may have an open volume, and the plurality of computing devices may be submerged in the dielectric fluid. For example, in some embodiments, the plurality of computing devices may be fully submerged in the fluid tank **200**. In other embodiments, at least one computing device of the plurality of computing devices, such as the first computing device **250**, may be partially submerged in dielectric fluid. For example, the first computing device **250** may be partially submerged within the fluid tank **200**.

In some embodiments, the plurality of apertures **240** may include between 5 to 10, 10 to 15, 15 to 20, 20 to 25, 25 to 30, or 30 to 35 groups of apertures. Other numbers of groups of apertures of the plurality of apertures are possible as well.

In some embodiments, the plurality of computing devices may include between 5 to 10, 10 to 15, 15 to 20, 20 to 25, 25 to 30, and 30 to 35 computing devices. Other numbers of computing devices in the plurality of computing devices are possible as well.

FIG. **3** is a perspective view of a collector **300**, according to an example embodiment. The collectors described herein may take the form of the collector **300**. The collector **300** includes a housing **305**, a collector inlet **310**A, and a collector outlet **320**. In some embodiments, the inlet **310**A is coupled to the outlet **220** of the fluid tank **200**, and the outlet **320** is coupled to the cooler **120**. The inlet **310**A may be configured to receive dielectric fluid with thermal energy from the plurality of computing devices. However, in other embodiments, the inlet **310**A and outlet **320** may be coupled to other components of the fluid circulation system **100**. The housing **305** may be a container having four sidewalls and a top. The first sidewall **305**A, second sidewall **305**B, and top **305**C are shown in FIG. **3**. FIG. **4** shows a top view of the collector **300**, according to an example embodiment.

The collector **300** may also include a filter outlet **325**A and a filter inlet **315**. In some embodiments, the filter outlet **325**A is coupled downstream of the inlet **310**A and upstream of the filter system **150**. The filter system **150** is configured to receive a portion of dielectric fluid via the filter outlet **325**A and filter the portion of dielectric fluid. In some embodiments, the filter inlet **315** is coupled downstream of the filter system **150** and coupled to the outlet **320**. The filter inlet **315** is configured to receive dielectric fluid filtered by the filter system **150** and convey the filtered dielectric electric fluid to the outlet **320**.

FIGS. **5**, **5**A, and **6** show aspects of the collector **300**, according to an example embodiment. FIG. **5** is a perspective view of aspects of the collector **300** in which first sidewall **305**A, second sidewall **305**B, and top **305**C are removed for illustration. FIG. **6** is a front view of the collector **300** in which the second sidewall **305**B is removed for illustration.

The collector **300** includes a first cavity **330**A, a second cavity **340**, and a plate **350**A separating the first cavity **330**A from the second cavity **340**. The inlet **310**A opens into the first cavity **330**A and is configured to supply dielectric fluid into the collector **300**.

The plate **350**A is disposed at an angle such that a portion of the first cavity **330**A is positioned above a portion of the second cavity **340**. Further, the plate **350**A includes a plurality of perforations **355**A that provide fluid access for moving dielectric fluid from the first cavity **330**A to the second cavity **340**. FIG. **5**A shows aspects of the plate **350**A and the plurality of perforations **355**A.

In some embodiments, a first fluid path through the collector **300** extends from the inlet **310**A, through the first cavity **330**A, through the plurality of perforations **355**A, through the second cavity **340**, and to the outlet **320**. The collector **300** may also include piping **322** configured to convey dielectric fluid from the second cavity **340** to the

outlet **320**. The piping **322** may be referred to as a downspout. In some embodiments, dielectric fluid flowing through the plurality of perforations **355**A and into the second cavity **340** contacts an outer surface of the piping **322**.

Further, the collector **300** may also include a flange **324** at an end of the piping **322**. The flange **324** may reduce formation of vortices as the dielectric fluid flows from the second cavity through the piping **322**.

Moreover, in some embodiments, a cross-sectional area of the first cavity **330**A at an opening of the inlet **310**A is substantially greater than a cross-sectional area of the inlet **310**A. For example, the cross-sectional area of the first cavity **330**A may be at least 50% greater than the cross-sectional area of the opening of the inlet **310**A, sometimes at least 100% greater, at least 200% greater, or more. As a result of this change in the cross-sectional area, the velocity of the dielectric fluid may substantially drop as it flows into the collector. The decrease in velocity helps any bubbles in the dielectric fluid to rise to the fluid surface, where they are dissipated. Likewise, the decrease in velocity also helps any solids that have accumulated in the dielectric fluid to fall out of the first fluid path and move toward the bottom of the first cavity **330**A.

In some embodiments, a majority of the plurality of perforations **355**A are disposed above the inlet **310**A so as to direct dielectric fluid in the first cavity **330**A upward before it passes through the perforations **355**A in the plate **350**A. This upward trajectory of the dielectric fluid may help remove bubbles from the dielectric fluid. For example, the rising fluid may carry the lighter bubbles upward initiating the rise of the bubbles. As the dielectric fluid flows through the first cavity **330**A, the bubbles may continue to rise toward the liquid surface, where they are dissipated. Moreover, the rise of the dielectric fluid in the first cavity **330**A, which results from the elevated position of the perforations **355**A compared to the inlet **310**A, also increases the length of the first fluid path through the first cavity **330**A. Accordingly, any bubbles in the dielectric fluid have a longer opportunity to rise out of the dielectric fluid.

In some embodiments, one perforation of the plurality of perforations **355**A is smaller than one aperture of the plurality of apertures **240**. For example, one perforation of the plurality of perforations **355**A may be 0.25 inch in diameter and one aperture of the plurality of apertures **240** may be 0.5 inch in diameter. Further, in some embodiments, the average size of the perforations **355**A is smaller than the average size of the apertures **240**. Likewise, in some embodiments, the majority of perforations **355**A have a smaller size than the majority of apertures **240**. Beneficially, where some perforations of the plurality of perforations **355**A are smaller than some apertures of the plurality of apertures **240**, the plurality of perforations **355**A may function as a course filter media that does not impede flow of dielectric fluid to the pump **140**. Further, in some embodiments, the plurality of perforations **355**A have a mesh size of 60 wires per inch. In some such embodiments, the plurality of perforations **355**A may increase nucleation of bubbles in the dielectric fluid.

Further, in some embodiments, a level **370** of dielectric fluid may be maintained in the collector **300** during operation of the collector. The level **370** may be between 12 to 24 inches, 24 to 36 inches, and 36 to 48 inches. In some embodiments, the collector **300** may be configured to receive a flow rate of dielectric fluid in a range from 300 GPM to 2000 GPM, such as 300 GPM to 900 GPM, 900 GPM to 1400 GPM, 1400 GPM to 2000 GPM, and 1000 GPM to 2000 GPM.

The collector **300** may also include a filter chamber **360**A disposed under at least a portion of the first cavity **330**A and below the inlet **310**A. The filter chamber **360**A is coupled to the filter outlet **325**A. In some embodiments, a second fluid path through the collector **300** extends from the inlet **310**A, through the first cavity **330**A, through the filtering chamber **360**A and to the filter outlet **325**A. In some embodiments, solids in the dielectric fluid may be carried by the dielectric fluid through the second fluid path.

The collector **300** may also include other inlets, another cavity, another plate, another filter chamber, and another filter outlet. Additional inlets, cavity, plate, filter chamber, and filter outlet may enable the collector **300** to receive dielectric fluid from more fluid tanks. In the illustrated example, the collector **300** includes second collector inlet **310**B, third collector inlet **310**C, and fourth collector inlet **310**D.

The third inlet **310**C is opposite of the inlet **310**A, and the third inlet **310**C opens into a third cavity **330**B and is configured to supply dielectric into the collector **300**. The collector **300** may also include a second plate **350**B that separates the third cavity **330**B from the second cavity **340**.

The second plate **350**B is disposed at an angle such that a portion of the third cavity **330**B is positioned above a portion of the second cavity **340**. Further, the second plate **350**B includes a plurality of perforations **355**B that provide fluid access for moving dielectric fluid from the third cavity **330**B to the second cavity **340**.

In some embodiments, a third fluid path through the collector **300** extends from the third inlet **310**C, through the third cavity **330**B, through the plurality of perforations **355**B, through the second cavity **340**, and to the outlet **320**.

Further, in some embodiments, a cross-sectional area of the third cavity **330**B at an opening of the third inlet **310**C is substantially greater than a cross-sectional area of the third inlet **310**C so as to reduce a velocity of dielectric fluid entering the collector **300**.

Moreover, in some embodiments, a majority of the plurality of perforations **355**B are disposed above the third inlet **310**C so as to direct dielectric fluid in the third cavity **330**B upward and promote bubble dissipation in the third cavity **330**B.

In some embodiments, the third inlet **310**C, the third cavity **330**B, the second plate **350**B, and the plurality of perforations **355**B may be the same as or similar to the inlet **310**A, the first cavity **330**A, the plate **350**A, and the plurality of perforations **355**A, respectively, and function in a similar manner, respectively. For example, the plate **350**A and the second plate **350**B may be oriented at opposite angles over the second cavity **340**, and an upper end of the second plate **350**B may contact an upper end of the plate **350**A.

However, in other embodiments, the third inlet **310**C may have a different size than the inlet **310**A, the third cavity **330**B may have a different size than the first cavity **330**A, the second plate **350**B may have a different size than the plate **350**A, and the plurality of perforations **355**B may have a different size than the plurality of perforations **355**A. For example, the angle of the second plate **355**B between the third cavity **330**B and the second cavity **340** may be different than the angle of the plate **355**A between the first cavity **330**A and the second cavity **340**.

The collector **300** may also include a filter chamber **360**B disposed under at least a portion of the third cavity **330**A and below the third inlet **310**C. The filter chamber **360**B is coupled to a filter outlet **325**B. The filter outlet **325**B in turn is coupled to filter system **150**. In some embodiments, a fourth fluid path through the collector **300** extends from the

third inlet **310**C, through the third cavity **330**B, through the filtering chamber **360**B and to the filter outlet **325**B. Further, in some embodiments, solids in the dielectric fluid may be carried by the dielectric fluid through the fourth fluid path.

In some embodiments, the filter chamber **360**B and the filter outlet **325**B may be the same as or similar to the filter chamber **360**A and filter outlet **325**A, respectively, and function in a similar manner, respectively. However, in other embodiments, the filter chamber **360**B may have a different size than the filter chamber **360**A, and the filter outlet **325**B may have a different size than the filter outlet **325**A.

FIG. **7** shows aspects of the collector **300**, according to an example embodiment. FIG. **7** is a perspective view of aspects of the collector **300** in which the first sidewall **305**A, inlets **310**A and **310**B, top **305**C, and plate **350**A are removed for illustration.

The second inlet **310**B is parallel to the inlet **310**A, and second inlet **310**B opens into the first cavity **330**A and is configured to supply dielectric fluid into the collector **300**. The second inlet **310**B may function the same as or similar to the inlet **310**A. In some embodiments, the second inlet **310**B may have the same size as the inlet **310**A. However, in other embodiments, the second inlet **310**B may have a different size than the inlet **310**A.

In some embodiments, a fifth fluid path through the collector **300** extends from the second inlet **310**B, through the first cavity **330**A, through the plurality of perforations **355**A, through the second cavity **340**, and to the outlet **320**.

In some embodiments, the filter chamber **360**A is disposed below the second inlet **310**B. Further, in some embodiments, a sixth fluid path through the collector **300** extends from the second inlet **310**B, through the first cavity **330**A, through the filtering chamber **360**A and to the filter outlet **325**A.

The fourth inlet **310**D is parallel to the third inlet **310**C, and the fourth inlet **310**D opens into the third cavity **330**B and is configured to supply dielectric fluid into the collector **300**. The fourth inlet **310**D may function the same as or similar to the third inlet **310**C. In some embodiments, the fourth inlet **310**D may have the same size as the third inlet **310**C. However, in other embodiments, the fourth inlet **310**D may have a different size than the third inlet **310**C.

In some embodiments, a seventh fluid path through the collector **300** extends from the fourth inlet **310**D, through the third cavity **330**B, through the plurality of perforations **355**B, through the second cavity **340**, and to the outlet **320**.

In some embodiments, the filter chamber **360**B is disposed below the fourth inlet **310**D. Further, in some embodiments, an eighth fluid path through the collector **300** extends from the fourth inlet **310**D, through the third cavity **330**B, through the filtering chamber **360**B and to the filter outlet **325**B.

In some embodiments, each of inlets **310**A-**310**D is configured to receive dielectric fluid from multiple fluid tanks. For example, each of inlets **310**A-**310**B may be coupled to two, four, six, or eight fluid tanks. Further, in some embodiments, each of inlets **310**A-**310**D is coupled to the same number of fluid tanks. However, in other embodiments, at least one of inlets **310**A-**310**D is coupled to more fluid tanks than the other inlets.

FIG. **8** is a schematic depiction of fluid flow through a plate **850** of a collector, according to an example embodiment. Dielectric fluid flow through plates **350**A and **350**B may take the form of the fluid flow depicted in FIG. **8**. The plate **850** includes a plurality of perforations **855** that extend directly through the plate, i.e., in a direction perpendicular to the surface of the plate **850**. Accordingly, because the plate **850** is disposed at an angle with respect to gravity, the perforations **855** include a downward trajectory through the plate **850**. Thus, while the dielectric fluid easily flows through the perforations **855**, as depicted by the arrows in FIG. **8**, any bubbles in the dielectric fluid may be hindered from passing through the plate **850** as a result of their buoyancy. Specifically, the propensity of the bubbles to rise in the dielectric fluid will hinder the bubbles from flowing through the downward perforations **855**. Rather, as shown by the example bubble **880**, bubbles may tend to slide upward along the surface of the plate **850** until they detach or reach the fluid surface. Any bubbles that detach may be inclined to rise, as shown by example bubble **882**. While the illustrated plates **350**A, **350**B of the example embodiments are disposed at angles in the collector, this phenomenon can also be achieved by angling the path of the perforations through the plate. For example, in some embodiments, the plate may be vertical and include perforations that may have a downward trajectory in the direction from the first cavity to the second cavity.

The reduction of dissolved gases and bubbles in the dielectric fluid resulting from the collector **300** may improve the heat transfer performance of the fluid circulation system **100**. For example, reduction of dissolved gases and bubbles in the dielectric fluid may increase the amount of thermal energy the dielectric fluid may receive from the plurality of computing device. As another example, reduction of dissolved gases and bubbles in the dielectric fluid may reduce oxidation of the dielectric fluid, which may in turn increase the useful life of the dielectric fluid. As yet another example, reduction in dissolved gases and bubbles may in turn reduce turbulent flow through the pump **140** and/or reduce cavitation in the pump **140**, which may improve the performance of the pump **140** and/or the useful life of the pump **140**. The term useful life, as used herein, includes the time to repair or replace all or at least some of one component with a new component. Repairing or replacing a component of the fluid circulation system **100**, including the dielectric fluid and pump **140**, may involve downtime of the fluid circulation system **100**.

The reduction of solids in the first and third fluid paths by the collector **300** may improve the heat transfer performance of the fluid circulation system **100**. As examples, reduction in solids in the first fluid path may improve the useful life of the pump **140**, improve the efficiency of the pump **140**, increase the amount of thermal energy the dielectric fluid may receive from the plurality of computer devices, and/or increase the useful life of the dielectric fluid.

The above-described components of fluid circulation systems may be composed of a variety of different materials. For example, the components of the collector **300** described above may be formed of metal, such as aluminum or steel.

III. Example Methods

Methods for cooling a plurality of computing devices with a dielectric fluid may be carried out in whole or in part by a component or components of a fluid circulation system, such as the fluid circulation system **100**. An example method may involve pumping a dielectric fluid through a fluid circulation system such that the dielectric fluid flows along a plurality of paths through portions of the fluid circulation system. The pump may take the form of the pump **140**.

In an example method, the plurality of paths includes a cooling path, a restoring path, and a heat exchange path. In some embodiments, the dielectric fluid is pumped through

the fluid circulation system in a circuit including, in sequence, the cooling path, the restoring path, and the heat exchange path.

In an example method, the cooling path flows through a fluid tank holding a plurality of computing devices, and the cooling path extends in the fluid tank through a plurality of apertures in a bottom of the fluid tank and upward past the plurality of computing devices so as to receive thermal energy from the plurality of computing devices. In some embodiments, the plurality of computing devices are submerged in the fluid tank. The fluid tank may take the form of the fluid tank **200**, and the plurality of apertures may take the form of the plurality of apertures **240**.

In an example method, the restoring path flows through a collector, and the restoring path extends through a collector inlet into a first cavity of the collector, from the first cavity of the collector through a plurality of perforations in a plate into a second cavity of the collector, and from the second cavity of the collector to a collector outlet. In some embodiments, bubbles in the dielectric fluid rise in the first cavity and flow out of the restoring path. Further, in some embodiments, a cross-sectional area of the first cavity at an opening of the collector inlet is substantially greater than a cross-sectional area of the collector inlet so as to reduce a velocity of dielectric fluid entering the collector thereby causing solids in the dielectric fluid to fall in the first cavity and flow out of the restoring path. The collector may take the form of the collector **300**, the collector inlet may take the form of the inlet **310**A, the inlet **310**B, the inlet **310**C, or the inlet **310**D, the first cavity of the collector may take the form of the first cavity **330**A or the first cavity **330**B, the plurality of perforations in a plate may take the form of the plurality of perforations **355**A in the plate **350**A or the plurality of perforations **355**B in the plate **350**B, the second cavity of the collector may take the form of the second cavity **340**, and the collector outlet may take the form of the outlet **320**.

In an example method, the heat exchange path flows through a cooler so as to remove thermal energy from the dielectric fluid. The cooler may take the form of cooler **120**.

The plurality of paths may also include a filtering path. In an example method, the filtering path extends through the first cavity in the collector to a filter chamber in the collector, from the filter chamber of the collector to a filter outlet of the collector, from the filter outlet of the collector to a filtering system, from the filtering system to a filter inlet of the collector, and from the filter inlet of the collector into the second cavity of the collector. The filter chamber may take the form of the filter chamber **360**A or the filter chamber **360**B, the filter outlet of the collector may take the form of the filter outlet **325**A or the filter outlet **325**B, the filtering system may take the form of filtering system **150**, and the filter inlet of the collector may take the form of filter inlet **315**.

IV. Conclusion

Although the disclosure has been described above in connection with specific embodiments, features of one embodiment may be employed with other embodiments as the skilled artisan would recognize, even if not explicitly stated herein.

Examples given above are merely illustrative and are not meant to be an exhaustive list of all possible embodiments, applications, or modifications of the disclosure. Thus, various modifications and variations of the described apparatus, system, and methods will be apparent to those skilled in the art without departing from the scope and spirit of the disclosure.

Any numerical values recited herein include all values from the lower value to the upper value in increments of one unit provided that there is a separation of at least two units between any lower value and any higher value. As an example, if it is stated that the value of a variable such as, for example, size, length, flow rate and the like, is, for example, from 1 to 90, specifically from 20 to 80, more specifically from 30 to 70, it is intended that values such as 15 to 85, 22 to 68, 43 to 51, 30 to 32, etc. are expressly enumerated in this specification. For values which are less than one, one unit is considered to be 0.0001, 0.001, 0.01 or 0.1 as appropriate. These are only examples of what is specifically intended and all possible combinations of numerical values between the lowest value and the highest value enumerated are to be considered to be expressly stated in this application in a similar manner.

The invention claimed is:

1. A fluid circulation system for cooling a plurality of computing devices with a dielectric fluid, the fluid circulation system comprising:

a fluid tank comprising a bottom having a plurality of apertures for receiving the dielectric fluid, wherein the fluid tank is configured to hold the plurality of computing devices with a first computing device of the plurality of computing devices disposed over a first group of the apertures of the plurality of apertures;

a cooler configured to receive the dielectric fluid and remove thermal energy from the dielectric fluid; and

a collector comprising:

a first cavity,

a second cavity,

a plate separating the first cavity from the second cavity, wherein the plate is disposed at an angle such that a portion of the first cavity is positioned above a portion of the second cavity, and wherein the plate includes a plurality of perforations that provide fluid access for moving the dielectric fluid from the first cavity to the second cavity,

a collector inlet that opens into the first cavity and is configured to supply the dielectric fluid into the collector, and

a collector outlet,

wherein the fluid tank, the cooler, and the collector are fluidly connected in a fluid circuit.

2. The fluid circulation system of claim **1**, wherein a first fluid path through the collector extends from the collector inlet, through the first cavity, through the plurality of perforations of the plate, through the second cavity, and to the collector outlet.

3. The fluid circulation system of claim **2**, wherein a cross-sectional area of the first cavity at an opening of the collector inlet is greater than a cross-sectional area of the collector inlet so as to reduce velocity of the dielectric fluid entering the collector.

4. The fluid circulation system of claim **3**, wherein the collector further comprises a filtering chamber disposed under at least a portion of the first cavity and below the collector inlet.

5. The fluid circulation system of claim **4**, wherein a second fluid path through the collector extends from the collector inlet, through the first cavity, through the filtering chamber, and to a filter outlet.

6. The fluid circulation system of claim **5**, wherein the filter outlet is coupled to a filter, and wherein the filter is

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coupled to a return configured to return the dielectric fluid to the second cavity of the collector.

7. The fluid circulation system of claim **2**, wherein a majority of the plurality of perforations of the plate are disposed above the collector inlet so as to direct the dielectric fluid in the first cavity upward and promote bubble dissipation in the first cavity.

8. The fluid circulation system of claim **1**, wherein one perforation of the plurality of perforations of the plate is smaller than one aperture of the plurality of apertures of the bottom of the fluid tank.

9. The fluid circulation system of claim **1**, further comprising a pump configured to circulate the dielectric fluid through the fluid circuit.

10. The fluid circulation system of claim **9**, wherein the pump is disposed between the collector and the cooler.

11. The fluid circulation system of claim **1**, wherein the collector further comprises:

a third cavity,

a second plate separating the third cavity from the second cavity, wherein the second plate is disposed at an angle such that a portion of the third cavity is positioned above a portion of the second cavity, and wherein the second plate includes a plurality of perforations that provide fluid access for moving the dielectric fluid from the first cavity to the second cavity, and

a second collector inlet that opens into the third cavity.

12. The fluid circulation system of claim **11**, wherein the fluid tank is one of a plurality of fluid tanks including a second fluid tank, and wherein a circulation path through the fluid circulation system comprises, in sequence, the plurality of fluid tanks, the collector, and the cooler.

13. The fluid circulation system of claim **11**, wherein the second collector inlet is opposite the collector inlet.

14. The fluid circulation system of claim **11**, wherein the plate and the second plate are oriented at opposite angles over the second cavity, and wherein an upper end of the second plate contacts an upper end of the plate.

15. The fluid circulation system of claim **1**, wherein the fluid tank has an open volume.

16. A method of cooling a plurality of computing devices in a fluid circulation system, the method comprising:

pumping a dielectric fluid through the fluid circulation system such that the dielectric fluid flows along a plurality of paths through portions of the fluid circulation system, the plurality of paths including:

a cooling path flowing through a fluid tank holding the plurality of computing devices, the cooling path extending into the fluid tank through a plurality of apertures in a bottom of the fluid tank and upward past the plurality of computing devices so as to receive thermal energy from the plurality of computing devices;

a restoring path flowing through a collector, the restoring path extending through a collector inlet into a first cavity of the collector, from the first cavity of the collector through a plurality of perforations in a plate into a second cavity of the collector, and from the second cavity of the collector to a collector outlet; and

a heat exchange path flowing through a cooler so as to remove thermal energy from the dielectric fluid.

17. The method of claim **16**, wherein the dielectric fluid is pumped through the fluid circulation system in a circuit including, in sequence, the cooling path, the restoring path, and the heat exchange path.

18. The method of claim **16**, wherein the plurality of computing devices are submerged in the fluid tank.

19. The method of claim **16**, wherein bubbles in the dielectric fluid rise in the first cavity and flow out of the restoring path.

20. The method of claim **16**, wherein a cross-sectional area of the first cavity at an opening of the collector inlet is greater than a cross-sectional area of the collector inlet so as to reduce velocity of the dielectric fluid entering the collector thereby causing solids in the dielectric fluid to fall in the first cavity and flow out of the restoring path.

* * * * *

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

ORDER GRANTING DEBTOR'S SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC

Upon the *Debtors' Summary Judgment Motion in Support of Amended Omnibus Objection to Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC* filed by Debtors on July 29, 2025, in the above-captioned chapter 11 cases; and the Court having jurisdiction to decide the Motion and the relief requested therein pursuant to 28 U.S.C. § 1334(b); and consideration of the Motion and the requested relief being a core proceeding pursuant to 28 U.S.C. § 157(b); and venue being proper before the Court pursuant to 28 U.S.C. §§ 1408 and 1409; and after due deliberation and sufficient cause appearing therefor,

IT IS HEREBY ORDERED AND DECLARED THAT:

Debtors' Motion for Summary Judgment is GRANTED; Midas' claims are DISMISSED.

Dated:_____, 2025

Alfredo R. Pérez
United States Bankruptcy Judge

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

DEBTORS' REPLY IN SUPPORT OF SUMMARY JUDGMENT MOTION IN SUPPORT OF AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC
(Relates to ECF Nos. 953, 954, 1069, 1413, 1484, 1522)

[1] The Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Rhodium Enterprises, Inc. (6290), Rhodium Technologies LLC (3973), Rhodium Renewables LLC (0748), Air HPC LLC (0387), Rhodium Shared Services LLC (5868), Rhodium Ready Ventures LLC (8618), Rhodium Industries LLC (4771), Rhodium Encore Sub LLC (1064), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), and Rhodium Renewables Sub LLC (9511). The mailing and service address of the Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

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Rhodium respectfully submits this reply in support of its summary judgment motion (ECF No. 1484, "Motion") in support of *Debtors' Amended Omnibus Objection To Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC* set for remote hearing at 1:00 pm on September 23, 2025.

INTRODUCTION

1. Rhodium's Motion established that (1) the District Court's April 9, 2024 summary judgment ruling bars Midas's proofs of claim, (2) that ruling was correct, and (3) even if Midas *could* present a colorable claim of infringement, it cannot recover on its proofs of claim because it cannot reliably prove damages. Midas offers no response to Rhodium's damages argument; that failure is dispositive. But even setting aside that Midas has conceded it cannot recover, Midas has no persuasive rejoinder to Rhodium's finality or merits arguments. Its Opposition (ECF No. 1522) is pure smoke and mirrors. Midas's patent infringement claim against Rhodium is baseless. The Court should enter summary judgment rejecting Midas's claims.

ARGUMENT

I. Summary Judgment Is Warranted Because Rhodium Showed That Midas Can't Prove Damages, And Midas Failed To Respond.

2. Midas bears the burden of proof to establish the amount of its damages. *Oiness v. Walgreen Co.*, 88 F.3d 1025, 1029 (Fed. Cir. 1996). As Rhodium's Motion explained, because it cannot carry that burden, Midas is entitled at most to nominal damages and the Court should reject its claims (or reduce them to at most $1). *See* Motion ¶¶ 66-69 (citing *Spex Techs., Inc. v. Western Digital Corp.*, No. 8:16-CV-01799-JVS, 2025 WL 1748190, at *11 (C.D. Cal. June 16, 2025) (remittitur to $1)); *see also*, *e.g.*, *TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1291 (Fed. Cir. 2020) (affirming post-trial award reducing damages to zero for lack of evidence); *Exafer Ltd v. Microsoft Corp.*, No. 1:20-CV-131-RP, 2024 WL 4212347, at *4, *9 (W.D. Tex. Aug. 15, 2024) (dismissing

case with prejudice "based on the lack of evidence in the record that a jury could use to arrive at a non-speculative reasonable royalty"); *Rex Medical v. Intuitive Surgical, Inc.*, No. 1:19-CV-00005, 2023 WL 6142254, at *11 (D. Del. Sept. 20, 2023) (remittitur to $1).

3. By failing to address Rhodium's argument that Midas's only evidence of damages—the testimony of its expert, J. Duross O'Bryan[2]—cannot possibly be sufficient to support an award of more than nominal damages in its favor, Midas has conceded the point. *Lexington Ins. Co. v. ACE Am. Ins. Co.*, No. H-12-0531, 2014 WL 3406512, at *22 (S.D. Tex. July 7, 2014) ("Where a party fails to respond to arguments in the opposing party's motion for summary judgment, the points are conceded.").

4. Nothing Midas has submitted to this Court makes any effort to defend the substance of O'Bryan's reasonable royalty calculation. *Cf.* ECF No. 1523 (Opp. to Estimation Motion). Midas simply fails to address Rhodium's strong showing that O'Bryan's royalty analysis is flawed because it overlooks evidence of Midas's real-world negotiations with its key customer (Riot), and that O'Bryan ignored competing, non-infringing technologies. *See* Motion ¶ 68. Instead, Midas corrects only certain mistakes in O'Bryan's calculation and fails to address the other fatal flaws Rhodium has identified. Because Midas has no evidence on which a reasonable factfinder could award damages, the Court should award summary judgment that Midas is not entitled to recover (or that it cannot take more than $1) on its claims.

[2] In paragraph 11, Midas notes that it has withdrawn much of O'Bryan's analysis and now purports to offer him only on a reasonable royalty. But this concession that the bulk of O'Bryan's opinion in flawed is not a defense of the remainder, and cannot help Midas escape its waiver.

II. Midas Has No Effective Response To Rhodium's Preclusion And Merits Arguments.

A. Midas's Responses To Rhodium's Preclusion Arguments Fail.

5. Midas devotes the bulk of its brief to a series of attempts to avoid the preclusive effect of the District Court's oral order. But each boils down to the same argument: Midas contends that each of claim preclusion, issue preclusion, the law of the case doctrine, and the *Kessler* rule do not apply because the District Court's order is not final. Opp. ¶¶ 29-46 (failing to address any other prong of any applicable doctrine). Midas is wrong: Judge Albright's oral order was a final ruling. But in any event, this argument can't defeat Rhodium's Motion, because the law of the case doctrine does not require finality and is enough to dispose of Midas's claims.

1. The District Court's Decision Is Final.

6. "The test for finality is whether the district court intended that its order be 'effective immediately.'" *Ueckert v. Guerra*, 38 F.4th 446, 450 (5th Cir. 2022) (*quoting In re United States Bureau of Prisons*, 918 F.3d 431, 437 (5th Cir. 2019)).

7. The District Court's oral ruling plainly indicates an understanding that the case is over: "The Court is going to grant the motion for summary judgment of noninfringement. I think that fully takes care of the case for the time being. I'm not going to take up the motions *in limine* given my ruling on that motion, which I think obviates the need for a trial at this time."[3] Motion ¶ 35. Contrary to Midas's assertion (at Opposition ¶ 6), and as Rhodium has explained and Midas ignores, the District Court's *later* grant of summary judgment mooted its grant of permission for Midas to amend its expert's report just as much as it obviated the need to reach those motions or hold trial. Motion ¶ 36. And the District Court's subsequent conduct confirms that it "intends to

[3] Judge Albright made these statements after hearing argument from the parties and without qualification. For Midas to suggest that Judge Albright's turns of phrase ("going to grant") mean that his statements were "merely a prediction about how the court would rule sometime in the future" defies reality. *Ueckert*, 38 F.4th at 451.

have nothing further to do" with the case. *Ueckert*, 38 F.4th at 450 (quotation marks omitted). Between granting the summary judgment ruling and the automatic stay, the District Court did nothing to indicate that the case was still open. *Ueckert*, 38 F.4th at 451 ("And the fact that the court never issued a written memorandum or opinion erased any doubt that it intended its first word to be its last."). No further expert schedule was set. Midas did not even seek one.[4] Rather, when the stay was partially lifted, the Court asked for a proposed order "reflecting [its] rulings"—rulings that were already complete, and which only needed to be memorialized for administrative purposes. Ex. 15.[5] Midas's suggestion otherwise, that the Court's "words and actions" prove that "the underlying case is very much alive," is a shameless attempt to twist the record.

8. Midas also argues that the District Court's ruling is not final because it has not entered a ruling or judgment on its docket and has not complied with the finality mandates of Rule 58 and Rule 79(a). Opp. ¶¶ 33, 39 (arguing that without a "docket indicating that the Motion for Summary Judgment has been granted . . . there is no potential to appeal"). But *Ueckert* (which *Midas cites* at paragraphs 30 and 46) forecloses each of Midas's Rule 58 theories. *Ueckert* squarely holds that an oral order can be final, and that a written ruling is not required. 38 F.4th at 449-450 ("The form of the ruling is immaterial."). And it likewise disposes of Midas's argument that it cannot appeal without a "docket" (a term that Midas does not define, perhaps because it knows the transcript containing the District Court's ruling is filed on the docket). There, the losing party made the same argument as Midas—that it could not appeal from an oral ruling memorialized in a minute entry without a separate written judgment. *Id.* at 449. The Court disagreed, holding that while the

[4] For example, it did not file a motion requesting that the Court enter a new scheduling order allowing it to serve a revised expert report. Midas's inaction suggests that it understood the District Court's order to be final, and that its position now is contrived.

[5] Citations to Exhibits 1 – 16 refer to the exhibits to Rhodium's Motion.

order "did not comply with Rule 58's requirement that every 'judgment' be set out in a separate order," the losing party could still appeal. *Id.* at 451-52. As the Court explained, Rule 4 acknowledges that the failure to comply with Rule 58 "does not affect the validity of an appeal," and non-compliance with Rule 58 is waivable by the losing party (Midas).[6] *Id.* at 452-53. Midas cannot use Rule 58 to avoid the District Court's final ruling.

9. As to Rule 79(a): Midas's argument makes little sense. Rule 79(a) requires a court clerk to keep a chronological docket, including "appearances, orders, verdicts, and judgments." Fed. R. Civ. P. 79(a)(2)(C). The Clerk complied with that rule here, entering the transcript of the District Court's ruling on the court's docket. Transcript filed of Proceedings, *Midas Green Technologies, LLC v. Rhodium Enterprises, Inc. et al.*, No. 6:2022-cv-00050 (W.D. Tex. Apr. 11, 2024), ECF No. 187. There is no requirement, as Midas suggests, to reflect the judgment in a separate minute entry. *Cf. Ueckert*, 38 F.4th at 451 ("[M]inute entries are not orders and cannot be appealed," but a "bench ruling can be final."). Midas's Rule 79 theory fails.[7]

10. The District Court's summary judgment ruling was final. This Court's January 30, 2025 order granting partial relief from the automatic stay "for the limited purpose of allowing the District Court . . . to enter an order and judgment memorializing its April 9, 2024 bench ruling granting summary judgment of noninfringement to Rhodium," ECF No. 737, is certainly not to the contrary.[8] The District Court's ruling precludes Midas's claims. Motion ¶¶ 29-47.

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[6] In essence, the Fifth Circuit's decision treats Rule 58 as an administrative case processing rule; it is important for good housekeeping but cannot impact the substance of a case.

[7] *Ueckert* dealt with a similar Rule 79 argument. There, the losing party tried to avoid finality by faulting the clerk for not keeping a "copy" of the oral ruling. That argument failed, too. 38 F.4th at 453-54.

[8] Nor did Rhodium "admit" that the District Court proceedings were non-final. Opp. ¶ 20. Rhodium asked to allow the District Court to "enter an order and judgment ***memorializing*** its April 9, 2024 bench ruling granting summary judgment," ECF No. 611, ¶ 1, consistent with

2. The Law Of The Case Doctrine Bars Midas's Claims.

11. What's more, even if Midas were right that the District Court ruling is non-final, its claims are still barred by law of the case.

12. The law of the case doctrine "generally precludes reexamination of issues of law or fact" once they are decided in the course of a litigation. *Alpha/Omega Ins. Servs., Inc. v. Prudential Ins. Co. of Am.*, 272 F.3d 276, 279 (5th Cir. 2001). The rule "serve[s] to enhance judicial efficiency" by limiting a party's ability to attack adverse earlier decisions. *Loumar, Inc. v. Smith*, 698 F.2d 759, 762 (5th Cir. 1983). And, contrary to Midas's assertion, Opp. ¶ 41, the law-of-the-case doctrine does not require a final decision—as Midas concedes a paragraph later, the doctrine specifically operates "during the pendency of a lawsuit," Opp. ¶ 42 (quoting *Loumar, Inc. v. Smith*, 698 F.2d 759, 762 (5th Cir. 1983)).

13. To be sure, the law of the case doctrine is not an absolute barrier to reconsideration of earlier rulings. *See* Opp. ¶ 43. But the Fifth Circuit has directed that courts should only revisit their earlier rulings in limited circumstances: where new evidence is available that is "substantially different" than at the time of the earlier determination, where controlling authority has changed, or where the earlier decision was "clearly erroneous and would work . . . manifest injustice." *Propes v. Quarterman*, 573 F.3d 225, 228 (5th Cir. 2009); *see also United States v. O'Keefe*, 128 F.3d 885, 891 (5th Cir. 1997) (transferee judge "should not overrule the earlier judge's order or judgment merely because the later judge might have decided matters differently").

14. Midas does not present any reason that this Court *should* revisit Judge Albright's earlier order. It does not persuasively argue that the ruling was wrong, nor does it put forward any

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the standard practice of issuing a written order pursuant to FRCP 58. To "memorialize" is to capture in writing what was said, not to rule in the first instance.

new evidence. *See infra* ¶¶ 15-16, 18-19, 23, 32-33. At most, it argues that the District Court failed adequately to explain its reasoning, but as Rhodium explained (Motion ¶¶ 38-39) "there is no legal requirement that the rationale behind a nonpartial grant of summary judgment, including a recitation of undisputed factual inferences and applications of legal principles, be made explicit." *Cable Elec. Prods., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1021 (Fed. Cir. 1985), *overruled on other grounds by Midwest Indus. Inc. v. Karavan Trailers, Inc.*, 175 F.3d 1356 (Fed. Cir. 1999). The Court should not let Midas waste any more estate resources litigating what has already been decided. The law of case doctrine bars its proofs of claim.

B. Midas Presents No Facts Or Evidence That Create A Genuine Issue of Infringement And Instead Offers Specious Legal Arguments.

15. On the merits, Midas's motion is untethered to reality. Despite its unsupported protestations to the contrary, Midas submitted to this Court's jurisdiction by filing its proofs of claim. Motion ¶ 1. And all the "evidence" Midas conjures to try to manufacture a triable question of fact would require this Court to overlook fatal deficiencies that Midas has not attempted to answer. Most notably: the main system Midas accused, at Temple, was never operable. Nothing at Temple was capable of measuring the temperature of the dielectric fluid—not in the tank or anywhere else. Motion ¶¶ 5, 40, 55 & n.19. Equally telling, however, is Midas's steadfast refusal to acknowledge that Rhodium no longer operates at Temple or Rockdale. Motion ¶ 25. *Cf.*, *e.g.*, Opposition ¶ 73 (erroneously asserting that "[a] significant question of fact is to what extent the Prime Controls system is active, and what effort is required to complete the installation.").

16. Midas does not dispute any of the key facts on which Rhodium's Motion rests. Instead, it attempts to muddy the waters and makes incorrect legal arguments—all in an effort to dodge the simple reality that the accused systems lacked a key element that its patent claims require and thus, did not infringe. Neither of Rhodium's former facilities at Temple or Rockdale used the

temperature of the dielectric fluid in its immersion tanks in any way—let alone to coordinate not one but two different fluid circulation facilities—as the Midas patent claims require. The claims fail for lack of proof. *Ferguson v. Texas Farm Bureau*, No. 6:17-CV-00111-ADA-JCM, 2021 WL 2349340 at *2 (W.D. Tex. May 19, 2021) ("[T]he moving party can satisfy its burden … by … pointing out the absence of evidence supporting a material element of the nonmovant's claim.").[9] In particular:

1. Midas Concedes that Rhodium's Temple Facility Could Not Measure Temperature.

17. Midas ***does not dispute*** its own expert's admission that the dry cooler system at the Temple facility was unfinished and incapable of measuring a temperature. Instead, it makes the incorrect legal argument that an incomplete, inoperable system can still infringe. It cannot. *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 525-29 (1972) (superseded by statute on other grounds), *cited in Rotec Indus., Inc. v. Mitsubishi Corp.*, 215 F.3d 1246, 1252 n.2 (Fed. Cir. 2000) ("as to claims brought under § 271(a), *Deepsouth* remains good law: one may not be held liable under § 271(a) for 'making' or 'selling' less than a complete invention"); *Synchronoss Technologies, Inc. v. Dropbox, Inc.*, 987 F.3d 1358, 1368 (Fed. Cir. 2021) (same, quoting *Rotec*); *CTD Networks, LLC v. Google, LLC*, 688 F.Supp.3d 490, 500 (W.D. Tex. 2023) (same, and infringing use requires use of each and every element of the claimed system); *INVT SPE LLC v. Int'l Trade Comm'n*, 46 F.4th 1361, 1365 (Fed. Cir. 2022).

18. Midas's Opposition is wholly silent about its expert's admission that the temperature sensors at the unfinished Temple facility were never wired to the rest of the system

[9] Midas prefaces its arguments about the patents with a story about Rhodium's alleged nefariousness that is irrelevant to this motion but also, it is worth noting, completely unsupported by any citation to evidence. Opp. ¶¶ 59-60. It is untrue and the Court should disregard it.

and could not measure a temperature. *See* Motion ¶ 55 (citing Ex. 3 at 222). The only "evidence" Midas cites is a hodgepodge of items that refer to that never-completed, inoperable system and thus completely miss the mark: an invoice it does not explain, a photograph it does not explain, and a snippet of Chase Blackmon's testimony that Rhodium spent roughly a million dollars on the Prime Controls system for the Temple facility dry cooler. Opp. ¶¶ 68, 73 (citing Opp. Exs. B, C and D). None of this evidence rebuts Midas's own expert's testimony or the other ample, undisputed evidence that the Prime Controls system was never finished. Ex. 3 at 9, n.13 (citing deposition testimony of Chase Blackmon at 189:2–4 [Ex. 3 at 265] ("Q. Are there any temperature probes installed in the Kelvion coolers? A. Not to my knowledge."), 187:9–23 [Ex. 3 at 263] (Prime Controls installed saddles to leave option of adding sensors in future), 181:8–182:6, 188:13–189:1, 192:16–20, [Ex. 3 at 257-258, 264-265, 268] (there is no monitoring of fluid temperatures at the Temple facility), 185:1–3 [Ex. 3 at 261], 186:1–3 [Ex. 3 at 262); *see also* Ex. 3 at 215-216, 222 (deposition testimony of Dr. Himanshu Pokharna): Ex. 3 at 281 (Rhodium's Third Supplemental Responses and Objections to Plaintiff's First Set of Interrogatories). Indeed, the invoice Midas cites *confirms* Chase Blackmon's testimony that Rhodium stopped paying and the project was not finished: the invoice was for nearly 2.3 million dollars, Opp. Ex. B at 35, while Mr. Blackmon testified that Rhodium paid only $1M, less than half the billed amount. Opp. Ex. D at 222. And the cited invoice pages show only that saddles (holders) for temperature sensors were billed—they do not indicate that the sensors were paid for, installed or connected, and the unchallenged evidence, cited just above, is that they weren't. None of these items refute Midas's expert's clear concession that the Temple system had no way of knowing the fluid temperature in the dry cooler (and so could not use that temperature to coordinate anything).

19. Midas tries to overcome the fatal gap in its evidence by arguing that a system can infringe even if it would have to be physically modified in order to function as the claim requires. Opp. ¶¶ 68-74. Not so. *High Tech Med., Inc. v. New Image, Inc.*, 49 F.3d 1551, 1555 (Fed. Cir. 1995) ("a device does not infringe simply because it is possible to alter it in a way that would satisfy all the limitations of a patent claim"); *Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 1330 (Fed. Cir. 2001) ("[T]hat a device is capable of being modified to operate in an infringing manner is not sufficient, by itself, to support a finding of infringement."); *Smith & Nephew, Inc. v. Arthrex, Inc.*, No. 2:07-CV-335-TJW-CE, 2010 WL 457142, at *2 (E.D. Tex. Feb. 5, 2010) ("accused device [must] contain each limitation of the claim exactly; any deviation from the claim precludes a finding of literal infringement").

20. The cases Midas cites lack application here. They address a very different scenario: a product that is sold with *all required parts*, designed to be used only in an infringing manner, and ready to be assembled. Opp. ¶ 69-70. They do not and could not find infringement by an *incomplete* system that *lacks* all required parts.[10] They stand for a proposition that does not remotely apply here. In *Mass Engineered Design, Inc. v. Ergotron, Inc.*, the accused flat-panel monitor stands were designed solely to be used with monitors in a way that infringed, and were sold with the monitors in a complete kit. 633 F. Supp. 2d 361, 376-77 (E.D. Tex. 2009). The same was true in *Paper Converting Mach. Co. v. Magna–Graphics Corp.*, 745 F.2d 11, 19 (Fed. Cir. 1984), which *Mass Engineered Design* relied on for the proposition that a set of components of a machine may infringe if they are "ready for assembly and serve 'no useful non-infringing purpose.'" 633 F. Supp. 2d at 377. *See also VirnetX Inc. v. Apple Inc.*, 792 F. App'x 796, 808 (Fed.

[10] *Deepsouth*, *cited in Rotec*, 215 F.3d at 1252 n.2 ("as to claims brought under § 271(a), *Deepsouth* remains good law: one may not be held liable under § 271(a) for 'making' or 'selling' less than a complete invention") and other cases cited *supra* ¶ 17.

Cir. 2019) (software for performing claimed functions existed in product as sold) (cited by Opp. ¶ 72).

21. At Temple, by contrast, there was never a complete set of parts ready for assembly into a system that could detect temperature or use temperature to coordinate anything. The wires necessary to connect the temperature sensors were indisputably missing, as were the vast majority of the sensors, while none of the variable frequency drives attached to the dry coolers (which Midas claimed could vary the level of cooling) had a working sensor or control. Exhibit 3 at 14, n. 24.[11] *High Tech Med.*, cited by Midas, underlines the impossibility of finding infringement on this record. That case found there could be no infringement where the device, as sold, did not infringe, the user would have to loosen existing screws to put it in an infringing configuration, and there was no evidence any user had done so. 49 F.3d at 1555-56. Here, Rhodium would have had to buy and install additional wiring, sensors, and variable frequency drive controls, a vastly greater physical alteration than loosening screws. *See id.* at 1555 ("a device does not infringe simply because it is possible to alter it in a way that would satisfy all the limitations of a patent claim"); *Telemac*, 247 F.3d at 1330 (same); *Smith & Nephew,* 2010 WL 457142, at *2 ("accused device [must] contain each limitation of the claim exactly; any deviation from the claim precludes a finding of literal infringement").

22. Midas's remaining cited authority misses the mark, as it merely holds that the claim phrase "adapted to" can mean "capable of." Opp. ¶¶ 71-72 (citing *Power-One, Inc. v. Artesyn Techs., Inc.*, 599 F.3d 1343, 1349 (Fed. Cir. 2010); *Finjan, Inc. v. Secure Computing Corporation*, 626 F.3d 1197 (Fed. Cir. 2010); *Hilgraeve Corp. v. Symantec Corp.*, 265 F.3d 1336, 1343 (Fed.

[11] Contrary to Midas's assertion, the Temple system also plainly *had* a useful noninfringing purpose: it operated as an immersion cooling facility even without the ability to determine or do anything based upon the temperature of the dielectric fluid.

Cir. 2001)). Even if that proposition were correct,[12] it cannot help Midas because the Temple facility was *not* capable of measuring fluid temperature, as Midas's expert conceded. Motion ¶ 55 (citing Ex. 3 at 222).[13]

2. Midas Concedes That The Fluid Temperatures In Rhodium's Dry Coolers Were Different From The Claimed "Dielectric Fluid Temperature In The Tank."

23. Midas does not dispute that the Temple facility would (if completed) have measured, and the Rockdale facility did measure, the fluid temperature in the dry cooler, in another building far from the tanks—and not "the dielectric fluid temperature in the tank." Opp. ¶¶ 80, 81, 86 (asserting only that the temperature of the fluid exiting the cooler is "indicative" of the fluid temperature in the tank, with no explanation of how it is "indicative" and no citation to evidence). This is fatal to literal infringement. Motion ¶ 57. And Midas again makes no attempt to (nor could it) explain why measuring that different temperature could suffice for infringement under the doctrine of equivalents, and has thus waived that argument. Motion ¶ 65; Ex. 5 at 12.

24. Instead, Midas runs away from the patent claim language, asserting that it suffices if the accused system coordinates the operation of the two circulation facilities "as a function of the temperature," repeatedly omitting the claim words "in the tank." Opp. ¶¶ 62, 65, 83, 85. That evasion sidesteps the law—Midas may not redraft the patent claim to suit its infringement case.

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[12] This proposition is context-specific; "adapted to" often means actually "configured to," rather than the broader "capable of." *Aspex Eyewear, Inc. v. Marchon Eyewear, Inc.*, 672 F.3d 1335, 1349 (Fed. Cir. 2012).

[13] Midas also cites cases holding there can be infringement (in certain circumstances) when a third party carries out some of the claim steps. Opp. ¶¶ 75-76 (discussing *Centillion Data Sys., LLC v. Qwest Commc'ns Int'l, Inc.,* 631 F.3d 1279, 1284 (Fed. Cir. 2011) and *Georgetown Rail Equip. Co. v. Holland L.P.,* 867 F.3d 1229, 1239 (Fed. Cir. 2017)). That principle is not at issue in this case and those authorities have no bearing here. Nor does the Court need to decipher how they might apply to Midas's confusing assertion that temperature data collected from the printed circuit boards is somehow used "to create system temperature input on both the Kelvion or Guntner Coolers." Opp. ¶ 76. Midas cites no evidence for that assertion; the Court may disregard it.

Lemelson v. United States, 752 F.2d 1538, 1551 (Fed. Cir. 1985) ("It is … well settled that *each element of a claim is material and essential*, and that in order for a court to find infringement, the plaintiff must show the presence of every element or its substantial equivalent in the accused device") (emphasis added); *see Bright Response, LLC v. Google, Inc.*, No. 2:07-CV-371-CE, 2010 WL 11056580, at *4 (E.D. Tex. July 30, 2010) ("Under the 'all elements rule,' every claim limitation is material, and no claim limitation may be read completely out of a claim. … if a theory of equivalence would entirely vitiate a particular claim element, partial or complete judgment [of noninfringement] should be rendered by the court") (citing *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.,* 469 F.3d 1005, 1016–17 (Fed. Cir. 2006) and *Warner–Jenkinson Co., Inc. v. Hilton Davis Chem. Co.,* 520 U.S. 17, 29 (1997)).[14]

25. Midas tries to deflect attention from its effort to delete claim language by accusing Rhodium of applying a "new claim construction" that improperly narrows the claim. Opp. ¶ 61. Rhodium's Motion did no such thing. Midas attempted the same gambit in the District Court and failed to prevail based upon this same incorrect attack. Ex. 4 at 11-14, 16; Ex. 5 at 7-10; Ex. 9 at 33:24-34:5. Midas is (mis)using patent jargon to try to create the impression that the Court needs to resolve a complex technical issue. False. Claim construction is the procedure a court employs to interpret the terms of a patent claim before applying those terms to the accused device to determine whether there is infringement. *Markman v. Westview Instruments*, *Inc.*, 52 F.3d 967, 977 (Fed. Cir. 1995). Here, that procedure took place in the District Court, which did not construe any of the language in the "control facility" limitation at issue in this Motion. Therefore, all terms

[14] *See also Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc.*, 853 F.3d 1272, 1288 n.10 (Fed. Cir. 2017) ("It is highly disfavored to construe terms in a way that renders them void, meaningless, or superfluous."); *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006) ("[C]laims are interpreted with an eye toward giving effect to all terms in the claim.").

in that limitation are given their ordinary and customary meaning. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (this refers to "the meaning that the term would have to a person of ordinary skill in the art"). Rhodium's Motion rests firmly on this plain meaning construction.

26. Applying the ordinary meaning, the issue is straightforward: the claim language requires "a control facility" that is "adapted to coordinate the primary and secondary fluid circulation facilities as a function of the dielectric fluid temperature in the tank." To infringe, a system must be able to do what the claim says: "coordinate" two different circulation facilities (the "primary" and "secondary") based on the temperature of the dielectric fluid "in the tank"—not a different temperature. But as Rhodium's Motion explained, and as Midas cannot dispute, Rhodium's systems at Temple and Rockdale never coordinated the operation of anything as a function of that temperature—much less two different fluid circulation facilities as the claim requires. Motion ¶¶ 55-62; Ex. 3 at 12-23 (noting that none of Midas's infringement theories addresses the primary circulation facility); Ex. 5 at 14.

27. Midas's accusation that Rhodium is narrowing the claim is wrong. According to Midas, Rhodium supposedly argues that the claims require a temperature sensor in the tank. Not so. Rhodium has argued simply that the claim recites use of the tank fluid temperature. To be able to use that temperature to coordinate anything, a system must ascertain it in some manner. Since Rhodium's systems could not do so, they did not and could not infringe.

28. Midas also incorrectly asserts that if the claim words "in the tank" mean what they say, the claim would exclude "preferred embodiments" (i.e., examples of the invention) in the patent specification that place the temperature sensors elsewhere in the system. Opp. ¶¶ 62, 64-66. This is a red herring because Rhodium has not argued that the claims require a sensor in the tank. This argument also misstates how patent law works. It is the claims that define the right to exclude,

not the specification. *SRI Int'l v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) ("[C]laims are infringed, not specifications …. It is the *claims* that measure the invention."). And certainly "when the patent describes multiple embodiments, every claim does not need to cover every embodiment. This is particularly true where the plain language of a limitation of the claim does not appear to cover that embodiment." *Apple Inc. v. Andrea Elecs. Corp.*, 949 F.3d 697, 708 (Fed. Cir. 2020). Midas could have written claims covering the use of fluid temperature measurements from elsewhere in the system. It didn't. It chose to cover, in plain terms, the use of the "dielectric fluid temperature in the tank." A patentee is held to the claim language it chose—which here does not cover use of the temperature of the dielectric fluid in any place other than the tank. *Resonate Inc. v. Alteon Websystems, Inc.*, 338 F.3d 1360, 1364 (Fed. Cir. 2003) ("the written description is not a substitute for, nor can it be used to rewrite, the chosen claim language").

3. Midas Concedes The Temperatures In Rhodium's Miners Were Different From The "Dielectric Fluid Temperature in The Tank."

29. Midas does not dispute its expert's admission that the temperatures measured in the miners were different from the temperature of the dielectric fluid in the tank, and only "correlated" with the fluid temperature in the tank in some unspecified way. Motion ¶ 64 (citing Ex. 3 at 85). As Dr. Pokharna conceded, Rhodium prevented overheating by being able to shut off miners based on the temperature of the chip junction, which was not in contact with the dielectric fluid, could vary by 20-30 degrees Celsius (36-54° F), and could differ from the fluid temperature to a large degree. Ex. 3 at 224-227. That temperature, too, did not equate to the temperature of the dielectric fluid in the tank.

30. Ignoring that problem entirely, Midas tries to create the appearance of a fact dispute by pointing to a temperature on another part of the miner, namely, the hash board (also referred to as the printed circuit board), which was in contact with the dielectric fluid. Opp. ¶¶ 87-90. Here

too, Midas's expert conceded the hash board temperature was different from and merely correlated to the tank fluid temperature (though in this instance he testified the two temperatures did not differ by much). Opp. Ex. A, 259-60. But even if this equated to "the temperature of the dielectric fluid in the tank"—and it did not—the argument fails for another reason: There is no evidence the printed circuit board temperature could be used or was used to trigger a reboot of the miners (or indeed to coordinate the operation of anything), and Midas does not point to any such evidence. In addition, the district court excluded any infringement theory based on the printed circuit board temperature because Midas failed to timely disclose that theory. Ex. 9 at 13:12-13, 18:6.

4. Midas Concedes That Rhodium's Systems Could Not Coordinate the Operation of Two Fluid Circulation Facilities As A Function of Temperature.

31. Midas does not dispute that the Rhodium systems lacked the ability to the coordinate the operation of the primary and secondary fluid circulation facilities, asserting at most that each one could adjust the operation of only one fluid circulation facility, not both, as the claim requires.

32. Midas's assertions of fact about how Rhodium's systems supposedly used a temperature to coordinate the operation of the primary and secondary fluid circulation facilities are bare bones—almost totally devoid of substance and evidence. In any case, each relates to at most one circulation facility, never to coordinating two. Opp. ¶¶ 80-82 (asserting Guntner cooler control system at Rockdale was "adapted to adjust the cooler's fan speed," that is, the secondary circulation facility only—no discussion of coordination with primary circulation facility), ¶ 86 (relying on Guntner cooler system argument for Temple facility as well), ¶¶ 87-92 (no discussion of either primary or secondary fluid circulation facilities in connection with theory about rebooting miners when they overheat). Accordingly, even if they had record support, they would fail to establish a genuine issue of infringement.

33. Midas fails to show that rebooting the miners to lower heat input constitutes coordination of even a single facility. The miners are in the tank, near the pumps and pipes that Midas identified as the primary circulation facility, Ex. 3 at 79 (expert report of Dr. Himanshu Pokharna), but its expert conceded that those pumps were "single-speed pumps" and that the Rhodium system could not change the pump speed or the flow rate of the dielectric fluid. Opp. Ex. A, 282:4-12. Therefore, rebooting the miners could not and did not "coordinate" the primary circulation facility. That is why Midas makes only the modest assertion that "changing the heat generation" by rebooting would "cause a second order cooling effect." Opp. ¶ 92. Midas does not even try to adduce facts or evidence showing that this "cooling effect" constitutes "coordinating" the primary circulation facility, and it says nothing about the secondary circulation facility at all. And as in the District Court, it presents no argument under the doctrine of equivalents and so has waived any such argument. Motion ¶ 65. Midas has raised no factual dispute as to whether Rhodium's systems were able to coordinate the operation of the primary and secondary circulation facilities as a function of temperature. They were not.

CONCLUSION

34. The Court should enter summary judgment for Rhodium and dismiss Midas's claims.

RESERVATION OF RIGHTS

35. Nothing contained herein is intended to be or shall be deemed as (i) an admission as to the validity of any claim against the Debtors, (ii) a waiver or limitation of the Debtors' or any party in interest's rights to dispute the amount of, basis for, or validity of any claim, (iii) a waiver of the Debtors' rights under the Bankruptcy Code or any other applicable nonbankruptcy law, (iv) an agreement or obligation to pay any claims, (v) a waiver of any claims or causes of action which may exist against any creditor or interest holder, or (vi) an approval, assumption, adoption, or

rejection of any agreement, contract, lease, program, or policy under section 365 of the Bankruptcy Code. Likewise, if the Court grants the relief sought herein, any payment made pursuant to the Court's order is not intended to be and should not be construed as an admission to the validity of any claim or a waiver of the Debtors' rights to dispute such claim subsequently.

Respectfully submitted this 19th day of August, 2025.

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Certificate of Service

I, Cameron Kelly, hereby certify that on the 19th day of August, 2025, a copy of the foregoing Reply was served by the Electronic Case Filing System for the United States Bankruptcy Court for the Southern District of Texas and to Midas Green Technologies, LLC, c/o Joseph Thomas, 18101 Von Karman Avenue, Suite 230, Irvine, CA 92612, email jthomas@twtlaw.com.

/s/ Cameron Kelly
Cameron Kelly

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

REPLY IN SUPPORT OF MOTION TO ESTIMATE CONTINGENT AND UNLIQUIDATED CLAIMS OF MIDAS GREEN TECHNOLOGIES LLC AND GRANT RELATED RELIEF
(Relates to ECF Nos. 954, 1069, 1413, 1483, 1523)

Rhodium Encore LLC, and its affiliates, as debtors and debtors in possession (collectively, the "Debtors" or "Rhodium") in the above-captioned chapter 11 cases, hereby file the *Reply in Support of Motion to Estimate Contingent and Unliquidated Claims of Midas Green Technologies LLC and Grant Related Relief* (the "Reply") in response to *Midas Green Technologies, LLC's Opposition to Motion to Estimate Contingent and Unliquidated Claims of Midas Green Technologies LLC and Grant Related Relief* (ECF No. 1523) (the "Response"). In support of this Reply, the Debtors respectfully state as follows:

[1] The Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Rhodium Enterprises, Inc. (6290), Rhodium Technologies LLC (3973), Rhodium Renewables LLC (0748), Air HPC LLC (0387), Rhodium Shared Services LLC (5868), Rhodium Ready Ventures LLC (8618), Rhodium Industries LLC (4771), Rhodium Encore Sub LLC (1064), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), and Rhodium Renewables Sub LLC (9511). The mailing and service address of the Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

PRELIMINARY STATEMENT

1. Midas's Response represents yet another attempt to achieve leverage over the Debtors using unjustified delay and shameless gamesmanship. Midas starts on familiar ground, advocating the same strained interpretation of the District Court's statements as in Midas's prior pleadings; once again failing to acknowledge the District Court's clear ruling of noninfringement, the District Court's decision to cancel all proceedings, and the fact that Midas made no effort to continue the case in over a year. Ignoring these facts, Midas demands over $12 million dollars for defunct patent claims for which it has no hope of any recovery.

2. Rather than engage with the substance of the Debtors' motion, Midas dedicates the bulk of its Response to an entirely new argument, claiming that this Court cannot hear the Midas Claims because they involve issues of patent law, and that the possibility that Midas may file a motion to withdraw the reference sometime in the future means the Debtors' bankruptcy cases should be paused indefinitely. The Court should not countenance Midas's tardy excuse for even further delay.

3. Midas has forced the Debtors to spend extensive time and resources litigating its Claims in this court. It has been eight months since the Debtors filed their objection to Midas's Claims, nearly six weeks since this Court issued a scheduling order providing a briefing schedule to estimate Midas's Claims, and a week since Midas filed the Response. Still, it has not filed its hypothetical motion to withdraw the reference. Midas's new but woefully late theory seeks only to inject confusion and prejudice into a patent infringement case that requires only a straightforward application of law to facts. This latest effort to dodge the timely adjudication of the Midas Claims must be rejected.

REPLY

I. By Filing Its Proofs of Claim, Midas Submitted Itself to the Bankruptcy Court's Jurisdiction

4. The Response conflates the question of jurisdiction and abstention, concluding that the Bankruptcy Court has no jurisdiction over its Claims despite putting forth no jurisdictional argument. The judicial doctrine of abstention, which requires that bankruptcy courts decline to exercise their jurisdiction over certain issues, does not negate that the resolution of the Midas Claims is a core proceeding that falls squarely in the Bankruptcy Court's jurisdiction. **"**Core proceedings include…allowance or disallowance of claims against the estate or exemptions from property of the estate, and estimation of claims or interests for the purposes of confirming a plan under chapter 11." 28 U.S.C. § 157(b)(2). By filing its proof of claim, Midas subjected itself to the jurisdiction of this court. *In re Wood*, 825 F.2d 90, 97 (5th Cir. 1987) ("The filing of the proof invokes the special rules of bankruptcy concerning objections to the claim, estimation of the claim for allowance purposes, and the rights of the claimant to vote on the proposed distribution. Understood in this sense, a claim filed against the estate is a core proceeding because it could arise only in the context of bankruptcy."); *WRT Creditors Liquidation Tr. v. C.I.B.C. Oppenheimer Corp.*, 75 F. Supp. 2d 596, 607 (S.D. Tex. 1999) ("If the proceeding is one that would arise only in bankruptcy, it is also a core proceeding; for example, the filing of a proof of claim").

5. Moreover, Midas bears the ultimate burden to prove its Claims. Section 502 of the Bankruptcy Code provides that: "[a] claim or interest, proof of which is filed under section 501 of this title, is deemed allowed, unless a party in interest … objects." 11 U.S.C. §502(a). The proper filing of a proof of claim constitutes prima facie evidence of the claim's validity and amount. *In re O'Connor*, 153 F.3d 258, 260 (5th Cir. 1998) (citing Bankruptcy Rule 3001(f)). A proof of claim loses the presumption of prima facie validity under Bankruptcy Rule 3001(f) if an objecting

party refutes at least one of the allegations that are essential to the claim's legal sufficiency. *See In re Fidelity Holding Co., Ltd.*, 837 F.2d 696, 698 (5th Cir. 1988) (holding "[if] evidence rebutting the claim is brought forth, then the claimant must produce additional evidence to 'prove the validity of the claim by a preponderance of the evidence'" (citation omitted)). Once such an allegation is refuted, the burden reverts to the claimant to prove the validity of its claim by a preponderance of the evidence. *Id*. Despite this shifting burden during the claim objection process, "[t]he ultimate burden of proof always rests upon the claimant." *Id*. If Midas fails to meet its burden and prove its Claims to this Court, the Midas Claims must be disallowed.

II. Any Motion to Withdraw the Reference Would Be Untimely and Prejudicial

6. Midas spends the bulk of its Response describing how if it filed a motion to withdraw the reference, that motion would prevent the Court from estimating its claims. However, Midas has failed to file such a motion, and it is now too late. Section 157(d) provides for mandatory abstention "***on timely motion of a party***." 28 U.S.C. § 157(d) (emphasis added). Though the statute provides no exact measure of timeliness, courts have widely held that "a party acts in a timely fashion when he or she moves as soon as possible after he or she should have learned the grounds for such a motion." *J.T. Thorpe Co. v. Am. Motorists*, 2003 WL 23323005, at *4 (S.D. Tex. June 9, 2003) (quoting *In re NOVAK,* 116 B.R. 626, 628 (N.D.Ill.1990); *Dabney v. Bank of Am., N.A.*, 2020 WL 8618051, at *6 (D.S.C. Dec. 23, 2020) ("Courts have defined timely to mean as soon as possible after the moving party has notice of the grounds for withdrawing the reference.") (internal quotations omitted). This requirement exists to prevent litigation gamesmanship and judicial waste. As one court explained:

> In our jurisprudence generally, the word 'timely' means 'at first reasonable opportunity.' The fair intendment of [28 U.S.C. § 157(d)] is to insure that the request for withdrawal be filed as soon as practicable after it has become clear that 'other laws' of the genre described in 28 U.S.C. § 157(d) are implicated, so as to

> protect the court and the parties in interest from useless costs and disarrangement of the calendar, and to prevent unnecessary delay and the use of stalling tactics. Once it becomes apparent that such an issue is in the case, a party has a plain duty to act diligently—or else, to forever hold his peace.

In re Giorgio, 50 B.R. 327, 328-29 (D. R.I. 1985) (internal citations omitted).

7. Here, any forthcoming and yet illusory motion to withdraw the reference must fail as untimely and prejudicial. The theoretical grounds for such a motion—apparently, solely that the Midas Claims involve patents—have been clear at least since the Debtors filed their initial objection to the Midas Claims in January and were present when Midas initially submitted itself to the core jurisdiction of this Court by filing its proofs of claim. But rather than promptly move to withdraw the reference then, as section 157(d) requires, Midas has spent the last seven months filing multiple briefs in this Court, requiring the Debtors to waste resources on the same. *See* ECF Nos. 1413, 1485, 1486, 1523. The parties also attended a hearing regarding the Midas Claims over a month ago. In that time, Midas has never claimed grounds to withdraw the reference.

8. The timing of Midas's potential future motion reflects the exact kind of forum-shopping and gamesmanship that section 157(d)'s timeliness requirement seeks to avoid. Midas still has not filed a motion to withdraw the reference, and has given no indication that it plans to do so any time soon. But even were such a motion filed today, it would still be after numerous rounds of briefing, and three days before the originally scheduled hearing date. Had Midas moved to withdraw the reference when Debtors filed their objection seven months ago, the Debtors and the Bankruptcy Court might have saved resources—now, withdrawal of the reference would only grant Midas its much-desired delay and jeopardize the resolution of these cases.

9. Under similar circumstances, and after similar periods of delay, courts have uniformly rejected motions for withdrawal as untimely. *See, e.g., In re Drs. Hosp. 1997, L.P.*, 351 B.R. 813, 843 (Bankr. S.D. Tex. 2006) ("the Veldekens did not request this Court to abstain until

more than eight months after GE removed the suit…These circumstances underscore the untimeliness of the Veldekens' Motion to Abstain."); *In re Green Field Energy Servs., Inc.*, 2017 WL 2729065, at *2 (Bankr. D. Del. June 23, 2017) ("Defendants waited four months . . . to seek withdrawal of the reference. Certainly, the Withdrawal Motion was not timely filed."); *In re Allegheny Health Educ. & Rsch. Found.*, 2006 WL 3843572, at *2 (W.D. Pa. Dec. 19, 2006) ("Each of [the government's] arguments has one thing in common-it could have been made the day that the adversary proceeding complaint was filed. Nothing changed over the more than ten months that passed before the United States filed its motion to withdraw, other than the United States's apparent growing dissatisfaction and frustration with the bankruptcy court's handling of the matter."); *In re H & W Motor Express Co.*, 343 B.R. 208, 214 (N.D. Iowa 2006) ("Waldner . . . did not file his Motion [for withdrawal] until April 29, 2005—more than five months after he filed his Answer. Waldner has not offered any reasons to justify this lengthy delay."); *Laine v. Gross*, 128 B.R. 588, 589 (D. Maine 1991) ("The Court, therefore, is faced with a situation in which Defendants failed to seek withdrawal of the reference when, upon service of the complaint [six months prior], it was clear that they had the same grounds to do so that they now assert. Only after the Bankruptcy Court denied their motion to dismiss, having invested a significant amount of time and energy, did Defendants try another tack and seek withdrawal of the reference."); *In re GTS 900 F, LLC*, 2010 WL 4878839, at *3 (C.D. Cal. Nov. 23, 2010) (finding four-month delay untimely); *Horowitz v. Sulla*, 2016 WL 5799011, at *3 (D. Haw. Sept. 30, 2016) (finding five-month delay untimely). This Court should do the same.

III. The Midas Claims Do Not Trigger Mandatory Abstention

10. Even if Midas had filed a timely motion to withdraw the reference, that motion still would not have resulted in Midas's desired outcome. To trigger mandatory abstention under

section 157, the proceeding must involve a "substantial and material question of both title 11 and non-Bankruptcy Code federal law." *Lifemark Hosps.,* 161 B.R. at 24 (citing *United States v. Gypsum Co. (In re Nat'l Gypsum Co.),* 145 B.R. 539, 541 (Bankr.N.D.Tex.1992)). The Fifth Circuit interprets the mandatory withdrawal provision "restrictively," *Levine v. M & A Custom Home Builder & Developer, LLC*, 400 B.R. 200, 203 (S.D. Tex. 2008), and abstention should not be granted if resolution of the claim requires only "the mere application of well-settled law." *Rodriguez v. Countrywide Home Loans, Inc.*, 421 B.R. 341, 348 (Bankr. S.D. Tex. 2009); see *In re Vicars Ins. Agency, Inc.,* 96 F.3d at 952 (noting that permitting withdrawal whenever any minor non-bankruptcy federal question is implicated would "encourage delaying tactics (perhaps further draining the resources of the debtor), forum shopping, and generally unnecessary litigation."); *In re Kenai Corp.*, 136 B.R. 59, 61 (S.D.N.Y. 1992) (cautioning that withdrawal should be employed "judiciously in order to prevent it from becoming just another litigation tactic for parties eager to find a way out of bankruptcy court").

11. Withdrawal becomes mandatory only "when the court must undertake analysis of significant open and unresolved issues regarding the non-title 11 law." *Rodriguez v. Countrywide Home Loans, Inc.,* 421 B.R. 341, 348 (Bankr. S.D. Tex.2009) (quotation omitted). This maxim applies to patent claims as well as claims implicating other federal statutes. *See In re Quality Lease & Rental Holdings, LLC*, 2016 WL 416961, at *6 (Bankr. S.D. Tex. Feb. 1, 2016), report and recommendation adopted, 2016 WL 11644051 (S.D. Tex. Feb. 29, 2016) ("The Court has serious reservations whether consideration of the federal securities laws claims in this adversary proceeding…rises to the level of 'substantial and material consideration' of non-bankruptcy federal law…The Court sees no novel theory that would require the interpretation of the applicable statutes.").

12. The District Court already determined the question of liability when it granted summary judgment of infringement, and through estimation, the Bankruptcy Court is more than capable of the analysis required to reach the same conclusion. The patent claims at issue here require only straightforward application of the law to the facts. Adjudication of a patent infringement claim requires consideration of two key questions: First, the court must construe the asserted patent claims to determine their meaning and scope. *Freedman Seating Co. v. Am. Seating Co*., 420 F.3d 1350, 1357 (Fed. Cir. 2005). This step is commonly known as claim construction or interpretation. Second, the court must determine whether the accused product or process contains each limitation of the properly construed claims, either literally or, if alleged, under the doctrine of equivalents. *Id.* "The first step is a question of law; the second step is a question of fact." *In re Electro-Mechanical Indus.*, 2008 U.S. Dist. LEXIS 111991, at *14 (S.D. Tex. July 8, 2008) (quoting *Freedman Seating Co.* 420 F.3d at 1357).

13. In this case, the first step has already been done. That is, during the District Court Litigation, the District Court construed the claims. ECF No. 50 (W.D. Tex., July 11, 2022) (order approving stipulated constructions of "plenum" and "weir"). Neither of the terms the District Court construed could now be at issue in this proceeding, and the remaining claim terms are given their plain and ordinary meaning to a person of ordinary skill in the field. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc). Lay jurors are routinely tasked with applying the plain and ordinary meaning of claim terms, *see, e.g., LePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 520 (Fed. Cir. 2012), and this Court may do the same.

14. What remains are straightforward questions that require little if any legal analysis, and certainly do not implicate a "substantial and material consideration of non-bankruptcy federal law." And the Response points to none, relying instead on conclusory statements that "the

determination of infringement of the Midas '457 Patent will necessarily require a substantial and material application and interpretation of Title 35 of the U.S. Code." Response ¶ 37. Midas does not identify a single characteristic of its claims that would necessitate substantial and material application of nonbankruptcy law, apparently asserting that this Court would be unable to consider any claims that implicated patent law. This argument of course fails logically and ignores the myriad cases in which bankruptcy courts consider patent infringement claims. *See, e.g., In re Ridgeway*, 2018 WL 6287983, at *2 (Bankr. E.D. La. Nov. 30, 2018); *In re Benun*, 386 B.R. 59, 117 (Bankr.D.N.J.2008); *In re Innovasystems, Inc.*, 2014 WL 7235527 (Bankr. D.N.J. Dec. 18, 2014).

15. Even a surface analysis of Midas's case cites demonstrates the point. The Response's argument predominantly relies on one case, *In re Electro-Mechanical Indus.,* in which the court withdrew the reference of a patent claim. *2008 Bankr. LEXIS 5177* (S.D.T.X. 2008); *see* Response ¶¶ 31-37;41-43. But that case *did* involve a material question of non-bankruptcy law because it involved a claim disputing the validity of the patent itself and an infringement claim that required substantive claim construction. *Id.* at *9. There, the bankruptcy court determined that the facts of that case required a substantial application of patent law. *Id.* ("This is not simply a straightforward application of federal law to the facts. The validity of the patent is disputed as a matter of law. *See* 35 U.S.C. 282 ('[a] patent shall be presumed valid'). If the patent survives the allegations of invalidity, the ensuing infringement analysis will likewise require substantial application of Title 35. Indeed, examining claim construction to determine the invention's scope has been held to be a matter of law reserved to the court."). The *Electro-Mechanical* case also considered the possibility that the potentially infringing product would be put into interstate commerce and interfere with the sale of competing products. *Id.* at *10. In the case here, neither

the Debtors nor Midas question the validity of the patent, claim construction is done, and the Debtors have sold their accused systems—making continuing infringement impossible. Indeed, prior to finding noninfringement and cancelling the trial, the questions raised by Debtors' motion were two weeks away from being presented to a jury—and the District Court correctly concluded there was not even enough evidence of infringement to create a triable issue of fact.

16. Further, the District Court, already determined that there is no infringement, case law provides a guide for this Court to estimate Midas's claims. While Midas seeks a $12,306,278 windfall, when a claim pending in another court would have been dismissed, courts have held that claim should be estimated to have no value. *In re Innovasystems, Inc.*, 2014 WL 7235527, at *8 (Bankr. D.N.J. Dec. 18, 2014) ([T]he Proveris Claim is a claim whose contingency may never occur. Moreover, Proveris's ultimately prevailing on its claims, in light of its lack of success at the appellate level, is uncertain at best."); *In re Kaplan*, 186 B.R. 871, 874 (Bankr. D. N.J. 1995) ("[i]t is not inappropriate to value a party's claim at zero where the claim is contingent and where the bankruptcy court finds that the party probably would not succeed on the merits in a state court action"…"the estimation process protects the interests of other creditors in not having their distributions diminished by allowing a claim whose contingency may never occur"); *Matter of Baldwin-United Corp.*, 55 B.R. 885, 902-03 (Bankr. S.D. Ohio 1985).

17. And as explained at length in the Debtor's Summary Judgment Motion, *see* ECF No. 1486, the Midas claims have no merit. A court should also estimate a claim at zero if it is found to be without merit as a matter of law. *In re Cont'l Airlines Corp.*, 57 B.R. 845, 854 (Bankr. S.D. Tex. 1985) ("[T]he unions' claims…have no validity and are without merit as a matter of law, and the value is estimated, pursuant to 11 U.S.C. § 502(c), to be zero."). Consistent with this

standard, the Court can competently estimate Midas's Claims and determine that they have no value.

CONCLUSION

WHEREFORE, the Debtors respectfully the Court estimate the Midas Claims to be worth zero (0) dollars and grant such other and further relief as the Court may deem just and appropriate.

RESERVATION OF RIGHTS

18. Nothing contained herein is intended to be or shall be deemed as (i) an admission as to the validity of any claim against the Debtors, (ii) a waiver or limitation of the Debtors' or any party in interest's rights to dispute the amount of, basis for, or validity of any claim, (iii) a waiver of the Debtors' rights under the Bankruptcy Code or any other applicable nonbankruptcy law, (iv) an agreement or obligation to pay any claims, (v) a waiver of any claims or causes of action which may exist against any creditor or interest holder, or (vi) an approval, assumption, adoption, or rejection of any agreement, contract, lease, program, or policy under section 365 of the Bankruptcy Code. Likewise, if the Court grants the relief sought herein, any payment made pursuant to the Court's order is not intended to be and should not be construed as an admission to the validity of any claim or a waiver of the Debtors' rights to dispute such claim subsequently.

NOTICE

19. Notice of this Reply will be provided to (i) the Office of the United States Trustee; (ii) counsel to the Creditors' Committee; (iii) Midas, (iv) any other party that has requested notice pursuant to Bankruptcy Rule 2002; and (v) any other party entitled to notice pursuant to Local Rule 9013-1(d).

Respectfully submitted this 19th day of August, 2025.

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Counsel to the Debtors and Debtors-In-Possession

CERTIFICATE OF SERVICE

I, Patricia B. Tomasco, hereby certify that on the 19th day of August 2025, a copy of the foregoing Motion was served by the Electronic Case Filing System for the United States Bankruptcy Court for the Southern District of Texas and to Midas Green Technologies, LLC, c/o Joseph Thomas, 18101 Von Karman Avenue, Suite 230, Irvine, CA 92612, email jthomas@twtlaw.com.

/s/ Patricia B. Tomasco
Patricia B. Tomasco

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re: **RHODIUM ENCORE, LLC**, et al.[1], Debtors,	Chapter 11 Case No. 24-90448 (ARP) (Jointly Administered)

MIDAS GREEN TECHNOLOGIES, LLC'S MOTION FOR MANDATORY WITHDRAWAL OF REFERENCE PURSUANT TO 28 U.S.C. § 157 AND RULE 5011 OF THE FEDERAL RULES OF BANKRUPTCY PROCEDURE FOR ABSTENTION

THIS MOTION SEEKS AN ORDER THAT MAY ADVERSELY AFFECT YOU. IF YOU OPPOSE THE MOTION, YOU SHOULD IMMEDIATELY CONTACT THE MOVING PARTY TO RESOLVE THE DISPUTE. IF YOU AND THE MOVING PARTY CANNOT AGREE, YOU MUST FILE A RESPONSE AND SEND A COPY TO THE MOVING PARTY. YOU MUST FILE AND SERVE YOUR RESPONSE WITHIN 21 DAYS OF THE DATE THIS WAS SERVED ON YOU. YOUR RESPONSE MUST STATE WHY THE MOTION SHOULD NOT BE GRANTED. IF YOU DO NOT FILE A TIMELY RESPONSE, THE RELIEF MAY BE GRANTED WITHOUT FURTHER NOTICE TO YOU. IF YOU OPPOSE THE MOTION AND HAVE NOT REACHED AN AGREEMENT, YOU MUST ATTEND THE HEARING. UNLESS THE PARTIES AGREE OTHERWISE, THE COURT MAY CONSIDER EVIDENCE AT THE HEARING AND MAY DECIDE THE MOTION AT THE HEARING.

Represented parties should act through their attorney.

[1] The Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Rhodium Enterprises, Inc. (6290), Rhodium Technologies LLC (3973), Rhodium Renewables LLC (0748), Air HPC LLC (0387), Rhodium Shared Services LLC (5868), Rhodium Ready Ventures LLC (8618), Rhodium Industries LLC (4771), Rhodium Encore Sub LLC (1064), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), and Rhodium Renewables Sub LLC (9511).

There will be a hearing on this motion on September 23, 2025, at 1:00 p.m. (Prevailing Central Standard Time) in courtroom 400, 515 Rusk Street, Houston, TX 77002.

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INTRODUCTION

1. Midas Green Technologies, Inc. ("Midas") moves, pursuant to 28 U.S.C. §157(d) and Rule 5011 of the Federal Rules of Bankruptcy Procedure (the "Bankruptcy Rules"), for withdrawal of the references of (I) Debtors' Summary Judgment in Support of Amended Omnibus Objection to Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC, and (II) Debtors' Motion to Estimate Contingent and Unliquidated Claims of Midas Green Technologies LLC in this adversary proceeding. The issues presented in the Debtors' motions involve non-bankruptcy federal law and substantial material questions regarding patent infringement liability and damages extending therefrom, matters that are more appropriately determined by the District Court. In addition, pursuant to 28 U.S.C. § 1334(c), Midas seeks abstention on the grounds that the claims at issue are non-core, arise entirely under state and other non-bankruptcy law, and are more appropriately adjudicated outside the Bankruptcy Court.

JURISDICTION AND VENUE

2. This Court has jurisdiction over this matter pursuant to 28 U.S.C. §§ 1331 and 1334. Under 28 U.S.C. § 1334(b), the district courts have original but not exclusive jurisdiction of all civil proceedings arising under Title 11 or arising in or related to cases under Title 11. Pursuant to 28 U.S.C. § 157(a), this District has referred such matters to the United States Bankruptcy Court for the Southern District of Texas.

3. Withdrawal of the reference is governed by 28 U.S.C. § 157(d) and Rule 5011 of the Federal Rules of Bankruptcy Procedure. Abstention is governed by 28 U.S.C.

§ 1334(c)(1) and (c)(2). This motion seeks relief under both provisions.

4. Venue is proper in this Court pursuant to 28 U.S.C. §§ 1408 and 1409 because the underlying bankruptcy case is pending in this District, and the adversary proceeding from which this motion arises was referred to the Bankruptcy Court for the Western District of Texas.

5. On January 13, 2022, Midas filed a patent infringement suit against Rhodium and its numerous subsidiaries in the Western District of Texas (the "District Court"), *Midas Green Technologies, LLC v. Rhodium Enterprises, Inc., et al, Case No. 6:22CV-00050-ADA*. According to Local Rule 5011-1, this Motion for Withdrawal shall be first filed in this Court, with this Court providing notice to the District Court.

> *A motion to withdraw the reference and any responses thereto shall be filed under the style and number of the bankruptcy case or adversary proceeding in which reference is sought to be withdrawn and shall be filed with the Clerk of the Bankruptcy Court. The Clerk of the Bankruptcy Court will transmit the motion to withdraw the reference and timely filed responses to the District Court. (L.R. 5011-1(a)).*

BACKGROUND

6. On July 29, 2025, Rhodium filed two motions: (I) Debtors' Summary Judgment in Support of Amended Omnibus Objection to Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC ("MSJ"), and (II) Debtors' Motion to Estimate Contingent and Unliquidated Claims of Midas Green Technologies LLC ("Motion to Estimate"). Withdrawal of the reference is governed by 28 U.S.C. §157(d) and Rule 5011 of the Bankruptcy Rules. Accordingly, Midas respectfully moves this Court to withdraw the references of the pending motions in this adversary proceeding. Mandatory withdrawal is required where resolution of the dispute necessitates substantial and material

consideration of non-bankruptcy federal law. The pending motions raise issues outside the scope of the Bankruptcy Code, implicate rights that exist independently of Title 11, and, in light of the parties' jury trial demand, cannot be finally determined by the Bankruptcy Court without consent.

7. In the MSJ, Rhodium asks this Court to make a determination that the Midas infringement claims are baseless as a matter of law under 35 USC § 271. (MSJ ¶¶48-65). Then, in the Motion to Estimate, Rhodium asks this Court to estimate the Midas claims at zero, asserting that this Court would find no infringement (Motion to Estimate, ¶¶46-47). In this way, both of Rhodium's motions require this Court to do a deep-dive evaluation of patent law, immersion cooling technology, and the facts of the underlying patent case.

8. A court in the Southern District of Texas has determined that a finding of patent infringement liability is subject to mandatory removal under *§ 157(d.) In re Mechanical Indus. 2008 Bankr. Lexis 5177 at *10 (SDTX 2008).* Further, if the assessment of damages relies on a finding of infringement liability, then any Motion to Estimate must be withdrawn as well. (*Id.* at * 10-12).

9. The District Court retains full jurisdiction with regard to substantive patent law issues, including claim construction and determinations of infringement. As a result, this Court does not have the authority to adjudicate whether or not Rhodium infringes Midas' Patent.

10. As this court cannot adjudicate infringement in the District Court matter, it also cannot estimate the value of the monetary claims. To do so would exceed the

authority of this Court and wrongly obstruct the jurisdiction of the District Court. This Court should invoke § 157(d) to mandatorily remove the infringement liability portions of the MSJ and Motion to Estimate in its entirety.

STATEMENT OF FACTS

11. On January 13, 2022, Midas filed a patent infringement suit against Rhodium and its numerous subsidiaries in the Western District of Texas (the "District Court"), *Midas Green Technologies, LLC v. Rhodium Enterprises, Inc., et al, Case No. 6:22CV-00050-ADA*. In the Third Amended Complaint ("TAC"), Midas alleged that Rhodium's immersion cooling systems located in its Temple and Rockdale facilities infringe both U.S. Patent No. 10,405,457 (the "'457 Patent") and U.S. Patent No. 10,820,446 (the "'446 Patent").

12. Discovery in this case closed on February 9, 2024, and the District Court held a pre-trial conference on April 9, 2024. At the pre-trial conference, the District Court excluded the portion of Midas's expert damages report addressing lost profits, leaving only the reasonable royalty analysis as the basis for damages. In its Opposition to the Motion to Estimate, Midas revised its damages model, accordingly, limiting it to reasonable royalty calculations. Consistent with that revision, Midas will seek leave to amend its Proof of Claims to reflect only reasonable royalty damages, as set forth in the motion filed concurrently herewith.

13. The Court also excluded a portion of Midas's Expert Report regarding Infringement but granted Midas the opportunity for the expert to revise the report.

14. The District Court also addressed Rhodium's Motion for Summary Judgment

of Non-Infringement. At the midpoint of arguing summary judgment, the court paused the argument and became skeptical of whether or not there was infringement, and indicated it was leaning toward a dismissal. However, the Court did not go so far as to make that determination but indicated that it would conduct additional investigation. The Court stated the following:

> *"*MR. KOLEGRAFF: *Your Honor, would we be able to readdress this—after we get Pokharna's report redone, would we be able to readdress this issue on the motion for summary judgment?*
>
> THE COURT: *Well, you know, you've had your chance, but obviously, it's a fairly severe ruling. Let me talk to my clerks and see if they think anything additional that an expert would say might benefit us. And if it is, we'll let you know. As of right now, I don't think it would."* (Dkt. 187 at 54:19-55:3). (See **Exhibit 1** to the Thomas Declaration).

15. Thus, the Court left open the issue as to whether the expert report could be amended, which would in turn require reconsideration of Rhodium's Motion for Summary Judgment.

16. At the pre-trial conference, the District Court also stated that Dr. Pokharna's testimony regarding the Prime Control's- Control System be excluded for failure to identify the system in Midas' Final Infringement Contentions. (Dkt. 187, at 18:6). (See **Exhibit 1** to the Thomas Declaration). The Court granted leave to amend Dr. Pokharna's report to address any of the issues that Midas believes would make Dr. Pokharna's opinion survive a future challenge. (Dkt. 187 at 20:12-23). (See **Exhibit 1** to the Thomas Declaration).

17. During the pre-trial conference, Mr. Smith (counsel for Midas) asked the

District Court about the scope and basis for his indication of dismissal.

> *"MR. SMITH: Your Honor, if I could ask one more question about the Court's ruling. There's been a fair amount of argument today about how the systems are today versus after how the systems are turned on or wired or whatever. So I think we'd want to confirm the scope of the Court's ruling so we would know whether a claim against the facilities, once they're put into operation, would be affected by the Court's ruling today, or would that be a different set of facts?*
>
> *THE COURT: That would be a different set of facts. I don't know –*
>
> *MR. SMITH: Thank you, Your Honor.*
>
> *THE COURT: Yeah. I don't know that it would change the ruling ultimately, but, you know, that clearly is an issue in this case. (*Dkt. 187 55:5-20). (See **Exhibit 1** to the Thomas Declaration).

18. It is very telling that the Court had not firmly considered the scope or basis for any ruling. This further illustrates that the Court intended to put more work and analysis into a ruling prior to issuing a written final opinion.

19. As the judge articulated no basis or scope for his discussion regarding dismissal, Midas is in the dark as to what he was intending to rule on, and whether or not any written dismissal would be with or without prejudice.

20. Immediately after the pre-trial conference, the Court issued a brief Minute Entry as follows:

> *Minute Entry for proceedings held before Judge Alan D Albright: ZOOM FINAL Pretrial Conference held on 4/9/2024. PARTIES ANNOUNCE READY. STATEMENTS AND ARGUMENTS OF COUNSEL HEARD. WRITTEN ORDER FORTHCOMING.* (Dkt. 186). (See **Exhibit 2** to the Thomas Declaration).

21. Importantly, the above Minute Entry makes no reference to any ruling made regarding summary judgment or a dismissal and certainly does not indicate that anything the Judge said at the pre-trial conference was made final. Instead, the Minute Entry makes it abundantly clear that the Court has more work to do prior to making a final ruling, as there is a "written order forthcoming."

22. On January 7, 2025, Rhodium filed with this Bankruptcy Court (the "BK Court"), DEBTORS' MOTION FOR ENTRY OF AN ORDER GRANTING LIMITED RELIEF FROM AUTOMATIC STAY TO CONTINUE DISTRICT COURT LITIGATION. (Dkt. 611).

23. In paragraph 1 of this motion, Rhodium tells the BK Court:

> *By this Motion, the Debtors seek entry of an order (the "Proposed Order"), pursuant to sections 362 and 105(a) of the Bankruptcy Code and Bankruptcy Rule 4001, granting limited relief from the automatic stay* ***solely to permit the resolution of the patent infringement claim*** *Midas Green Technologies, LLC v. Rhodium Enterprises, Inc., 6:22-cv-00050 (the "District Court Litigation") filed in the Western District of Texas (the "District Court") by Midas Green Technologies, LLC ("Midas") against the Debtors and certain non-debtor affiliates (collectively, "Rhodium"). Specifically, Debtors ask that the stay be lifted for the limited purpose* ***of allowing the District Court to enter an order*** *and judgment memorializing its April 9, 2024 bench ruling granting summary judgment to Rhodium. (emphasis added).* (Dkt. 611 at ¶1).

24. Rhodium already admitted to this BK Court that the oral ruling was not a final ruling, and that Judge Albright needed to take additional steps to make it final in order to permit resolution of the patent infringement claims. Even Rhodium is fully

aware that the District Court needed to "enter an order" for finality. But now Rhodium backtracks and tries to convince this BK Court that the District Court does not need to "enter an order."

25. On January 30, 2025, the District Court requested the Parties submit detailed proposed orders reflecting the parties understanding of what transpired at the pre-trial conference. Judge Albright's clerk stated:

> *Given the time that has passed, it is necessary that the parties in this case submit a joint proposed order reflecting the parties' understandings of Judge Albright's rulings at the 4/9/2024 hearing (if there are disputes, please include proposed language in different colors). Please submit an omnibus order for all of the pretrial motions and a separate single order comprising all of the MILs. The Court will compare with its internal notes and enter the order reflecting those rulings shortly thereafter.* (See **Exhibit 3** to the Thomas Declaration).

26. Judge Albright's oral remarks cannot be treated as a final or binding ruling. The Court itself acknowledged that its comments were ambiguous, such that the parties would have disputes as to interpretation. Further, the Court explained it only had "notes," which required comparison to the Parties' written submissions before any order could be entered. Consistent with this, the District Court indicated that it would issue a final order "shortly," underscoring that no final decision had yet been made.

27. Accordingly, the record makes clear that Judge Albright's oral statement lacked finality and cannot serve as a binding determination.

28. On February 5, 2025, the BK Court granted the Debtors' Motion to Lift

Automatic Stay agreeing with Rhodium that a ruling in the District Court was necessary. (Dkt. 189). (See **Exhibit 4** to the Thomas Declaration).

29. The Order is as follows:

> *The automatic stay is lifted pursuant to Bankruptcy Code section 362(d) and Bankruptcy Rule 4001 for the limited purpose of allowing the District Court presiding over the patent infringement claim Midas Green Technologies, LLC v. Rhodium Enterprises, Inc., 6:22-cv-00050 filed in the Western District of Texas to enter an order and judgment memorializing its April 9, 2024 bench ruling granting summary judgment of noninfringement to Rhodium.*

30. On February 7, 2024, the Parties submitted their versions of a Proposed Order with regard to the summary judgment. As could be expected, the Parties widely disagree on how to interpret Judge Albright's ambiguous statements at the pre-trial conference. As indicated above, the District Court stated that it planned to issue its final written ruling "shortly" after getting the Parties' dueling proposed orders. However, those proposed orders were submitted almost 18 months ago, and the District Court has yet to issue its written order. If the District Court had planned to merely memorialize its discussion at the hearing, it would have done so already. Instead, it appears that the District Court is doing a full and careful analysis of the summary judgment and intends to issue a complete and thoughtful written opinion. Only by receiving and understanding the ruling of the District Court can this Court fairly determine what is owed to Midas.

31. On September 18, 2024, and November 21, 2024, Midas filed seven Proofs of Claims. The controlling parent companies, Rhodium Enterprises, Inc. and Rhodium Technologies, LLC, were allocated 100% of the liability, while the five operating

companies were allocated according to use: (1) Rhodium 30MW LLC, (2) Rhodium Encore LLC, (3) Rhodium 10MW LLC, (4) Rhodium 2.0 LLC, and (5) Rhodium Renewables LLC.

32. Midas will file a Motion for Leave to Amend to revise its Proof of Claims seeking only reasonable royalty damages and prejudgment interest. Liability will continue to be allocated with the controlling parent companies, Rhodium Enterprises, Inc. and Rhodium Technologies, LLC being allocated 100% of the liability, while the five operating companies are allocated according to use: (1) Rhodium 30MW LLC, (2) Rhodium Encore LLC, (3) Rhodium 10MW LLC, (4) Rhodium 2.0 LLC, and (5) Rhodium Renewables LLC.

33. In short, Rhodium's MSJ seeks a determination under 35 U.S.C. § 271 that Midas's infringement claims fail as a matter of law, while its Motion to Estimate asks the Court to value those claims at zero on the same basis. Both motions necessarily require a detailed analysis of patent law, immersion cooling technology, and the merits of the underlying infringement dispute. Pursuant to 28 U.S.C. § 157(d) and Rule 5011 of the Federal Rules of Bankruptcy Procedure, withdrawal of the reference is therefore required because the issues presented involve substantial and material questions of non-bankruptcy federal law, which are more appropriately determined by the United States District Court.

34. Mandatory withdrawal is compelled where resolution of a dispute necessitates significant consideration of federal law outside the Bankruptcy Code. Even if mandatory withdrawal were not required, permissive withdrawal is warranted in the interests of judicial economy, fairness, and efficiency. The claims at issue are non-core, involve rights

arising under patent law independent of Title 11, and are subject to a jury trial demand that cannot be conducted in the Bankruptcy Court absent consent.

35. Accordingly, withdrawal of the reference is both required and appropriate. This sets the stage for why § 157(d) mandates that the District Court, rather than the Bankruptcy Court, resolve the pending summary judgment and estimation motions.

36. Rhodium's two motions: (I) the MSJ and (II) the Motion to Estimate are both subject to mandatory withdrawal pursuant to § 157(d). In the MSJ, Rhodium asks this Court to make a determination that the Midas infringement claims are baseless as a matter of law under 35 USC § 271. (MSJ at ¶¶48-65). Then, in the Motion to Estimate, Rhodium asks this Court to estimate the Midas claims at zero, asserting that this Court would find no infringement (Motion to Estimate, p.47). In this way, both of Rhodium's motions require this Court to do a deep-dive evaluation of patent law, immersion cooling technology, and the facts of the underlying patent case.

ARGUMENT

37. In the Southern District of Texas, "a party should move to withdraw the reference within 90 days of the complaint or notice of removal" in an adversary proceeding. *Curtis v. Law Office of Rogelio Solis PLLC* (*In re Josiahs Trucking, LLC*), 2021 Bankruptcy LEXIS 3643, *6 (Bankruptcy S.D. Tex. May 13, 2021); citing *In re: Bankruptcy Jurisdiction,* Gen. Order 2011-12 (S.D. Tex. Nov. 29, 2011). However, a party may challenge the bankruptcy judge's authority at any time. *Id.* See also *In re Quality Lease and Rental Holdings, LLC*, No. 14-6005, 2016 Bankruptcy LEXIS 297, 2016 WL 416961, at *4 (Bankruptcy S.D. Tex. Feb.

1, 2016) (reading Gen. Order No. 2011-12 as not "prohibit[ing] a party's ability to request withdrawal after the expiration of 90 days.").

A. This Motion to Withdraw the Rhodium's Motion to Estimate and the MSJ is Timely Made

38. In its Reply to its Motion to Estimate, Rhodium asserts that Midas is time barred from filing this motion for mandatory withdrawal. A quick review of the timeline regarding this matter is enlightening:

July 29, 2025	Rhodium files its Motion to Estimate
July 29, 2025	Rhodium files its MSJ
June 8, 2025	Rhodium files its operative amended objections to the Midas claims
April 14, 2025	Rhodium files its Omnibus Objections to Midas' Proof of Claim

39. The Local Rules of the Southern District of Texas require a Motion to Withdrawal a Reference to be filed within 90 days of an issue becoming an adversarial proceeding. See *In re: Bankruptcy Jurisdiction*, Gen. Order 2011-12 (S.D. Tex. Nov. 29, 2011).

40. Filing objections to a proof of claim can establish an adversarial proceeding when the objection to a claim includes a demand for relief of the kind specified in Rule 7001. See Rule 9014.

41. Rhodium's Omnibus Objections did not transform the issues Rhodium raised with Midas' Proofs of Claim into an adversarial proceeding under the Bankruptcy code because the objections did not request relief specified in Rule 7001.

42. In Rhodium's Omnibus Objections the only relief requested was the

expungement of Midas' Claims. This did not create an adversarial proceeding within the Bankruptcy Code.

43. On June 8, 2025, Rhodium filed an Amended Omnibus Objection to Midas's Proofs of Claim. In this amendment, Rhodium requested affirmative relief, by requesting a hearing to establish a briefing schedule for a Motion for Summary Judgment and Motion for Estimation. This Court granted the hearing date and established a briefing schedule. In this, Rhodium's contested matter became an adversarial proceeding.

44. The adversarial proceeding, at the earliest, began on June 8, 2025. Only eighty-one days have passed since the adversarial proceeding began. Thus, pursuant to the Southern District of Texas Bankruptcy Court's local rules, Midas's Motion to Withdrawal Reference is timely.

45. Rhodium first sought relief from this Court on July 29, 2025, which is only about a month before Midas filed this motion for mandatory withdrawal.

46. Even if the Court were to consider Rhodium's amended objections as of June 8, 2025, to be the operative date, Midas files this motion for withdrawal within about 2 months.

B. The Motion to Estimate and MSJ Present Non-Core Issues Requiring Withdrawal

47. On July 29, 2025, Rhodium wrongly asked this Court to make legal and factual findings in the underlying District Court patent case. In the Motion to Estimate and the MSJ, Rhodium requests that this Court evaluate the patent claims,

apply the claims to the complex accused systems, and make a determination on whether or not the accused systems infringe Midas's '457 Patent. This is an unlawful attempt by Rhodium to bypass the expertise and knowledge of the District Court while similarly depriving Midas of its rights.

48. Rhodium's MSJ seeks a determination under 35 U.S.C. § 271 that Midas's infringement claims fail as a matter of law, while its Motion to Estimate asks the Court to value those claims at zero on the same basis. Both motions necessarily require a detailed analysis of patent law, immersion cooling technology, and the merits of the underlying infringement dispute.

49. A party making a motion for mandatory withdrawal must therefore "establish that the proceeding involves a "substantial and material" question of both Title 11 and non-Bankruptcy Code federal law and that the non-Code federal law has more than a de minimis effect on interstate commerce." *Sibarium v. NCNB Texas National Bank,* 107 B.R. 108, 111 (N.D.Tex.1989). *In re Nat'l Gypsum*, 145 B.R. 538, 541 (N.D. Tex 1992).

50. "Once subject matter jurisdiction vests with the district court, bankruptcy judges then have authority by reference under 28 U.S.C. § 157. Section 157 states that each district court may provide that "proceedings arising under Title 11 or arising in or related to a case under Title 11 shall be referred to the bankruptcy judges." *28 U.S.C. § 157(a)*. The statute distinguishes between cases directly under or arising under Title 11 and cases which are only "related to" a case under Title 11. *Id.* at *§ 157(c)*; *Wood, 825 F.2d at 95*. A case which is arising under or arising in a

case under Title 11 is a core proceeding. *28 U.S.C.§ 157(b)*; *Wood, 825 F.2d at 97* (a "proceeding is core under *section 157* if it invokes a substantive right provided by Title 11 or if it is a proceeding that, by its nature, could arise only in the context of a bankruptcy case."). The statute provides **[*6]** a nonexclusive list of sixteen matters considered "core." *28 U.S.C. § 157(b)(2)(A) - (P)*. A matter is considered non-core if it is "related to" a case under Title 11. *Id.* at *§ 157(c)(1)*." *In re Electro-Mechanical Industries, 2008 Bankr. LEXIS 5177.*

51. *Electro-Mechanical* is very much on point with the facts presented here. Universal had a pending patent infringement case against Electro-Mechanical ("EMI"). EMI filed for Chapter 11 in the Southern District of Texas, Houston Division. Universal filed a proof of claim for over $5M, and EMI filed a Motion to Estimate. Universal then filed a Motion to Withdraw the reference to the extent it called for a determination of liability under patent law. *(Id. at *2-4)* The court granted the Motion, finding that withdrawal was mandatory of the determination of infringement in a patent case. *(Id. at *10-11).*

52. *Electro-Mechanical* at *7-9 states "*Section 157(d)* states that the "district court *shall*, on timely motion of a party, so withdraw a proceeding if the court determines that resolution of the proceeding requires consideration of both title 11 and other laws of the United States regulating organizations or activities affecting interstate commerce." *28 U.S.C. § 157(d)* (emphasis added). The use of "shall" in this provision has been interpreted as mandatory language. *In re National Gypsum Co., 145 B.R. 539, 540* (citing *In re Combustion Equip. Assoc., Inc., 67 B.R. 709,*

711 (S.D.N.Y. 1986), *aff'd*, *838 F.2d 35 (2d Cir. 1988))*. The Northern District of Texas has explained mandatory withdrawal as follows:

53. [C]ourts have generally held that a mandatory withdrawal of reference is warranted where "substantial and material consideration" of federal statutes other than the Bankruptcy Code is "necessary" to the resolution of a case or proceeding. *See In re Johns-Manville Corporation, 63 B.R. 600, 602 (S.D.N.Y.1986)*; *In re Combustion, 67 B.R. at 711*; *In re White Motor*, 42 B.R. at 703, 705; 1 *COLLIER*, ¶ 3.01 at 3-69. Before withdrawing the reference, the district court must make an "affirmative determination" that the relevant non-code legal issues will require substantial and material consideration, and the court must be satisfied that consideration of these federal laws requires "significant interpretation" on the part of the court. *In re Johns-Manville Corp., 63 B.R. at 602*.

54. The Court in *Electro-Mechanical* found that the determination of patent infringement "will necessarily require a 'substantial and material' application and interpretation of Title 35 of the U.S. Code. This is not simply a straightforward application of federal law to the facts." *(Id. at *10)*

55. The Court goes on to say: "infringement analysis will likewise require substantial application of Title 35. Indeed, examining claim construction to determine the invention's scope has been held to be a matter of law reserved to the court. *Markman v. Westwiew Instruments, 517 U.S. 370 (1996)*. As noted by Justice Souter in *Markman*, "the claims of *patents* have become highly technical in many respects as the result of special doctrines relating to the proper form and scope of

claims that have been developed by the courts and the *Patent* Office." *(Id. at *9-10).*

56. The Court found that a finding of infringement was subject to mandatory removal: "The Court, therefore, finds the determination of *patent* validity and infringement falls under the mandatory withdrawal provision of *§ 157(d)* and recommends the reference be withdrawn accordingly." *(Id. at *10).*

57. Further, the interstate commerce element is also established. Just as the court found *In Re Electro- Mechanical Indus.*, "the non-Code federal law will have an effect on interstate commerce." *In re Electro-Mechanical Indus.,* 2008 Bankr. LEXIS 5177, *10 (S.D. Tex. Feb. 20, 2008). In that case, the Court found that the interstate commerce element was met because the non-bankrupt party may choose to place its product within the flow of interstate commerce to the exclusion of would-be competitors. This was a "greater than a de minimus impact on interstate commerce." *Id*.

58. Just as in *Electro-Mechanical,* Rhodium is asking this Court to do an evaluation of the patent case and make a legal and factual determination of infringement liability. This is a highly technical patent case regarding complex immersion cooling system technology, and where the determination of infringement of Midas's '457 Patent will necessarily require a substantial and material application and interpretation of Title 35 of the U.S. Code. This is not simply a straightforward application of federal law to the facts.

59. This Court does not have jurisdiction to make a determination as to infringement of the '457 Patent.

60. This Court should mandatorily withdraw any liability aspects of the Motion to Estimate and the MSJ.

C. This Court Cannot Estimate Without Addressing Infringement Liability, and Therefore Cannot Make an Estimation

61. As discussed above with reference to the *Electro-Mechanical* matter, the bankruptcy court had to mandatorily withdraw all aspects of infringement evaluation for a determination by the District Court. Like Rhodium does here, EMI requested that the Bankruptcy Court make an estimation of damages without addressing liability. The Court refused to do so, finding that "until liability had been determined, to evaluate whether the correct measure of damages until liability had been determined, to evaluate whether the correct measure of damages". *(Id. at *11-12)*

62. Not only did the Court find that a determination of liability by the District Court was essential, but held that if the District Court found liability for infringement, then the District Court was to determine if damages were to be set by the District Court of the Bankruptcy Court. "As such, the Court recommends that the question of whether the Bankruptcy Court or the District Court should determine damages should be left to the District Court when a determination as to liability has been made. Should liability be established, the District Court could refer the proceeding to this Court for a determination of the proper claim amount or could determine damages at that time." *(Id. at *11-12)*

63. Ultimately, the Court in *Electro-Mechanical* withdrew the entire motion to estimate reference as a whole. The Court held that: "Without a determination of the

patent infringement issue, this Chapter 11 case cannot proceed in a meaningful fashion. Accordingly, this Court recommends that the District Court withdraw the reference of this bankruptcy case, as a whole." *(Id. at *11-12)*

64. In a similar manner, this Court should withdraw Rhodium's entire Motion to Estimate, as there is no meaningful way for the bankruptcy to move forward until the District Court has issued its final written ruling.

D. The Underlying Patent Case in the District Court has not Been Dismissed

65. In its recent motions and arguments to this Court, Rhodium takes the position that certain oral comments by Judge Albright should be interpreted as him having fully disposed of the underlying patent case. As illustrated by the Statement of Facts, and as discussed below, the District Court Case has not been dismissed, and the Parties are awaiting Judge Albright's written final decision.

66. There is nothing in the docket at the District Court to indicate that the patent case has been dismissed as Rhodium now argues. To the contrary, this case is still actively pending in the District Court and there is no final ruling adjudicating the rights and liabilities of the parties.

67. The Court has not issued a final ruling under Federal Rule of Civil Procedure Rule 58. The Court has not issued a minute order granting Rhodium's Motion for Summary Judgment under Federal Rule of Civil Procedure Rule 79(a). Without a minute order indicating that the Court has granted the motion, the exception established in FRCP Rule 58(d), which allows from an appeal from a minute order

if the Court has not entered a final order after 150 days from the entry a minute order complying with Rule 79(a) does not apply. With this Midas is left without a remedy. There is no final judgment under Rule 58 or 79(a). Therefore, there is no right to review.

68. A "final decision is one by which a district court disassociates itself from a case" and "terminate[s] an action." *Hignell-Stark v. City of New Orleans*, 46 F.4th 317, 329 (5th Cir. 2022); citing *Gelboim v. Bank of Am. Corp.,* 574 U.S. 405, 408-09, 135 S. Ct. 897, 190 L. Ed. 2d 789 (2015). "[A]n order resolving liability without addressing a plaintiff's requests for relief is not final." *Riley v. Kennedy,* 553 U.S. 406, 419, 128 S. Ct. 1970, 170 L. Ed. 2d 837 (2008).

69. "To understand whether an order is final, we look chiefly to the language the district court used. For example, we noted in *Logue* that a district court's memorandum saying that "'[a] preliminary injunction will be issued' . . . did not reflect the district court's intent that the opinion act as an operable judgment."…" *Ueckert v. Guerra,* 38 F.4th 446, 450 (5th Cir. 2022). In *Midas v. Rhodium*, the Court's oral ruling mirrored the wording, "will grant", to the wording "will issue" which is recognized as being nonfinal. Further, "the test for finality is whether the District Court intended that its order be 'effective immediately'. Said another way, a court's ruling is only final if a judge 'intends to have nothing further to do' with the motion or the case. *Id.* (citations removed).

70. Here, the District Court clearly did not intend his comments at the oral hearing to be "effective immediately." Indeed, Judge Albright made those comments

almost 16 months ago and has not acted to end the case. The only action he has taken is to request the Parties submit proposed orders, which again leads to the conclusion that his discussion at the hearing was never intended to be "effective immediately."

71. Further, the Court's words and actions shows that the Court intends to do more with the case and clearly did not intent to have "nothing further to do" with the case. As shown by the words and actions of the Court, the underlying patent case is very much alive, and Judge Albright's discussions at the MSJ hearing were not intended to have any final effect.

a. In the April 9, 2024, discussion at the pre-trial conference, the Court indicated it was going to meet with his law Clerks and determine if Midas could refile expert reports and the MSJ.

b. At the end of the hearing, the Judge indicated to Midas he had not determined the basis or scope of any ruling.

c. In its Minute Entry of April 9, 2024, the Court indicated it was going to have a "written order forthcoming."

d. On January 10, 2025, the District Court requested the Parties to submit proposed orders regarding the MSJ and indicated the Court would compare the proposed orders to the Court's own internal notes.

e. On February 7, 2025, the Court received the Parties' proposed orders for review.

72. The Court's words and actions show the Court did not intend for the MSJ discussion to be a final ruling. Further, the Court has not entered any ruling or

judgment on its docket and has not complied with the finality mandates of Rule 58 and Rule 79(a).

73. As a result, Judge Albright did not dismiss the patent case, and the Parties are waiting for his final written decision regarding motions pending in his Court.

CONCLUSION

74. For the reasons set forth above, this Court should withdraw Rhodium's Motion for Summary Judgment under § 157(d) as to any aspect that requires this Court to make a determination of patent infringement liability, but at a minimum paragraphs 48-65. Further, this Court should withdraw Rhodium's Motion for Estimation under § 157(d) in its entirety. In addition, pursuant to 28 U.S.C. § 1334(c), Midas seeks abstention on the grounds that the claims at issue are non-core, arise entirely under state and other non-bankruptcy law, and are more appropriately adjudicated outside the Bankruptcy Court.

DATED: August 28, 2025

Respectfully submitted,
/s/ Joseph E. Thomas

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CERTIFICATE OF SERVICE

I, Tierra Mendiola, hereby certify that on the 28th day of August, 2025, a copy of the foregoing was served by email from tmendiola@twtlaw.com to Counsel to the Debtors and Debtors-In-Possession via email to pattytomasco@quinnemanuel.com; cameronkelly@quinnemanuel.com; alainjaquet@quinnemanuel.com; rachelharrington@quinnemanuel.com and mailed to 700 Louisiana Street, Suite 3900, Houston, Texas 77002.

/s/ Tierra Mendiola

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re: **RHODIUM ENCORE, LLC**, et al., Debtors,	Chapter 11 Case No. 24-90448 (ARP) (Jointly Administered)

DECLARATION OF JOSEPH E. THOMAS IN SUPPORT OF MIDAS GREEN TECHNOLOGIES, LLC'S MOTION FOR MANDATORY WITHDRAWAL OF REFERENCE PURSUANT TO 28 U.S.C. § 157 AND RULE 5011 OF THE FEDERAL RULES OF BANKRUPTCY PROCEDURE FOR ABSTENTION

DECLARATION OF JOSEPH E. THOMAS

I, Joseph E. Thomas, declare:

1. I am an attorney duly admitted to practice law in the State of California and am managing partner, attorneys of record for Midas Green Technologies, LLC. I am one of the attorneys responsible for the handling of the above matter. If called as a witness, I could and would testify competently as to the facts set forth below, as I know each to be true based upon my own personal knowledge or upon my review of the files and records maintained by Thomas Whitelaw & Kolegraff in the regular course of its representation of Midas Green Technologies, LLC. I submit this declaration in support of MIDAS GREEN TECHNOLOGIES, LLC'S MOTION FOR MANDATORY WITHDRAWAL OF REFERENCE PURSUANT TO 28 U.S.C. § 157 AND RULE 5011 OF THE FEDERAL RULES OF BANKRUPTCY PROCEDURE FOR ABSTENTION.

2. Attached hereto as **Exhibit 1** is a true and accurate copy of relevant excerpts of the Court Reporter's transcript from the pre-trial conference held on April 9, 2024 in the *Midas Green Technologies, LLC vs. Rhodium Enterprises, Inc., et al, Case No. 6:22-cv-00050-ADA* matter.

3. Attached hereto as **Exhibit 2** is a true and accurate copy of the Docket Sheet specifying the Minute Entry Dkt. 186 in *Midas Green Technologies, LLC vs. Rhodium Enterprises, Inc., et al, Case No. 6:22-cv-00050-ADA* matter.

4. Attached hereto as **Exhibit 3** is a true and current copy of the correspondence from Judge Albright's clerk in the *Midas Green Technologies, LLC vs. Rhodium Enterprises, Inc., et al, Case No. 6:22-cv-00050-ADA* matter.

5. Attached hereto as **Exhibit 4** is a true and correct copy of Dkt. 189 in Midas *Green Technologies, LLC vs. Rhodium Enterprises, Inc., et al, Case No. 6:22-cv-00050-ADA* matter.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed August 28, 2025, at Irvine, California.

/s/ Joseph E. Thomas

Attorney for Midas Green Technologies, LLC

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CERTIFICATE OF SERVICE

I, Tierra Mendiola, hereby certify that on the 28th day of August, 2025, a copy of the foregoing Response was served by email from tmendiola@twtlaw.com to Counsel to the Debtors and Debtors-In-Possession via email to pattytomasco@quinnemanuel.com; cameronkelly@quinnemanuel.com; alainjaquet@quinnemanuel.com; rachelharrington@quinnemanuel.com and mailed to 700 Louisiana Street, Suite 3900, Houston, Texas 77002.

/s/ Tierra Mendiola

EXHIBIT 1

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

MIDAS GREEN TECHNOLOGIES, LLC *
*
VS. *
*
RHODIUM ENTERPRISES, INC., ET AL. *

April 9, 2024

CIVIL ACTION NO. 6:22-CV-50

BEFORE THE HONORABLE ALAN D ALBRIGHT
PRETRIAL HEARING (via Zoom)

APPEARANCES:

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Proceedings recorded by mechanical stenography, transcript produced by computer-aided transcription.

09:59 There's absolutely no surprise whatsoever to anything in the -- Dr. Pokharna's report.

09:59 THE COURT: I'll be back in just a second.

09:59 (Pause in proceedings.)

10:00 THE COURT: The Court grants that motion.

10:00 The next motion we have up is the motion the exclude James Lee. I'll hear from defendants on that.

10:00 MS. BRANNEN: Your Honor, on this motion, we had two aspects of it. Sorry. For a moment, I wasn't sure if you were calling on us or the other counsel.

10:00 But the first aspect is a correction -- what they call a correction, but it's really an addition to Dr. Lee's report that he served at the end of a deposition.

10:00 Their position just doesn't make any sense on this. They argue simultaneously that it is duplicative of what was already in his report and that it's necessary.

10:01 It can't be both. And all I know is that it's too late, and we ask Your Honor to exclude it.

10:01 The other thing that we are focusing on in this motion is the fact that Dr. Lee is their

10:02 MR. THOMAS: The -- Mr. Thomas. Yes.
10:02 THE COURT: Yes.
10:02 MR. THOMAS: We're happy to let him be deposed again if they want to. We don't think they need to. They had his --
10:02 THE COURT: Well, I'm -- stop while you're ahead. I'm going to allow them -- I'm going to deny the motion and allow them to depose the witness.
10:02 Now, going back to Mr. -- or Dr. Pokharna. Is he your only infringement expert?
10:03 MR. THOMAS: Yes.
10:03 THE COURT: So what I'm going to do is -- it will obviously impact the trial setting, but I'm going to allow you to amend his report, see if you can fix it. And you all will need to get together with opposing counsel and figure out how long you think it'll take for Dr. Pokharna to address any of the issues that you think would make his opinion survive a future challenge.
10:03 And then y'all can set up a schedule to figure out how to deal with that in terms of rebuttal reports and all that. So I'm going to allow him to amend his report.
10:03 Next up I have the motion to exclude -- I don't know if it's a doctor or not. I don't think it

10:51 inside the miner itself, and then that is used to reset the miner to either increase power if it can be run warmer or decrease power if you need it to run cooler.

So I think we've shown this in all of it. Again, there's a -- plenty of genuine issues of fact here for denying this motion.

THE COURT: I'll be back in a few seconds.

(Pause in proceedings.)

10:54 THE COURT: The Court is going to grant the motion for summary judgment of noninfringement. I think that fully takes care of the case for the time being.

I'm not going to take up the motions in limine given my ruling on that motion, which I think obviates the need for a trial at this time.

Is there anything else we need to take up today?

10:55 MR. KOLEGRAFF: Your Honor, would we be able to readdress this -- after we get Pokharna's report redone, would we be able to readdress this issue on the motion for summary judgment?

10:55 THE COURT: Well, you know, you have -- you've had your chance, but obviously, it's a fairly severe ruling. Let me talk to my clerks and see if

10:55 they think anything additional that an expert would say
10:56 might benefit us. And if it is, we'll let you know.
10:56 As of right now, I don't think it would.
10:56 So anything besides that?
10:56 MR. SMITH: Your Honor, if I could ask
10:56 one more question about the Court's ruling.
10:56 There's been a fair amount of argument
10:56 today about how the systems are today versus after how
10:56 the systems are turned on or wired or whatever.
10:56 So I think we'd want to confirm the scope
10:56 of the Court's ruling so we would know whether a claim
10:56 against the facilities, once they're put into
10:56 operation, would be affected by the Court's ruling
10:56 today, or would that be a different set of facts?
10:56 THE COURT: That would be a different set
10:56 of facts. I don't know --
10:56 MR. SMITH: Thank you, Your Honor.
10:56 THE COURT: Yeah. I don't know that it
10:56 would change the ruling ultimately, but, you know, that
10:56 clearly is an issue in this case.
10:56 MR. SMITH: Okay. Thank you, Your Honor.
10:56 THE COURT: Okay. Have a good day. Take
10:56 care.
10:56 (Hearing adjourned.)

UNITED STATES DISTRICT COURT)
WESTERN DISTRICT OF TEXAS)

I, Kristie M. Davis, Official Court Reporter for the United States District Court, Western District of Texas, do certify that the foregoing is a correct transcript from the record of proceedings in the above-entitled matter.

I certify that the transcript fees and format comply with those prescribed by the Court and Judicial Conference of the United States.

Certified to by me this 11th day of April 2024.

/s/ Kristie M. Davis
KRISTIE M. DAVIS
Official Court Reporter
800 Franklin Avenue
Waco, Texas 76701
(254) 340-6114
kmdaviscsr@yahoo.com

10:56

EXHIBIT 2

U.S. District Court [LIVE]
Western District of Texas (Waco)
CIVIL DOCKET FOR CASE #: 6:22-cv-00050-ADA

Midas Green Technologies, LLC v. Rhodium Enterprises, Inc. et al
Assigned to: Judge Alan D Albright
Related Case: 6:24-cv-00166-ADA
Cause: 35:271 Patent Infringement

Date Filed: 01/13/2022
Jury Demand: Both
Nature of Suit: 830 Patent
Jurisdiction: Federal Question

Date Filed	#	Docket Text
05/09/2025	190	NOTICE *OF FILING OF MIDAS GREEN TECHNOLOGIES, LLCS RESPONSE TO DEBTORS AMENDED OMNIBUS OBJECTION TO CLAIM NUMBERS 004, 062, AND 068-072 FILED IN BANKRUPTCY COURT BY MIDAS GREEN TECHNOLOGIES, LLC* by Rhodium 10mw LLC, Rhodium 2.0 LLC, Rhodium 30mw LLC, Rhodium Encore LLC, Rhodium Enterprises, Inc., Rhodium Ready Ventures LLC, Rhodium Renewables LLC, Rhodium Renewables Sub LLC, Rhodium Technologies, LLC (Attachments: # 1 Exhibit A, # 2 Exhibit B)(Smith, Melissa) (Entered: 05/09/2025)
02/03/2025	189	NOTICE *OF ORDER MODIFYING STAY* by Rhodium Renewables Sub LLC, Rhodium Ready Ventures LLC, Rhodium 10MW Sub LLC, Rhodium Enterprises, Inc., Rhodium Technologies, LLC, Rhodium 2.0 LLC, Rhodium 30mw LLC, Rhodium Encore LLC (Attachments: # 1 Exhibit A)(Smith, Melissa) (Entered: 02/03/2025)
08/30/2024	188	SUGGESTION OF BANKRUPTCY as to Rhodium 10mw LLC, Rhodium 2.0 LLC, Rhodium 30mw LLC, Rhodium Encore LLC, Rhodium Enterprises, Inc., Rhodium Ready Ventures LLC, Rhodium Renewables LLC, Rhodium Renewables Sub LLC, Rhodium Technologies, LLC . (Smith, Melissa) (Entered: 08/30/2024)
04/11/2024	187	Transcript filed of Proceedings held on 4-9-24, Proceedings Transcribed: Pretrial Conference. Court Reporter/Transcriber: Kristie Davis (kmdaviscsr@yahoo.com), Telephone number: 12546660904. Parties are notified of their duty to review the transcript to ensure compliance with the FRCP 5.2(a)/FRCrP 49.1(a). A copy may be purchased from the court reporter or viewed at the clerk's office public terminal. If redaction is necessary, a Notice of Redaction Request must be filed within 21 days. If no such Notice is filed, the transcript will be made available via PACER without redaction after 90 calendar days. The clerk will mail a copy of this notice to parties not electronically noticed Redaction Request due 5/2/2024, Redacted Transcript Deadline set for 5/13/2024, Release of Transcript Restriction set for 7/10/2024, (kd) (Entered: 04/11/2024)
04/09/2024	186	Minute Entry for proceedings held before Judge Alan D Albright: ZOOM FINAL Pretrial Conference held on 4/9/2024. PARTIES ANNOUNCE READY. STATEMENTS AND ARGUMENTS OF COUNSEL HEARD. WRITTEN ORDER FORTHCOMING. (Minute entry documents are not available electronically.). (Court Reporter Kristie Davis.)(cav) (Entered: 04/11/2024)
04/09/2024	185	TRANSCRIPT REQUEST by Midas Green Technologies, LLC for proceedings held on 4/9/2024. Proceedings Transcribed: Pre-trial Conference. Court Reporter: Kristie Davis. (Thomas, Joseph) (Entered: 04/09/2024)

EXHIBIT 3

From: Corey Brown <Corey_Brown@txwd.uscourts.gov>
Sent: Thursday, January 30, 2025 12:25 PM
To: becca.skupin@solidcounsel.com; ebrannen@stris.com; Grant Thomas <gthomas@twtlaw.com>; henry.pogorzelski@klgates.com; travis@gillamsmithlaw.com; Joe Thomas <jthomas@twtlaw.com>; khalpern@stris.com; melissa@gillamsmithlaw.com; michael.smith@solidcounsel.com; pbrody@stris.com; srahimi@stris.com; William Kolegraff <bkolegraff@twtlaw.com>
Subject: Omnibus Order for 6.22.cv.0050

Counsel,

Given the time that has passed, it is necessary that the parties in this case submit a **joint** proposed order reflecting the parties' understandings of Judge Albright's rulings at the 4/9/2024 hearing (if there are disputes, please include proposed language in different colors). Please submit an omnibus order for all of the pretrial motions and a separate single order comprising all of the MILs. The Court will compare with its internal notes and enter the order reflecting those rulings shortly thereafter. Please prepare and submit these orders via response to this email (in Word form) by the end of day on February 7, 2024.

This will help this case begin to progress towards a resolution.

Regards,

Corey W. Brown
Law Clerk for the Honorable Alan D Albright
United States District Court, Western District of Texas
Direct: 254-750-1517
Corey_Brown@txwd.uscourts.gov

EXHIBIT 4

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

Midas Green Technologies, LLC,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Civil Action No. 6:22-CV-00050-ADA
	)	
Rhodium Enterprises, Inc.;	)	
Rhodium Technologies LLC;	)	
Rhodium 10MW LLC;	)	**JURY TRIAL DEMANDED**
Rhodium 2.0 LLC;	)	
Rhodium 30MW LLC;	)	
Rhodium Encore LLC;	)	
Rhodium Renewables LLC;	)	
Rhodium Renewables Sub LLC; and	)	
Rhodium Ready Ventures LLC,	)	
	)	
Defendants.	)	
_____	)	

NOTICE OF ORDER MODIFYING STAY

PLEASE BE ADVISED that on January 30, 2025, the Bankruptcy Court issued the attached order modifying the automatic stay pursuant to Bankruptcy Code section 362(d) and Bankruptcy Rule 4001. *See* Exhibit A - *In re Rhodium Encore LLC et al.*, Case No. 24-90448, Dkt.737.

DATED: February 3, 2025

Respectfully submitted,

/s/ Melissa R. Smith

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Attorneys for Rhodium Defendants

CERTIFICATE OF SERVICE

The undersigned hereby certifies that counsel of record who are deemed to have consented to electronic service are being served today, February 3, 2025, with a copy of this document via the Court's CM/ECF system.

/s/ Melissa R. Smith

EXHIBIT A

United States Bankruptcy Court
Southern District of Texas
ENTERED
January 30, 2025
Nathan Ochsner, Clerk

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

ORDER GRANTING LIMITED RELIEF FROM AUTOMATIC STAY TO CONTINUE DISTRICT COURT LITIGATION
(Refers to ECF No. 611)

Upon consideration of the motion (the "Motion")[2] of the above-captioned debtors and debtors in possession (the "Debtors") for entry of an order, pursuant to sections 362 and 105(a) of the Bankruptcy Code and Bankruptcy Rule 4001, granting limited relief from the automatic stay solely to permit the resolution of the patent infringement claim *Midas Green Technologies, LLC v. Rhodium Enterprises, Inc.*, 6:22-cv-00050 filed in the Western District of Texas; and due and proper notice of the Motion having been given; and it appearing that no other or further notice of the Motion is required; and it appearing that the Court has jurisdiction to consider the Motion in accordance with 28 U.S.C. §§ 157 and 1334; and it appearing that this is a core proceeding pursuant to 28 U.S.C. § 157(b)(2); and it appearing that venue of this proceeding and the Motion

[1] The Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Rhodium Enterprises, Inc. (6290), Rhodium Technologies LLC (3973), Rhodium Renewables LLC (0748), Air HPC LLC (0387), Rhodium Shared Services LLC (5868), Rhodium Ready Ventures LLC (8618), Rhodium Industries LLC (4771), Rhodium Encore Sub LLC (1064), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), and Rhodium Renewables Sub LLC (9511). The mailing and service address of the Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

[2] Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to them in the Motion.

is proper pursuant to 28 U.S.C. §§ 1408 and 1409; and it appearing that good and sufficient cause exists for the relief set forth in this Order; and after due deliberation,

IT IS HEREBY ORDERED THAT:

1. The Motion is GRANTED as set forth herein.

2. The automatic stay is lifted pursuant to Bankruptcy Code section 362(d) and Bankruptcy Rule 4001 for the limited purpose of allowing the District Court presiding over the patent infringement claim Midas Green Technologies, LLC v. Rhodium Enterprises, Inc., 6:22-cv-00050 filed in the Western District of Texas to enter an order and judgment memorializing its April 9, 2024 bench ruling granting summary judgment of noninfringement to Rhodium.

3. Nothing contained herein is intended or shall be construed as (a) an admission as to the validity of any claim against the Debtors; (b) a waiver of the Debtors' or any party in interest's rights to dispute any claim; (c) an approval or assumption of any agreement under section 365 of the Bankruptcy Code; (d) an admission as to the validity, priority, enforceability, or perfection of any lien on, security interest in, or other encumbrance on property of the Debtors' estates; (e) a waiver or limitation of the Debtors', or any other party in interest's, rights under the Bankruptcy Code or any other applicable law.

4. Notice of the Motion as provided therein shall be deemed good and sufficient notice of such Motion and the requirements of Bankruptcy Rule 6004(a) and the Local Rules are satisfied by such notice.

5. The terms and conditions of this Order are immediately effective and enforceable upon its entry.

6. The Debtors are authorized to take all actions necessary to effectuate the relief granted in this Order.

7. This Court shall retain jurisdiction with respect to all matters arising from or related to the implementation of this Order.

Signed: January 30, 2025

Alfredo R Pérez
United States Bankruptcy Judge

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re: **RHODIUM ENCORE, LLC**, et al., Debtors,	Chapter 11 Case No. 24-90448 (ARP) (Jointly Administered)

ORDER GRANTING MOTION FOR MANDATORY WITHDRAWAL OF REFERENCE PURSUANT TO 28 U.S.C. § 157 AND RULE 5011 OF THE FEDERAL RULES OF BANKRUPTCY PROCEDURE FOR ABSTENTION

(Relates to ECF No. _____)

Before the Court is Midas Green Technologies, LLC's Motion to Withdraw the Reference of certain matters currently pending before the United States Bankruptcy Court for the Southern District of Texas. Having considered the motion, the briefing, the applicable law, and the record, the Court finds that good cause exists to grant the requested relief.

Accordingly, it is hereby ORDERED that:

1. Pursuant to 28 U.S.C. § 157(d), the reference is WITHDRAWN in its entirety as to Rhodium's Motion for Summary Judgment.
2. Pursuant to 28 U.S.C. § 157(d), the reference is WITHDRAWN in its entirety as to Rhodium's Motion for Estimation.

3. Pursuant to 28 U.S.C. § 1334(c), this Court ABSTAINS from hearing the claims at issue, which are non-core, arise under state and other non-bankruptcy law, and are more appropriately adjudicated outside the Bankruptcy Court.
4. The Clerk of Court is directed to withdraw the reference of the above-described matters from the Bankruptcy Court and docket them in this Court under the present civil action number.

SO ORDERED.

Dated: _____ , 2025

ALFREDO R. PEREZ
UNITED STATES BANKRUPTCY JUDGE

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

DEBTORS' MOTION FOR SANCTIONS RELATING TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC
(Relates to ECF Nos. 953, 954, 1069, 1413)

IF YOU OBJECT TO THE RELIEF REQUESTED, YOU MUST RESPOND IN WRITING. UNLESS OTHERWISE DIRECTED BY THE COURT, YOU MUST FILE YOUR RESPONSE ELECTRONICALLY AT HTTPS://ECF.TXSB.USCOURTS.GOV/ WITHIN TWENTY-ONE DAYS FROM THE DATE THIS MOTION WAS FILED. IF YOU DO NOT HAVE ELECTRONIC FILING PRIVILEGES, YOU MUST FILE A WRITTEN OBJECTION THAT IS ACTUALLY RECEIVED BY THE CLERK WITHIN TWENTY-ONE DAYS FROM THE DATE YOU WERE SERVED WITH THIS PLEADING. YOU MUST SERVE A COPY OF YOUR RESPONSE ON THE PERSON WHO SENT YOU THE NOTICE; OTHERWISE, THE COURT MAY TREAT THE PLEADING AS UNOPPOSED AND GRANT THE RELIEF.

Pursuant to rule 11 of the Federal Rules of Civil Procedure, rule 9011 of the Federal Rules of Bankruptcy Procedure and 35 U.S. Code § 285, Rhodium Encore LLC and its affiliates, as debtors and debtors in possession (collectively, the "Debtors" or "Rhodium") in the above-captioned chapter 11 cases, hereby file this motion for sanctions against Midas Green

[1] The Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Rhodium Enterprises, Inc. (6290), Rhodium Technologies LLC (3973), Rhodium Renewables LLC (0748), Air HPC LLC (0387), Rhodium Shared Services LLC (5868), Rhodium Ready Ventures LLC (8618), Rhodium Industries LLC (4771), Rhodium Encore Sub LLC (1064), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), and Rhodium Renewables Sub LLC (9511). The mailing and service address of the Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

Technologies LLC and its counsel, and move for reimbursement of all fees and expenses associated with filing *Debtors' Amended Omnibus Objection To Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC* (the "Objection") and all briefs in support thereof. Sanctions are warranted because claim numbers 004, 062, and 068-072 filed by Midas Green Technologies (the "Midas Claims") were filed for an improper purpose, based upon legal contentions not warranted by existing law, and based upon factual contentions that are without evidentiary support.[2] In support of this motion, the Debtors respectfully state as follows:

INTRODUCTION

1. Midas Green Technologies, LLC ("Midas Green," or "Midas") filed ***seven*** proofs of claim seeking damages of $25-43 million, based on alleged patent infringement at Debtors' former Temple and Rockdale locations. As explained more fully in *Debtors' Summary Judgment Motion In Support Of Amended Omnibus Objection To Claim Numbers 004, 062, and 068-072 filed by Midas Green Technologies LLC* (ECF No. 1486) (the "Summary Judgment Motion"), which Debtors incorporate herein by reference along with all supporting papers, Midas's claims are utterly without merit. Midas's claims for patent infringement were previously dismissed on summary judgment by the United States District Court for the Western District of Texas or dropped by Midas. Midas interposed its objections for the improper purpose of delaying a bankruptcy proceeding in which time is of the essence for confirming a plan. Midas hopes, by holding the estate and its creditors hostage, to force a favorable settlement of claims it has already lost or withdrawn, and that it knows are baseless. Because its contentions lack support under either law or evidence, and because its conduct reveals a purpose to delay and to leverage the parties' need to make distributions in this case, Debtors should be awarded their reasonable attorneys' fees and

[2] Capitalized terms used but not otherwise defined herein have the meaning ascribed to them in the Objection.

expenses incurred in opposing Midas's proofs of claim. Bankruptcy Rule 9011(b)(1)-(3); 28 U.S.C. § 1927; 35 U.S.C. § 285.[3]

BACKGROUND

2. Midas already litigated these same patent claims and lost. It first asserted the patent infringement claims on which its proofs of claim are based in a complaint it filed on January 13, 2022, in the U.S. District Court for the Western District of Texas. Over the course of two-plus years of litigation, Midas dropped one of the asserted patents entirely (U.S. Patent No. 10,820,446, "the '446 Patent") and withdrew all but two claims of the other (U.S. Patent No. 10,405,457, "the '457 Patent"). At the final pretrial conference on April 9, 2024, after fulsome discovery, numerous expert reports, and nearly all pretrial procedures were complete, the district court granted summary judgment of noninfringement, dismissing Midas's last two patent claims, and canceled the impending trial. Apr. 9 Hrg. Tr. at 54:10-16.

3. Midas asked the district court if it would be possible to re-address the summary judgment ruling after amending its expert report, and in response, the court said, "you've had your chance" and that it "d[id]n't think it [an amendment] would" benefit it, but would let the parties know if that changed. *Id.* at 54-55. The District Court never sought any further expert submissions from the parties.

4. After this Court partially lifted the automatic stay for the limited purpose of allowing the district court to issue a written ruling memorializing the summary judgment grant, the district court asked the parties to submit a proposed form of written order "reflecting those

[3] *See In re Royal Manor Mgmt., Inc.*, 525 B.R. 338, 373 (B.A.P. 6th Cir. 2015), *aff'd*, 652 F. App'x 330 (6th Cir. 2016) (awarding sanctions for dilatory filing of proofs of claim seeking "to lever the collective desire for efficient administration that bankruptcy seeks to afford claim holders to gain recognition of a claim that had no merit" and noting that "[i]t appears that [Claimant] thought his blockades to distribution might substitute for the lack of merit of the claims that he advanced.").

rulings,"—confirming its intent to memorialize the ruling it had already made, not to revisit it. Jan. 30, 2025, Email.

5. Undeterred, Midas filed proofs of claim in this bankruptcy proceeding based on its defunct claims of patent infringement. When it filed its proofs of claim, Midas attached the same operative complaint it had previously filed in the district court in March of 2023—without informing this Court that (i) during the prior litigation it had subsequently withdrawn one of the two patents asserted in that complaint (the '446 Patent) entirely and had dropped seven asserted claims of the other asserted patent (the '457 Patent), leaving only two asserted claims; or that (ii) the district court had already considered those two claims, found in Rhodium's favor, and granted summary judgment against Midas.

6. Midas compounded its vexation by mischaracterizing the District Court's ruling, suggesting it was not final when it was.

7. In its prior pleadings in this Court, Midas baldly, impermissibly sought to relitigate its claims, making identical arguments to those the district court had already rejected.

8. Even if Midas were making these arguments for the first time, they would be sanctionably weak. In the first instance, and again here, Midas (i) accused a system whose heat sensors were not installed and thus was not physically capable of taking a temperature and infringing, (ii) accused systems that did not take or use, and were incapable of taking or using, "the temperature of the dielectric fluid in the tank" even though every claim of Midas's patents specifically requires the use of that variable, (iii) abandoned all of its equivalence arguments (which are required if there is no literal infringement) on summary judgment, and (iv) never identified any component that could even arguably "coordinate the operation of the primary and secondary fluid circulation facilities" as the asserted claims require.

9. The Debtors have informed Midas that its actions are sanctionable, and in compliance with Rule 11's notice requirements, sent Midas a Rule 11 letter and a draft of this Motion. A copy of that letter is attached hereto as **Exhibit A**. The Debtors informed Midas that if it did not withdraw its baseless claims, they would pursue sanctions. Midas refused to do so.

ARGUMENT

A. The Court Should Award Sanctions Pursuant to Bankruptcy Rule 9011

10. Bankruptcy Rules 9011(b) and (c) allow this Court to sanction parties that submit petitions and pleadings with an improper purpose, assert legal contentions not warranted by existing law (or a non-frivolous argument for the extension of existing law or creation of new law), and/or make factual contentions that are without evidentiary support. Subparagraphs (b) and (c) of Rule 9011 read as follows (with emphases added):

> (b) Representations to the Court. By presenting to the court a petition, pleading, written motion, or other document—whether by signing, filing, submitting, or later advocating it—an attorney or unrepresented party certifies that, to the best of the person's knowledge, information, and belief formed after an inquiry reasonable under the circumstances:
>
> (1) ***it is not presented for any improper purpose, such as to*** harass, ***cause unnecessary delay***, or needlessly increase litigation costs;
>
> (2) ***the claims, defenses, and other legal contentions are warranted by existing law*** or by a nonfrivolous argument to extend, modify, or reverse existing law, or to establish new law;
>
> (3) ***the allegations and factual contentions have evidentiary support***—or if specifically so identified, are likely to have evidentiary support after a reasonable opportunity for further investigation or discovery; and
>
> (4) the denials of factual contentions are warranted on the evidence—or if specifically so identified, are reasonably based on a lack of information or belief.
>
> (c) Sanctions.
>
> (1) *In General*. If, after notice and a reasonable opportunity to respond, the court determines that (b) has been violated, the court may, subject to the conditions in this subdivision (c), impose an appropriate sanction on any attorney, law firm, or party that committed the violation or is responsible for it. Absent exceptional circumstances, a law firm must be held jointly responsible for a violation committed by its partner, associate, or employee.

Fed. R. Bankr. P. 11

11. The Fifth Circuit interprets the rule to impose three affirmative duties that attorneys and litigants certify they have complied with each time they sign a pleading: (i) the attorney has conducted a reasonable inquiry into the facts which support the document; (ii) the attorney has conducted a reasonable inquiry into the law such that the document embodies existing legal principles or a good faith argument for the extension, modification, or reversal of existing law; and (iii) that the pleading is not filed for purposes of delay, harassment, or increasing the costs of litigation. *Childs v. State Farm Mut. Auto. Ins. Co*., 29 F.3d 1018, 1023–24 (5th Cir. 1994). In other words, both litigants and their counsel have a duty "to conduct a reasonable inquiry into the facts or law before filing [a] lawsuit" or proof of claim. *Skidmore Energy, Inc. v. KPMG*, 455 F.3d 564, 567 (5th Cir. 2006) (citation omitted); *In re Dansereau*, 274 B.R. 686, 688 (Bankr. W.D. Tex. 2002) ("Rule 9011 applies to proofs of claim filed in bankruptcy cases. Consequently, violations of Rule 11 may be enforced against both attorneys and litigating parties.").

12. Rule 11 sanctions are mandatory, and if the Court finds that Midas violated Rule 11, it must issue appropriate sanctions. *Thomas v. Cap. Sec. Servs., Inc.*, 836 F.2d 866, 876 (5th Cir. 1988) ("There are no longer any 'free passes' for attorneys and litigants who violate Rule 11. Once a violation of Rule 11 is established, the rule mandates the application of sanctions.").

13. Midas's violations of Rule 11 are numerous: *First*, even a passing inquiry into the facts underlying Midas's patent infringement claims reveals that they cannot support a claim of patent infringement. As set forth fully in the Summary Judgment Motion, Midas primarily accused a system at Rhodium's former Temple facility that did not have temperature sensors installed and that consequently was not physically capable of measuring a temperature, even though the patent claims require taking a step as "a function of the temperature of the dielectric fluid in the tank."

Summary Judgment Motion ¶ 55. No colorable argument exists for infringement by a system that cannot measure temperature at all.

14. Midas also levied throw-away accusations at systems that did not and could not measure "the temperature of the dielectric fluid in the tank"—only other temperatures—even though every claim of Midas's patents specifically requires the use of that variable. Summary Judgment Motion at ¶¶ 56-57, 60-61, 64. Further, Midas never identified any component that could even arguably meet the "adapted to coordinate the operation of the primary and secondary fluid circulation facilities" claim element—only components that acted upon either the primary or the secondary fluid circulation facility but were not adapted to coordinate both as the asserted claims require. Summary Judgment Motion ¶¶ 58-59, 62, 63. This meant there could not possibly be literal infringement, which requires the accused device to contain every element of the claim exactly. *Id.* at ¶ 57; *Smith & Nephew, Inc. v. Arthrex, Inc.*, 2010 WL 457142, at *2 (E.D. Tex. Feb. 5, 2010).[4]

15. *Second*, Midas continues to pursue claims that have already been litigated and found wanting. On the merits, Midas's infringement claims are baseless and were obviously baseless from the beginning of the District Court Litigation. The grant of summary judgment made the obvious inescapable. To make matters worse, in the proofs of claim it filed, Midas did not inform this Court that the District Court had granted summary judgment against it. Summary Judgment Motion, Ex. 11. And Midas attached its operative complaint from 2023 to detail its claims, even though that complaint asserted seven claims of the '457 Patent and six claims of the '446 Patent (i.e., all the claims it had asserted for that patent), which Midas had subsequently

[4] The only other path to infringement is the doctrine of equivalents. But Midas abandoned all its equivalence arguments on summary judgment, implicitly conceding those theories to be so weak they were not even worth presenting to a court. Summary Judgment Motion ¶ 65.

dropped in the district court litigation. Summary Judgment Motion, ¶12 (text), 12 n.5. In purporting to revive claims and a patent it had withdrawn, Midas sought to expand a case in this Court that had already been narrowed through a highly contested litigation process.

16. *Third*, Midas advanced unsupported damages claims on a scale of $25-$43M, large enough to ensure its claims would pose an obstacle to plan confirmation and distributions to creditors of the Debtors, force delay, and attempt to give Midas an unwarranted tactical leverage. Midas sought damages considerably larger than the $22M it demanded in the District Court—even though that court had reduced Midas's damages claims by excluding (i) its theory based on projected future profits (which are also unavailable as a matter of law in this Court), (ii) its lost profits theory, and (iii) its reasonable royalty theory that was based on its rejected lost profits theory, fatally speculative, and rife with other errors. Summary Judgment Motion, ¶¶ 66-69. As Midas must know, its damages claims are preposterous.[5] It has nonetheless presented an inflated damages claim, despite the lack of supporting evidence and dramatic reductions by the District Court, for the tactical purpose of attempting to put settlement pressure on Debtors.

17. As further discussed below, Midas's actions could only be motivated by its desire to exert leverage over the Debtors. However, because Rule 11 uses an objective reasonableness standard, the ultimate motive behind Midas's decision to pursue these claims is immaterial to the Rule 11 analysis. *Raylon, LLC v. Complus Data Innovations, Inc.*, 700 F.3d 1361, 1368 (Fed. Cir. 2012) ("an evaluation of Raylon's litigation motives—whether it brought suit in good faith or to obtain nuisance value settlements—contradicts Fifth Circuit law and has no place in the Rule 11 analysis"); *Jenkins v. Methodist Hosps. of Dallas, Inc.*, 478 F.3d 255, 264 (5th Cir. 2007) ("[T]he

[5] Conceding this point, Midas recently filed a motion to amend its claims to $12,306,287 in total. ECF No. 1580. The Debtors do not oppose this amendment, however, Midas's motion to amend—filed a week after the originally scheduled hearing—does not resolve the time and resources the Debtors were forced to spend litigating Midas's inflated claims.

standard under which the attorney is measured [under Rule 11] is an *objective, not subjective,* standard of reasonableness under the circumstances.") (emphasis in original) (quotation omitted). Because Midas's claims are objectively unreasonable, this Court must issue appropriate sanctions.

B. The Court Should Award Sanctions Pursuant to Section 105 of the Bankruptcy Code

18. Midas's actions represent such an egregious disregard for law and fact that Rule 11's twin goals of compensation and deterrence can only be satisfied by full payment of all fees and expenses incurred defending its claims. However, to the extent that the Court believes that the scope of Midas's bad faith does not fit neatly into Rule 11's requirements, this Court should award sanctions pursuant to its inherent authority, as memorialized in section 105 of the Bankruptcy Code. Section 105 authorizes a bankruptcy court to issue orders as necessary to further the purposes of the Bankruptcy Code. *In re Dansereau*, 274 B.R. 686, 689 (Bankr. W.D. Tex. 2002). A bankruptcy court's authority to issue sanctions under § 105 comports with its inherent power to sanction. *In re Brown*, 444 B.R. 691, 694 (Bankr. E.D. Tex. 2009).

19. To support sanctions under section 105, the Court must find that Midas filed its claims in bad faith. *In re Rodriguez*, 652 B.R. 750, 760 (Bankr. S.D. Tex. 2023). Bad faith conduct may be established if a court finds that the party "deliberately abused the judicial process." *Id.* Intentional deceit also shows bad faith warranting sanctions. *In re Paige*, 365 B.R. 632, 639 (Bankr. N.D. Tex. 2007).

20. Midas's attempt to relitigate claims that it has already lost or abandoned and to seek an enormous sum it could never hope to prove is wasteful. They bespeak that its motive is to churn proceedings, cause delays that hold up the Debtors' plan process, and, by doing so, gives itself leverage using claims it knows (and was told by the Western District) have no merit.

21. In these proceedings, Midas has presented the Court with an array of contradictory and untimely arguments. It has: (i) filed a proof of claim, voluntarily submitting itself to this Court's jurisdiction; (ii) argued that the Claim Objection be stayed pending a written order by the District Court, which already found noninfringement and has paid Midas's Claims no attention in over a year; (iii) argued, for the first time, at the July 8 hearing that this Court lacks jurisdiction; and (iv) moved to withdraw the reference *four months* after the Debtors filed their Objection, after requiring the parties to file numerous pleadings in this Court regarding the Midas Claims. These tactics only make sense in the context of a litigant that has accepted the futility of its claims but believes it can still benefit by draining estate resources and holding these cases hostage until the debtors accede to its demands. Midas knows that it has forced the Debtors to expend significant estate resources on its claims, while putting forth a series of truncated and slapdash pleadings that support its ultimate goal of imposing maximum delay on the Debtors in exchange for Midas's lowest investment of time and cost. Advancing these numerous meritless arguments undermines the integrity of the bankruptcy system and clearly demonstrates bad faith. *In re Rodriguez*, 652 B.R. 750, 761 (Bankr. S.D. Tex. 2023).

22. Moreover, Midas's misrepresentations regarding the posture of the District Court litigation warrant sanctions. In its initial response to the Court's claim objection, Midas misleadingly stated that there is uncertainty regarding the finality of the District Court's ruling, and it has repeated that argument in each of its pleadings since. *See* ECF No. 1069. As the Debtors have explained, an oral ruling can be final. *Ueckert v. Guerra*, 38 F.4th 446, 449, 450 (5th Cir. 2022) ("A bench ruling can be effective without a written order … if it is final" and it is final if the district court "intended that its order be effective immediately."). Even if Midas could plausibly disagree that the District Court's ruling has a preclusive effect, practically, Midas knows

that the case is over. Shortly after the District Court's Ruling, that court canceled the forthcoming trial as well as all scheduled proceedings. In a case that has been stagnant for a year and a half, Midas cannot reasonably believe that the District Court intends to allow further briefing or an amendment to Midas' expert report, which it excluded even before reaching its summary judgment ruling of noninfringement. *C.F. Ginther v. Texas Com. Bank*, N.A., 111 F.R.D. 615, 621 (S.D. Tex. 1986) ("Even without the existence of the May 16, 1985, order, it should have been obvious to an attorney that the matters alleged in the present complaint have all been previously litigated, and on such a finding a Court will impose sanctions under Rule 11…Ginther and his attorney must reimburse the Defendants for the costs, expenses and attorneys' fees incurred in connection with responding to the instant suit."); *McGregor v. Bd. of Comm'rs of Palm Beach Cnty*., 956 F.2d 1017, 1022–23 (11th Cir. 1992) ("By dismissing Count I, the county prevailed upon that issue in the district court under § 1988. Therefore, McGregor is liable for the county's costs and attorney's fees incurred in litigating that count."); *Meyers v. Textron Fin. Corp.,* 609 F. App'x 775, 780–81 (5th Cir. 2015) ("upholding sanctions when plaintiff's statement of facts was "mostly copied *verbatim* from a brief filed previously with this court, rehashing their already-rejected fraud claims without a single citation to the record, and is largely irrelevant to this appeal.") (emphasis in original). But despite knowing its infringement claims to be futile, Midas seeks to calculatedly use the judicial process to hold up the Debtors' plan process in the hope of extracting a payment for meritless, worthless claims.

C. The Court Should Award Sanctions Pursuant to the Patent Act

23. The Patent Act provides yet another basis for the Court to grant appropriate sanctions against Midas and its counsel. Section 285 of the Patent Act provides that "[t]he court in exceptional cases may award reasonable attorney fees to the prevailing party." 35 U.S.C. § 285.

A bankruptcy court hearing a patent claim is empowered to apply section 285. *Id.* ("*The court* … may award…"); *see, e.g., In re Roeder*, 2009 WL 4907014, at *13 (Bankr. N.D. Iowa Dec. 14, 2009) (finding case exceptional and awarding attorney fees under § 285); *In re AI Realty Mktg. of New York, Inc.*, 293 B.R. 586, 620 (Bankr. S.D.N.Y. 2003), *adhered to on reconsideration*, 304 B.R. 622 (Bankr. S.D.N.Y. 2004), and *aff'd in part, rev'd in part sub nom. Sunbeam Prods., Inc. v. Wing Shing Prods. (BVI) Ltd.*, 311 B.R. 378 (S.D.N.Y. 2004), *aff'd*, 153 F. App'x 703 (Fed. Cir. 2005) (recognizing authority to award fees under § 285 but declining on the merits to award them).

24. The awarding of attorney fees pursuant to 35 U.S.C. § 285 is an issue unique to patent law that is subject to Federal Circuit law." *Special Devices, Inc. v. OEA, Inc.*, 269 F.3d 1340, 1343 (Fed. Cir. 2001). Under Federal Circuit law, "an 'exceptional' case is simply one that stands out from others with respect to the substantive strength of a party's litigating position ... or the unreasonable manner in which the case was litigated." *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 572 U.S. 545, 554 (2014). Bases for exceptionality can include a clear weakness of the infringement claims on the merits, public availability of information demonstrating noninfringement before the infringement suit was filed, notice of noninfringement after the complaint was filed, or the continuation of litigation after it was apparent claims were objectively baseless. *Dragon Intell. Prop. LLC v. DISH Network L.L.C.*, 101 F.4th 1366, 1370, 1371 (Fed. Cir. 2024) (affirming exceptional case finding and decision to award attorney fees, citing these factors); *see Octane Fitness, LLC*, 572 U.S. at 554 ("courts determine whether a case was exceptional in the "exercise of their discretion, considering the totality of the circumstances").

25. All of those factors are present in Midas's proofs of claim. While a reasonable litigant would have recognized the obvious flaws in Midas's infringement case long before the summary judgment stage, the weakness of Midas's case became undeniable—even to an

unreasonable litigant—when the District Court rejected it on summary judgment. The summary judgment ruling constituted a substantive judicial determination (on a full record) that Midas's claims lacked evidentiary support, and that decision has preclusive effect in this Court. Summary Judgment Motion ¶¶ 29-47. But Midas pressed those claims in this Court anyway, even though it was intimately familiar with both the evidentiary record and the District Court's ruling before it filed its proof of claim. *See Dragon*, 101 F.4th at 1370 (continuing litigation after it is apparent claims are baseless contributes to exceptional case finding).

D. The Court Should Order Midas to Pay All Attorneys' Fees and Expenses That the Debtors Incurred Litigating the Midas Claims

26. Rule 11 expressly authorizes courts to order parties that violate Rule 11 to pay their opponent "the reasonable expenses incurred because of the filing of the pleading, motion, or other paper, district including a reasonable attorney's fee." Fed. R. Civ. P. 11; Fed. R. Bankr. 9011. Courts have discretion to fashion appropriate sanctions, and the payment of attorney's fees and expenses, in addition to being expressly contemplated in the Rule, specifically addresses the sanctionable conduct that the rule seeks to deter. It ensures that "victims of frivolous lawsuits do not pay the expensive legal fees associated with defending such lawsuits" and that litigants do not maintain baseless legal arguments. *Thomas v. Cap. Sec. Servs., Inc.*, 836 F.2d 866, 879 (5th Cir. 1988). When imposed against litigants, "financial penalties have been characterized as perhaps 'the most effective way to deter a powerful and wealthy party from bringing frivolous or vexatious litigation." *Id*; *see Donaldson v. Clark*, 819 F.2d 1551, 1557 (11th Cir. 1987) ("Imposing a financial penalty often will be the most effective and fair means of enforcing Rule 11 and deterring baseless suits.). Similarly, courts have found reason to require an offending party to pay attorney's fees pursuant to section 105, *In re Paige*, 365 B.R. 632, 640 (Bankr. N.D. Tex. 2007), and the Patent Act, *In re Rembrandt Techs. LP Pat. Litig.*, 899 F.3d 1254, 1277 (Fed. Cir. 2018).

27. In this case, monetary sanctions provide the only means to address Midas's decision to leverage settlement from the Debtors through its continued pursuit of baseless claims. Midas has known that no Court will find infringement for its claims at least since the District Court's summary judgment ruling, before it filed its proofs of claim. Therefore, the Debtors request that the Court order Midas to reimburse all fees that the Debtors have accrued in these cases litigating the Midas Claims.

28. Midas should never have filed its proofs of claim, and when they signed the proofs of claim, Midas's counsel knew that their signatures violated Rule 11 by propounding meritless, vexatious litigation. *See Jennings v. Joshua Indep. Sch. Dist.*, 948 F.2d 194, 197 (5th Cir. 1991) ("The reasonableness of the conduct involved is to be viewed at the time counsel or the party signed the document alleged to be the basis for the Rule 11 violation. In this case, that conduct consists of signing the complaint without making a reasonable inquiry into the law underlying the claim."); *Donaldson v. Clark,* 819 F.2d 1551, 1559–60 (11th Cir.1987) ("This court has held that the language of Rule 11 is sufficient notice to exact a duty on counsel to inquire whether the complaint has a sufficient basis in law and fact.). The Debtors have made every effort to mitigate the costs associated with the Midas Claims, first by seeking to lift the stay to allow a written order in district court, and then by attempting to avoid protracted litigation through the Motion to Estimate and the Summary Judgement Motion. *See Jennings v. Joshua Indep. Sch. Dist*., 948 F.2d 194, 198 (5th Cir. 1991) ("[T]he district court held that the defendants met their duty to mitigate their costs by filing motions for summary judgment. We agree."). In these circumstances, an award of all fees in this action is the minimal amount to appropriately compensate the Debtors and deter similar tactics. *See Chambers v. NASCO, Inc.*, 501 U.S. 32, 56–57, 111 S. Ct. 2123, 2139, 115 L. Ed. 2d 27 (1991) ("the District Court concluded that full attorney's fees were warranted due to the

frequency and severity of Chambers' abuses of the judicial system and the resulting need to ensure that such abuses were not repeated. Indeed, the court found Chambers' actions were 'part of [a] sordid scheme of deliberate misuse of the judicial process' designed 'to defeat NASCO's claim by harassment, repeated and endless delay, mountainous expense and waste of financial resources.'").

CONCLUSION

Debtors respectfully request that the Court issue an order (i) finding that Midas and its counsel's conduct warrants sanctions under Bankruptcy Rule 9011(b)(1)-(3), 35 U.S.C. § 285, and 11 U.S.C. 105; (ii) awarding the Debtors sanctions in such amount as will compensate them for their damages and expenses caused by the filing of Midas's proofs of claim, as well as deter conduct of this type in the future; and (iii) granting such other and further relief as the Court may deem just and appropriate.

RESERVATION OF RIGHTS

29. Nothing contained herein is intended to be or shall be deemed as (i) an admission as to the validity of any claim against the Debtors, (ii) a waiver or limitation of the Debtors' or any party in interest's rights to dispute the amount of, basis for, or validity of any claim, (iii) a waiver of the Debtors' rights under the Bankruptcy Code or any other applicable nonbankruptcy law, (iv) an agreement or obligation to pay any claims, (v) a waiver of any claims or causes of action which may exist against any creditor or interest holder, or (vi) an approval, assumption, adoption, or rejection of any agreement, contract, lease, program, or policy under section 365 of the Bankruptcy Code. Likewise, if the Court grants the relief sought herein, any payment made pursuant to the Court's order is not intended to be and should not be construed as an admission to the validity of any claim or a waiver of the Debtors' rights to dispute such claim subsequently.

Respectfully submitted this 4th day of September, 2025.

QUINN EMANUEL URQUHART & SULLIVAN, LLP

/s/ Patricia B. Tomasco
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Counsel to the Debtors and Debtors-In-Possession

Certificate of Service

I, Patricia B. Tomasco, hereby certify that on the 4th day of September, 2025, a copy of the foregoing Motion was served by the Electronic Case Filing System for the United States Bankruptcy Court for the Southern District of Texas and to Midas Green Technologies, LLC, c/o Joseph Thomas, 18101 Von Karman Avenue, Suite 230, Irvine, CA 92612, email jthomas@twtlaw.com.

/s/ Patricia B. Tomasco
Patricia B. Tomasco

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August 7, 2025

VIA ELECTRONIC MAIL

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Re: *In re Rhodium Encore LLC, et al*., Case No. 24-90448 (ARP)

Counsel:

We write on behalf of Rhodium Encore LLC and its affiliated Debtors ("Debtors") regarding proofs of claim numbers 004, 062, and 068-072 filed by Midas Green Technology, LLC (the "Midas Claims").[1] We write to inform you of our intent to pursue sanctions against Midas for violating Bankruptcy Rule 9011, which requires that claims be filed for a proper purpose and with some basis in existing law.

As the Debtors have noted numerous times (including at the July 8, 2025 hearing and in its Summary Judgment Motion filed on July 29, 2025), Midas has no reasonable basis for pursuing patent infringement claims that lack merit and have already been litigated and rejected by the District Court. Midas's bad faith and improper purpose was clear from the outset when it filed seven proofs of claim, attaching the operative Complaint from the District Court Litigation without informing the Court that (i) Midas had previously dropped claims asserted in that complaint, leaving only two asserted claims against one patent (the '457 Patent), and that (ii) the District

[1] Capitalized terms not otherwise defined herein shall have the meaning ascribed to them in *Debtors' Summary Judgment Motion in Support of Amended Omnibus Objection to Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC* [ECF No. 954].

Court has already considered those two claims, found in Rhodium's favor, and granted summary judgment against Midas.

On the merits, Midas's infringement claims are similarly baseless, and the grant of summary judgment by the District Court makes that fact inescapable. As more fully set out in the Summary Judgment Motion, Midas's patent claims suffer from fundamental weaknesses that no litigant could proffer in good faith. Midas accuses systems that do not even approach infringement on the patent claims at issue, and it demands damages based on future infringement that will never occur.

Midas's behavior in this action betrays its ultimate goal to harass the Debtors, cause unnecessary delay, and increase the Debtors' litigation costs, presumably to strongarm the Debtors into a settlement. Since filing its proof of claim, it has made no effort to substantiate its patent claims despite opportunities to do so. Midas' response to the Debtors' claim objection failed to address the merits arguments raised by the Debtors, and it has not filed any pleading to substantiate its claims with admissible evidence. Instead, it has continued to insist that the resolution of the Debtors' bankruptcy cases should be indefinitely deferred until the District Court issues a written order. The District Court has already ruled in the Debtors' favor; Midas's demands engender only harassment, delay and expense.

As outlined in the attached motion, the Debtors intend to seek reimbursement for all fees incurred in prosecuting its claim objections and any related fees. These sanctions would serve to address just a portion of the monetary harm Midas has caused since it first filed suit against the Debtors in 2022, knowing its patent claims lacked basis in law or fact. To the extent Bankruptcy Rule 9011 fails to address the full scope of Midas's bad faith litigation tactics, the Debtors intend to additionally seek sanctions under 11 U.S.C. § 105, 28 U.S.C. § 1927, 35 U.S.C. § 285, and the Bankruptcy Court's inherent authority. *See* 35 U.S.C. § 285 ("The court in exceptional cases may award reasonable attorney fees to the prevailing party."); 11 U.S.C. § 105 ("The court may issue any order, process, or judgment that is necessary or appropriate to carry out the provisions of this title."); *In re Dernick*, 2020 WL 2617037, at *5 (Bankr. S.D. Tex. May 22, 2020) ("[I]f the Court finds that the other sanctions available to the Court under Rule 9011 are not enough, the Court may still rely on its inherent power to sanction Mr. Baker."); *In re Royal Manor Mgmt., Inc.*, 525 B.R. 338, 373 (B.A.P. 6th Cir. 2015), aff'd, 652 F. App'x 330 (6th Cir. 2016) (Awarding sanctions under section 1927 for filing a false claim and finding that "[i]t appears that [Claimant] sought to lever the collective desire for efficient administration that bankruptcy seeks to afford claim holders to gain recognition of a claim that had no merit.").

To mitigate the amount that will be required to compensate the Debtors' estates for unwarranted delay and frivolous litigation, we advise that Midas withdraw its claims immediately with prejudice.

Very truly yours,

Patricia B. Tomasco

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

ORDER SUSTAINING DEBTORS' MOTION FOR SANCTIONS RELATING TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC
(Relates to ECF No. ____)

Upon consideration of *Debtors' Motion for Sanctions Relating to Claim Numbers 004, 062, and 068-072 Filed by Midas Green Technologies LLC* (the "Motion");[2] and this Court having jurisdiction to consider the Motion and the relief requested therein pursuant to 28 U.S.C. § 1334; and consideration of the Motion and the requested relief being a core proceeding pursuant to 28 U.S.C. § 157(b); and it appearing that venue is proper before this Court pursuant to 28 U.S.C. §§ 1408 and 1409; and due and proper notice of the Motion having been provided; and such notice having been adequate and appropriate under the circumstances, and it appearing that no other or further notice need be provided; and the Court having found and determined that the legal and factual bases set forth in the Motion establish just cause for the relief granted herein; and after due deliberation thereon; and good and sufficient cause appearing therefor;

[1] The Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Rhodium Enterprises, Inc. (6290), Rhodium Technologies LLC (3973), Rhodium Renewables LLC (0748), Air HPC LLC (0387), Rhodium Shared Services LLC (5868), Rhodium Ready Ventures LLC (8618), Rhodium Industries LLC (4771), Rhodium Encore Sub LLC (1064), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), and Rhodium Renewables Sub LLC (9511). The mailing and service address of the Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

[2] Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to such terms in the Motion.

IT IS HEREBY ORDER THAT:

1. The Motion is sustained as provided herein.

2. Midas Green Technologies LLC and its counsel Thomas Whitelaw & Molegraff LLP and Scheef & Stone, LLP are liable for such amount as will compensate the Debtors for all fees and expenses incurred litigating Midas's proofs of claim.

3. This order is immediately effective and enforceable.

4. The Court shall retain jurisdiction to hear and determine all matters arising from or related to the implementation, interpretation and/or enforcement of this order.

Dated: _____ , 2025

_____
ALFREDO R. PEREZ
UNITED STATES BANKRUPTCY JUDGE

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

DECLARATION OF CHARLES R. TOPPING IN SUPPORT OF DEBTORS' MOTION FOR SANCTIONS RELATING TO CLAIM NUMBERS 004, 062, AND 068-072 FILED BY MIDAS GREEN TECHNOLOGIES LLC (ECF NO. 1602) AS DIRECTED BY THE COURT'S SEPTEMBER 5, 2025 SCHEDULING ORDER (ECF NO. 1609)

I, Charles R. Topping, pursuant to 28 U.S.C. § 1746, declare as follows:

1. I am General Counsel and Secretary of Rhodium Enterprises, Inc., which directly or indirectly manages other Rhodium-family entities, including but not limited to Rhodium Renewables LLC, Rhodium 30MW LLC, Rhodium JV LLC; Rhodium 2.0 LLC, Rhodium 10MW LLC, Rhodium Encore LLC, Jordan HPC LLC, and Air HPC LLC (collectively referred to as "Rhodium" herein). Except for any matters stated to be based upon information and belief, I have either personal knowledge of the facts set forth below or knowledge based on my review of records kept and maintained by Rhodium in the ordinary course of its business, and if called as a witness, I could and would competently attest to them.

[1] The Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Rhodium Enterprises, Inc. (6290), Rhodium Technologies LLC (3973), Rhodium Renewables LLC (0748), Air HPC LLC (0387), Rhodium Shared Services LLC (5868), Rhodium Ready Ventures LLC (8618), Rhodium Industries LLC (4771), Rhodium Encore Sub LLC (1064), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), and Rhodium Renewables Sub LLC (9511). The mailing and service address of the Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

2. From the inception of the case filed by Midas Green Technologies, LLC in district court in 2022 purporting to accuse Rhodium of patent infringement (*Midas Green Technologies, LLC v. Rhodium Enterprises, Inc. et al.*, Case No. 6:2022-CV-00050-ADA (W.D. Tex. 2022)) through July of 2023, Rhodium paid no less than $2.5 million in fees to its prior patent litigation counsel at Kirkland & Ellis and $81,778.87 in costs.

3. From May of 2023 through July of 2024, Rhodium paid an additional $2,596,065.00 in fees to Stris & Maher LLP ("Stris") for litigating the case to victory in district court and an additional $320,376.00 in costs.

4. From November 2024 to August 31, 2025, Rhodium incurred the following additional amounts to address the Midas Green claims asserted in these Chapter 11 proceedings:

a. Fees to Stris (reflected and billed in Exhibits A-L and one forthcoming invoice for August services): $527,975.79;

b. Costs (reflected and billed in Exhibits A-L and one forthcoming invoice for August services): $6,103.43; and

c. Fees to Quinn Emanuel Urquhart & Sullivan, LLP ("Quinn Emanuel") (reflected in the fee submissions submitted by Quinn Emanuel and summarized in Exhibit M): $137,059.50.

5. On information and belief, I am informed and believe that to date in September, Rhodium has incurred approximately $65,500.00 in fees and costs to Stris and Quinn Emanuel and $19,350 in expert and other costs.

6. On information and belief, I am informed and believe that Rhodium will incur additional fees between $235,000.00 and $300,000.00 to Stris and Quinn Emanuel and between an additional $22,000.00 and $35,000.00 in expert and other costs to address the Midas Green claims in these proceedings leading up to the September 23, 2025, hearing. Rhodium will request the opportunity to supplement its damages claim based upon these actual additional fees and costs once they are incurred.

7. The fees Rhodium paid to Kirkland & Ellis and Stris in connection with the Midas Green district court litigation were discounted, and it is my opinion that the fees paid to Kirkland & Ellis and Stris to litigate the Midas Green claims in district court have been reasonable, and the fees paid to Stris and Quinn Emanuel to litigate the Midas Green claim in these chapter 11 proceedings have been reasonable.

8. As reflected above and in the exhibits and without taking into account any supplementation that may be permitted, Rhodium has incurred at least $5,498,220.00 in damages due to Midas Green's pursuit of its baseless claim in district court and an additional no less than $755,988.72 in damages due to its continued pursuit of the baseless claim in these proceedings, for a total to-date of $6,254,208.72.

I hereby declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information, and belief.

Dated: September 12, 2025

Respectfully submitted,

/s/ Charles R. Topping
Charles R. Topping

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

STRIS & MAHER LLP'S FIRST MONTHLY FEE STATEMENT FOR THE PERIOD AUGUST 26, 2024, THROUGH SEPTEMBER 30, 2024

Stris & Maher LLP ("Stris & Maher") submits, pursuant to the Order Granting the Motion of the Debtors to Establish Procedures for Interim Compensation and Reimbursement of Expenses for Professionals (the "Interim Compensation Order") (ECF No. 264) entered on October 14, 2024, this monthly fee statement for the payment of interim compensation rendered and reimbursement of expenses incurred during the period August 26, 2024 through September 30, 2024 (the "First Monthly Fee Statement").[2]

Stris & Maher seeks payment of interim compensation in the total amount of $1,021,415.40 (80% of the services rendered), plus $44,263.50 (100% of the interim expenses

[1] Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), Rhodium Encore Sub LLC (1064), Rhodium Enterprises, Inc. (6290), Rhodium Industries LLC (4771), Rhodium Ready Ventures LLC (8618), Rhodium Renewables LLC (0748), Rhodium Renewables Sub LLC (9511), Rhodium Shared Services LLC (5868), and Rhodium Technologies LLC (3973). The mailing and service address of Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

[2] *See* Interim Compensation Order, ECF No. 264 at n.3 ("For the avoidance of doubt, [Stris & Maher LLP] may file and serve . . . a combined Monthly Statement for the months of August 2024 and September 2024"). Stris & Maher received partial payment for its August services from Debtors in August. This Monthly Statement seeks payment only for the unpaid portion of Stris & Maher's fees and expenses in August incurred after the Petition Date.

incurred). *See* Interim Compensation Order at ¶ 1(a). Summaries of the fees and expenses are attached as Exhibits 1, 2, and 3. Invoices reflecting detailed time entries are attached hereto as Exhibit 4.

Pursuant to the Interim Compensation Order, any party objecting to the payment of interim compensation and reimbursement of expenses shall serve within 14 days after delivery of the First Monthly Fee Statement a written notice, via email, upon Stris & Maher and each of the other Fee Notice Parties (as listed below) (the "Written Notice"). The Written Notice shall set forth with reasonable detail the nature of the objection and the amount at issue. If the parties are unable to reach a resolution of the objection within 14 calendar days, the objecting party shall file its objection (the "Objection") with this Court within 3 business days and serve such Objection on Stris & Maher and each of the other Fee Notice Parties. See Interim Compensation Order ¶ 1(c).

The Fee Notice Parties as defined in the Interim Compensation Order are:

a. Rhodium Enterprises, Inc., Attn: Charles Topping (chucktopping@rhdm.com) and Morgan Soule (morgansoule@rhdm.com), 2617 Bissonnet Street, Suite 234, Houston, Texas 77005;

b. Debtors' Bankruptcy Counsel, c/o Quinn Emanuel Urquhart & Sullivan, LLP, Attn: Patricia B. Tomasco (pattytomasco@quinnemanuel.com); Razmig Izakelian (razmigizakelian@quinnemanuel.com), Alain Jaquet (alainjaquet@quinnemanuel.com), and Joanna D. Caytas (joannacaytas@quinnemanuel.com), 700 Louisiana, Suite 3900, Houston, Texas 77002;

c. Debtors' Financial Advisor, c/o Province, Attn: Mark Robinson (mrobinson@provincefirm.com); David Dunn (ddunn@provincefirm.com); Kirsten Lee (klee@province.com); and Andrew Popescu (apopescu@provincefirm.com), 2360 Corporate Circle, Suite 340, Henderson, Nevada 89074;

d. Galaxy Digital, LLC, in its capacity as DIP Agent, c/o Orrick, Herrington & Sutcliffe LLP, Ryan C. Wooten (rwooten@orrick.com), 609 Main, 40th Floor, Houston, Texas 77002, and Robert Trust (rtrust@orrick.com), Mark Franke

(mfranke@orrick.com) and Brandon Batzel (bbatzel@orrick.com), 51 West 52nd Street, New York, New York 10019;

e. Counsel or proposed counsel to any statutory committee appointed in these Chapter 11 Cases; and

f. United States Trustee, Ha Minh Nguyen (ha.nguyen@usdoj.gov), 515 Rusk, Suite 3516, Houston, Texas 77002.

If no objection is timely served pursuant to the Interim Compensation Order, the Debtors shall be authorized and directed to pay Stris & Maher an amount equal to 80% of the fees (after applying, for the Tarrant County Litigation, a 10% discount) and 100% of the expenses listed herein, or if an objection is timely served, such percentage of fees and expenses that are not subject to an objection, as stated in the Interim Compensation Order.

Respectfully submitted this 6th day of November, 2024.

QUINN EMANUEL URQUHART & SULLIVAN, LLP

/s/ Patricia B. Tomasco

Patricia B. Tomasco (SBN 01797600)
Joanna D. Caytas (SBN 24127230)
Cameron Kelly (SBN 24120936)
Alain Jaquet (*pro hac vice)*
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Email: alainjaquet@quinnemanuel.com

Eric Winston (pro hac vice)
Razmig Izakelian (pro hac vice)
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-and-

STRIS & MAHER LLP

Peter K. Stris (pro hac vice)
Victor O'Connell (pro hac vice)
John Stokes (pro hac vice)
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Helen Marsh (pro hac vice)
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-and-

LEHOTSKY KELLLER COHN LLP

William T. Thompson (pro hac vice)
Todd Disher (pro hac vice)
Alexis Swartz (pro hac vice)
will@lkcfirm.com
todd@lkcfirm.com
alexis@lkcfirm.com
408 W. 11th Street, 5th Floor
Austin, TX 78701

Counsel for Debtors and Debtors in Possession

CERTIFICATE OF SERVICE

I certify that, on November 6, 2024, a true and correct copy of the foregoing Monthly Fee Statement was served through the Court's Electronic Case Filing system of the United States Bankruptcy Court for the Southern District of Texas.

/s/ Patricia B. Tomasco
Patricia B. Tomasco

EXHIBIT 1
Summary of Legal Fees for the Fee Period

Matter #	Matter Description	Total Hours	Total Fees	80% of Fees
001	Midas Green Patent Litigation	1.4	$1,515.00	$1,212.00
002	Temple Green Data Matter	28.6	$22,490.00	$17,992.00
004	Whinstone Dispute, Excluding Tarrant County Litigation	1860.5	$1,182,372.50	$945,898.00
006	Tarrant County Litigation	32.2	$23,226.75[3]	$18,581.40
007	Retention and Fee Applications	54.1	$47,165.00	$37,732.00
Total		1976.8	$1,276,769.25	$1,021,415.40

[3] Stris & Maher has agreed to provide a 10% discount in the Tarrant County Litigation, resulting in a discount from $25,807.50 to $23,226.75 for the period August 26, 2024 through September 30, 2024. *See* Order Granting Application for Order Authorizing the Retention and Employment of Stris & Maher LLP as Special Litigation Counsel, ECF No. 252 at ¶ 2. This discount is reflected in the accompanying text.

EXHIBIT 2
Summaries of Hours Billed by Stris & Maher Attorneys and Paraprofessionals

Midas Green Patent Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	$1,100.00	0.9	$990.00
Bridget Asay	Partner	1997	$1,050.00	0.5	$525.00

Temple Green Data Matter

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Victor O'Connell	Partner	2012	$875.00	11.7	$10,237.50
Colleen Smith	Associate	2015	$725.00	16.9	$12,252.50

Whinstone Dispute, Excluding the Tarrant County Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Peter K. Stris	Founding Partner	2001	$1,250.00	21.1	$26,375.00
Elizabeth Brannen	Managing Partner	2001	$1,100.00	26.3	28,930.00
Bridget Asay	Partner	1997	$1,050.00	124.2	$130,410.00
Victor O'Connell	Partner	2012	$875.00	24.5	$21,437.50
John Stokes	Partner	2016	$875.00	255.4	$223,475.00
Colleen Smith	Associate	2015	$725.00	104.9	$76,052.50
Peter Brody	Associate	2016	$725.00	171.9	$124,627.50
Sarah Rahimi	Associate	2019	$650.00	104.3	$67,795.00
Helen Marsh	Associate	2024	$600.00	157.4	$94,440.00
Tanya Tice	Discovery Associate	1989	$480.00	29.4	$14,112.00
Michele Jarrouj	Discovery Associate	2021	$480.00	27.7	$13,296.00
Pascale Nyby	Discovery Associate	2009	$480.00	146	$70,080.00
Venu Alagh	Discovery Associate	2003	$480.00	156.5	$75,120.00
Holly Sadlon	Discovery Associate	1994	$480.00	126.1	$60,528.00
Fatima Fofana	Discovery Associate	2012	$480.00	177.8	$85,344.00
Monica Viramontes	Senior Paralegal	N/A	$400.00	41	$16,400.00
Andrea Atsalis	Litigation Fellow	N/A	$325.00	25.4	$8,255.00
Cynthia Huang	Litigation Fellow	N/A	$325.00	88.5	$28,762.50
Jaida Hodge-Adams	Litigation Fellow	N/A	$325.00	52.1	$16,932.50

Tarrant County Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate[4]	Total Hours	Total Compensation
Bridget Asay	Partner	1997	$945.00	7.7	$8,085.00
John Stokes	Partner	2016	$787.50	16.8	$14,700.00
Sarah Rahimi	Associate	2019	$585.00	1.6	$1,040.00
Jaida Hodge-Adams	Litigation Fellow	N/A	$292.50	6.1	$1,982.50

Retention and Fee Applications

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Peter K. Stris	Founding Partner	2001	$1,250.00	9.2	$11,500.00
Elizabeth Brannen	Managing Partner	2001	$1,100.00	1.7	$1,870.00
Victor O'Connell	Partner	2012	$875.00	13.7	$11,987.50
John Stokes	Partner	2016	$875.00	2.8	$2,450.00
Colleen Smith	Associate	2015	$725.00	19.2	$13,920.00
Peter Brody	Associate	2016	$725.00	7.5	$5,437.50

[4] Stris & Maher has agreed to provide a 10% discount in the Tarrant County Litigation, which is reflected as a rate discount in this column. *See* Order Granting Application for Order Authorizing the Retention and Employment of Stris & Maher LLP as Special Litigation Counsel, ECF No. 252 at ¶ 2.

EXHIBIT 3
Summaries of Expenses for the Fee Period

Midas Green Patent Litigation

Expense	Amount
JND eDiscovery hosting	$7,530.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Expense	Amount
StoneTurn professional services	$12,637.50
Logikcull eDiscovery hosting	$2,646.00
Peregrine Consultants, LLC professional services	$21,450.00
Total	$36,773.50

EXHIBIT 4

Stris

November 1, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14247
Client # 00346
Matter # 002

INVOICE SUMMARY

For professional services rendered through August 31, 2024

RE: Temple Green Data Litigation

Total Professional Services	$ 7,190.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 7,190.00**

Electronic Invoice

Invoice # 14247 November 1, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
8/29/24	VO	Confer with CS regarding preparation of letter responding to Second Notice of Default (0.1); correspond with Rhodium personnel including [redacted] regarding new correspondence from M. Simmons raising various issues (0.2); prepare draft response to M. Simmons regarding same (1.4); correspond with CS regarding revisions to same (0.2).	1.90	875.00	1,662.50
8/29/24	CS	Review and analyze letter from Landlord regarding alleged second breach of lease (0.4); review and analyze correspondence from Rhodium personnel regarding allegations (0.3); draft portions of response letter (2.1); review and edit draft email response to M. Simmons regarding other outstanding items (0.3).	3.10	725.00	2,247.50
8/30/24	VO	Review, revise, and further draft letter responding to alleged Second Notice of Default (3.2); confer with CS and Rhodium personnel regarding same (0.3).	3.50	875.00	3,062.50
8/30/24	CS	Review and edit response letter regarding alleged second breach.	.30	725.00	217.50
		TOTAL PROFESSIONAL SERVICES			**$ 7,190.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Victor O'Connell	VO	Partner	5.40	875.00	4,725.00
Colleen Smith	CS	Associate	3.40	725.00	2,465.00
Total			**8.80**		**$ 7,190.00**

TOTAL THIS INVOICE **$ 7,190.00**

Stris

November 1, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14249
Client # 00346
Matter # 004

INVOICE SUMMARY

For professional services rendered through August 31, 2024

RE: Whinstone Litigation

Total Professional Services	$ 79,868.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 79,868.00**

Trust Funds Remaining on Account $ 115,369.59

Electronic Invoice

Invoice # 14249 November 1, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
8/28/24	PS	Review draft documents and confer with BA, VO, and JS regarding strategy and next steps.	.70	1250.00	875.00
8/28/24	BA	Review and correspond with bankruptcy counsel regarding edits to first day declaration (.9); correspond with A. Swartz regarding expert retention (0.1); supervise CH in collecting information necessary for bankruptcy court pro hac motions (0.3); confer with PB regarding status and high priority action items including witness preparation (0.2); correspond with JS and bankruptcy counsel regarding materials for witness preparation (0.4); begin preparing materials for first day hearing witness preparation (1.8); confer with PS and EB regarding damages expert (0.1); confer with PS and JS regarding strategy for proposed schedule for motion to assume, including discovery needs and timing (0.4).	4.20	1050.00	4,410.00
8/28/24	VO	Review and analyze bankruptcy filings provided by Quinn Emanuel (including First Day Declaration, Insurance Motion, Cash Management Motion, DIP Motion, DIP Declaration, Cash Collateral Motion, Application to Retain Verita as Claims Agent, Matrix Motion, Schedules Motion, and Supplemental Joint Administration Motion) (3.8); confer with PS and JS regarding revisions to same (0.5); correspond with Quinn Emanuel attorneys including P. Tomasco regarding same (0.2); review correspondence between P. Tomasco and M. Rosenblatt (0.1).	4.60	875.00	4,025.00
8/28/24	JS	Review and revise first day motions, declarations, and supporting documents (6.5); prepare preparation materials for first day witnesses (6.4).	12.90	875.00	11,287.50
8/28/24	PB	Attend daily document review team quality-control meeting (0.2); review bankruptcy filings (0.7); assist BA and JS with preparation of bankruptcy-related action items including witness preparation materials (0.5).	1.40	725.00	1,015.00
8/28/24	CHH	Collect and summarize attorney information for BA, JS, VO, HM, and PB for bankruptcy action pro hac vice filings (0.3); attend daily review check-in with PB, A. Swartz (Lehotsky), and discovery associates PN and MJ (0.2).	.50	325.00	162.50

Invoice # 14249 November 1, 2024

Date	Tkpr	Description	Hours	Rate	Amount
8/28/24	JH	File various documents in arbitration and state court dockets for BA (0.3); review last week's correspondence and filings (3.0).	3.30	325.00	1,072.50
8/28/24	MJ	Attend document review daily team meeting (0.2); review assigned document batches.	1.90	480.00	912.00
8/28/24	PNY	Attend document review daily team meeting (0.2); review assigned document batches.	6.00	480.00	2,880.00
8/29/24	BA	Prepare for and participate in portion of preparatory session for first day hearing witness (1.7); update JS, PB, and W. Thompson regarding same and convey additional preparation materials to bankruptcy counsel (0.2); confer with JS regarding strategy and action items including motion to assume and witness preparation (0.2); confer with JS, PB, A. Swartz, and W. Thompson regarding schedule for motion to assume and correspond with bankruptcy counsel regarding same (0.9).	3.00	1050.00	3,150.00
8/29/24	JS	Prepare for and attend preparation session for first day hearing witness (2.3); review and evaluate proposed schedule for litigating motion to assume and confer with co-counsel regarding same (1.3).	3.60	875.00	3,150.00
8/29/24	CHH	Review instructions from PB regarding [redacted] for document review and implement same on review platform.	.10	325.00	32.50
8/29/24	MJ	Review additional assigned document batches.	3.80	480.00	1,824.00
8/29/24	PNY	Review additional assigned document batches.	8.00	480.00	3,840.00
8/30/24	EB	Begin reviewing and analyzing Whinstone bankruptcy discovery requests (0.3); attention to case management and staffing (0.6).	.90	1100.00	990.00
8/30/24	BA	Attend portion of bankruptcy first day hearing (2.7); confer with JS and correspond with JS and PB regarding high priority action items and schedule following status conference (0.5); review proposed schedule for motion to assume contracts and propose potential revisions to same (0.3); evaluate and confer with Stris and LKC team regarding proposed schedule, discovery, and strategy for motion to assume (1.2).	4.70	1050.00	4,935.00

Invoice # 14249 November 1, 2024

Date	Tkpr	Description	Hours	Rate	Amount
8/30/24	VO	Review team correspondence regarding hearing summary (0.1); confer with [redacted] regarding hearing and next steps (0.8); confer with PB regarding discovery planning (0.3); confer with PS, EB, and JS regarding same (0.6).	1.80	875.00	1,575.00
8/30/24	JS	Prepare for and attend first day hearing (3.6); evaluate scheduling, discovery status and next steps, and expert retention given likely schedule (5.5); confer with Stris and LKC teams regarding same (2.9); evaluate staffing needs in light of timeline (1.1).	13.10	875.00	11,462.50
8/30/24	PB	Review and analyze documents for potential production and to advise review team (1.1); attend first-day hearing in bankruptcy litigation (2.8); confer with Stris and LKC teams regarding bankruptcy litigation and upcoming document review (2.0); analyze strategy and materials for upcoming document review and discovery responses (2.8).	8.70	725.00	6,307.50
8/30/24	MJ	Review assigned document batches.	1.90	480.00	912.00
8/30/24	PNY	Review assigned document batches.	8.00	480.00	3,840.00
8/31/24	EB	Continue reviewing and analyzing Whinstone bankruptcy discovery requests (0.1); correspond with Stris and LKC teams regarding scope of same (0.1); attend portion of teleconference with BA, JS, VO, J. Cohn, T. Griffin, W. Thompson, P. Tomasco, and K. Hutchins regarding status and high priority strategic and discovery-related action items (1.0); review proposed scheduling order and correspond with BA regarding potential adjustment to same (0.1); attention to case management (0.2); correspond with [redacted] regarding engagement of ERCOT expert (0.1).	1.60	1100.00	1,760.00
8/31/24	BA	Participate in portion of teleconference with litigation team and bankruptcy counsel regarding strategy, discovery, and case planning (1.0); confer with EB, JS, and J. Cohn regarding revisions to proposed scheduling order and implement same (0.3); correspond with EB, JS, and VO regarding discovery responses and document review (0.2).	1.50	1050.00	1,575.00
8/31/24	VO	Attend teleconference with LKC, Quinn, and Stris teams regarding strategy for litigation and discovery (1.1); confer with JS regarding discovery planning (0.2); attention to case management (0.5).	1.80	875.00	1,575.00

Stris & Maher LLP

Invoice # 14249 November 1, 2024

Date	Tkpr	Description	Hours	Rate	Amount
8/31/24	JS	Review Whinstone RFPs and evaluate potential responses (3.1); prepare for and attend planning call with co-counsel (1.6); review Whinstone production for potential hot documents (2.5).	7.20	875.00	6,300.00

TOTAL PROFESSIONAL SERVICES **$ 79,868.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Peter K. Stris	PS	Partner	.70	1,250.00	875.00
Elizabeth Brannen	EB	Partner	2.50	1,100.00	2,750.00
Bridget Asay	BA	Partner	13.40	1,050.00	14,070.00
Victor O'Connell	VO	Partner	8.20	875.00	7,175.00
John Stokes	JS	Partner	36.80	875.00	32,200.00
Peter Brody	PB	Associate	10.10	725.00	7,322.50
Michele Jarrouj	MJ	Discovery Associate	7.60	480.00	3,648.00
Pascale Nyby	PNY	Discovery Associate	22.00	480.00	10,560.00
Cynthia Huang	CHH	Fellow	.60	325.00	195.00
Jaida Hodge-Adams	JH	Fellow	3.30	325.00	1,072.50
Total			**105.20**		**$ 79,868.00**

TOTAL THIS INVOICE **$ 79,868.00**

Stris

November 1, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14251
Client # 00346
Matter # 001

INVOICE SUMMARY

For professional services rendered through August 31, 2024

RE: Midas Green Litigation

Total Professional Services	$ 855.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 855.00**

Electronic Invoice

Invoice # 14251 November 1, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
8/29/24	EB	Confer with BA and PB and correspond with [redacted] regarding suggestion of bankruptcy.	.30	1100.00	330.00
8/29/24	BA	Correspond and confer with EB regarding filing of bankruptcy notice, draft same, and review comments from bankruptcy counsel on same.	.50	1050.00	525.00
		TOTAL PROFESSIONAL SERVICES			**$ 855.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	.30	1,100.00	330.00
Bridget Asay	BA	Partner	.50	1,050.00	525.00
Total			**.80**		**$ 855.00**

TOTAL THIS INVOICE **$ 855.00**

Stris

November 1, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14252
Client # 00346
Matter # 006

INVOICE SUMMARY

For professional services rendered through August 31, 2024

RE: Tarrant County Litigation

Total Professional Services	$ 23,226.75
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 23,226.75**

Electronic Invoice

Invoice # 14252 November 1, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
8/26/24	EB	No Charge - Attention to engagement letter.	.20	990.00	N/C
8/26/24	JS	Evaluate status and next steps for potential responses and confer with P. Tomasco regarding same.	1.10	787.50	866.25
8/26/24	SR	Correspond with BA and JS regarding outstanding action items relating to answer and motion to compel.	.10	585.00	58.50
8/27/24	BA	Confer with JS regarding strategy and [redacted] in light of [redacted] (0.4); research [redacted] stay and correspond with JS regarding same (0.3).	.70	945.00	661.50
8/27/24	JS	Confer with client and co-counsel regarding responses and next steps (0.9); conduct research regarding [redacted] (0.5).	1.40	787.50	1,102.50
8/28/24	EB	No Charge - Attention to engagement terms including teleconference with VO.	.20	990.00	N/C
8/28/24	BA	Correspond with JS and with bankruptcy team regarding responses for [redacted] and confer with JS regarding strategy for same (0.4); review draft motion to compel to assess further steps necessary to prepare for filing (0.3).	.70	945.00	661.50
8/28/24	JS	Review, evaluate, and edit draft responses (1.9); confer with W. Thompson and BA regarding strategy for same (1.0).	2.90	787.50	2,283.75
8/29/24	BA	Continue researching, drafting, and revising response filings, including motion to compel and answer (4.1); correspond with clients including [redacted] regarding same (0.2).	4.30	945.00	4,063.50
8/29/24	JS	Draft plea in abatement sections relating to bankruptcy, related proceedings, and arbitration.	11.40	787.50	8,977.50
8/29/24	SR	Correspond with JH regarding exhibit collection for answer.	1.50	585.00	877.50
8/29/24	JH	Confer with SR regarding exhibits (0.5); begin collecting and labeling exhibits to create exhibits packet (2.0).	2.50	292.50	731.25
8/30/24	BA	Review, draft, and revise responsive pleadings (1.5); research regarding [redacted] (0.2); confer with litigation team and bankruptcy counsel regarding [redacted] (0.3).	2.00	945.00	1,890.00

Stris & Maher LLP

Invoice # 14252 November 1, 2024

Date	Tkpr	Description	Hours	Rate	Amount
8/30/24	JH	Finalize exhibits packet for BA, SR and JS.	3.60	292.50	1,053.00

TOTAL PROFESSIONAL SERVICES **$ 23,226.75**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Bridget Asay	BA	Partner	7.70	945.00	7,276.50
John Stokes	JS	Partner	16.80	787.50	13,230.00
Sarah Rahimi	SR	Associate	1.60	585.00	936.00
Jaida Hodge-Adams	JH	Fellow	6.10	292.50	1,784.25
Total			**32.20**		**$ 23,226.75**

TOTAL THIS INVOICE **$ 23,226.75**

Stris

November 4, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14257
Client # 00346
Matter # 001

INVOICE SUMMARY

For professional services rendered through September 30, 2024

RE: Midas Green Litigation

Total Professional Services	$ 660.00
Total Expenses Advanced	$ 7,530.00
TOTAL THIS INVOICE	**$ 8,190.00**
Previous Balance	$ 855.00
TOTAL BALANCE DUE	**$ 9,045.00**

Electronic Invoice

Invoice # 14257 November 4, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
9/04/24	EB	Confer with counsel for GRC regarding request to accept service of subpoena (0.2); correspond with PS, VO, JS, CS, and PB regarding same and questions for bankruptcy counsel (0.1).	.30	1100.00	330.00
9/05/24	EB	Update PB (0.1) and [redacted] (0.1) regarding request to accept service of GRC subpoena.	.20	1100.00	220.00
9/07/24	EB	Correspond with CS regarding status of subpoena service request.	.10	1100.00	110.00
		TOTAL PROFESSIONAL SERVICES			**$ 660.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	.60	1,100.00	660.00
Total			**.60**		**$ 660.00**

EXPENSES ADVANCED

Date	Task	Description	Amount
7/31/24		JND eDiscovery - Host-Stor2.	3,765.00
8/31/24		JND eDiscovery - Host-Stor2.	3,765.00
		TOTAL EXPENSES ADVANCED	**$ 7,530.00**
		TOTAL THIS INVOICE	**$ 8,190.00**

Stris

November 4, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14259
Client # 00346
Matter # 002

INVOICE SUMMARY

For professional services rendered through September 30, 2024

RE: Temple Green Data Litigation

Total Professional Services	$ 15,300.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 15,300.00**
Previous Balance	$ 7,190.00
TOTAL BALANCE DUE	**$ 22,490.00**

Electronic Invoice

Stris & Maher LLP

Invoice # 14259 November 4, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
9/13/24	VO	Review and respond to email from [redacted] regarding Temple Green Data request for financial information (0.2); prepare email to CS regarding analysis needed of [redacted] associated with [redacted] and [redacted] (0.3).	.50	875.00	437.50
9/17/24	CS	Review and analyze viability of and requirements for [redacted] claim [redacted] (1.4); review and analyze [redacted] language regarding same (1.1).	2.50	725.00	1,812.50
9/18/24	VO	Confer with CS regarding [redacted] claim (0.2).	.20	875.00	175.00
9/18/24	CS	Confer with VO regarding (0.2) and begin analyzing [redacted] claims for [redacted] (1.9).	2.10	725.00	1,522.50
9/19/24	CS	Review and analyze information received from client and revise memorandum regarding [redacted] in light of the same (0.9); continue analyzing lease for [redacted] (2.6).	3.50	725.00	2,537.50
9/20/24	VO	Review and analyze memorandum prepared by CS regarding [redacted] (1.6); correspond with [redacted] regarding follow-up questions in support of same (0.3).	1.90	875.00	1,662.50
9/20/24	CS	Continue drafting memorandum regarding [redacted] (1.0); review and analyze contractual [redacted] liability (1.2); analyze possible remedies regarding [redacted] (1.3).	3.50	725.00	2,537.50
9/23/24	VO	Prepare assessment for [redacted] regarding [redacted] (3.2); review memoranda and correspondence from CS in connection with same (0.5).	3.70	875.00	3,237.50
9/23/24	CS	Continue analyzing and update VO regarding [redacted].	1.90	725.00	1,377.50
		TOTAL PROFESSIONAL SERVICES			**$ 15,300.00**

Stris & Maher LLP

Invoice # 14259 November 4, 2024

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Victor O'Connell	VO	Partner	6.30	875.00	5,512.50
Colleen Smith	CS	Associate	13.50	725.00	9,787.50
Total			**19.80**		**$ 15,300.00**

TOTAL THIS INVOICE **$ 15,300.00**

Stris

November 4, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14261
Client # 00346
Matter # 007

INVOICE SUMMARY

For professional services rendered through September 30, 2024

RE: Retention and Fee Applications

Total Professional Services	$ 47,165.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 47,165.00**

Electronic Invoice

Invoice # 14261 November 4, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
9/03/24	PS	Review Quinn email regarding retention pleading deadlines and parties in interest conflicts list (0.1); review and analyze exemplar retention pleadings and relevant statutes (1.9); meet with VO regarding same (0.3); confer with CS regarding preparation of retention application (0.4); correspond with Stris team regarding preparation of declaration in support of retention application (0.7); coordinate with team regarding conflict check and data collection for retention application (0.5).	3.90	1250.00	4,875.00
9/03/24	CS	Meet with PS to discuss application for order authorizing retention and employment of Stris & Maher LLP as special litigation counsel (0.4); review and analyze rules and statutes governing same (0.3).	.70	725.00	507.50
9/03/24	PB	Draft declaration of P. Stris regarding motion for retention (0.6).	.60	725.00	435.00
9/04/24	PS	Review and revise draft retention application (0.5); confer with VO regarding and update Stris team regarding same (0.4); coordinate with Stris team regarding data needed for supporting declaration (0.3).	1.20	1250.00	1,500.00
9/04/24	VO	Review and revise retention pleading (0.8); correspond with Stris team regarding same (0.2).	1.00	875.00	875.00
9/04/24	JS	Review and revise retention application.	.90	875.00	787.50
9/04/24	CS	Begin drafting application for order authorizing the retention and employment of Stris & Maher as special litigation counsel.	1.00	725.00	725.00
9/04/24	PB	Continue drafting PS declaration in support of retention application.	1.00	725.00	725.00
9/05/24	PS	Coordinate with Stris team regarding revisions to retention application.	.90	1250.00	1,125.00
9/05/24	VO	Review and comment on draft declaration [redacted] in support of retention application (0.1).	.10	875.00	87.50
9/05/24	JS	Further review and revise retention application and supporting declarations.	.40	875.00	350.00

Invoice # 14261 November 4, 2024

Date	Tkpr	Description	Hours	Rate	Amount
9/05/24	CS	Draft [redacted] declaration (1.6); revise retention application to incorporate partner feedback (3.3).	4.90	725.00	3,552.50
9/05/24	PB	Continue drafting PS declaration in support of retention application.	1.70	725.00	1,232.50
9/06/24	PS	Review updated draft retention application (0.3); confer with CS regarding edits to same (0.6); confer with Stris team regarding data for accompanying declaration (0.4).	1.30	1250.00	1,625.00
9/06/24	EB	Begin reviewing draft retention application and correspond with PS, VO, JS, CS, and PB regarding revisions to same.	.20	1100.00	220.00
9/06/24	VO	Research and provide underlying factual data and information in support of retention application.	1.30	875.00	1,137.50
9/06/24	CS	Confer with PS to discuss further revisions to retention application (0.6); implement same (4.5).	5.10	725.00	3,697.50
9/08/24	PS	Review retention application and discuss edits with Stris team.	1.30	1250.00	1,625.00
9/08/24	EB	Review revised retention application and correspond with PS, VO, and CS regarding same (0.1); further revise and propose additional revisions to same (1.2); review and revise supporting declarations (0.2).	1.50	1100.00	1,650.00
9/08/24	VO	Review and revise retention application and supporting declarations of PS and C. Topping (2.4); correspond with P. Tomasco regarding related information (0.1).	2.50	875.00	2,187.50
9/08/24	JS	Review and propose comments and edits to retention application.	1.50	875.00	1,312.50
9/08/24	CS	Review edits and comments on retention application and continue to implement same.	3.50	725.00	2,537.50
9/08/24	PB	Revise PS declaration in support of retention application.	.80	725.00	580.00
9/09/24	VO	Continue to fact check and revise retention application and PS declaration (4.5); review U.S. Trustee fee guidelines in support of same (0.3).	4.80	875.00	4,200.00
9/09/24	CS	Review and edit further revised PS declaration in support of retention application (1.5); update draft of same with declaration citations (0.7).	2.20	725.00	1,595.00
9/09/24	PB	Revise PS declaration in support of retention application.	2.20	725.00	1,595.00

Invoice # 14261 November 4, 2024

Date	Tkpr	Description	Hours	Rate	Amount
9/10/24	VO	Propose further revisions to PS and [redacted] declarations.	.60	875.00	525.00
9/10/24	CS	Revise retention application including to incorporate citations to [redacted] declaration.	.90	725.00	652.50
9/10/24	PB	Revise declaration of P. Stris regarding retention application to incorporate feedback from VO (0.4).	.40	725.00	290.00
9/13/24	VO	Prepare email to [redacted] regarding retention application.	.10	875.00	87.50
9/16/24	VO	Correspond and confer with Stris team regarding final edits to retention application (0.5); confer with W. Thompson regarding same (0.1); correspond with counsel at Quinn Emanuel regarding same (0.1)..	.70	875.00	612.50
9/16/24	CS	Attention to further revisions to retention application and supporting declarations.	.90	725.00	652.50
9/16/24	PB	Implement further revisions to declaration of PS in support of retention application.	.80	725.00	580.00
9/18/24	VO	Correspond with Stris team and P. Tomasco regarding payment of experts.	.20	875.00	175.00
9/19/24	VO	Confer with PS regarding retention application.	.60	875.00	525.00
9/19/24	PS	Confer with VO regarding retention application.	.60	1250.00	750.00
9/21/24	VO	Review proposed final retention application files forwarded by P. Tomasco and make final edits to same (0.7); correspond with P. Tomasco and [redacted] regarding same (0.1).	.80	875.00	700.00
9/22/24	VO	Continue making finalizing edits to retention application (0.6); correspond with P. Tomasco regarding same (0.1).	.70	875.00	612.50
9/25/24	VO	Review and respond to email from A. Popescu (Province) regarding [redacted] estimate.	.30	875.00	262.50
		TOTAL PROFESSIONAL SERVICES			**$ 47,165.00**

Invoice # 14261 November 4, 2024

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Peter K. Stris	PS	Partner	9.20	1,250.00	11,500.00
Elizabeth Brannen	EB	Partner	1.70	1,100.00	1,870.00
Victor O'Connell	VO	Partner	13.70	875.00	11,987.50
John Stokes	JS	Partner	2.80	875.00	2,450.00
Colleen Smith	CS	Associate	19.20	725.00	13,920.00
Peter Brody	PB	Associate	7.50	725.00	5,437.50
Total			**54.10**		**$ 47,165.00**

TOTAL THIS INVOICE **$ 47,165.00**

Stris

November 4, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14263
Client # 00346
Matter # 004

INVOICE SUMMARY

For professional services rendered through September 30, 2024

RE: Whinstone Litigation

Total Professional Services	$ 1,102,504.50
Total Expenses Advanced	$ 36,733.50
TOTAL THIS INVOICE	**$ 1,139,238.00**
Previous Balance	$ 79,868.00
TOTAL BALANCE DUE	**$ 1,219,106.00**

Trust Funds Remaining on Account $ 115,369.59

Electronic Invoice

Invoice # 14263 November 4, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
9/01/24	BA	Review Whinstone's first set of requests for production and begin drafting objections and responses (2.5); research local protective orders and correspond with bankruptcy counsel and litigation team regarding proposed scheduling order and protective order (0.3).	2.80	1050.00	2,940.00
9/01/24	VO	Call with JS regarding discovery planning (0.3); confer and correspond with litigation team regarding trial planning (0.4).	.70	875.00	612.50
9/01/24	JS	Further review and evaluate Whinstone documents for use in depositions and at trial.	5.50	875.00	4,812.50
9/02/24	EB	Review revised proposed scheduling order (0.1); correspond with BA and JS regarding same (0.1); attention to deposition planning and case management (0.1).	.30	1100.00	330.00
9/02/24	BA	Analyze and begin preparing responses to Whinstone's first sets of RFPs (1.9); correspond with A. Swartz regarding same (0.1); syntehsize and convey comments on revised schedule to bankruptcy and litigation counsel (0.3); review and revise final draft of proposed schedule for P. Tomasco and opposing counsel (0.2); review and correspond with JS and P. Tomasco regarding draft notice of removal and related filings (0.3); correspond with bankruptcy counsel and with litigation team regarding action items in support of removal of Tarrant County litigation to bankruptcy court (0.3); draft and correspond with litigation team regarding proposed interrogatories to Whinstone (1.8).	4.80	1050.00	5,040.00
9/02/24	VO	Confer with J. Cohn regarding strategic planning (0.2); emails with P. Tomasco regarding same (0.1); confer with PB regarding document review staffing and strategy (0.5).	.80	875.00	700.00
9/02/24	JS	Prepare strategy for defensive depositions (1.4); further review Whinstone production for hot documents (0.7); review and evaluate Notice of Removal of Tarrant County litigation and supporting documents (0.7); evaluate strategy and begin drafting interrogatories for inclusion in initial set (1.1).	3.90	875.00	3,412.50
9/02/24	PB	Confer with VO regarding document review staffing.	.50	725.00	362.50

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Date	Tkpr	Description	Hours	Rate	Amount
9/02/24	MJ	Review assigned document batches.	.50	480.00	240.00
9/02/24	HS	Review and analyze document review protocol to prepare for advising and assisting with document review (0.8).	.80	480.00	384.00
9/03/24	PS	Correspond with Stris team regarding trial planning (0.1).	.10	1250.00	125.00
9/03/24	EB	Attend teleconference with ERCOT expert C. Griffey (0.1); confer with BA, JS, PB, and HM regarding same and expert retention letters (0.2); correspond with [redacted] and C. Griffey regarding status and next steps (0.1); attention to case management (0.1).	.50	1100.00	550.00
9/03/24	BA	Participate in teleconference with [redacted], bankruptcy counsel, and litigation counsel to discuss high priority action items in contested matter, including schedule, discovery, and case strategy (1.0); review and correspond with P. Tomasco regarding edits to motion to transfer (0.9); review proposed protocols for deposition preparation (0.1); attend teleconferences with JS, VO, PB, and A. Swartz regarding deposition planning and discovery (1.1); correspond with EB regarding engagement of expert C. Griffey (0.1); correspond with litigation team regarding engagement of technology vendor for discovery (0.3); review proposed scheduling order from Whinstone and related team correspondence (0.3); evaluate potential production regarding electricity data (0.2); evaluate exemplar protective order for possible use (0.2).	4.20	1050.00	4,410.00
9/03/24	VO	Attend videoconference with Quinn, LKC, and Stris teams to discuss strategy (1.0); confer with JS regarding deposition and staffing plan (0.7); confer with PB regarding document discovery review planning (0.3); confer with HM and CH regarding document review logistics and assignments (0.2).	2.10	875.00	1,837.50
9/03/24	JS	Review and evaluate scheduling order and propose edits to same (0.8); plan discovery and trial preparation steps in light of likely schedule (9.3); confer with BA, WT, and VO regarding interrogatories, deposition planning, and global strategy (1.8).	11.90	875.00	10,412.50

Invoice # 14263 November 4, 2024

Date	Tkpr	Description	Hours	Rate	Amount
9/03/24	PB	Attention to document review team staffing and strategy and advise HM and review team regarding same (0.5); attend team teleconference regarding litigation strategy (1.0); attend teleconference with BA, JS, and A. Swartz regarding document review and production strategy (0.8); analyze and prepare documents for analysis by review team (4.8); confer with VO regarding review team staffing and strategy (0.3); confer with JS regarding discovery and review plan (0.6); attention to discovery associate and quality control document reviewer onboarding (0.4).	8.40	725.00	6,090.00
9/03/24	SR	Confer with PB regarding document review project (0.2); review and analyze document review [redacted] (2.3).	2.50	650.00	1,625.00
9/03/24	HM	Draft email to T. Stefan of Setec Investigations regarding engagement letter changes and circulate to BA, VO, EB, JS, and PB (0.3); confer with PB about second document production and document review timeline and HS about document review [redacted] and procedure (0.6); confer with VA about document review [redacted] and procedure (0.7); correspond with FF to arrange conference regarding same (0.1); correspond with HS, VA, and FF regarding document review (0.2).	1.90	600.00	1,140.00
9/03/24	MJ	Attend document review daily team meeting (0.5); review assigned document batches (3.6).	4.10	480.00	1,968.00
9/03/24	PNY	Attend document review daily team meeting (0.5); review assigned document batches (7.5).	8.00	480.00	3,840.00
9/03/24	VA	Review document review protocol [redacted] (1.0); attend case review call with HM (0.5); review assigned document batches (3.0).	4.50	480.00	2,160.00
9/03/24	HS	Review assigned document batches.	6.80	480.00	3,264.00
9/03/24	FF	Attend portion of document review daily team meeting (0.2); review assigned document batches (9.8).	10.00	480.00	4,800.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/03/24	CHH	Attend portion of teleconference with PB, HM, A. Swartz (Lehotsky) and review team regarding document review (0.2); review and analyze A. Swartz emails regarding case management and implement recommendations in same (0.3); update VO and HM regarding document review progress (0.1); correspond with review team members regarding same (0.4).	1.00	325.00	325.00
9/04/24	PS	Review updates regarding experts (0.2); Tarrant County lawsuit (0.1); and discovery issues and action items (0.3).	.60	1250.00	750.00
9/04/24	EB	Review and respond to team correspondence regarding status and high priority action items (0.3).	.30	1100.00	330.00
9/04/24	BA	Confer with JS and with W. Thompson regarding discovery strategy and action items (0.8); attend portion of teleconference with Stris and LKC litigation team to discuss trial planning including expert retention (0.6); attend portion of teleconference with JS, CS, SR, VO, and PB to discuss deposition planning (0.8); confer with PB and JS regarding document review and responses to Whinstone's RFPs (0.4); confer with PB and Stoneturn expert team regarding bankruptcy engagement and scope (0.3); review and revise draft protective order and convey same to bankruptcy counsel and litigation team for review (1.6); review and revise draft interrogatories and convey same to litigation team for review (1.0); review proposed engagement letter for C. Griffey and correspond with EB, JS, and PB regarding same (0.2); review team correspondence regarding schedule and proposed order submitted by Whinstone (0.2).	5.70	1050.00	5,985.00
9/04/24	VO	Attend videoconference with LKC and Stris teams regarding expert planning (0.8); attend videoconference with Stris team regarding deposition planning (1.0).	1.80	875.00	1,575.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/04/24	JS	Prepare defensive deposition plan (1.1); confer with BA and Stris team regarding deposition assignments and planning (1.3); review and revise scheduling order and confer with opposing counsel regarding same (1.9); draft correspondence to Whinstone regarding schedule (0.7); review and revise interrogatories (1.5); review other outstanding written discovery matters (1.4); evaluate expert strategy (1.6) and attend videoconference with Stris and LKC teams regarding same (0.8); review status of document production and confer with PB and BA regarding same (1.5).	11.80	875.00	10,325.00
9/04/24	PB	Attend teleconference with Stris and LKC teams regarding expert strategy and workflow planning (0.8); attend portion of teleconference with BA, JS, SR, and HM regarding defensive deposition strategy (0.8); review and analyze material for potential production (3.4); confer with BA and JS regarding responses to Whinstone discovery requests (0.5); confer and correspond with M. Haley (Stoneturn), A. Cooper (Stoneturn), and BA regarding Stoneturn expert analysis (0.4); analyze financial documentation requested by expert team (2.6); attention to and update VO regarding review team staffing (0.3); revise draft engagement letter for expert C. Griffey (0.5).	8.50	725.00	6,162.50
9/04/24	CS	Attend portion of Stris team teleconference regarding deposition planning and preparation for Rhodium witnesses.	1.00	725.00	725.00
9/04/24	SR	Attend teleconference with Stris and LKC teams regarding expert and fact witnesses (0.8); attend portion of teleconference with BA, JS, VO, CS, PB, HM, CHH, and SB regarding defensive deposition preparation and planning (0.9); begin reviewing potentially privileged documents and continue analyzing document review [redacted] in connection with same (4.2).	5.90	650.00	3,835.00

Invoice # 14263 November 4, 2024

Date	Tkpr	Description	Hours	Rate	Amount
9/04/24	HM	Attend portion of teleconference with BA, JS, VO, CS, PB, SR, CHH, and SB for defensive deposition preparation and planning (0.9); attend document review daily team meeting (0.2); confer with FF about document review protocol and procedure (0.9); draft requests for production to Whinstone for bankruptcy proceeding (1.5); manage and revise [redacted] docket, Master Task List, and schedule of deadlines (1.0); attend portion of teleconference with BA, JS, VO, CS, PB, SR, CHH, JHA, SB, A. Swartz, J. Cohn, and W. Thompson for expert report and deposition planning (0.6); draft [redacted] for performing quality checks for second production (1.0); correspond with HH, VO, VA, HS, and FF about document review (0.5).	6.60	600.00	3,960.00
9/04/24	MJ	Attend document review daily team meeting (0.2); review assigned document batches (4.8).	5.00	480.00	2,400.00
9/04/24	PNY	Attend document review daily team meeting (0.2); review assigned document batches (7.8).	8.00	480.00	3,840.00
9/04/24	VA	Review document review protocol (0.3); attend document review daily team meeting (0.2); review assigned document batches (7.5).	8.00	480.00	3,840.00
9/04/24	HS	Review assigned document batches.	5.50	480.00	2,640.00
9/04/24	FF	Attend document review daily team meeting (0.2); review assigned document batches (9.8).	10.00	480.00	4,800.00
9/04/24	SB	No Charge - Attend teleconference with Stris and LKC teams regarding expert and fact witnesses (0.8); attend teleconference with BA, JS, VO, CS, PB, HM, CHH and SR for defensive deposition preparation and planning (0.9); review dockets to identify relevant documents in preparation for [redacted] depositions (1.6).	3.30	325.00	N/C

Invoice # 14263 November 4, 2024

Date	Tkpr	Description	Hours	Rate	Amount
9/04/24	CHH	Review and analyze document review progress and update PB regarding same (0.4); review and analyze [redacted] (Rhodium) emails regarding [redacted] (0.2); attend and participate in daily document review check-in with PB, HM, A. Swartz (Lehotsky), and discovery associates (0.2); attend portion of teleconference with BA, JS, VO, CS, PB, SR, HM, and SB for deposition preparation and planning (0.9); summarize key takeaways from same for Stris team (0.3); collect Whinstone financial documents further review by PB (0.2); review A. Swartz email regarding offensive document review and assist with set up of same (0.3); collect key documents for JS and VO review for defensive deposition preparation (0.5); confer with discovery associate FF regarding document review and support for same (0.2).	3.20	325.00	1,040.00
9/04/24	JH	Attend portion of teleconference with JS, AS, HM, BA, JC, VO, SB, WT, SR and PB regarding deposition preparation and planning (0.8); prepare notes for same (1.0).	1.80	325.00	585.00
9/05/24	PS	Review scheduling order and related emails (0.2); review emails regarding discovery (0.6); coordinate with team regarding data collection for declaration (0.4); review draft [redacted] (0.2); review emails between P. Rosenblatt and P. Tomasco regarding third party subpoenas (0.1).	1.50	1250.00	1,875.00
9/05/24	EB	Correspond with PB regarding Stoneturn engagement letter (0.1); review team correspondence and scheduling order (0.1).	.20	1100.00	220.00

Invoice # 14263 November 4, 2024

Date	Tkpr	Description	Hours	Rate	Amount
9/05/24	BA	Correspond with K. Hutchins and bankruptcy counsel to confirm plan for review, finalization, and service of RFPs and subpoenas, and correspond with A. Swartz regarding compliance locations for subpoenas (0.3); review draft subpoenas to C. Harris, L. Therriot, and Riot, and convey edits on same to A. Swartz (1); review draft RFPs to Whinstone and convey revisions to same to HM, JS, and team (0.5); correspond with JS regarding status of and plan for discovery (0.1); confer with JS regarding strategy and action items (0.2); review edits on draft protective order from K. Hutchins, correspond with K. Hutchins regarding same, finalize same and convey to opposing counsel for review (0.4); correspond with HM, JS, and PB as necessary to monitor preparation for next document production and oversee finalization and service of requests to produce on Whinstone (0.8); review and revise draft interrogatories to Whinstone and convey same to litigation team for review (1); review motion to transfer and correspond with P. Tomasco regarding same (0.2); correspond with PB and team regarding production formatting to maintain consistency with prior productions (0.2); review scheduling order as entered by court and correspond with CH and team regarding calendaring (0.2).	4.90	1050.00	5,145.00
9/05/24	JS	Attend teleconference with BA regarding discovery status and next steps (0.3); attend teleconference with W. Thompson regarding offensive discovery and outlining core arguments in connection with same (0.8); review written discovery to be served on Whinstone and third parties (2.6); review protective order (0.7); review [redacted] and emails in preparation for depositions of Rhodium [redacted] (4.5); work on deposition line planning (1.5); review M. Thomas deficiency letter and begin preparing response to same (1.1); review new edits to motion to transfer [redacted] (0.5).	12.00	875.00	10,500.00
9/05/24	PB	Prepare second production of documents to Whinstone and correspondence regarding same (6.2); attend daily call with document review associate team regarding quality-control issues (0.2); teleconference with S. Rahimi regarding production review strategy (0.4)	6.80	725.00	4,930.00

Invoice # 14263 November 4, 2024

Date	Tkpr	Description	Hours	Rate	Amount
9/05/24	CS	Meet with AA to discuss documents in Whinstone production (0.2); begin reviewing documents in Whinstone production relevant to [redacted] (2.0); review background information regarding [redacted] in anticipation of preparing him for his deposition (0.4).	2.60	725.00	1,885.00
9/05/24	SR	Continue conducting document review of potentially privileged documents (7.2); attend teleconference with PB regarding the same (0.3).	7.50	650.00	4,875.00
9/05/24	HM	Attend document review daily team meeting (0.3); review assigned document batches (7.9).	8.20	600.00	4,920.00
9/05/24	MJ	Attend document review daily team meeting (0.3); review assigned document batches (3.0).	3.30	480.00	1,584.00
9/05/24	PNY	Attend document review daily team meeting (0.3); review assigned document batches (9.7).	10.00	480.00	4,800.00
9/05/24	VA	Attend document review daily team meeting (0.3), review assigned document batches (7.7).	8.00	480.00	3,840.00
9/05/24	HS	Attend document review daily team meeting (0.3); review assigned document batches (5.9).	6.20	480.00	2,976.00
9/05/24	FF	Attend document review daily team meeting (0.3); review assigned document batches (9.7).	10.00	480.00	4,800.00
9/05/24	CHH	Review and collate [redacted] documents in .pdf form in preparation for depositions (0.4); review and organize documents for discovery associates to review, emails with PB, HM, and A. Swartz (Lehotsky) regarding same (0.3); prepare potential second production set for PB, HM, and A. Swartz (Lehotsky) to review (0.8); emails with FF regarding review issues and troubleshoot same (0.2); review and analyze scheduling order and update matter docket and calendar accordingly to ensure compliance (0.7); telephone call with JS regarding document review procedures (0.1).	2.50	325.00	812.50
9/05/24	ASA	Meet with CS to discuss documents in Whinstone production (0.2); provide overview of documents in Whinstone production to assist CS deposition preparation (0.5).	.70	325.00	227.50

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Date	Tkpr	Description	Hours	Rate	Amount
9/06/24	PS	Prepare for and attend teleconference with P. Tomasco, P. Rosenblatt, JS, and VO regarding third party subpoenas (1.4); review subpoenas and discuss with internal team (1.1); review emails regarding discovery (0.5).	3.00	1250.00	3,750.00
9/06/24	EB	Correspond with BA and JS regarding priority action items for Stris attorney team.	.10	1100.00	110.00
9/06/24	BA	Review and finalize proposed engagement letter for potential expert C. Griffey, correspond with litigation team regarding same, and convey same to C. Griffey for review and to schedule meeting (0.4); review draft subpoenas to Riot, C. Harris, and J. Ledoux, correspond with HM regarding revisions to same (1.0); review and approve subpoena to L. Therriot (0.3); confer with JS regarding discovery and third party subpoenas (0.4); review Whinstone's interrogatories (0.3); correspond with HM, JS, and PB to confirm status of pending discovery and production (0.2); outline priority action items for team, correspond with JS and EB regarding same, and convey same to EB, JS, PB, CS, SR, VO, and PS (0.5); review outline of [redacted] deadlines prepared by HM and correspond with HM regarding revisions to same (0.2).	3.30	1050.00	3,465.00
9/06/24	VO	Attend teleconference with PS, JS, P. Tomasco, [redacted], and P. Rosenblatt regarding investor subpoena (0.3); correspondence with [redacted] (0.1); update team (0.1) and confer with [redacted] (0.2) regarding same.	.70	875.00	612.50
9/06/24	JS	Teleconferences with BA regarding discovery matters and third-party subpoenas (0.4); review discovery to be issued (1.5); review [redacted] in connection with next production (0.7); review [redacted] in connection with [redacted] deposition prep (3.5); confer with VO regarding deposition prep (0.4); work on potential response letter to M. Thomas regarding outstanding discovery issues (0.4); prepare for and attend teleconference with PS, VO, P. Tomasco, and P. Rosenblatt regarding subpoenas [redacted] (0.5); review [redacted] subpoenas and evaluate same (0.9).	8.30	875.00	7,262.50

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Date	Tkpr	Description	Hours	Rate	Amount
9/06/24	PB	Attend teleconference with PB, HM, CHH, and [redacted] (Rhodium) to discuss financial documents for production (0.8); attend daily call with document review associate team regarding production issues (0.3); teleconference with [redacted] (Rhodium) regarding data collection (0.5); teleconference with J. Stokes regarding production plan (0.2); prepare second production of documents to Whinstone and perform final review of same (4.3).	6.10	725.00	4,422.50
9/06/24	CS	Meet with SR to discuss plan for preparing [redacted] and [redacted] for their depositions (0.5); review and analyze documents received from Whinstone relevant to [redacted] to begin preparing for his deposition (2.1).	2.60	725.00	1,885.00
9/06/24	SR	Continue conducting document review of potentially privileged documents (6.3); attend videoconference with CS to begin planning deposition preparations for [redacted] and [redacted] (0.3).	6.60	650.00	4,290.00
9/06/24	HM	Complete quality check of additional documents (3.7); attend document review daily team meeting (0.3); correspond with discovery associates about daily tasks and action items (0.6); update and recirculate information concerning review guidelines to discovery associates (0.5); attend teleconference with PB, CHH, and client contacts regarding financial documents (0.8); update task list to reflect current schedule and deadlines (1.4); advise and quality check calendaring of same (0.5); revise, finalize, and serve subpoena notices for multiple third party witnesses (1.8); correspond with CS and SR regarding documents for [redacted] and [redacted] deposition preparation (0.5).	10.10	600.00	6,060.00
9/06/24	MJ	Attend document review daily team meeting (0.3); review assigned documents (0.7).	1.00	480.00	480.00
9/06/24	PNY	Attend document review daily team meeting (0.3); review assigned document batches (7.7).	8.00	480.00	3,840.00
9/06/24	VA	Attend document review daily team meeting (0.3); review assigned document batches (7.7).	8.00	480.00	3,840.00
9/06/24	HS	Attend document review daily team meeting (0.3); review assigned document batches (9.6).	9.90	480.00	4,752.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/06/24	FF	Attend document review daily team meeting (0.3); review assigned document batches (9.7).	10.00	480.00	4,800.00
9/06/24	CHH	Attend teleconference with PB, HM, and Rhodium [redacted] to discuss financial documents (0.8); attend and participate in daily check-in regarding document review with HM, PB, and discovery associates (0.3); prepare proposed production set 2 for PB and HM further review (2.0); review and analyze documents for correspondence regarding power contracts (3.0).	6.10	325.00	1,982.50
9/06/24	JH	File exchanged discovery [redacted] (0.2); update Bankruptcy docket (0.3).	.50	325.00	162.50
9/06/24	ASA	Update [redacted] to reflect recent developments at request of HM.	.40	325.00	130.00
9/07/24	PS	Review master task list and witness preparation [redacted] and correspond with team regarding same.	1.10	1250.00	1,375.00
9/07/24	EB	Review interrogatories served by Whinstone and correspondence from co-counsel regarding [redacted] (0.1); research same (0.1); correspond with BA and JS regarding research results and [redacted] objections to same (0.1); attention to case management (0.8).	1.10	1100.00	1,210.00
9/07/24	BA	Research and analyze [redacted] third party subpoenas, including [redacted] and correspond with JS regarding potential strategies for same (1.5); research interrogatory limits and correspond with EB and JS regarding same, as relevant to Whinstone's service of interrogatories and with HM regarding status of state court proceedings (0.2).	1.70	1050.00	1,785.00
9/07/24	JS	Evaluate documents that need further review in connection with defensive deposition preparation [redacted].	1.30	875.00	1,137.50
9/07/24	HM	Update schedule of deadlines and master task list and circulate it to Stris & Maher and Lehotsky Keller Cohn litigation teams (1.8); update Rhodium [redacted] and circulate to Stris & Maher litigation team (1.8).	3.60	600.00	2,160.00
9/07/24	VA	Review assigned document batches (4.0).	4.00	480.00	1,920.00
9/07/24	HS	Review assigned document batches (10.0).	10.00	480.00	4,800.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/07/24	FF	Review assigned document batches (10.0).	10.00	480.00	4,800.00
9/08/24	PS	Confer with team regarding third party subpoenas.	.60	1250.00	750.00
9/08/24	EB	Review task list and correspond with PS, BA and JS regarding deposition planning (0.1); correspond with BA and JS regarding responses and objections to interrogatories (0.1); begin reviewing witness preparation [redacted] (0.1); correspond with HM regarding initial revisions to same and JS regarding further review and revisions (0.1).	.40	1100.00	440.00
9/08/24	BA	Continue researching and analyzing [redacted] for [redacted] subpoenas, convey summary of analysis and recommendation to litigation team, and correspond further with PS and JS regarding strategy for same (2.2); review proposed email to M. Thomas following up on discovery issues, propose revisions to same, and correspond with JS regarding related discovery matters (0.3); correspond with PB, HM, and JS regarding confidentiality tagging on production and collection of documents for ERCOT expert C. Griffey (0.2); correspond with JS regarding priority action items and correspond with team regarding same (0.4).	3.10	1050.00	3,255.00
9/08/24	JS	Prepare list of priorities for discovery and [redacted] for the week (0.8); draft response response email to M. Thomas deficiency letter (0.5).	1.30	875.00	1,137.50
9/08/24	SR	Continue reviewing potentially privileged documents.	3.40	650.00	2,210.00
9/08/24	HM	Update task list including to add items from BA (0.3); revise draft of email to T. Stefan (Setec Investigations) regarding engagement letter amendment (0.1); conduct quality control review of documents designated for production (0.6).	1.00	600.00	600.00
9/08/24	MJ	Review assigned documents (1.6).	1.60	480.00	768.00
9/08/24	PNY	Review assigned document batches (6.0).	6.00	480.00	2,880.00
9/08/24	VA	Review assigned document batches (7.0).	7.00	480.00	3,360.00
9/08/24	HS	Review assigned document batches (5.1).	5.10	480.00	2,448.00
9/08/24	FF	Review assigned document batches (8.0).	8.00	480.00	3,840.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/09/24	PS	Meet with PB regarding retention application revisions (0.5); review [redacted] in [redacted] dispute and confer J. Cohn regarding same (1.7); review emails and meet with team regarding trial issues and strategy (0.8); review emails regarding discovery and meet with team regarding same (0.4).	3.40	1250.00	4,250.00
9/09/24	EB	Confer with BA regarding status and high priority action items including deposition and trial preparation and accommodations (0.2); instruct AA and SB regarding action items in support of same (0.1); correspond with PS, BA, VO, and JS regarding trial team and attendees (0.1); confer with JS regarding high priority action items including deposition preparation [redacted] and case management-related action items (0.3); review and respond to team correspondence regarding high priority action items including [redacted], and trial planning and attendance (0.2).	.90	1100.00	990.00
9/09/24	BA	Correspond with JS and PB regarding discovery action items and deadlines (0.1); attend teleconference with JS, PB, and HM regarding priority action items, including upcoming discovery deadlines and expert retention (0.7); review updates and correspond with A. Swartz regarding service of subpoenas (0.1); correspond with HM regarding engagement letter for Setec, discovery vendor (0.1); begin analyzing potential issues and topics for additional affirmative discovery and correspond with team regarding need for same (0.6); correspond with C. Griffey regarding expert engagement and with PB regarding revised expert engagement letter for T. Lewis (0.2).	1.80	1050.00	1,890.00
9/09/24	VO	Emails with team regarding trial logistics (0.3); emails with team regarding [redacted] and review [redacted] (0.2); call and email [redacted] regarding same (0.1); confer with JS regarding same (0.3); confer with [redacted] and JS regarding same (0.5); emails with J. Cohn regarding same (0.3); confer with PB regarding document review progress and next steps (0.4); confer with JS regarding preparation for [redacted] defensive depositions (0.5).	3.50	875.00	3,062.50

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Date	Tkpr	Description	Hours	Rate	Amount
9/09/24	JS	Attend teleconference with BA, PB, and HM regarding outstanding discovery issues and next steps (0.7); attend teleconferences with VO regarding [redacted] (0.3) and preparing for depositions of [redacted] (0.5); review issues in [redacted] and evaluate [redacted] issues (0.9); review April 22 notice of termination and evaluate [redacted] of same (1.3); correspond with co-counsel regarding same (0.3); attend teleconference with CS regarding drafting dispositive motion regarding same (0.1); review [redacted] documents in connection with deposition prep (1.0); plan for trial [redacted] (0.5); review energy credit calculation documents in connection with potential expert retention (0.3); review existing outlines of [redacted] depositions in connection with preparing for depositions [redacted] (1.3).	7.20	875.00	6,300.00
9/09/24	PB	Attend daily discovery associate teleconference (0.2); attend teleconference with BA, JS, and HM regarding case strategy and workflow allocation (0.7); coordinate collection of documents for, and review and prepare documents for, upcoming productions to Whinstone (6.8); confer with HM regarding quality check review (0.2); confer with VO regarding review staffing and next steps (0.4).	8.30	725.00	6,017.50
9/09/24	SR	Continue conducting document review of potentially privileged documents.	4.50	650.00	2,925.00
9/09/24	HM	Attend document review daily team meeting (0.2); advise FF regarding review (0.2); attend teleconference with BA, JS, and PB about upcoming deadlines and outstanding discovery (0.7); confer with PB about performing quality check on responsive documents for next production (0.2); draft responses to Whinstone's first set of requests for production (3.0); update and recirculate [redacted] Document Review [redacted] (0.2); confer with T. Stefan of Setec Investigations regarding amendments to engagement letter (0.2); revise, finalize, and serve subpoena to Riot through Foley (0.3); compile and send deposition preparation materials for [redacted] to JS and VO (0.3); correspond with JH regarding responses to Whinstone's interrogatories (0.1).	5.40	600.00	3,240.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/09/24	MJ	Attend document review daily team meeting (0.2); review assigned document batches (1.4).	1.60	480.00	768.00
9/09/24	PNY	Attend document review daily team meeting (0.2); review assigned document batches (9.8).	10.00	480.00	4,800.00
9/09/24	VA	Attend document review daily team (0.2); review assigned document batches (9.8).	10.00	480.00	4,800.00
9/09/24	HS	Review assigned document batches (4.0).	4.00	480.00	1,920.00
9/09/24	FF	Attend document review daily team meeting (0.2); review assigned document batches (9.8).	10.00	480.00	4,800.00
9/09/24	CHH	Finalize search terms for [redacted] email review and confer with JS and JHA regarding same (0.2); daily document review check-in with HM, PB, and discovery associates (0.2); prepare PS and CS information for pro hac vice applications (0.2); telephone [redacted] regarding November trial and logistics of same (0.1); assist with onboarding new attorneys to case per emails with A. Swartz (Lehotsky) (0.1).	.80	325.00	260.00
9/09/24	JH	Update docket and files with final exchanged discovery [redacted] (0.2); finalize Riot subpoena for HM (0.3); begin document review to issue-tag emails [redacted] production sets sent to or from [redacted] (4.5).	5.00	325.00	1,625.00
9/09/24	ASA	Assist JS and JH with review of client documents (0.6); confer with JH regarding same (0.1).	.70	325.00	227.50
9/10/24	PS	Review emails regarding discovery and Tarrant County lawsuit and discuss with team (0.3); review emails between P. Rosenblatt and P. Tomasco (0.2); review [redacted] filings and confer with team regarding same (0.4).	.90	1250.00	1,125.00
9/10/24	EB	Review proposed revisions to damages expert and text collection consulting engagement letters (0.2); correspond with BA, PB, and HM regarding revisions to same (0.2); review [redacted] materials (0.1); advise PB regarding revisions to [redacted] regarding same (0.2).	.70	1100.00	770.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/10/24	BA	Review updates and correspond with A. Swartz and team regarding service of subpoenas (0.1); correspond with [redacted] regarding service of subpoena on Imperium (0.1); correspond with PB, EB, and JS regarding expert engagement for C. Griffey and terms of said engagement, confer with C. Griffey regarding same, finalize engagement letter and convey same to C. Griffey, and arrange meeting with C. Griffey and team (0.8); review draft interrogatories and team correspondence regarding same, and ask A. Swartz to convey same to bankruptcy counsel for review (0.4); review correspondence and filings related to [redacted] related to [redacted] and correspond with litigation team regarding same (0.3); confer with JS regarding discovery and [redacted] issues (0.3); correspond with [redacted] and litigation team regarding weekly client meetings (0.2); continue analyzing need for additional affirmative discovery including potential RFAs and additional interrogatories (0.4); correspond with PB and HM regarding document production issues (0.1); review draft engagement letter for Setec, discovery vendor, and correspond with HM and EB regarding need for revisions to same (0.2).	2.90	1050.00	3,045.00
9/10/24	VO	Emails with team and [redacted] regarding letter [redacted] (0.2); confer with [redacted] regarding same (0.2); emails with [redacted] and J. Cohn regarding same (0.1).	.50	875.00	437.50
9/10/24	JS	Confer with W. Thompson regarding discovery issues and outlining of key merits arguments (0.8); confer with BA regarding discovery and potential [redacted] issues (0.3); draft [redacted] deposition outline, themes, and narrative (14.8).	15.90	875.00	13,912.50
9/10/24	SR	Continue conducting document review of potentially privileged documents (6.2); correspond with HM and CH regarding the same (0.1).	6.30	650.00	4,095.00
9/10/24	SB	No Charge - Format Responses to Whinstone's RFPs for HM.	2.90	325.00	N/C
9/10/24	CS	Review and analyze case law and legal authority regarding bankruptcy laws and standards governing motions to assume executory contracts (2); analyze notice of termination and outline [redacted] for termination cited therein (2.8).	4.80	725.00	3,480.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/10/24	CHH	Complete review of contract negotiation and drafting emails between Whinstone and Rhodium and send memorandum on same to JS for review (2.2); daily check-in with HM, PB, and discovery associates regarding document review (0.2); confer with HM and PB regarding preparations for third set of production (0.2); ingest various client documents into review database for further review (0.4); prepare potential third set of production batches for HM and PB review (1.2); analyze document review progress and summarize same to PB (0.2).	4.40	325.00	1,430.00
9/10/24	JH	Create shell for Rhodium draft responses to Whinstone's interrogatories and Requests for Admission (1.0); continue document review to issue-tag emails [redacted] production sets sent to or from [redacted] (4.0).	5.00	325.00	1,625.00
9/10/24	PB	Coordinate collection, ingestion, and review of documents for upcoming productions to Whinstone (3.0); revise retention letter for expert T. Lewis (1.2); attend daily document review associate team call and follow-up discussion with HM and CS (0.5); teleconference and correspondence with VO regarding review strategy and staffing (0.8).	5.50	725.00	3,987.50
9/10/24	HM	Begin review of documents designated for further review (0.5); attend document review daily team meeting (0.2); confer with CH and PB regarding documents for potential production 3 (0.2); confer with T. Stefan, EB, JS, PB, and BA regarding amendments to engagement letter with Setec Investigations (0.5); continue drafting responses to Whinstone's first set of requests for production (3.0); draft first set of requests for admission for review by JS, BA, and PB (2.0); revise and circulate list of deadlines to Stris and LKC litigation teams (0.5); review and revise first set of interrogatories (0.3); correspond with AS, PB, BA, and JHA regarding filing procedures and pro hac vice applications (0.5); answer document review questions and update materials regarding review guidelines (0.8).	7.70	600.00	4,620.00
9/10/24	MJ	Attend document review daily team meeting (0.2); review assigned document batches (2.8).	3.00	480.00	1,440.00
9/10/24	VA	Attend document review daily team (0.2); review assigned document batches (9.8).	10.00	480.00	4,800.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/10/24	HS	Attend document review daily team meeting (0.2); review assigned document batches (5.8).	6.00	480.00	2,880.00
9/10/24	FF	Attend document review daily team meeting (0.2); review assigned document batches (9.8).	10.00	480.00	4,800.00
9/11/24	PS	Review [redacted] filings and confer with team regarding same (0.3); review emails regarding discovery (0.3).	.60	1250.00	750.00
9/11/24	EB	Review and respond to team correspondence regarding high priority action items including [redacted] (0.2); advise HM regarding revisions to text collection consulting engagement rider (0.1); correspond with VO, PB, and TT regarding case materials and instructions for deposition preparation and future project work (0.1).	.40	1100.00	440.00
9/11/24	BA	Confer with ERCOT expert C. Griffey, JS, HM, and Rhodium contacts regarding data and information requests (1.3); Attend teleconference with JS, HM, [redacted], and C. Griffey to discuss data needed for ERCOT expert analysis (1.1); attend further teleconference with JS and C. Griffey regarding data needed and discovery requests necessary for same (0.3); confer with JS, W. Thompson, J. Cohn, and client regarding [redacted] issues (1.0); research same (0.4); correspond with [redacted] and litigation team regarding Imperium subpoena (0.1); review draft interrogatories and confer with litigation team regarding same (0.3); review draft requests to admit, analyze exemplars for same, and correspond with HM, PB, and JS regarding revisions to same (0.4); correspond with HM, JS, and C. Griffey regarding discovery matters (0.3); confer with JS regarding affirmative discovery (0.1); confer with C. Griffey and JS regarding affirmative discovery/information needs (0.4); correspond with JS regarding email to M. Thomas, review and revise same, and correspond with bankruptcy counsel regarding status of protective order (0.1); correspond with PB regarding document production issues (0.1); correspond with HM regarding subpoena to Priority Power (0.1); revise draft second set of RFPs to add requests [redacted] (1.0).	7.00	1050.00	7,350.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/11/24	JS	Attend teleconference with BA, HM, [redacted] and C. Griffey to discuss data needed for ERCOT expert analysis (1.1); attend further teleconference with BA and C. Griffey regarding data needed and discovery requests necessary for same (0.3); attend teleconferences with BA regarding outstanding discovery issues on interrogatories, requests for admission, and requests for production, as well as ERCOT expert issues and next steps (1.5); draft requests for admission (3.5); review and revise interrogatories (1.1); review and revise second set of requests for production (0.6); review and evaluate draft brief regarding April 22 Notice of Termination and [redacted] in light of same (2.3); prepare for and attend teleconference with BA, W. Thompson, J. Cohn, [redacted], and [redacted] regarding [redacted] litigation (1.3) and further evaluate [redacted] and potential next steps (0.9); continue working on defensive deposition outlines (2.5).	15.10	875.00	13,212.50
9/11/24	CS	Begin drafting motion for partial summary judgment based on portions of April 22, 2024 notice of termination that are ineffective as a matter of law; review and analyze case law in support of the same (8.5).	8.50	725.00	6,162.50
9/11/24	PB	Prepare upcoming productions of custodial and centrally-maintained documents and correspondence regarding same (5.0); revise draft discovery requests to Whinstone US, Inc. regarding motion to assume (0.8)	5.80	725.00	4,205.00
9/11/24	SR	Continue conducting document review of potentially privileged documents.	8.30	650.00	5,395.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/11/24	HM	Attend teleconference with BA, JS, [redacted], and Charles Griffey of Peregrine to discuss data needed for ERCOT expert analysis (1.1); review and revise notes from meeting with Charles Griffey and circulate action items to BA and JS (0.5); continue revising and drafting Debtors' requests for admission, set one to Whinstone US, Inc. (3.3); draft Debtors' subpoena to Priority Power Management LLC and circulate to Stris & Maher and Lehotsky Keller Cohn teams (1.5); draft interrogatory about Whinstone's understanding of "Ercot market profitability (0.2); confer with PB and CH over email about how producing contracts at issue and then sending them to Charles Griffey (0.5).	7.10	600.00	4,260.00
9/11/24	PNY	Review assigned document batches (6.0).	6.00	480.00	2,880.00
9/11/24	TT	No Charge - Review [redacted] (0.9); review and analyze Debtors' Motion to Assume Executory Contracts with Whinstone (0.9); review Voluntary Petition for Chapter 11 Bankruptcy to assist with deposition preparation (0.9); review Declaration of David M. Dunn [redacted] (0.9).	3.60	480.00	N/C
9/11/24	VA	Review assigned document batches (8.0).	8.00	480.00	3,840.00
9/11/24	HS	Review assigned document batches (8.5).	8.50	480.00	4,080.00
9/11/24	FF	Review assigned document batches (10.0).	10.00	480.00	4,800.00
9/11/24	CHH	Review and analyze new client documents and update discovery database with same for document production (0.8); implement additional privilege highlighting (0.2); review documents in potential third production and pull potentially privileged ones for further review (0.6); review and edit list of correspondence between Whinstone and Rhodium regarding [redacted] (0.8); summarize correspondence from and to Whinstone in Whinstone's document production in email memorandum to JS in preparation for [redacted] (0.4); telephone call with [redacted] (0.3); begin reviewing [redacted] (Rhodium) emails for deposition preparation efforts (0.5).	3.60	325.00	1,170.00
9/11/24	JH	Continue reviewing documents to assist with Rhodium witness deposition preparation.	5.00	325.00	1,625.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/11/24	ASA	Review documents for JS to assist with preparation for forthcoming depositions of [redacted].	2.50	325.00	812.50
9/12/24	PS	Review emails regarding discovery (0.2).	.20	1250.00	250.00
9/12/24	BA	Correspond with litigation team regarding Imperium subpoena and with S. Lemmon to set up call (0.1); confer with JS and S. Lemmon regarding Imperium subpoena and related matters (0.6); confer with JS regarding same (0.1); review, draft, and revise affirmative discovery, including interrogatories, requests for admission, and requests to produce, and correspond with litigation team, bankruptcy counsel, and client regarding same, and as needed to oversee finalization of same, as well as related second production to Whinstone (5); correspond with client regarding [redacted] issues and [redacted] (0.6); correspond with C. Griffey regarding affirmative discovery needs (0.3); review and revise 3d party subpoena to Priority and correspond with client and litigation team as needed to oversee finalization of same (0.4).	7.10	1050.00	7,455.00
9/12/24	JS	Confer with BA and S. Lemmon regarding [redacted] subpoena and related matters (0.6); confer with BA regarding same (0.1); review, revise, and finalize RFAs, RFPs, and Rogs and associated exhibits (5.8); review and evaluate potential MSJ (1.4) and confer with W. Thompson regarding same (0.3); confer with potential safety expert and evaluate need for same (1.5).	9.70	875.00	8,487.50
9/12/24	CS	Review and analyze documents received from Whinstone relevant to [redacted] in anticipation of preparing him to be deposed.	7.00	725.00	5,075.00
9/12/24	PB	Call with expert T. Lewis regarding scope of upcoming damages report and follow-up correspondence regarding same (0.9); revise draft requests for admission to Whinstone US, Inc. regarding motion to assume (1.2); compile and prepare documents for production (2.6); call with J. Stokes regarding requests for admission (0.2).	4.90	725.00	3,552.50
9/12/24	SR	Continue conducting document review of potentially privileged documents (1.3); correspond with PB regarding status of the same (0.1); begin reviewing case materials in connection with preparations for [redacted] deposition (5.3).	6.70	650.00	4,355.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/12/24	HM	Attend document review daily team meeting (0.3); confer with VA, HS, PN, and FF via email about document tagging protocol (0.5); revise, finalize, and serve Debtors' intent to issue subpoena to Priority Power Management, form subpoena, and attachment to Whinstone US, Inc. (2.5); revise, finalize, and serve Debtors' requests for production, set two to Whinstone US, Inc.; revise, finalize, and serve Debtors' requests for admission, set one to Whinstone US, Inc. (3.3); confer with CH to create exhibits packet related to Debtors' requests for admission, set one to Whinstone US, Inc. (0.7); revise, finalize, and serve Debtors' interrogatories, set one to Whinstone US, Inc. (2.6).	9.90	600.00	5,940.00
9/12/24	PNY	Attend document review daily team meeting (0.3); review assigned document batches (9.7).	10.00	480.00	4,800.00
9/12/24	VA	Attend document review daily team (0.3); review assigned document batches (9.7).	10.00	480.00	4,800.00
9/12/24	HS	Attend document review daily team meeting (0.3); review assigned document batches (9.0).	9.30	480.00	4,464.00
9/12/24	FF	Attend document review daily team meeting (0.3); review assigned document batches (9.7).	10.00	480.00	4,800.00
9/12/24	CHH	Review and summarize P. Richison (Rhodium) documents in preparation for deposition (4.0); ingest various documents into discovery database for production (0.5); prepare, finalize, and run production set two (1.0); finalize various discovery requests (1.0).	6.50	325.00	2,112.50
9/12/24	JH	Continue document review to issue-tag emails [redacted] sent to or from [redacted].	2.00	325.00	650.00
9/12/24	ASA	No Charge - Submit inquiries and converse with hotel staff at properties in downtown Houston to find suitable accommodations for counsel and client during bankruptcy proceedings in November.	.80	325.00	N/C
9/13/24	EB	Review draft text message collection consulting engagement rider (0.1); correspond with BA and HM regarding revisions to same (0.1); review and begin proposing revisions to witness preparation [redacted] (1.0); correspond with JS and HM regarding same (0.1).	1.30	1100.00	1,430.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/13/24	VO	Attend zoom meeting with JS, P. Tomasco, members of Province, and counsel for [redacted] entities (0.8); confer with JS to get update, discuss progress on discovery, assignments, and next steps (0.7).	1.50	875.00	1,312.50
9/13/24	JS	Attend teleconference with co-counsel and P. Rosenblatt regarding subpoena and information request (0.7); attend teleconference with VO regarding discovery status and next steps (0.7); evaluate Foley correspondence regarding planned depositions and next steps in light of same (1.0); continue preparation for [redacted] depositions (4.3).	6.70	875.00	5,862.50
9/13/24	CS	Meet with SR to discuss progress on preparing materials to prepare Rhodium witnesses for depositions (0.3); continue reviewing and analyzing documents relevant to [redacted] in anticipation of preparing him for his deposition (6.0); continue drafting outline to prepare [redacted] to be deposed (0.9).	7.20	725.00	5,220.00
9/13/24	PB	Lead daily call with document review associate team regarding responsiveness review (0.2); quality-control review, analysis, and preparation of third, fourth, and fifth productions of documents to Whinstone (6.3).	6.50	725.00	4,712.50
9/13/24	SR	Continue reviewing case materials in connection with preparations for B. Cottrell deposition (5.0); attend videoconference with CS to discuss the same (0.1).	5.10	650.00	3,315.00
9/13/24	HM	Attend document review daily team meeting (0.2); perform quality check review of assigned batches (2.0).	2.20	600.00	1,320.00
9/13/24	TT	Conference with PB regarding assignement to analyze outside investor provisions in subscription and operating agreements (0.2); review Amendment to First Amended Operating Agreement for Rhodium 30MW (0.2); review Subscription Agreement for Rhodium 30MW (1.0); review Rhodium 30MW First Amended Operating Agreement (1.0); review Whinstone's Supplemental Reply in Support of Emergency Motion (0.5); review Hosting Agreement between Whinstone and Rhodium 30MW (1.5).	4.40	480.00	2,112.00
9/13/24	VA	Attend document review daily team (0.2); review assigned document batches (6.8).	7.00	480.00	3,360.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/13/24	HS	Attend document review daily team meeting (0.2); review assigned document batches (4.1).	4.30	480.00	2,064.00
9/13/24	FF	Attend document review daily team meeting (0.2); review assigned document batches (7.8).	8.00	480.00	3,840.00
9/13/24	CHH	Review and summarize [redacted] (Rhodium) produced documents in preparation for depositions.	5.00	325.00	1,625.00
9/13/24	JH	Finish document review to issue-tag emails [redacted] (5.0); correspond with AA regarding same (0.1); file new docket entries (0.3).	5.40	325.00	1,755.00
9/13/24	ASA	Continue review of client documents to assist JS with preparation for forthcoming depositions of Rhodium [redacted].	3.00	325.00	975.00
9/14/24	PS	Confer with JS regarding plan for offensive and defensive depositions.	.70	1250.00	875.00
9/14/24	EB	Review and respond to correspondence from JS regarding further revisions to deposition [redacted].	.10	1100.00	110.00
9/14/24	JS	Review and evaluate plan for offensive and defensive depositions (0.5); confer with PS regarding same (0.7); attend teleconference with W. Thompson regarding same and MSJ strategy (0.6).	1.80	875.00	1,575.00
9/14/24	HM	Correspond with JS regarding potential deposition witnesses (0.1); complete performing quality check of assigned batches (2.1); continue drafting Debtors' responses to Whinstone's requests for production (0.4).	2.60	600.00	1,560.00
9/14/24	PNY	Review assigned document batches (8.0).	8.00	480.00	3,840.00
9/15/24	PB	Prepare custodial and collected financial documents for inclusion in third, fourth, and fifth productions of documents.	1.40	725.00	1,015.00
9/15/24	HM	Begin quality check of additional document batches (1.9).	1.90	600.00	1,140.00
9/16/24	PS	Confer with JS regarding trial strategy.	1.40	1250.00	1,750.00
9/16/24	EB	Advise AA and correspond with Stris team, clients, and co-counsel regarding trial accommodations and planning.	.40	1100.00	440.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/16/24	BA	Correspond with JS, PB, and HM regarding status of discovery matters and communications with opposing counsel (0.2); confer with JS regarding pending discovery, proposed depositions, motion practice, and [redacted] (0.7); participate in teleconference with [redacted], J. Cohn, W. Thompson, [redacted], and [redacted] to discuss potential [redacted], confer with [redacted] regarding same, prepare analysis of issues relevant to same, and correspond with J. Cohn and with [redacted] regarding same (2.2); review proposed edits on protective order from Whinstone and HM's analysis of same, correspond with bankruptcy counsel and litigation team regarding response to same, and correspond with Whinstone regarding position on same (0.8); review plan from P. Brody for documents for expert T. Lewis and approve same (0.1); review proposed revision to vendor Setec's engagement letter and approve same (0.1); correspond with litigation team regarding Whinstone's proposed deposition list (0.1); review and revise deficiency letter to Whinstone regarding production (0.4); begin reviewing Whinstone's response to motion to assume (0.3).	4.90	1050.00	5,145.00
9/16/24	JS	Confer with BA regarding discovery status and next steps and related matters (0.7); review and evaluate draft deficiency letter regarding Whinstone productions (0.6); review and evaluate Foley edits to protective order (0.4); review and evaluate Whinstone response to motion to assume (1.7); confer with W. Thompson regarding same (0.7); confer with PS regarding trial strategy (1.4).	5.50	875.00	4,812.50
9/16/24	CS	Continue drafting motion for partial summary judgment and review case law relevant to the same.	6.90	725.00	5,002.50

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Date	Tkpr	Description	Hours	Rate	Amount
9/16/24	PB	Lead daily strategy teleconference with discovery associate team regarding production issues (0.2); follow-up teleconference with H. Marsh and C. Huang regarding production sequencing and finalization (0.2); prepare documents for inclusion in fourth and fifth productions (5.7); teleconference with [redacted] HM, and CH regarding responses to Whinstone requests for Bitcoin mining data (0.8); teleconference with [redacted] HM, and CH regarding financial data for production (0.2); revise draft responses and objections to Whinstone's requests for production (1.0).	8.10	725.00	5,872.50
9/16/24	SR	Begin reviewing and analyzing witness preparation [redacted] in connection with [redacted] deposition (2.0); continue preparing for the same (1.5).	3.50	650.00	2,275.00
9/16/24	HM	Complete quality check of additional batches (3.6); attend document review daily team meeting (0.1); confer with PB and CH about privilege review protocol (0.4); attend portion of teleconference about [redacted] (0.5); attend teleconference with [redacted] and PB and CH to discuss financial information for discovery purposes (0.2); continue drafting Debtors' responses to Whinstone's requests for production (2.5); revise draft deficiency letter in response to Whinstone's document productions (1.2); revise and send updated contract rider to Todd Stefan of Setec Investigations (0.2).	8.70	600.00	5,220.00
9/16/24	PNY	Attend document review daily team meeting (0.2); review assigned document batches (7.8).	8.00	480.00	3,840.00
9/16/24	TT	Review and analyze Rhodium Private Placement Memorandum (2.0); correspond with PB regarding analysis of Amendment to First Operating Agreement; First Amended Operating Agreement; Subscription Agreement; Whinstone Supplemental Reply; Hosting Agreement between Whistone and Rhodium JV LLC (5.0).	7.00	480.00	3,360.00
9/16/24	VA	Attend document review daily team meeting (0.2); review assigned document barches (7.8).	8.00	480.00	3,840.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/16/24	HS	Review and analyze privilege protocol to prepare for privilege review (0.3); conduct privilege review and redaction of assigned batch (5.2).	5.50	480.00	2,640.00
9/16/24	FF	Attend document review daily team meeting (0.2); review assigned document batches (7.8).	8.00	480.00	3,840.00
9/16/24	CHH	Daily document review check-in with HM, PB, and discovery associates (0.1); confer with PB and HM regarding privilege review and setup of same (0.4); set up same (1.5); prepare potential production set five and quality control batches for same (1.5); edit production parameters in light of protective order to ensure compliance (0.5); draft memorandum on production protocol and quality control steps for same (2.0); attend teleconference with PB, HM, and Rhodium contacts regarding [redacted] data (0.7); attend teleconference with PB, HM, and Rhodium contacts regarding financial information document collection (0.2).	7.00	325.00	2,275.00
9/16/24	JH	Correspond with AA regarding ongoing document review of e-mail correspondence [redacted] in production sets (0.2); update docket for bankruptcy matter [redacted] (0.2).	.40	325.00	130.00
9/16/24	ASA	Assist HM and EB with finalization of agreement with Setec (0.1); continue review of assigned documents to assist JS with deposition preparation (3.2).	3.30	325.00	1,072.50
9/17/24	PS	Confer with JS regarding trial strategy.	1.00	1250.00	1,250.00
9/17/24	EB	Correspond with [redacted] regarding [redacted] (0.1); attend teleconference with [redacted] regarding same (0.3); correspond with Stris team to advise regarding same (0.1); correspond with BA, JS, and [redacted] regarding upcoming depositions (0.1); review and respond to team correspondence including regarding meeting to discuss same and high priority action items (0.1).	.70	1100.00	770.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/17/24	BA	Correspond with HM and with bankruptcy counsel regarding protective order (0.1); prepare for and participate in call with [redacted] regarding Whinstone demands for Rhodium employee information, and to update [redacted] on deposition and trial preparation, and convey update on same to JS, HM, and PB (0.6); review and revise RFP responses and correspond with HM and PB regarding same (0.5); confer with VO and W. Thompson regarding work product and [redacted] issues (0.5); confer with JS, HM, and PB regarding high priority action items, including document review and production and discovery responses (0.7); review subpoena to Rhodium from third parties and correspond with PB, HM, and JS regarding same (0.2).	2.60	1050.00	2,730.00
9/17/24	VO	Confer with W. Thompson regarding timeline materials for P. Tomasco (0.2); confer with W. Thompson and BA regarding same (0.5)	.70	875.00	612.50
9/17/24	JS	Review and revise deficiency letter (0.9) and confer with A. Swartz regarding same (0.1); confer with W. Thompson regarding MSJ strategy and next steps (0.3); attend teleconference with BA, PB, and HM regarding outstanding discovery and related issues (0.7); confer with PS regarding trial strategy (1.0); correspond with Stris and LKC teams regarding deposition strategy and planning (0.4).	3.40	875.00	2,975.00
9/17/24	CS	Review and analyze Rhodium's preliminary response to motion to assume contracts (0.9); continue drafting motion for partial summary judgment (4.3); draft declaration in support of motion for partial summary judgment (0.9).	6.10	725.00	4,422.50
9/17/24	PB	Review and analyze Whinstone response to motion to assume (1.1); teleconference with A. Swartz regarding motion to assume and document review status and strategy (0.3); analyze, prepare, and finalize document productions 3, 4, and 5 (5.0); revise engagement letter for damages expert T. Lewis (0.3); teleconference with BA, JS, and HM regarding discovery status and strategy (0.8)	7.50	725.00	5,437.50
9/17/24	SR	Continue reviewing case materials and notes to continue preparing for B. Cottrell deposition.	5.30	650.00	3,445.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/17/24	HM	Attend document review daily team meeting (0.4); revise Debtors' responses to Whinstone's requests for production (0.8); perform quality check of assigned batches (6.8); confer with HS, VA, FF, and PN over email about second-level privilege review and conduct research on [redacted] related to privilege (1.0); attend teleconference with PB, JS, and BA to discuss outstanding discovery items, privilege questions, and the response to the motion to assume (0.7); confer with PB over telephone about second-level privilege review (0.3).	10.00	600.00	6,000.00
9/17/24	PNY	Attend document review daily team meeting (0.4); review assigned document batches (3.6).	4.00	480.00	1,920.00
9/17/24	VA	Attend document review daily team meeting (0.4); review assigned document batches (7.6).	8.00	480.00	3,840.00
9/17/24	HS	Attend document review daily team meeting (0.4); review assigned document batches (7.6).	8.00	480.00	3,840.00
9/17/24	FF	Attend document review daily team meeting (0.4); review assigned document batches (7.6).	8.00	480.00	3,840.00
9/17/24	CHH	Finalize and run production sets 3 and 4 (4.2); daily check-in with PB, HM, and discovery associates regarding document review and next steps for privilege review (0.4).	4.60	325.00	1,495.00
9/17/24	JH	Update bankruptcy docket.	.50	325.00	162.50
9/17/24	ASA	Continue review and tagging of [redacted] emails as requested by JS to assist with deposition preparation (1.3).	1.30	325.00	422.50
9/18/24	EB	Review and propose revisions to E. Brown engagement letter (0.4); correspond with BA, VO, and JS regarding same and approval timing (0.1); review and approve revised version of same (0.1); attend teleconference with BA and JS regarding high priority discovery-related and strategic action items including RFP and interrogatory responses, expert reports, and trial coverage (0.5); attend teleconference with Stris & LKC Teams regarding Whinstone deponents and documents pertaining to preparation of Rhodium witnesses (1.0); review and correspond with BA and JS regarding revisions to correspondence to opposing counsel concerning deponents (0.1); attention to valuations document request (0.2).	2.30	1100.00	2,530.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/18/24	BA	Confer with JS regarding case strategy, including experts and depositions (0.2) and confer with JS and EB regarding same (0.5); participate in teleconference with litigation team to discuss depositions, trial witnesses, and communications with opposing counsel regarding same (1.0); confer with EB, JS, and VO regarding expert retentions (0.1); confer with PB regarding document review and production and RFP responses (0.9), and with PB and JS regarding same (0.1); correspond with PB and with HM regarding document review and production and RFP responses, and with PB, HM, and JS regarding same (0.4); convey potential analysis relevant to summary judgment filing to PB, HM, and JS (0.1); correspond with EB, HM, JS, and PB regarding strategy for RFP responses (0.1); review, draft, and revise RFP responses (3.2).	6.60	1050.00	6,930.00
9/18/24	VO	Attend portion of team deposition planning call (0.5); confer with JS and [redacted] regarding witness attendance at trial (0.4).	.90	875.00	787.50
9/18/24	JS	Confer with BA about [redacted] and trial (0.2); confer with BA and EB regarding same (0.5); attend team call regarding deposition strategy (1.0); review prior witness lists and disclosures and prepare deposition plan (1.5); review and evaluate motion for protective order (1.1); correspond with Foley regarding deposition planning and protective order (0.5); continue review of documents and outlining for [redacted] deposition prep (6.3); review and revise safety expert engagement letter (0.6) and correspond with BA and EB (0.3) and safety expert (0.5) regarding same.	12.50	875.00	10,937.50
9/18/24	CS	Participate in deposition strategy meeting (0.7); review and analyze edits to motion for partial summary judgment and continue revising the same (2.1); gather and organize exhibits in support of motion for partial summary judgment (0.6); continue reviewing analyzing documents relevant to [redacted] in anticipation of preparing him for his deposition (1.5).	4.90	725.00	3,552.50

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Date	Tkpr	Description	Hours	Rate	Amount
9/18/24	PB	Attend daily review meeting with discovery associate team (0.3); review, finalize, and serve production 3 (1.1); attend teleconference with case team regarding offensive and defensive deposition strategy (1.0); teleconference with BA regarding responses to requests for production (0.6); prepare fourth and fifth productions of documents (1.6); review custodial documents of [redacted] for production and deposition preparation (3.1); client correspondence regarding final document collection items (0.4).	8.10	725.00	5,872.50
9/18/24	SR	Continue reviewing case materials and notes to prepare for [redacted] deposition (3.8); attend team call with EB, BA, JS, VO, PB, HM, JHA, AA, CH, and LKC team members to discuss deposition and witness strategy (0.7).	4.50	650.00	2,925.00
9/18/24	HM	Attend document review daily team meeting (0.3); attend portion of Stris & Maher LLP and Lehotsky Keller Cohn LLP litigation team call to discuss trial witness and deposition strategy (0.7); revise Debtors' responses to Whinstone's requests for production (6.4); begin quality check of assigned batches (1.2); confer with T. Stefan regarding processing of text messages for review and potential production (0.1).	8.70	600.00	5,220.00
9/18/24	PNY	Attend document review daily team meeting (0.3); review assigned document batches (7.7).	8.00	480.00	3,840.00
9/18/24	VA	Review assigned document batches (8.0).	8.00	480.00	3,840.00
9/18/24	HS	Attend document review daily team meeting (0.3); review assigned document batches (7.5).	7.80	480.00	3,744.00
9/18/24	FF	Attend document review daily team meeting (0.3); review assigned document batches (7.5).	8.00	480.00	3,840.00
9/18/24	MV	Attend document review daily team meeting (0.3); review assigned document batches (7.5).	3.00	400.00	1,200.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/18/24	CHH	Ingest various client financial documents into discovery database for review and production (0.2); update privilege highlighting to facilitate document review (0.1); create new privilege review sets for review (0.3); finalize production set 3 (2.0); emails with A. Swartz (Lehotsky) regarding documents for expert review (0.2); finish drafting [redacted] on [redacted] productions and privilege review and share same with PB and HM for further review (1.0); emails with JS and JHA regarding further review of [redacted] documents in preparation for depositions (0.1); teleconference with MV regarding discovery database and [redacted] (1.0); attend teleconference with VO, PB, JS, SR, EB, HM, CS, BA, ASA, JHA and Lehotsky Keller Cohn co-counsel (W. Thompson, A. Swartz, T. Disher, M. Frederick, J. Cohn) regarding deposition planning and witness list preparation (1.1).	6.00	325.00	1,950.00
9/18/24	JH	Begin expanded document review of e-mail correspondence sent to and from [redacted] (4.0); Attend teleconference with VO, PB, JS, SR, EB, HM, CS, BA, AA, CHH, JHA and Lehotsky Keller Cohn co-counsel (W. Thompson, A. Swartz, T. Disher, M. Frederick, J. Cohn) regarding deposition planning and witness list preparation (1.0); prepare notes for same (0.3).	5.30	325.00	1,722.50
9/18/24	ASA	Log recent developments in [redacted] at request of HM (0.5); continue review and tagging of documents to assist [redacted] with deposition preparation (3.0); No Charge - attention to case logistics and travel accommodations (0.5).	3.50	325.00	1,137.50
9/19/24	PS	Review summary judgment draft and provide initial comments.	.30	1250.00	375.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/19/24	EB	Call with BA (0.4); review and propose revisions to RFP responses (0.8); correspond with BA regarding same (0.1); further correspond with BA regarding implementation of same and advise PB regarding assignment for TT (0.1); attention to finalization of [redacted] including correspondence with PS, VO, JS, ASA, and [redacted] regarding same (0.2); confer with VO and review status update regarding retention application (0.1); review revised objections (0.1); propose further revisions to objections to [redacted] requests (0.3).	2.10	1100.00	2,310.00
9/19/24	BA	Correspond with A. Swartz and litigation team, and with [redacted], regarding contact information for subpoena targets (0.2); review update from [redacted] on [redacted], and correspond with [redacted] regarding same, including update on [redacted] (0.2); convey draft RFP responses to [redacted] (0.1); review suggested revisions to RFPs from K. Hutchins, correspond with litigation team regarding same, including format of responses, general objections, and consolidated versus separate responses, research propriety of general objections, confer with EB regarding strategy for RFP responses, including general objections and consolidated response, and correspond with K. Hutchins regarding recommended approach (2); correspond with PB regarding document production issues, review proposed cover letter for production, and approve same (0.2); correspond with PB regarding second day hearing and objections [redacted] (0.1); correspond with HM and team regarding revisions to RFP responses, review suggested revisions to same from EB, and correspond with EB regarding same (0.3); review and comment on draft responses to interrogatories prepared by HM and correspond with HM, PB, and JS regarding same (0.9); review and revise responses to requests for production (1.9); correspond with PB and JS regarding meet and confer request to Foley (0.1).	6.00	1050.00	6,300.00
9/19/24	VO	Confer with [redacted] regarding witnesses for trial (0.3); emails with JS, HM, and [redacted] regarding same (0.2).	.60	875.00	525.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/19/24	JS	Work on deposition outline for [redacted] deposition defense and review [redacted] and prior transcripts in connection with same (8.8); confer with CS regarding [redacted] draft (0.3); review same (0.5); further review and evaluate motion for protective order (0.5).	10.10	875.00	8,837.50
9/19/24	CS	Revise motion for partial summary judgment (3.5); meet with JS to discuss revisions to motion for partial summary judgment (.3).	3.80	725.00	2,755.00
9/19/24	PB	Analyze and prepare documents collected from Rhodium for production (1.8); review potentially-privileged documents and prepare production 6 (1.6); teleconference with [redacted] HM, and CS regarding miner data collection (0.3); teleconference with A. Swartz regarding expert strategy (0.3) analyze documents for deposition preparation of [redacted] (2.4).	6.40	725.00	4,640.00
9/19/24	SR	Continue reviewing case materials and notes to prepare for and outline [redacted] deposition.	7.00	650.00	4,550.00
9/19/24	HM	Attend document review daily team meeting (0.3); revise Debtors' responses to Whinstone's requests for production (0.7); draft Debtors' responses to Whinstone's first set of interrogatories (1.5); finish performing quality check of assigned batches (1.6).	4.10	600.00	2,460.00
9/19/24	PNY	Attend document review daily team meeting (0.3); review assigned document batches (7.7).	8.00	480.00	3,840.00
9/19/24	VA	Review assigned document batches.	8.00	480.00	3,840.00
9/19/24	HS	Attend document review daily team meeting (0.3); review assigned document batches (5.8).	6.10	480.00	2,928.00
9/19/24	FF	Review assigned document batches.	8.00	480.00	3,840.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/19/24	MV	Review [redacted] regarding privilege log requirements (0.5); correspondence with litigation team regarding [redacted] fields required for privilege log and next steps (0.5); continue review of defensive document review memorandum (0.5); review [redacted], per attorney instruction (0.5); review [redacted] privilege and issue tags and create saved search in preparation for privilege log (1.0); call with CH regarding search parameters and revise saved search for privilege log (1.0).	4.00	400.00	1,600.00
9/19/24	CHH	Attend teleconference with PB, HM, and Rhodium [redacted] regarding miner data collection (0.4); finalize production set 4 (2.6); prepare and finalize production overlays with additional custodian information for productions 1-3 (2.0); correspond with with [redacted] regarding same (0.1); correspond with PB regarding same (0.3); review and upload new client documents into database for production (0.3); correspond with MV regarding discovery tasks including privilege log (0.3); attend daily document review check-in with HM, PB, and discovery associates (0.2).	6.20	325.00	2,015.00
9/19/24	JH	Continue reviewing productions to identify materials for deposition preparation (3.5); review CHH memorandum regarding preparing production sets for service (1.0).	4.50	325.00	1,462.50
9/20/24	EB	Correspond with (0.1) and attend teleconference with (0.3) BA regarding further revisions to RFP responses; propose further revisions to same (0.1); correspond with BA and HM regarding finalization of same (0.1).	.60	1100.00	660.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/20/24	BA	Confer with EB regarding responses to requests for production (0.3); continue reviewing and revising responses to Whinstone's requests for production, correspond and confer as needed with HM, EB, JS, A. Davis, and PB to supervise finalization and service of same, and review near-final responses to approve service of same (4.2); confer with PB regarding discovery and production issues (0.3); correspond with HM and PB regarding document review and production (0.2); review and revise draft responses to interrogatories (0.8); correspond with AA and with M. Smith as necessary to assist with transferring documents and data to C. Griffey and correspond with C. Griffey regarding meeting (0.2); review Riot's response to subpoena and correspond with W. Thompson regarding same (0.2); correspond with team and Arbitrator regarding Arbitrator's request for update on status (0.1).	6.30	1050.00	6,615.00
9/20/24	JS	Continue deposition defense outlining and document review in connection with same (3.0); correspond with SR and CS regarding deposition prep status (0.1); attend teleconference with BA regarding discovery status and next steps (0.1); review [redacted] responses (0.3).	3.50	875.00	3,062.50
9/20/24	CS	Continue revising motion for summary judgment in response to comments from PS and JS (1.5); continue reviewing documents relevant to [redacted] and drafting outline of the same in anticipation of preparing him to be deposed (4.0).	5.50	725.00	3,987.50
9/20/24	PB	Teleconference with [redacted] regarding potential production issues (0.2); prepare fifth and sixth productions of documents and team correspondence regarding same (6.4); teleconference with BA regarding production preparation and responses to requests for production (0.2).	6.80	725.00	4,930.00
9/20/24	SR	Review temporary injunction hearing transcripts and exhibits to begin outlining list of relevant safety incidents and follow-up actions in connection with deposition preparations (7.0); correspond with CS and JS regarding the same (0.3).	7.30	650.00	4,745.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/20/24	HM	Attend document review daily team meeting (0.1); update log of expert materials (0.2); revise, finalize, and serve responses to Whinstone's first sets of RFPs (2.1); complete quality check of additional production documents (1.2); confer with T. Stefan (Setec), CH and PB about review of collected text messages (0.3).	3.90	600.00	2,340.00
9/20/24	PNY	Attend document review daily team meeting (0.2); review assigned documents including text message batches (7.8).	8.00	480.00	3,840.00
9/20/24	TT	Review and analyze transcripts of First Day Motions and April 2024 AAA Hearing to assist in preparation for depositions of [redacted].	2.00	480.00	960.00
9/20/24	VA	Review assigned document batches.	8.00	480.00	3,840.00
9/20/24	HS	Attend document review daily team meeting (0.1); review additional assigned documents (6.3).	6.40	480.00	3,072.00
9/20/24	FF	Attend document review daily team meeting (0.1); review assigned document batches (7.9).	8.00	480.00	3,840.00
9/20/24	MV	Revise saved search and search parameters for privilege log, further revise issue tags and fields for download of log, review and format draft log and required information fields (2.0); further review of [redacted] (0.5); draft [redacted] regarding privilege log (1.0); teleconference with PB regarding review of draft privilege log and further edits (0.5); create list of all Privilege tags [redacted] (0.5); further revise and review draft log, per attorney instructions (1.0).	5.50	400.00	2,200.00
9/20/24	CHH	Set up various QC searches for production sets 6 and 7 (0.5); collect hearing transcripts for client review in preparation for depositions (0.8); coordinate with QH to upload Whinstone's production sets into discovery platform for further review (1.0); emails with A. Swartz (Lehotsky) regarding same in anticipation of further offensive document review (0.1); emails with T. Stefan (Setec) regarding text message data collection and review (0.2); upload [redacted] text messages into database for further review and [redacted] (3.0); confer with PB regarding Whinstone complaints regarding initial document productions and troubleshoot same (0.6).	6.20	325.00	2,015.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/21/24	BA	Convey discovery correspondence to [redacted] and correspond with [redacted] regarding [redacted].	.10	1050.00	105.00
9/21/24	JS	Outline trial arguments and begin high-level order of proof outline.	2.90	875.00	2,537.50
9/21/24	PB	Preparation of custodial and collected documents for production to Whinstone and correspondence regarding same.	2.70	725.00	1,957.50
9/21/24	HS	Review assigned text message document batches.	3.10	480.00	1,488.00
9/22/24	EB	Correspond with BA, VO, and JS regarding inspection request and status of potential witness [redacted] (0.1); review materials concerning (0.2) and correspond with CS and PB regarding (0.1) versions of data center rules [redacted]; review and respond to correspondence with BA, VO, and JS regarding issues and positions in advance of upcoming meet and confer teleconference with opposing counsel (0.1).	.50	1100.00	550.00
9/22/24	BA	Research requests for inspection of premises under Rule 34, analyze issues with Whinstone's request, and convey analysis to litigation team (0.8); correspond with PB, JS, and HM regarding analysis of privilege issues with respect to document production (0.3); correspond with EB, VO, and JS regarding [redacted] and potential issues related to same, and regarding limits on number of depositions (0.2); confer with VO regarding [redacted] (0.1); research issues related to unavailable witnesses and correspond with EB, VO, and JS regarding same (0.3).	1.70	1050.00	1,785.00
9/22/24	VO	Prepare email to EB, BA, and JS regarding status of [redacted] (0.2); confer with BA regarding witness representation issues and emails with team regarding same (0.3).	.50	875.00	437.50
9/22/24	JS	Continue [redacted] deposition prep and outlining trial strategy in light of and in connection with same.	3.60	875.00	3,150.00
9/22/24	PB	Preparation of custodial and collected documents for production and team correspondence regarding same.	3.90	725.00	2,827.50

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Date	Tkpr	Description	Hours	Rate	Amount
9/23/24	PS	Prepare for (1.8) and confer with (0.4) JS and CS regarding motion for partial summary judgment.	2.20	1250.00	2,750.00
9/23/24	EB	Review and analyze case materials in support of expert support (1.0); prepare for (0.1) and attend (0.6) portion of teleconference with ERCOT expert; correspond with BA, JS, HM, and HJA regarding additional documents for ERCOT expert (0.1); review correspondence from opposing counsel concerning general objections and correspond with BA regarding response to same (0.1); correspond with BA, PB, and HM regarding tracking of materials sent to experts (0.2); attention to case management (0.1); correspond with BA and JS regarding response to discovery disputes concerning third party subpoenas and inspection requests (0.2); begin reviewing and commenting on draft interrogatory responses (0.9).	3.30	1100.00	3,630.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/23/24	BA	Review privilege question and correspond with PB regarding same (0.1); confer with JS regarding discovery matters and high priority action items (0.9); prepare for (0.4) and participate in teleconference (0.7) with expert C. Griffey; confer with CS, JS, and SR regarding strategy for deposition preparation and discovery correspondence, and correspond with SR regarding discovery correspondence (0.5); review discovery correspondence from Whinstone's counsel, and correspond with PB, EB, and JS regarding same (0.5); correspond with JS, PB, and HM regarding preparation for meet and confer with opposing counsel and review updates on same (0.4); confer with JS regarding strategy for discovery disputes, including deposition planning and request for inspection (0.5); correspond with [redacted] JH, and C. Griffey as needed to arrange upload of data and files (0.3); correspond with HM, EB, and JH regarding tracking of expert materials (0.2); correspond with PB and JS regarding Whinstone's demand for native word files and response to same (0.1); draft proposed response to Whinstone's counsel regarding request for inspection, convey same to team for review, [redacted], and email from Whinstone's counsel requesting update on same (0.8); review request from arbitrator regarding hearing dates and convey proposed response to bankruptcy counsel (0.1); continue reviewing and revising interrogatory responses (0.4).	5.80	1050.00	6,090.00
9/23/24	JS	Calls with BA regarding meet and confer issues, discovery status and next steps, and deposition preparation (1.5); attend videoconference with BA, CS, and SR regarding B. Cottrell and P. Richison deposition preparation and discovery response letter (0.5); Zoom with CS and PS regarding motion for summary judgment (0.4); prepare for and attend meet and confer with Foley regarding motion for protective order and depositions (4.0); evaluate next steps in light of meet and confer and prepare follow up correspondence and associated strategy in connection with same (4.0); evaluate outstanding document discovery issues and correspond with PB and BA regarding same (0.8).	11.60	875.00	10,150.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/23/24	CS	Attend videoconference with BA, JS, and SR regarding deposition preparation (0.5); meet with JS and PS to discuss motion for partial summary judgment (0.4); revise motion for partial summary judgment (2.1); review and analyze documents relevant to [redacted] and [redacted] in anticipation of preparing them for their depositions (2.1).	5.10	725.00	3,697.50
9/23/24	PB	Prepare production of documents related to [redacted] (0.8); prepare and finalize upcoming productions of custodial and collected documents in response to Whinstone requests for production (5.3); analysis of Whinstone positions regarding production of Word documents and correspondence regarding same (1.5); supervisory review potentially-privileged documents in preparation to draft privilege log and for production (1.8); prepare production of financial information and correspondence with client regarding same (1.2); review and analysis of [redacted] text messages for production (0.9); analysis of materials for expert use and transmission of same (1.0)	11.60	725.00	8,410.00
9/23/24	SR	Attend portion of videoconference with BA, JS, and CS regarding deposition preparations and outstanding discovery-related actions items (0.4); review and analyze discovery responses and related deficiency correspondence (6.1).	6.50	650.00	4,225.00
9/23/24	HM	Attend document review daily team meeting (0.3); attend teleconference with ERCOT expert C. Griffey, BA, EB, and JHA to regarding materials for analysis (0.6); attend meet-and-confer teleconference with JS and AA, and Whinstone's counsel (0.4); continue drafting and revising responses to Whinstone's first sets of interrogatories (2.5); begin reviewing and analyzing text messages of [redacted] (3.7); begin performing quality check of additional document batches (1.5).	9.00	600.00	5,400.00
9/23/24	PNY	Attend document review daily team meeting (0.3); review assigned document batches (7.7).	8.00	480.00	3,840.00
9/23/24	TT	Review and analyze transcripts of April 2024 AAA Hearing and March 2024 Temporary Injunction Hearing Volume 1 to assist in preparation for depositions of [redacted].	2.00	480.00	960.00
9/23/24	VA	Continue reviewing assigned documents.	8.00	480.00	3,840.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/23/24	HS	Attend portion of document review daily team meeting (0.2); continue reviewing assigned documents (5.0).	5.20	480.00	2,496.00
9/23/24	FF	Attend portion of document review daily team meeting (0.2); review assigned documents (7.8).	8.00	480.00	3,840.00
9/23/24	MV	Begin review of draft privilege log and identify entries for further attorney review (6.0); correspond with review team regarding sorting family documents (0.5); assist with sorting and saving of same in chronological order (0.5).	7.00	400.00	2,800.00
9/23/24	CHH	Assign various documents in discovery database to discovery associates for further review (0.2); set up review set containing redacted documents coded for production for further quality checks (0.3); review correspondence with opposing counsel and update internal production log accordingly (0.1); update document collection memorandum to keep track of documents collected for production (0.2); daily document review check-in with HM and discovery associates (0.2); review and analyze potential documents for production set eight and identify issues with same for PB further review (0.5); prepare production 5 for production (2.6); review [redacted] (Rhodium) documents in preparation for deposition (2.0).	6.10	325.00	1,982.50
9/23/24	JH	Prepare ShareFile folder with relevant contracts, pleadings in the bankruptcy and arbitration dockets, and rhodium usage data for expert C. Griffey's review at BA request (2.0); attend teleconference with BA, EB, HM, JS, and expert Charles Griffey to review [redacted] for his upcoming expert report (0.8); prepare notes for the same (0.7); request transcript of [redacted] status conference for HM (0.9).	4.40	325.00	1,430.00
9/23/24	ASA	Attend meet and confer with JS, HM, and opposing counsel (0.4); record notes and circulate with team (0.1); attention to contact list and [redacted] (1.5).	2.00	325.00	650.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/24/24	EB	Review correspondence to opposing counsel on various discovery issues and correspond with BA and JS regarding revisions to same (0.1); begin reviewing and analyzing materials for ERCOT and damages experts (2.8); correspond with PB regarding same and upcoming teleconference with damages expert (0.1); correspond with BA regarding verification of interrogatory responses (0.1).	3.10	1100.00	3,410.00
9/24/24	BA	Review and analyze issues relating to text message production and correspond with PB regarding same (0.4); correspond with JS, EB, W. Thompson and team regarding [redacted] Whinstone's late request for inspection (0.3); correspond with Arbitrator regarding hearing dates (0.1); correspond with JS regarding issues for weekly client/counsel call (0.1); participate in teleconferences with client team and client team, litigation and bankruptcy counsel, to discuss alleged issues and action items including [redacted] (1.7); correspond with JS regarding response to Whinstone's counsel on multiple discovery matters (0.2); continue reviewing and revising interrogatory responses, correspond with PB regarding same, and convey draft of same to client for review (2.6); correspond with JS, HM, and PB regarding materials provided to expert witness E. Brown and production of same (0.1); correspond with M. Smith regarding ERCOT data (0.2); review correspondence from JS to Whinstone's counsel regarding discovery matters (0.1).	5.80	1050.00	6,090.00
9/24/24	JS	Call with [redacted] regarding retention of safety expert (0.2); call with W. Thompson regarding outstanding discovery issues (0.4); zoom with client and attorney teams regarding Whinstone allegations of safety and OSHA issues (0.7); zoom with client and attorney teams regarding outstanding discovery issues and [redacted] (1.0); revise and prepare further correspondence to Foley regarding outstanding document discovery, deposition, and related issues (2.7); begin outlining issues for safety expert report (3.1); review and confer with [redacted] regarding document discovery [redacted] in connection with substantial completion deadline (0.4); review revised motion for partial summary judgment (0.4).	8.90	875.00	7,787.50

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Date	Tkpr	Description	Hours	Rate	Amount
9/24/24	CS	Participate in meeting with client and legal team to obtain safety and maintenance update on issues raised in February 2024 letter from Whinstone (0.8); revise motion for partial summary judgment to incorporate feedback from JS and PS (2.2); review and analyze documents relevant to Brendan Cottrell in anticipation of preparing him for his deposition (4.4).	7.40	725.00	5,365.00
9/24/24	PB	Prepare production of documents regarding inter-company agreements (0.8); revise draft interrogatory responses (0.5); prepare production of corporate go-get documents (2.3); prepare production of bank statements (2.9); call with HM and T. Stefen regarding text message production (0.2); prepare seventh production of documents to Whinstone (1.3).	8.00	725.00	5,800.00
9/24/24	SR	Attend portion of videoconference with [redacted], LKC team, and Stris team to discuss safety, AUP, and OSHA allegations and site inspection request (0.7); draft correspondence in response to Sept. 23 correspondence from opposing counsel regarding discovery deficiencies (3.9).	4.60	650.00	2,990.00
9/24/24	HM	Attend document review daily team meeting (0.1); attend portion of teleconference with Stris, LKC, and Rhodium regarding safety allegations (0.7); complete quality check of additional documents (3.8); attend teleconference with A. Davis, AA, and J. Ledoux regarding response to subpoena (0.4); draft summary of same for BA, JS, PB, A. Swartz, W. Thompson, M. Rothrock, and A. Davis (0.4); attend teleconference with T. Stefan (Setec) regarding processing and review of text messages (0.4).	5.80	600.00	3,480.00
9/24/24	TT	Review and analyze transcripts of Temporary Injunction Hearings Vol 1 and Vol 2 to assist in preparation for depositions of [redacted].	1.50	480.00	720.00
9/24/24	MV	Continue review of draft privilege log and document potential issues and questions for further discussion with attorney, teleconference with attorney regarding the same (1.0); continue revisions and format fields on draft privilege log (3.0); revise [redacted] privilege tags on draft log (3.0).	7.00	400.00	2,800.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/24/24	CHH	Finalize productions 5 and 6 (2.0); prepare potential production 8 for attorney QC (1.0); upload various client documents into discovery database for further review and production (0.2); emails with [redacted] regarding [redacted] redaction [redacted] (0.1); review discovery database for potentially privileged financial documents and confer with HM regarding same (0.2); review [redacted] (Rhodium) documents in preparation for deposition (2.2); confer with PB regarding document redactions (0.1); set up further privilege reviews in preparation for privilege log (0.4).	6.20	325.00	2,015.00
9/24/24	JH	Update bankruptcy docket.	.90	325.00	292.50
9/24/24	ASA	Attend call with HM and J. Ledoux regarding subpoena compliance and prepare and circulate notes regarding same (0.5).	.50	325.00	162.50
9/25/24	PS	Review and revise latest draft partial summary judgment motion.	1.90	1250.00	2,375.00
9/25/24	EB	Confer with BA regarding proposed verification language and exemplars (0.1); attend portion of teleconference with BA, JS, HM, LKC, and [redacted] regarding interrogatory responses (0.6); review and analyze materials for ERCOT and Damages experts (1.0).	1.70	1100.00	1,870.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/25/24	BA	Participate in teleconference with PB, HM, and Stoneturn expert team to discuss forthcoming opinions and document/data needs (0.9); prepare for (0.2) and participate in teleconference with client team and litigation team to review and discuss [redacted] (1.1); confer with PB, [redacted] regarding interrogatory responses (0.7); confer with PB regarding production and discovery matters (0.2); correspond with HM regarding third party subpoenas and protective order (0.1); review discovery correspondence from Whinstone's counsel and correspond with JS and litigation and bankruptcy counsel regarding strategy for responding to same, including [redacted] (0.5); correspond with EB regarding interrogatory verification language, review exemplars of same, convey same to [redacted] for review, and convey same to bankruptcy counsel for review (0.3); correspond with JS regarding interrogatory responses and discovery matters (0.3); correspond with HM regarding document collection for C. Griffey (0.2).	4.70	1050.00	4,935.00
9/25/24	JS	Draft and review correspondence and evaluate strategy on high-priority discovery issues (7.4); review and revise introduction to motion for summary judgment (1.5); zoom with attorney and client teams regarding [redacted] responses (1.0); zoom with Stris and LKC teams regarding Whinstone production deficiencies and text messages (0.7); evaluate possible summary judgment arguments regarding [redacted] (2.5).	13.10	875.00	11,462.50
9/25/24	CS	Review and analyze documents relevant to [redacted] in anticipation of preparing him for his deposition and continue drafting outline of the same (6.1); review and analyze transcript of [redacted] testimony during March 1, 2024 hearing (2.0).	8.10	725.00	5,872.50

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Date	Tkpr	Description	Hours	Rate	Amount
9/25/24	PB	Teleconference with C. Huang regarding native Word document production (0.4); prepare productions of documents in anticipation for substantial completion deadline (5.5); attend discovery teleconference with client executive team regarding status and responses to interrogatories (1.0); attend follow-up call with [redacted] regarding financial document discovery (1.0); further follow-up teleconference with [redacted] regarding data requests (0.8); teleconference with expert T. Lewis and team regarding financial expert report (0.9).	9.60	725.00	6,960.00
9/25/24	SR	Revise and incorporate JS comments in draft correspondence in response to Sept. 23 correspondence from opposing counsel regarding discovery deficiencies (3.2); correspond with team regarding the same (0.1).	3.30	650.00	2,145.00
9/25/24	HM	Update EB regarding status and high priority action items (0.4); organize and refine expert materials folders (0.4); update expert materials log (0.5); attend teleconference with PB, BA, and Stoneturn to discuss materials and information needed for expert report (0.8); draft and send email to [redacted] regarding collection of [redacted] (0.1); attend teleconference with BA, PB, EB, JS, and Rhodium team to discuss [redacted] responses (1.1); attend portion of teleconference with A. Swartz, W. Thompson, JS, and M. Rothrock to discuss deficiency letter (0.4); review and respond to team correspondence regarding remaining discovery and upcoming substantial completion deadline (1.5); review, analyze, and prepare documents for ERCOT expert C. Griffey (3.1); confer with PB about final productions of documents (0.5); correspond with counsel for Priority Power Management and J. Ledoux about protective order (0.3); review and respond to correspondence with discovery associates about remaining document review tasks (1.2).	10.30	600.00	6,180.00
9/25/24	PNY	Review assigned document batches.	2.00	480.00	960.00
9/25/24	TT	Review and analyze transcript of Temporary Injunction Hearing Vol 2 to assist in preparation for depositions of [redacted].	1.50	480.00	720.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/25/24	VA	Review assigned privilege review batches.	8.00	480.00	3,840.00
9/25/24	HS	Review assigned privilege review batches.	4.20	480.00	2,016.00
9/25/24	FF	Review assigned privilege review batches.	8.00	480.00	3,840.00
9/25/24	MV	Continue revising draft privilege log [redacted] (2.0); continue highlighting of document entries for further attorney review [redacted] (2.0); edit template fields [redacted] (0.5).	4.50	400.00	1,800.00
9/25/24	CHH	Review correspondence between team and [redacted] (Rhodium) regarding further document collection and facilitate same (0.2); set up further rounds of privilege review and confer with HM and PB regarding same (0.5); upload various client documents into discovery database in preparation for production (0.3); create various searches of documents marked for [redacted] attorney review (0.3); set up final checks for production set 7 and finalize same in conference with PB (2.0); email with PB regarding production 8 set up (0.2); emails with discovery associates regarding privilege review (0.2); [redacted] finalize production set 6 (1.0); emails with HM and QH regarding Whinstone's fifth production (0.2); review [redacted] (Rhodium) documents in preparation for depositions and confer with CS regarding same (1.0).	5.90	325.00	1,917.50
9/26/24	EB	Review response to deficiency letter (0.1); correspond with BA and JS regarding same and [redacted] (0.1); attention to case management (0.4); review proposed verification language from K. Hutchins and correspond with BA regarding same (0.1); review and correspond with BA regarding further revised interrogatory responses (0.5).	1.20	1100.00	1,320.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/26/24	BA	Correspond with JS and EB regarding strategy for response to Whinstone's inspection demand and review Whinstone's motion regarding same (0.6); correspond with JS, EB, and team regarding response to Whinstone's deficiency letter and [redacted] (0.3); correspond with HM regarding transmittal of documents to C. Griffey and with M. Smith regarding call with C. Griffey (0.1); continue reviewing and revising interrogatory responses, correspond with SR and PB regarding revisions to same, confer with PB regarding strategy for same, correspond with litigation team and with bankruptcy counsel regarding same, including verification and [redacted] responses (2.5); confer with JS regarding opposition to inspection request, convey research to JS, review draft of opposition, and correspond with JS and team regarding same (0.4); confer with PB regarding status of outgoing productions and substantial completion (0.4); correspond with [redacted] regarding data for C. Griffey and correspond with JS regarding same (0.1); review draft deficiency letter to Whinstone (0.1); begin reviewing Whinstone's responses to RFPs (0.2).	4.70	1050.00	4,935.00
9/26/24	VO	Review and evaluate draft letter to [redacted] (0.1); emails with [redacted] regarding same (0.1); review [redacted] email response to [redacted] (0.3); prepare proposed revisions to letter (0.2); prepare email to [redacted] regarding same (0.2); confer with CS to assist with preparation for defensive deposition of [redacted] (0.3).	1.20	875.00	1,050.00
9/26/24	JS	Attend videoconference with E. Brown and Stris team regarding safety expert report (0.2); prepare preliminary draft outline of same (2.1); attend teleconference with BA regarding response to Whinstone deficiency letter (0.1); revise draft response to same and finalize same for service (1.0); draft further high priority discovery correspondence (2.5); prepare opposition to Whinstone emergency motion for status conference (3.4); attend teleconfrence with CS regarding motion for summary judgment and trial strategy (0.3); evaluate potential summary judgment arguments regarding Whinstone defaults (2.0); prepare witness list for exchange with Whinstone (0.5).	12.10	875.00	10,587.50

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Date	Tkpr	Description	Hours	Rate	Amount
9/26/24	CS	Participate in call with expert E. Brown regarding expert report (0.2); revise motion for partial summary judgment (0.7); draft proposed order granting motion for partial summary judgment (0.3); review Whinstone's emergency motion for hearing on discovery dispute (0.3); review and revise opposition to emergency motion for hearing on discovery dispute (0.3); continue reviewing and analyzing transcript of [redacted] prior testimony (1.4); meet with VO regarding [redacted] prior testimony (0.3); meet with JS to discuss motion for partial summary judgment (0.3); continue reviewing and analyzing documents relevant to [redacted] in anticipation of preparing him for his deposition (3.7).	7.50	725.00	5,437.50
9/26/24	PB	Update EB regarding expert discovery status (0.3); prepare eighth, ninth, tenth, and eleventh productions of documents (7.8); teleconference with B. Asay regarding same (0.3); teleconference with K. Pritchard and A. Galbraith regarding production issues (0.4); analyze and compile documents for analysis by potential expert T. Lewis (1.0).	9.80	725.00	7,105.00
9/26/24	SR	Review and revise interrogatory responses.	5.50	650.00	3,575.00
9/26/24	HM	Attend document review daily team call (0.1); review and respond to team correspondence regarding discovery to be produced by substantial completion date, September 26 (2.0); review and revise draft of motion for summary judgment (0.5); complete reviewing and analyzing documents to send to Charles Griffey for his ERCOT expert analysis (2.5); update [redacted] (0.4); organize and refine [redacted] (0.2); confer with PB about document production (0.5); review and analyze text messages of [redacted] (0.5); review and analyze documents related to the purchase of new miners for document production (1.4); review and revise Rhodium-Whinstone Witness Preparation slide deck and case themes (1.2); review response to Whinstone's emergency motion for hearing (0.3); review and analyze Whinstone's responses to Debtors' RFPs - Set One (0.8).	10.40	600.00	6,240.00
9/26/24	PNY	Review assigned document batches.	2.00	480.00	960.00

Invoice # 14263 November 4, 2024

Date	Tkpr	Description	Hours	Rate	Amount
9/26/24	TT	Review and analyze transcript of Temporary Injunction Hearing Vol 2 to assist in preparation for depositions of [redacted]	2.20	480.00	1,056.00
9/26/24	VA	Review assigned privilege review batches.	8.00	480.00	3,840.00
9/26/24	HS	Review assigned privilege review batches.	3.40	480.00	1,632.00
9/26/24	FF	Review assigned privilege review batches (7.8).	7.80	480.00	3,744.00
9/26/24	MV	Continue review of draft privilege log and highlight document entries for further attorney review and [redacted].	3.00	400.00	1,200.00
9/26/24	CHH	Document review check-in with HM, PB, and discovery associates (0.1); finalize and run productions 8, 9, and 10 (5.0); upload various client documents to document database for production (0.2); finalize [redacted] native productions and overlays for production sets 1, 3, 4, and 5 (1.0); summarize [redacted] (Rhodium) document review for CS [redacted] (0.3).	6.60	325.00	2,145.00
9/26/24	JH	Attend meeting with expert Eric Brown to discuss case updates and details regarding Brown's expert report with PB, CS and JS (0.3); confer with CHH and ASA regarding continued document review of Rhodium [redacted] emails found in document productions (0.5).	.80	325.00	260.00
9/26/24	ASA	Record material sent to expert Charles Griffey [redacted] at request of HM (0.3); review prior [redacted] email review efforts in light of request by JS to [redacted] (0.9); review [redacted] documents for responsiveness to assist JS with deposition preparation (2.0).	3.20	325.00	1,040.00
9/27/24	EB	Review correspondence from BA regarding ERCOT expert issues (0.1); begin analyzing same (0.2).	.30	1100.00	330.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/27/24	BA	Prepare for and attend teleconference with SD, [redacted] and C. Griffey and review and confirm notes regarding same (0.7); analyze issues relevant to energy credit and expert opinion of C. Griffey and convey same to PB, HM, JS, and EB (0.7); review drafts of opposition to Whinstone's inspection request, research Rule 26 issue for same, and correspond with JS, CS, JH, and team regarding same (0.8); correspond with PB and HM regarding information and revisions needed to finalize interrogatory responses, continue reviewing and revising same, review and confirm documents cited in support of same, oversee process for generating responses for each interrogated entity, correspond and confer with [redacted] regarding finalization [redacted] of same, review and approve near-final and final versions of same (4.5); correspond with PB and team regarding additional hash rate documents for production, additional production from Whinstone, and steps for checking and confirming final productions before final discovery deadline (0.3);correspond with A. Swartz regarding attendance at Monday's hearing (0.1); correspond with W. Thompson and A. Swartz, and with Whinstone's counsel R. Slovak, regarding representation of Lyle Theriot (0.3); review Whinstone's motion to remand Imperium suit (0.2); review transcript of [redacted] and convey same with analysis to [redacted] and [redacted] (0.4); review proposed email to Foley exchanging witness information and correspond with JS, PB, and HM regarding timing of same (0.1).	8.10	1050.00	8,505.00
9/27/24	JS	Review and revise response to Whinstone emergency motion (2.1); calls with CS (0.2) and P. Tomasco (0.2) regarding same; prepare and serve email regarding witness list exchange (0.8).	3.30	875.00	2,887.50
9/27/24	CS	Review and revise opposition to Whinstone's emergency request for hearing on request to inspect premises (2.8); email communications with client regarding the same (0.4); review and analyze case law and other legal authority in support of the same (1.0); review cite check of the same (0.3); review and analyze documents relevant to [redacted] in anticipation of preparing him for his deposition (2.4).	6.90	725.00	5,002.50
9/27/24	PB	Prepare twelfth production of documents (3.8); draft privilege log regarding documents produced to date (1.9); revise draft interrogatory responses (0.7).	5.60	725.00	4,060.00

Invoice # 14263 November 4, 2024

Date	Tkpr	Description	Hours	Rate	Amount
9/27/24	HM	Revise, finalize, and serve Air HPC's, Jordan HPC's, Rhodium 10MW's, Rhodium 30MW's, and Rhodium Encore's responses to Whinstone's first set of interrogatories (7.5); update [redacted] (0.2); organize and refine [redacted] materials (0.2).	7.90	600.00	4,740.00
9/27/24	PNY	Review assigned privilege review batch.	2.00	480.00	960.00
9/27/24	TT	Review and analyze transcript of Motion for Temporary Injunction Vol 1 Dec 2023 to assist in preparation for depositions of [redacted].	2.00	480.00	960.00
9/27/24	VA	Review assigned privilege review batches.	8.00	480.00	3,840.00
9/27/24	FF	Attend document review daily team meeting (0.2); review assigned document review batches (7.8).	8.00	480.00	3,840.00
9/27/24	MV	Review database workflow and evaluate potential issues regarding data and production formatting (1.5); continue review of draft privilege log and address highlighted entries for further review (2.0); update [redacted] regarding same (1.0).	4.50	400.00	1,800.00
9/27/24	JH	Continue document review of productions 5 through 8 to identify materials for deposition preparation and trial (3.0); confer with PB regarding potential further review project (0.3); confer with SD to assist in finalizing expert meeting notes (0.5); cite-check draft response to Whinstone's motion for a status conference for CS (1.5).	5.30	325.00	1,722.50
9/27/24	SD	No Charge - Attend teleconference with BA and expert Charles Griffey (0.3); attend teleconference with JAH for introduction to the matter (0.2); research and draft notes over meeting (1.3).	1.80	325.00	N/C
9/28/24	EB	Attention to case management (0.4); review and respond to email from JS regarding high priority action items including expert reports (0.1).	.50	1100.00	550.00
9/28/24	JS	Evaluate and plan for high-priority tasks for October (3.1); prepare for status conference regarding Whinstone request for inspection (0.5).	3.60	875.00	3,150.00
9/29/24	JS	Review briefing and interrogatory responses and prepare argument in connection with discovery hearing preparation.	2.50	875.00	2,187.50

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Date	Tkpr	Description	Hours	Rate	Amount
9/29/24	PB	Draft summary analysis of data productions for hearing preparation.	2.30	725.00	1,667.50
9/29/24	HM	Review and respond to team correspondence regarding document discovery and Whinstone's requested inspection of the premises (0.3).	.30	600.00	180.00
9/29/24	TT	Review and analyze prior transcripts in preparation to assist in preparation for depositions of [redacted] (1.5); correspond with PB regarding review and analysis of transcripts (2.5).	4.00	480.00	1,920.00
9/30/24	PS	Attend team call with PB, VO, EB, JS, and CS regarding workflow and case strategy.	.90	1250.00	1,125.00
9/30/24	EB	Attend portion of strategic planning teleconference with PS, BA, VO, JS, CS, and PB (0.7); review correspondence from JS regarding results of hearing and upcoming inspection (0.1).	.80	1100.00	880.00
9/30/24	BA	Review and comment on draft summary judgment motion and correspond with CS regarding research related to same and potential Whinstone termination theories (1.3); participate in teleconference with JS, P. Tomasco, M. Robinson and D. Dunn regarding potential D. Dunn trial testimony (0.5); attend portion of teleconference with JS, PS, EB, VO, CS, and PB to discuss strategic planning for pretrial and trial action items (0.7); participate in teleconference with JS and bankruptcy counsel to discuss status conference on inspection request (0.4); review and propose revisions to correspondence to opposing counsel regarding same (0.1); attend status conference with court (0.5); attend portion of teleconference with PB, HM, and JS to discuss resulting action items (0.6); correspond with A. Davis and HM regarding subpoena follow up (0.1).	4.20	1050.00	4,410.00
9/30/24	VO	Attend portion of Stris team teleconference regarding strategy, assignments, and next steps (0.8).	.80	875.00	700.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/30/24	JS	Prepare for and attend meet and confer call with opposing counsel regarding depositions and inspection (1.8); prepare for discovery hearing regarding inspection and review document and Whinstone data requests in light of same (2.5); attend teleconference with D. Dunn, M. Robinson, P. Tomasco, BA, HM, and PB regarding potential trial testimony of D. Dunn (0.5); attend teleconference with P. Tomasco and BA regarding preparation for discovery hearing (0.4); attend discovery hearing (0.5); attend follow-up calls with [redacted] (0.1), P. Tomasco (0.2), and BA, HM, and PB (0.4) regarding next steps in light of outcome of hearing; prepare further correspondence regarding inspection and information requests from Whinstone (1.5); prepare for and attend Stris team planning call for high-priority October projects (0.9); review data produced in connection with [redacted] (0.8).	9.60	875.00	8,400.00
9/30/24	CS	Draft analysis of alleged breaches in April 22, 2024 notice of termination (5.1); participate in portion of team meeting regarding tasks necessary to prepare for trial (0.7); review and analyze material and begin outlining trial brief (2.4); review and analyze documents relevant to [redacted] deposition preparation (0.8).	9.00	725.00	6,525.00
9/30/24	PB	Prepare follow-up final productions of financial and custodial data (6.3); attend teleconference with Province team and co-counsel (0.5); attend teleconference with PS, VO, EB, JS, and CS regarding workflow and case strategy (0.9); attend court conference regarding inspection (0.6); attend portion of follow-up team call regarding same (0.4).	8.70	725.00	6,307.50
9/30/24	HM	Review and analyze communications and advise AA regarding updates to contact list and case management materials (5.0); attend teleconference with M. Robinson and D. Dunn (Province), BA, JS, PB, and P. Tomasco (Quinn Emanuel) (0.5); attend meet-and-confer teleconference with JS, BA, AA, and opposing counsel (0.6); review and respond to team correspondence regarding discovery matters and status conference (2.5); advise CH regarding updates to production log and document collection memorandum (1.0); attend team teleconference to discuss inspection of Rockdale facility (0.5).	10.10	600.00	6,060.00

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Date	Tkpr	Description	Hours	Rate	Amount
9/30/24	TT	Review and analyze additional prior testimony to assist in preparation for depositions of [redacted] (2.6); correspond with PB regarding analysis of same (0.2).	2.80	480.00	1,344.00
9/30/24	MV	Continue reviewing and updating draft privilege log and and related materials including to address entries designated for further review.	2.50	400.00	1,000.00
9/30/24	JH	Continue reviewing [redacted] emails from productions 5 through 8 in support of deposition and trial preparation.	2.00	325.00	650.00
9/30/24	ASA	Attend and assist JS and HM with notes from meet and confer with opposing counsel (0.6); circulate notes from meeting to Stris team (0.4); review video referenced by opposing counsel (0.1); update running matter memorandum to include document collection efforts, newly filed material, and case updates sent by HM (2.7); organize and file bankruptcy documents and subpoenas (0.5).	4.30	325.00	1,397.50
		TOTAL PROFESSIONAL SERVICES			**$ 1,102,504.50**

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SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Peter K. Stris	PS	Partner	20.40	1,250.00	25,500.00
Elizabeth Brannen	EB	Partner	23.80	1,100.00	26,180.00
Bridget Asay	BA	Partner	110.80	1,050.00	116,340.00
Victor O'Connell	VO	Partner	16.30	875.00	14,262.50
John Stokes	JS	Partner	218.60	875.00	191,275.00
Colleen Smith	CS	Associate	104.90	725.00	76,052.50
Peter Brody	PB	Associate	161.80	725.00	117,305.00
Sarah Rahimi	SR	Associate	104.30	650.00	67,795.00
Helen Marsh	HM	Associate	157.40	600.00	94,440.00
Tanya Tice	TT	Discovery Associate	29.40	480.00	14,112.00
Michele Jarrouj	MJ	Discovery Associate	20.10	480.00	9,648.00
Pascale Nyby	PNY	Discovery Associate	124.00	480.00	59,520.00
Venu Alagh	VA	Discovery Associate	156.50	480.00	75,120.00
Holly Sadlon	HS	Discovery Associate	126.10	480.00	60,528.00
Fatima Fofana	FF	Discovery Associate	177.80	480.00	85,344.00
Monica Viramontes	MV	Sr Paralegal	41.00	400.00	16,400.00
Andrew Atsalis	ASA	Fellow	25.40	325.00	8,255.00
Cynthia Huang	CHH	Fellow	87.90	325.00	28,567.50
Jaida Hodge-Adams	JH	Fellow	48.80	325.00	15,860.00
Total			**1,755.30**		**$ 1,102,504.50**

EXPENSES ADVANCED

Date	Task	Description	Amount
8/23/24		StoneTurn - September 2024 services.	12,637.50
9/01/24		Logikcull Discovery Solutions (September 2024).	2,646.00
9/30/24		Peregrine Consultants, LLC - Professional services for September 2024.	21,450.00
		TOTAL EXPENSES ADVANCED	**$ 36,733.50**

Invoice # 14263 November 4, 2024

TOTAL THIS INVOICE **$ 1,139,238.00**

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

STRIS & MAHER LLP'S SECOND MONTHLY FEE STATEMENT
FOR THE PERIOD OCTOBER 1, 2024, THROUGH OCTOBER 31, 2024

Stris & Maher LLP ("Stris & Maher") submits, pursuant to the Order Granting the Motion of the Debtors to Establish Procedures for Interim Compensation and Reimbursement of Expenses for Professionals (the "Interim Compensation Order") (ECF No. 264) entered on October 14, 2024, this monthly fee statement for the payment of interim compensation rendered and reimbursement of expenses incurred during the period October 1, 2024 through October 31, 2024 (the "Second Monthly Fee Statement").

Stris & Maher seeks payment of interim compensation in the total amount of $1,255,671.00 (80% of the services rendered), plus $120,666.25 (100% of the interim expenses incurred). *See* Interim Compensation Order at ¶ 1(a). Summaries of the fees and expenses are attached as Exhibits 1, 2, and 3. Invoices reflecting detailed time entries are attached hereto as Exhibit 4.

[1] Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), Rhodium Encore Sub LLC (1064), Rhodium Enterprises, Inc. (6290), Rhodium Industries LLC (4771), Rhodium Ready Ventures LLC (8618), Rhodium Renewables LLC (0748), Rhodium Renewables Sub LLC (9511), Rhodium Shared Services LLC (5868), and Rhodium Technologies LLC (3973). The mailing and service address of Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

Pursuant to the Interim Compensation Order, any party objecting to the payment of interim compensation and reimbursement of expenses shall serve within 14 days after delivery of the Second Monthly Fee Statement a written notice, via email, upon Stris & Maher and each of the other Fee Notice Parties (as listed below) (the "Written Notice"). The Written Notice shall set forth with reasonable detail the nature of the objection and the amount at issue. If the parties are unable to reach a resolution of the objection within 14 calendar days, the objecting party shall file its objection (the "Objection") with this Court within 3 business days and serve such Objection on Stris & Maher and each of the other Fee Notice Parties. See Interim Compensation Order ¶ 1(c).

The Fee Notice Parties as defined in the Interim Compensation Order are:

a. Rhodium Enterprises, Inc., Attn: Charles Topping (chucktopping@rhdm.com) and Morgan Soule (morgansoule@rhdm.com), 2617 Bissonnet Street, Suite 234, Houston, Texas 77005;

b. Debtors' Bankruptcy Counsel, c/o Quinn Emanuel Urquhart & Sullivan, LLP, Attn: Patricia B. Tomasco (pattytomasco@quinnemanuel.com); Razmig Izakelian (razmigizakelian@quinnemanuel.com), Alain Jaquet (alainjaquet@quinnemanuel.com), and Joanna D. Caytas (joannacaytas@quinnemanuel.com), 700 Louisiana, Suite 3900, Houston, Texas 77002;

c. Debtors' Financial Advisor, c/o Province, Attn: Mark Robinson (mrobinson@provincefirm.com); David Dunn (ddunn@provincefirm.com); Kirsten Lee (klee@province.com); and Andrew Popescu (apopescu@provincefirm.com), 2360 Corporate Circle, Suite 340, Henderson, Nevada 89074;

d. Galaxy Digital, LLC, in its capacity as DIP Agent, c/o Orrick, Herrington & Sutcliffe LLP, Ryan C. Wooten (rwooten@orrick.com), 609 Main, 40th Floor, Houston, Texas 77002, and Robert Trust (rtrust@orrick.com), Mark Franke (mfranke@orrick.com) and Brandon Batzel (bbatzel@orrick.com), 51 West 52nd Street, New York, New York 10019;

e. Counsel or proposed counsel to any statutory committee appointed in these Chapter 11 Cases; and

f. United States Trustee, Ha Minh Nguyen (ha.nguyen@usdoj.gov), 515 Rusk, Suite 3516, Houston, Texas 77002.

If no objection is timely served pursuant to the Interim Compensation Order, the Debtors shall be authorized and directed to pay Stris & Maher an amount equal to 80% of the fees and 100% of the expenses listed herein, or if an objection is timely served, such percentage of fees and expenses that are not subject to an objection, as stated in the Interim Compensation Order.

Respectfully submitted this 21th day of November, 2024.

QUINN EMANUEL URQUHART & SULLIVAN, LLP

/s/ Patricia B. Tomasco
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-and-

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Austin, TX 78701

Counsel for Debtors and Debtors in Possession

CERTIFICATE OF SERVICE

I certify that, on November 21, 2024, a true and correct copy of the foregoing Monthly Fee Statement was served through the Court's Electronic Case Filing system of the United States Bankruptcy Court for the Southern District of Texas.

/s/ Patricia B. Tomasco
Patricia B. Tomasco

EXHIBIT 1

Summary of Legal Fees for the Fee Period

Matter #	Matter Description	Total Hours	Total Fees	80% of Fees
001	Midas Green Patent Litigation	0.90	$990.00	$792.00
002	Temple Green Data Matter	6.70	$5,682.50	$4,546.00
004	Whinstone Dispute, Excluding Tarrant County Litigation	2,054.40	$1,515,785.00	$1,212,628.00
007	Retention and Fee Applications	21.50	$12,985.00	$10,388.00
008	Non-working Travel for Whinstone Dispute	81.90	$34,146.25	$27,317.00
Total		2165.40	$1,569,588.75	$1,255,671.00

EXHIBIT 2

Summaries of Hours Billed by Stris & Maher Attorneys and Paraprofessionals

Midas Green Patent Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	$1,100.00	0.90	$990.00

Temple Green Data Matter

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Victor O'Connell	Partner	2012	$875.00	5.50	$4,812.50
Colleen Smith	Associate	2015	$725.00	1.20	$870.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Peter K. Stris	Founding Partner	2001	$1,250.00	19.90	$24,875.00
Elizabeth Brannen	Managing Partner	2001	$1,100.00	179.40	$197,340.00
Bridget Asay	Partner	1997	$1,050.00	219.00	$229,950.00
Victor O'Connell	Partner	2012	$875.00	95.40	$83,475.00
John Stokes	Partner	2016	$875.00	355.20	$310,800.00
Colleen Smith	Associate	2015	$725.00	177.30	$128,542.50
Peter Brody	Associate	2016	$725.00	267.30	$193,792.50
Sarah Rahimi	Associate	2019	$650.00	68.60	$44,590.00
Helen Marsh	Associate	2024	$600.00	240.70	$144,420.00
Tanya Tice	Discovery Associate	1989	$480.00	43.50	$20,880.00
Monica Viramontes	Senior Paralegal	N/A	$400.00	146.50	$58,600.00
Andrew Atsalis	Litigation Fellow	N/A	$325.00	62.20	$20,215.00
Cynthia Huang	Litigation Fellow	N/A	$325.00	57.00	$18,525.00
Shayra Banta	Litigation Fellow	N/A	$325.00	37.70	$12,252.50
Jaida Hodge-Adams	Litigation Fellow	N/A	$325.00	84.70	$27,527.50

Retention and Fee Applications

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Peter K. Stris	Founding Partner	2001	$1,250.00	0.40	$500.00
Elizabeth Brannen	Managing Partner	2001	$1,100.00	5.70	$6,270.00
Victor O'Connell	Partner	2012	$875.00	2.20	$1,925.00
Cynthia Huang	Litigation Fellow	N/A	$325.00	10.10	$3,282.50
Nicholas Capalbo	Litigation Fellow	N/A	325.00	3.10	$1,007.50

Non-Working Travel for Whinstone Dispute[2]

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	$1,100.00	6.20	$6,820.00
Bridget Asay	Partner	1997	$1,050.00	11.00	$11,550.00
Victor O'Connell	Partner	2012	$875.00	20.30	$17,762.50
John Stokes	Partner	2016	$875.00	7.00	$6,125.00
Peter Brody	Associate	2016	$725.00	23.00	$16,675.00
Sarah Rahimi	Associate	2019	$650.00	14.40	$9,360.00
Total after 50% discount					$34,146.25

[2] Stris & Maher has billed its time for travel in connection with the Whinstone dispute during which no work was performed on a separate invoice at a 50% discount.

EXHIBIT 3

Summaries of Expenses for the Fee Period

Midas Green Patent Litigation

Expense	Amount
JND eDiscovery hosting	$3,765.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Expense	Amount
Logikcull Discovery Solutions (October 2024)	$2,646.00
SETEC Investigations	$3,599.00
Fulcrum Legal Graphics	$15,000.00
StoneTurn (September 2024)	$47,600.00
E. Brown expert fees	$48,056.25
Total	$116,901.25

EXHIBIT 4

Stris

November 8, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14283
Client # 00346
Matter # 001

INVOICE SUMMARY

For professional services rendered through October 31, 2024

RE: Midas Green Litigation

Total Professional Services	$ 990.00
Total Expenses Advanced	$ 3,765.00
TOTAL THIS INVOICE	**$ 4,755.00**
Previous Balance	$ 9,045.00
TOTAL BALANCE DUE	**$ 13,800.00**

Electronic Invoice

Stris & Maher LLP

Invoice # 14283 November 8, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
10/07/24	EB	Correspond with PB and G. Cutri regarding [redacted].	.10	1100.00	110.00
10/08/24	EB	Review and respond to further correspondence from former patent litigation counsel G. Cutri.	.10	1100.00	110.00
10/15/24	EB	Review and respond to correspondence from G. Cutri regarding status inquiry concerning [redacted].	.10	1100.00	110.00
10/16/24	EB	Confer with B. Rice regarding inquiry to G. Cutri regarding [redacted].	.10	1100.00	110.00
10/22/24	EB	Confer with G. Cutri (Kirkland) regarding [redacted].	.50	1100.00	550.00
		TOTAL PROFESSIONAL SERVICES			**$ 990.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	.90	1,100.00	990.00
Total			**.90**		**$ 990.00**

EXPENSES ADVANCED

Date	Task	Description	Amount
10/01/24		JND eDiscovery - October invoice.	3,765.00
		TOTAL EXPENSES ADVANCED	**$ 3,765.00**
		TOTAL THIS INVOICE	**$ 4,755.00**

Stris & Maher LLP

Invoice # 14283 November 8, 2024

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14251	11/01/24	855.00	.00	855.00
14257	11/04/24	8,190.00	.00	8,190.00

Previous Balance	$ 9,045.00
Balance Due This Invoice	$ 4,755.00
TOTAL BALANCE DUE	**$ 13,800.00**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 9,045.00	$ .00	$ .00	$ .00	$ .00	$ 9,045.00

Stris

November 8, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14268
Client # 00346
Matter # 002

INVOICE SUMMARY

For professional services rendered through October 31, 2024

RE: Temple Green Data Litigation

Total Professional Services	$ 5,682.50
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 5,682.50**
Previous Balance	$ 22,490.00
TOTAL BALANCE DUE	**$ 28,172.50**

Electronic Invoice

Stris & Maher LLP

Invoice # 14268 November 8, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
10/04/24	CS	Review lease and identify provisions in support of correspondence with landlord.	.20	725.00	145.00
10/09/24	VO	Confer with CS regarding portion of letter to landlord regarding [redacted] (0.1); confer with [redacted] and [redacted] regarding strategy and action items relating to new request for information [redacted] (0.8); review draft insert prepared by CS (0.1); draft talking points for [redacted] in teleconference with TGD (0.3)	1.30	875.00	1,137.50
10/09/24	CS	Continue reviewing and analyzing relevant lease provisions and drafting portion of [redacted] regarding Temple Site.	1.00	725.00	725.00
10/11/24	VO	Review update from [redacted] regarding teleconference with TGD (0.1); attend videoconference with [redacted] and [redacted] regarding strategy and next steps in addressing same (0.7); prepare draft correspondence to M. Simmons (0.5).	1.30	875.00	1,137.50
10/14/24	VO	Correspond with client and P. Tomasco regarding strategy and response to further correspondence from TGD.	.50	875.00	437.50
10/15/24	VO	Review and revise P. Tomasco letter [redacted] (0.8); emails with [redacted] and [redacted] regarding response to TGD regarding [redacted] (0.7).	1.50	875.00	1,312.50
10/23/24	VO	Confer with [redacted] and [redacted] regarding issues relating to [redacted].	.40	875.00	350.00
10/31/24	VO	Review and revise letter [redacted] (0.4); emails with P. Tomasco regarding same (0.1).	.50	875.00	437.50
		TOTAL PROFESSIONAL SERVICES			**$ 5,682.50**

Invoice # 14268 November 8, 2024

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Victor O'Connell	VO	Partner	5.50	875.00	4,812.50
Colleen Smith	CS	Associate	1.20	725.00	870.00
Total			**6.70**		**$ 5,682.50**

TOTAL THIS INVOICE **$ 5,682.50**

Stris & Maher LLP

Invoice # 14268 November 8, 2024

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14247	11/01/24	7,190.00	.00	7,190.00
14259	11/04/24	15,300.00	.00	15,300.00

Previous Balance	$ 22,490.00
Balance Due This Invoice	$ 5,682.50
TOTAL BALANCE DUE	**$ 28,172.50**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 22,490.00	$ .00	$ .00	$ .00	$ .00	$ 22,490.00

Stris

November 14, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14269
Client # 00346
Matter # 004

INVOICE SUMMARY

For professional services rendered through October 31, 2024

RE: Whinstone Litigation

Total Professional Services	$ 1,515,785.00
Total Expenses Advanced	$ 116,901.25
TOTAL THIS INVOICE	**$ 1,632,686.25**
Previous Balance	$ 1,219,106.00
TOTAL BALANCE DUE	**$ 2,851,792.25**

Trust Funds Remaining on Account $ 115,369.59

Electronic Invoice

Invoice # 14269 November 14, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
10/01/24	PS	Review and respond to team correspondence regarding site inspections and trial graphics (0.5); review and convey feedback regarding draft of motion to remand reply (0.8); review and evaluate summary judgment issues and strategy (0.9).	2.20	1250.00	2,750.00
10/01/24	EB	Correspond with Fulcrum, PS, VO, and JS regarding trial graphics support (0.4); review and analyze ERCOT expert materials and strategic questions in support of expert report (0.5); attend portion of teleconference with BA, JS, and PB regarding same (1.1); attend teleconference with MV regarding exhibit list (0.2); advise TT regarding memorandum to support Rhodium witness deposition preparation (0.1); correspond with JS and SR regarding [redacted] for same (0.1); attention to case management (0.5); attend teleconference with SR regarding high priority action items including materials for deposition preparation sessions (0.3); correspond with BA and JS regarding deposition scheduling (0.1); prepare for upcoming deposition preparation sessions (0.8).	4.10	1100.00	4,510.00

Stris & Maher LLP

Invoice # 14269 November 14, 2024

Date	Tkpr	Description	Hours	Rate	Amount
10/01/24	BA	Advise PB regarding privilege log (0.4); prepare [redacted] and confer with EB and JS regarding ERCOT expert report [redacted] (1.5); prepare for client update call regarding trial preparation and correspond with JS regarding same (0.3); participate in same (1.2); correspond with litigation team regarding and review production of documents from C. Harris (1.0); review and correspond with A. Swartz regarding revisions to expert report [redacted] (0.4); correspond with JS, PB, and team regarding regarding inspection and data requests (0.3); correspond with litigation team regarding deposition scheduling and witness availability (0.2); review power-related documents from Whinstone provided to C. Griffey and correspond with HM regarding redactions to and correspondence with opposing counsel regarding same (0.4); review and correspond with JS, PB, and HM regarding response to correspondence from Whinstone's counsel regarding potential summary judgment motion and sealing (0.5); review draft opposition to motion to remand and correspond with JS regarding same (0.4).	6.60	1050.00	6,930.00
10/01/24	JS	Attend teleconferences with A. Swartz (0.1) and M. Frederick regarding upcoming depositions and inspection (0.2); confer with BA, EB, and PB regarding expert report status and next steps (1.2); attend portion of client teleconference (1.0); attend teleconference with PB regarding [redacted] emails (0.2); attend teleconferences with CS regarding summary judgment motion status and next steps (0.2); review and evaluate summary judgment issues and strategy (2.1); prepare correspondence with opposing counsel regarding discovery issues and summary judgment conferral (3.5); evaluate deposition [redacted] and next steps for [redacted] depositions (1.6); continue developing trial [redacted] (2.5).	12.60	875.00	11,025.00
10/01/24	SR	Prepare deposition preparation materials for defensive depositions (1.0); review and summarize termination notices for CS in support of summary judgment briefing (2.2); attend teleconference with EB to discuss trial preparation and deposition support tasks (0.3); begin conducting legal research in support summary judgment briefing for CS (2.0).	5.60	650.00	3,640.00

Invoice # 14269 November 14, 2024

Date	Tkpr	Description	Hours	Rate	Amount
10/01/24	CS	Continue reviewing and analyzing documents relevant to [redacted] in anticipation of preparing him for his deposition (1.9); review and analyze documents regarding Whinstone's calculation of profit share (1.0); attend teleconference with JS to discuss motion for partial summary judgment (0.2); continue drafting trial brief outline (2.2); continue drafting motion for partial summary judgment (2.9).	8.20	725.00	5,945.00
10/01/24	JH	Tag documents for upcoming production at PB request.	2.00	325.00	650.00
10/01/24	PB	Analyze materials for use in [redacted] expert report (0.8); prepare privilege log and qc redacted documents for production (4.6); attend teleconference with JS regarding email review (0.2); attend teleconference with MV and HM regarding privilege log (0.3); assist JS with expert materials (0.1); qc and prepare final document production (2.7); analyze supporting materials for [redacted] expert report (0.8).	9.80	725.00	7,105.00
10/01/24	ASA	Download and organize documents from past productions in native and PDF form for use by Rhodium's expert witnesses at request of PB (2.7); create and update expert tracking materials for HM and team (1.3).	4.00	325.00	1,300.00
10/01/24	HM	Review and respond to team correspondence regarding document discovery and privilege log (2.5); attend teleconference with PB, and MV regarding privilege log (0.3); qc organization and completeness of internal case files (1.4); advise ASA regarding updates to same and case management materials (0.8); revise notes from September 30, 2024 meeting with [redacted] and [redacted] (0.6); review and analyze documents [redacted] for [redacted] deposition preparation (1.5); review and revise expert materials lists (0.5).	7.60	600.00	4,560.00
10/01/24	TT	Draft memorandum to EB and PB in support of offensive and defensive depositions and deposition preparation.	4.80	480.00	2,304.00
10/01/24	MV	Review documents and [redacted] to prepare for (2.0) and attend (0.3) teleconference with PB and HM regarding privilege log and [redacted]; begin implementing revisions to same (1.0); attend teleconference with EB regarding exhibit list (0.2).	3.50	400.00	1,400.00

Stris & Maher LLP

Invoice # 14269 November 14, 2024

Date	Tkpr	Description	Hours	Rate	Amount
10/02/24	VO	Confer with JS, BA, and PB regarding deposition preparation.	1.00	875.00	875.00
10/02/24	PS	Review emails regarding discovery and deposition scheduling and confer regarding same.	.30	1250.00	375.00
10/02/24	EB	Prepare for teleconference with [redacted] expert (1.5); attend teleconference with BA regarding same and trial preparation and strategy (0.8); attend portion of teleconference with PB, SR, HM, MV, JHA, and AAS regarding exhibit list and deposition support (1.0); attend portion of teleconference with BA, JS, HM, and [redacted] expert regarding [redacted] and information in support of report (0.4); draft portions of [redacted] (1.0); review and propose revisions to Rule 30(b)(6) deposition notice (0.2); analyze initial questions from TT in support of deposition preparation (0.1); attend teleconference with TT regarding follow-up questions regarding same and revisions to [redacted] (0.2); correspond with TT regarding same and related analysis (0.1); attend teleconference with PB regarding action items including production of additional expert documents and deposition preparation (0.5); attend teleconference with HM regarding trial preparation (0.1).	5.90	1100.00	6,490.00

Stris & Maher LLP

Invoice # 14269 November 14, 2024

Date	Tkpr	Description	Hours	Rate	Amount
10/02/24	BA	Attend teleconference with EB to prepare for meeting with [redacted] expert [redacted] (0.8); correspond with PB regarding document production issues (0.1); correspond with HM regarding provision of third party productions to opposing counsel (0.1); draft proposed email for opposing counsel regarding late disclosure of A. Harris and documents from same, and convey draft to JS (0.2); correspond with HM, AS, JS and team regarding deficiencies in Whinstone's production related to power and power credit data, draft proposed email to opposing regarding same, and convey same to JS (0.5); confer with [redacted], EB, JS, and HM regarding [redacted] for report, data needs, and [redacted] (0.5); continue outlining [redacted] for expert report (0.5); attend teleconference with JS regarding high priority action items and task assignments (0.4); confer with PB, VO, and JS regarding deposition preparation (1.1); confer with JS, [redacted] and [redacted] regarding trial preparation (0.5); continue reviewing draft opposition to motion to remand and convey comments to P. Tomasco (0.4); correspond with HM and PB regarding protective orders to be signed by [redacted] (0.1); review draft 30(b)(6) notice and correspond with JS regarding same, and review comments from EB on same (0.4); correspond with team regarding Whinstone's productions and Rhodium's productions, and monitor correspondence regarding Whinstone's inspection and data requests (0.3).	5.80	1050.00	6,090.00
10/02/24	JS	Attend teleconference with BA, VO, and PB regarding deposition strategy (1.1); call with J. Cohn regarding trial and summary judgment strategy (0.7); call with [redacted] regarding Whinstone inspection (0.4) and with M. Frederick regarding same (0.2); call with A. Swartz regarding production question (0.1); call with [redacted] regarding [redacted] report status and next steps (0.1); call with BA regarding high priority action items on discovery, motion practice, and trial planning (0.4); call with CS regarding MSJ arguments and next steps on same (0.3); work on deposition defense [redacted] for [redacted] (2.5); review and evaluate MSJ arguments and briefing on same (2.2); prepare correspondence with Foley regarding data-production and related high priority discovery issues (3.1); confer with PB regarding [redacted] issues and evaluate same (1.4).	12.50	875.00	10,937.50

Invoice # 14269 November 14, 2024

Date	Tkpr	Description	Hours	Rate	Amount
10/02/24	SR	Attend teleconference with EB, PB, HM, VM, JHA, and AAS regarding exhibit list and deposition documentary support (1.3); conduct legal research regarding contract termination to support summary judgment briefing (3.9); prepare for [redacted] deposition preparation sessions (2.4).	7.50	650.00	4,875.00
10/02/24	CS	Continue reviewing documents relevant to [redacted] and continue drafting [redacted] in anticipation of preparing him for his deposition (2.1); meet with JS to discuss [redacted] deposition (0.3); correspond with SR regarding materials for [redacted] deposition (0.2); continue drafting motion for partial summary judgment (4.3); review and analyze case law regarding [redacted] (1.1).	8.00	725.00	5,800.00
10/02/24	JH	Assist MV with information in support of privilege log (1.1); attend teleconference with EB, PB, SR, HM, MV, and AAS regarding exhibit list and deposition documentary support (1.3); prepare notes for same (0.3); continue reviewing [redacted] communications in preparation for upcoming depositions, at JS request (1.0).	3.70	325.00	1,202.50
10/02/24	PB	Analyze [redacted] materials to be used in preparation of expert report and preparation for deposition defense of [redacted] (2.5); confer with JS regarding [redacted] issues and analysis of same (1.4); prepare final production of documents to Whinstone (3.2); attend teleconference with JHA, EB, MV, HM, and AAS regarding exhibit list preparation and trial preparation strategy (1.3); attend teleconference with EB regarding deposition defense and expert reports (0.5); attend teleconference with HM and A. Swartz regarding expert discovery (0.5); confer with BA, JS, and VO regarding deposition preparation and case strategy (1.0); attend teleconference with [redacted], and [redacted] regarding [redacted] and follow-up discovery items (1.0).	11.40	725.00	8,265.00
10/02/24	ASA	Attend teleconference with EB, PB, SR, HM, VM, and JHA regarding exhibit list and deposition documentary support (1.3); prepare template of Rhodium trial and deposition exhibit tracking spreadsheet for use by MV (0.9).	2.20	325.00	715.00

Invoice # 14269 November 14, 2024

Date	Tkpr	Description	Hours	Rate	Amount
10/02/24	HM	Attend part of teleconference with EB, PB, SR, MV, JHA, and AA regarding exhibit list and deposition documentary support (1.2); analyze and review and respond to team correspondence regarding conferral with Whinstone's counsel, documents shared with experts, and redacted documents produced by Whinstone (3.0); confer with EB regarding trial preparation (0.1); attend portion of teleconference with BA, EB, JS, and C. Griffey to discuss outstanding materials needed (0.1); review and analyze opposing and third party document productions to identify materials for ERCOT expert C. Griffey and provide same (3.8); attend teleconference with PB and A. Swartz to discuss outstanding discovery items and review tasks (0.5); review and revise task list (0.3); review and revise Rule 30(b)(6) deposition notice (1.0); draft email to Whinstone's counsel regarding C. Harris document production (0.8); attention to documents requested by P. Tomasco (0.4).	11.20	600.00	6,720.00
10/02/24	TT	Attend teleconference with EB regarding action items in support of depositions of Rhodium and Whinstone and [redacted] expert report (0.2); revise background [redacted] (2.6).	2.80	480.00	1,344.00
10/02/24	MV	Review [redacted] for privilege log and incorporate additional [redacted], per attorney instruction (0.5); attend teleconference with EB, PB, SR, HM, JHA, and AAS regarding exhibit list and deposition documentary support (1.3); continue revising and editing privilege log (2.2).	4.00	400.00	1,600.00
10/03/24	VO	Confer with [redacted] to get update on [redacted] (0.2); correspondence with JS, W. Thompson, and J. Cohn regarding same (0.1); confer with JS regarding strategy in light of [redacted] update regarding [redacted] (0.9); confer with JS, BA, J. Cohn, and W. Thompson regarding strategy in light of same (0.3); confer with JS and [redacted] regarding same (0.5); confer with P. Tomasco, [redacted] and JS regarding same (0.6).	2.60	875.00	2,275.00
10/03/24	PS	Review and attend to emails regarding discovery.	.40	1250.00	500.00

Stris & Maher LLP

Invoice # 14269 November 14, 2024

Date	Tkpr	Description	Hours	Rate	Amount
10/03/24	EB	Continue drafting portions of [redacted] (3.6); correspond with BA, JS, PB, HM, A. Swartz, and [redacted] regarding review and production of additional documents in support of same (0.2); review and comment on draft [redacted] expert report (0.9); attend teleconference with PB regarding revisions and additional information in support of same (0.5); correspond with TT regarding review of [redacted] testimony and evidence in support of same (0.1); correspond with PS, VO, and JS regarding (0.1) and correspond (0.1) and attend teleconference (0.5) with Fulcrum regarding trial graphics; correspond with BA, JS, PB, W. Thompson and A. Swartz regarding coordination of documents for use in depositions and deposition preparation (0.2); correspond with BA and HM regarding trial preparation (0.2); attend teleconference with TT regarding action items in support of portions of same and [redacted] (0.2); correspond with C. Hickey regarding proposed revisions to engagement letter for graphics support (0.2); review and respond to correspondence from BA and HM regarding additional production of documents from Whinstone and Priority Power, deficiency correspondence, and provision to ERCOT expert (0.2).	6.90	1100.00	7,590.00

Stris & Maher LLP

Invoice # 14269 November 14, 2024

Date	Tkpr	Description	Hours	Rate	Amount
10/03/24	BA	Attend teleconference with PB, HM, and clients regarding outstanding discovery production questions (0.3); confer with CS and JS regarding summary judgment motion and trial brief (1.2); review and revise draft motion for summary judgment (01.3); confer with JS, [redacted] and P. Tomasco regarding expert testimony and opinions from [redacted] and related deposition preparation (1.1); confer with JS, VO, J. Cohn and W. Thompson regarding potential witness (0.3) and prepare and convey analysis of issues regarding same (0.2); correspond with HM, EB, and PB regarding documents for review by C. Griffey and production of same (0.4); correspond with PB and JS regarding advising Whinstone of potentially privileged document (0.1); review nonprivilege redactions on Whinstone documents reviewed by [redacted] and correspond regarding same (0.1); correspond with HM, J. Cohn and team regarding follow up on Ledoux subpoena (0.2); review Priority Power production, correspond with HM and EB regarding conveying same to C. Griffey and follow up with Priority Power, and review and edit draft letter seeking additional data (0.5); review Whinstone's motion for summary judgment, correspond with PB regarding same, and correspond with bankruptcy counsel regarding procedural requirements for summary judgment practice (0.9); review Whinstone's discovery responses and began analyzing deficiencies in same (0.9); review analysis from HM of missing documents in Whinstone's production and correspond with HM regarding next steps (0.2).	7.70	1050.00	8,085.00

Stris & Maher LLP

Invoice # 14269 November 14, 2024

Date	Tkpr	Description	Hours	Rate	Amount
10/03/24	JS	Confer with BA and CS regarding MSJ and trial brief (1.2); review and evaluate draft motion for summary judgment (1.0); confer with BA, [redacted], and P. Tomasco regarding expert testimony from [redacted] (1.1); confer with BA, VO, J. Cohn, and W. Thompson regarding [redacted] witness (0.3); calls with [redacted] and VO (0.5), [redacted], VO, and P. Tomasco (0.6), P. Tomasco (0.2), and VO (0.8) regarding same; evaluate adjustments to trial presentation with VO in light of same (0.9); review and evaluate correspondence from Foley regarding discovery matters (0.5); review and evaluate Foley responses to RFAs and interrogatories (1.0); review and evaluate Whinstone motion for summary judgment (1.5); correspond with PB regarding same (0.4); attend teleconference with PB regarding [redacted] issues (0.5).	10.50	875.00	9,187.50
10/03/24	SR	Continue drafting [redacted] deposition preparation [redacted]	6.90	650.00	4,485.00
10/03/24	CS	Confer with JS and BA to discuss summary judgment motion and trial brief (1.2); continue drafting partial summary judgment motion (3.6); continue drafting outline for trial brief (2.5).	7.30	725.00	5,292.50
10/03/24	JH	Continue reviewing and flagging [redacted] communications for use in preparation for upcoming depositions (3.5); assist HM and ASA to prepare new files for expert C. Griffey (1.0).	4.50	325.00	1,462.50
10/03/24	PB	Draft preparation [redacted] for upcoming deposition defense of [redacted] (1.1); prepare, finalize, and serve Debtors' thirteenth production of documents (3.7); attend teleconference with JS regarding [redacted] issues (0.5); attend teleconference with [redacted], BA, and HM regarding potential [redacted] issues (0.3); attend teleconference with EB regarding [redacted] expert report (0.5); analyze financial documentation to support damages expert report (4.3).	10.20	725.00	7,395.00
10/03/24	ASA	Assist with provision of documents to Rhodium expert C. Griffey (0.4); update case management material to to ensure attorney organization (1.5).	1.90	325.00	617.50

Stris & Maher LLP

Invoice # 14269 November 14, 2024

Date	Tkpr	Description	Hours	Rate	Amount
10/03/24	HM	Attend teleconference with BA and PB, and MS, CT, PR, and [redacted] to discuss outstanding discovery production questions related to [redacted] (0.3); review and analyze TXU invoices, Priority Power Management Documents, and Rhodium Energy Usage report for temporal gaps and redactions (3.0); create and circulate a chart for temporal gaps and redactions of documents produced by Whinstone (1.5); draft letter to counsel for Priority Power Management (0.2); review, analyze, and organize supplemental materials from Whinstone productions and send to Charles Griffey (2.3); review and respond to team correspondence relating to Whinstone's productions and subpoena responses from Priority Power Management and James Ledoux (2.7).	10.00	600.00	6,000.00
10/03/24	TT	Confer with EB regarding questions to assist with preparation [redacted] report (0.2); review, analyze, and draft memorandum to EB regarding analysis of pleadings, hearing transcripts, contracts, and documents to assist in preparation of same (2.7); draft [redacted] to assist in deposition preparation for experts and Rhodium and opposing witnesses (3.0).	5.90	480.00	2,832.00
10/03/24	TT	Review and analyze December 2023 and March 2024 Temporary Injunction Hearings regarding [redacted] issues to assist in preparation for depositions and trial (2.0).	2.00	480.00	960.00
10/03/24	MV	Review and format data on draft privilege log (3.0); review, update, and cross-check documents for inclusion on same (4.0).	7.00	400.00	2,800.00
10/04/24	PS	Review emails and confer with team on various items of litigation strategy including Foley's emergency motion.	1.30	1250.00	1,625.00

Stris & Maher LLP

Invoice # 14269 November 14, 2024

Date	Tkpr	Description	Hours	Rate	Amount
10/04/24	EB	Correspond with A. Schwartz, BA, VO, JS, PB, SR, and HM regarding [redacted] and deposition preparation materials (0.1); review and analyze additional materials in support of and continue drafting portions of [redacted] (2.1); review, respond, and incorporate additional feedback and questions from TT into draft of same (0.1); review and respond to initial update from TT regarding [redacted] evidence with follow-up questions (0.1); correspond with BA, JS, PB, and HM regarding same and potential additions and revisions to [redacted] expert report (0.5); review and respond to team correspondence regarding additional discovery-related issues and action items (0.2).	3.10	1100.00	3,410.00
10/04/24	BA	Confer with JS, J. Cohn, and W. Thompson regarding strategy and outline summary judgment motion and opposition (1.4); outline research tasks for same, convey to JS for review, and convey to W. Thompson and J. Cohn for staffing of same (0.4); review summary judgment notes and outline for J. Cohn, update with notes of teleconference, and convey same to CS and JS for review (0.3); correspond with bankruptcy counsel regarding timing and procedural requirements for summary judgment filings (0.1); continue reviewing and analyzing Whinstone's discovery responses and convey analysis of deficiencies in same to JS, HM, PB, and A. Swartz, with proposal for deficiency letter (1); correspond and confer with SD to make binders for use in summary judgment and trial brief preparation (0.1); correspond with EB regarding potential opinion from [redacted] rebutting power overage claims and review response from [redacted] regarding same (0.3); review proposed email from JS to M. Thomas regarding expert information and respond to same (0.1); draft, review, and revise deficiency letters to Whinstone and Riot regarding document productions, missing documents, and deficient responses to written discovery, correspond with JS, HM, and PB regarding same, and confer with JS regarding same (3.2); review correspondence and filings related to Whinstone's emergency motion to alter scheduling order (0.2).	7.00	1050.00	7,350.00

Invoice # 14269 November 14, 2024

Date	Tkpr	Description	Hours	Rate	Amount
10/04/24	JS	Call with BA, J. Cohn, and W. Thompson regarding MSJ strategy (1.4); call with W. Thompson regarding deficiency letter on Whinstone RFA Responses (0.2); call with J. Cohn regarding MSJ schedule and Whinstone emergency motion (0.1); prepare deficiency letters regarding Whinstone discovery responses (5.5); prepare correspondence to Foley regarding emergency motion and MSJ schedule (0.3); conduct legal research regarding issues in Foley MSJ on breach questions (0.5); review high-relevance documents in connection with opposition to Foley MSJ (0.9); correspond with SMLLP, LKC, and client teams regarding emergency motion and MSJ schedule (0.2); prepare correspondence to Foley regarding deposition scheduling (0.5).	9.60	875.00	8,400.00
10/04/24	CS	Review and analyze edits to motion for partial summary judgment from [redacted] (0.5); continue drafting and revising motion for partial summary judgment (7.7).	8.20	725.00	5,945.00
10/04/24	JH	Continue reviewing Rhodium [redacted] to be issue-tagged and flagged as [redacted] with ASA in preparation for upcoming depositions.	4.00	325.00	1,300.00
10/04/24	PB	Assist in preparation and drafting of expert report of [redacted] (2.3); prepare for defense of deposition of [redacted] (3.0); analyze financial materials for use in expert report of [redacted] (0.6); teleconference with [redacted] regarding financial data (0.6).	6.50	725.00	4,712.50
10/04/24	ASA	Update case status [redacted] to reflect recent developments (0.6); assist attorneys with deposition scheduling and preparation including responding to rolling requests from JS and VO for documents (2.9).	3.50	325.00	1,137.50
10/04/24	HM	Continue reviewing and analyzing TXU invoices, Priority Power Management Documents, and Rhodium Energy Usage report and other key documents produced by Whinstone for temporal gaps and redactions (4.0); draft Rhodium's Third Deficiency Letter regarding deficiencies in Whinstone's productions (3.8); review and respond to team correspondence regarding Rhodium's Third Deficiency Letter and Whinstone's responses to Rhodium's second set of requests for production, first set of requests for admission, and first set of interrogatories (1.5).	9.30	600.00	5,580.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/04/24	TT	Review and analyze December 2023 and March 2024 Temporary Injunction Hearings regarding [redacted] issues to assist in preparation for depositions and trial (9.0).	9.00	480.00	4,320.00
10/04/24	MV	Continue revising privilege log (3.0); [redacted] on log for further attorney review (1.0); review draft exhibit list and revise template for same (0.5).	4.50	400.00	1,800.00
10/05/24	BA	Review and revise discovery correspondence to Whinstone's counsel, review discovery letter from Whinstone's counsel, correspond with JS, PB, and HM regarding same, and finalize and send fourth deficiency letter to Whinstone's counsel (1.2); confer with JS regarding creditor correspondence (0.1).	1.30	1050.00	1,365.00
10/05/24	JS	Work on trial strategy outlining (1.5); review Whinstone deficiency letter and confer with BA, HM, PB regarding same (0.5); review and revise deficiency letters regarding Whinstone discovery responses in preparation for finalization of same (0.5).	2.50	875.00	2,187.50
10/05/24	PB	Analyze correspondence from Whinstone regarding purported discovery deficiencies and draft response to same.	2.30	725.00	1,667.50
10/05/24	HM	Revise, finalize, and send Rhodium's Third Deficiency Letter to Whinstone and Riot (1.5); collect, send, and log documents for ERCOT expert Charles Griffey's review (0.5); review and revise letter from JS to Whinstone's counsel regarding Whinstone's responses to Rhodium's requests for admission, interrogatories, and requests for documents (0.5); begin reviewing past transcripts of temporary injunction hearings for [redacted] to proffer at trial (1.5).	4.00	600.00	2,400.00
10/06/24	BA	Review and revise draft 30(b)(6) notice and convey same to EB, JS, PB, and HM for review (1.8); research new witness disclosed by Whinstone, correspond with JS and team regarding implications of same, and correspond with EB regarding issues related to [redacted] report (0.4); research and draft portions of response to Whinstone's Oct 5 discovery letter and correspond with PB regarding same (1.5).	3.70	1050.00	3,885.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/06/24	JS	[redacted] with [redacted] regarding deposition scheduling (0.6); review and revise 30(b)(6) notice (0.7); review and evaluate Whinstone deficiency letter and our response to same (1.0); evaluate alleged payment defaults by Whinstone aside from profit-share underpayment (0.8); outline high-priority action items for the week and prepare [redacted] regarding same (1.0); correspond with Foley regarding MSJ scheduling (0.2); call with J. Cohn regarding MSJ response on miner-ownership issue (0.2).	4.50	875.00	3,937.50
10/06/24	PB	Draft response to document production deficiency letter and correspondence regarding same (6.1); teleconferences with expert [redacted] regarding data analysis (0.5).	6.60	725.00	4,785.00
10/06/24	HM	Continue reviewing and analyzing prior testimony of Whinstone and Riot witnesses from temporary injunction hearings (1.2).	1.20	600.00	720.00
10/07/24	VO	Attend team conference to discuss deposition prep (0.9); attend team conference regarding trial preparation and related action items including witness list (2.4).	3.30	875.00	2,887.50
10/07/24	PS	Attend teleconference with EB, BA, VO, JS, CS, and PB regarding trial preparation and related action items including witness list.	2.40	1250.00	3,000.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/07/24	EB	Attend teleconference with BA regarding action items including further revisions to Rule 30(b)(6) deposition notice (0.1); further revise and correspond with co-counsel regarding same (0.1); review and respond to further correspondence from [redacted] regarding information for [redacted] (0.2); continue drafting portions of same (2.0); attend teleconference with BA, PB, HM, and [redacted] regarding same (1.2); attention to resulting action items including instructing HM regarding additional documents for [redacted] (0.2); prepare for (0.1) and attend portion of (0.8) teleconference with VO, JS, PB, SR, HM, and W. Thompson and A. Swartz regarding deposition preparation and coordination; advise ASA regarding revisions to witness preparation materials and draft deposition notice for first deponent (0.1); review and respond to team correspondence regarding additional discovery and expert-related issues (0.3); attend teleconference with PS, BA, VO, JS, CS, and PB regarding trial preparation and related action items including witness list (2.4); review and respond to update from TT regarding [redacted] testimony and evidence in support of [redacted] report (0.1).	7.60	1100.00	8,360.00
10/07/24	BA	Review draft response to Whinstone's discovery letter drafted by PB, correspond with JS regarding same, and propose edits to same (0.7); confer with EB regarding edits to 30(b)(6) notice (0.1); continue outlining and drafting trial brief (2); confer with JS, EB, VO, PS, CS, and PB to discuss trial preparation and priority action items including witness list (2.4); review draft witness list, correspond with HM and team regarding revisions to same, convey same to bankruptcy counsel, review edits from bankruptcy counsel, review Whinstone's witness list, and review and approve final witness list for service (0.8); confer with [redacted], EB, HM, and PB regarding preparation of expert report (1.2); review deposition notices from Whinstone's counsel, correspond with JS regarding same, review response from Whinstone's counsel regarding same, review correspondence from A. Swartz regarding proposed deposition assignments, and correspond with JS, EB, HM, and PB regarding same (0.3).	7.50	1050.00	7,875.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/07/24	JS	Prepare materials and [redacted], W. Thompson, and VO regarding deposition preparation and planning (0.9); confer with J. Cohn regarding Whinstone request to alter MSJ schedule (0.1); attend teleconference with counsel for potential witness (0.2); advise PB regarding expert issue (0.1); attend teleconference with BA, EB, CS, PB, VO, PS regarding trial strategy and [redacted] (2.4); further prepare for defensive deposition of [redacted] (2.9); evaluate and draft topics for offensive depositions (0.5); review and revise correspondence regarding discovery deficiencies (0.6); create deposition scheduling plan and correspond with Foley regarding same (0.7); attend portion of call with EB, PB, A. Swartz, and W. Thompson regarding deposition coordination (0.4); evaluate [redacted] issues (0.4); continue outlining trial presentation strategy (1.6).	10.80	875.00	9,450.00
10/07/24	SR	Attend videoconference with EB, JS, HM, PB, and LKC team to discuss deposition preparations and planning (0.9); continue drafting [redacted] deposition preparation [redacted] (6.9).	7.80	650.00	5,070.00
10/07/24	SB	Review RIOT presentations and assist with citations and cite checking of [redacted] expert report.	6.30	325.00	2,047.50
10/07/24	CS	Meet with JS, BA, EB, PS, and PB regarding trial strategy and themes (2.4); continue drafting and revising motion for partial summary judgment (6.1); review draft of trial brief (0.5).	9.00	725.00	6,525.00
10/07/24	CHH	Update case management materials (1.0); correspond with HM regarding same (0.2); review and analyze C. Harris (Whinstone) documents and designate same for further review (2.2); correspond with A. Swartz regarding same (0.2); summarize [redacted] testimony for trial use and confer with HM regarding same (0.8).	4.40	325.00	1,430.00
10/07/24	JH	File ongoing discovery exchanges (0.5); prepare additional documents for expert C. Griffey at HM request (0.5); continue reviewing produced communications to assist with preparation for upcoming depositions (3.0).	4.00	325.00	1,300.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/07/24	PB	Attend teleconference with Stris and LKC teams regarding witness preparation (0.9); revise correspondence to Whinstone regarding discovery deficiencies (1.6); attend trial preparation strategy call with PS, VO, JS, EB, BA, and CS (2.4); attend part of teleconference with expert [redacted] regarding [redacted] issues (1.1); assist in preparation of expert report [redacted] (2.8).	8.80	725.00	6,380.00
10/07/24	ASA	Create revised [redacted] to assist with deposition preparation at request of EB (3.0); collect Riot SEC filings at request of HM and create ShareFile link for distribution (1.0).	4.00	325.00	1,300.00
10/07/24	HM	Draft, revise, and circulate Debtors' proposed fact witness list (0.8); attend portion of teleconference with PB, SR, EB, JS, VO, and LKC to discuss deposition preparation (0.8); draft and circulate deposition preparation [redacted] for organization and collaboration (1.5); attend teleconference with [redacted], PB, EB, BA to discuss expert report, documents, and opinions (1.2); confer with CH about organizing production log (0.2); confer with CH about summarizing temporary injunction hearing testimony by Whinstone witnesses (0.1); confer with AA, MV, and JHA regarding sending additional documents to C. Griffey for expert report preparation (0.5); create and organize materials for deposition preparation and collaboration (1.2); draft materials regarding trial proof and send to EB for review (3.8).	9.90	600.00	5,940.00
10/07/24	TT	Review and analyze Temporary Injunction Hearing on March 2024 and analyze [redacted] regarding alleged OSHA violations, equipment maintenance issues and spill incidents at Rockdale site to assist in preparation for depositions and trial (8.0); draft memorandum to EB regarding same analysis (1.0).	9.00	480.00	4,320.00
10/07/24	MV	Review correspondence from EB and create document searches in support of expert depositions (1.5); revise exhibit list and prepare contract exhibits (4.0); review local court rules and standing order regarding exhibit list and protocol for trial, and correspondend with team regarding same (1.0).	6.50	400.00	2,600.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/08/24	PS	Review revisions to motion for partial summary judgment and confer with team regarding same.	1.80	1250.00	2,250.00
10/08/24	EB	Review draft and correspond with JS and PB regarding questions concerning patent portion of [redacted] (0.2); continue drafting portions of [redacted] (6.4); attend teleconference with PB, [redacted] regarding information in support of [redacted] report (1.1); attend teleconference with PB regarding resulting action items (0.2); attend portion of teleconference with BA, JS, PB, HM, J. Cohn, W. Thompson, and A. Swartz regarding coordination between and among expert reports and positions (1.2); review, analyze, and confer with TT regarding analysis of evidence in support of [redacted] (0.3); review draft C. Harris deposition notice and advise ASA regarding revisions to same (0.1); review, propose [redacted], and correspond with BA, JS, and M. Frederick and LKC team regarding finalization of Rule 30(b)(6) notice (0.1).	9.60	1100.00	10,560.00
10/08/24	BA	Attend hearing on briefing schedule (0.2); participate in call with JS, EB, PB, W. Thompson, A. Swartz, and J. Cohn to discuss expert opinions (1.5); research and draft trial brief (0.8); attend teleconference with client, co-counsel and bankruptcy counsel (0.9); correspond with JS and with bankruptcy counsel regarding drafting of expert disclosure for [redacted] (0.2); review correspondence from J. Cohn regarding expert disclosure of [redacted] (0.2); review and revise draft summary judgment motion and correspond with JS regarding same (2.2).	6.00	1050.00	6,300.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/08/24	JS	Prepare for and attend hearing on emergency motion regarding MSJ schedule (1.2); call with J. Cohn (0.2) and W. Thompson and J. Cohn (0.1) regarding [redacted] testimony; call with A. Swartz, W. Thompson, J. Cohn, PB, BA, EB, and HM regarding deposition planning and expert coordination (1.5); call with client, LKC, Stris, and Quinn teams regarding high priority action items (0.9); work on [redacted] report (1.5); review and revise summary judgment motion (3.4); evaluate status and coordinate next steps on miner-level data transfer in connection with Foley letters (0.3); call with Province and Quinn teams regarding scheduling of [redacted] (0.3); evaluate research regarding Whinstone breaches (0.4) and potential insolvency issues (0.4); continue deposition defense [redacted] for [redacted] depositions (1.0).	10.80	875.00	9,450.00
10/08/24	SR	Continue drafting [redacted] deposition preparation [redacted]	9.70	650.00	6,305.00
10/08/24	SB	Review RIOT presentations and fill in cites for [redacted] in [redacted] for EB.	.50	325.00	162.50
10/08/24	CS	Review and respond to correspondence from SR regarding preparation materials for [redacted] deposition (0.6); draft declaration of [redacted] in support of summary judgment including identification and incorporation of accompanying documents (3.5); draft proposed order granting motion for partial summary judgment (0.4); review and analyze supporting contract-related case law (1.1); continue revising motion including to incorporate edits and respond to comments from PS (1.8).	7.40	725.00	5,365.00
10/08/24	CHH	Assist MV and A. Swartz with review of materials for exhibit list and exhibit collection.	.80	325.00	260.00
10/08/24	JH	Finish reviewing documents for JS to assist with depositions and trial preparation.	3.50	325.00	1,137.50

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Date	Tkpr	Description	Hours	Rate	Amount
10/08/24	PB	Prepare for (0.3) and attend (1.1) teleconference with EB, [redacted] regarding supporting materials for expert reports; attend follow-up call with EB regarding same (0.2); analyze data regarding inter-entity transfers (1.2); attend portion of teleconference with W. Thompson, A. Swartz, J. Cohn, EB, BA, and JS regarding depositions and expert work (1.1); teleconference with [redacted] regarding upcoming [redacted] expert report (0.9); analyze supporting data regarding expert report of [redacted] (3.2); confer with HM regarding discovery issues and respond to correspondence regarding same (0.3).	7.10	725.00	5,147.50
10/08/24	ASA	Prepare deposition notices for C. Harris, D. Schatz, H. Davidson, J. McGonegal, and K. Haugen, and confirm deposition scheduling specifics (2.8); collect additional documents from Whinstone production for provision to C. Griffey (0.5); continue to assist attorneys with defensive deposition preparation materials (0.7).	4.00	325.00	1,300.00
10/08/24	HM	Revise, finalize, and serve C. Harris deposition notice (1.2); attend teleconference with BA, JS, EB, PB, and LKC to discuss expert reports and deposition preparation (1.5); confer with PB about documents to send to [redacted] (0.2); collect and prepare additional invoices for [redacted] (3.2); review and respond to team correspondence regarding outstanding document discovery issues and upcoming depositions (3.0); attend emergency motion on scheduling before Judge Alfredo Perez (0.2); review and summarize insolvency research for JS (0.3); correspond with counsel for Priority Power Management about subpoena response (0.2); update master deposition schedule (0.5).	10.30	600.00	6,180.00
10/08/24	TT	Review and analyze December 2023 and March 2024 Temporary Injunction Hearings regarding site safety issues in preparation for depositions and trial (8.5); Draft memorandum to EB regarding review and analysis (1.5)	10.00	480.00	4,800.00
10/08/24	MV	Continue preparing exhibit list and exhibits for trial.	7.00	400.00	2,800.00
10/09/24	PS	Prepare for and confer with JS regarding insolvency issues (0.7); research regarding same (1.4); confer with P. Tomasco regarding same (0.2).	2.30	1250.00	2,875.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/09/24	EB	Continue drafting portions of [redacted] (4.6); correspond with [redacted] regarding same including analysis of additional documents in support of same (0.4); correspond with ASA and Fulcrum regarding engagement for graphics and trial support and potential graphic for [redacted] (0.3); correspond with (0.2) and attend teleconferences with (0.3) HM regarding additional documents for [redacted] review and respond to team correspondence regarding various issues including procedure for Temple sales bids and deposition preparation (0.2); begin reviewing [redacted] (0.5); attend teleconference with PB regarding reconciling and revising statements in [redacted] versus [redacted] (0.2); confer with ASA regarding tables for [redacted] (0.2).	6.90	1100.00	7,590.00
10/09/24	BA	Confer with HM, PB, and JS regarding discovery conferral issues (0.2); review and analyze proposed revisions to summary judgment motion, and correspond and confer with JS regarding same (0.4); participate in teleconference with client and bankruptcy counsel regarding Riot's request to participate in Temple bid process (0.6); confer with PB, A. Swartz, and W. Thompson regarding expert reports (1.5); draft and revise partial summary judgment motion (2.2); correspond and confer with JS regarding [redacted] deposition, disclosure, and related issues (0.3).	5.20	1050.00	5,460.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/09/24	JS	Call with J. Cohn regarding [redacted] (0.2); call with P. Tomasco regarding same (0.1); calls with PB regarding miner data production (0.3); call with [redacted] regarding [redacted] production (0.1); call with BA regarding MSJ edits (0.1); call with CS regarding same (0.1); call with [redacted] regarding deposition prep (0.2); call with W. Thompson regarding solvency questions (0.4); call with [redacted] regarding [redacted] (0.1); call with [redacted] regarding [redacted] and litigation overlay (0.4); prepare for and attend [redacted] call regarding [redacted] report (1.3); call with P. Tomasco regarding [redacted] testimony (0.2); calls with J. Cohn and W. Thompson regarding plan for insolvency testimony (0.7); prepare for and attend [redacted] (0.9); prepare for and attend conferral call with Foley regarding outstanding discovery issues (2.1); plan for depositions of RHDM and Whinstone witnesses (1.3); review and revise [redacted] (3.1); review and revise [redacted] (1.5) and confer with PB regarding same (0.3); review and evaluate [redacted] and propose edits to same (1.0); final review of 30(b)(6) notice (0.2); correspond with Foley regarding depositions and other discovery issues (1.0).	15.60	875.00	13,650.00
10/09/24	SR	Review and revise [redacted] deposition preparation material (2.0); assist JS and team in preparing for other depositions (2.7).	4.70	650.00	3,055.00
10/09/24	CS	Begin drafting opposition to Whinstone's motion for partial summary judgment.	7.30	725.00	5,292.50
10/09/24	CHH	Summarize categories of necessary trial exhibits for collection and emails with MV regarding same (0.8); review and analyze documents provided to [redacted] and collect Bates numbers for same in preparation for trial (2.0); review and analyze all produced invoices in discovery database, and summarize and collect same for [redacted] (expert) further review (2.0); create various ShareFile links to transfer further documents to experts in preparation for reports (0.2).	5.00	325.00	1,625.00
10/09/24	JH	Prepare documents for VO to assist with deposition and trial preparation.	.80	325.00	260.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/09/24	PB	Analyze draft report of [redacted] (1.2); correspondence regarding same (0.6); analyze supporting materials to assist in preparation by [redacted] of draft [redacted] (3.2); revise [redacted] regarding background matters (1.7); attend strategy call with W. Thompson, A. Swartz, and BA regarding site safety expert (1.5); call with JS regarding potential report of [redacted] (0.3).	8.50	725.00	6,162.50
10/09/24	ASA	Create table of power curtailment credits at request of EB to assist drafting efforts (0.9); review RIOT presentations and Bates-stamped material cited by SB for accuracy at request of EB (1.7); execute agreement between Rhodium and Fulcrum at request of EB (0.5); create shared folder and link for expert [redacted] to upload and download material (0.4); gather material for use by [redacted] at request of HM (0.6); coordinate with HM, CHH, and JHA to create list of Bates-stamped material considered by [redacted] (1.4).	5.50	325.00	1,787.50
10/09/24	HM	Teleconference with EB regarding provision of documents to [redacted] (0.3); attend teleconference with JS, and [redacted], and [redacted] to discuss Rhodium's safety measure at Rockdale (0.6); attend meet-and-confer teleconference with JS, A. Swartz, P. Tomasco, and Whinstone's counsel to discuss deposition locations and outstanding document discovery issues (0.7); coordinate with CH, JHA, and AA to update Expert Shared Materials log with Bates numbers for all documents considered by [redacted] and [redacted] (4.4); review and revise [redacted] (0.5); collect and send all Rhodium safety procedures to [redacted] (0.5); coordinate with CH and MV to review and analyze documents sent from Rhodium to ensure all relevant documents are sent to [redacted] (1.0); review and respond to team correspondence regarding expert reports and depositions (2.5).	10.50	600.00	6,300.00
10/09/24	MV	Continue preparing exhibit list and trial exhibits.	6.00	400.00	2,400.00
10/10/24	VO	Review [redacted] email history and work on outline for [redacted] deposition (3.7); review 30(b)(6) notification from Whinstone and emails with JS and CH regarding next steps in light of same (0.2).	3.90	875.00	3,412.50

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Date	Tkpr	Description	Hours	Rate	Amount
10/10/24	EB	Attend teleconference with PB, [redacted], and [redacted] regarding information to address issues identified by [redacted] (0.2); review and comment on draft [redacted] expert report including to address potential overlap with other reports (1.5); attend portion of teleconference with [redacted] regarding same (0.9); review and analyze additional analysis of evidence and testimony from TT in support of [redacted] reports (0.3); correspond with JS and A. Swartz regarding potential revisions to [redacted] (1.0); review and comment on further revised [redacted] (0.6); correspond with [redacted] regarding Fulcrum engagement (0.1); correspond with Fulcrum regarding graphic for [redacted] (0.1); attend teleconference with C. Hickey (Fulcrum) regarding same (0.5); confer with NC regarding potential revisions to [redacted] and review and incorporate same (0.2); correspond with BA, JS, PB, and HM regarding Rhodium information and strategic questions relating to potential further revisions to same (0.3); review and respond to team correspondence regarding action items including deposition coverage (0.2); attend portion of [redacted] teleconference with BA, JS, PB, HM, J. Cohn, W. Thompson, and A. Swartz (0.4); correspond with [redacted] regarding revisions to [redacted] (0.3); correspond with BA, JS, PB, HM, J. Cohn, W. Thompson, and A. Swartz regarding further revisions to same (0.2); begin revising same including to incorporate initial further revisions from [redacted] and BA (1.6).	8.40	1100.00	9,240.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/10/24	BA	Review [redacted] from [redacted] and correspond with PB regarding revisions to same (0.8); review [redacted] from [redacted] and correspond with JS regarding same (0.8); draft and revise motion for partial summary judgment (3.0); correspond with EB regarding opinion of [redacted] (0.1); participate in teleconference with [redacted] and team to discuss [redacted] (1.1); review and comment on draft report for [redacted] and correspond with EB regarding same (1.0); review Whinstone's 30(b)(6) topics, correspond with JS regarding same, and analyze potential witnesses and objections for same (0.7); review analysis from PB of potential discovery matters and correspond with PB, A. Swartz, and team regarding discovery priorities and potential compromises, and correspond with PB, team, and Whinstone's counsel regarding Whinstone's continued failure to provide verified interrogatory responses (0.3).	7.80	1050.00	8,190.00
10/10/24	JS	Prepare for and attend call with E. Winston and P. Tomasco regarding [redacted] deposition plan (0.9); confer with J. Cohn regarding same (0.3); call with [redacted] regarding [redacted] testimony (0.1); continue preparing for [redacted] deposition prep (0.3); calls with PB regarding [redacted] and discovery disputes with Whinstone (1.0); call with W. Thompson regarding same (0.5); call with [redacted] and attorney teams regarding [redacted] (1.0); attend portion of call with Stris and LKC teams regarding expert coordination (0.6); correspond with Foley regarding deposition coordination and privilege issues (0.4); advise HM regarding [redacted] (0.1); review documents related to [redacted] and [redacted] and evaluate reports in light of same (1.5); review edits to MSJ and add further revisions (1.5); review and evaluate [redacted] (0.6); review Foley 30(b)(6) notice and evaluate which witnesses to designate and potential objections (1.0).	9.00	875.00	7,875.00
10/10/24	SR	Begin drafting defensive deposition preparation [redacted].	2.20	650.00	1,430.00
10/10/24	CS	Draft opposition to Whinstone's motion for summary judgment.	8.20	725.00	5,945.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/10/24	CHH	Assist HM and MV with identification of documents for trial (3.3); attend meet and confer with PB and opposing counsel regarding document production disputes (0.8); review Whinstone's 30(b)(6) deposition notice and summarize topics in same for VO (0.3).	4.40	325.00	1,430.00
10/10/24	PB	Propose revisions to [redacted] (1.2); attend teleconference with [redacted], and EB regarding [redacted] in support of same (0.2); prepare for meet-and-confer including to analyze deficiencies in Whinstone discovery responses (1.7); attend meet-and- confer with CHH and counsel for Whinstone regarding same (0.8); attend teleconferences with JS regarding discovery issues and [redacted] (1.0); attend teleconference with [redacted] and [redacted] regarding [redacted] (1.0); confer with W. Thompson regarding same (0.3); attend teleconference with J. Cohn, A. Swartz, W. Thompson, JS, BA, EB, and HM regarding expert reports (0.7); review draft expert report of [redacted] and correspondence regarding same (0.7); review draft motion for summary judgment (0.3); correspond with BA, JS, HM, and A. Swartz regarding responses to additional discovery requests (1.1); prepare privilege log (0.6).	9.60	725.00	6,960.00
10/10/24	ASA	Create secure ShareFile link and gather site services invoices, hosting invoices, ancillary service invoices, and other miscellaneous invoices for use by [redacted] at request of HM (0.3); create ShareFile link for use by Fulcrum in preparation of graphics (0.2); review documents sent to [redacted] and confirm Bates number of produced versions (2.6).	3.10	325.00	1,007.50
10/10/24	HM	Correspond and assist BA, EB, VO, JS, PB, and LKC team with action items in support of expert reports, outstanding discovery, and deposition preparation (3.3); research objection deadlines for BA and revise, finalize, and serve Debtor's notice of 30(b)(6) deposition to Whinstone (2.1); qc documents sent to [redacted] (2.5); review and revise deposition notices (0.8); organize and send documents to [redacted] (0.2); attention to case management including deposition scheduling and qc calendaring of deadlines (0.9).	9.80	600.00	5,880.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/10/24	MV	Continue preparing exhibit list and exhibits for trial.	4.00	400.00	1,600.00
10/11/24	PS	Review [redacted] and confer with team regarding same.	.30	1250.00	375.00
10/11/24	EB	Continue revising [redacted] (5.2); advise HM and litigation fellows regarding action items in support of finalization of same including provision of additional documents to [redacted] and cite checking of [redacted] (0.6); attend teleconference with BA regarding potential further revision to [redacted] and upcoming corporate representative depositions (0.3); attend teleconference with [redacted] regarding revisions to [redacted] (0.3); review and implement edits and comments from J. Cohn regarding same (0.2); review further revisions from J. Cohn and incorporate same (1.8); correspond with Stris and LKC teams and [redacted] regarding same (0.5); attention to coordination between [redacted] including emails to PB and [redacted] (0.2); attend teleconference with JS regarding expert reports (0.3).	9.40	1100.00	10,340.00
10/11/24	BA	Review draft report for [redacted] and provide comments on same to EB (0.8); assist EB and team with identifying exhibits to [redacted] correspond with EB regarding same, confer with EB regarding same, and review and comment on further edits to same (0.9); confer with EB regarding 30(b)(6) strategy options and convey same to JS (0.3); review reply in support of motion to transfer and correspond with bankruptcy counsel regarding same (0.4); continue reviewing and revising motion for partial summary judgment, including incorporating revisions from JS and from A. Davis and M. Frederick, and correspond with CS and JS regarding next steps for same (3.1); confer with JS, PS, and HM regarding preparation and strategy for meet and confer on discovery matters with opposing counsel (0.8); continue analyzing issues for trial brief (0.3); correspond with A. Swartz regarding issue for [redacted] (0.1).	6.70	1050.00	7,035.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/11/24	JS	Attend teleconference with EB regarding [redacted] (0.3); correspond with CHH regarding overlap of Temple data room with productions (0.1); attend teleconference with CHH regarding same (0.1); advise PB regarding expert reports and discovery disputes with Whinstone (0.4); confer with BA, PB, and HM regarding outstanding discovery issues and meet and confer preparation (0.8); review and revise MSJ (1.8); review and evaluate MSJ opposition (1.0); continue preparing deposition and related trial strategy (2.9); further coordinate deposition timing and logistics (0.7); analyze and propose resolution of overlapping issues between [redacted] and [redacted] (1.1).	9.20	875.00	8,050.00
10/11/24	CHH	Download set of final, Bates-stamped contracts in suit for A. Swartz (Lehotsky) review (0.2); correspondence with ASA regarding same (0.2); meet and confer with PB and A. Howell (Foley) regarding document production disputes (1.3); continue reviewing discovery database to determine list of produced [redacted] documents and summarize findings to VO and PB (2.6); telephone call with JS regarding same (0.1); prepare sample of unproduced [redacted] documents for JS review (0.3).	4.70	325.00	1,527.50
10/11/24	JH	Update bankruptcy docket (0.8); confirm related information for HM (0.5); assist HM with transfer of additional documents to [redacted] (0.3); assist ASA with confirmation of materials sent to [redacted] (1.0); prepare additional documents for VO to assist with deposition preparation (2.5).	5.10	325.00	1,657.50

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Date	Tkpr	Description	Hours	Rate	Amount
10/11/24	PB	Revise [redacted] regarding [redacted] (1.4); prepare for meet-and-confer with counsel for Whinstone regarding discovery issues (0.7); teleconference with AA regarding expert supporting material (0.1); teleconference with BA, JS, and AS regarding meet-and-confer preparation (0.8); teleconference with [redacted] and [redacted] regarding support for [redacted] (0.3); teleconference with supporting staff for [redacted] regarding support for draft report (0.5); meet-and-confer with counsel for Whinstone regarding document discovery issues (1.5); teleconference with [redacted] and team regarding draft report (1.0); teleconference with JHA regarding deposition preparation (0.2); conference with VO regarding case strategy (0.2); confer with MV regarding privilege logs (0.1); teleconference with JS regarding expert strategy (0.3); prepare and serve production 14 (1.4).	8.50	725.00	6,162.50
10/11/24	ASA	Confirm list of contracts previously sent to [redacted] at request of EB (0.4); search for specific provisions in said contracts at request of EB in support of report drafting (1.2); itemize by Bates number list of documents sent to [redacted] in support of report and exhibit finalization (7.6).	9.20	325.00	2,990.00
10/11/24	HM	Revise, finalize, and serve deposition notices of Kevin Haugen, David Schatz, Heath Davidson, and Jeff McGonegal (0.6); review and revise expert report of [redacted] (4.9); review and respond to team correspondence regarding scheduling and document discovery (2.2).	7.70	600.00	4,620.00
10/11/24	MV	Continue preparing and formatting privilege log (7.5); highlight descriptions for attorney review (0.5).	8.00	400.00	3,200.00
10/12/24	VO	Confer with JS regarding deposition planning, scheduling, and next steps.	.60	875.00	525.00
10/12/24	PS	Confer and email with team regarding expert reports, depositions, and trial planning.	1.50	1250.00	1,875.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/12/24	EB	Correspond with [redacted] regarding potential further revisions to ERCOT expert report (0.4); continue revising same (3.2); correspond with HM regarding cite checking and support for finalization of same (0.1); attend teleconference with PB and JS regarding reconciliation of [redacted] with [redacted] and [redacted] (0.6); correspond with PB and [redacted] regarding same (0.5); confer with J. Cohn regarding further revisions to same (0.3); create new potential exhibits for [redacted] to support [redacted] analysis and correspond with [redacted] regarding incorporation of same (0.9); attend teleconference with JS regarding high priority action items including expert report coordination and deposition coverage (0.3).	6.30	1100.00	6,930.00
10/12/24	BA	Review edits from W. Thompson and J. Cohn on motion for partial summary judgment and correspond with JS and CS regarding same (0.8); review and comment on opposition to motion for partial summary and correspond with JS regarding Whinstone's supplementation of same and communications with opposing counsel regarding deposition scheduling (0.4).	1.20	1050.00	1,260.00
10/12/24	JS	Call with VO regarding deposition of [redacted] (0.6); call with [redacted] regarding attendance at [redacted] deposition (0.1) and with P. Tomasco regarding same (0.1); call with W. Thompson regarding trial witness planning (0.2); attend portion of call with PB and EB regarding expert report on [redacted] (0.3); review and evaluate [redacted] (1.5); review [redacted] and propose questions regarding same (2.4); evaluate edits to MSJ from LKC (0.6); continue preparing trial plan (2.0).	7.80	875.00	6,825.00
10/12/24	CHH	Prepare exhibit of list of documents reviewed in preparation of [redacted] report.	1.30	325.00	422.50
10/12/24	PB	Review team correspondence regarding draft expert reports (0.2); correspond with [redacted] regarding draft report (0.8); attend teleconference with EB and JS regarding same (0.6); attend teleconference with LKC team regarding draft [redacted] report (0.4); further correspond with [redacted] and colleagues regarding revisions to draft report (0.4); revise draft privilege log in preparation for service (3.6).	6.00	725.00	4,350.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/12/24	HM	Organize documents sent to [redacted] within Expert Shared Materials spreadsheet (0.7); coordinate with CH to create Exhibit B, list of documents reviewed, for [redacted] report (0.2).	.90	600.00	540.00
10/13/24	VO	Continue to review [redacted] email history and work on outline for [redacted] deposition (7.1); emails with PB, JS, and JH regarding same (0.4).	7.50	875.00	6,562.50
10/13/24	PS	Confer and email with team regarding expert reports, depositions, and trial planning.	.80	1250.00	1,000.00
10/13/24	EB	Correspond with HM, SD, and CHA regarding cite check of materials considered exhibit for [redacted] report (0.3); review and respond to correspondence from A. Swartz, JS, and PB regarding [redacted] (0.5); attend teleconference with JS (0.1) and portion of teleconference with JS and PB (0.2) regarding same; confer with PS and JS regarding deposition and trial coverage (0.2).	1.30	1100.00	1,430.00
10/13/24	BA	Review correspondence and draft reports and correspond with JS and PB regarding strategy questions for expert reports (0.4); participate in teleconference with litigation team regarding expert reports (0.5); confer with JS and PB regarding strategy for and revisions to [redacted] (0.7); participate in teleconference with litigation team and data center expert (0.2); confer with JS and PB regarding strategy for issues in [redacted] and confer with [redacted] regarding same (1.1); review and revise motion for partial summary judgment (1); correspond with PS, JS, and EB regarding trial strategy (1).	4.00	1050.00	4,200.00
10/13/24	JS	Continue advising and assisting with revisions to [redacted] and [redacted] (5.9); review and propose revisions to [redacted] (1.1); review and revise MSJ (0.5); continue outlining for [redacted] deposition preparation (0.8); review and evaluate Rule 30(b)(6) notice and objections to same (1.0); continue [redacted] outline and adding questions to same (1.3).	10.60	875.00	9,275.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/13/24	CHH	Review [redacted] report in conjunction with exhibit of list of documents reviewed to ensure comprehensiveness (0.8); review JS emails regarding potentially important documents and review document database for same to confirm production (0.5).	1.30	325.00	422.50
10/13/24	PB	Continue working with EB, BA, JS, LKC teams, and experts to assist with final revisions to [redacted] and [redacted] (8.7); prepare draft privilege log (3.4).	12.10	725.00	8,772.50
10/13/24	HM	Draft [redacted] (1.5); revise and finalize [redacted] expert report with exhibits (1.1).	2.60	600.00	1,560.00
10/14/24	VO	Continue to prepare for [redacted] deposition preparation, including further review of documents, and identify additional documents for [redacted] deposition outline in connection with same (5.6); review and analyze 30(b)(6) topics to plan for witness preparation (0.8); confer with PB regarding same (0.3); confer with JS regarding same (0.3); prepare recommendations for additional questions and documents to be added to [redacted] and send to W. Thompson and A. Swartz (2.4).	9.40	875.00	8,225.00
10/14/24	PS	Review and comment on draft motion for summary judgment (1.8); confer with BA regarding deposition strategy (0.2); advise VO, and PB regarding [redacted] (0.3).	2.60	1250.00	3,250.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/14/24	EB	Correspond with JS regarding materials in support of expert depositions (1.2); advise HM regarding final revisions to and finalization and service of fully executed report and attachments (0.6); review correspondence from [redacted] (0.1); review and comment on portions of draft summary judgment motion (0.5); attend teleconference with BA and JS regarding deposition and trial preparation (1.2); begin preparing for [redacted] deposition preparation (4.6); correspond with A. Swartz regarding action items including equipment expert deposition preparation (0.1); review near-final equipment expert report (0.5); correspond with BA, JS, PB, and A. Swartz regarding finalization of same (0.1); attend portion of deposition preparation teleconference with BA, JS, PB, and LKC team members (0.3); review correspondence regarding [redacted] expert reports and advise JS and PB regarding same (0.4).	9.60	1100.00	10,560.00
10/14/24	BA	Continue reviewing and revising summary judgment motion and drafting and revising supporting declarations (4.0); review and comment on materials for C. Harris deposition (1.0); attend teleconference with EB and JS regarding deposition and trial planning (1.2); advise HM and A. Swartz regarding revisions to deposition preparation and tracking information (0.4); confer with PS regarding upcoming depositions (0.2); review updated report schedules from [redacted] and advise PB regarding final updates to and finalization of same (1.6); attend teleconference with PB regarding trial planning (0.5); confer with Stris and LKC teams regarding upcoming depositions and Rule 30(b)(6) objections and correspond with opposing counsel regarding same (1.2); review [redacted] conveyed by P. Tomasco, review AAA confidentiality rules, and correspond with JS and HM regarding next steps (0.5).	10.60	1050.00	11,130.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/14/24	JS	Attend teleconference with EB and BA regarding trial planning (1.2); assist W. Thompson with preparation of C. Harris deposition outline (2.5); confer with VO regarding 30(b)(6) deposition preparation (0.3); confer with J. Cohn regarding expert witness next steps (0.5); review and revise [redacted] and assist in preparing same for service (5.4); prepare for and confer with LKC team regarding Schatz and Davidson deposition preparation (1.9); continue preparing [redacted] defensive deposition materials (2.0).	13.80	875.00	12,075.00
10/14/24	CS	Draft BA declaration in support of motion for partial summary judgment and gather exhibits to accompany the same (0.9); revise [redacted] in support of same to incorporate comments from BA (0.7); review and incorporate edits to motion for partial summary judgment (1.0); continue drafting opposition to Whinstone's motion for partial summary judgment (2.9).	5.50	725.00	3,987.50
10/14/24	CHH	Finalize exhibits to [redacted] (0.7); share exhibits to motion for partial summary judgment for client review (0.1); compile produced [redacted] text messages for VO further review (0.1); finalize exhibits to [redacted] in support of motion for partial summary judgment (1.4).	2.30	325.00	747.50
10/14/24	PB	Assist in revision and finalization of expert reports including conferring with [redacted] BA, and JS regarding same (5.1); attend teleconference with BA regarding trial plan (0.5); continue preparing privilege log for service to Whinstone (5.8).	11.40	725.00	8,265.00
10/14/24	ASA	Draft expert deposition notices for HM (2.5); update case management materials and files to reflect case updates and recent correspondence (1.0); organize deposition materials for Stris and LKC teams (0.5).	4.00	325.00	1,300.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/14/24	HM	Review and respond to team correspondence regarding action items in support of finalization of expert reports (2.0); review, revise, finalize, and serve expert reports of C. Griffey, N. Miljkovic, T. Lewis, and E. Brown (5.0); advise ASA regarding notices of deposition for Whinstone experts (0.5); correspond with VO and JS regarding [redacted] deposition (0.1); update master deposition schedule (0.5).	8.10	600.00	4,860.00
10/15/24	VO	Confer with JS and [redacted] to provide update on recent developments, status of case, strategy, and next steps (0.4); attend videoconference with JS and [redacted] regarding 30(b)(6) deposition preparation (1.0).	1.40	875.00	1,225.00
10/15/24	PS	Emails with team regarding Slovack designation and next steps (0.2); review Whinstone expert reports and confer with team regarding same (1.5).	1.70	1250.00	2,125.00
10/15/24	EB	Review correspondence regarding final expert reports and documents served by Whinstone (0.1); attend teleconference with BA regarding high priority action items including potential [redacted] by [redacted] to two Whinstone experts (0.3); correspond with [redacted] regarding same, request for documents relied upon by Whinstone damages expert, and teleconferences to discuss questions in support of C. Harris deposition and [redacted] (0.2); attend teleconference with JS regarding action items including [redacted] support for C. Harris deposition and information in support of teleconference with [redacted] regarding same (0.5); correspond with JS and W. Thompson regarding documents and information in support of same (0.2); review and analyze Whinstone damages and ERCOT reports and related materials to support [redacted] (4.0); begin [redacted] same (1.2); review final Griffey excel file and correspond with BA and HM regarding production of same (0.4); review and respond to team correspondence regarding additional issues including response to request from Whinstone for next profit share calculation and hot documents for upcoming depositions (0.5).	7.40	1100.00	8,140.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/15/24	BA	Confer with EB regarding Whinstone expert reports and potential responses and rebuttal (0.4); participate in teleconference with litigation counsel to discuss preparation for offensive depositions (1.2); participate in teleconference with JS and [redacted] to discuss deposition preparation and rebuttal topics (0.5); review and analyze expert reports served by Whinstone and correspond with team and experts regarding same, including conveying Whinstone reports to Rhodium experts and correspond with AA, EB, HM, and A. Swartz as necessary to convey supporting materials from Whinstone experts to Rhodium experts and supporting materials from Rhodium experts to Whinstone (3.5); review additional edits on summary judgment motion from bankruptcy counsel and correspond with CS and JS regarding next steps to begin finalizing same (0.8); convey analysis and potential issues regarding Whinstone's disclosure of Slovak as fee witness to litigation and bankruptcy team, research same, and correspond with same and JS and PS regarding next steps (1.5); review question from client regarding updated profit share calculation and correspond with team regarding need for input from bankruptcy counsel (0.2); review Whinstone's privilege log, review draft privilege log for Rhodium, correspond with PB and JS regarding privilege and redaction issues flagged by PB, correspond with PB and EB regarding common interest privilege, and review and approve final log for service (1.5); correspond with JS regarding potential approach to objections to 30(b)(6) notice, draft objections letter, and convey same to team for review (2).	11.60	1050.00	12,180.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/15/24	JS	Confer with VO and [redacted] to provide update on recent developments, status of case, strategy, and next steps (0.4); attend portion of [redacted] prep call with LKC (1.9); attend portion of zoom with EB and W. Thompson regarding C. Harris deposition (0.4); attend portion of 30b6 deposition prep with VO and [redacted] (0.9); confer with [redacted] and BA regarding [redacted] issues in connection with C. Harris deposition (0.5); prepare for and attend planning call for depositions of McGonegal and Haugen with Stris and LKC teams (1.6); attend Rhodium weekly touchpoint call with all counsel (1.0); call with [redacted] regarding 30b6 topics and [redacted] testimony (0.5); review and evaluate 30b6 topics in connection with objection and conferral (0.3); prepare for C. Harris deposition (7.7).	15.20	875.00	13,300.00
10/15/24	CS	Revise summary judgment motion, including to incorporate edits from PS and Quinn Emanuel (7.0); continue drafting opposition to Whinstone's summary judgment motion (0.9).	7.90	725.00	5,727.50
10/15/24	CHH	Review and correspond with JS regarding documents for C. Harris (1.0); finalize exhibits to BA declaration in support of motion for partial summary judgment (1.2); cite-check and proofread N. Nichols (Rhodium) and BA declarations in support of same (0.6); attention to claw back deletions to ensure compliance with local rules (0.4); create shareable, secure links for transmission of data to C. Griffey (expert) and opposing counsel (0.2); prepare reproduction of text messages for opposing counsel (0.5).	3.60	325.00	1,170.00
10/15/24	JH	Prepare various expert materials reviewed by Whinstone experts for ShareFile delivery to Rhodium experts for HM (0.8); continue populating running internal exhibit list (3.0).	3.80	325.00	1,235.00
10/15/24	PB	Prepare, revise, finalize, and serve privilege log (4.8); prepare production of non-privileged [redacted] documents (2.1); prepare for defense of deposition of [redacted] (2.0); teleconference with A. Davis regarding expert reports (0.2); attend case team call regarding deposition preparation (1.0); review and analyze Whinstone damages expert report (1.4)	11.50	725.00	8,337.50
10/15/24	ASA	Assist BA and EB with provision of additional materials to C. Griffey (1.4); attention to organization and tracking of material sent to experts (0.3).	1.70	325.00	552.50

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Date	Tkpr	Description	Hours	Rate	Amount
10/15/24	HM	Review and respond to team correspondence regarding deposition preparation, documents relied on by Whinstone's experts, and documents to share with [redacted] and Foley (4.4); attend teleconference with VO, JS, PB, HM, BA and J. Cohn, A. Davis, T. Disher, and M. Frederick (LKC) to discuss deposition strategy (1.3); revise, finalize, and serve deposition notices of Benjamin Gibson, Nicholas Burnett, and Richard Peters (1.0); revise deposition notices of Jeffrey Matthews and Shams Siddiqi (0.2); review and analyze correspondence with opposing counsel relating to discovery (0.8); review and analyze Whinstone's amended responses to Debtors' requests for admission (1.5).	9.20	600.00	5,520.00
10/15/24	MV	Continue reviewing documents for and updating exhibit list.	6.00	400.00	2,400.00
10/16/24	VO	Review and revise [redacted] and prepare email to team regarding next steps for same (0.6); confer with JS to get update on C. Harris deposition takeaways, discuss [redacted], and discuss [redacted] deposition preparation strategy and next steps (1.0).	1.60	875.00	1,400.00
10/16/24	EB	Begin preparing to depose Whinstone exert S. Siddiqi (ERCOT) (2.0); prepare for (0.2) and attend (0.7) teleconference with BA and [redacted] regarding [redacted] continue drafting portions of same (1.5); correspond with HM and CHH regarding management and tracking of additional documents sent to [redacted] (0.2); correspond with [redacted], BA, JS, and HM regarding additional documents and information in support of [redacted] (0.3); attend portion of teleconference with BA, PB, A. Davis, and [redacted] regarding [redacted] (0.7); correspond with [redacted], and ASA regarding confirmation of witnesses and trial attendees (0.1); correspond with BA and JS regarding update to Stris and LKC teams regarding trial graphics and hot seat vendor (0.1); review [redacted] report (0.2); review and respond to Stris team correspondence regarding high priority expert-related action items and motion for partial summary judgment (0.5).	6.50	1100.00	7,150.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/16/24	BA	Review 30(b)(6) objections from Whinstone and review and respond to team correspondence regarding same and Whinstone's privilege log (0.4); advise HM regarding cite checking and service of 30(b)(6) objection letter (0.3); correspond with EB, JS, and HM regarding questions from [redacted] (0.5) and attend portion of teleconference with EB and [redacted] to discuss [redacted] report (0.5); correspond and confer with [redacted] regarding witness list and finalization of summary judgment documents (0.1); attention to same, including correspondence with [redacted] regarding declaration and implementation of edits from bankruptcy counsel (3.2); review materials and update JS and team regarding depositions and high priority action items (0.6); correspond with M. Thomas rebarding changes to deposition schedule (0.2); review and approve service of supplementation to [redacted] report (0.1); review protective order for [redacted] and correspond with JS regarding same (0.2); correspond with PS regarding discovery issues and supplementation (0.5); continue analyzing Whinstone's damages expert report to prepare for call with Stoneturn and for deposition (1.0); participate in teleconference with PB, EB, and [redacted] to discuss responses to Whinstone's expert reports and potential rebuttal reports (0.8).	8.40	1050.00	8,820.00
10/16/24	JS	Prepare for and attend deposition of C. Harris and debrief (9.5); confer with VO regarding next steps in light of C. Harris deposition, 30b6 issues, and [redacted] deposition prep (1.0); confer with BA regarding C. Harris deposition and next steps (0.3); review N. Nichols declaration in support of MSJ (0.4); correspond with Stris, LKC, and Quinn teams regarding high priority trial preparation items and coordination with additional outside counsel and NDA (1.4); call with J. Cohn regarding deposition planning in light of witness 30b6 designations (0.3); review Whinstone 30b6 designation and objections in connection with meet and confer (0.5); review and propose revisions to [redacted] [redacted] (0.7); continue preparation for [redacted] deposition (0.3).	14.40	875.00	12,600.00
10/16/24	SR	Correspond with team regarding [redacted] deposition logistics (0.5); review case file and notes in connection with preparations for the same (1.1).	1.60	650.00	1,040.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/16/24	SB	Cite check Motion for Partial Summary Judgment for CS.	4.40	325.00	1,430.00
10/16/24	CS	Continue drafting response to Whinstone's motion for partial summary judgment (1.1); review and revise Debtors' motion for partial summary judgment (4.5); review cite check of motion for partial summary judgment (.5); review finalized exhibits in support of the same (.4); review and finalize declarations in support of the same (.8); add tables to motion for partial summary judgment (.9); file sealed and unsealed versions of motion for partial summary judgment (1)	9.20	725.00	6,670.00
10/16/24	CHH	Cite-check and proofread motion for partial summary judgment (2.5); finalize new exhibits for BA declaration in support of same and proofread declaration accordingly (0.6); review and analyze documents in preparation for expert depositions and emails with EB regarding same (0.2); prepare and download documents for [redacted] for A. Swartz (Lehotsky) further review (0.4); review and organize material in preparation for [redacted] supplemental report (0.3); finalize reproduced text messages for production and confer with PB regarding same (0.3).	4.30	325.00	1,397.50
10/16/24	JH	Confer with MV regarding exhibit list (0.5); begin populating [redacted] exhibit list with bates-numbered [redacted] (1.9); prepare key pleadings from [redacted] for expert [redacted] review at HM request (0.3).	2.70	325.00	877.50
10/16/24	PB	Teleconference with [redacted], and BA regarding [redacted] (0.4); conferences with VO regarding deposition defense of [redacted] (1.4); preparation for defense of deposition of [redacted] and upcoming preparation sessions (5.0); prepare for and attend teleconference with T. Lewis regarding rebuttal report (1.1); conference [redacted] regarding discovery [redacted] (0.4); research regarding [redacted] motion (1.2); review and analyze miner expert report (0.7).	10.20	725.00	7,395.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/16/24	HM	Review documents in search of [redacted] to produce to Whinstone (4.5); finalize and serve correspondence from BA to M. Thomas regarding 30(b)(6) topics (0.2); [redacted] and serve corrected Tiffany Lewis expert report (0.3); review and respond to team correspondence regarding documents to send to experts and deposition logistics (2.2); perform fact research for BA about [redacted] and an energy use issue (2.0).	9.20	600.00	5,520.00
10/16/24	MV	Continue preparing exhibit list and exhibits for trial.	3.00	400.00	1,200.00
10/17/24	VO	Correspond with Quinn Emanuel regarding deposition scheduling.	.30	875.00	262.50
10/17/24	EB	Correspond with witnesses and Stris team regarding trial attendance (0.5); attend teleconference with [redacted] regarding same (0.2); begin preparing to depose Whinstone ERCOT expert S. Siddiqi (3.8); review and comment on draft expert rebuttal report of [redacted] regarding [redacted] and [redacted] issues (2.4); correspond with BA regarding same (0.1); correspond with BA and Stris team regarding high priority action items including potential discovery and Daubert motions (0.3).	7.30	1100.00	8,030.00
10/17/24	BA	Analyze and outline high priority discovery, trial preparation, and motion practice tasks and convey same to JS, EB, HM, and PB (0.8); prepare for (0.5), confer with JS regarding (0.3), participate in (1.0), and confer with JS to debrief (0.3) conferral conference with Whinstone's counsel regarding 30(b)(6) topics; correspond and confer with HM regarding preparation of designations and objections to 30(b)(6) topics (0.2); review, draft, correspond with JS and bankruptcy counsel regarding, and revise designations and objections to 30(b)(6) topics, and prepare draft email to opposing counsel regarding same (4.0); correspond with litigation team regarding production of underlying calculations for expert reports (0.3); review correspondence from opposing counsel regarding discovery matters, correspond and confer with PB and JS regarding responses to same, and review and edit response to same (0.6); correspond with litigation and bankruptcy team regarding hearing and trial planning (0.2); continue preparing to depose expert J. Matthews (0.8).	9.00	1050.00	9,450.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/17/24	JS	Prepare for [redacted] deposition (2.3); prepare to depose B. Gibson (4.0); evaluate power credit issues in connection with K. Haugen deposition (0.9); prepare for and attend meet and confer regarding 30b6 topics (1.8); confer with W. Thompson regarding deposition [redacted] and remaining Whinstone experts (0.9); calls with J. Cohn regarding 30b6 topic designations and objections (0.4); review and revise 30b6 topic designations and objections (2.0); confer with BA regarding 30b6 designations and objections (2.2); attend to high priority outstanding discovery matters (1.6).	16.10	875.00	14,087.50
10/17/24	CS	Continue drafting opposition to Whinstone's motion for partial summary judgment (9.7).	9.70	725.00	7,032.50
10/17/24	CHH	Compile documents for [redacted] review for deposition preparation and emails with JS regarding same (1.5); review and update matter docket (0.3); teleconference with PB and prepare supplemental text message and word native productions in light of same (0.2); prepare and email G. Gonzalez-Araiza (Lehotsky) with [redacted] (expert) [redacted] deposition preparation materials (0.1); review and edit trial exhibit list (1.8).	3.90	325.00	1,267.50
10/17/24	NC	No Charge - Research and circulate expert past transcripts; correspond with EB and MN regarding same.	2.00	325.00	N/C
10/17/24	JH	Continue populating exhibit list with Hot Docs identified by HM (4.3); update bankruptcy docket with CHH assistance (1.0).	5.30	325.00	1,722.50
10/17/24	PB	Correspondence with EB, BA, and JS regarding discovery status (0.9); correspondence with counsel for Whinstone regarding open discovery items and Whinstone discovery deficiencies (2.6); teleconference with T. Lewis regarding [redacted] (0.5); teleconference with [redacted] regarding [redacted] issues (0.3); prepare production of documents responsive to supplemental Whinstone requests (6.4); prepare for upcoming defense of deposition testimony of [redacted] (1.0)	11.40	725.00	8,265.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/17/24	HM	Begin drafting deposition outline of Benjamin Gibson (5.2); teleconference with JS about deposition preparation for [redacted] and [redacted] (1.5); finalize and serve deposition notices for Jeffrey G. Matthews and Shams Siddiqi (0.5); attend meet-and-confer with BA, JS, A. Swartz (LKC), M. Thomas and A. Howell (Foley) to discuss corporate representative topics (1.0); begin drafting objections and designations for Whinstone's corporate representative topics (2.0); meet with [redacted] to discuss [redacted] and deposition [redacted] (0.3); review and respond to team correspondence regarding court reporter services, deposition logistics, and deposition scheduling (2.5).	13.00	600.00	7,800.00
10/17/24	MV	Further review local rules and exhibit requirements and correspond with team regarding same (0.5); continue reviewing documents for inclusion on and preparing exhibit list (6.0).	6.50	400.00	2,600.00
10/18/24	VO	Participate in portion of deposition preparation session for [redacted] (2.5); debrief with PB and JS regarding same (0.5); prepare emails to [redacted] regarding deposition preparation (0.3); continue preparing for further [redacted] deposition preparation (1.4).	4.70	875.00	4,112.50
10/18/24	EB	Continue making initial proposed revisions to [redacted] (1.1); correspond with [redacted] regarding same and next steps (0.1); advise ASA regarding provision of additional documents to [redacted] and NC regarding citation checks for [redacted] (0.1); attend portion of teleconference with JS, M. Frederick, W. Thompson, A. Davis, and [redacted] regarding [redacted] issues (0.9); attend teleconference with [redacted] regarding revisions to [redacted] report (0.2); continue [redacted] same (4.7); review and respond to team correspondence regarding high priority action items including further production of documents in advance of upcoming depositions and expert reports (0.5).	7.60	1100.00	8,360.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/18/24	BA	Review draft rebuttal opinion from [redacted] and advise EB regarding revisions to same (1.0); review and revise 30(b)(6) objections and designations and correspond with litigation and bankruptcy teams regarding final revisions to same (1.5); review, revise, and draft opposition to Whinstone's motion for partial summary judgment and correspond with CS regarding same (2.8); confer with litigation and bankruptcy teams regarding trial preparation (0.9); correspond with JS, PB, and HM regarding trial support (0.1); advise VO, JS, and PB regarding discovery matters and deposition preparation for [redacted] (0.5); correspond with ASA and NC regarding deposition and trial planning and support (0.2).	7.00	1050.00	7,350.00
10/18/24	JS	Participate in portion of [redacted] deposition preparation (0.5); participate in portion of [redacted] deposition preparation (1.5); debrief with VO and PB (0.5); review and finalize objections and designations on 30b6 topics (0.4); attend call with [redacted] and LKC team regarding [redacted] programs (0.5); participate in [redacted] deposition preparation (2.4); advise HM regarding next steps in connection with same (0.2); attention to [redacted] deposition preparation (1.4); prepare to depose Gibson (4.0); research and evaluate potential privilege issues (0.4) and confer with PB regarding same (0.3).	12.10	875.00	10,587.50
10/18/24	CS	Continue drafting response to Whinstone's motion for partial summary judgment.	7.90	725.00	5,727.50
10/18/24	JH	Continue populating exhibit list with key documents used as exhibits in filed declarations.	4.70	325.00	1,527.50
10/18/24	PB	Prepare for and conduct deposition preparation session with [redacted] and VO (3.1); debrief with VO and JS regarding same (0.5); attention to discovery action items including review and analyze supplemental production of documents to Whinstone and advising HM regarding and producing same (5.5); analyze [redacted] issues at the request of JS (0.3); attend team teleconference regarding trial preparation (1.0); confer with BA, JS, and VO regarding issues for [redacted] deposition preparation (1.0).	11.40	725.00	8,265.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/18/24	ASA	Compile motion for summary judgment briefing for reference by expert [redacted] at request of EB (0.6); locate hosting service agreement document at request of co-counsel (0.6); coordinate with EB, HH, and team members to finalize rooming list for Houston trial (1.6); attend conference about trial logistics with litigation and bankruptcy teams (0.9).	3.70	325.00	1,202.50
10/18/24	HM	Assist PB in collecting, reviewing, and producing documents for production 16 (4.3); participate and assist JS with [redacted] deposition preparation (2.4); confer with Stris and LKC team members regarding trial planning (0.9); review and respond to team correspondence regarding deposition support (1.0); attention to scheduling of depositions of opposing experts (0.5).	9.10	600.00	5,460.00
10/18/24	MV	Attend teleconference with local vendor regarding trial preparation and support (0.5); continue preparing exhibit list and exhibits for trial (5.5).	6.00	400.00	2,400.00
10/19/24	VO	Continue to review and prepare outline for [redacted] deposition of [redacted], and review and analyze hot documents in connection with same (4.3); prepare email to [redacted] regarding 30(b)(6) topics and to provide update (0.1).	4.40	875.00	3,850.00
10/19/24	EB	Revise [redacted] (1.0); confer with BA, JS, and [redacted] regarding same (0.5); correspond with PB regarding [redacted] rebuttal report (0.2).	1.70	1100.00	1,870.00
10/19/24	BA	Review and [redacted] rebuttal report in consultation with [redacted] and EB (2.1); review draft rebuttal report from [redacted], convey [redacted] to PB, EB, and JS, correspond with PB regarding same, and convey same to [redacted] (1.4); correspond with CS and JS regarding summary judgment opposition and continue reviewing and revising same (1.0).	4.50	1050.00	4,725.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/19/24	JS	Work on Gibson [redacted] (5.7); work through [redacted] issues for [redacted] deposition with PB (1.7) and evaluate additional potential issues for [redacted] deposition (0.5); confer with W. Thompson regarding issue prioritization and trial planning (0.9); confer with J. Cohn regarding [redacted] issues and trial planning (0.4); confer with VO regarding depositions of [redacted], and [redacted] (0.5).	9.70	875.00	8,487.50
10/19/24	CS	Continue drafting response to Whinstone's motion for partial summary judgment.	4.30	725.00	3,117.50
10/19/24	PB	Review, analyze, and suggest revisions to draft expert report of T. Lewis (5.9); teleconference with J. Stokes regarding same (1.6).	7.50	725.00	5,437.50
10/19/24	HM	Draft deposition outline of Benjamin Gibson. (2.8).	2.80	600.00	1,680.00
10/20/24	EB	Confer with BA and [redacted] regarding [redacted] rebuttal report and continue [redacted] (1.9); correspond with BA, PB, and [redacted] regarding revisions to [redacted] rebuttal report (0.2); attend portion of teleconference with JS and LKC regarding upcoming Whinstone Rule 30(b)(6) deposition on power topics (1.1); correspond with M. Frederick regarding documents for potential use at same (0.3).	3.50	1100.00	3,850.00
10/20/24	BA	Confer with EB and [redacted] regarding rebuttal expert report (0.8); review and revise summary judgment opposition and correspond with CS regarding same (1.1); correspond with EB and JS regarding revisions to [redacted] rebuttal report (0.4); review discovery correspondence from Whinstone and correspond with team regarding same, including proposing response language (0.4); correspond with M. Frederick and team regarding Haugen deposition (0.2).	2.90	1050.00	3,045.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/20/24	JS	Prepare for deposition of B. Gibson (4.3); assist M. Frederick in preparation for deposition of K. Haugen (2.5); evaluate high priority discovery dispute and prepare plan regarding same (1.4); review and evaluate expert report of C. Griffey (0.9); evaluate contract interpretation arguments related to pricing terms (0.5); review materials in connection with preparation of [redacted] for deposition (1.1); correspond with BA regarding [redacted] report (0.2).	10.90	875.00	9,537.50
10/20/24	CS	Continue drafting response to Whinstone's motion for partial summary judgment.	6.90	725.00	5,002.50
10/20/24	PB	Propose revisions to [redacted] report of [redacted] (1.2); analyze draft report of [redacted] (.3); prepare to defend deposition of [redacted] (5.8).	7.30	725.00	5,292.50
10/21/24	VO	Attend portion of [redacted] deposition preparation session (2.7); debrief with PB regarding same and to discuss additional issues for next preparation session (0.4).	3.10	875.00	2,712.50
10/21/24	PS	Review and comment on opposition to MSJ (1.1); review and comment on expert rebuttal reports (0.8).	1.90	1250.00	2,375.00
10/21/24	EB	Further revise [redacted] including to reflect additional comments from BA, J. Cohn, and [redacted] (2.5); advise ASA regarding cite check and revisions to [redacted] exhibit and ASA and HM regarding finalization and service of same (0.5); assist BA and PB with further revisions to [redacted] regarding [redacted] report (0.7); correspond with BA and JS regarding high priority issues including potential further [redacted] document production (0.4); attend teleconference with BA, JS, VO, PB, [redacted]nson regarding same (0.5); attend portion of [redacted] deposition preparation session (1.1); review proposed final [redacted] rebuttal report and correspond with A. Swartz regarding [redacted] to same (0.9); continue preparing for Siddiqi deposition (2.2).	8.80	1100.00	9,680.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/21/24	BA	Convey and review additional research and confer with litigation and bankruptcy counsel and client regarding objection to Whinstone's demand for production of general ledgers and expansion of 30(b)(6) topics (1.6); correspond with HM regarding priority tasks including deposition outline for J. Matthews and Daubert research (0.1); review revised [redacted] report and correspond with A. Swartz regarding same (0.3); review revisions to [redacted] report and confer with EB regarding revisions and finalization of same (1.0); review draft [redacted] report and supporting [redacted] and confer with PB, EB, and A. Davis, and [redacted] regarding revisions to and finalization of same (3.0); continue reviewing and revising opposition to Whinstone's motion for summary judgment and correspond and confer with CS regarding same (2.9).	8.90	1050.00	9,345.00
10/21/24	JS	Revise Gibson deposition outline (5.7); review rebuttal report and add further questions to deposition outline (2.5); attend portion of prep session for [redacted] (1.5); attend [redacted] prep session (4.0); follow up with HM on outstanding [redacted] issues (0.7); prepare discovery correspondence regarding general ledgers and corporate designee issues (0.5).	14.80	875.00	12,950.00
10/21/24	CS	Continue revising opposition to Whinstone's motion for summary judgment (4.2); draft [redacted] declaration in support of opposition to motion for summary judgment and organize exhibits attached thereto (1.6); draft [redacted] declaration in support of opposition to motion for summary judgment and organize exhibits attached thereto (2.1).	7.90	725.00	5,727.50
10/21/24	CHH	Collect exhibit information in preparation for K. Haugen (Riot) deposition (0.1); review production correspondence and update production log accordingly (0.5).	.60	325.00	195.00
10/21/24	JH	Continue populating the internal exhibit list with MV assistance and direction.	6.00	325.00	1,950.00
10/21/24	PB	Teleconference with EB and BA regarding [redacted] report (0.5); meeting with [redacted] regarding deposition preparation (2.3); assist in [redacted] and finalization of [redacted] report of [redacted] (3.6); prepare for upcoming defense of deposition of [redacted] (5.5).	11.90	725.00	8,627.50

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Date	Tkpr	Description	Hours	Rate	Amount
10/21/24	ASA	Proofread, cite-check, prepare list of documents considered, and attach related material before finalizing in support of [redacted] expert report.	6.60	325.00	2,145.00
10/21/24	HM	Review photos attached to messages for production (2.2); attend teleconference with [redacted], JS, and Gabriela Gonzales-Araiza (LKC) regarding deposition preparation (4.2); review and prepare documents and photos for deposition of Benjamin Gibson (2.4); review and revise Benjamin Gibson deposition outline (1.6); review and analyze notes from deposition preparation session to draft [redacted] for [redacted] deposition (1.4); coordinate with [redacted] for scheduling offensive expert depositions (0.5); review, finalize, and serve expert rebuttal reports of Tiffany Lewis, Charles Griffey, and Nenad Miljkovic (0.4); conduct research for W. Thompson about [redacted] (1.0); begin reviewing deposition transcript of Chad Harris (1.5).	14.50	600.00	8,700.00
10/21/24	MV	Continue revising exhibit list and reviewing documents for revisions to same.	6.00	400.00	2,400.00
10/22/24	VO	Attend portion of [redacted] deposition preparation session (2.2); debrief with PB regarding same (0.2); confer and correspondence with W. Thompson regarding same (0.2).	2.60	875.00	2,275.00
10/22/24	EB	Continue preparing to depose opposing expert S. Siddiqi (ERCOT) (3.9); begin preparing to depose Peters (miners) (1.1); review and correspond with PS, BA, and [redacted] regarding opposing rebuttal report of Whinstone experts S. Siddiqi and supplement of M. Matthews (0.6); confer with BA and Stris and LKC teams regarding [redacted] deposition preparation (0.2); attend teleconference with [redacted] regarding same and upcoming expert depositions (1.4); correspond with [redacted] regarding exhibit list (0.2); attention to revising, finalizing, and advising HM regarding service of [redacted] reports and accompanying [redacted] (1.8).	8.20	1100.00	9,020.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/22/24	BA	Review and analyze rebuttal reports from Whinstone (1.5); confer with EB and [redacted] regarding Whinstone rebuttal reports and deposition prep (0.8); continue reviewing, revising, and drafting opposition to Whinstone's motion for summary judgment, and correspond and confer with J. Cohn and CS regarding same (7.0); correspond with PB and T. Lewis regarding deposition preparation (0.2).	9.50	1050.00	9,975.00
10/22/24	JS	Prepare for and attend B Gibson deposition (7.6); review and revise MSJ opposition (3.1); work on [redacted] deposition defense prep (1.5); work on [redacted] deposition defense prep (0.4).	12.60	875.00	11,025.00
10/22/24	SR	Draft materials for [redacted] deposition preparation.	2.30	650.00	1,495.00
10/22/24	SB	Put together [redacted] of Whinstone's experts for EB (0.5); conduct westlaw searches for cases and opinions where experts [redacted] testimony was excluded (1.7); review dockets of cases where experts [redacted] testified and send same to EB (1.0).	3.20	325.00	1,040.00
10/22/24	CS	Continue revising opposition to Whinstone's motion for summary judgment (6.6); revise and finalize Nichols declaration in support of opposition to Whinstone's motion for summary judgment (1.1).	7.70	725.00	5,582.50
10/22/24	JH	Prepare cover sheets for exhibits to Debtor's Opposition to Whinstone's Partial Motion for Summary Judgment for CS (2.5); assist EB in proofreading expert [redacted] for Opening and Rebuttal reports (3.0); update bankruptcy docket (0.3); update MV running exhibit list with ECF numbers of those exhibits filed in bankruptcy court (2.0).	7.80	325.00	2,535.00
10/22/24	PB	Teleconferences with [redacted], JS, JC, and WT regarding deposition preparation and follow-up calls with WT and JS regarding same (7.4); teleconference with EB regarding expert depositions (0.2); prepare for upcoming defense of deposition of [redacted] (1.2); teleconference with J. Stokes regarding privilege issues (0.3); review deposition transcript of C. Harris for trial preparation (0.3).	9.40	725.00	6,815.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/22/24	HM	Attend deposition of Benjamin Gibson (5.5); conduct research on exclusion of Gibson's expert report given lack of compliance with FRCP 26(a)(2)(B)(v) and send to JS (1.0); attend teleconference with [redacted] and JS regarding deposition preparation (0.5); finalize and serve corrected reports of Charles Griffey (0.3); review and respond to team correspondence regarding deposition logistics and document discovery (0.8); continue reading deposition transcript of Chad Harris (0.5).	8.60	600.00	5,160.00
10/22/24	MV	Continue preparing and assisting PB with preparation of exhibit list and exhibits for trial.	7.00	400.00	2,800.00
10/23/24	EB	Correspond with J. Cohn regarding deposition preparation questions for [redacted] (0.3); continue preparing to depose S. Siddiqi (ERCOT) expert (5.8); correspond with MV regarding exhibit list and related action items (0.2).	6.30	1100.00	6,930.00
10/23/24	BA	Review additional edits on draft opposition to summary judgment motion from J. Cohn, W. Thompson, and JS, continue revising same, correspond with J. Cohn and with JS regarding edits to same, correspond with SB regarding cite check, correspond and confer with [redacted] regarding same, and correspond and confer with CS as needed on all issues regarding finalizing same, including final edits, cite check, exhibits, sealing, and redactions (4.5); review correspondence and related discovery motion from Whinstone, and correspond with K. Hutchins regarding same (0.4); confer with PB regarding same (0.2); confer with J. Cohn and PB regarding strategy for response (0.2); research and draft opposition to Whinstone's motion to compel and convey same to team for review, corresponding as necessary with K. Hutchins and PB regarding same (4.5); confer with JS regarding high priority action items including discovery motions (0.2); correspond and confer with EB, HM, PB, JS and A. Swartz regarding redactions issues related to power spreadsheets, as relevant to deposition preparation and expert disclosures (1).	11.00	1050.00	11,550.00
10/23/24	JS	Attend deposition of E. Brown (7.5); review and revise discovery motion and opposition (3.3); evaluate trial strategy and further deposition strategy in light of depositions so far (2.2).	13.00	875.00	11,375.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/23/24	SR	Attend teleconference with JS regarding [redacted] deposition preparations (0.1); correspond with HM regarding the same (0.1).	.20	650.00	130.00
10/23/24	SB	Cite Opposition to Whinstone's Partial Summary Judgment for CS (4.4); create calendar invites for expert deposition preparation for EB (0.2).	4.60	325.00	1,495.00
10/23/24	CS	Review and revise opposition to Whinstone's motion for summary judgment (7.1); review cite check of the same (0.4); finalize exhibits and declarations for filing (0.7); file opposition and supporting materials (0.8).	9.00	725.00	6,525.00
10/23/24	JH	Cite-check Debtors' Opposition to Whinstone's Motion for Partial Summary Judgment with SB at CS request (5.0); update bankruptcy docket (0.5); begin tagging [redacted] deposition exhibits to compare with those on MV running exhibit list (1.0).	6.50	325.00	2,112.50
10/23/24	PB	Teleconference with JS regarding response to discovery motion (0.2); teleconference with BA regarding response to discovery motion (0.3); teleconference with JS and BA regarding strategy for discovery motion response (0.1); draft motion to compel interrogatory responses (6.4); analyze deposition transcript of C. Harris for trial preparation (0.4); analyze rebuttal report of J. Matthews (1.2).	8.60	725.00	6,235.00
10/23/24	HM	Attend deposition of Dr. Eric Brown (5.5); confer with JS about deposition of Dr. Eric Brown (0.5); draft [redacted] of depositions of Eric Brown and Benjamin Gibson and circulate to [redacted] (0.5); finalize and serve letter from Debtors to Foley regarding confidentiality designations of Chad Harris's October 16, 2024 deposition (0.3); review and respond to team correspondence regarding trial exhibits and deposition logistics (1.2).	8.00	600.00	4,800.00
10/23/24	MV	Correspond with attorneys regarding trial logistics and action items and coordinate trial assignments with fellows (0.5); correspond with co-counsel regarding depositions and exhibits and update internal deposition log (0.5); prepare for teleconference with Quinn Emanuel paralegal regarding court requirements and exhibit list (1.0); further revise exhibit list and trial exhibits (6.0).	8.00	400.00	3,200.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/24/24	VO	Prepare for (1.0) and attend (4.5) deposition preparation session for [redacted]; attend portion of deposition preparation session for [redacted] (2.5).	8.00	875.00	7,000.00
10/24/24	EB	Continue preparing for (1.6) and conduct (5.8) deposition of Whinstone expert S. Siddiqi (ERCOT); summarize same for [redacted] (0.6); continue preparing to depose Whinstone expert R. Peters (miners) (0.7); correspond with J. Cohn regarding information for preparation of Rhodium expert [redacted] (0.2); correspond with opposing counsel to reiterate request for production of documents in unredacted form (0.5).	9.40	1100.00	10,340.00
10/24/24	BA	Correspond with HM, JS, PB, and EB and confer with EB regarding issues with Whinstone redactions on power spreadsheets, relevance to pending expert depositions, and potential response to opposing counsel regarding same (0.8); confer with JS regarding high priority action items including discovery motions, deposition prep and depositions (0.2); participate in teleconference with litigation team regarding preparation for [redacted] deposition and other action items including pending motions (0.5); participate in teleconference with client team, bankruptcy counsel, and [redacted] counsel for [redacted] (0.5); review, research, draft, revise, and supervise finalization of opposition to Whinstone's motion to compel and Debtors' motion to compel, including corresponding and conferring with bankruptcy counsel as needed regarding same, with HM and CS regarding finalization and filing of same, and with JH and SD regarding exhibit preparation for same (8.3); review and approve for service amended interrogatory response (0.2).	10.50	1050.00	11,025.00
10/24/24	JS	Attend update teleconference with client and attorney teams (1.0); attend preparation session for [redacted] deposition (2.0); advise PB regarding action items in support of same (0.5); prepare supplemental response to interrogatory No. 4 (0.9); continue preparing materials for [redacted] deposition preparation (1.5); attend preparation session for same (3.1); review M. Moore correspondence regarding scope of proceedings and evaluate same (0.9); prepare for discovery hearing (2.9).	12.80	875.00	11,200.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/24/24	SR	Attend teleconference with HM to discuss [redacted] deposition preparations.	.10	650.00	65.00
10/24/24	SB	No Charge - Attend Logickull training with Sophia Ho.	.70	325.00	N/C
10/24/24	CS	Finalize and file motion to compel (0.5); continue working on trial brief (0.2); review preliminary opposition to motion to assume (0.5).	1.20	725.00	870.00
10/24/24	CHH	Redline Whinstone's verified and original interrogatory responses and email PB with findings (0.3); collect and review trial exhibits (1.9).	2.20	325.00	715.00
10/24/24	JH	Prepare exhibits for the Motion to Compel Production and the Opposition to Whinstone's Motion for Partial Summary Judgment for BA.	.50	325.00	162.50
10/24/24	PB	Prepare for deposition preparation session with [redacted] (3.0); [redacted] teleconference with BA, JS, JC, WT, and VO regarding defense of deposition of [redacted] (0.5); attend deposition preparation session with [redacted] (4.8); follow-up teleconference with [redacted] regarding [redacted] issue (0.5).	8.80	725.00	6,380.00
10/24/24	HM	Review and analyze documents produced by Whinstone regarding discovery disputes and motion to compel (4.5); review, revise, and finalize motion to compel (1.0); review, revise, and finalize proposed order for hearing and order to compel (0.2); draft, finalize, and serve supplemental response to Whinstone's interrogatory 4 (1.2); review and respond to team correspondence regarding discovery disputes and upcoming hearing (1.0); finalize exhibits to motion to compel (0.2).	8.10	600.00	4,860.00
10/24/24	MV	Assist attorneys with documents for depositions (0.5); continue reviewing documents for inclusion and revising exhibit list (7.0).	7.50	400.00	3,000.00
10/25/24	VO	Attend hearing before bankruptcy judge (0.5); prepare for (1.5) and defend (5.0) A. Peloubet deposition; debrief with team regarding same (0.5).	7.50	875.00	6,562.50

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Date	Tkpr	Description	Hours	Rate	Amount
10/25/24	EB	Review and respond to further correspondence from opposing counsel regarding production of unredacted documents (0.2); prepare materials for J. Cohn regarding [redacted] deposition preparation (1.0); correspond with J. Cohn regarding same (0.1); continue preparing to depose Whinstone expert R. Peters (miner expert) (4.6); attend teleconference with J. Cohn and [redacted] regarding deposition preparation (1.5); attend further teleconference with [redacted] regarding information for [redacted] portion of Whinstone expert Matthews deposition (0.8).	8.20	1100.00	9,020.00
10/25/24	BA	Prepare for and attend status conference (1.0); confer with JS, J. Cohn, and P. Tomasco regarding outcome of same and potential bifurcation (0.5); analyze issues and proposed correspondence to opposing counsel regarding same (0.2); confer with JS regarding same (0.3); confer with EB regarding deposition preparation for upcoming experts (0.4); review materials and prepare for Matthews deposition including corresponding with JS and HM (4.4); confer with PB to prepare for depositions of [redacted] and Matthews (0.9); advise HM regarding redactions of power spreadsheets (0.3).	8.00	1050.00	8,400.00
10/25/24	JS	Prepare for [redacted] deposition (5.4); virtually attend portions of depositions of A Peloubet and J McGonegal (3.2); confer with BA regarding [redacted] for deposition of J Matthews (0.8); prepare for and attend hearing on discovery issues (1.5); confer with team and prepare follow up correspondence regarding bifurcation (0.9); evaluate potential witness strategies in light of possible bifurcation (0.3); confer with QE team regarding [redacted] deposition (0.5); review transcript of Haugen deposition (0.6).	13.40	875.00	11,725.00
10/25/24	SR	Prepare for (3.3) and lead (1.4) deposition preparation session with [redacted], A. Swartz, and HM.	4.70	650.00	3,055.00
10/25/24	CS	Begin drafting reply in support of motion to assume (6.2); listen to hearing on emergency discovery motion (.5).	6.70	725.00	4,857.50

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Invoice # 14269 November 14, 2024

Date	Tkpr	Description	Hours	Rate	Amount
10/25/24	CHH	Review and update matter docket with latest opposition to motion for partial summary judgment filings and compile same for client review (0.5); review and collect documents in preparation for expert depositions (0.2); review and collect deposition notices in preparation for trial exhibit collection (0.3); review J. Matthews (expert)'s opening and rebuttal reports and collect all documents referenced in same for BA review in preparation for depositions (2.5); continue collecting trial exhibits (2.0).	5.50	325.00	1,787.50
10/25/24	JH	Continue updating running exhibit list.	5.80	325.00	1,885.00
10/25/24	PB	Attend hearing (0.5); prepare for deposition defense of [redacted] (1.6); defend deposition of A. Peloubet (4.8); confer with BA regarding [redacted] and Matthews depositions (0.9).	7.80	725.00	5,655.00
10/25/24	ASA	Record documents recently sent to expert C. Griffey (0.2); update [redacted] memorandum [redacted] exchanged expert reports (0.5).	.70	325.00	227.50
10/25/24	HM	Attend hearing (0.5); attend teleconference deposition preparation session of [redacted] with SR and A. Swartz (2.3); review and respond to team correspondence regarding document discovery disputes and deposition matters (2.0); review and revise [redacted] deposition preparation materials (1.5); coordinate deposition logistics with vendors and co-counsel (1.1); coordinate with AA and CH about [redacted] exhibits for Jeffrey Matthews deposition (0.4); collect spreadsheets produced by Whinstone [redacted] for deposition of Jeffrey Matthews (1.2); confer with A. Swartz via phone regarding depositions of Benjamin Gibson and Eric Brown (0.3); attention to deposition scheduling and related action items (0.5); attention to document management (0.1).	9.50	600.00	5,700.00
10/25/24	MV	Continue revising exhibit list including to reflect updated expert witness materials (5.5); correspond with team regarding exhibit list descriptions and additional trial assignments (0.5).	6.00	400.00	2,400.00
10/26/24	VO	Attend deposition preparation session for [redacted].	5.80	875.00	5,075.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/26/24	EB	Correspond with MV regarding exhibit list (0.2); correspond with JS regarding questions for [redacted] and review and analyze responses to same (0.2).	.40	1100.00	440.00
10/26/24	BA	Prepare for Matthews expert deposition, including corresponding with HM and PB regarding exhibits and deposition outline (4.5).	4.50	1050.00	4,725.00
10/26/24	JS	Prepare for deposition of [redacted].	9.70	875.00	8,487.50
10/26/24	PB	Prepare for defense of deposition of [redacted]	2.50	725.00	1,812.50
10/26/24	HM	Review, analyze, collect, and organize documents for deposition of Jeffrey Matthews (2.8); continue reviewing report of Jeffrey Matthews (1.0).	3.80	600.00	2,280.00
10/26/24	MV	Continue reviewing documents for inclusion and revising exhibit list, preparing exhibits for trial.	5.00	400.00	2,000.00
10/27/24	VO	Continue to conduct deposition preparation with JS and [redacted].	5.50	875.00	4,812.50
10/27/24	EB	Continue preparing to depose Whinstone expert R. Peters (3.5); continue preparing to defend Rhodium expert C. Griffey (3.9); confer with JS, VO, PB, and [redacted] regarding proposed bifurcation (0.2); correspond with MV and litigation fellows regarding exhibit list and deposition calendering (0.3); attend portion of [redacted] deposition preparation (0.2).	8.10	1100.00	8,910.00
10/27/24	BA	Prepare for [redacted] expert deposition (0.7); prepare for Matthews expert deposition (4.2); correspond and confer with JS regarding preparation for upcoming status conference and discovery hearing, including positions on discovery issues, and review omnibus filing from Whinstone regarding same (1.1).	6.00	1050.00	6,300.00
10/27/24	JS	Prepare for [redacted] deposition (6.3); prepare for and attend meet and confer regarding bifurcation and discovery disputes (2.3); prepare for discovery hearing (1.5); confer with client and attorney teams regarding bifurcation (0.8).	10.90	875.00	9,537.50
10/27/24	CS	Continue drafting reply in support of motion to assume.	2.70	725.00	1,957.50

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Date	Tkpr	Description	Hours	Rate	Amount
10/27/24	PB	Assist JS with meet-and-confer regarding discovery status and case schedule (1.0); assist in preparation of defense of deposition of [redacted] (3.7); prepare for deposition of J. Matthews (0.8).	5.50	725.00	3,987.50
10/27/24	HM	Continue reviewing Jeffrey Matthews's expert report (0.5); update list of proposed deposition exhibits (1.0); review and analyze list of documents listed in Matthews expert report and continue drafting annotated list for BA (4.2); review transcript of Eric Brown deposition and draft errata sheet (2.5).	8.20	600.00	4,920.00
10/27/24	MV	Correspond with team regarding trial-related action items including revisions to trial exhibit descriptions (1.8); continue assisting with documents for deposition preparation (2.0); continue revising exhibit list and preparing exhibits for trial (2.2).	6.00	400.00	2,400.00
10/28/24	VO	Participate in deposition of N. Nichols.	10.50	875.00	9,187.50
10/28/24	EB	Assist BA and PB with portion of Rhodium expert [redacted] deposition preparation (3.8); prepare power credits exhibit for [redacted] expert (0.5); prepare for and assist J. Cohn and A. Swartz with [redacted] of Rhodium [redacted] expert N. Milkjovic (3.5); review and respond to team correspondence regarding issues including exhibit list and action items resulting from bifurcation and discovery hearing (0.4).	8.20	1100.00	9,020.00
10/28/24	BA	Attend status conference by remote teleconference (1.2); prepare for deposition of [redacted], including reviewing preparation [redacted] and meeting with [redacted], EB, and PB and conferring with PB (6); prepare for deposition of J. Matthews, including continuing to prepare deposition outline and corresponding with HM and PB regarding deposition topics, outline, and exhibits (2); correspond with team regarding matters related to status conference, bifurcation, and depositions (0.3); begin reviewing reply in support of motion to assume and correspond with CS regarding reply memorandum and trial brief (0.6).	10.10	1050.00	10,605.00
10/28/24	JS	Prepare for and attend N Nichols deposition (11.4); attend hearing on discovery issues (1.0); evaluate next steps on remaining depositions and implications of bifurcation (1.0).	13.40	875.00	11,725.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/28/24	SR	Continue preparing for [redacted] deposition preparation session.	2.90	650.00	1,885.00
10/28/24	SB	Assist MV with revisions to trial and deposition exhibit list (4.1); pull documents for MV for exhibits folder (0.4).	4.50	325.00	1,462.50
10/28/24	CS	Analyze hearing on motions to compel and bifurcation of trial and continue drafting trial brief (1.0); continue drafting reply in support of motion to assume (3.7); review and analyze case law relevant to the same (4.1).	8.80	725.00	6,380.00
10/28/24	CHH	Review deposition transcripts and collect documents referenced in same for trial exhibit purposes.	2.30	325.00	747.50
10/28/24	JH	Update final exhibit titles for exhibits in running exhibit list (2.0); Begin creating exhibit covers [redacted] (2.5).	4.50	325.00	1,462.50
10/28/24	PB	Assist BA with preparation for deposition of J. Matthews (2.0); attend hearing on discovery motions (1.0); confer with BA, EB, [redacted], and [redacted] regarding defense of deposition of [redacted] (6.5); attend teleconference with A. Davis regarding [redacted] deposition preparation (0.5).	10.00	725.00	7,250.00
10/28/24	ASA	Update contact list and running matter status memorandum (0.4); assist with trial exhibit list preparation (0.8).	1.20	325.00	390.00
10/28/24	HM	Attend emergency motion teleconference before Judge Perez (1.0); continue reviewing and analyzing documents to create an annotated list of documents for the Jeffrey Matthews [redacted] (3.7); draft portion of Jeffrey Matthews deposition outline (3.2); review and respond to team correspondence regarding the trial exhibit list and deposition logistics (1.3).	9.20	600.00	5,520.00
10/28/24	MV	Correspond with legal assistants regarding outstanding trial assignments regarding exhibit list and related tasks (0.5); continue revising exhibit list and preparing exhibits for trial (6.5).	7.00	400.00	2,800.00
10/29/24	VO	Prepare for (2.2) and attend (4.0) deposition preparation session for [redacted].	6.20	875.00	5,425.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/29/24	EB	Prepare portion of Whinstone damages expert deposition outline for BA (3.3); review rough transcript of T. Lewis deposition and confer with BA and PB regarding same (1.0); review and respond to correspondence regarding order on motion to compel and resulting document production (0.2); advise HM and ASA regarding updates to trial travel and housing arrangements resulting from bifurcation order (0.1); correspond with HM and ASA regarding response to request for documents from bankruptcy counsel (0.1); advise MV regarding updates and revisions to exhibit list and potential sealing of portions of same (0.6).	5.30	1100.00	5,830.00
10/29/24	BA	Prepare for deposition of J. Matthews, including [redacted] and conferring with PB and JS (4.4); prepare for and attend deposition of T. Lewis (5); confer with [redacted] to prepare for Matthews deposition (0.8); participate in client call with litigation counsel and bankruptcy counsel (0.8); correspond with team and CS regarding sealing issues as related to exhibit list and regarding late productions from Whinstone and possible responses to same (0.4).	11.40	1050.00	11,970.00
10/29/24	JS	Assist with [redacted] prep (2.6); assist with [redacted] prep (1.5); assist with [redacted] prep (2.0); evaluate arguments regarding profit share calculations (8.3).	14.40	875.00	12,600.00
10/29/24	SR	Prepare for (2.5) and lead (4.4) deposition preparation session for [redacted] with VO.	6.80	650.00	4,420.00
10/29/24	SB	Assist MV with revisions to trial and deposition exhibit list (4.1); update exhibits folder (0.4).	4.50	325.00	1,462.50
10/29/24	CS	Continue drafting trial brief (5.4); correspond with MV regarding identifying and sealing certain trial exhibits (0.3).	5.70	725.00	4,132.50
10/29/24	CHH	Prepare trial exhibits, and review and analyze deposition transcripts for same.	4.00	325.00	1,300.00
10/29/24	JH	Continue creating exhibit covers [redacted].	3.00	325.00	975.00
10/29/24	PB	Prepare for deposition of T. Lewis (1.0); defend deposition of T. Lewis (4.3); prepare for deposition of J. Matthews (4.9).	10.20	725.00	7,395.00
10/29/24	ASA	Attention to trial and accommodation logistics (0.9); assist with trial exhibit list preparation (1.6).	2.50	325.00	812.50

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Date	Tkpr	Description	Hours	Rate	Amount
10/29/24	HM	Revise deposition [redacted] of [redacted] (2.2); organize proposed Matthews deposition exhibits for printing and update corresponding tab index (1.4); begin reviewing deposition [redacted] of [redacted] (1.6); review and respond to team correspondence regarding document discovery and upcoming depositions (2.1).	7.30	600.00	4,380.00
10/29/24	MV	Continue preparing exhibit list and exhibits (6.1); attention to preparation for filing of sealed exhibits and qc for related issues (0.9).	7.00	400.00	2,800.00
10/30/24	VO	Defend deposition of B. Cottrell.	5.50	875.00	4,812.50
10/30/24	PS	Review Whinstone reply in support of MSJ.	.40	1250.00	500.00
10/30/24	EB	Attend teleconference with CS, HM, MV, and CHH regarding updates and revisions to exhibit list (1.1); review draft list and identify additional exhibits for phase 2 only (1.0); confer with BA and A. Swartz regarding expert deposition updates and review portions of rough transcripts of same (0.5).	2.60	1100.00	2,860.00
10/30/24	BA	Prepare for deposition of J. Matthews (2.6); attend and take same (7.2); confer with EB regarding Matthews deposition (0.2); confer with JS and PB regarding trial preparation (0.5); correspond with JS and PB regarding pretrial motion filings and with JS regarding strategy for high priority action items (0.5); review and revise reply in support of motion to assume (0.9).	11.90	1050.00	12,495.00
10/30/24	JS	Attend portions of B Cottrell deposition (2.5); attend teleconference with BA and PB regarding trial preparation (0.5); work on trial presentation (6.7); evaluate next steps for briefing and trial preparation in light of end of depositions (1.3); review trial brief (0.7) and reply in support of motion to assume (0.6); review Whinstone summary judgment briefing (1.0) and evaluate responses to same (1.2).	14.50	875.00	12,687.50
10/30/24	SR	Attend and assist VO with B. Cottrell deposition.	5.60	650.00	3,640.00
10/30/24	SB	Assist MV with updates to trial and deposition exhibit list (3.7); attend and assist VO and SR with exhibits for B. Cottrell deposition (0.9).	4.60	325.00	1,495.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/30/24	CS	Review and analyze Whinstone's reply in support of motion for partial summary judgment (0.8); attend teleconference with EB, HM, MV, and CHH regarding updates and revisions to exhibit list (1.1); continue drafting trial brief (4.1); review and analyze transcript of hearing on motion to [redacted] in [redacted] (1.5).	7.50	725.00	5,437.50
10/30/24	CHH	Review and analyze general ledger documents for production (0.5); finalize production for same and confer with PB accordingly (0.3); attend teleconference with EB, CS, HM, and MV regarding trial exhibit collection and preparation (1.1).	1.90	325.00	617.50
10/30/24	JH	Assist MV with confidentiality updates and sealing designations for exhibit list (3.0); prepare documents for HM to send to client (0.5).	3.50	325.00	1,137.50
10/30/24	PB	Prepare for deposition of J. Matthews (1.2); attend and assist BA with same (6.4); attend teleconference with BA and JS regarding trial preparation (0.5).	8.10	725.00	5,872.50
10/30/24	ASA	Assist with trial exhibit list preparation (1.8); attention to document management including of supplemental discovery responses (0.5).	2.30	325.00	747.50
10/30/24	HM	Attend teleconference with EB, CS, MV, and CHH to discuss revisions and updates to the exhibit list (1.1); review and respond to team correspondence regarding discovery responses (0.5); review, analyze, and collect documents for exhibit list and client review (5.5); attend meet-and-confer with opposing counsel (0.3); review and respond to client inquiry regarding discovery (0.4).	8.00	600.00	4,800.00
10/30/24	MV	Attend team teleconference regarding exhibit list (1.1); continue preparing and updating same and exhibits in preparation for trial (6.9).	8.00	400.00	3,200.00
10/31/24	EB	Review correspondence from Fulcrum and correspond with BA and JS regarding trial graphics (0.2); advise PB and correspond with Stris team regarding exhibit list revisions (0.5); correspond with PB, HM, and A. Swartz regarding Siddiqi deposition confidentiality designations (0.1).	.80	1100.00	880.00

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Date	Tkpr	Description	Hours	Rate	Amount
10/31/24	BA	Continue reviewing and revising draft reply brief in support of motion to assume and confer JS and CS regarding same (2.5); correspond with litigation team regarding exhibit list and motion practice (0.2).	2.70	1050.00	2,835.00
10/31/24	JS	Prepare for and confer with BA and CS regarding trial brief, reply in support of assumption, and reply in support of MSJ (1.3); attend teleconference with opposing counsel regarding scheduling of phase 2 (0.4); attend teleconference with SMLLP and LKC teams and [redacted] regarding [redacted] questions (1.0); confer with W. Thompson (0.5) and PB (0.3) regarding motions in limine; draft outlines of same (0.6); begin outlining opening (2.0); review and revise Daubert motion regarding Gibson (1.4).	7.50	875.00	6,562.50
10/31/24	SB	Assist MV with updates to trial exhibit list.	5.10	325.00	1,657.50
10/31/24	CS	Continue drafting trial brief and confer with JS and BA regarding same and reply in support of moton to assume (4.3); review and analyze Whinstone's opposition to Debtors' motion for partial summary judgment (0.8).	5.10	725.00	3,697.50
10/31/24	CHH	Continue assisting PB and MV with updates and revisions to trial exhibit list and reviewing and analyzing deposition transcripts for same.	4.50	325.00	1,462.50
10/31/24	JH	Assist PB and MV with exhibit list including confidentiality assessment and replacement of slip-sheets of email attachments with native versions.	3.00	325.00	975.00
10/31/24	PB	Analyze Whinstone claims regarding unpaid invoices (1.0); attend teleconference with Stris and LKC teams and [redacted] regarding [redacted] documentation and [redacted] questions (1.0); attend teleconference with A. Swartz regarding Miljkovic deposition exhibits (0.2); continue preparing trial exhibit list, advising MV regarding revisions, and analyzing documents for inclusion on same (4.2).	6.40	725.00	4,640.00
10/31/24	ASA	Assist MV and CHH with trial exhibit preparation (1.7); correspond with Stris and LKC teams and vendors regarding deposition and trial support logistics (0.4).	2.10	325.00	682.50

Stris & Maher LLP

Invoice # 14269 November 14, 2024

Date	Tkpr	Description	Hours	Rate	Amount
10/31/24	HM	Review and analyze documents reviewed by experts to be included on exhibit list (2.9); review and respond to team correspondence regarding contention interrogatories and post-deposition tasks (1.3); attend meet-and-confer with P. Tomasco (Quinn), and opposing counsel (0.3); review and analyze deposition transcripts of E. Brown and B. Gibson for confidentiality designations and draft correspondence regarding designations (3.5); begin reviewing and analyzing deposition transcript of N. Nichols for confidentiality designations (1.1).	9.10	600.00	5,460.00
10/31/24	MV	Continue preparing and revising trial exhibits and exhibit list in preparation for trial.	7.00	400.00	2,800.00
		TOTAL PROFESSIONAL SERVICES			**$ 1,515,785.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Peter K. Stris	PS	Partner	19.90	1,250.00	24,875.00
Elizabeth Brannen	EB	Partner	179.40	1,100.00	197,340.00
Bridget Asay	BA	Partner	219.00	1,050.00	229,950.00
Victor O'Connell	VO	Partner	95.40	875.00	83,475.00
John Stokes	JS	Partner	355.20	875.00	310,800.00
Colleen Smith	CS	Associate	177.30	725.00	128,542.50
Peter Brody	PB	Associate	267.30	725.00	193,792.50
Sarah Rahimi	SR	Associate	68.60	650.00	44,590.00
Helen Marsh	HM	Associate	240.70	600.00	144,420.00
Tanya Tice	TT	Discovery Associate	43.50	480.00	20,880.00
Monica Viramontes	MV	Sr Paralegal	146.50	400.00	58,600.00
Andrew Atsalis	ASA	Fellow	62.20	325.00	20,215.00
Cynthia Huang	CHH	Fellow	57.00	325.00	18,525.00
Shayra Banta	SB	Fellow	37.70	325.00	12,252.50
Jaida Hodge-Adams	JH	Fellow	84.70	325.00	27,527.50
Total			**2,054.40**		**$ 1,515,785.00**

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EXPENSES ADVANCED

Date	Task	Description	Amount
10/01/24		Logikcull Discovery Solutions (October 2024).	2,646.00
10/08/24		SETEC Investigations - Mounted Acquistion of 3 cell phones to preform keyword searches.	3,599.00
10/09/24		Fulcrum Legal Graphics - Retainer for trial support Graphics support.	15,000.00
10/18/24		StoneTurn - September 2024 services.	47,600.00
10/24/24		E. Brown invoice for deposition prep, deposition attendance and retainer for trial.	48,056.25
		TOTAL EXPENSES ADVANCED	**$ 116,901.25**
		TOTAL THIS INVOICE	**$ 1,632,686.25**

Stris & Maher LLP

Invoice # 14269 November 14, 2024

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14249	11/01/24	79,868.00	.00	79,868.00
14263	11/04/24	1,139,238.00	.00	1,139,238.00

Previous Balance	$ 1,219,106.00
Balance Due This Invoice	$ 1,632,686.25
TOTAL BALANCE DUE	**$ 2,851,792.25**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
1,219,106.00	$ .00	$ .00	$ .00	$$.00	1,219,106.00

Stris

November 8, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14284
Client # 00346
Matter # 007

INVOICE SUMMARY

For professional services rendered through October 31, 2024

RE: Retention and Fee Applications

Total Professional Services	$ 12,985.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 12,985.00**
Previous Balance	$ 47,165.00
TOTAL BALANCE DUE	**$ 60,150.00**

Electronic Invoice

Stris & Maher LLP

Invoice # 14284 November 8, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
10/17/24	VO	Correspond with Quinn Emanuel regarding fee application process (0.1); begin preparing same (0.8); advise CH regarding instructions on preparation of portion of fee application (0.5).	1.40	875.00	1,225.00
10/17/24	PS	Confer with VO regarding fee application process and next steps.	.40	1250.00	500.00
10/17/24	CHH	Confer with VO regarding preparation of fee application (0.5); begin preparing portion of same (0.3).	.80	325.00	260.00
10/18/24	CHH	Continue drafting fee application.	6.50	325.00	2,112.50
10/21/24	VO	Confer with EB, CH, and Quinn Emanual regarding best-practices for and preparation of fee application.	.40	875.00	350.00
10/21/24	CHH	Continue drafting portion of monthly fee statement (2.6); confer with VO regarding same (0.2).	2.80	325.00	910.00
10/22/24	VO	Continue preparing portion of and advise EB and J. Richards regarding fee application.	.40	875.00	350.00
10/22/24	EB	Begin preparing portions of monthly fee application.	1.60	1100.00	1,760.00
10/23/24	EB	Continue preparing portions of monthly fee application (1.0); confer with PS, VO, and B. Howell (QE) regarding same (0.5).	1.50	1100.00	1,650.00
10/24/24	EB	Advise NC regarding preparation of portions of monthly fee statement.	.20	1100.00	220.00
10/24/24	NC	Assist EB with preparation of portion of monthly fee statement.	2.10	325.00	682.50
10/25/24	EB	Continue preparing portions of monthly fee statement.	.50	1100.00	550.00
10/30/24	EB	Prepare portion of August fee statement.	1.70	1100.00	1,870.00
10/31/24	EB	Advise NC regarding preparation of portion of August fee statement.	.20	1100.00	220.00
10/31/24	NC	Assist EB with preparation of portion of August fee statement.	1.00	325.00	325.00

TOTAL PROFESSIONAL SERVICES **$ 12,985.00**

Stris & Maher LLP

Invoice # 14284 November 8, 2024

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Peter K. Stris	PS	Partner	.40	1,250.00	500.00
Elizabeth Brannen	EB	Partner	5.70	1,100.00	6,270.00
Victor O'Connell	VO	Partner	2.20	875.00	1,925.00
Cynthia Huang	CHH	Fellow	10.10	325.00	3,282.50
Nicholas Capalbo	NC	Fellow	3.10	325.00	1,007.50
Total			**21.50**		**$ 12,985.00**

TOTAL THIS INVOICE **$ 12,985.00**

Stris & Maher LLP

Invoice # 14284 November 8, 2024

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14261	11/04/24	47,165.00	.00	47,165.00

Previous Balance	$ 47,165.00
Balance Due This Invoice	$ 12,985.00
TOTAL BALANCE DUE	**$ 60,150.00**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 47,165.00	$ .00	$ .00	$ .00	$ .00	$ 47,165.00

Stris

November 14, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14295
Client # 00346
Matter # 008

INVOICE SUMMARY

For professional services rendered through October 31, 2024

RE: Non-working Travel for Whinstone Dispute

Total Professional Services	$ 68,292.50
50% discount	$ -34,146.25
Net Professional Services	$ 34,146.25
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 34,146.25**

Stris & Maher LLP

Invoice # 14295 November 14, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
10/23/24	VO	Travel LAX-DAL for deposition of A. Peloubet.	6.50	875.00	5,687.50
10/23/24	PB	Travel to Dallas to defend deposition of A. Peloubet.	2.70	725.00	1,957.50
10/25/24	PB	Travel to Los Angeles from Dallas deposition of A. Peloubet.	5.30	725.00	3,842.50
10/26/24	VO	Travel DAL-HOU for N. Nichols deposition prep and deposition.	4.50	875.00	3,937.50
10/27/24	EB	Travel to Houston for expert depositions.	4.00	1100.00	4,400.00
10/27/24	BA	Travel from Montpelier, VT to Houston, TX .	4.00	1050.00	4,200.00
10/27/24	JS	Travel to Houston for N. Nichols deposition.	2.50	875.00	2,187.50
10/27/24	PB	Travel to Houston for deposition of T. Lewis.	7.60	725.00	5,510.00
10/28/24	JS	Travel home from Houston following N. Nichols deposition.	4.50	875.00	3,937.50
10/28/24	SR	Travel from Los Angeles to Austin for B. Cottrell deposition.	6.20	650.00	4,030.00
10/29/24	EB	Return travel from Houston for expert depositions.	2.20	1100.00	2,420.00
10/29/24	BA	Travel from Houston to Dallas for Matthews deposition.	2.80	1050.00	2,940.00
10/29/24	VO	Travel from Houston to Austin for B. Cottrell deposition preparation and deposition.	3.30	875.00	2,887.50
10/29/24	PB	Travel from Houston to Dallas for deposition of J. Matthews	1.90	725.00	1,377.50
10/30/24	VO	Return travel following depositions AUS-SNA.	6.00	875.00	5,250.00
10/30/24	PB	Return travel from Dallas to Los Angeles following deposition of J. Matthews.	5.50	725.00	3,987.50
10/30/24	SR	Travel from Austin to Los Angeles following B. Cottrell deposition.	8.20	650.00	5,330.00
10/31/24	BA	Travel from Dulles Airport (DC) to Montpelier, VT, completion of return travel from depositions of T. Lewis and J. Matthews.	4.20	1050.00	4,410.00

TOTAL PROFESSIONAL SERVICES	**$ 68,292.50**
50% discount	$ -34,146.25
NET PROFESSIONAL SERVICES	**$ 34,146.25**

Invoice # 14295 November 14, 2024

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	6.20	1,100.00	6,820.00
Bridget Asay	BA	Partner	11.00	1,050.00	11,550.00
Victor O'Connell	VO	Partner	20.30	875.00	17,762.50
John Stokes	JS	Partner	7.00	875.00	6,125.00
Peter Brody	PB	Associate	23.00	725.00	16,675.00
Sarah Rahimi	SR	Associate	14.40	650.00	9,360.00
Total			**81.90**		**$ 68,292.50**

TOTAL THIS INVOICE **$ 34,146.25**

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

STRIS & MAHER LLP'S THIRD MONTHLY FEE STATEMENT
FOR THE PERIOD NOVEMBER 1, 2024, THROUGH NOVEMBER 30, 2024

Stris & Maher LLP ("Stris & Maher") submits, pursuant to the Order Granting the Motion of the Debtors to Establish Procedures for Interim Compensation and Reimbursement of Expenses for Professionals (the "Interim Compensation Order") (ECF No. 264) entered on October 14, 2024, this monthly fee statement for the payment of interim compensation rendered and reimbursement of expenses incurred during the period November 1, 2024 through November 30, 2024 (the "Second Monthly Fee Statement").

Stris & Maher seeks payment of interim compensation in the total amount of $719,844.00 (80% of the services rendered), plus $382,654.12 (100% of the interim expenses incurred). *See* Interim Compensation Order at ¶ 1(a). Summaries of the fees and expenses are attached as Exhibits 1, 2, and 3. Invoices reflecting detailed time entries are attached hereto as Exhibit 4.

[1] Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), Rhodium Encore Sub LLC (1064), Rhodium Enterprises, Inc. (6290), Rhodium Industries LLC (4771), Rhodium Ready Ventures LLC (8618), Rhodium Renewables LLC (0748), Rhodium Renewables Sub LLC (9511), Rhodium Shared Services LLC (5868), and Rhodium Technologies LLC (3973). The mailing and service address of Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

Pursuant to the Interim Compensation Order, any party objecting to the payment of interim compensation and reimbursement of expenses shall serve within 14 days after delivery of the Second Monthly Fee Statement a written notice, via email, upon Stris & Maher and each of the other Fee Notice Parties (as listed below) (the "Written Notice"). The Written Notice shall set forth with reasonable detail the nature of the objection and the amount at issue. If the parties are unable to reach a resolution of the objection within 14 calendar days, the objecting party shall file its objection (the "Objection") with this Court within 3 business days and serve such Objection on Stris & Maher and each of the other Fee Notice Parties. See Interim Compensation Order ¶ 1(c).

The Fee Notice Parties as defined in the Interim Compensation Order are:

a. Rhodium Enterprises, Inc., Attn: Charles Topping (chucktopping@rhdm.com) and Morgan Soule (morgansoule@rhdm.com), 2617 Bissonnet Street, Suite 234, Houston, Texas 77005;

b. Debtors' Bankruptcy Counsel, c/o Quinn Emanuel Urquhart & Sullivan, LLP, Attn: Patricia B. Tomasco (pattytomasco@quinnemanuel.com); Razmig Izakelian (razmigizakelian@quinnemanuel.com), Alain Jaquet (alainjaquet@quinnemanuel.com), and Joanna D. Caytas (joannacaytas@quinnemanuel.com), 700 Louisiana, Suite 3900, Houston, Texas 77002;

c. Debtors' Financial Advisor, c/o Province, Attn: Mark Robinson (mrobinson@provincefirm.com); David Dunn (ddunn@provincefirm.com); Kirsten Lee (klee@province.com); and Andrew Popescu (apopescu@provincefirm.com), 2360 Corporate Circle, Suite 340, Henderson, Nevada 89074;

d. Galaxy Digital, LLC, in its capacity as DIP Agent, c/o Orrick, Herrington & Sutcliffe LLP, Ryan C. Wooten (rwooten@orrick.com), 609 Main, 40th Floor, Houston, Texas 77002, and Robert Trust (rtrust@orrick.com), Mark Franke (mfranke@orrick.com) and Brandon Batzel (bbatzel@orrick.com), 51 West 52nd Street, New York, New York 10019;

e. Counsel or proposed counsel to any statutory committee appointed in these Chapter 11 Cases; and

f. United States Trustee, Ha Minh Nguyen (ha.nguyen@usdoj.gov), 515 Rusk, Suite 3516, Houston, Texas 77002.

If no objection is timely served pursuant to the Interim Compensation Order, the Debtors shall be authorized and directed to pay Stris & Maher an amount equal to 80% of the fees and 100% of the expenses listed herein, or if an objection is timely served, such percentage of fees and expenses that are not subject to an objection, as stated in the Interim Compensation Order.

Respectfully submitted this 23rd day of December, 2024.

QUINN EMANUEL URQUHART & SULLIVAN, LLP

/s/ Patricia B. Tomasco
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-and-

STRIS & MAHER LLP

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Helen Marsh (pro hac vice)

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-and-

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408 W. 11th Street, 5th Floor
Austin, TX 78701

Counsel for Debtors and Debtors in Possession

CERTIFICATE OF SERVICE

I certify that, on December 23, 2024, a true and correct copy of the foregoing Monthly Fee Statement was served through the Court's Electronic Case Filing system of the United States Bankruptcy Court for the Southern District of Texas.

/s/ Patricia B. Tomasco
Patricia B. Tomasco

EXHIBIT 1

Summary of Legal Fees for the Fee Period

Matter #	Matter Description	Total Hours	Total Fees	80% of Fees
001	Midas Green Patent Litigation	0.60	$660.00	$528.00
002	Temple Green Data Matter	19.20	$16,800.00	$13,440.00
004	Whinstone Dispute, Excluding Tarrant County Litigation	1209.70	$804,262.50	$643,410.00
007	Retention and Fee Applications	46.5	$46,190.00	$36,952.00
008	Non-working Travel for Whinstone Dispute	100.60	$31,892.50	$25,514.00
Total		1376.60	$899,805.00	$719,844.00

EXHIBIT 2

Summaries of Hours Billed by Stris & Maher Attorneys and Paraprofessionals

Midas Green Patent Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	$1,100.00	0.60	$660.00

Temple Green Data Matter

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Victor O'Connell	Partner	2012	$875.00	19.20	$16,800.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	$1,100.00	15.20	$16,720.00
Bridget Asay	Partner	1997	$1,050.00	164.40	$172,620.00
Victor O'Connell	Partner	2012	$875.00	62.60	$54,775.00
John Stokes	Partner	2016	$875.00	192.70	$168,612.50
Colleen Smith	Associate	2015	$725.00	56.40	$40,890.00
Peter Brody	Associate	2016	$725.00	179.90	$130,427.50
Sarah Rahimi	Associate	2019	$650.00	8.30	$5,395.00
Helen Marsh	Associate	2024	$600.00	133.30	$79,980.00
Monica Viramontes	Senior Paralegal	N/A	$400.00	78.00	$31,200.00
Andrew Atsalis	Litigation Fellow	N/A	$325.00	105.60	$34,320.00
Cynthia Huang	Litigation Fellow	N/A	$325.00	116.30	$37,797.50
Sebastian Delgado	Litigation Fellow	N/A	$325.00	8.30	$2,697.50
Shayra Banta	Litigation Fellow	N/A	$325.00	8.70	$2,827.50
Jaida Hodge-Adams	Litigation Fellow	N/A	$325.00	80.00	$26,000.00

Retention and Fee Applications

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Peter K. Stris	Founding Partner	2001	$1,250.00	1.20	$1,500.00
Elizabeth Brannen	Managing Partner	2001	$1,100.00	35.90	$39,490.00
Victor O'Connell	Partner	2012	$875.00	3.90	$3,412.50
Andrew Atsalis	Litigation Fellow	N/A	$325.00	3.40	$1,105.00
Cynthia Huang	Litigation Fellow	N/A	$325.00	0.90	$292.50
Nicholas Capalbo	Litigation Fellow	N/A	$325.00	1.20	$390.00

Non-Working Travel for Whinstone Dispute[2]

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Bridget Asay	Partner	1997	$1,050.00	16.20	$17,010.00
Victor O'Connell	Partner	2012	$875.00	10.70	$9,362.50
John Stokes	Partner	2016	$875.00	9.90	$8,662.50
Peter Brody	Associate	2016	$725.00	11.10	$8,047.50
Helen Marsh	Associate	2024	$600.00	13.00	$7,800.00
Andrew Atsalis	Litigation Fellow	N/A	$325.00	16.50	$5,362.50
Cynthia Huang	Litigation Fellow	N/A	$325.00	12.20	$3,965.00
Jaida Hodge-Adams	Litigation Fellow	N/A	$325.00	11.00	$3,575.00
Total after 50% discount					$31,892.50

[2] Stris & Maher has billed its time for travel in connection with the Whinstone dispute during which no work was performed on a separate invoice at a 50% discount.

EXHIBIT 3

Summaries of Expenses for the Fee Period

Midas Green Patent Litigation

Expense	Amount
E-discovery platform fees	$3,765.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Expense	Amount
E-discovery platform fees	$6,411.00
Court reporter services	$60,121.20
Travel	$160,114.07
Expert fees	$133,015.75
Trial graphics and hot-seat operator	$19,227.10
Total	$378,889.12

EXHIBIT 4

Stris

December 19, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14330
Client # 00346
Matter # 001

INVOICE SUMMARY

For professional services rendered through November 30, 2024

RE: Midas Green Litigation

Total Professional Services	$ 660.00
Total Expenses Advanced	$ 3,765.00
TOTAL THIS INVOICE	**$ 4,425.00**
Previous Balance	$ 501.00
TOTAL BALANCE DUE	**$ 4,926.00**

Electronic Invoice

Stris & Maher LLP

Invoice # 14330 December 19, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
11/12/24	EB	Correspond with M. Soule regarding [redacted] (0.1); correspond with former patent counsel G. Cutri and Rhodium regarding [redacted] (0.1).	.20	1100.00	220.00
11/26/24	EB	Attend teleconference with C. Topping and C. Blackmon regarding [redacted].	.40	1100.00	440.00
		TOTAL PROFESSIONAL SERVICES			**$ 660.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	.60	1,100.00	660.00
Total			**.60**		**$ 660.00**

EXPENSES ADVANCED

Date	Task	Description	Amount
10/31/24		JND eDiscovery - October invoice.	3,765.00
		TOTAL EXPENSES ADVANCED	**$ 3,765.00**
		TOTAL THIS INVOICE	**$ 4,425.00**

Stris & Maher LLP

Invoice # 14330 December 19, 2024

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14251	11/01/24	855.00	684.00	171.00
14257	11/04/24	8,190.00	8,058.00	132.00
14283	11/14/24	4,755.00	4,557.00	198.00

Previous Balance	$ 501.00
Balance Due This Invoice	$ 4,425.00
TOTAL BALANCE DUE	**$ 4,926.00**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ .00	$ 501.00	$ .00	$ .00	$ .00	$ 501.00

Stris

December 19, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14316
Client # 00346
Matter # 002

INVOICE SUMMARY

For professional services rendered through November 30, 2024

RE: Temple Green Data Litigation

Total Professional Services	$ 16,800.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 16,800.00**
Previous Balance	$ 5,634.50
TOTAL BALANCE DUE	**$ 22,434.50**

Electronic Invoice

Stris & Maher LLP

Invoice # 14316 December 19, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
11/06/24	VO	Confer with client representatives regarding client request for research regarding lease provision.	.40	875.00	350.00
11/07/24	VO	Emails with client representatives regarding [redacted] questions.	.10	875.00	87.50
11/08/24	VO	Review and analyze potential claims for [redacted] (0.3); prepare email to Rhodium client representatives regarding same (0.1).	.40	875.00	350.00
11/11/24	VO	Review letter from TGD and prepare draft response (2.7); emails with P. Tomasco regarding same (0.1); confer and calls with client in-house counsel regarding same (0.1).	2.90	875.00	2,537.50
11/17/24	VO	Review and analyze letter from counsel for TGD and prepare email to P. Tomasco and client representatives regarding same (1.3); review draft response to TGD sealed motion (0.3).	1.60	875.00	1,400.00
11/18/24	VO	Confer with C. Topping regarding [redacted].	.20	875.00	175.00
11/19/24	VO	Review operative lease and prepare email to Rhodium representative (0.2).	.20	875.00	175.00
11/20/24	VO	Emails with Rhodium representative and Quinn Emanuel regarding analysis of [redacted] lease (0.5).	.50	875.00	437.50
11/21/24	VO	Review and comment on purchase sale agreement (0.5); confer with P. Tomasco regarding preparation of cross-examination for upcoming [redacted] testimony (0.2); prepare cross-examination [redacted] (3.3); emails with B. Howell regarding exhibits for same (0.2).	4.20	875.00	3,675.00
11/24/24	VO	Continue to prepare cross-examination [redacted] and evaluate strategy for hearing in light of progress on same (7.3); emails with P. Tomasco regarding same (0.4); emails with Rhodium representative regarding same (0.1).	7.80	875.00	6,825.00
11/26/24	VO	Attend bid confirmation hearing (0.8) and update internal team regarding same (0.1).	.90	875.00	787.50
		TOTAL PROFESSIONAL SERVICES			**$ 16,800.00**

[redacted]

[redacted]

[redacted]

Name	Tkpr	Title	Hours	Rate	Total
Victor O'Connell	VO	Partner	19.20	875.00	16,800.00
Total			**19.20**		**$ 16,800.00**

TOTAL THIS INVOICE **$ 16,800.00**

Invoice # 14316 December 19, 2024

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14247	11/01/24	7,190.00	5,752.00	1,438.00
14259	11/04/24	15,300.00	12,240.00	3,060.00
14268	11/14/24	5,682.50	4,546.00	1,136.50

Previous Balance	$ 5,634.50
Balance Due This Invoice	$ 16,800.00
TOTAL BALANCE DUE	**$ 22,434.50**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ .00	$ 5,634.50	$ .00	$ .00	$ .00	$ 5,634.50

Stris

December 19, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14317
Client # 00346
Matter # 004

INVOICE SUMMARY

For professional services rendered through November 30, 2024

RE: Whinstone Litigation

Total Professional Services	$ 804,262.50
Total Expenses Advanced	$ 378,889.12
TOTAL THIS INVOICE	**$ 1,183,151.62**
Previous Balance	$ 539,631.50
TOTAL BALANCE DUE	**$ 1,722,783.12**

Trust Funds Remaining on Account $ 115,369.59

Electronic Invoice

Invoice # 14317 December 19, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
11/01/24	VO	Correspond with team regarding trial witnesses.	.10	875.00	87.50
11/01/24	EB	Correspond with BA, JS, PB, LKC team, B. Howell, and Fulcrum regarding graphics set up at pretrial conference and preparation of trial graphics (0.9); review expert materials for updates and revisions to exhibit list (1.2); attend teleconference with BA, JS, and PB regarding same (1.0); advise PB, HM, ASA, and NC regarding review of Siddiqi deposition transcript for potential confidentiality designations (0.2).	3.30	1100.00	3,630.00
11/01/24	BA	Review confidentiality designations for Gibson and Brown depositions and correspond with HM and JS regarding same (0.8); review and revise draft reply memorandum in support of motion to assume (1.2); confer with EB, PB, and JS regarding trial exhibits and exhibit list (1.0); review and instruct Stris team regarding changes to trial exhibit list including review of potential exhibits and deposition transcripts (4.0); confer with JS regarding trial preparation and strategy (1.0).	8.00	1050.00	8,400.00
11/01/24	JS	Work on trial presentation planning (6.3); attend portion of teleconference with BA, EB, and PB regarding exhibit list (0.6); confer with BA regarding trial plan (1.0); confer with PB regarding trial witnesses preparation (1.0); confer with CS regarding trial brief (0.2); review and serve trial subpoena on C. Harris (0.3); review and evaluate assumption reply (0.5); review and revise B Gibson Daubert brief (0.5).	10.40	875.00	9,100.00
11/01/24	CS	Finalize and file motion to exclude expert testimony of Benjamin Gibson (0.5); continue drafting trial brief (9.2).	9.20	725.00	6,670.00
11/01/24	CHH	Review and analyze deposition transcripts and exhibits, and update trial exhibits list accordingly.	4.00	325.00	1,300.00
11/01/24	JH	Continue updating email exhibits as directed by PB and MV.	4.00	325.00	1,300.00
11/01/24	PB	Review and analyze reply brief regarding motion to assume (0.3); attend teleconference with EB, BA, and JS regarding revisions to exhibit list (1.0); continue preparing same (5.6); confer with JS regarding trial witness preparation (1.0).	7.90	725.00	5,727.50

Stris & Maher LLP

Invoice # 14317 December 19, 2024

Date	Tkpr	Description	Hours	Rate	Amount
11/01/24	ASA	Prepare sealed exhibit covers and material ahead of trial (2.4); gather relevant [redacted] SEC material at request of MV (0.7); highlighted proposed deposition designations to assist HM (3.0); create tables and finalize Debtors' Motion to Exclude Testimony of Whinstone's Expert Benjamin Gibson (1.9).	8.00	325.00	2,600.00
11/01/24	HM	Continue reviewing and analyzing Nathan Nichols deposition transcript for confidentiality designations and draft correspondence to opposing counsel (4.4); review and respond to team correspondence regarding post-deposition tasks (0.9); review, revise, and draft portion of Daubert motion for Whinstone safety expert Benjamin Gibson (3.1); finalize and serve confidentiality designation correspondence for Benjamin Gibson, David Schatz, and Kevin Haugen (0.2).	8.60	600.00	5,160.00
11/01/24	MV	Continue preparing trial exhibits, advising litigation fellows regarding supporting tasks, and revising exhibit list.	10.00	400.00	4,000.00
11/02/24	BA	Research and draft reply memorandum in support of motion to assume (6.7); confer with JS regarding same (0.3); correspond with PB regarding exhibit list (0.2).	7.20	1050.00	7,560.00
11/02/24	JS	Continue preparing opening (7.2); prepare direct exam of N. Nichols (4.0); review and evaluate assumption reply (0.7) and confer with BA (0.3) and W. Thompson and J. Cohn regarding same (0.8).	13.00	875.00	11,375.00
11/02/24	CS	Continue drafting trial brief.	4.00	725.00	2,900.00
11/02/24	CHH	Review and update trial exhibit list as directed by PB and MV.	4.30	325.00	1,397.50
11/02/24	PB	Continue preparing trial exhibit list (3.4); attend teleconferences with W. Thompson (0.5) and A. Swartz (0.3) regarding revisions to same.	4.20	725.00	3,045.00
11/02/24	HM	Finalize and serve confidentiality designations for the transcript of the deposition of Jeff McGonegal (0.1); review and analyze transcript of deposition of Alex Peloubet for confidentiality designations and draft correspondence to opposing counsel (3.2); begin reviewing and analyzing transcript of deposition of Tiffany Lewis for confidentiality designations (1.7).	5.00	600.00	3,000.00

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Date	Tkpr	Description	Hours	Rate	Amount
11/02/24	MV	Continue preparing trial exhibits and revising exhibit list.	6.00	400.00	2,400.00
11/03/24	EB	Correspond with PB regarding exhibit list (0.1); review and respond to correspondence from BA and update clients regarding trial preparation and attendance (0.2).	.30	1100.00	330.00
11/03/24	BA	Continuing researching and revising reply memorandum in support of motion to assume and convey same to JS for review (0.7); review edits on reply memorandum from J. Cohn, implement same and further revise draft, correspond with HM regarding citations for same, and convey same to bankruptcy and litigation teams for review (1.9); review draft trial brief, correspond with JS regarding same, confer with CS regarding strategy for same, review research from [redacted] on contract positions as relevant to same, and research, draft, and revise same (2.9); correspond and confer with JS regarding reply brief in support of motion for summary judgment, analyze outline for same, and participate in teleconference with JS, CS, J. Cohn, and W. Thompson regarding strategy for same (1); ,correspond with bankruptcy team and with client team regarding trial preparation logistics (0.1); correspond with SD regarding assistance with summary judgment hearing preparation (0.1); review draft motion in limine and correspond with litigation team regarding same (0.3); review draft motion in limine regarding materials not disclosed by expert and correspond with litigation team regarding same (0.2).	7.20	1050.00	7,560.00
11/03/24	JS	Prepare outline of MSJ reply brief (1.3); review and revise MILs (1.5); confer with CS (0.3), BA (0.3), and BA, CS, J. Cohn, and W. Thompson (0.5) regarding MILs and MSJ reply; continue work on opening (2.7) and direct examination of N. Nichols (2.0) and confer with PB regarding same (1.0).	9.60	875.00	8,400.00
11/03/24	CS	Meet with JS, BA, J. Cohn, and W. Thompson to discuss substance of reply in support of motion for summary judgment (.4); meet with JS and BA to discuss trial brief (.3); continue drafting reply in support of motion for summary judgment (5.9).	6.60	725.00	4,785.00

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Date	Tkpr	Description	Hours	Rate	Amount
11/03/24	PB	Prepare trial exhibit list (5.2); teleconference with MV regarding exhibit list (0.3); teleconference with JS regarding exhibit list and trial strategy (0.5); correspondence regarding same (0.4).	6.40	725.00	4,640.00
11/03/24	HM	Complete reviewing and analyzing Tiffany Lewis deposition transcript for confidentiality designations and draft correspondence to opposing counsel (0.8); review and analyze Alex Peloubet deposition transcript for confidentiality designations and draft correspondence to opposing counsel (1.2); begin reviewing and analyzing Brendan Cottrell deposition transcript for confidentiality designations (1.5); review and revise reply in support of motion to assume (1.5); finalize and serve confidentiality designations for deposition transcripts of Alex Peloubet, Tiffany Lewis, Shams Siddiqi, and Nathan Nichols (0.4).	5.40	600.00	3,240.00
11/03/24	MV	Continue gathering of trial exhibits, create Logikcull searches for Bates stamped versions of all documents including all family documents and Native files, create slipsheets for the same, continue revising internal exhibit list.	9.00	400.00	3,600.00
11/04/24	EB	Confer with BA, JS, ASA, and [redacted] regarding [redacted] and adjustments to same to facilitate [redacted] (0.6); assist BA, PB, and MV with updates to exhibit list and confidentiality designations (0.7).	1.30	1100.00	1,430.00
11/04/24	BA	Research, draft, and revise trial brief (6.4); confer with JS regarding trial strategy (0.2); correspond with PB and EB regarding issues with exhibit list, including potential sealing, and review draft of same (0.8); correspond with Quinn team, with JS and EB, and with litigation team, regarding trial preparation logistics (0.6); review draft motions in limine and correspond with HM, A. Swartz, and JS regarding finalization and filing of same (1); correspond with P. Tomasco regarding M. Robinson testimony and potential exhibits (0.1)	9.10	1050.00	9,555.00
11/04/24	JS	Continue preparing for pretrial conference and trial.	10.10	875.00	8,837.50

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Date	Tkpr	Description	Hours	Rate	Amount
11/04/24	CS	Review and revise reply in support of motion to assume (3.1); draft Asay declaration in support of reply in support of motion to assume (0.4); finalize and file reply in support of motion to assume (0.5); continue drafting reply in support of motion for summary judgment (6.6).	10.60	725.00	7,685.00
11/04/24	CHH	Prepare and finalize trial exhibits and trial exhibit list.	10.00	325.00	3,250.00
11/04/24	JH	Update internal bankruptcy docket [redacted] (0.5); coordinate with Stris team, Lehotsky Keller Cohn co-counsel, and Quinn Emmanuel Bankruptcy counsel regarding Houston travel logistics (no charge - 2.5); cite-check Debtors' Reply in Support of Debtors' Motion to Assume at CS request (3.0).	3.50	325.00	1,137.50
11/04/24	PB	Prepare trial exhibit list and supporting documents.	10.00	725.00	7,250.00
11/04/24	ASA	Attention to Houston trial logistics in light of bifurcation of trial (1.0); assist CHH, JHA, and MV with trial exhibit list preparation by collecting and recording information about relevant documents (4.2).	5.20	325.00	1,690.00
11/04/24	HM	Revise, finalize, and file motions in limine (5.3); continue performing discovery tasks related to protective order (2.2); review and respond to team correspondence regarding motions and trial preparation (0.7); review and revise reply in support of motion to assume (1.6).	9.80	600.00	5,880.00
11/04/24	SD	Start making binders of both parties' Partial Motions for Summary Judgment, exhibits, and replies (3.7).	3.70	325.00	1,202.50
11/04/24	MV	Continue gathering of trial exhibits, create [redacted] for Bates stamped versions of all documents including all family documents and Native files, create slip sheets for the same, continue revising internal exhibit list.	7.00	400.00	2,800.00
11/05/24	EB	Review and respond to Stris and LKC team correspondence regarding action items including finalization of exhibit list and exhibits and trial preparation (0.5); attend teleconference with PB regarding expert witness trial preparation (0.3).	.80	1100.00	880.00

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Date	Tkpr	Description	Hours	Rate	Amount
11/05/24	BA	Participate in teleconference with Fulcrum representative, JS, PB, and HM to discuss graphics preparation (0.4); confer with PB regarding trial preparation and witness scripts (0.3); participate in teleconference with client team, litigation counsel, and bankruptcy counsel to discuss trial preparation and other priority action items (0.9); research, draft, and revise trial brief (6.6); review and revise reply brief in support of summary judgment motion, review proposed edits from J. Cohn, and correspond with CS and JS regarding edits to same (0.8);	9.00	1050.00	9,450.00
11/05/24	JS	Continue preparing for final pretrial conference and trial.	9.00	875.00	7,875.00
11/05/24	SB	Review trial exhibit list and identify documents that are meant to be filed under seal (1.1); create cover sheets for exhibits that are being filed under seal (2.3); create sharefile link to send the same to legal assistant CHH (0.2).	3.60	325.00	1,170.00
11/05/24	CS	Draft [redacted] in support of reply in support of motion for partial summary judgment (.2); continue drafting reply in support of motion for partial summary judgment (2.9); revise reply in support of motion for partial summary judgment in light of suggested edits (2.1); review and revise trial brief (2.9)	8.10	725.00	5,872.50
11/05/24	CHH	Prepare and finalize trial exhibits and trial exhibit list.	6.50	325.00	2,112.50
11/05/24	PB	Prepare trial exhibit list (2.2); teleconference with BA and JS regarding exhibit list (0.3); teleconference with EB regarding expert trial preparation (0.3); prepare cross-examination of J. Matthews (2.2); teleconference with C. Hickey (Fulcrum) and JS, BA, and HM regarding trial graphics (0.5); teleconference with BA regarding Matthews cross (0.5); call with K. Pritchard regarding T. Lewis testimony (0.3).	6.30	725.00	4,567.50
11/05/24	ASA	Update master contact list to ensure ease of communication among team members and external contacts (0.4); update [redacted] memorandum and tend to file organization to reflect recent case activity (1.9); correspond with Houston hotel to make alterations to booking (no charge - 0.5); further assist with trial preparatory tasks in advance of pre-trial hearing and trial (3.1).	5.40	325.00	1,755.00

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Date	Tkpr	Description	Hours	Rate	Amount
11/05/24	HM	Continue performing post-deposition tasks under the protective order (3.3); review and organize deposition transcripts and videos (4.2); review and revise trial brief (1.0); attend meeting with Fulcrum Legal, BA, JS, and PB to discuss trial preparation (0.4).	8.90	600.00	5,340.00
11/05/24	SD	Continue to prepare binders for the upcoming trial in U.S. Bankruptcy Court of the Southern District of Texas (1.0).	1.00	325.00	325.00
11/05/24	MV	Continue finalizing trial exhibits, correspondence with PB and CH regarding the same (1.0); create copies of all Native sealed and unsealed trial exhibits for service (0.5); review final exhibit list and cross check omitted exhibits and official descriptions with internal list, update the same in preparation for trial (3.5).	5.00	400.00	2,000.00
11/06/24	EB	Advise ASA regarding high priority hearing and trial preparation action items (0.1); continue assisting with trial preparation (1.0).	1.10	1100.00	1,210.00
11/06/24	BA	Research, review, and revise trial brief (4.5); prepare for summary judgment argument (3); confer with JS, W. Thompson, and J. Cohn regarding strategy for and edits to reply brief in support of summary judgment and argument regarding same, and correspond with CS regarding same (0.5); correspond with [redacted] regarding declaration for reply brief, with [redacted] regarding reply brief filing, and with litigation and bankruptcy team regarding motions in limine (0.2).	8.20	1050.00	8,610.00
11/06/24	JS	Continue preparing for final pretrial conference and trial.	12.20	875.00	10,675.00
11/06/24	CS	Revise reply in support of motion for partial summary judgment (5.2); finalize declaration of Bridget Asay and exhibits in support of reply brief (0.6); review and revise trial brief (2.2).	8.00	725.00	5,800.00
11/06/24	JH	Cite-check reply brief in support of Debtors' motion for partial summary judgment at CS request (5.0).	5.00	325.00	1,625.00
11/06/24	PB	Prepare Matthews cross-examination outline (1.4); prepare direct examination outline for A. Peloubet (5.5); revise trial exhibit list and correspondence regarding same (3.8).	10.70	725.00	7,757.50

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Date	Tkpr	Description	Hours	Rate	Amount
11/06/24	ASA	Update [redacted] memorandum to reflect recent case activity (1.0); gather deposition transcripts for trial preparation (0.6); circulate contact information amongst trial team (0.1); review trial exhibits and master exhibit list to ensure proper preparation of material (2.5); attention to trial and travel logistics on behalf of attorneys and support staff (no charge - 0.8).	4.20	325.00	1,365.00
11/06/24	HM	Review and revise trial brief (7.1); review and respond to team correspondence regarding trial preparation (0.3).	7.40	600.00	4,440.00
11/06/24	SD	Finalize Rhodium binders for upcoming Bankruptcy Court trial (1.9).	1.90	325.00	617.50
11/06/24	MV	Review additional documents added to exhibits by attorneys, save originals for internal records, update internal exhibit list regarding the same (2.0); review local rules and judge standing order regarding pre-trial conference and documents required, correspondence with PB regarding the same (0.5); continue review of internal exhibit list and cross reference official list for updated sealing designations, update the same (2.0); add missing information in preparation for trial (3.0)	6.50	400.00	2,600.00
11/07/24	EB	Continue assisting with summary judgment hearing and trial preparation.	.60	1100.00	660.00
11/07/24	BA	Prepare for summary judgment hearing and for trial (6.8).	6.80	1050.00	7,140.00
11/07/24	JS	Prepare for final pre-trial conference.	11.50	875.00	10,062.50
11/07/24	SR	Begin reviewing and analyzing file and deposition transcript in connection with drafting trial cross outline for B. Cottrell.	2.70	650.00	1,755.00
11/07/24	SB	Assist JS with trial preparation by reviewing Whinstone's exhibit list and identifying witness designations (1.4); cite check trial brief for CS (3.7).	5.10	325.00	1,657.50
11/07/24	CS	Revise trial brief (8.6); draft [redacted] declaration in support of trial brief (0.4); collect and finalize exhibits in support of trial brief (0.6); finalized and file trial brief (.3).	9.90	725.00	7,177.50
11/07/24	CHH	Prepare materials for pre-trial conference.	6.00	325.00	1,950.00
11/07/24	JH	Assist in preparation for pre-trial conference.	3.00	325.00	975.00

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Date	Tkpr	Description	Hours	Rate	Amount
11/07/24	PB	Prepare trial exhibit list (0.7); prepare direct examination outline for A. Peloubet (4.5); prepare cross outline regarding B. Gibson (2.3); review and analyze draft trial brief (0.6); teleconference with EB regarding trial strategy (0.2).	8.30	725.00	6,017.50
11/07/24	ASA	Gather documents at request of JS and initiate creation of binders for Motions for Summary Judgment and Motion to Exclude Whinstone's expert Benjamin Gibson.	2.00	325.00	650.00
11/07/24	HM	Assist with pretrial hearing preparation tasks (2.0); discuss trial preparation with PB and W. Thompson (1.1); review and respond to team correspondence regarding trial preparation (1.2).	4.30	600.00	2,580.00
11/07/24	MV	Review Rhodium court endorsed trial exhibits and cross reference all electronic court numbering on internal list for both sealed and unsealed versions, update internal exhibit list, correspondence regarding the same.	8.00	400.00	3,200.00
11/08/24	VO	Confer with BA and JS regarding preparation for hearing on motions for summary judgment and motions in limine (0.5); meet with client, P. Tomasco, and litigation teams in preparation for pretrial conference (2.5); attend pretrial conference and motions hearing (3.0); debrief with team and plan regarding next steps (1.7).	7.70	875.00	6,737.50
11/08/24	EB	Continue assisting with trial preparation (1.0); review team correspondence regarding hearing and resulting action items (0.1).	1.10	1100.00	1,210.00
11/08/24	BA	Prepare for, attend and participate in status conference and pretrial motions hearing, and confer with litigation team, bankruptcy team, and client representatives (10.5); prepare for trial, including review of proposed deposition designations from Whinstone (2.5).	13.00	1050.00	13,650.00
11/08/24	JS	Prepare for and attend final pretrial conference (6.5); prepare for first day of trial (7.8).	14.30	875.00	12,512.50
11/08/24	SR	Continue drafting B. Cottrell cross outline.	5.60	650.00	3,640.00
11/08/24	CHH	Assist in preparations for pre-trial hearing (4.5); attend pre-trial hearing (3.5); assist JS with preparations of opening slides for trial (1.0).	9.00	325.00	2,925.00

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Date	Tkpr	Description	Hours	Rate	Amount
11/08/24	JH	Collect all Whinstone and Rhodium exhibits internally for attorney reference (2.0); attend pre-trial conference with BA, JS, VO, PB, HM, ASA, CHH, Lehotsky Keller Cohn co-counsel (W. Thompson), and clients (M. Soule, C. Topping, C. Blackmon, N. Nichols) (3.0); attend de-brief with litigation team to discuss [redacted] (1.0); prepare transcript of opposing counsel M. Thomas' hearing testimony regarding notices of breach and May 2022 termination letter for BA (2.5).	8.50	325.00	2,762.50
11/08/24	PB	Prepare cross examination outline regarding B. Gibson (0.8); prepare for final pre-trial conference (4.5); attend final pre-trial conference (3.5); follow-up team meeting regarding trial strategy (1.5); case strategy discussion with BA, JS, and W. Thompson (1.0); review deposition designations for A. Peloubet (1.2); meeting with JS regarding opening slides (2.6); review depositions (1.0).	16.10	725.00	11,672.50
11/08/24	ASA	Assist with final preparations for pre-trial hearing (4.0); highlight Whinstone's designations of relevant deposition testimony (2.0); attend pre-trial hearing (3.5); assist with collection of documents relevant to B. Cottrell witness preparation (1.3).	10.80	325.00	3,510.00
11/08/24	HM	Attend pretrial conference (3.5); prepare for pretrial conference including working with hot seat operator to prepare exhibits (3.7); attend meeting with client and Stris, Lehotsky, and Quinn litigation teams to discuss pretrial conference and trial strategy (2.0).	9.20	600.00	5,520.00
11/08/24	MV	Download Whinstone court endorsed exhibits, document the same on internal list with referenced electronic court filed numbering, add descriptions of exhibits, send the same to vendor in preparation for trial (7.0); make copies of all exhibits for internal records (0.5).	7.50	400.00	3,000.00
11/09/24	VO	Draft direct script for B. Cottrell examination (2.6); review and revise [redacted] for B. Cottrell trial preparation (0.5); attend trial preparation session with B. Cottrell (5.2).	8.30	875.00	7,262.50
11/09/24	BA	Trial preparation, including drafting and review of scripts, exhibits, exhibit objections, and strategy assessments and planning.	12.00	1050.00	12,600.00

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Date	Tkpr	Description	Hours	Rate	Amount
11/09/24	JS	Prepare for first day of trial.	12.00	875.00	10,500.00
11/09/24	CHH	Assist JS with [redacted] (witness) direct examination preparations (3.0); assist VO with [redacted] (witness) cross examination preparations (5.0); legal research for BA on various evidentiary issues in preparation for trial (3.0); assist with various other trial preparations (1.5).	12.50	325.00	4,062.50
11/09/24	JH	Begin comparing B. Cottrell deposition and Temporary Injunction hearing transcripts to [redacted] (5.0); perform other administrative tasks as needed (3.0).	8.00	325.00	2,600.00
11/09/24	PB	Preparation for trial on motion to assume.	16.10	725.00	11,672.50
11/09/24	ASA	Assist PB and B. Wiggins of Fulcrum Legal Graphics with preparation of slides for use during trial, including review of deposition of Whinstone N. Burnett (2.0); download and share deposition video of N. Nichols with client (0.5); conduct legal research alongside CHH on various issues specified by BA in preparation for trial (3.3); assist with other iterative trial preparations (2.5).	8.30	325.00	2,697.50
11/09/24	HM	Draft and revise responses to Whinstone's objections to evidence in Rhodium's summary judgment briefs (7.0); assist with pretrial tasks, including reviewing and revising opening argument slide deck and discussing trial strategy with BA, JS, PB, and W. Thompson (1.3); draft and revise direct examination outline of Dr. Eric Brown (1.5).	9.80	600.00	5,880.00
11/09/24	MV	Review Native files pertaining to trial exhibits and previously sent to the judge's clerk, discuss the same with attorney PB, determine missing Native files and create zip/correspondence for judge's courtesy copies.	1.00	400.00	400.00
11/10/24	VO	Participate in portions of multiple Rhodium witness preparation sessions (4.0); participate in trial preparation (4.1).	8.10	875.00	7,087.50
11/10/24	BA	Trial preparation, including exhibit review, script preparation, witness preparation, and strategy assessment.	12.90	1050.00	13,545.00
11/10/24	JS	Prepare for first day of trial.	10.30	875.00	9,012.50

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Date	Tkpr	Description	Hours	Rate	Amount
11/10/24	CHH	Assist attorneys with preparation for direct and cross-examination including preparation of witness binders and coordination with B. Wiggins (Fulcrum) regarding document displays for witness examinations.	9.70	325.00	3,152.50
11/10/24	JH	Assist with pretrial support including identifying trial exhibits for attorneys (3.2); prepare memorandum identifying [redacted] between [redacted] at VO request (4.8).	8.00	325.00	2,600.00
11/10/24	PB	Preparation for trial on motion to assume.	16.90	725.00	12,252.50
11/10/24	ASA	Assist attorneys and CHH with review of past witness testimony, counter-designations, and exhibit binder preparation for use during examination of witnesses (3.6); continue legal research for HM in support of objections (1.6); assist with additional pretrial action items in support of attorney team (2.9).	8.10	325.00	2,632.50
11/10/24	HM	Prepare and revise responses to Whinstone's evidentiary objections to Rhodium's summary judgment briefs (3.4); continue assisting with trial preparation including of witnesses for direct examination and opening presentation (5.9).	9.30	600.00	5,580.00
11/11/24	VO	Conduct further witness preparation with [redacted] (1.2); meetings with team in preparation for trial (1.6).	2.80	875.00	2,450.00
11/11/24	BA	Trial preparation, including witness scripts, cross preparation, witness preparation, exhibit review, and strategy analysis.	13.20	1050.00	13,860.00
11/11/24	JS	Prepare for first day of trial.	16.30	875.00	14,262.50

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Date	Tkpr	Description	Hours	Rate	Amount
11/11/24	CHH	Assist A. Swartz (LKC) with N. Miljkovic (witness) cross examination preparations (1.0); assist W. Thompson (LKC) with C. Harris (witness) cross examination preparations (1.0); assist JS with [redacted] (witness) direct examination preparations (1.0); review and finalize witness binders for N. Nichols, C. Harris, D. Schatz, and N. Miljkovic (witnesses) (1.5); review and analyze Whinstone and Debtors' objections to exhibit lists to create exhibit admission tracker and final, [redacted] exhibit lists for use at trial (4.0); emails and telephone calls with L. Garcia (printing service contact) regarding preparation of witness binders and exhibit lists (0.3); emails with B. Wiggins (Fulcrum) regarding document displays with witness examinations (0.2).	9.00	325.00	2,925.00
11/11/24	JH	Continue assisting with trial support including preparation of exhibit tracking spreadsheet and other tasks as directed by attorneys.	8.00	325.00	2,600.00
11/11/24	PB	Preparation for trial on motion to assume.	17.30	725.00	12,542.50
11/11/24	ASA	Assist attorneys with administrative tasks and preparation for trial incuding preparing examination binders and responding to iterative requests alongside CHH and JHA regarding organization and compliation of documents for use during trial.	7.70	325.00	2,502.50
11/11/24	HM	Perform trial preparation tasks, including reviewing and revising opening statement presentation, conferring with litigation team regarding trial and exhibit logistics, and revising Dr. Eric Brown direct examination outline.	6.30	600.00	3,780.00
11/12/24	VO	Attend trial.	8.00	875.00	7,000.00
11/12/24	BA	Trial preparation and trial attendance.	14.00	1050.00	14,700.00
11/12/24	JS	Prepare for and attend trial.	15.50	875.00	13,562.50

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Date	Tkpr	Description	Hours	Rate	Amount
11/12/24	CHH	Assist with filing of amended exhibit and amended exhibit list (0.3); assist W. Thompson (LKC) with J. McGonegal (witness) cross examination preparations (1.0); assist W. Thompson (LKC) with N. Burnett (witness) cross examination preparations (0.5); emails and telephone calls with L. Garcia (printing service contact) regarding preparation of witness binders (0.2); attend portions of trial day one and assist attorneys with admitted exhibits tracking (5.0); continue assisting with various other trial preparations (3.5); prepare list of Debtors' and Whinstone's admitted exhibits and copies of same for attorney review (1.0).	11.50	325.00	3,737.50
11/12/24	JH	Attend trial while marking admitted exhibits and fulfilling various other attorney requests as needed.	8.00	325.00	2,600.00
11/12/24	PB	Attend trial and preparation for same.	16.50	725.00	11,962.50
11/12/24	ASA	Attend court proceedings and actively support attorneys during trial [redacted] (8.0); assist PB and BA with finalization of witness examination binders [redacted] (3.0).	11.00	325.00	3,575.00
11/12/24	HM	Continue preparing for and assisting with trial day 1, including tracking admitted exhibits and conducting document research (9.0); assist with preparations for trial day 2 (0.3).	9.30	600.00	5,580.00
11/12/24	MV	Continue updating exhibit list information to ensure completeness, accuracy with respect to Phase 1, and preparation for Phase 2 trial.	5.00	400.00	2,000.00
11/13/24	VO	Attend trial.	8.00	875.00	7,000.00
11/13/24	EB	Remotely attend and continue assisting with portions of trial day 2.	1.00	1100.00	1,100.00
11/13/24	BA	Trial preparation and attendance at trial.	13.90	1050.00	14,595.00
11/13/24	JS	Prepare for and attend trial.	11.90	875.00	10,412.50
11/13/24	CHH	Prepare for trial day two (2.5); attend trial day two and assist attorneys with admitted exhibits (9.0); review and analyze Court's minute entry and prepare list of admitted exhibits and copies of same for attorney review (1.0).	12.50	325.00	4,062.50

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Date	Tkpr	Description	Hours	Rate	Amount
11/13/24	JH	Attend trial while marking admitted exhibits and fulfilling various other attorney requests as needed.	8.00	325.00	2,600.00
11/13/24	PB	Attend trial and preparation for same.	15.30	725.00	11,092.50
11/13/24	ASA	Make adjustments to final binder for use by BA in cross of J. Matthews (0.8); attend portion of court proceedings and support attorneys when requests for documents arise (9.2).	10.00	325.00	3,250.00
11/13/24	HM	Continue preparing for and assisting with trial day 2, including tracking admitted exhibits and conducting document research (9.0); assist with preparations for trial day 3 and 4, including drafting evidentiary chart for closing argument and conducting research on [redacted] (3.2).	12.20	600.00	7,320.00
11/13/24	MV	Continue updating exhibit list information to ensure completeness, accuracy with respect to Phase 1, and preparation for Phase 2 trial.	5.00	400.00	2,000.00
11/14/24	VO	Attend trial.	8.00	875.00	7,000.00
11/14/24	EB	Remotely attend portions of trial.	1.50	1100.00	1,650.00
11/14/24	BA	Trial preparation and attendance at trial.	14.30	1050.00	15,015.00
11/14/24	JS	Prepare for and attend trial.	16.40	875.00	14,350.00
11/14/24	CHH	Prepare for trial day three (2.5); observe and assist with trial day three (9.0).	11.50	325.00	3,737.50
11/14/24	JH	Attend trial while marking admitted exhibits and fulfilling various other attorney requests as needed.	8.00	325.00	2,600.00
11/14/24	PB	Attend trial and prepare for final day of trial.	18.20	725.00	13,195.00
11/14/24	ASA	Prepare for trial day three by tending to attorney requests (2.5); observe and assist with trial day three (9.0); assist attorneys after trial day three (1.5).	13.00	325.00	4,225.00
11/14/24	HM	Continue preparing for and assisting with trial day 3, including tracking admitted exhibits and conducting document research (9.5); assist with preparations for trial day 2, including conducting witness preparation with [redacted] and drafting correspondence to opposing counsel (1.5).	11.00	600.00	6,600.00
11/15/24	VO	Attend trial.	6.00	875.00	5,250.00

Invoice # 14317 December 19, 2024

Date	Tkpr	Description	Hours	Rate	Amount
11/15/24	EB	Remotely attend portions of trial (2.5); update C. Griffey on status (0.1).	2.60	1100.00	2,860.00
11/15/24	BA	Trial preparation and attendance at trial.	8.40	1050.00	8,820.00
11/15/24	JS	Prepare for and attend final day of trial.	8.70	875.00	7,612.50
11/15/24	CHH	Prepare for trial day four (0.5); attend and assist with trial day four (8.0).	8.50	325.00	2,762.50
11/15/24	JH	Attend trial while marking admitted exhibits and fulfilling various other attorney requests as needed.	8.00	325.00	2,600.00
11/15/24	PB	Attend final day of trial.	9.20	725.00	6,670.00
11/15/24	ASA	Prepare for trial day four (0.7); attend court proceedings of trial day four (8.0); assist attorneys with related documents and files (2.3).	11.00	325.00	3,575.00
11/15/24	HM	Continue preparing for and assisting with trial day 4, including tracking admitted exhibits, conducting document research, and participating in strategy discussions (7.5); debrief with litigation teams (0.5).	8.00	600.00	4,800.00
11/15/24	MV	Review internal exhibit list for universe of documents and segregate Phase 2 trial documents, create [redacted] for missing information related to document Bates numbers, in preparation for trial Phase 2 [redacted].	6.00	400.00	2,400.00
11/16/24	EB	Attention to post-trial action items.	.20	1100.00	220.00
11/17/24	VO	Confer with JS regarding [redacted] (0.1); review same (0.2); prepare for (0.2) and confer with client representatives regarding same (0.7); correspondence with JS and PS regarding same (0.6); confer with P. Tomasco regarding same (0.3); emails with team and client representatives regarding [redacted] (0.3).	2.40	875.00	2,100.00
11/17/24	EB	Review and respond to team correspondence regarding [redacted] and analysis (0.2); attention to post-trial action items (0.1).	.30	1100.00	330.00
11/17/24	BA	Collect [redacted] from experts and convey same to VO.	.30	1050.00	315.00
11/18/24	VO	Attend client meeting.	2.00	875.00	1,750.00

Invoice # 14317 December 19, 2024

Date	Tkpr	Description	Hours	Rate	Amount
11/18/24	EB	Correspond with BA and JS regarding damages experts and potential supplementation (0.1); advise HM regarding post-trial case management-related action items (0.1).	.20	1100.00	220.00
11/18/24	BA	Confer with JS and correspond with EB regarding follow up with C. Griffey regarding [redacted]; correspond with litigation team regarding [redacted] damages.	.30	1050.00	315.00
11/18/24	ASA	Attention to payment of invoice for transcript request (0.1); organize trial material and update matter memorandum at request of HM (0.8).	.90	325.00	292.50
11/18/24	MV	Continue review of internal exhibit list for universe of documents and Phase 2 trial, determine missing information and update list with document identification and Bates numbers, complete all fields in preparation for possible Phase 2 trial.	2.00	400.00	800.00
11/19/24	EB	Confer with BA regarding ERCOT expert analysis (0.2); review and respond to team correspondence regarding same and post-trial action items (0.2).	.40	1100.00	440.00
11/19/24	BA	Participate in portion of client call with JS, W. Thompson, J. Cohn, and P. Tomasco (0.8); confer with EB regarding C. Griffey opinion and [redacted] (0.2); correspond with C. Griffey regarding meeting and with W. Thompson regarding updated closing slides (0.1).	1.10	1050.00	1,155.00
11/19/24	JS	Evaluate potential phase 2 issues (0.9) and prepare for and attend touch point call (1.3).	2.20	875.00	1,925.00
11/19/24	HM	Review and analyze documents for confidentiality designations (0.8).	.80	600.00	480.00
11/20/24	EB	Review update from and correspond with HM regarding compilation and provision of unredacted information to C. Griffey.	.20	1100.00	220.00

Invoice # 14317 December 19, 2024

Date	Tkpr	Description	Hours	Rate	Amount
11/20/24	BA	Review Siddiqi and Griffey expert reports as relevant to potential phase 2 and [redacted] (0.5); participate in meeting with expert C. Griffey, BA, and SD to discuss issues raised in rebuttal report as well as [redacted] in phase 2 of the trial (0.4); attend debrief meeting with JS and SD following meeting with expert C. Griffey (0.2); correspond with HM, EB, and JS to provide direction for HM to collect and review unredacted data as needed for C. Griffey (0.3); correspond with HM and with W. Thompson on follow up matters from trial to ensure litigation files are complete (0.2); confer with JS and correspond with JS and litigation team regarding response to opposing counsel and phase 2 timing (0.2).	1.80	1050.00	1,890.00
11/20/24	JS	Prepare for and attend damages call with Stris and LKC teams (1.5); prepare for and attend call with C. Griffey and Stris team regarding phase 2 issues (0.9); prepare for and attend call with [redacted] regarding [redacted] (0.9); prepare for and attend group calls regarding damages issues (1.6).	4.90	875.00	4,287.50
11/20/24	CHH	Prepare and finalize materials to share with expert C. Griffey.	.20	325.00	65.00
11/20/24	HM	Review and analyze documents to send to C. Griffey for trial phase 2 (3.0); continue assisting with post-trial phase 1 tasks, including qc of exhibit docketing and internal file updates (1.5).	4.50	600.00	2,700.00
11/20/24	SD	Participate in meeting with expert C. Griffey, BA, and JS to discuss issues raised in rebuttal report as well as potential expert involvement in phase 2 of the trial (0.4); attend debrief meeting with BA and JS following meeting with expert C. Griffey (0.2).	.60	325.00	195.00
11/21/24	VO	Confer with [redacted] regarding strategic action items.	.70	875.00	612.50
11/21/24	SD	Attend and prepare notes regarding 11/20/24 meeting with expert C. Griffey.	1.10	325.00	357.50
11/22/24	BA	Correspond with J. Cohn and litigation team regarding phase two timing, and correspond with C. Griffey to convey additional data and [redacted] and to confirm [redacted] (0.3).	.30	1050.00	315.00

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Date	Tkpr	Description	Hours	Rate	Amount
11/25/24	BA	Prepare for (0.3) and participate in (0.5) teleconference with C. Griffey and HM to discuss status of [redacted] based on unredacted data; confer with EB regarding potential next steps for same (0.2).	1.00	1050.00	1,050.00
11/25/24	HM	Confer with BA and C. Griffey about [redacted] for phase 2 (0.5); review and analyze documents for C. Griffey (1.5).	2.00	600.00	1,200.00
11/26/24	VO	Attend status conference; emails with team regarding next steps regarding outcome of same.	.50	875.00	437.50
11/26/24	EB	Attend portion of debrief from ruling announcement (0.2); attention to resulting action items including expert updates (0.1).	.30	1100.00	330.00
11/26/24	BA	Attend portion of remote status conference regarding motion to assume (0.3); confer with JS, W. Thompson, and J. Cohn regarding next steps (0.3); confer with litigation and bankruptcy team regarding case strategy and phase 2 (0.5); attend client call with bankruptcy and litigation counsel (0.5); correspond with PB and JS regarding court's preliminary ruling, prepare talking points for [redacted], and correspond with C. Griffey regarding preliminary ruling and anticipated schedule (0.4); correspond and confer with EB regarding preliminary ruling and likely next steps (0.1); correspond with JS and EB regarding [redacted] by C. Griffey and information needed to support same (0.3).	2.40	1050.00	2,520.00
11/26/24	JS	Prepare for and attend status conference on ruling (0.6); attend debrief calls with Stris, LKC, and Rhodium teams (2.5); evaluate next steps in light of partial ruling on assumption motion (1.3).	4.40	875.00	3,850.00
11/26/24	CHH	Attend hearing regarding motion to assume contracts and debrief with trial team (0.8); review and update matter docket (0.3).	1.10	325.00	357.50
11/26/24	PB	Prepare for and attend hearing on motion to assume contracts.	.50	725.00	362.50

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Date	Tkpr	Description	Hours	Rate	Amount
11/26/24	HM	Attend status conference before Judge Alfredo Perez (0.5); confer with Stris, Lehotsky, and Quinn litigation teams to discuss status conference and upcoming tasks (0.4); attention to organization of internal files and memoranda (0.6).	1.50	600.00	900.00

TOTAL PROFESSIONAL SERVICES **$ 804,262.50**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	15.20	1,100.00	16,720.00
Bridget Asay	BA	Partner	164.40	1,050.00	172,620.00
Victor O'Connell	VO	Partner	62.60	875.00	54,775.00
John Stokes	JS	Partner	192.70	875.00	168,612.50
Colleen Smith	CS	Associate	56.40	725.00	40,890.00
Peter Brody	PB	Associate	179.90	725.00	130,427.50
Sarah Rahimi	SR	Associate	8.30	650.00	5,395.00
Helen Marsh	HM	Associate	133.30	600.00	79,980.00
Monica Viramontes	MV	Sr Paralegal	78.00	400.00	31,200.00
Andrew Atsalis	ASA	Fellow	105.60	325.00	34,320.00
Cynthia Huang	CHH	Fellow	116.30	325.00	37,797.50
Sebastian Delgado	SD	Fellow	8.30	325.00	2,697.50
Shayra Banta	SB	Fellow	8.70	325.00	2,827.50
Jaida Hodge-Adams	JH	Fellow	80.00	325.00	26,000.00
Total			**1,209.70**		**$ 804,262.50**

Invoice # 14317 December 19, 2024

EXPENSES ADVANCED

Date	Task	Description	Amount
10/15/24		EB airfare from Tallahassee to Houston round trip for depositions.	808.00
10/16/24		PB airfare from LAX to Dallas for depositions.	338.95
10/17/24		JS Airfare from SD - Houston - SD for depositions.	839.97
10/17/24		EB airport parking while in Texas for depositions.	39.00
10/17/24		VO lodging in Austin for depositions.	426.42
10/17/24		VO airfare from Los Angeles to Dallas	563.98
10/17/24		VO airfare from Austin to LAX from depositions.	420.98
10/18/24		SR airfare from Los Angeles to Austin for depositions.	429.97
10/18/24		SR airfare from Austin to Los Angeles for depositions.	420.98
10/21/24		BA airfare from Washington DC to Vermont for depositions.	783.97
10/21/24		VO lodging in Houston for depositions.	972.85
10/21/24		CH airfare from Las Vegas to Houston for trial.	311.98
10/21/24		VO airfare from Dallas to Houston for depositions.	299.98
10/21/24		CH airfare from Houston to Las Vegas for trial.	128.97
10/22/24		BA airfare from Vermont to Houston for depositions	723.98
10/22/24		SR airfare from Los Angeles to Austin for depositions.	106.01
10/23/24		JH roundtrip airfare for travel to Houston for trial.	314.01
10/24/24		VO transporation in Texas for depositions.	43.65
10/24/24		VO transporation in Texas for depositions.	70.20
10/24/24		PB airfare from Los Angeles to Houston for depositions.	477.98
10/24/24		PB airfare from Houston to Dallas for depositions.	224.98
10/25/24		VO transporation in Texas for depositions.	189.53
10/25/24		VO transporation in Texas for depositions.	34.99
10/25/24		VO transporation in Texas for depositions.	31.11
10/25/24		PB airfare from Dallas to Los Angeles for depositions.	480.48
10/25/24		PB lodging in Houston for depositions.	583.31
10/26/24		JS airport parking while in Texas for depositions.	73.00
10/26/24		EB transporation in Texas for depositions.	59.70
10/26/24		VO lodging in Dallas for depositions.	1,401.60
10/26/24		VO transporation in Texas for depositions.	87.50

Stris & Maher LLP

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Date	Task	Description	Amount
10/26/24		PB lodging in Dallas for depositions.	483.63
10/27/24		EB transporation in Texas for depositions.	37.18
10/28/24		BA transporation in Texas for depositions.	81.30
10/28/24		JS transporation in Texas for depositions.	35.65
10/28/24		JS hotel in Texas for depostions.	380.53
10/28/24		VO hotel for deposition prep in Houston.	147.89
10/29/24		EB transportation in Texas for depositions.	102.33
10/29/24		BA hotel for Houston depositions.	767.14
10/29/24		VO hotel in Houston for depositions.	145.89
10/29/24		VO parking for depostions in Houston.	34.65
10/29/24		Vendor fee for deposition of B. Gibson.	3,525.80
10/29/24		Vendor fee for videography services for deposition of Tiffany Lewis.	699.00
10/29/24		Transcript with Index of Eric N Brown.	2,781.35
10/29/24		Vendor fee for videography services for the deposition of Eric N Brown.	689.00
10/30/24		EB hotel in Texas for depostions.	1,394.54
10/30/24		BA transporation for depostions and trial.	270.02
10/30/24		VO hotel in Austin for depositions.	458.63
10/30/24		VO airfare from Austin to Santa Ana.	99.00
10/30/24		VO parking for depositions in Houston.	13.99
10/30/24		VO car rental for depositions in Houston and Austin.	598.43
10/30/24		BA airfare from HOU to DAL for deposition.	249.98
10/31/24		BA airfare to Houston for depositions.	364.48
10/31/24		BA airport parking for depositions.	48.00
11/01/24		BA hotel in Dallas for depositions.	1,275.64
11/01/24		Logikcull - EDiscovery (November 2024).	2,646.00
11/01/24		Vendor fee for deposition of S. Siddiqi.	2,576.55
11/01/24		Charles S Griffey - October 2024 services.	72,600.00
11/01/24		Vendor fee for expedited transcripts with index of Tiffany Lewis.	2,597.90
11/02/24		BA airfare to Houston for trial.	1,086.36
11/03/24		JS airfare from Houston to SD from trial.	461.99
11/04/24		JS airfare from SD to Houston for trial.	498.47
11/05/24		Fulcrum additional retainer.	18,000.00
11/06/24		PB flight from LAX to HOU for trial.	542.46

Stris & Maher LLP

Invoice # 14317 December 19, 2024

Date	Task	Description	Amount
11/06/24		The Lancaster Hotel room block for trial.	131,734.24
11/06/24		Vendor fee for deposition cancellation of R. Peters.	500.00
11/07/24		BA airfare to VT from Houston for trial.	647.97
11/07/24		VO airfare from LB to HOU for trial.	583.98
11/07/24		AA airfare from BOS to HOU for trial.	398.98
11/08/24		JS transportation in Texas for trial.	324.57
11/08/24		VO transportation in Houston for trial.	277.66
11/08/24		CH airfare from HOU to LAS.	100.01
11/08/24		Vendor fee for expedited transcritp with index of Brendan Cottrell.	2,960.90
11/08/24		Vendor fee for expedited transcript with index of Nathan Nichols.	4,664.35
11/08/24		Vendor fee for videography services for the deposition of Brendan Cottrell.	749.00
11/08/24		Vendor fee for videography services for the deposition of Nathan Nichols.	1,449.00
11/11/24		PB flight from HOU to LAX.	453.98
11/12/24		JH flight from HOU to LAX.	438.48
11/12/24		SR lodging for depoisition in Houston.	998.55
11/12/24		SR transportaion while Houston for deposition.	173.70
11/13/24		AA airfare from HOU to BOS for trial.	263.48
11/15/24		VO airfare from HOU to Santa Ana.	496.47
11/15/24		Vendor fee for videography services for the deposition of Alex Peloubet.	749.00
11/15/24		Vendor fee for expedited transcript with index of Alex Peloubet.	2,678.90
11/16/24		BA airport parking while at trial.	115.00
11/18/24		Vendor fee for expedited heating transcript day 4.	8,227.20
11/18/24		Vendor fee for expedited heating transcript day 1.	7,799.25
11/18/24		Vendor fee for expedited heating transcript day 2.	8,601.70
11/18/24		Vendor fee for expedited heating transcript day 3.	8,821.00
11/18/24		Vendor fee transcript in support of the Rhodium-Whinstone dispute.	51.30
11/18/24		AA transporation in Texas for depositions.	84.24
11/18/24		PB transporation in Texas for depositions.	826.75
11/18/24		HM airfare SD Houston to SD for trial.	588.94
11/18/24		HM transporation in Texas for Trail.	182.61
11/18/24		CH transportation in Texas for depositions.	99.44

Invoice # 14317 December 19, 2024

Date	Task	Description	Amount
11/20/24		E. Brown invoice for deposition prep, deposition attendance and retainer for trial.	25,488.25
11/21/24		StoneTurn - Professional services rendered in October 2024.	18,577.50
11/25/24		Fulcrum Legal Graphics - Professional services rendered September 16 - October 16, 2024.	1,227.10
11/30/24		JND Discovery Invoice for November 2024.	3,765.00
11/30/24		Transportaion for JH while in Houston for trial.	58.81
12/01/24		Peregrine Consultants - Novemeber 2024.	16,350.00
		TOTAL EXPENSES ADVANCED	**$ 378,889.12**
		TOTAL THIS INVOICE	**$ 1,183,151.62**

Invoice # 14317 December 19, 2024

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14249	11/01/24	79,868.00	63,894.40	15,973.60
14263	11/04/24	1,139,238.00	918,737.10	220,500.90
14269	11/14/24	1,632,686.25	1,329,529.25	303,157.00

Previous Balance	$ 539,631.50
Balance Due This Invoice	$ 1,183,151.62
TOTAL BALANCE DUE	**$ 1,722,783.12**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ .00	$ 539,631.50	$ .00	$ .00	$ .00	$ 539,631.50

Stris

December 19, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14331
Client # 00346
Matter # 007

INVOICE SUMMARY

For professional services rendered through November 30, 2024

RE: Retention and Fee Applications

Total Professional Services	$ 46,190.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 46,190.00**
Previous Balance	$ 12,030.00
TOTAL BALANCE DUE	**$ 58,220.00**

Electronic Invoice

Invoice # 14331 December 19, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
11/01/24	PS	Review draft fee statement and confer with EB regarding same.	.30	1250.00	375.00
11/01/24	EB	Continue preparing, conferring with PS regarding, and advising NC regarding portions of August fee statement.	.50	1100.00	550.00
11/01/24	CHH	Update draft fee statement per instructions from PS and EB.	.40	325.00	130.00
11/04/24	PS	Review updated draft fee statement and confer with team regarding revisions to same.	.40	1250.00	500.00
11/04/24	EB	Advise ASA regarding revisions to August and begin preparing September portions of fee statement.	4.10	1100.00	4,510.00
11/04/24	ASA	Assist EB with preparation of August portion of fee statement.	.90	325.00	292.50
11/05/24	VO	Review, confer with PS about, and revise first monthly fee application (2.7); prepare email to B. Howell regarding same (0.1).	2.80	875.00	2,450.00
11/05/24	PS	Review fee statement and confer with VO regarding same.	.50	1250.00	625.00
11/05/24	EB	Continue preparing September portions of monthly fee statement.	6.50	1100.00	7,150.00
11/05/24	CHH	Continue assisting with prepartion of monthly fee statement.	.50	325.00	162.50
11/08/24	EB	Begin working on October fee statement.	1.00	1100.00	1,100.00
11/12/24	EB	Continue preparing portions of October fee statement.	6.20	1100.00	6,820.00
11/13/24	EB	Continue preparing portions of October fee statement.	1.80	1100.00	1,980.00
11/14/24	EB	Continue preparing portions of October fee statement (3.9); review order and correspond with B. Rice and B. Howell regarding client inquiry concerning ordinary course declarations (0.2).	4.10	1100.00	4,510.00
11/15/24	EB	Advise NC regarding October fee statement (0.2); review, revise, and continue preparing portions of same (3.0).	3.20	1100.00	3,520.00
11/15/24	NC	Continue assisting EB with preparation of portions of October monthly fee statement.	1.20	325.00	390.00
11/18/24	EB	Continue preparing portions of October fee statement.	2.50	1100.00	2,750.00

Stris & Maher LLP

Invoice # 14331 December 19, 2024

Date	Tkpr	Description	Hours	Rate	Amount
11/19/24	EB	Continue preparing portions of October fee statement (2.4); advise ASA regarding same (0.2).	2.60	1100.00	2,860.00
11/19/24	ASA	Assist EB with preparation of portions of October fee statement.	2.50	325.00	812.50
11/20/24	EB	Revise portions from ASA and continue preparing portions of October fee statement.	1.00	1100.00	1,100.00
11/21/24	VO	Review and revise second monthly fee application.	1.10	875.00	962.50
11/25/24	EB	Begin preparing portions of November fee statement.	1.40	1100.00	1,540.00
11/26/24	EB	Continue preparing portion of November fee statement.	1.00	1100.00	1,100.00
		TOTAL PROFESSIONAL SERVICES			**$ 46,190.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Peter K. Stris	PS	Partner	1.20	1,250.00	1,500.00
Elizabeth Brannen	EB	Partner	35.90	1,100.00	39,490.00
Victor O'Connell	VO	Partner	3.90	875.00	3,412.50
Andrew Atsalis	ASA	Fellow	3.40	325.00	1,105.00
Cynthia Huang	CHH	Fellow	.90	325.00	292.50
Nicholas Capalbo	NC	Fellow	1.20	325.00	390.00
Total			**46.50**		**$ 46,190.00**

TOTAL THIS INVOICE **$ 46,190.00**

Invoice # 14331 December 19, 2024

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14261	11/04/24	47,165.00	37,732.00	9,433.00
14284	11/14/24	12,985.00	10,388.00	2,597.00

Previous Balance	$ 12,030.00
Balance Due This Invoice	$ 46,190.00
TOTAL BALANCE DUE	**$ 58,220.00**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ .00	$ 12,030.00	$ .00	$ .00	$ .00	$ 12,030.00

Stris

December 19, 2024

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14332
Client # 00346
Matter # 008

INVOICE SUMMARY

For professional services rendered through November 30, 2024

RE: Non-working Travel for Whinstone Dispute

Total Professional Services	$ 63,785.00
50% discount	$ -31,892.50
Net Professional Services	$ 31,892.50
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 31,892.50**
Previous Balance	$ 6,829.25
TOTAL BALANCE DUE	**$ 38,721.75**

Electronic Invoice

Invoice # 14332 December 19, 2024

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
11/01/24	BA	Travel Dallas to Dulles, part of return trip from depositions of T. Lewis and J. Matthews.	3.00	1050.00	3,150.00
11/07/24	VO	Travel LGB - HOU for pretrial conference and trial.	5.20	875.00	4,550.00
11/07/24	BA	Travel from Montpelier VT to Houston Texas for trial.	4.70	1050.00	4,935.00
11/07/24	JS	Travel to Houston for trial.	5.10	875.00	4,462.50
11/07/24	CHH	Travel from LAS to HOU.	6.00	325.00	1,950.00
11/07/24	JH	Travel from LAX to HOU for trial.	5.00	325.00	1,625.00
11/07/24	PB	Travel to Houston for trial.	4.30	725.00	3,117.50
11/07/24	ASA	Travel from BOS to IAH for trial.	8.00	325.00	2,600.00
11/07/24	HM	Travel from SAN to IAH for trial.	6.50	600.00	3,900.00
11/15/24	VO	Travel HOU-SNA.	5.50	875.00	4,812.50
11/15/24	JS	Travel home from Houston following trial.	4.80	875.00	4,200.00
11/15/24	PB	Return travel from trial.	6.80	725.00	4,930.00
11/16/24	BA	Travel back to Montpelier VT from Houston Texas following Whinstone trial.	8.50	1050.00	8,925.00
11/16/24	CHH	Travel from HOU to LAS.	6.20	325.00	2,015.00
11/16/24	JH	Travel home to Los Angeles from Houston bankruptcy trial.	6.00	325.00	1,950.00
11/16/24	ASA	Travel back to Massachusetts from Houston, Texas following Whinstone trial.	8.50	325.00	2,762.50
11/16/24	HM	Travel from IAH to SAN.	6.50	600.00	3,900.00

TOTAL PROFESSIONAL SERVICES	**$ 63,785.00**
50% discount	$ -31,892.50
NET PROFESSIONAL SERVICES	**$ 31,892.50**

Stris & Maher LLP

Invoice # 14332 December 19, 2024

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Bridget Asay	BA	Partner	16.20	1,050.00	17,010.00
Victor O'Connell	VO	Partner	10.70	875.00	9,362.50
John Stokes	JS	Partner	9.90	875.00	8,662.50
Peter Brody	PB	Associate	11.10	725.00	8,047.50
Helen Marsh	HM	Associate	13.00	600.00	7,800.00
Andrew Atsalis	ASA	Fellow	16.50	325.00	5,362.50
Cynthia Huang	CHH	Fellow	12.20	325.00	3,965.00
Jaida Hodge-Adams	JH	Fellow	11.00	325.00	3,575.00
Total			**100.60**		**$ 63,785.00**

TOTAL THIS INVOICE **$ 31,892.50**

Stris & Maher LLP

Invoice # 14332 December 19, 2024

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14295	11/14/24	34,146.25	27,317.00	6,829.25

Previous Balance	$ 6,829.25
Balance Due This Invoice	$ 31,892.50
TOTAL BALANCE DUE	**$ 38,721.75**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ .00	$ 6,829.25	$ .00	$ .00	$ .00	$ 6,829.25

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

STRIS & MAHER LLP'S THIRD MONTHLY FEE STATEMENT
FOR THE PERIOD DECEMBER 1, 2024, THROUGH DECEMBER 31, 2024

Stris & Maher LLP ("Stris & Maher") submits, pursuant to the Order Granting the Motion of the Debtors to Establish Procedures for Interim Compensation and Reimbursement of Expenses for Professionals (the "Interim Compensation Order") (ECF No. 264) entered on October 14, 2024, this monthly fee statement for the payment of interim compensation rendered and reimbursement of expenses incurred during the period December 1, 2024 through December 31, 2024 (the "Monthly Fee Statement").

Stris & Maher seeks payment of interim compensation in the total amount of $117,981.80 (80% of the services rendered), plus $31,592.25 (100% of the interim expenses incurred). *See* Interim Compensation Order at ¶ 1(a). Summaries of the fees and expenses are attached as Exhibits 1, 2, and 3. Invoices reflecting detailed time entries are attached hereto as Exhibit 4.

[1] Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), Rhodium Encore Sub LLC (1064), Rhodium Enterprises, Inc. (6290), Rhodium Industries LLC (4771), Rhodium Ready Ventures LLC (8618), Rhodium Renewables LLC (0748), Rhodium Renewables Sub LLC (9511), Rhodium Shared Services LLC (5868), and Rhodium Technologies LLC (3973). The mailing and service address of Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

Pursuant to the Interim Compensation Order, any party objecting to the payment of interim compensation and reimbursement of expenses shall serve within 14 days after delivery of the Monthly Fee Statement a written notice, via email, upon Stris & Maher and each of the other Fee Notice Parties (as listed below) (the "Written Notice"). The Written Notice shall set forth with reasonable detail the nature of the objection and the amount at issue. If the parties are unable to reach a resolution of the objection within 14 calendar days, the objecting party shall file its objection (the "Objection") with this Court within 3 business days and serve such Objection on Stris & Maher and each of the other Fee Notice Parties. See Interim Compensation Order ¶ 1(c).

The Fee Notice Parties as defined in the Interim Compensation Order are:

a. Rhodium Enterprises, Inc., Attn: Charles Topping (chucktopping@rhdm.com) and Morgan Soule (morgansoule@rhdm.com), 2617 Bissonnet Street, Suite 234, Houston, Texas 77005;

b. Debtors' Bankruptcy Counsel, c/o Quinn Emanuel Urquhart & Sullivan, LLP, Attn: Patricia B. Tomasco (pattytomasco@quinnemanuel.com); Razmig Izakelian (razmigizakelian@quinnemanuel.com), Alain Jaquet (alainjaquet@quinnemanuel.com), and Joanna D. Caytas (joannacaytas@quinnemanuel.com), 700 Louisiana, Suite 3900, Houston, Texas 77002;

c. Debtors' Financial Advisor, c/o Province, Attn: Mark Robinson (mrobinson@provincefirm.com); David Dunn (ddunn@provincefirm.com); Kirsten Lee (klee@province.com); and Andrew Popescu (apopescu@provincefirm.com), 2360 Corporate Circle, Suite 340, Henderson, Nevada 89074;

d. Galaxy Digital, LLC, in its capacity as DIP Agent, c/o Orrick, Herrington & Sutcliffe LLP, Ryan C. Wooten (rwooten@orrick.com), 609 Main, 40th Floor, Houston, Texas 77002, and Robert Trust (rtrust@orrick.com), Mark Franke (mfranke@orrick.com) and Brandon Batzel (bbatzel@orrick.com), 51 West 52nd Street, New York, New York 10019;

e. Counsel or proposed counsel to any statutory committee appointed in these Chapter 11 Cases; and

f. United States Trustee, Ha Minh Nguyen (ha.nguyen@usdoj.gov), 515 Rusk, Suite 3516, Houston, Texas 77002.

If no objection is timely served pursuant to the Interim Compensation Order, the Debtors shall be authorized and directed to pay Stris & Maher an amount equal to 80% of the fees and 100% of the expenses listed herein, or if an objection is timely served, such percentage of fees and expenses that are not subject to an objection, as stated in the Interim Compensation Order.

Respectfully submitted this 21st day of January, 2025.

QUINN EMANUEL URQUHART & SULLIVAN, LLP

/s/ Patricia B. Tomasco
Patricia B. Tomasco (SBN 01797600)
Joanna D. Caytas (SBN 24127230)
Cameron Kelly (SBN 24120936)
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Email: razmigizakelian@quinnemanuel.com

-and-

STRIS & MAHER LLP

Peter K. Stris (pro hac vice)
Victor O'Connell (pro hac vice)
John Stokes (pro hac vice)
Peter Brody (pro hac vice)
Helen Marsh (pro hac vice)

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-and-

LEHOTSKY KELLER COHN LLP

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Todd Disher (pro hac vice)
Alexis Swartz (pro hac vice)
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alexis@lkcfirm.com
408 W. 11th Street, 5th Floor
Austin, TX 78701

Counsel for Debtors and Debtors in Possession

CERTIFICATE OF SERVICE

I certify that, on January 21, 2025, a true and correct copy of the foregoing Monthly Fee Statement was served through the Court's Electronic Case Filing system of the United States Bankruptcy Court for the Southern District of Texas.

/s/ Patricia B. Tomasco
Patricia B. Tomasco

EXHIBIT 1

Summary of Legal Fees for the Fee Period

Matter #	Matter Description	Total Hours	Total Fees	80% of Fees
001	Midas Green Patent Litigation	11.70	$8,990.00	$7,192.00
004	Whinstone Dispute, Excluding Tarrant County Litigation	144.00	$132,202.25	$105,761.80
007	Retention and Fee Applications	6.00	$6,285.00	$5,028.00
Total		161.7	$147,477.25	$117,981.80

EXHIBIT 2

Summaries of Hours Billed by Stris & Maher Attorneys and Paraprofessionals

Midas Green Patent Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	$1,100.00	6.60	$7,260.00
Bridget Asay	Partner	1997	$1,050.00	.10	$105.00
Andrew Atsalis	Litigation Fellow	N/A	$325.00	5.00	$1,625.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	$1,100.00	6.50	$7,150.00
Bridget Asay	Partner	1997	$1,050.00	17.40	$18,270.00
Victor O'Connell	Partner	2012	$875.00	5.00	$4,375.00
John Stokes	Partner	2016	$875.00	44.10	$38,587.50
Colleen Smith	Associate	2015	$725.00	14.10	$10,222.50
Peter Brody	Associate	2016	$725.00	3.00	$2,175.00
Helen Marsh	Associate	2024	$600.00	22.10	$13,260.00
Andrew Atsalis	Litigation Fellow	N/A	$325.00	5.60	$1,820.00
Cynthia Huang	Litigation Fellow	N/A	$325.00	7.80	$2,535.00
Jaida Hodge-Adams	Litigation Fellow	N/A	$325.00	18.40	$5,980.00

Retention and Fee Applications

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	$1,100.00	4.60	$5,060.00
Victor O'Connell	Partner	2012	$875.00	1.40	$1,225.00

EXHIBIT 3

Summaries of Expenses for the Fee Period

Midas Green Patent Litigation

Expense	Amount
E-discovery platform fees	$3,765.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Expense	Amount
E-discovery platform fees	$1,976.00
Expert fees	$25,851.25
Total	$27,827.25

Stris

January 13, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14380
Client # 00346
Matter # 001

INVOICE SUMMARY

For professional services rendered through December 31, 2024

RE: Midas Green Litigation

Total Professional Services	$ 8,990.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 8,990.00**
Previous Balance	$ 4,926.00
TOTAL BALANCE DUE	**$ 13,916.00**

Electronic Invoice

Invoice # 14380 January 13, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
12/06/24	EB	Review and analyze motion to lift bankruptcy stay to permit resolution of patent case (0.4); correspond with R. Harrington (0.1) and confer with P. Tomasco and R. Harrington (0.2) and Texas counsel (0.2) regarding same.	.90	1100.00	990.00
12/08/24	EB	Review materials in support of request for entry of summary judgment order.	.10	1100.00	110.00
12/09/24	EB	Review and respond to correspondence from Texas counsel regarding steps to seek entry of summary judgment order.	.10	1100.00	110.00
12/10/24	EB	Correspond with R. Harrington regarding proposed revisions to motion to lift stay to permit entry of judgment and next steps in support of same.	.80	1100.00	880.00
12/16/24	BA	Review proposed motion to lift stay in Midas Green litigation and correspond with EB regarding same.	.10	1050.00	105.00
12/17/24	EB	Correspond with [redacted] regarding [redacted].	.10	1100.00	110.00
12/19/24	EB	Correspond with co-counsel R. Harrington regarding status of bankruptcy court submission requesting to lift stay.	.50	1100.00	550.00
12/20/24	EB	Correspond with R. Harrington and Texas counsel regarding submissions to bankruptcy and district courts to request written ruling on summary judgment order (0.8); advise NC and MN regarding draft motion and proposed order seeking same (0.4).	1.20	1100.00	1,320.00
12/23/24	EB	Review draft motion and proposed order asking district court to enter summary judgment order (0.1); advise MN regarding revisions to same (0.2).	.30	1100.00	330.00
12/27/24	EB	Continue revising and drafting portions of motion for order on summary judgment (1.3); review supporting research from ASA (0.1); advise ASA regarding further revisions in light of same (0.2).	1.60	1100.00	1,760.00
12/27/24	ASA	Conducting research and review relevant transcript material to assist EB with portions of motion for written summary judgment order.	2.00	325.00	650.00

Stris

January 13, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14366
Client # 00346
Matter # 004

INVOICE SUMMARY

For professional services rendered through December 31, 2024

RE: Whinstone Litigation

Total Professional Services	$ 104,375.00
Total Expenses Advanced	$ 27,827.25
TOTAL THIS INVOICE	**$ 132,202.25**
Previous Balance	$ 1,722,783.12
TOTAL BALANCE DUE	**$ 1,854,985.37**

Trust Funds Remaining on Account $ 115,369.59

Electronic Invoice

Invoice # 14366 January 13, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
12/02/24	JH	Organize case materials including review and update of bankruptcy docket.	3.00	325.00	975.00
12/03/24	BA	Participate in portion of teleconference with potential [redacted] expert [redacted], with JS, W. Thompson, and A. Davis (0.5); participate in weekly client call with bankruptcy and litigation counsel (0.4); evaluate next steps (0.1).	1.00	1050.00	1,050.00
12/03/24	JS	Attend call with potential [redacted] expert (0.6); attend portion of weekly touch-point call (0.6); evaluate next steps in light of same (0.7).	1.90	875.00	1,662.50
12/03/24	JH	Continue organizing materials for phase 2 and updating bankruptcy docket.	2.00	325.00	650.00
12/04/24	JS	Confer with W. Thompson and J. Cohn regarding timing and strategy for [redacted] phase (0.5); review [redacted] agreements and evaluate same in connection with potential [redacted] (1.7); confer with P. Tomasco regarding same (0.3).	2.50	875.00	2,187.50
12/04/24	CHH	Review and update matter docket.	.10	325.00	32.50
12/04/24	JH	No Charge - Update docket (0.5); review November 26 status conference hearing audio and transcript (2.5).	3.00	325.00	N/C
12/05/24	BA	Correspond with bankruptcy counsel and with JS and PB regarding proposed disclosure of [redacted] materials [redacted] to creditors' committee.	.30	1050.00	315.00
12/05/24	JS	Work on strategy for [redacted] of litigation.	1.90	875.00	1,662.50
12/05/24	CHH	Review and update matter review and update matter docket.	.20	325.00	65.00
12/05/24	JH	No Charge - Update bankruptcy docket.	1.40	325.00	N/C
12/05/24	ASA	Organize case materials including audio files received from court.	.20	325.00	65.00
12/06/24	BA	Participate in teleconference with JS, W. Thompson, A. Davis, and potential [redacted] expert for [redacted] (0.7); correspond with JS and EB regarding potential additional [redacted] modeling by [redacted] (0.1).	.80	1050.00	840.00

Stris & Maher LLP

Invoice # 14366 January 13, 2025

Date	Tkpr	Description	Hours	Rate	Amount
12/06/24	JH	Update bankruptcy docket.	.80	325.00	260.00
12/06/24	EZ	No Charge - Update Bankruptcy docket (1.0).	1.00	325.00	N/C
12/09/24	EB	Attention to case management.	.40	1100.00	440.00
12/09/24	BA	Review and correspond with litigation team regarding revisions to materials for [redacted] (0.7); review and manage response to request from bankruptcy counsel regarding sharing of [redacted] materials in compliance with protective order requirements (0.4).	1.10	1050.00	1,155.00
12/09/24	JS	Review, evaluate, and prepare correspondence regarding [redacted] in relation to Whinstone litigation.	2.40	875.00	2,100.00
12/09/24	HM	Advise and assist CHH to compile [redacted] and corresponding [redacted] for creditors' counsel.	1.10	600.00	660.00
12/10/24	JS	Further review and revise slides regarding [redacted].	.90	875.00	787.50
12/10/24	CHH	Compile and edit [redacted] for creditors' committee's review.	1.50	325.00	487.50
12/10/24	HM	Advise and assist CHH to compile deposition exhibits for creditors' counsel.	.50	600.00	300.00
12/11/24	EB	Correspond with JS and BA regarding additional analysis by [redacted] (0.1); attend teleconference with [redacted] regarding same (0.1).	.20	1100.00	220.00
12/11/24	BA	Correspond with JS, W. Thompson, J. Cohn, and A. Davis regarding [redacted] expert (0.1); correspond with EB and JS regarding next steps for additional [redacted] from [redacted] (0.2).	.30	1050.00	315.00
12/11/24	JS	Further evaluate next steps on [redacted] phase of case (1.3); further review slides and email regarding [redacted] (0.6).	1.90	875.00	1,662.50
12/11/24	CHH	Continue compiling [redacted] materials for creditors' counsel.	5.00	325.00	1,625.00
12/11/24	JH	Update bankruptcy docket.	2.30	325.00	747.50
12/11/24	ASA	Update internal memoranda regarding additional developments.	1.00	325.00	325.00

Stris & Maher LLP

Invoice # 14366 January 13, 2025

Date	Tkpr	Description	Hours	Rate	Amount
12/11/24	HM	Attention to documents collected for creditors' counsel (2.0); coordinate with Todd Stefan of Setec Investigations and [redacted] to transfer [redacted] data to [redacted] (0.4).	2.40	600.00	1,440.00
12/12/24	EB	Correspond with BA and [redacted] regarding teleconference to discuss information in support of [redacted] analysis (0.1); correspond with [redacted] and [redacted] regarding same (0.1).	.20	1100.00	220.00
12/13/24	EB	Prepare for (0.5) and attend (0.4) teleconference with BA, ASA, and [redacted] to discuss information in support of [redacted] analysis; attention to resulting action items including correspondence to client regarding open questions (0.3).	1.20	1100.00	1,320.00
12/13/24	BA	Prepare for (0.2) and attend teleconference with [redacted], EB, BA, and ASA regarding information in support of [redacted] analysis (0.3); correspond with JS and team regarding sharing [redacted] (0.1).	.60	1050.00	630.00
12/13/24	JS	Work on 50(b) opposition.	8.00	875.00	7,000.00
12/13/24	ASA	Attend teleconference with [redacted], EB, and BA regarding information in support of [redacted] analysis (0.3); refine and circulate notes from call (0.1); confirm confidentiality of relevant documents to discuss with client (0.5).	.90	325.00	292.50
12/16/24	EB	Prepare for (0.5) and attend (0.6) teleconference with BA, ASA, [redacted] and [redacted] regarding information in support of [redacted] analysis; attention to resulting action items (0.2); review correspondence regarding and begin reviewing interim order on motion to assume (0.2)	1.50	1100.00	1,650.00
12/16/24	BA	Attend call with EB, BA, ASA, [redacted] and expert [redacted] regarding information in support of [redacted] analysis (0.6).	.60	1050.00	630.00
12/16/24	JS	Attention to high-priority action items in connection with phase two [redacted].	3.30	875.00	2,887.50
12/16/24	CS	Review and analyze bankruptcy court order on phase 1 of motion to assume executory contracts.	1.00	725.00	725.00
12/16/24	JH	Update bankruptcy docket.	1.00	325.00	325.00

Stris & Maher LLP

Invoice # 14366 January 13, 2025

Date	Tkpr	Description	Hours	Rate	Amount
12/16/24	PB	Review and analyze bankruptcy court trial order.	1.20	725.00	870.00
12/16/24	ASA	Attend call with EB, BA, [redacted] and expert [redacted] regarding information in support of [redacted] analysis (0.6); draft and circulate notes (0.4); create shared folder and link to facilitate upload of material by client (0.3).	1.30	325.00	422.50
12/16/24	HM	Review and analyze interim order on phase 1 of the motion to assume.	2.00	600.00	1,200.00
12/17/24	BA	Correspond with bankruptcy counsel regarding [redacted] for sharing with creditors committee, and correspond with JHA and HM to direct preparation of same (0.3); review court's phase 1 ruling (0.8).	1.10	1050.00	1,155.00
12/17/24	JS	Review and evaluate research issues and strategy in connection with phase two [redacted].	2.00	875.00	1,750.00
12/18/24	EB	Attend teleconference with BA and JS regarding status and high priority action items in support of phase two [redacted] claim (0.5); attend teleconference with JS, CS, PB and HM regarding research and high priority action items [redacted] (0.4); correspond with ASA and [redacted] regarding information in support of [redacted] analysis (0.1).	1.00	1100.00	1,100.00
12/18/24	BA	Confer with JS and EB regarding priority action items including [redacted] and [redacted] analyses.	.50	1050.00	525.00
12/18/24	JS	Review and evaluate order on phase 1 and high-priority action items in connection with phase two and [redacted] (3.2); attend teleconferences with EB and BA (0.5) and EB, CS, PB, and HM (0.4) regarding same.	4.10	875.00	3,587.50
12/18/24	CS	Teleconference with EB, HM, JS, HM, and PB regarding research and high priority action items [redacted] (0.4).	.40	725.00	290.00
12/18/24	JH	Prepare materials for Quinn Emmanuel co-counsel [redacted] at HM request.	5.00	325.00	1,625.00
12/18/24	PB	Teleconference with EB, JS, CS, and HM regarding research projects and high-priority action items.	.40	725.00	290.00

Stris & Maher LLP

Invoice # 14366 January 13, 2025

Date	Tkpr	Description	Hours	Rate	Amount
12/18/24	ASA	No Charge - Review and analyze bankruptcy court order on phase 1 of motion to assume executory contracts (0.9).	.90	325.00	N/C
12/18/24	HM	Teleconference with EB, JS, CS, and PB regarding research and high priority action items in support of [redacted] (0.4); coordinate with JHA to collect, quality check, and send [redacted] to creditors' counsel (3.1).	3.50	600.00	2,100.00
12/19/24	VO	Confer with [redacted] regarding materials including [redacted] update and drafting of notice [redacted] (0.1); prepare same (1.9); emails with team regarding same and incorporate team comments (0.3); review [redacted] contract and prepare draft notice [redacted] (0.4); emails with PB regarding same (0.1).	2.80	875.00	2,450.00
12/19/24	EB	Review documentation from [redacted] (0.1); advise ASA regarding analysis of and questions concerning same (0.1).	.20	1100.00	220.00
12/19/24	BA	Review and revise draft materials regarding phase 1 and correspond with JS regarding same (0.2); review email from Whinstone's counsel regarding conferral for phase 2, correspond with JS regarding same, and propose draft response to same to litigation team (0.4); correspond with JS, PB, and HM regarding support for co-counsel response to creditors' committee request for information (0.3); review correspondence with [redacted] and P. Brody regarding technical steps for upcoming production (0.2).	1.10	1050.00	1,155.00
12/19/24	JS	Further evaluate high priority research issues in connection with phase two [redacted].	1.50	875.00	1,312.50
12/19/24	ASA	Analyze updated [redacted] spreadsheet, summarize updates for EB and BA, and provide spreadsheet to [redacted].	2.00	325.00	650.00
12/19/24	HM	Conduct research for [redacted] case (4.2); review and respond to team correspondence regarding materials provided to creditors' counsel (0.5).	4.70	600.00	2,820.00
12/20/24	VO	Review, comment, and correspond with client representatives regarding phase 1 update materials.	.40	875.00	350.00
12/20/24	VO	Correspond with PB regarding notice to begin services [redacted].	.10	875.00	87.50

Stris & Maher LLP

Invoice # 14366 January 13, 2025

Date	Tkpr	Description	Hours	Rate	Amount
12/20/24	EB	Confer with PB regarding action items in support of [redacted] phase (0.1); correspond with BA and JS regarding same (0.1); correspond with [redacted], BA and ASA regarding additional documentation and advise ASA regarding provision of same to [redacted] (0.2); review research updates from HM (0.2).	.60	1100.00	660.00
12/20/24	BA	Review and analyze phase one decision with respect to strategy and options for phase 2 (3.5); correspond with JS, [redacted], and [redacted] regarding response to Whinstone's counsel regarding phase 2 conferral, and revise and send same to Whinstone's counsel (0.4); correspond with EB regarding data for [redacted] (0.1).	4.00	1050.00	4,200.00
12/20/24	CS	Review and analyze Texas law regarding [redacted] in contract disputes [redacted].	5.90	725.00	4,277.50
12/20/24	ASA	Share updated [redacted] spreadsheet with expert [redacted] via secure link.	.20	325.00	65.00
12/20/24	HM	Conduct research for [redacted] case.	2.60	600.00	1,560.00
12/21/24	HM	Continue research for [redacted] case.	2.70	600.00	1,620.00
12/23/24	BA	Continue reviewing and analyzing phase one decision and correspond with JS regarding same (1.0); review research from HM and PB regarding [redacted] issues related to [redacted] and further research same (1.0); review correspondence from Whinstone's counsel regarding phase 2 and correspond with JS and PB regarding same (0.2); review correspondence from [redacted] regarding client matter, confer with JS regarding same, and propose edits to potential [redacted] communication (0.5).	2.70	1050.00	2,835.00
12/23/24	JS	Attention to high-priority action items in connection with phase two [redacted].	5.50	875.00	4,812.50
12/23/24	CS	Continue reviewing and analyzing Texas law regarding [redacted] in contract disputes [redacted].	3.70	725.00	2,682.50
12/23/24	PB	Correspondence regarding questions from counsel for special committee.	.30	725.00	217.50

Invoice # 14366 January 13, 2025

Date	Tkpr	Description	Hours	Rate	Amount
12/24/24	CS	Continue reviewing and analyzing Texas law regarding [redacted] in contract disputes [redacted].	3.10	725.00	2,247.50
12/26/24	VO	Finalize and submit [redacted] (0.5); confer with Rhodium legal counsel regarding same (0.1); emails with client regarding same (0.1).	.70	875.00	612.50
12/26/24	BA	Correspond with bankruptcy counsel regarding disclosures to creditors' committee.	.30	1050.00	315.00
12/26/24	JS	Review and evaluate [redacted] memoranda and next steps on same in connection with phase two [redacted].	2.80	875.00	2,450.00
12/26/24	JH	Update bankruptcy docket and review ongoing correspondence.	3.50	325.00	1,137.50
12/27/24	BA	Continue researching issues relating to [redacted] and correspond with JS regarding same; (1.5); review and revise proposed response to opposing counsel regarding phase 2, correspond with JS regarding same, and convey response to opposing counsel (0.4); correspond with VO regarding availability of trial transcripts (0.1).	1.90	1050.00	1,995.00
12/27/24	JS	Further evaluate research and discovery issues in connection with phase two [redacted].	1.00	875.00	875.00
12/27/24	JH	Send bankruptcy trial transcripts to VO.	.80	325.00	260.00
12/27/24	PB	Research regarding [redacted] clauses.	1.10	725.00	797.50
12/30/24	VO	Confer with JS regarding planning for Phase 2 (0.5); further confer with JS and EB regarding same (0.5).	1.00	875.00	875.00
12/30/24	EB	Confer with VO and JS regarding high priority action items in support of phase 2 [redacted] (0.5); confer with BA regarding expert-related action items in support of same (0.1); correspond with HM regarding [redacted] memorandum (0.2); correspond with CS regarding revisions to [redacted] expert deposition outline (0.1).	.90	1100.00	990.00

Invoice # 14366 January 13, 2025

Date	Tkpr	Description	Hours	Rate	Amount
12/30/24	BA	Review correspondence from opposing counsel regarding case schedule and correspond with team regarding further response (0.3); review client inquiry regarding delivery of new miners and correspond with litigation team regarding response to same (0.2).	.50	1050.00	525.00
12/30/24	JS	Call with EB and VO regarding high priority action items for [redacted] (0.5); call with VO regarding high priority action items for [redacted] (0.5); review materials in connection with [redacted] (1.3).	2.30	875.00	2,012.50
12/31/24	EB	Correspond with BA and JS regarding analysis of [redacted] ancillary services charges (0.2); attention to case management (0.1).	.30	1100.00	330.00
12/31/24	BA	Correspond with litigation team regarding issues related to phase 2 and correspond with opposing counsel regarding same.	.60	1050.00	630.00
12/31/24	JS	Continue research in connection with high-priority action items in connection with [redacted] phase.	2.10	875.00	1,837.50
12/31/24	CHH	Prepare Imperium discovery uploads for transmission to [redacted].	1.00	325.00	325.00
12/31/24	HM	Conduct research for [redacted].	2.60	600.00	1,560.00
		TOTAL PROFESSIONAL SERVICES			**$ 104,375.00**

Stris & Maher LLP

Invoice # 14366 January 13, 2025

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	6.50	1,100.00	7,150.00
Bridget Asay	BA	Partner	17.40	1,050.00	18,270.00
Victor O'Connell	VO	Partner	5.00	875.00	4,375.00
John Stokes	JS	Partner	44.10	875.00	38,587.50
Colleen Smith	CS	Associate	14.10	725.00	10,222.50
Peter Brody	PB	Associate	3.00	725.00	2,175.00
Helen Marsh	HM	Associate	22.10	600.00	13,260.00
Andrew Atsalis	ASA	Fellow	5.60	325.00	1,820.00
Cynthia Huang	CHH	Fellow	7.80	325.00	2,535.00
Jaida Hodge-Adams	JH	Fellow	18.40	325.00	5,980.00
Total			**144.00**		**$ 104,375.00**

EXPENSES ADVANCED

Date	Task	Description	Amount
12/01/24		Logikcull December invoice.	1,976.00
12/20/24		StoneTurn Group - Professional services rendered for November 2024.	25,851.25
		TOTAL EXPENSES ADVANCED	**$ 27,827.25**
		TOTAL THIS INVOICE	**$ 132,202.25**

Stris & Maher LLP

Invoice # 14366 January 13, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14249	11/01/24	79,868.00	63,894.40	15,973.60
14263	11/04/24	1,139,238.00	918,737.10	220,500.90
14269	11/14/24	1,632,686.25	1,329,529.25	303,157.00
14317	12/19/24	1,183,151.62	.00	1,183,151.62
		Previous Balance		$ 1,722,783.12
		Balance Due This Invoice		$ 132,202.25
		TOTAL BALANCE DUE		**$ 1,854,985.37**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
1,183,151.62	$ 303,157.00	$ 236,474.50	$ .00	$$.00	1,722,783.12

Stris & Maher LLP

Invoice # 14380 January 13, 2025

Date	Tkpr	Description	Hours	Rate	Amount
12/30/24	EB	Review updated drafts (0.1); advise ASA regarding further changes (0.1); and continue revising draft motion for entry of written order confirming grant of summary judgment (0.3).	.50	1100.00	550.00
12/30/24	ASA	Draft proposed order and portions of motion for written summary judgment order for EB and assist with revisions to same.	3.00	325.00	975.00
12/31/24	EB	Continue revising motion for entry of written summary judgment order.	.50	1100.00	550.00
		TOTAL PROFESSIONAL SERVICES			**$ 8,990.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	6.60	1,100.00	7,260.00
Bridget Asay	BA	Partner	.10	1,050.00	105.00
Andrew Atsalis	ASA	Fellow	5.00	325.00	1,625.00
Total			**11.70**		**$ 8,990.00**

TOTAL THIS INVOICE **$ 8,990.00**

Invoice # 14380 January 13, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14251	11/01/24	855.00	684.00	171.00
14257	11/04/24	8,190.00	8,058.00	132.00
14283	11/14/24	4,755.00	4,557.00	198.00
14330	12/19/24	4,425.00	.00	4,425.00

Previous Balance	$ 4,926.00
Balance Due This Invoice	$ 8,990.00
TOTAL BALANCE DUE	**$ 13,916.00**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 4,425.00	$ 198.00	$ 303.00	$ .00	$ .00	$ 4,926.00

Stris

January 13, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14381
Client # 00346
Matter # 007

INVOICE SUMMARY

For professional services rendered through December 31, 2024

RE: Retention and Fee Applications

Total Professional Services	$ 6,285.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 6,285.00**
Previous Balance	$ 58,220.00
TOTAL BALANCE DUE	**$ 64,505.00**

Electronic Invoice

Stris & Maher LLP

Invoice # 14381 January 13, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
12/13/24	EB	Continue preparing portions of November fee statement.	1.40	1100.00	1,540.00
12/17/24	EB	Continue preparing portions of November fee statement.	.90	1100.00	990.00
12/19/24	EB	Continue preparing portions of November fee statement.	2.30	1100.00	2,530.00
12/20/24	VO	Work on fee application.	1.40	875.00	1,225.00
		TOTAL PROFESSIONAL SERVICES			**$ 6,285.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	4.60	1,100.00	5,060.00
Victor O'Connell	VO	Partner	1.40	875.00	1,225.00
Total			**6.00**		**$ 6,285.00**

TOTAL THIS INVOICE **$ 6,285.00**

Invoice # 14381 January 13, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14261	11/04/24	47,165.00	37,732.00	9,433.00
14284	11/14/24	12,985.00	10,388.00	2,597.00
14331	12/19/24	46,190.00	.00	46,190.00

Previous Balance	$ 58,220.00
Balance Due This Invoice	$ 6,285.00
TOTAL BALANCE DUE	**$ 64,505.00**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 46,190.00	$ 2,597.00	$ 9,433.00	$ .00	$ .00	$ 58,220.00

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

STRIS & MAHER LLP'S FIFTH MONTHLY FEE STATEMENT
FOR THE PERIOD JANUARY 1, 2025, THROUGH JANUARY 31, 2025

Stris & Maher LLP ("Stris & Maher") submits, pursuant to the Order Granting the Motion of the Debtors to Establish Procedures for Interim Compensation and Reimbursement of Expenses for Professionals (the "Interim Compensation Order") (ECF No. 264) entered on October 14, 2024, this monthly fee statement for the payment of interim compensation rendered and reimbursement of expenses incurred during the period January 1, 2025 through January 31, 2025 (the "Monthly Fee Statement").

Stris & Maher seeks payment of interim compensation in the total amount of $531,962.00 (80% of the services rendered), plus $209,033.47 (100% of the interim expenses incurred). *See* Interim Compensation Order at ¶ 1(a). Summaries of the fees and expenses are attached as Exhibits 1, 2, and 3. Invoices reflecting detailed time entries are attached hereto as Exhibit 4.

[1] Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), Rhodium Encore Sub LLC (1064), Rhodium Enterprises, Inc. (6290), Rhodium Industries LLC (4771), Rhodium Ready Ventures LLC (8618), Rhodium Renewables LLC (0748), Rhodium Renewables Sub LLC (9511), Rhodium Shared Services LLC (5868), and Rhodium Technologies LLC (3973). The mailing and service address of Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

Pursuant to the Interim Compensation Order, any party objecting to the payment of interim compensation and reimbursement of expenses shall serve within 14 days after delivery of the Monthly Fee Statement a written notice, via email, upon Stris & Maher and each of the other Fee Notice Parties (as listed below) (the "Written Notice"). The Written Notice shall set forth with reasonable detail the nature of the objection and the amount at issue. If the parties are unable to reach a resolution of the objection within 14 calendar days, the objecting party shall file its objection (the "Objection") with this Court within 3 business days and serve such Objection on Stris & Maher and each of the other Fee Notice Parties. See Interim Compensation Order ¶ 1(c).

The Fee Notice Parties as defined in the Interim Compensation Order are:

a. Rhodium Enterprises, Inc., Attn: Charles Topping (chucktopping@rhdm.com) and Morgan Soule (morgansoule@rhdm.com), 2617 Bissonnet Street, Suite 234, Houston, Texas 77005;

b. Debtors' Bankruptcy Counsel, c/o Quinn Emanuel Urquhart & Sullivan, LLP, Attn: Patricia B. Tomasco (pattytomasco@quinnemanuel.com); Razmig Izakelian (razmigizakelian@quinnemanuel.com), Alain Jaquet (alainjaquet@quinnemanuel.com), and Joanna D. Caytas (joannacaytas@quinnemanuel.com), 700 Louisiana, Suite 3900, Houston, Texas 77002;

c. Debtors' Financial Advisor, c/o Province, Attn: Mark Robinson (mrobinson@provincefirm.com); David Dunn (ddunn@provincefirm.com); Kirsten Lee (klee@province.com); and Andrew Popescu (apopescu@provincefirm.com), 2360 Corporate Circle, Suite 340, Henderson, Nevada 89074;

d. Galaxy Digital, LLC, in its capacity as DIP Agent, c/o Orrick, Herrington & Sutcliffe LLP, Ryan C. Wooten (rwooten@orrick.com), 609 Main, 40th Floor, Houston, Texas 77002, and Robert Trust (rtrust@orrick.com), Mark Franke (mfranke@orrick.com) and Brandon Batzel (bbatzel@orrick.com), 51 West 52nd Street, New York, New York 10019;

e. Counsel or proposed counsel to any statutory committee appointed in these Chapter 11 Cases; and

f. United States Trustee, Ha Minh Nguyen (ha.nguyen@usdoj.gov), 515 Rusk, Suite 3516, Houston, Texas 77002.

If no objection is timely served pursuant to the Interim Compensation Order, the Debtors shall be authorized and directed to pay Stris & Maher an amount equal to 80% of the fees and 100% of the expenses listed herein, or if an objection is timely served, such percentage of fees and expenses that are not subject to an objection, as stated in the Interim Compensation Order.

Respectfully submitted this 24th day of February, 2025.

QUINN EMANUEL URQUHART & SULLIVAN, LLP

/s/ Patricia B. Tomasco
Patricia B. Tomasco (SBN 01797600)
Joanna D. Caytas (SBN 24127230)
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-and-

STRIS & MAHER LLP

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Victor O'Connell (pro hac vice)
John Stokes (pro hac vice)
Peter Brody (pro hac vice)
Helen Marsh (pro hac vice)

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-and-

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408 W. 11th Street, 5th Floor
Austin, TX 78701

Counsel for Debtors and Debtors in Possession

CERTIFICATE OF SERVICE

I certify that, on February 24, 2025, a true and correct copy of the foregoing Monthly Fee Statement was served through the Court's Electronic Case Filing system of the United States Bankruptcy Court for the Southern District of Texas.

/s/ Patricia B. Tomasco
Patricia B. Tomasco

EXHIBIT 1

Summary of Legal Fees for the Fee Period

Matter #	Matter Description	Total Hours	Total Fees	80% of Fees
001	Midas Green Patent Litigation	19.6	$21,615.00	$17,292.00
004	Whinstone Dispute, Excluding Tarrant County Litigation	814.6	$634,762.50	$507,810.00
007	Retention and Fee Applications	8.3	$8575.00	$6,860.00
Total			$664,952.50	$531,962.00

EXHIBIT 2

Summaries of Hours Billed by Stris & Maher Attorneys and Paraprofessionals

Midas Green Patent Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	$1,250.00	11.90	$14,875.00
Bridget Asay	Partner	1997	$1,200.00	2.20	$2,640.00
Ken Halpern	Partner	1997	$1,100.00	2.90	$3,190.00
Andrew Atsalis	Litigation Fellow	N/A	$350.00	2.60	$910.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Peter Stris	Founding Partner	2001	$1,450.00	9.00	$13,050.00
Elizabeth Brannen	Managing Partner	2001	$1,250.00	72.80	$91,000.00
Bridget Asay	Partner	1997	$1,200.00	82.90	$99,480.00
Tillman Breckenridge	Partner	2003	$1,200.00	19.30	$23,160.00
Victor O'Connell	Partner	2012	$1,025.00	6.60	$6,765.00
John Stokes	Partner	2016	$1,025.00	80.40	$82,410.00
Colleen Smith	Associate	2015	$850.00	103.20	$87,720.00
Peter Brody	Associate	2016	$850.00	15.10	$12,835.00
Sarah Rahimi	Associate	2019	$750.00	80.00	$60,000.00
Helen Marsh	Associate	2024	$700.00	47.30	$33,110.00
Tanya Tice	Discovery Associate	1989	$525.00	115.50	$60,637.50
Monica Viramontes	Senior Paralegal	N/A	$425.00	9.60	$4,080.00
Andrew Atsalis	Litigation Fellow	N/A	$350.00	36.40	$12,740.00
Cynthia Huang	Litigation Fellow	N/A	$350.00	40.90	$14,315.00
Sebastian Delgado	Litigation Fellow	N/A	$350.00	.90	$315.00
Shayra Banta	Litigation Fellow	N/A	$350.00	23.20	$8,120.00
Nicholas Capalbo	Litigation Fellow	N/A	$350.00	25.40	$8,890.00
Jaida Hodge-Adams	Litigation Fellow	N/A	$350.00	46.10	$16,135.00

Retention and Fee Applications

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	$1,250.00	5.70	$7,125.00
Victor O'Connell	Partner	2012	$1,025.00	.80	$820.00
Nicholas Capalbo	Litigation Fellow	N/A	$350.00	1.80	$630.00

EXHIBIT 3

Summaries of Expenses for the Fee Period

Midas Green Patent Litigation

Expense	Amount
E-discovery platform fees	$3,765.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Expense	Amount
Printing for Phase 1 hearing	$6,687.77
Hotel accommodations for Phase 1 hearing	$30,919.21
Legal research	$116.49
Press release	$349.00
Litigation Support Vendors	$2,550.00
E-discovery platform fees	$2,646.00
Expert services for Phase 1 hearing	$162,000.00
Total	$205,268.47

EXHIBIT 4

Stris

February 21, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14471
Client # 00346
Matter # 001

INVOICE SUMMARY

For professional services rendered through January 31, 2025

RE: Midas Green Litigation

Total Professional Services	$ 21,615.00
Total Expenses Advanced	$ 3,765.00
TOTAL THIS INVOICE	**$ 25,380.00**
Previous Balance	$ 2,431.00
TOTAL BALANCE DUE	**$ 27,811.00**

Electronic Invoice

Stris & Maher LLP

Invoice # 14471 February 21, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
1/02/25	EB	Revise motion for entry of written summary judgment order and proposed order in support of same (1.1); correspond with BA regarding same (0.1).	1.20	1250.00	1,500.00
1/02/25	BA	Begin reviewing proposed filings seeking entry of judgment upon lifting of stay.	.30	1200.00	360.00
1/03/25	EB	Review materials in support of revisions to motion requesting written summary judgment order (0.5); correspond with BA, KH, PB, and SR regarding information in support of revisions to same and updated draft motion to lift stay from bankruptcy counsel (0.5); review and analyze related analysis and correspondence from BA and KH (0.3); revise and propose further revisions to both motions and accompanying proposed orders (1.9); correspond with bankruptcy and Texas counsel regarding same (0.1).	3.30	1250.00	4,125.00
1/03/25	BA	Review, analyze, and edit proposed filings seeking lifting of bankruptcy stay and entry of judgment upon lifting of stay, and correspond with EB and KH regarding same.	1.90	1200.00	2,280.00
1/03/25	ASA	Assist EB with analysis of named defendants in support of motion to lift stay.	.20	350.00	70.00
1/04/25	KJH	Research injunction waiver and review and provide related and additional comments on draft motion to lift stay.	2.90	1100.00	3,190.00
1/06/25	EB	Review and analyze proposed revisions from Texas counsel (0.1); correspond with Texas counsel regarding same (0.1).	.20	1250.00	250.00
1/07/25	EB	Review and analyze revisions proposed by Texas counsel to district court submission to prepare for upcoming discussion (0.2); attend teleconference with Texas counsel regarding same and corresponding bankruptcy court submission (0.4); correspond with Texas counsel regarding draft bankruptcy court submission and potential further revisions to same and district court submission (0.1); correspond with litigation fellows and Texas counsel regarding Midas Green bankruptcy proofs of claim (0.1); begin reviewing same and providing information to bankruptcy counsel in support of objections to same (0.5).	1.30	1250.00	1,625.00

Stris & Maher LLP

Invoice # 14471 February 21, 2025

Date	Tkpr	Description	Hours	Rate	Amount
1/07/25	ASA	Review and circulate Midas Green proof of claim for EB.	1.70	350.00	595.00
1/08/25	EB	Advise ASA and MN regarding compilation of documents requested by bankruptcy counsel (0.3); review and provide same (0.2); correspond with bankruptcy counsel (0.3) and Texas counsel (0.1) regarding status and supporting analysis.	.90	1250.00	1,125.00
1/08/25	ASA	Collect redacted documents from docket to assist preparation of Motion to Lift Stay in bankruptcy court in coordination with EB and MN.	.70	350.00	245.00
1/13/25	EB	Correspond with [redacted] regarding preservation notice and update Texas counsel regarding anticipated timing.	.10	1250.00	125.00
1/17/25	EB	Review objection status and deadline.	.10	1250.00	125.00
1/21/25	EB	Attend teleconference with [redacted] regarding request to lift stay to permit entry of summary judgment order and related action items (0.2); begin preparing description of invalidity and inequitable conduct claims (0.5).	.70	1250.00	875.00
1/22/25	EB	Review materials regarding status of claims and prepare draft invalidity and inequitable conduct claim description (0.8); correspond with BA, JS, and VO regarding same (0.2); correspond with [redacted] regarding reminder preservation notice (0.1).	1.10	1250.00	1,375.00
1/23/25	EB	Correspond with [redacted] regarding [redacted].	.20	1250.00	250.00
1/30/25	EB	Review and update Texas counsel regarding order lifting stay (0.1); draft meet and confer correspondence to opposing counsel (0.1); revise motion for entry of written summary judgment order (1.9); review and update client and co-counsel regarding correspondence from district court clerk and proposed response to same (0.2).	2.30	1250.00	2,875.00
1/31/25	EB	Evaluate response to correspondence from district court clerk (0.3); correspond with [redacted] and bankruptcy counsel regarding same (0.1); correspond with Texas counsel regarding correspondence to district court clerk regarding bankruptcy order (0.1).	.50	1250.00	625.00

TOTAL PROFESSIONAL SERVICES **$ 21,615.00**

Invoice # 14471 February 21, 2025

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	11.90	1,250.00	14,875.00
Bridget Asay	BA	Partner	2.20	1,200.00	2,640.00
Ken Halpern	KJH	Partner	2.90	1,100.00	3,190.00
Andrew Atsalis	ASA	Fellow	2.60	350.00	910.00
Total			**19.60**		**$ 21,615.00**

EXPENSES ADVANCED

Date	Task	Description	Amount
12/31/24		JND Discovery Invoice for December 2024.	3,765.00
		TOTAL EXPENSES ADVANCED	**$ 3,765.00**
		TOTAL THIS INVOICE	**$ 25,380.00**

Invoice # 14471 February 21, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14251	11/01/24	855.00	684.00	171.00
14257	11/04/24	8,190.00	8,058.00	132.00
14283	11/14/24	4,755.00	4,557.00	198.00
14330	12/19/24	4,425.00	4,293.00	132.00
14380	1/13/25	8,990.00	7,192.00	1,798.00

Previous Balance	$ 2,431.00
Balance Due This Invoice	$ 25,380.00
TOTAL BALANCE DUE	**$ 27,811.00**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ .00	$ 1,798.00	$ 132.00	$ 501.00	$ .00	$ 2,431.00

Stris

February 21, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14459
Client # 00346
Matter # 004

INVOICE SUMMARY

For professional services rendered through January 31, 2025

RE: Whinstone Litigation

Total Professional Services	$ 634,762.50
Total Expenses Advanced	$ 205,268.47
TOTAL THIS INVOICE	**$ 840,030.97**
Previous Balance	$ 721,359.00
TOTAL BALANCE DUE	**$ 1,561,389.97**

Trust Funds Remaining on Account $ 115,369.59

Electronic Invoice

Invoice # 14459 February 21, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
1/02/25	EB	Attention to case management.	.30	1250.00	375.00
1/02/25	JS	Assign and advise Stris team regarding high priority phase two and damages case research issues.	1.30	1025.00	1,332.50
1/02/25	HM	Continue conducting research for affirmative damages case.	4.60	700.00	3,220.00
1/03/25	VO	Confer with PS, EB, and JS regarding Phase 2 strategy and planning.	.90	1025.00	922.50
1/03/25	PS	Teleconference with EB, JS, and VO regarding phase two strategy and planning.	.90	1450.00	1,305.00
1/03/25	EB	Review update from HM regarding [redacted] research (0.2); attend teleconference with PS, VO, and JS regarding phase 2 strategy and planning (0.9); confer with BA and JS regarding expert-related action items in support of phase 2 and affirmative damages claim (0.8); correspond with PB, HM, MV and litigation fellows regarding text messages for TT analysis (0.1); prepare correspondence to TT regarding upcoming project in support of phase 2 trial preparation (0.1).	2.10	1250.00	2,625.00
1/03/25	BA	Confer with JS and EB regarding expert-related action items (0.8); correspond with [redacted] (0.1).	.90	1200.00	1,080.00
1/03/25	JS	Call with EB and BA regarding expert action items on phase two and damages case (0.8); call with EB, PS, and VO regarding phase two strategy and planning (0.9); evaluate high priority expert action items in relation to damages case and phase two (2.4).	4.10	1025.00	4,202.50
1/03/25	HM	Continue drafting damages-phase document review memorandum (0.7).	.70	700.00	490.00
1/04/25	EB	Prepare for (0.1) and attend (0.3) teleconference with BA and [redacted] regarding analysis in support of phase 2 [redacted]; confer with BA regarding resulting action items and other damages expert analysis for phase 2 (0.3).	.70	1250.00	875.00
1/04/25	BA	Prepare for meeting with [redacted] to discuss potential further analysis of [redacted] (0.3); participate in teleconference with [redacted] and EB to discuss same (0.3); confer with EB regarding expert-related action items (0.3).	.90	1200.00	1,080.00

Stris & Maher LLP

Invoice # 14459 February 21, 2025

Date	Tkpr	Description	Hours	Rate	Amount
1/05/25	BA	Review correspondence from expert [redacted] and correspond with [redacted] and JS and EB regarding next steps.	.20	1200.00	240.00
1/06/25	EB	Prepare for (0.1) and attend (0.4) teleconference with CS regarding [redacted] outline; attend teleconference with SR regarding action items in support of [redacted] analysis and phase 2 testimony (0.3).	.80	1250.00	1,000.00
1/06/25	JS	Correspond with client regarding status and next steps for phase two of assumption litigation (0.4); evaluate and advance expert and research action items for phase two and damages case (3.0).	3.40	1025.00	3,485.00
1/06/25	SR	Confer with EB regarding action items relating to [redacted] phase 2 and damages case.	.30	750.00	225.00
1/06/25	CS	Teleconference with EB to discuss [redacted] deposition outline (0.4); review and analyze [redacted] expert report (2.7).	3.10	850.00	2,635.00
1/06/25	HM	Continue drafting document review memorandum for damages and phase 2.	2.10	700.00	1,470.00
1/07/25	EB	Attend teleconference with BA, JS, and PB regarding damages claim and phase 2 document review memorandum and next steps in support of review (0.3); correspond with TT regarding action items in support of damages and phase 2 text message review (0.2)	.50	1250.00	625.00
1/07/25	BA	Correspond and confer with litigation team and P. Tomasco regarding lack of response from Whinstone's counsel regarding phase 2 and correspond with M. Thomas regarding same and intent to seek status conference (0.8); draft emergency motion for status conference, correspond with litigation team and P. Tomasco regarding edits to same and finalization of same, and correspond with B. Howell regarding finalization and filing of same (2.7); review response from M. Thomas regarding phase 2 and analysis of same from JS (0.2); attend meeting with EB, JS, and PB to discuss strategy for preparation for upcoming trial proceedings (0.3).	4.00	1200.00	4,800.00
1/07/25	JS	Attend meeting with BA, EB, and PB to discuss strategy for preparation for upcoming trial proceedings (0.3); review and evaluate memorandum regarding review for damages case (0.3); move forward high priority action items for phase 2 and damages case (3.3).	3.90	1025.00	3,997.50

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Date	Tkpr	Description	Hours	Rate	Amount
1/07/25	SR	Begin reviewing materials to assist BA, EB, JS in [redacted] phase 2 and damages analysis.	6.10	750.00	4,575.00
1/07/25	CS	Review and analyze [redacted] reports in preparation for taking [redacted] deposition.	4.60	850.00	3,910.00
1/07/25	PB	Attend meeting with BA, EB, and JS to discuss strategy for preparation for upcoming trial proceedings.	.30	850.00	255.00
1/07/25	HM	Continue drafting damages-phase document review memorandum (2.2).	2.20	700.00	1,540.00
1/08/25	VO	Emails with client representatives and client's legal counsel regarding Whinstone objection to installation of miners (0.3); confer and correspond with JS and W. Thompson regarding same (1.1).	1.40	1025.00	1,435.00
1/08/25	EB	Review and correspond with BA, JS, PB, and HM regarding revisions to damages and phase 2 document review memorandum (0.7); prepare for (0.2) and attend (0.5) teleconference with TT regarding text message review and analysis in support of damages claim and phase 2; correspond with PB and HM regarding supporting action items (0.1).	1.50	1250.00	1,875.00
1/08/25	BA	Review correspondence between client and Whinstone regarding miner replacement and correspond with JS and litigation team regarding strategy for response to same (0.4); review draft review memorandum for damages phase and correspond with HM, EB, PB, and JS regarding strategy for and revisions to same (0.3); review draft notice of hearing and correspond with B. Howell regarding filing of same (0.1).	.80	1200.00	960.00
1/08/25	JS	Evaluate next steps and prepare correspondence and research regarding Whinstone refusal to cooperate with miner swap.	5.30	1025.00	5,432.50
1/08/25	SR	Continue reviewing materials to assist BA, EB, JS in [redacted] phase 2 and damages analysis.	6.50	750.00	4,875.00
1/08/25	CS	Continue reviewing and analyzing [redacted] reports and [redacted] report in preparation for [redacted] deposition.	6.30	850.00	5,355.00
1/08/25	PB	Review and revise draft memorandum regarding Phase 2 document analysis (1.2); teleconference with MV regarding Phase 2 preparation (0.2).	1.40	850.00	1,190.00

Stris & Maher LLP

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Date	Tkpr	Description	Hours	Rate	Amount
1/08/25	TT	Review materials including draft memorandum from HM to prepare for hot document assessment for damages and phase 2 (0.7); confer with EB regarding phase two litigation and affirmative damages in support of hot document assessment (0.5); prepare summary and analysis of [redacted] texts in support of same (6.0).	7.20	525.00	3,780.00
1/09/25	VO	Attend conference call with client representatives and client's legal counsel regarding miner installation dispute (0.8); emails with client and team regarding same (0.5).	1.30	1025.00	1,332.50
1/09/25	EB	Review initial summary and analysis from TT regarding text message review (0.5); advise TT regarding revisions to same (0.2); prepare for (0.4) and attend (1.0) teleconference with BA, JS, SR, and [redacted] regarding [redacted] in support of phase 2; review further information from [redacted] (0.1); correspond with BA, JS, and SR regarding same (0.1).	2.30	1250.00	2,875.00
1/09/25	BA	Correspond with litigation team and client regarding Whinstone's refusal to cooperate in replacement of miners and response to same (0.6); participate in teleconference with litigation team, bankruptcy counsel, and client team to address Whinstone's refusal to cooperate in replacement of miners (0.5); correspond further with J. Cohn, W. Thompson, and JS regarding email to Whinstone's counsel regarding same, correspond and confer with JS regarding same, and email Whinstone's counsel regarding same (0.5); begin drafting emergency motion seeking status conference to address Whinstone's refusal to cooperate in replacement of miners (2); participate in teleconference with [redacted], EB, SR, and JS to discuss analysis of [redacted] as relevant to phase 2 and to affirmative damages claim (1).	4.60	1200.00	5,520.00
1/09/25	JS	Prepare emergency motion regarding Whinstone actions in connection with miner swap (3.5); evaluate strategy and next steps in connection with same (3.4); attend teleconference with BA, SR, EB, and [redacted] regarding [redacted] in connection with phase 2 and damages (1.0).	7.90	1025.00	8,097.50
1/09/25	SR	Attend videoconference with [redacted], EB, BA, JS to discuss phase 2 and damages analysis (1); continue reviewing materials in connection with the same (5.5).	6.50	750.00	4,875.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/09/25	CS	Begin drafting outline for deposition of [redacted].	5.00	850.00	4,250.00
1/09/25	TT	Prepare summary and analysis of [redacted] texts in support of phase two litigation and affirmative damages hot document assessment (9.2)	9.20	525.00	4,830.00
1/10/25	VO	Emails with client and legal teams regarding new roadblocks from Whinstone regarding miner installation and Rhodium response to same (0.6); videoconference with client and legal teams regarding same (0.9).	1.50	1025.00	1,537.50
1/10/25	EB	Review and respond to team and client correspondence regarding status and high priority action items (0.1); attend teleconference with CS regarding [redacted] deposition [redacted] and [redacted] fact-gathering in support of same (0.1); attend teleconference with HM regarding discovery-related action items including revisions to review memorandum (0.1); begin reviewing and annotating materials in support of [redacted] damages and potential phase 2 analysis (1.0).	1.30	1250.00	1,625.00
1/10/25	BA	Correspond with [redacted] and P. Tomasco regarding deposition schedule (0.1); participate in teleconference with P. Tomasco, W. Thompson, J. Cohn, and JS to discuss preparation for status conference regarding phase 2 and issues related to miner replacement (1); participate in teleconference with A. Swartz, T. Disher, and [redacted] to discuss issues related to [redacted], correspond with litigation team regarding next steps with [redacted], and convey materials to A. Swartz related to same (0.6); correspond with litigation team and client team regarding Whinstone's refusal to cooperate with miner replacement and participate in teleconference with client team and litigation team regarding Whinstone's refusal to cooperate with miner replacement (1); correspond with JS and W. Thompson regarding Monday's status conference, review analysis of W. Thompson for same, correspond with JS, HM, and PB regarding analysis needed to prepare for same, and begin preparing for same (2).	4.70	1200.00	5,640.00
1/10/25	JS	Assist in preparation for status conference regarding phase 2 (5.3); attend teleconference with J. Cohn, W. Thompson, P. Tomasco, and BA regarding same (1.0).	6.30	1025.00	6,457.50
1/10/25	SR	Continue reviewing materials to assist BA, EB, JS in [redacted] phase 2 and damages analysis.	6.90	750.00	5,175.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/10/25	CS	Meet with EB to discuss progress on [redacted] deposition outline (0.1); review and analyze articles and papers [redacted] (1.0); continue drafting outline for [redacted] deposition (6.5).	7.60	850.00	6,460.00
1/10/25	PB	Draft analysis of invoices submitted by Whinstone in support of potential Phase 2 litigation.	1.20	850.00	1,020.00
1/10/25	HM	Continue drafting phase 2 and affirmative damages claim document review memorandum (4.4); teleconference with EB about document review memorandum (0.1); assist BA and JS with emergency status conference preparation (1.5).	6.00	700.00	4,200.00
1/10/25	TT	Continue preparing summary and analysis of [redacted] texts in support of phase two litigation and affirmative damages hot document assessment.	9.10	525.00	4,777.50
1/11/25	EB	Review correspondence and propose revised response to correspondence from Whinstone (0.1); correspond with JS regarding same (0.1); attend teleconferences with [redacted] (0.1) and [redacted] (0.2) regarding same and related action items; correspond with BA and JS regarding updating of document preservation notice (0.1).	.60	1250.00	750.00
1/11/25	BA	Prepare for hearing on scope of phase 2, including review of pleadings and evidence (2.9); review prior document hold letter and correspond with EB regarding [redacted] (0.1); correspond with P. Tomasco, W. Thompson, and JS regarding deposition dates (0.1).	3.10	1200.00	3,720.00
1/11/25	JS	Assist in preparation for status conference regarding Phase II issues.	2.20	1025.00	2,255.00
1/11/25	CS	Continue drafting outline for deposition of [redacted].	1.70	850.00	1,445.00
1/12/25	BA	Prepare for status conference, including research, outline and slide preparation, review of pleadings, and correspondence with JS and P. Tomasco (3.5); correspond with opposing counsel regarding deposition schedule (0.1).	3.60	1200.00	4,320.00
1/12/25	CS	Continue drafting outline for deposition of [redacted].	.90	850.00	765.00
1/12/25	PB	Draft analysis of invoices in preparation for status conference regarding Phase 2.	1.50	850.00	1,275.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/12/25	HM	Assist BA and JS with preparation for emergency status conference (0.4); continue drafting phase 2 and affirmative damages case document review memorandum (0.7).	1.10	700.00	770.00
1/12/25	TT	Continue preparing summary and analysis of [redacted] texts.	1.60	525.00	840.00
1/13/25	VO	Confer with JS and client legal counsel regarding [redacted] (0.2); emails with team and Rhodium regarding same (0.1); emails with JS and EB and confer with JS regarding analysis of [redacted] in connection with potential [redacted] (0.4).	.70	1025.00	717.50
1/13/25	EB	Correspond with [redacted], SR, and review and respond to team correspondence including TT, BA, JS, PB, and ASA regarding TT review of text messages (0.4); continue reviewing and annotating materials in support of [redacted], damages, and phase 2 analysis (1.5).	1.90	1250.00	2,375.00
1/13/25	BA	Prepare for and participate in status conference regarding scope of phase 2, including conferring with JS and corresponding with P. Tomasco regarding slide revisions (3.4); correspond with JS and team regarding follow up to status conference, and correspond with opposing counsel regarding same (0.2); correspond with JS and W. Thompson regarding proposed meet and confer, and correspond with [redacted], litigation team, and bankruptcy counsel regarding mediation [redacted] (0.2); review initial text message analysis and correspond with EB and JS regarding same (0.2).	4.00	1200.00	4,800.00
1/13/25	JS	Prepare for (0.3) and attend conference regarding phase II issues (0.5); confer with BA to prepare for same (0.5); evaluate and implement high priority action items in light of same (2.3); confer with CS regarding [redacted] deposition (0.2).	3.80	1025.00	3,895.00
1/13/25	CS	Listen to court hearing on need and subject of Phase II trial (0.7); meet with JS to discuss status of miner installation at Rockdale (0.2); review email communications related to the same (0.3); continue drafting outline for deposition of [redacted] (6.6).	7.80	850.00	6,630.00
1/13/25	PB	Attend hearing regarding schedule for trial phase two.	.50	850.00	425.00
1/13/25	HM	Continue drafting and revising phase 2 and affirmative damages case document review memorandum (1.5).	1.50	700.00	1,050.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/13/25	TT	Continue preparing summary and analysis of [redacted] texts.	8.50	525.00	4,462.50
1/14/25	EB	Review and respond to team correspondence and correspond with Stris team members regarding high priority action items (0.4); update TB regarding [redacted] analysis request in support of [redacted] (0.1); continue analyzing and annotating materials in support of [redacted] damages and phase analysis (1.2); attend teleconference with SR regarding same (0.2); review draft report from client (0.1); attend teleconference with clients, JS, co-counsel, and [redacted] regarding next steps in the wake of same (0.4); attend portion of checkpoint teleconference with BA, JS, clients and co-counsel (0.5).	2.90	1250.00	3,625.00
1/14/25	BA	Attend strategy call with litigation team, bankruptcy team, and client team (0.4); correspond with JS regarding [redacted] issue raised by client (0.1); correspond with bankruptcy counsel regarding discovery information for [redacted] and correspond with PB regarding responses to same (0.3).	.80	1200.00	960.00
1/14/25	JS	Attend teleconferences regarding [redacted] (0.4) and weekly touchpoint (0.5); evaluate next steps for phase 2 and potential mediation in light of status conference (0.5).	1.40	1025.00	1,435.00
1/14/25	SR	Continue reviewing and analyzing material and begin drafting [redacted] in support of [redacted], damages, and expert analysis (4.3); attend teleconference with EB regarding the same (0.2).	4.50	750.00	3,375.00
1/14/25	TB	Call with EB to discuss contract question regarding [redacted].	.10	1200.00	120.00
1/14/25	CS	Continue drafting outline for [redacted] deposition.	5.30	850.00	4,505.00
1/14/25	NC	Schedule meeting for EB & SR; correspond with EB regarding same.	.10	350.00	35.00
1/14/25	PB	Revise analysis of produced invoices.	.30	850.00	255.00
1/14/25	HM	Revise phase 2 and affirmative damages case document review memorandum (1.5).	1.50	700.00	1,050.00
1/14/25	TT	Continue preparing summary and analysis of [redacted] texts.	8.30	525.00	4,357.50

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Date	Tkpr	Description	Hours	Rate	Amount
1/15/25	PS	Teleconference with EB regarding strategy (0.3); prepare for upcoming strategy team calls (1.9).	2.20	1450.00	3,190.00
1/15/25	EB	Continue analyzing and annotating information in support of [redacted] phase 2 and damages claims (3.0); correspond with Stris team members regarding status and phase 2 action items (0.5); attend teleconference with PS regarding high priority action items and matter strategy (0.3).	3.80	1250.00	4,750.00
1/15/25	BA	Correspond and confer with PB and JS regarding Whinstone/Riot invoices (0.4); prepare for meet and confer with opposing counsel, confer with JS regarding same, and participate in meet and confer with opposing counsel (0.8); correspond with PB regarding invoice analysis and review further analysis of unpaid invoices, and correspond with JS regarding strategy for addressing invoices disputes with court (0.4).	1.60	1200.00	1,920.00
1/15/25	JS	Confer with BA to prepare for meet and confer regarding mediation and phase 2 (0.2); attend meet and confer with opposing counsel and [redacted] regarding mediation and phase 2 (0.5); evaluate strategic next steps in connection with [redacted] issues (1.0); evaluate legal issues surrounding Whinstone invoice claims and [redacted] argument (2.5).	4.20	1025.00	4,305.00
1/15/25	SR	Continue reviewing and analyzing material and drafting notes in support of [redacted] claims, damages, and expert analysis.	8.60	750.00	6,450.00
1/15/25	CS	Continue drafting outline for deposition of [redacted]; review and analyze data and documents relevant to the same.	7.60	850.00	6,460.00
1/15/25	CHH	Review and circulate attachments to produced [redacted] messages for document review efforts.	.30	350.00	105.00
1/15/25	PB	Teleconference with BA and JS regarding invoice analysis (0.6); correspondence with BA and JS regarding same (0.5).	1.10	850.00	935.00
1/15/25	HM	Review and respond to team correspondence regarding phase 2 and affirmative damages case document review memorandum (0.2).	.20	700.00	140.00
1/15/25	TT	Continue preparing summary and analysis of [redacted] texts.	10.00	525.00	5,250.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/16/25	VO	Confer with PS, EB, and JS regarding litigation planning and strategy.	.80	1025.00	820.00
1/16/25	PS	Continue to prepare for (1.3) and attend (0.9) team meeting regarding high priority phase 2 and damages-related action items; attend further strategy teleconference with EB, JS, and VO (0.8).	3.00	1450.00	4,350.00
1/16/25	EB	Continue analyzing and annotating materials in support of [redacted] of phase 2 and damages claim (2.4); advise NC regarding memorandum in support of same (0.1); correspond with Stris team and co-counsel regarding high priority action items including response to client inquiry and potential correspondence to Whinstone (0.4); review update from and advise TT regarding next steps in support of text message analysis (0.1); prepare for (0.5), attend and lead (0.9) Stris team meeting regarding high priority phase 2 and damages-related action items, and attend further strategy teleconference with PS, JS, and VO (0.8).	5.20	1250.00	6,500.00
1/16/25	BA	Review and analyze invoice data to prepare for phase 2 and assist client with resolving disputed invoices, correspond with JS regarding same, correspond with A. Peloubet to seek additional information, and review further analysis from A. Peloubet (1.9); attend teleconference with PS, EB, JS, CS, SR, CHH, JHA, and ASA regarding strategic and high-priority Phase 2 action items (0.5); begin outlining phase 2 scope arguments (0.5); correspond and confer with JS and W. Thompson regarding analysis of [redacted] to Whinstone for [redacted] (0.7); correspond with litigation team regarding client request for advice on [redacted] report (0.1).	3.70	1200.00	4,440.00
1/16/25	JS	Attend teleconference with PS, EB, BA, CS, SR, CHH, JHA, and ASA regarding strategic and high-priority Phase 2 action items (0.9); attend teleconference with VO, EB, and PS regarding strategic and high-priority Phase 2 action items (0.8).	1.70	1025.00	1,742.50
1/16/25	SR	Attend teleconference with PS, EB, BA, JS, CS, CHH, JHA, and ASA regarding strategic and high-priority Phase 2 action items (0.9); continue reviewing and analyzing material and drafting notes in support of [redacted] claims, damages, and expert analysis (6.4).	7.40	750.00	5,550.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/16/25	TB	Conduct legal research and analysis regarding [redacted] for EB and JS.	3.70	1200.00	4,440.00
1/16/25	CS	Participate in teleconference with PS, EB, JS, BA, CH, AA, and JHA regarding Phase 2 pressing action items (0.5); continue drafting outline for deposition of [redacted] (4.7).	5.20	850.00	4,420.00
1/16/25	CHH	Prepare invoice document review set for Phase II (0.5); attend teleconference with PS, EB, BA, JS, CS, SR, JHA, and ASA regarding strategic and high-priority Phase 2 action items (0.9).	1.40	350.00	490.00
1/16/25	NC	Update [redacted] memorandum with [redacted].	.10	350.00	35.00
1/16/25	ASA	Attend teleconference with PS, EB, BA, JS, CS, SR, CHH, and JHA regarding strategic and high-priority Phase 2 action items.	.90	350.00	315.00
1/16/25	TT	Complete initial summary and analysis of [redacted] texts (2.0); repare summary and analysis of [redacted] texts in support of phase two and damages claims (8.9).	10.90	525.00	5,722.50
1/17/25	EB	Review update from TT and correspond with BA, JS, and ASA regarding additional text message analysis (0.2); attend teleconference with TT regarding next steps in support of same including review of embedded documents (0.4); continue analyzing and annotating materials in support of [redacted] of phase 2 and damages claim (2.2); advise NC regarding revisions to memorandum regarding same (0.1).	2.90	1250.00	3,625.00
1/17/25	BA	Continue analyzing disputed payment amounts, correspond with JS and with litigation and client team regarding same, and participate in teleconference with P. Tomasco, JS, and J. Cohn regarding strategy for same (1.9); review Whinstone's filing on scope of phase 2 and correspondence regarding water payments, correspond with JS regarding same, and continue analyzing and outlining arguments for response to Whinstone's scope filing (2).	3.90	1200.00	4,680.00
1/17/25	JS	Review and evaluate Whinstone scope filing and prepare preliminary outline of response.	3.50	1025.00	3,587.50
1/17/25	SR	Continue reviewing and analyzing material and drafting notes in support of [redacted] claims, damages, and expert analysis.	6.30	750.00	4,725.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/17/25	CS	Continue drafting outline for deposition of [redacted] (6.4); review and analyze Whinstone's statement on scope of phase 2 hearing (0.7).	7.10	850.00	6,035.00
1/17/25	NC	Prepare memorandum for EB regarding [redacted] phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	2.30	350.00	805.00
1/17/25	JH	Update bankruptcy docket.	2.00	350.00	700.00
1/17/25	TT	Conference call with EB regarding status and strategy going forward in support of phase two and affirmative damages hot document assessment (.4)	.40	525.00	210.00
1/17/25	TT	Revise summary and analysis of [redacted] texts to address additional information as directed by EB.	5.50	525.00	2,887.50
1/18/25	BA	Research and draft opposition to Whinstone's Phase 2 statement.	4.30	1200.00	5,160.00
1/18/25	SR	Continue reviewing and analyzing material and drafting notes in support of [redacted] claims, damages, and expert analysis.	6.50	750.00	4,875.00
1/18/25	TB	Continue [redacted] research.	3.10	1200.00	3,720.00
1/18/25	HM	Continue revising phase 2 and affirmative damages document review memorandum (1.4).	1.40	700.00	980.00
1/19/25	BA	Continue researching and drafting opposition to Whinstone's Phase 2 statement.	4.50	1200.00	5,400.00
1/19/25	TB	Continue [redacted] research and analysis regarding [redacted].	2.90	1200.00	3,480.00
1/19/25	HM	Revise phase 2 and affirmative damages case document review memorandum (3.8).	3.80	700.00	2,660.00
1/19/25	TT	Review and analyze embedded attachments from Rhodium texts regarding hot document assessment for phase two and affirmative damages.	8.60	525.00	4,515.00
1/20/25	EB	Revise phase 2 and damages document review memorandum (1.8); correspond with BA, JS, VO, PB, and HM regarding further revisions to and next steps in support of same and with TT regarding text review and analysis (0.5); continue annotating materials for [redacted] phase 2 and damages analysis (1.5).	3.80	1250.00	4,750.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/20/25	EB	Attend teleconference with CS [redacted] deposition regarding outline and preparation.	.20	1250.00	250.00
1/20/25	BA	Continue researching and drafting response to Whinstone's phase 2 scope filing and correspond and confer with JS regarding same (3.6); correspond with P. Tomasco and client team regarding payment disputes with Whinstone and phase 2 issues (0.3).	3.90	1200.00	4,680.00
1/20/25	JS	Prepare for and attend call with counsel and client teams regarding statement of scope (1.3); review and revise statement of scope (4.5); confer with BA regarding same (0.1).	5.90	1025.00	6,047.50
1/20/25	CS	Call with EB to discuss status of [redacted] deposition outline (0.2); continue drafting outline for deposition of [redacted] (7.2)	7.40	850.00	6,290.00
1/20/25	PB	Teleconference with BA and JS regarding brief on scope of Phase 2.	1.00	850.00	850.00
1/20/25	HM	Revise phase 2 and affirmative damages review memorandum (0.7).	.70	700.00	490.00
1/20/25	TT	Continue reviewing and analyzing embedded attachments as requested by EB.	5.60	525.00	2,940.00
1/21/25	EB	Correspond with Stris team regarding high priority action items including final revisions to phase 2 review memorandum (0.2); attend teleconference with BA, JS, PB, and HM regarding action items including same (0.8); prepare for (0.2) and attend (0.3) teleconference with [redacted] regarding action items including [redacted] notice; continue annotating materials for [redacted] phase 2 and damages memorandum (1.5); review draft memorandum and advise NC regarding revisions to same (0.3); attend portion of checkpoint teleconference with clients and co-counsel (0.5).	3.80	1250.00	4,750.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/21/25	BA	Continue researching and drafting response to Whinstone's Phase 2 statement, correspond with litigation team and with JS, HM, and PB regarding strategy for same, and review and incorporate revisions from bankruptcy counsel for same (4.2); participate in teleconference with bankruptcy counsel, client, and litigation team (.5); review draft document review memorandum for affirmative damages phase, convey edits on some to EB and HM, and participate in teleconference with EB, HM, JS, and PB to discuss revisions to same and finalize tagging decisions (0.8).	5.50	1200.00	6,600.00
1/21/25	JS	Assist in preparation of Statement of Scope (2.4); attend portion of weekly touch-point call with client and outside counsel teams (0.5); attend teleconference with BA, EB, HM, and PB regarding damages phase document review memorandum (0.8).	3.70	1025.00	3,792.50
1/21/25	SR	Continue reviewing and analyzing material and drafting notes in support of [redacted] claims, damages, and expert analysis.	3.50	750.00	2,625.00
1/21/25	TB	Continue [redacted] research and analysis.	3.80	1200.00	4,560.00
1/21/25	CS	Continue drafting outline for deposition of [redacted].	8.10	850.00	6,885.00
1/21/25	CHH	Review BA email and collect documents for Phase II preparations accordingly (0.3); review and analyze Quinn Emanuel [redacted] request (0.2); confer with PB regarding same (0.1); work on same (4.0).	4.60	350.00	1,610.00
1/21/25	NC	Continue preparing memorandum for EB regarding [redacted] phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	1.50	350.00	525.00
1/21/25	JH	Update bankruptcy docket (0.5); review materials from HM to prepare for phase 2 and damages case document review (1.0).	1.50	350.00	525.00
1/21/25	PB	Teleconference with BA, JS, EB, and HM regarding strategy for Phase 2 preparation and follow-up call with HM regarding same (1.0); call with BA regarding brief on scope of Phase 2 (0.3); call with CH regarding response to SAFE request (0.2).	1.50	850.00	1,275.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/21/25	HM	Teleconference with EB, PB, JS, and BA regarding phase 2 and affirmative damages document review memorandum (0.8); confer with PB about document review management (0.2); revise phase 2 and affirmative damages document review memorandum (3.3); assist BA with upcoming filing on scope of phase 2 (0.4).	4.70	700.00	3,290.00
1/21/25	TT	Continue reviewing and analyzing embedded attachments.	6.90	525.00	3,622.50
1/22/25	EB	Revise and advise CS regarding revisions to [redacted] deposition outline (3.5); correspond with BA, JS, and NC regarding [redacted] notice (0.1); attend teleconference with PB, HM, TT, ASA, CHH, JHA, and SB regarding phase 2 document review instructions (1.0); correspond with [redacted] regarding [redacted] notice (0.2); attention to case management (0.3); review and respond to team correspondence regarding high priority action items including response to [redacted] inquiries (0.5).	5.60	1250.00	7,000.00
1/22/25	BA	Continue researching, reviewing, and drafting response to Whinstone's phase 2 statement, correspond with litigation and bankruptcy counsel regarding revisions to same, correspond and confer with PS and JS regarding invoice analysis and related strategy for same, review and revise supporting materials and declaration for same, and correspond with JS, PB, HM, SB, and CH and B. Howell as necessary regarding finalization and filing of same (5.2); correspond with [redacted] and P. Tomasco regarding [redacted], correspond with EB regarding client request for assistance with [redacted], and correspond with JS and EB regarding updating [redacted] notice (0.2); correspond with CH and with bankruptcy counsel regarding document search requests from SAFE holders (0.2); correspond with EB and VO regarding request from [redacted] for expert reports and correspond with EB regarding Midas Green counterclaim description for bankruptcy schedules (0.2).	5.80	1200.00	6,960.00
1/22/25	JS	Assist in finalizing Statement of Scope.	3.00	1025.00	3,075.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/22/25	SB	Attend teleconference with EB, PB, HM, TT, ASA, CHH and JHA regarding phase 2 document review instructions (1.0); create Asay declaration iso Debtors' scope statement (1.8); create exhibits iso Debtors' scope statement (1.0).	3.80	350.00	1,330.00
1/22/25	CS	Continue drafting outline for deposition of [redacted].	6.10	850.00	5,185.00
1/22/25	CHH	Prepare discovery database for phase 2 document review (0.1); attend teleconference with EB, PB, HM, TT, ASA, JHA, and SB regarding phase 2 document review instructions (1.0); teleconference with [redacted] regarding proximity searching (0.3); continue running search term reports for Quinn (3.5); [redacted] issues with same in email memorandum to BA and JS (0.1); cite-check and proofread Debtors' response and counter-statement on the scope of phase 2 (3.2).	8.20	350.00	2,870.00
1/22/25	NC	Continue preparing memorandum for EB regarding [redacted] phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	1.20	350.00	420.00
1/22/25	JH	Attend teleconference with EB, PB, HM, TT, ASA, CHH and SB regarding phase 2 document review instructions (1.0); review first assigned batch of documents for Phase 2 issues (6.0).	7.00	350.00	2,450.00
1/22/25	PB	Attend teleconference with EB, HM, TT, ASA, CHH< JHA, and SB regarding Phase 2 document review instructions (1.0); prepare analysis to support brief regarding Phase 2 scope (2.2); teleconferences with BA and JS regarding same (0.8); call with CH regarding response to discovery requests (0.1).	4.10	850.00	3,485.00
1/22/25	ASA	Attend teleconference with EB, PB, HM, TT, CHH, JHA, and SB regarding phase 2 document review instructions (1.0); review and analyze materials from HM to prepare for phase 2 document review (1.0); begin Phase 2 document review (0.7).	2.70	350.00	945.00
1/22/25	HM	Attend teleconference with EB, PB, HM, TT, ASA, CHH, JHA, and SB regarding phase 2 document review instructions (1.0); assist BA with scope filing (1.0); perform tasks related to document review, including [redacted] batch completion and drafting correspondence to reviewers (0.6).	2.60	700.00	1,820.00
1/22/25	TT	Attend teleconference with EB, PB, HM, TT, ASA, CHH, JHA, and SB regarding phase 2 document review instructions (1.0).	1.00	525.00	525.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/22/25	TT	Continue reviewing and analyzing embedded text attachments.	7.80	525.00	4,095.00
1/23/25	PS	Prepare for (1.0) and attend (1.1) teleconference with EB, BA, JS, CS, PB, HM, SR, CHH, MV, SB, JHA, and ASA regarding strategic and high-priority Phase 2 action items.	2.10	1450.00	3,045.00
1/23/25	EB	Confer with BA regarding action items including response to credits analysis inquiry (0.2); correspond with P. Tomasco and R. Izakelian regarding same (0.3); review and advise NC regarding revisions to [redacted] memorandum (0.2); continue reviewing and annotating materials in support of same (2.5); attend initial daily checkpoint phase 2 document review teleconference to assess progress, address questions, and advise regarding revisions to review memoranda and protocol (0.2); prepare for (0.5) and attend (1.1) teleconference with PS, EB, BA, JS, CS, PB, HM, SR, CHH, MV, SB, JHA, and ASA regarding strategic and high-priority phase 2 action items; review comments and questions from CS (0.2) and attend teleconference with CS regarding revisions to [redacted] deposition outline (0.3); provide materials to CS in support of same (0.1); correspond with co-counsel and [redacted] regarding [redacted] and TB regarding review and analysis of materials in support of mediation (0.2).	5.80	1250.00	7,250.00
1/23/25	BA	Attend teleconference with PS, EB, JS, CS, PB, HM, SR, CHH, MV, SB, JHA, and ASA regarding strategic and high-priority Phase 2 action items (1); correspond with JS regarding upcoming status conference on Phase 2 scope, correspond with P. Tomasco regarding same, and begin preparing for argument at same (1.2); review updates from CH regarding issues with Logikcull searches requested by bankruptcy counsel (0.2).	2.40	1200.00	2,880.00
1/23/25	JS	Attend teleconference with PS, EB, BA, CS, PB, HM, SR, CHH, MV, SB, JHA, and ASA regarding strategic and high-priority Phase 2 action items (1.1); review and evaluate strategic questions posed by [redacted] in connection with Phase 2 and damages case strategy (0.7); confer with [redacted] regarding same (0.1).	1.90	1025.00	1,947.50
1/23/25	SR	Attend portion of teleconference with PS, EB, BA, JS, CS, PB, HM, CHH, MV, SB, JHA, and ASA regarding strategic and high-priority Phase 2 action items.	1.00	750.00	750.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/23/25	SB	Attend teleconference with PS, EB, BA, JS, CS, PB, HM, SR, CHH, MV, JHA, and ASA regarding strategic and high-priority Phase 2 action items (1.1); attend daily checkpoint teleconference regarding phase 2 document review. (0.2); conduct Phase 2 document review (3.7).	5.00	350.00	1,750.00
1/23/25	CS	Meet with EB regarding status of outline for deposition of [redacted] (0.3); attend teleconference with PS, EB, BA, JS, PB, HM, SR, CHH, MV, SB, JHA, and ASA regarding strategic and high-priority Phase 2 action items (1.1); continue drafting outline for deposition of [redacted] (5.8)	7.20	850.00	6,120.00
1/23/25	CHH	Attend daily checkpoint teleconference regarding phase 2 document review (0.2); prepare discovery database for same (0.1); attend teleconference with PS, EB, BA, JS, CS, PB, HM, SR, MV, SB, JHA, and ASA regarding strategic and high-priority Phase 2 action items (1.1); collect and prepare background documents regarding [redacted] for team to review (0.3); confer with [redacted] regarding proximity searching issues (0.1); test run various searches with proposed solution to same (0.2); email memorandum to BA regarding same (0.1); review and analyze materials from HM to prepare for phase 2 document review (1.0); review first assigned phase 2 document review batch (1.5).	4.60	350.00	1,610.00
1/23/25	NC	Continue preparing memorandum for EB regarding [redacted] of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	1.80	350.00	630.00
1/23/25	JH	Attend daily checkpoint teleconference regarding phase 2 document review (0.2); review second assigned batch of documents for Phase 2 issues (5.0).	5.20	350.00	1,820.00
1/23/25	PB	Attend teleconference with PS, EB, BA, JS, CS, HM, SR, CHH, MV, SB, JHA, and ASA regarding strategic and high-priority Phase 2 action items.	1.10	850.00	935.00
1/23/25	ASA	Attend daily checkpoint teleconference regarding phase 2 document review (0.2); circulate requested deposition transcript at request of EB (0.2); review assigned batch of Phase 2 documents (3.0); attend teleconference with PS, EB, BA, JS, CS, PB, HM, SR, MV, SB, JHA, and CHH regarding strategic and high-priority Phase 2 action items (1.1).	4.50	350.00	1,575.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/23/25	HM	Attend daily checkpoint teleconference regarding phase 2 document review (0.2); attend teleconference with PS, EB, BA, JS, CS, PB, SR, CHH, MV, SB, JHA, and ASA regarding strategic and high-priority Phase 2 action items (1.1); perform quality check of document review (0.5); draft phase 2 task list (0.3).	2.10	700.00	1,470.00
1/23/25	TT	Review and analyze revised memorandum from HM and Order of U.S. Bankruptcy Court in preparation for phase 2 and affirmative damages review.	1.20	525.00	630.00
1/23/25	MV	Attend teleconference with PS, EB, BA, JS, CS, PB, HM, SR, CHH, SB, JHA, and ASA regarding strategic and high-priority Phase 2 action items.	1.10	425.00	467.50
1/24/25	EB	Provide further feedback to CS regarding revisions to [redacted] deposition outline (0.5); review and respond to team and co-counsel correspondence regarding high priority action items (0.5); review and comment on draft complaint (2.0); continue annotating [redacted] phase 1 materials in support of phase 2 and damages claims (1.1).	4.10	1250.00	5,125.00
1/24/25	BA	Prepare for status conference/hearing on scope of phase 2, including conferring with P. Tomasco, W. Thompson, J. Cohn, and JS (4.3); participate in status conference/hearing on scope of phase 2 (1); confer with [redacted] and [redacted] following hearing (0.2); confer with JS regarding follow up from hearing (0.1); correspond with litigation and bankruptcy counsel regarding ongoing issues with [redacted] (0.1).	5.60	1200.00	6,720.00
1/24/25	JS	Attend portion of teleconference with outside counsel teams to prepare for hearing on scope of Phase 2 (0.6); attend teleconferences with BA to prepare for (0.8) and debrief from (0.1) hearing on scope of Phase 2; attend hearing on Phase 2 (0.9); begin reviewing and evaluating damages complaint (1.0).	3.40	1025.00	3,485.00
1/24/25	TB	Update [redacted] research and analysis based on review of additional [redacted] materials.	4.50	1200.00	5,400.00
1/24/25	CS	Continue drafting outline for deposition of [redacted] (6.1); review hearing on phase two trial issues (1).	7.10	850.00	6,035.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/24/25	CHH	Review first assigned phase 2 document review batch (1.5); attend daily checkpoint teleconference regarding phase 2 document review (0.3); review second assigned phase 2 document review batch (2.0); review third assigned phase 2 document review batch (0.5).	4.30	350.00	1,505.00
1/24/25	NC	Continue preparing memorandum for EB regarding [redacted] of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	5.30	350.00	1,855.00
1/24/25	JH	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); review third assigned batch of documents for Phase 2 issues (6.0).	6.30	350.00	2,205.00
1/24/25	PB	Attend daily team meeting regarding document preparation for Phase 2 hearing (0.3); attend portion of hearing regarding scope of Phase 2 (0.5).	.80	850.00	680.00
1/24/25	ASA	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); update running matter status memorandum (0.2); review assigned batch of Phase 2 documents (5.0)	5.50	350.00	1,925.00
1/24/25	HM	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); review and respond to team correspondence regarding phase 2 document review (0.6).	.90	700.00	630.00
1/24/25	SD	Prepare and organize documents for BA's hearing in U.S. Bankruptcy Court, Southern Dist. of Texas (0.9).	.90	350.00	315.00
1/25/25	BA	Review correspondence from W. Thompson regarding miner installations and correspond with [redacted] regarding same (0.1); begin reviewing draft affirmative complaint (0.9).	1.00	1200.00	1,200.00
1/25/25	JS	Review and evaluate draft damages phase complaint.	1.50	1025.00	1,537.50
1/25/25	TB	Continue updating [redacted] analysis based upon additional [redacted] litigation documents.	1.20	1200.00	1,440.00
1/25/25	CS	Continue drafting outline for deposition of [redacted].	2.00	850.00	1,700.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/26/25	EB	Continue reviewing and commenting on draft complaint including responding to comments from BA (0.6); continue reviewing and annotating materials in support of [redacted] phase 2 and damages claims (2.0); correspond with NC regarding next steps in support of memorandum regarding same (0.1).	2.70	1250.00	3,375.00
1/26/25	BA	Correspond with EB and JS regarding draft complaint and review additional comments from EB on same.	.20	1200.00	240.00
1/26/25	JS	Further review and revise draft damages phase complaint.	1.00	1025.00	1,025.00
1/26/25	CS	Continue revising outline for deposition of [redacted].	3.10	850.00	2,635.00
1/27/25	EB	Correspond with BA, JS, HM, MV, and litigation assistants regarding high priority action items in support of phase 2 (0.5); continue reviewing and annotating [redacted] phase 1 materials (3.0); review and begin further revising revised [redacted] deposition outline from CS (2.1); review update from and advise TT regarding next steps in support of text analysis (0.3); confer with and provide documents to A. Swartz in support of revisions to draft complaint (0.3).	6.20	1250.00	7,750.00
1/27/25	BA	Correspond with JS and EB regarding high priority action items for both phase 2 and affirmative case, correspond with HM regarding text message storage by Setec, and review client update regarding miner installation (0.4).	.40	1200.00	480.00
1/27/25	JS	Attend teleconferences with [redacted] and [redacted] (1.3); further review damages phase complaint (0.5); evaluate high priority action items in connection with Phase 2 and damages case (1.1).	2.90	1025.00	2,972.50
1/27/25	SR	Continue reviewing and analyzing material and drafting notes in support of [redacted] claims, damages, and expert analysis.	1.00	750.00	750.00
1/27/25	SB	Attend portion of daily checkpoint teleconference regarding phase 2 document review. (0.1); conduct Phase 2 document review (2.9).	3.00	350.00	1,050.00
1/27/25	NC	Continue preparing memorandum for EB regarding [redacted] of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	1.50	350.00	525.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/27/25	JH	Attend daily checkpoint teleconference regarding phase 2 document review (0.2); review fourth assigned batch of documents for Phase 2 issues (4.0).	4.20	350.00	1,470.00
1/27/25	ASA	Attend daily checkpoint teleconference regarding phase 2 document review (0.2); review assigned batch of Phase 2 documents (3.8).	4.00	350.00	1,400.00
1/27/25	HM	Perform quality check of phase 2 document review (0.1); update document review memorandum (0.3); attend daily checkpoint teleconference regarding phase 2 document review (0.1); confer with [redacted] Setec regarding storage of cell phone images (0.3); draft correspondence to BA, JS, and PB regarding storage of cell phone images (0.3).	1.10	700.00	770.00
1/27/25	TT	Revise summary and analysis of [redacted] texts to address additional information as directed by EB.	5.10	525.00	2,677.50
1/27/25	MV	Assist with syntax and search parameters for phase 2 review (0.8); begin preparing phase 2 exhibits and exhibit list (1.2); create targeted searches and provide results for attorney review (0.5).	2.50	425.00	1,062.50
1/28/25	EB	Correspond with NC regarding [redacted] memorandum (0.1); continue annotating materials for same (1.9); prepare for (0.6) and attend (1.0) teleconference with BA, JS, and SR regarding action items in support of [redacted] analysis; review and respond to team correspondence and correspondence with co-counsel regarding high priority action items including revisions to draft complaint (0.4); correspond with [redacted] regarding analysis and action items (0.1); prepare for (0.2) and attend portion of (1.1) teleconference with clients and co-counsel.	5.40	1250.00	6,750.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/28/25	BA	Review, research, and analyze proposed slides for financing process as related to damages claims, correspond with JS and EB regarding same, and correspond with litigation team and client team regarding same (0.8); participate in teleconference with SR, JS, and EB to analyze and strategize for work of [redacted] expert [redacted] (1); review and analyze revised draft of amended complaint, correspond with litigation team regarding same, and research issues for same (0.8); participate in teleconference with client team, litigation team, and bankruptcy counsel (1.1); review revisions to draft affirmative complaint and convey edits on same to JS and EB (0.4); analyze research on [redacted] issues as relevant to [redacted] complaint (0.3).	4.40	1200.00	5,280.00
1/28/25	JS	Attend client touch point call (0.7); attend portion of teleconference with SR, EB, and BA regarding [redacted] issues in connection with damages phase (0.5); evaluate [redacted] slides in connection with [redacted] issues (0.6); review and evaluate revised complaint (0.5).	2.30	1025.00	2,357.50
1/28/25	SR	Continue reviewing and analyzing material and drafting notes in support of [redacted] claims, damages, and expert analysis (4.8); attend teleconference with EB, BA, and JS to discuss action items and strategy relating to the same (1); review and analyze damages-related calculations top assist EB, JS, and BA in preparation for client call regarding the same (1.7).	7.40	750.00	5,550.00
1/28/25	SB	Attend portion of daily checkpoint teleconference regarding phase 2 document review. (0.1); conduct Phase 2 document review (3.9).	4.00	350.00	1,400.00
1/28/25	CHH	Attend daily checkpoint teleconference regarding phase 2 document review (0.2); teleconference with MV regarding various targeted searches in support of phase 2 discovery (0.3); generate same (0.1); review and analyze documents regarding [redacted] issue (0.7); email memorandum to EB regarding same (0.1); review third assigned phase 2 document review batch (1.0).	2.40	350.00	840.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/28/25	NC	Continue preparing memorandum for EB regarding [redacted] of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	1.70	350.00	595.00
1/28/25	JH	Attend daily checkpoint teleconference regarding phase 2 document review (0.2); review fifth assigned batch of documents for Phase 2 issues (5.0).	5.20	350.00	1,820.00
1/28/25	ASA	Assist EB with access to spreadsheets provided by [redacted] (0.3); update [redacted] memorandum (0.2); attend daily checkpoint teleconference regarding phase 2 document review (0.2): continue review of Phase 2 documents [redacted] (2.8).	3.50	350.00	1,225.00
1/28/25	HM	Attend daily checkpoint teleconference regarding phase 2 document review (0.2); perform quality check of phase 2 document review (0.9); correspond with EB about progress of document review (0.5).	1.60	700.00	1,120.00
1/28/25	TT	Continue revising summary and analysis of [redacted] texts(2.1); revise summary and analysis of [redacted] (0.8) and [redacted] (2.5) texts in support of phase 2 litigation and affirmative damages claims.	5.40	525.00	2,835.00
1/28/25	MV	Attend teleconference with CH regarding search parameters and syntax set-up for phase 2 targeted searches (0.3); review documents from targeted document searches, create and revise additional searches, and update HM and team regarding same (1.9).	2.20	425.00	935.00
1/29/25	EB	Review revised slide deck and draft complaint to assist with further revisions (1.4); attend teleconference with JS and co-counsel regarding revisions to and action items in support of latter (0.6); review additional materials from [redacted] in support of same and to prepare for upcoming teleconference (0.2); attend teleconference with BA, SR, and [redacted] regarding related analysis (1.0); correspond with BA, JS, and SR regarding resulting action items (0.1).	3.30	1250.00	4,125.00
1/29/25	BA	Participate in teleconference with [redacted], EB, and SR to discuss action items and analysis related to damages calculations.	1.00	1200.00	1,200.00

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Date	Tkpr	Description	Hours	Rate	Amount
1/29/25	JS	Attend teleconference with EB and co-counsel regarding revisions and action items in connection with slide deck draft (0.6); review and revise same and draft complaint (0.9); evaluate motion to [redacted] and related issues (1.5)	3.00	1025.00	3,075.00
1/29/25	SR	Attend videoconference with [redacted], EB, BA to discuss [redacted] and damages-related expert analysis (1); review and analyze correspondence from [redacted] regarding the same (1); continue analyzing material and drafting notes in support of [redacted], damages, and expert analysis (5.5).	7.50	750.00	5,625.00
1/29/25	SB	Attend portion of daily checkpoint teleconference regarding phase 2 document review. (0.2); conduct Phase 2 document review (4.0).	4.20	350.00	1,470.00
1/29/25	CHH	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); targeted searching and review and analysis of documents for same (0.5); emails to EB and HM regarding same (0.1); review fourth assigned phase 2 document review batch (2.5); review fifth assigned phase 2 document review batch (1.4).	4.80	350.00	1,680.00
1/29/25	NC	Continue preparing memorandum for EB regarding [redacted] of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	1.60	350.00	560.00
1/29/25	JH	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); update bankruptcy docket (0.5); review sixth assigned batch of documents for Phase 2 issues (4.0).	4.80	350.00	1,680.00
1/29/25	ASA	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); continue review of assigned Phase 2 documents [redacted] (3.4); update [redacted] memorandum at request of EB (0.3).	4.00	350.00	1,400.00
1/29/25	HM	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); update document review memorandum (0.2); review and respond to team correspondence regarding document review (1.5); attention to organization of internal matter files (0.5).	2.50	700.00	1,750.00
1/29/25	TT	Continue analyzing embedded attachments.	1.70	525.00	892.50

Invoice # 14459 February 21, 2025

Date	Tkpr	Description	Hours	Rate	Amount
1/29/25	MV	Assist with further targeted searches for attorney review.	2.50	425.00	1,062.50
1/30/25	PS	Prepare for (0.5) and attend (0.3) team teleconference regarding high priority action items.	.80	1450.00	1,160.00
1/30/25	EB	Continue analyzing and corresponding with BA, JS, SR, C. [redacted] and co-counsel regarding information in support of [redacted] analysis (1.5); attend portion of Stris team teleconference regarding high priority action items (0.2); attend teleconference with JS, client, and co-counsel regarding [redacted] expert (0.5).	2.20	1250.00	2,750.00
1/30/25	BA	Continue reviewing and analyzing adversary complaint, including edits and comments on same from client team and bankruptcy team, and correspond with A. Swartz and team regarding same (1.7); participate in teleconference with litigation team, bankruptcy counsel, and client team regarding [redacted] to Whinstone (0.6); attend teleconference with PB, HM, PS, EB, CHH, ASA, and JHA to discuss strategic and high-priority Phase 2 action items (0.3); confer with EB regarding proposed [redacted] expert [redacted] (0.1); confer with JS regarding case status and correspond with J. Cohn and team regarding water bill invoices (0.2); continue analyzing research on issues related to [redacted] for damages claims (0.3).	3.20	1200.00	3,840.00
1/30/25	JS	Further review and evaluate complaint in connection with water issues (1.1); attend client call regarding [redacted] issues (0.6); attend call with [redacted] regarding Whinstone litigation issues (1.1).	2.80	1025.00	2,870.00
1/30/25	SB	Conduct Phase 2 document review (3.2).	3.20	350.00	1,120.00
1/30/25	CHH	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); review fifth assigned phase 2 document review batch (1.0); review sixth assigned phase 2 review batch (2.0); review seventh assigned phase 2 review batch (2.0); attend teleconference with BA, PB, HM, PS, EB, ASA, and JHA to discuss strategic and high-priority Phase 2 action items (0.3).	5.60	350.00	1,960.00

Invoice # 14459 February 21, 2025

Date	Tkpr	Description	Hours	Rate	Amount
1/30/25	NC	Continue preparing memorandum for EB regarding [redacted] of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	2.20	350.00	770.00
1/30/25	JH	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); update bankruptcy docket (0.1); review seventh assigned batch of documents for Phase 2 issues (4.0).	4.40	350.00	1,540.00
1/30/25	PB	Attend teleconference with BA, PB, HM, PS, EB, CHH, ASA, and JHA to discuss strategic and high-priority Phase 2 action items.	.30	850.00	255.00
1/30/25	ASA	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); attend teleconference with BA, PB, HM, PS, EB, CHH, and JHA to discuss strategic and high-priority Phase 2 action items (0.3); provide ShareFile link for [redacted] and download updated spreadsheet (0.1); update [redacted] memorandum (0.2); continue review of assigned Phase 2 documents (5.1).	6.00	350.00	2,100.00
1/30/25	HM	Attend teleconference with BA, PB, PS, EB, CHH, ASA, and JHA to discuss strategic and high-priority Phase 2 action items (0.3); attend daily checkpoint teleconference regarding phase 2 document review (0.3); review and respond to team correspondence regarding task list and document review (0.7).	1.30	700.00	910.00
1/30/25	MV	Attend teleconference with PS, EB, BA, JS, CS, PB, HM, SR, CHH, SB, JHA, and ASA regarding strategic and high-priority Phase 2 action items.	.30	425.00	127.50
1/31/25	EB	Correspond with BA, HM, MV, TT, and CH regarding status and action items in support of document review, qc, and exhibit list (0.5); correspond with JS and co-counsel regarding material and action items in support of revisions to draft complaint (0.6); advise NC regarding next steps in support of memorandum (0.1); revise [redacted] deposition outline (1.7).	2.90	1250.00	3,625.00

Invoice # 14459 February 21, 2025

Date	Tkpr	Description	Hours	Rate	Amount
1/31/25	BA	Review and analyze new NDA agreement required by Whinstone for employees, correspond with CH to request document comparison, correspond with client regarding same, and correspond with J. Cohn, W. Thompson, P. Tomasco, and JS regarding analysis of same and [redacted] (1.8); participate in teleconference with client team, P. Tomasco, and A. Swartz regarding [redacted] consultant (0.5); correspond with P. Tomasco and litigation team regarding next steps for [redacted] consultant, and potential further production of documents for [redacted] (0.3); correspond with J. Cohn and JS regarding water invoices, request history of same from [redacted], and review same as relevant to phase 2, and correspond with HM, MV, and CH regarding use of same as phase 2 exhibits (0.5); review correspondence from [redacted] regarding potential mediation and correspond with P. Tomasco and team regarding same (0.2); correspond with HM, EB, and CH regarding document review updates and potential phase 2 exhibits (0.2); correspond with HM regarding [redacted] data storage (0.1); review Whinstone's reply regarding scope of phase 2 and correspond with P. Tomasco regarding potential response to same (0.4).	3.90	1200.00	4,680.00
1/31/25	CHH	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); review eighth assigned phase 2 document review batch (2.0); review ninth assigned phase 2 review batch (2.0); targeted searching and analysis of [redacted] issues (0.5).	4.70	350.00	1,645.00
1/31/25	NC	Continue preparing memorandum for EB regarding [redacted] of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	6.10	350.00	2,135.00
1/31/25	JH	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); update bankruptcy docket (0.2); review eighth assigned batch of documents for Phase 2 issues (5.0).	5.50	350.00	1,925.00
1/31/25	ASA	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); continue review of assigned Phase 2 documents (5.0).	5.30	350.00	1,855.00

Invoice # 14459 February 21, 2025

Date	Tkpr	Description	Hours	Rate	Amount
1/31/25	HM	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); confer with TT regarding phase 2 document review (1.1); perform quality check of document review (1.2); amend review memorandum (0.5); review and respond to team correspondence regarding document review and other targeted document searches (1.6).	4.70	700.00	3,290.00
1/31/25	TT	Review and analyze additional materials in support of phase 2 document review (0.4); confer with HM regarding phase 2 document review (1.1).	1.50	525.00	787.50
1/31/25	MV	Continue working on Phase 2 exhibits and exhibit list.	1.00	425.00	425.00
		TOTAL PROFESSIONAL SERVICES			**$ 634,762.50**

Invoice # 14459 February 21, 2025

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Peter K. Stris	PS	Partner	9.00	1,450.00	13,050.00
Elizabeth Brannen	EB	Partner	72.80	1,250.00	91,000.00
Bridget Asay	BA	Partner	82.90	1,200.00	99,480.00
Tillman Breckenridge	TB	Partner	19.30	1,200.00	23,160.00
Victor O'Connell	VO	Partner	6.60	1,025.00	6,765.00
John Stokes	JS	Partner	80.40	1,025.00	82,410.00
Colleen Smith	CS	Associate	103.20	850.00	87,720.00
Peter Brody	PB	Associate	15.10	850.00	12,835.00
Sarah Rahimi	SR	Associate	80.00	750.00	60,000.00
Helen Marsh	HM	Associate	47.30	700.00	33,110.00
Tanya Tice	TT	Discovery Associate	115.50	525.00	60,637.50
Monica Viramontes	MV	Sr Paralegal	9.60	425.00	4,080.00
Andrew Atsalis	ASA	Fellow	36.40	350.00	12,740.00
Cynthia Huang	CHH	Fellow	40.90	350.00	14,315.00
Sebastian Delgado	SD	Fellow	.90	350.00	315.00
Shayra Banta	SB	Fellow	23.20	350.00	8,120.00
Nicholas Capalbo	NC	Fellow	25.40	350.00	8,890.00
Jaida Hodge-Adams	JH	Fellow	46.10	350.00	16,135.00
Total			**814.60**		**$ 634,762.50**

Invoice # 14459 February 21, 2025

EXPENSES ADVANCED

Date	Task	Description	Amount
11/30/24		Printing for the Rhodium trial in Houston.	6,687.77
12/05/24		Local Travel - The Lancaster Hotel - lodging for Houston Depositions.	30,919.21
12/19/24		Local Travel - Vendor fee for research documents.	116.49
12/27/24		Local Travel - Newswire press release service fee.	349.00
12/31/24		Litigation Support Vendors	2,550.00
1/01/25		Logikcull EDiscovery SaaS subscription.	2,646.00
2/11/25		Stone turn - Balance of professional services rendered.	162,000.00
		TOTAL EXPENSES ADVANCED	**$ 205,268.47**
		TOTAL THIS INVOICE	**$ 840,030.97**

Invoice # 14459 February 21, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14249	11/01/24	79,868.00	63,894.40	15,973.60
14263	11/04/24	1,139,238.00	918,737.10	220,500.90
14269	11/14/24	1,632,686.25	1,329,529.25	303,157.00
14317	12/19/24	1,183,151.62	1,022,299.12	160,852.50
14366	1/13/25	132,202.25	111,327.25	20,875.00
		Previous Balance		$ 721,359.00
		Balance Due This Invoice		$ 840,030.97
		TOTAL BALANCE DUE		**$ 1,561,389.97**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ .00	$ 20,875.00	$ 160,852.50	$ 539,631.50	$ .00	$ 721,359.00

Stris

February 21, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14472
Client # 00346
Matter # 007

INVOICE SUMMARY

For professional services rendered through January 31, 2025

RE: Retention and Fee Applications

Total Professional Services	$ 8,575.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 8,575.00**
Previous Balance	$ 22,525.00
TOTAL BALANCE DUE	**$ 31,100.00**

Electronic Invoice

Invoice # 14472 February 21, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
1/09/25	EB	Begin working on December fee statement.	1.40	1250.00	1,750.00
1/10/25	EB	Continue working on December fee statement.	2.60	1250.00	3,250.00
1/10/25	NC	Assist EB with portions of December fee statement.	1.80	350.00	630.00
1/13/25	EB	Continue preparing portions of December fee statement.	1.00	1250.00	1,250.00
1/14/25	EB	Correspond with NC regarding (0.1) and continue preparing portions of December fee statement (0.6).	.70	1250.00	875.00
1/20/25	VO	Work on December fee application.	.80	1025.00	820.00
		TOTAL PROFESSIONAL SERVICES			**$ 8,575.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	5.70	1,250.00	7,125.00
Victor O'Connell	VO	Partner	.80	1,025.00	820.00
Nicholas Capalbo	NC	Fellow	1.80	350.00	630.00
Total			**8.30**		**$ 8,575.00**

TOTAL THIS INVOICE **$ 8,575.00**

Stris & Maher LLP

Invoice # 14472 February 21, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14261	11/04/24	47,165.00	37,732.00	9,433.00
14284	11/14/24	12,985.00	10,388.00	2,597.00
14331	12/19/24	46,190.00	36,952.00	9,238.00
14381	1/13/25	6,285.00	5,028.00	1,257.00

Previous Balance	$ 22,525.00
Balance Due This Invoice	$ 8,575.00
TOTAL BALANCE DUE	**$ 31,100.00**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ .00	$ 1,257.00	$ 9,238.00	$ 12,030.00	$ .00	$ 22,525.00

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

STRIS & MAHER LLP'S SIXTH MONTHLY FEE STATEMENT
FOR THE PERIOD FEBRUARY 1, 2025, THROUGH FEBRUARY 28, 2025

Stris & Maher LLP ("Stris & Maher") submits, pursuant to the Order Granting the Motion of the Debtors to Establish Procedures for Interim Compensation and Reimbursement of Expenses for Professionals (the "Interim Compensation Order") (ECF No. 264) entered on October 14, 2024, this monthly fee statement for the payment of interim compensation rendered and reimbursement of expenses incurred during the period February 1, 2025, through February 28, 2025 (the "Second Monthly Fee Statement").

Stris & Maher seeks payment of interim compensation in the total amount of $624,995.00 (80% of the services rendered), plus $18,425.62 (100% of the interim expenses incurred). *See* Interim Compensation Order at ¶ 1(a). Summaries of the fees and expenses are attached as Exhibits 1, 2, and 3. Invoices reflecting detailed time entries are attached hereto as Exhibit 4.

[1] Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), Rhodium Encore Sub LLC (1064), Rhodium Enterprises, Inc. (6290), Rhodium Industries LLC (4771), Rhodium Ready Ventures LLC (8618), Rhodium Renewables LLC (0748), Rhodium Renewables Sub LLC (9511), Rhodium Shared Services LLC (5868), and Rhodium Technologies LLC (3973). The mailing and service address of Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

Pursuant to the Interim Compensation Order, any party objecting to the payment of interim compensation and reimbursement of expenses shall serve within 14 days after delivery of the Second Monthly Fee Statement a written notice, via email, upon Stris & Maher and each of the other Fee Notice Parties (as listed below) (the "Written Notice"). The Written Notice shall set forth with reasonable detail the nature of the objection and the amount at issue. If the parties are unable to reach a resolution of the objection within 14 calendar days, the objecting party shall file its objection (the "Objection") with this Court within 3 business days and serve such Objection on Stris & Maher and each of the other Fee Notice Parties. See Interim Compensation Order ¶ 1(c).

The Fee Notice Parties as defined in the Interim Compensation Order are:

a. Rhodium Enterprises, Inc., Attn: Charles Topping (chucktopping@rhdm.com) and Morgan Soule (morgansoule@rhdm.com), 2617 Bissonnet Street, Suite 234, Houston, Texas 77005;

b. Debtors' Bankruptcy Counsel, c/o Quinn Emanuel Urquhart & Sullivan, LLP, Attn: Patricia B. Tomasco (pattytomasco@quinnemanuel.com); Razmig Izakelian (razmigizakelian@quinnemanuel.com), Alain Jaquet (alainjaquet@quinnemanuel.com), and Joanna D. Caytas (joannacaytas@quinnemanuel.com), 700 Louisiana, Suite 3900, Houston, Texas 77002;

c. Debtors' Financial Advisor, c/o Province, Attn: Mark Robinson (mrobinson@provincefirm.com); David Dunn (ddunn@provincefirm.com); Kirsten Lee (klee@province.com); and Andrew Popescu (apopescu@provincefirm.com), 2360 Corporate Circle, Suite 340, Henderson, Nevada 89074;

d. Galaxy Digital, LLC, in its capacity as DIP Agent, c/o Orrick, Herrington & Sutcliffe LLP, Ryan C. Wooten (rwooten@orrick.com), 609 Main, 40th Floor, Houston, Texas 77002, and Robert Trust (rtrust@orrick.com), Mark Franke (mfranke@orrick.com) and Brandon Batzel (bbatzel@orrick.com), 51 West 52nd Street, New York, New York 10019;

e. Counsel or proposed counsel to any statutory committee appointed in these Chapter 11 Cases; and

f. United States Trustee, Ha Minh Nguyen (ha.nguyen@usdoj.gov), 515 Rusk, Suite 3516, Houston, Texas 77002.

If no objection is timely served pursuant to the Interim Compensation Order, the Debtors shall be authorized and directed to pay Stris & Maher an amount equal to 80% of the fees and 100% of the expenses listed herein, or if an objection is timely served, such percentage of fees and expenses that are not subject to an objection, as stated in the Interim Compensation Order.

Respectfully submitted this 3rd day of April, 2025.

QUINN EMANUEL URQUHART & SULLIVAN, LLP

/s/ Patricia B. Tomasco
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-and-

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Austin, TX 78701

Counsel for Debtors and Debtors in Possession

CERTIFICATE OF SERVICE

I certify that, on April 3, 2025, a true and correct copy of the foregoing Monthly Fee Statement was served through the Court's Electronic Case Filing system of the United States Bankruptcy Court for the Southern District of Texas.

/s/ Patricia B. Tomasco
Patricia B. Tomasco

EXHIBIT 1

Summary of Legal Fees for the Fee Period

Matter #	Matter Description	Total Hours	Total Fees	80% of Fees
001	Midas Green Patent Litigation	12.6	$15,240.00	$12,192.00
004	Whinstone Dispute, Excluding Tarrant County Litigation	969.1	$736,447.50	$589,158.00
007	Retention and Fee Applications	22.5	$16,177.50	$12,942.00
008	Non-working Travel for Whinstone Dispute	32.6	$13,378.75	$10,703.00
Total		1036.8	$781,243.75	$624,995.00

EXHIBIT 2

Summaries of Hours Billed by Stris & Maher Attorneys and Paraprofessionals

Midas Green Patent Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	$1,250.00	9.2	$11,500.00
Ken Halpern	Partner	1997	$1,100.00	3.4	$3,740.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Peter Stris	Founding Partner	2001	1,450.00	11.50	$16,675.00
Elizabeth Brannen	Managing Partner	2001	1,250.00	85.00	$106,250.00
Bridget Asay	Partner	1997	1,200.00	52.40	$62,880.00
Tillman Breckenridge	Partner	2003	1,200.00	47.00	$56,400.00
Victor O'Connell	Partner	2012	1,025.00	19.90	$20,397.50
John Stokes	Partner	2016	1,025.00	87.10	$89,277.50
Colleen Smith	Associate	2015	850.00	83.40	$70,890.00
Peter Brody	Associate	2016	850.00	53.30	$45,305.00
Sarah Rahimi	Associate	2019	750.00	63.70	$47,775.00
Helen Marsh	Associate	2024	700.00	84.60	$59,220.00
Tanya Tice	Discovery Associate	1989	525.00	142.40	$74,760.00
Monica Viramontes	Senior Paralegal	N/A	425.00	40.50	$17,212.50
Andrew Atsalis	Litigation Fellow	N/A	350.00	71.20	$24,920.00
Cynthia Huang	Litigation Fellow	N/A	350.00	49.50	$17,325.00
Sebastian Delgado	Litigation Fellow	N/A	350.00	2.20	$770.00
Nicholas Capalbo	Litigation Fellow	N/A	350.00	32.30	$11,305.00
Jaida Hodge-Adams	Litigation Fellow	N/A	350.00	43.10	$15,085.00

Retention and Fee Applications

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	1,250.00	3.90	$4,875.00
Victor O'Connell	Partner	2012	1,025.00	7.10	$7,277.50
Cynthia Huang	Litigation Fellow	N/A	350.00	9.70	$3,395.00
Nicholas Capalbo	Litigation Fellow	N/A	350.00	1.80	$630.00

Non-Working Travel for Whinstone Dispute[2]

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Bridget Asay	Partner	1997	1,200.00	12.10	$14,520.00
Victor O'Connell	Partner	2012	1,025.00	7.50	$7,687.50
Andrew Atsalis	Litigation Fellow	N/A	350.00	13.00	$4,550.00
Total after 50% discount					$13,378.75

[2] Stris & Maher has billed its time for travel in connection with the Whinstone dispute during which no work was performed on a separate invoice at a 50% discount.

EXHIBIT 3

Summaries of Expenses for the Fee Period

Whinstone Dispute, Excluding the Tarrant County Litigation

Expense	Amount
E-discovery platform fees	$5,292.00
Litigation support	$3,374.68
Travel	$1,258.94
Expert fees	$8,400.00
Court fees	$100.00
Total	$18,425.62

EXHIBIT 4

Stris

March 28, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14498
Client # 00346
Matter # 001

INVOICE SUMMARY

For professional services rendered through February 28, 2025

RE: Midas Green Litigation

Total Professional Services	$ 15,240.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 15,240.00**
Previous Balance	$ 27,178.00
TOTAL BALANCE DUE	**$ 42,418.00**

Electronic Invoice

Stris & Maher LLP

Invoice # 14498 March 28, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
2/03/25	EB	Prepare and correspond with Texas counsel regarding notice of order modifying stay.	.50	1250.00	625.00
2/04/25	EB	Correspond with opposing counsel regarding joint submission (0.1); review and begin analyzing draft of same (0.1); correspond with KH, PB, and SR regarding corrections in support of same (0.1).	.30	1250.00	375.00
2/04/25	KJH	Review Midas Green's draft proposed order memorializing the Court's rulings on pretrial motions, motion hearing transcript, and motions, and correspond with EB regarding defects in proposed order.	1.70	1100.00	1,870.00
2/05/25	EB	Revise draft orders on pretrial motions received from opposing counsel (2.6); correspond with KH, BA, co-counsel, and [redacted] regarding proposed revisions to and next steps in support of same (0.1).	2.70	1250.00	3,375.00
2/05/25	KJH	Review draft edits to Midas's proposed order on summary judgment and Dauberts and correspond with EB regarding same.	.60	1100.00	660.00
2/06/25	EB	Correspond with KH and co-counsel regarding revisions to proposed orders (0.2); implement same (0.2); correspond with opposing counsel and confer with [redacted] regarding same (0.1); review and propose revisions to objection to Midas bankruptcy claims (2.9).	3.40	1250.00	4,250.00
2/06/25	KJH	Correspond with EB regarding proposed revisions to draft order on dispositive motions.	.20	1100.00	220.00
2/07/25	EB	Revise proposed orders to incorporate feedback from R. Harrington (0.5); correspond and confer with KH and opposing counsel regarding further revisions to and finalization of same (0.5).	1.00	1250.00	1,250.00
2/07/25	KJH	Review redline to draft proposed order on dispositive motions and correspond with BA, EB, and opposing counsel J. Thomas regarding same (0.5); attend teleconferences with opposing counsel H. Pogorzelski regarding revisions to draft proposed order and Midas proposal to extend time for submission (0.4).	.90	1100.00	990.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/10/25	EB	Update R. Harrington regarding submission and status.	.10	1250.00	125.00
2/14/25	EB	Correspond with counsel for third party regarding initial response to inquiry.	.10	1250.00	125.00
2/21/25	EB	Correspond with counsel for GRC regarding confidentiality inquiry.	.10	1250.00	125.00
2/24/25	EB	Update [redacted] regarding status (0.1); correspond with Texas counsel and counsel for GRC regarding same and confidentiality request, respectively (0.1).	.20	1250.00	250.00
2/25/25	EB	Correspond with counsel for GRC regarding teleconference to discuss confidentiality inquiry.	.10	1250.00	125.00
2/26/25	EB	Attend teleconference with counsel for GRC (0.4); review correspondence from counsel for GRC providing applicable protective order (0.1) update [redacted] regarding same and potential next steps (0.1).	.60	1250.00	750.00
2/27/25	EB	Communicate with Texas counsel regarding status and steps in support of request for district court ruling.	.10	1250.00	125.00

TOTAL PROFESSIONAL SERVICES **$ 15,240.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	9.20	1,250.00	11,500.00
Ken Halpern	KJH	Partner	3.40	1,100.00	3,740.00
Total			**12.60**		**$ 15,240.00**

TOTAL THIS INVOICE **$ 15,240.00**

Stris & Maher LLP

Invoice # 14498 March 28, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14380	1/13/25	8,990.00	7,192.00	1,798.00
14471	2/21/25	25,380.00	.00	25,380.00

Previous Balance	$ 27,178.00
Balance Due This Invoice	$ 15,240.00
TOTAL BALANCE DUE	**$ 42,418.00**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ .00	$ 25,380.00	$ 1,798.00	$ .00	$ .00	$ 27,178.00

Stris

March 28, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14486
Client # 00346
Matter # 004

INVOICE SUMMARY

For professional services rendered through February 28, 2025

RE: Whinstone Litigation

Total Professional Services	$ 736,447.50
Total Expenses Advanced	$ 18,425.62
TOTAL THIS INVOICE	**$ 754,873.12**
Previous Balance	$ 860,905.97
TOTAL BALANCE DUE	**$ 1,615,779.09**

Trust Funds Remaining on Account $ 115,369.59

Electronic Invoice

Invoice # 14486 March 28, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
2/01/25	BA	Continue reviewing new draft waiver/NDA from Whinstone, draft proposed [redacted] regarding same, and convey same to JS, W. Thompson, J. Cohn, and P. Tomasco (0.6); confer with JS and W. Thompson, regarding [redacted], proposed mediation, and other high priority action items (0.7); review W. Thompson's [redacted] email regarding [redacted], revise same, and convey same to client (0.2).	1.50	1200.00	1,800.00
2/01/25	JS	Confer with BA and W. Thompson regarding high priority action items (0.7); confer with VO and correspond with client and co-counsel regarding mediation planning (0.3).	1.00	1025.00	1,025.00
2/02/25	JS	Review and evaluate complaint and Building D contract claims (2.9); attend teleconference with [redacted] regarding litigation status and next steps (0.5).	3.40	1025.00	3,485.00
2/02/25	TT	Review documents as instructed by HM to help prepare for phase 2 litigation and affirmative damages claim.	2.60	525.00	1,365.00
2/03/25	EB	Correspond with HM and NC regarding action items including document review and MV regarding phase 2 exhibit list (0.2); attention to case management (0.5); continue annotating [redacted] phase 1 materials (1.8); advise CS regarding additional information and material in support of [redacted] deposition (0.1); review and analyze proposed form of consulting agreement (0.3); correspond with BA, JS, VO, co-counsel and [redacted] regarding same (0.2).	3.10	1250.00	3,875.00

Stris & Maher LLP

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Date	Tkpr	Description	Hours	Rate	Amount
2/03/25	BA	Correspond with HM and PB regarding cell phone data storage, update client and legal team regarding same, and correspond with custodians' counsel regarding same (0.3); correspond with legal team and with opposing counsel regarding mediation (0.1); correspond with bankruptcy counsel regarding SAFE group's discovery requests, confer with bankruptcy counsel and PB regarding same and confer further with PB regarding next steps (0.3); review projections document from bankruptcy counsel, correspond with bankruptcy counsel and with PB, JS, and HM regarding steps for production of same (0.3); review draft consulting agreement for client and correspond with EB regarding same (0.2); research and draft reply memorandum regarding phase 2 scope and convey same to J. Cohn, P. Tomasco, W. Thompson, and JS for review (4).	5.20	1200.00	6,240.00
2/03/25	JS	Evaluate high priority action items in connection with Phase 2 and damages claims.	1.30	1025.00	1,332.50
2/03/25	CS	Review and analyze documents relevant to [redacted] deposition; continue revising outline for [redacted] deposition.	4.10	850.00	3,485.00
2/03/25	CHH	Targeted searching for BA regarding water issues for phase 2 (0.5); attend daily checkpoint teleconference regarding phase 2 document review (0.3); review tenth assigned phase 2 document review batch (2.0); review eleventh assigned phase 2 document review batch (2.0); begin reviewing twelfth assigned phase 2 document review batch (0.5); targeted searching for CS regarding [redacted] for phase 2 (0.5).	5.80	350.00	2,030.00
2/03/25	NC	Continue preparing memorandum for EB regarding annotated portions of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	2.00	350.00	700.00
2/03/25	JH	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); review ninth assigned batch of documents for Phase 2 issues (4.5).	4.80	350.00	1,680.00
2/03/25	PB	Prepare to lead (0.1) and attend (0.3) daily checkpoint teleconference regarding phase 2 and damages document review; attend teleconference with B. Asay and R. Izakelian regarding document production (0.3).	.40	850.00	340.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/03/25	HM	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); review and respond to team correspondence and questions from document reviewers regarding phase 2 document review (2.3); draft guidance for reviewers and update review memorandum (0.6).	3.20	700.00	2,240.00
2/03/25	TT	Review documents as instructed by HM to prepare for phase 2 litigation (8.3); attend daily checkpoint teleconference regarding phase 2 document review (0.3).	8.60	525.00	4,515.00
2/03/25	MV	Organize, prepare, and update internal exhibit list to reflect, Whinstone water invoices as instructed by counsel.	.70	425.00	297.50
2/04/25	EB	Confer with BA and JS regarding high priority action items (0.5); correspond with HM, MV, and NC regarding action items in support of document review and phase 2 exhibit list (0.2); continue analyzing and correspond with BA, JS, and co-counsel regarding [redacted] information in support of damages complaint (0.5); attend teleconference with client and co-counsel (1.5)	2.70	1250.00	3,375.00
2/04/25	BA	Review edits to phase 2 scope reply from J. Cohn and W. Thompson, correspond with JS regarding same, convey revised draft to client for review, correspond with JH regarding cite check of same and review cite check changes, and convey final draft to P. Tomasco and B. Howell for filing (1.5); confer with JS and EB regarding high priority action items including upcoming mediation, damages claims, and phase 2 preparation (0.5); review GMO filings regarding [redacted] and correspond with PB and litigation team regarding witness transcripts in GMO matter (0.2); correspond with EB, MV, PB and team regarding phase 2 exhibits (0.1); correspond with A. Swartz, P. Tomasco and team regarding [redacted] expert (0.1); participate in teleconference with client team, bankruptcy counsel, and litigation counsel to discuss high priority action items, including damages complaint and mediation preparation (1.5).	3.90	1200.00	4,680.00
2/04/25	JS	Attend call with BA and EB regarding high priority action items for phase 2 and damage case (0.5); attend client weekly touch point call (1.0); further review and evaluate issues with damages complaint (1.1).	2.60	1025.00	2,665.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/04/25	CS	Continue reviewing documents relevant to [redacted] deposition (2.5).	2.50	850.00	2,125.00
2/04/25	CHH	Targeted searching for CS regarding [redacted] for phase 2 (0.5); daily checkpoint teleconference regarding phase 2 document review (0.3); review twelfth assigned phase 2 document review batch (1.5); begin reviewing thirteenth assigned phase 2 document review batch (0.5); review Quinn document request and begin working on same (0.5).	3.30	350.00	1,155.00
2/04/25	NC	Continue preparing memorandum for EB regarding annotated portions of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	2.00	350.00	700.00
2/04/25	JH	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); review eighth assigned batch of documents for Phase 2 issues (5.5).	5.80	350.00	2,030.00
2/04/25	PB	Attend daily review team status check-in.	.30	850.00	255.00
2/04/25	HM	Review and respond to team correspondence regarding document 2 review (1.1); perform quality check of documents reviewed (0.5); attend daily checkpoint teleconference regarding phase 2 document review (0.3).	1.90	700.00	1,330.00
2/04/25	TT	Attend part of daily checkpoint teleconference regarding phase 2 document review (0.2); Review documents for HM to prepare for phase 2 litigation (9.5).	9.70	525.00	5,092.50
2/04/25	MV	Create and revise various Logikcull searches for target documents for attorneys (2.0); assess court requirements for supplemental exhibit list for Phase 2 (0.7); continue revisions to internal exhibit list and locate, organize, and save potential exhibits (2.5).	5.20	425.00	2,210.00
2/05/25	EB	Attend teleconference with J. Cohn regarding [redacted] analysis in support of complaint (0.4); correspond and confer with Stris team and [redacted] regarding additional materials and analysis in support of same (0.5); review updates and review and respond to correspondence with HM, MV, and litigation fellows regarding document review and exhibit list (0.2); prepare to depose [redacted] (2.5).	3.60	1250.00	4,500.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/05/25	BA	Review comments from client team and bankruptcy counsel on draft affirmative complaint, correspond with EB and JS regarding same, and convey edits and comments on same to A. Swartz, W. Thompson, and J. Cohn (1.2); correspond with MV and CH regarding potential exhibits for phase 2 (.1); review correspondence from EB, [redacted] and team regarding potential further analysis by [redacted] regarding buildings C and D, as relevant to damages claims (0.1).	1.40	1200.00	1,680.00
2/05/25	JS	Further work on draft damages complaint and potential Phase 2 issues.	1.60	1025.00	1,640.00
2/05/25	SR	Review and analyze [redacted] report, [redacted] report and materials relied upon in connection with [redacted] inquiries regarding materials needed for additional analysis.	2.50	750.00	1,875.00
2/05/25	CS	Continue reviewing documents for [redacted] deposition and revising deposition outline (1.1)	1.10	850.00	935.00
2/05/25	CHH	Daily checkpoint teleconference regarding phase 2 document review (0.2); review thirteenth assigned phase 2 document review batch (1.5); review fourteenth assigned phase 2 document review batch (2.0); continue working on Quinn document request (0.5).	4.20	350.00	1,470.00
2/05/25	NC	Correspond with EB and HM regarding support for Phase 2 document review (0.2); continue preparing memorandum for EB regarding annotated portions of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims (1.7).	1.90	350.00	665.00
2/05/25	JH	Attend portion of daily checkpoint teleconference regarding phase 2 document review (0.2); review tenth assigned batch of documents for Phase 2 issues (3.5).	3.70	350.00	1,295.00
2/05/25	PB	Attend daily review team meeting regarding Phase 2 preparation (0.2); prepare transfer of data to co-counsel (0.2); call with CH regarding same (0.1).	.50	850.00	425.00
2/05/25	ASA	Continue review of Phase 2 documents produced by Whinstone and tag with relevant issue tags (4.0); gather relevant expert report material to assist SR with review of [redacted] data sources (0.1).	4.10	350.00	1,435.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/05/25	HM	Attend daily checkpoint teleconference regarding phase 2 document review (0.2); review and respond to team correspondence regarding phase 2 document review (0.4); review documents for phase 2 (5.0).	6.00	700.00	4,200.00
2/05/25	TT	Attend daily checkpoint teleconference regarding phase 2 document review (0.2); continue reviewing documents assigned by HM (7.7).	7.90	525.00	4,147.50
2/05/25	MV	Conduct targeted searching for additional exhibits requested by attorneys (1.5); further update internal exhibit list with current potential exhibits and revise in preparation for phase 2 trial (2.0); further revise and add additional documents to deposition list (0.5).	4.00	425.00	1,700.00
2/06/25	EB	Prepare for and lead Stris team meeting regarding high priority action items (0.6); begin reviewing revised draft complaint (0.5).	1.10	1250.00	1,375.00
2/06/25	SR	Continue reviewing and analyzing [redacted] report, [redacted] report and materials relied upon in connection with [redacted] inquiries regarding materials needed for additional analysis (2.6); correspond with PB. EB, and [redacted] regarding the same (0.3); attend teleconference with EB, PB, HM, MV, JHA, CHH, and ASA regarding collection of relevant [redacted] documents, status of ongoing document review, and preparation of Phase 2 exhibit list (0.5).	3.40	750.00	2,550.00
2/06/25	CS	Continue reviewing documents relevant to [redacted] deposition; continue revising outline for [redacted] deposition (2.1).	2.10	850.00	1,785.00
2/06/25	CHH	Daily checkpoint teleconference regarding phase 2 document review (0.3); review fifteenth assigned phase 2 document review batch (2.0); review sixteenth assigned phase 2 document review batch (2.0); attend teleconference with EB, PB, SR, HM, MV, JHA, and ASA regarding collection of relevant [redacted] documents, status of ongoing document review, and preparation of Phase 2 exhibit list (0.5).	4.80	350.00	1,680.00
2/06/25	NC	Review first assigned phase 2 document review batch.	2.00	350.00	700.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/06/25	JH	Attend daily checkpoint teleconference regarding phase 2 document review (0.2); re-organize filed exhibits by ECF number at MV request for ease of attorney access (2.0); attend teleconference with EB, PB, SR, HM, MV, JHA, CHH, and ASA regarding collection of relevant [redacted] documents, status of ongoing document review, and preparation of Phase 2 exhibit list (0.5).	2.70	350.00	945.00
2/06/25	PB	Attend daily review team meeting regarding Phase 2 issues (0.3); attend portion of teleconference with EB, SR, HM, MV, JHA, CHH, and ASA regarding collection of relevant [redacted] documents, status of ongoing document review, and preparation of Phase 2 exhibit list (0.4).	.70	850.00	595.00
2/06/25	ASA	Daily checkpoint teleconference regarding phase 2 document review (0.3); attend teleconference with EB, PB, SR, HM, MV, JHA, and CHH regarding collection of relevant [redacted] documents, status of ongoing document review, and preparation of Phase 2 exhibit list (0.5); continue Phase 2 review of documents produced by Whinstone and tag with relevant issue tags (5.1); analyze expert reports of [redacted] and [redacted] for sources of specific power data as requested by EB (1.1).	7.00	350.00	2,450.00
2/06/25	HM	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); review and respond to team correspondence regarding phase 2 document review (1.5); perform quality check of phase 2 document review (1.0); update phase 2 document review memorandum (0.7); attend teleconference with EB, PB, SR, MV, JHA, CHH, and ASA regarding collection of relevant [redacted] documents, status of ongoing document review, and preparation of Phase 2 exhibit list (0.5).	4.00	700.00	2,800.00
2/06/25	TT	Attend daily checkpoint teleconference regarding phase 2 document review (0.3); review documents assigned by HM to support phase 2 litigation (10.5).	10.80	525.00	5,670.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/06/25	MV	Continue updating internal exhibit list to add potential exhibits and verify status of exhibits admitted in phase 1 (3.0); attend teleconference with EB, PB, SR, HM, JHA, CHH, and ASA regarding collection of relevant [redacted] documents, status of ongoing document review, and preparation of Phase 2 exhibit list (0.5).	3.50	425.00	1,487.50
2/07/25	EB	Attend portion of teleconference with client and co-counsel regarding information and next steps in support of finalization of complaint (1.1); attention to regarding action items in light of order setting phase 2 hearing date (0.5).	1.60	1250.00	2,000.00
2/07/25	BA	Participate in teleconference with [redacted], bankruptcy counsel and litigation team regarding affirmative complaint (0.4); participate in teleconference with client team, bankruptcy counsel, and litigation team regarding affirmative complaint and mediation (1.2); confer with JS regarding affirmative complaint and phase 2 proceedings, review phase 2 scheduling order and correspond with client and litigation team to update regarding same, and confer with [redacted] regarding same (0.4).	2.00	1200.00	2,400.00
2/07/25	JS	Attend teleconferences regarding inclusion of certain claims in damages complaint (1.3) and further review and evaluate damages complaint (0.7).	2.00	1025.00	2,050.00
2/07/25	CS	Continue reviewing documents relevant to and revising [redacted] deposition outline.	4.60	850.00	3,910.00
2/07/25	CHH	Confer with PB regarding Quinn Emanuel document request (0.2); daily checkpoint teleconference regarding phase 2 document review (0.6); review seventeenth assigned phase 2 document review batch (2.0); review eighteenth assigned phase 2 document review batch (1.9); review nineteenth assigned phase 2 document review batch (2.0).	6.70	350.00	2,345.00
2/07/25	NC	Daily checkpoint teleconference regarding phase 2 document review (0.6); review second assigned phase 2 document review batch (3.0);	3.60	350.00	1,260.00
2/07/25	JH	Attend part of daily checkpoint teleconference regarding phase 2 document review (0.2); review eleventh assigned batch of documents for Phase 2 issues (3.0).	3.20	350.00	1,120.00
2/07/25	PB	Attend teleconference with CHH regarding production.	.20	850.00	170.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/07/25	ASA	Continue Phase 2 review of documents produced by Whinstone and tag with relevant issue tags.	8.00	350.00	2,800.00
2/07/25	HM	Attend daily checkpoint teleconference regarding phase 2 document review (0.6); review and respond to team correspondence regarding phase 2 document review (1.5); review documents for phase 2 (5.0).	7.10	700.00	4,970.00
2/07/25	TT	Attend daily checkpoint teleconference regarding phase 2 document review (0.6); review documents for HM to prepare for phase 2 litigation (6.8).	7.40	525.00	3,885.00
2/08/25	EB	Analyze and correspond with BA, JS, and co-counsel regarding further revisions to draft complaint (1.6); review update from client and co-counsel and correspond with BA regarding next steps in support of same (0.1).	1.70	1250.00	2,125.00
2/08/25	BA	Review revised draft complaint and correspond with A. Swartz and J. Cohn regarding same (0.4); review correspondence regarding draft complaint and timing of filing and correspond and confer with JS regarding same (0.3).	.70	1200.00	840.00
2/08/25	JS	Evaluate potential inclusion of certain claims in damages complaint.	1.20	1025.00	1,230.00
2/08/25	HM	Review documents for phase 2 (2.5); review and response to document reviewer team correspondence regarding phase 2 document review (0.5).	3.00	700.00	2,100.00
2/08/25	TT	Review documents as assigned by HM to support upcoming phases of trial and claims.	4.20	525.00	2,205.00
2/09/25	EB	Review and respond to team correspondence regarding phase 2 document review and expert depositions.	.10	1250.00	125.00
2/09/25	BA	Review further correspondence regarding filing of affirmative complaint, review additional client comments on same and correspond with A. Swartz regarding edits to and attachments to same.	.30	1200.00	360.00
2/09/25	JS	Further evaluate potential inclusion of certain claims in damages complaint.	.80	1025.00	820.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/09/25	CHH	Review twentieth assigned phase 2 document review batch (0.8); review twenty-first assigned phase 2 document review batch (0.8); review twenty-second assigned phase 2 document review batch (0.8); review twenty-third assigned phase 2 document review batch (0.8).	3.20	350.00	1,120.00
2/09/25	TT	Continue reviewing assigned documents.	1.50	525.00	787.50
2/10/25	VO	Correspond with client and team regarding damages analysis in advance of mediation.	.40	1025.00	410.00
2/10/25	EB	Continue preparing for [redacted] expert deposition (2.7); correspond with CS regarding next steps in support of same (0.1); correspond with Stris Team and W. Thompson regarding and continue assisting with additional analysis and document searching in support of damages complaint (0.4); advise TB regarding adequate assurance research and analysis TB (0.2); attend teleconference with PB, SR, and [redacted] regarding additional documentation and analysis in support of [redacted] damages (0.3); attend to high priority phase 2 action items resulting from scope order including staffing, witness preparation planning, document and transcript review, and exhibit list updates and revisions (3.0).	6.70	1250.00	8,375.00
2/10/25	BA	Review second interim order addressing scope of phase 2 (0.3); prepare for phase 2 hearing, including reviewing evidence and potential exhibits, approving new production, and corresponding and conferring with bankruptcy and litigation team regarding strategy, potential briefing, depositions, and witnesses (2.5); review email from T. Schmeltz regarding special committee and correspond with JS regarding same (0.2).	3.00	1200.00	3,600.00
2/10/25	JS	Begin preparing plan for witnesses, exhibits, and briefing for Phase 2 in light of ruling from court.	6.30	1025.00	6,457.50
2/10/25	SR	Attend videoconference with EB, PB, and [redacted] regarding materials needed for additional analysis.	.30	750.00	225.00
2/10/25	TB	Call with E. Brannen regarding question on assumption of contracts; research regarding assumption of contracts in bankruptcy and review of sources (3.6).	3.80	1200.00	4,560.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/10/25	CS	Review and analyze court order regarding phase two of the motion to assume (0.6); begin reviewing damages complaint and review and respond to email communications regarding the same (1.5); review and analyze documents relevant to Winter Storm Uri energy credits(2.2); continue analyzing [redacted] deposition outline (0.7).	5.00	850.00	4,250.00
2/10/25	CHH	Review twenty-fourth assigned phase 2 document review batch (0.7); review twenty-fifth assigned phase 2 document review batch (0.7); review twenty-sixth assigned phase 2 document review batch (0.7); targeted searching regarding Winter Storm Uri settlement and summarize results from same to EB (0.5); attend daily checkpoint teleconference regarding phase 2 document review (0.2); review twenty-seventh assigned phase 2 document review batch (0.7); review twenty-eighth assigned phase 2 document review batch (0.7); review twenty-ninth assigned phase 2 document review batch (0.7); perform quality control checks regarding phase 2 review batches (0.1); prepare and finalize debtors' production set 19 (0.2).	5.10	350.00	1,785.00
2/10/25	NC	Continue preparing memorandum for EB regarding annotated portions of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	1.80	350.00	630.00
2/10/25	JH	Attend daily checkpoint teleconference regarding phase 2 document review (0.2); review twelfth assigned batch of documents for Phase 2 issues (5.0).	5.20	350.00	1,820.00
2/10/25	PB	Attend daily review team check in regarding Phase 2 preparation (0.2); preparation for Phase 2 trial (3.1); teleconference with EB, SR, and potential expert (0.3).	3.60	850.00	3,060.00
2/10/25	ASA	Review documents produced by Whinstone and apply Phase 2 issue tags (3.6); collect [redacted] and exhibits at request of EB in support of [redacted] project (0.5); attend daily checkpoint teleconference regarding phase 2 document review (0.2); conduct targeted search for specific Whinstone invoices billed to client (0.6); review Phase 2 documents flagged during quality control and assign appropriate tags (1.2).	6.10	350.00	2,135.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/10/25	HM	Attend daily checkpoint teleconference regarding phase 2 document review (0.2); review and respond to team correspondence regarding phase 2 document review (1.0); review documents for phase 2 (1.1).	2.30	700.00	1,610.00
2/10/25	TT	Attend daily checkpoint teleconference regarding phase 2 litigation (.2); review documents for HM to prepare for phase 2 litigation (4.7); review [redacted] for EB in support of fraud claim in phase 2 (3.5).	8.40	525.00	4,410.00
2/10/25	MV	Perform additional tarteged searches for email as requested by attorneys (0.5); revise further, review hits, and update team (0.5).	1.00	425.00	425.00
2/11/25	VO	Confer with JS regarding settlement dynamics and strategy (0.7); emails with client and team regarding same (0.4).	1.10	1025.00	1,127.50
2/11/25	EB	Continue preparing to depose [redacted] expert (2.3); confer with CS, ASA, and JHA regarding preparation of exhibits for same and pretrial motions (0.2); attend teleconference with PB, HM, TT, CHH, JHA, and ASA to advise regarding high-priority Phase 2 action items (0.5); assist with final review and correspond with Stris team and co-counsel regarding finalization of damages complaint and accompanying documents and advise Stris team members regarding additional document searching and analysis in support of same (2.0); attend portion of checkpoint teleconference with BA, JS, clients, and co-counsel (1.2).	6.20	1250.00	7,750.00
2/11/25	BA	Participate in teleconference with client team and litigation team to discuss mediation and phase 2 preparation (1.2); confer with CS regarding phase 2 motion in limine, correspond with JS and litigation team regarding phase 2 preparation and meet and confer with opposing counsel, and correspond with opposing counsel regarding depositions and conferral (0.3).	1.50	1200.00	1,800.00
2/11/25	JS	Continue planning for witnesses, exhibits, depositions, and briefing for Phase 2 in light of court order (6.0) and attend portion of client touchpoint call (1.3).	7.30	1025.00	7,482.50

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Date	Tkpr	Description	Hours	Rate	Amount
2/11/25	TB	Research regarding bankruptcy law requirements for establishing adequate assurance and when that is necessary; call with J. Stokes regarding specific parameters of adequate assurance issue.	6.80	1200.00	8,160.00
2/11/25	CS	Attend teleconference with EB, JHA, and ASA to discuss tasks in support of the deposition of Whinstone's expert [redacted] (0.2); meet with BA to discuss motion in limine to file in advance of Phase 2 hearing on motion to assume (0.2); beginning reviewing filings and background materials in preparation for drafting motion in limine (3.8); continue reviewing and analyzing damages complaint (0.8).	5.00	850.00	4,250.00
2/11/25	CHH	Attend teleconference with EB, PB, HM, TT, JHA, and ASA regarding high-priority Phase 2 action items (0.5); assist EB with targeted searching regarding ancillary invoices (0.5).	1.00	350.00	350.00
2/11/25	NC	Continue preparing memorandum for EB regarding annotated portions of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	1.90	350.00	665.00
2/11/25	JH	Attend teleconference with EB, CS, JHA, and ASA to discuss tasks in support of the deposition of Whinstone's expert [redacted] (0.2); attend teleconference with EB, PB, HM, TT, CHH, JHA, and ASA regarding high-priority Phase 2 action items (0.5); assist MV, EB and A. Swartz (LKC) in verifying the confidentiality of given filings in support of Rhodium's damages complaint (2.0).	2.90	350.00	1,015.00
2/11/25	PB	Prepare for Phase 2 trial.	4.30	850.00	3,655.00
2/11/25	ASA	Finish review of Phase 2 documents produced by Whinstone flagged during quality control and assign appropriate tags (2.5); attend teleconference with EB, PB, HM, TT, JHA, and CHH regarding high-priority Phase 2 action items (0.5); attend teleconference with EB, CS, and JHA to discuss tasks in support of the deposition of Whinstone's expert [redacted] (0.2); assist with review of orders issued by the arbitrator and Phase 1 trial exhibits in support of preparing damages complaint exhibits (1.5).	4.70	350.00	1,645.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/11/25	HM	Attend teleconference with EB, PB, TT, CHH, JHA, and ASA regarding high-priority Phase 2 action items (0.5); review and analyze hot documents for potential use in Phase 2 hearing and affirmative damages case (2.4).	2.90	700.00	2,030.00
2/11/25	TT	Attend teleconference with EB, PB, HM, CHH, JHA, and ASA regarding high-priority Phase 2 action items (0.5); analyze related materials and summarize [redacted] testimony of [redacted] in preparation for phase 2 (8.5); review and Analyze additional [redacted] in preparation for phase 2 (2.0).	11.00	525.00	5,775.00
2/11/25	MV	Create and revise Logikcull various target searches for documents, review hits, correspondence regarding the same (2.0); correspondence with paralegal regarding filing of Phase 2 exhibits and exhibit list, review current documents (0.2); search of previously filed exhibit list and confirm exhibits filed under seal, correspondence regarding the same (0.8).	3.00	425.00	1,275.00
2/12/25	VO	Prepare for mediation (0.8); review emails from client regarding same (0.2); confer with JS regarding same (0.3).	1.30	1025.00	1,332.50
2/12/25	EB	Continue working on and advising Stris team regarding high priority action items in support of phase 2 and damages claim including exhibit list and document searching and analysis (5.3); review and respond to correspondence from [redacted] and update PS, BA, and JS regarding same (0.1).	5.40	1250.00	6,750.00
2/12/25	BA	Continue preparing for mediation and phase 2 of the hearing, including reviewing analyses of outstanding invoices, reviewing potential exhibits, conferring with JS, PB, HM, and EB regarding strategy and preparation, conferring with A. Peloubet regarding status of invoices and hearing preparation, and correspond with P. Tomasco and team regarding hearing date and attempts to confer with opposing counsel.	1.80	1200.00	2,160.00
2/12/25	JS	Prepare for mediation (2.3) and for Phase 2 of assumption litigation (3.5).	5.80	1025.00	5,945.00
2/12/25	SR	Review energy consumption data in connection with [redacted] request and correspond with [redacted] regarding the same.	1.50	750.00	1,125.00
2/12/25	TB	Review case law regarding adequate assurance and write results of research.	3.60	1200.00	4,320.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/12/25	CS	Begin drafting motion in limine regarding ancillary services charges; review and analyze case law relevant to the same (5.4).	5.40	850.00	4,590.00
2/12/25	CHH	Email HM regarding phase 2 document review (0.1); assist EB with targeted searching in support of phase 2 (1.0).	1.10	350.00	385.00
2/12/25	PB	Preparation for trial Phase 2.	7.50	850.00	6,375.00
2/12/25	ASA	Gather relevant Court orders and recently filed damages complaint and send to Rhodium expert [redacted] (0.6); update internal memorandum to reflect recent case activity (0.7); compile and organize invoices requested by PB to assist with attorney review (0.2); research [redacted] information requested by EB in support of deposition preparation (2.7).	4.20	350.00	1,470.00
2/12/25	HM	Review, analyze, and prepare documents and potential exhibits for phase 2 hearing.	6.10	700.00	4,270.00
2/12/25	TT	Analyze and summarize materials for EB regarding Building D.	8.80	525.00	4,620.00
2/12/25	MV	Conduct further targeted searches for hot documents as requested by attorneys.	2.00	425.00	850.00
2/13/25	VO	Attend zoom meeting with team regarding phase 2 trial planning and mediation planning (1.5); emails with team regarding mediation position statement (0.2).	1.70	1025.00	1,742.50
2/13/25	PS	Attend internal meeting regarding high priority action items in support of mediation and phase 2 hearing (1.5); confer with individual team members regarding next steps (0.9).	2.40	1450.00	3,480.00
2/13/25	BA	Attend Stris team meeting regarding high priority action items in support of mediation and phase 2 hearing preparation (1.5); correspond with P. Tomasco, JS, EB, and CS regarding mediation position statement and with CS regarding pretrial motion in limine for phase 2 (0.2); review and analyze research and correspondence regarding privilege issues and correspond with litigation team regarding same (0.5).	2.20	1200.00	2,640.00
2/13/25	JS	Continue preparation for mediation (2.0) and Phase 2 of assumption litigation (5.5).	7.50	1025.00	7,687.50

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Date	Tkpr	Description	Hours	Rate	Amount
2/13/25	SR	Attend portion of Stris team meeting regarding high priority action items in support of mediation and phase 2 hearing preparation (0.5); conduct document review regarding energy consumption data in connection with [redacted] request and team correspondence regarding the same (3).	3.50	750.00	2,625.00
2/13/25	TB	Begin research regarding third-party information sharing requested by EB.	2.40	1200.00	2,880.00
2/13/25	CS	Attend portion of Stris team meeting regarding high priority action items in support of mediation and phase 2 hearing preparation (0.6); continue drafting motion in limine for phase 2 hearing (4.0); draft mediation statement (4.9).	9.50	850.00	8,075.00
2/13/25	CHH	Draft memorandum regarding targeted search findings in support of phase 2 (1.5); attend daily checkpoint teleconference regarding phase 2 document review (0.5); attend portion of Stris team meeting regarding high priority action items in support of mediation and phase 2 hearing preparation (0.5);	2.50	350.00	875.00
2/13/25	NC	Continue preparing memorandum for EB regarding annotated portions of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	1.70	350.00	595.00
2/13/25	JH	Attend teleconference with PS, EB, BA, JS, VO, CS, PB, SR, CHH, MV, JHA, and ASA regarding strategic and high-priority Phase 2 action items (0.5); attend teleconference with HM, TT, CHH, ASA, and NC to discuss the collection of documents tagged in the phase 2 review and found via targeted search that are related to outstanding or contested invoices from Whinstone (0.6); begin collecting documents tagged in the phase 2 review and found via targeted search that are related to outstanding or contested invoices from Whinstone (2.0).	3.10	350.00	1,085.00
2/13/25	JH	Review Bankruptcy trial transcripts to determine which of the exhibits filed under seal were admitted under seal, rather than admitted publicly, for PB review.	2.20	350.00	770.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/13/25	PB	Preparation for trial Phase 2, including analysis of exhibits admitted in Phase 1 (3.9); attend teleconference with PS, EB, BA, JS, VO, CS, SR, CHH, MV, JHA, and ASA regarding strategic and high-priority Phase 2 action items and follow-on call regarding mediation strategy (1.5).	5.40	850.00	4,590.00
2/13/25	ASA	Analyze invoices and conduct targeted searches for supporting documentation at request of HM in support of Phase 2 preparation efforts (7.0); attend daily checkpoint teleconference regarding phase 2 document review (0.5); attend portion of Stris team meeting regarding high priority action items in support of mediation and phase 2 hearing preparation (0.5).	8.00	350.00	2,800.00
2/13/25	HM	Review, analyze, and prepare documents and potential exhibits for phase 2 hearing.	9.50	700.00	6,650.00
2/13/25	TT	Attend daily checkpoint teleconference with HM, ASA, EB, JHA, to prepare for phase 2 targeted document review (0.4); analyze and summarize additional [redacted] for EB in preparation for phase 2 (11.0).	11.00	525.00	5,775.00
2/13/25	MV	Provide attorney CS with requested filed versions of exhibits in support of upcoming deposition (1.5); attend teleconference with PS, EB, BA, JS, VO, CS, PB, SR, CHH, JHA, and ASA regarding strategic and high-priority Phase 2 action items (0.5); conduct additional target searches for documents related to disputed invoices, review hits, correspond with team regarding the same, and save for further attorney review (4.0).	6.00	425.00	2,550.00
2/14/25	EB	Review, propose revisions to, and correspond with Stris team and co-counsel regarding mediation brief (0.5); review updates from TT and attend to high priority phase 2 action items including analysis in support of cross-examinations (1.2).	1.70	1250.00	2,125.00
2/14/25	BA	Review and revise draft mediation statement prepared by CS, correspond with JS regarding strategy for same, and and review further edits from JS and P. Tomasco (2.4); draft proposed response to Whinstone's counsel regarding phase 2 hearing, correspond with litigation team regarding same, and convey same to M. Moore (0.7).	3.10	1200.00	3,720.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/14/25	BA	Participate in teleconference with [redacted] and PB to assess status of invoices as relevant to preparation for phase 2 hearing.	.40	1200.00	480.00
2/14/25	JS	Work on mediation preparation and related issues.	2.20	1025.00	2,255.00
2/14/25	SR	Continue conducting document review regarding energy consumption data in connection with [redacted] request (0.8); continue reviewing and analyzing materials and drafting notes in support of [redacted] claims, damages, and expert analysis (4.2).	5.00	750.00	3,750.00
2/14/25	TB	Continue research regarding regarding third party disclosures for EB and JS.	2.40	1200.00	2,880.00
2/14/25	CS	Continue drafting and revising mediation statement (1.6); continue drafting motion in limine for phase 2 hearing (1.5)	3.10	850.00	2,635.00
2/14/25	CHH	Attend daily checkpoint teleconference regarding phase 2 document review (0.6); update targeted search findings memorandum in support of phase 2 (0.5); attend teleconference regarding invoices with [redacted] (Rhodium), PB, BA, and ASA (0.4); assist HM with invoice review in support of phase 2 (3.5); review JS email regarding Quinn Emanuel document request and continue working on same (0.2).	5.20	350.00	1,820.00
2/14/25	NC	Continue preparing memorandum for EB regarding annotated portions of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	5.30	350.00	1,855.00
2/14/25	JH	Attend teleconference with HM, TT, CHH and ASA to discuss the collection of documents tagged in the phase 2 review and found via targeted search that are related to outstanding or contested invoices from Whinstone (0.5); continue collecting documents tagged in the phase 2 review and found via targeted search that are related to outstanding or contested invoices from Whinstone (4.0); distribute updated exhibit list tracking which exhibits from Bankruptcy Phase 1 were admitted under seal or publicly to attorney team at PB request (0.5).	4.00	350.00	1,400.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/14/25	PB	Preparation for trial Phase 2 (3.6); teleconference with [redacted], BA, and ASA regarding Phase 2 issues (0.4); attend internal discovery team meeting regarding Phase 2 issue analysis (0.5).	4.50	850.00	3,825.00
2/14/25	ASA	Attend teleconference regarding invoices with [redacted] (Rhodium), Ashley Jonson (Rhodium), PB, BA, and CHH (0.4); conduct targeted searches for invoice documentation and assist HM with drafting of memorandum in support of phase 2 preparation efforts (5.7); gather privilege log material at request of PB (0.2).	6.30	350.00	2,205.00
2/14/25	HM	Review, analyze, and prepare documents and potential exhibits for phase 2 hearing.	5.50	700.00	3,850.00
2/14/25	TT	Attend daily checkpoint teleconference with HM, PB, JH, CH, AA regarding phase 2 targeted invoice searches (0.6); continue analyzing and summarize [redacted] testimony regarding [redacted] for EB (7.1).	7.70	525.00	4,042.50
2/14/25	MV	Qc internal document with exhibit admission tracker (0.2); assist with further targeted searches for attorney review (0.3).	.50	425.00	212.50
2/15/25	EB	Review and analyze memorandum from co-counsel and related materials and correspond with BA, TB, and JS regarding next steps in support of assessment of action items resulting from same.	1.50	1250.00	1,875.00
2/15/25	BA	Review analysis of potential phase 2 invoices prepared by HM to prepare for phase 2 trial.	.30	1200.00	360.00
2/15/25	JS	Prepare for presentation to Special Committee regarding damages complaint.	3.50	1025.00	3,587.50
2/15/25	TB	Consider issues and engage in further legal research regarding third party disclosures.	1.60	1200.00	1,920.00
2/15/25	HM	Finalize and circulate phase 2 invoice document analysis memorandum in preparation for the phase 2 hearing.	1.50	700.00	1,050.00
2/16/25	EB	Review and correspond with HM regarding memorandum analyzing phase 2 invoices and related documents (0.3); review and respond to further correspondence from BA, TB, JS, and co-counsel regarding research and update to [redacted] (0.5).	.80	1250.00	1,000.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/16/25	BA	Review draft memorandum from LKC regarding privilege issues and correspond with JS, EB, and TB regarding strategy and potential issues relevant to privilege concerns.	.40	1200.00	480.00
2/16/25	JS	Prepare for (1.5) and confer (0.8) with Special Committee regarding potential damages claims; attend board meeting regarding mediation (2.3); work on mediation follow-up (1.0).	5.60	1025.00	5,740.00
2/16/25	TB	Review memorandum regarding third party disclosures and advise regarding duties of directors.	2.80	1200.00	3,360.00
2/17/25	VO	Confer with PS, EB, and JS regarding mediation and strategy (0.6); confer with JS regarding same (0.4).	1.00	1025.00	1,025.00
2/17/25	PS	Attend teleconference with EB, VO, and JS regarding mediation preparation and case strategy.	.60	1450.00	870.00
2/17/25	EB	Continue working on high priority phase 2-related action items including assessing materials for cross-examination and materials relating to invoices (5.0); review and correspond with BA and JS regarding analysis from TT regarding Building D [redacted] (0.4); attend teleconference with PS, VO, and JS regarding mediation preparation and case strategy (0.6); confer with TT regarding transcript analysis in support of phase 2 cross-examinations (0.2); attend teleconference with BA, JS, PB, and co-counsel to prepare for meet and confer (0.5); correspond with BA, VO, JS, co-counsel and clients regarding mediation preparation (0.1); review and correspond with BA, VO, JS, and LKC co-counsel regarding revisions to objection to Whinstone proof of claim (0.3).	7.10	1250.00	8,875.00
2/17/25	BA	Participate in teleconference with JS, EB, PB, and P. Tomasco to prepare for meet and confer with Whinstone's counsel regarding phase 2 hearing (0.5); participate in meet and confer with Whinstone's counsel regarding phase 2 hearing (0.4); review and revise draft objection to Whinstone's proof of claim, correspond with litigatoin team regarding same, and correspond with P. Tomasco regarding edits to same (0.5); continue preparing for mediatoin and phase 2 hearing, including reviewing deposition [redacted] analyses, conferring with JS regarding hearing strategy, and correspond with JS, PB, and EB regarding potential phase 2 issues (2.2).	3.60	1200.00	4,320.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/17/25	JS	Assist in preparation for mediation (2.3) and prepare for Phase 2 trial (1.4).	3.70	1025.00	3,792.50
2/17/25	TB	Analyze additional documents and research regarding third party information sharing.	2.40	1200.00	2,880.00
2/17/25	CS	Continue drafting motion in limine for Phase 2 hearing.	6.90	850.00	5,865.00
2/17/25	PB	Prepare for Phase 2 hearing, including preparation of testimony of [redacted] and compilation of exhibits and cross-examination material (4.8); teleconference with JS, BA, EB, P. Tomasco, and J. Cohn regarding mediation and key Phase 2 action items (0.5).	5.30	850.00	4,505.00
2/17/25	TT	Confer with EB to coordinate review and summary of [redacted] regarding phase 2 (0.2); continue analysis and summary of prior [redacted] testimony of two [redacted] witnesses (6.0).	6.20	525.00	3,255.00
2/18/25	VO	Attend mediation planning call with client representatives and co-counsel (0.6); prepare for mediation (4.3).	4.90	1025.00	5,022.50
2/18/25	EB	Attend teleconference with VO, clients, and co-counsel to prepare for mediation (0.5); continue assisting with information and analysis in support of same (1.2); review and analyze additional documents and correspondence from MV and CHH regarding [redacted] invoice and correspond with [redacted] and Stris team regarding follow-up questions regarding same (0.9); continue working on additional high priority phase 2 action items (2.0); attend phase 2 document review checkpoint teleconference to advise regarding additional action items (0.7); coordinate hot seat and graphics support for phase 2 (0.2).	5.50	1250.00	6,875.00
2/18/25	BA	Prepare for mediation and phase 2 hearing.	1.00	1200.00	1,200.00
2/18/25	JS	Assist in preparation for mediation (1.3); attend teleconference regarding exit financing issues (1.1); prepare for Phase 2 trial (1.5).	3.90	1025.00	3,997.50

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Date	Tkpr	Description	Hours	Rate	Amount
2/18/25	SR	Continue reviewing and analyzing materials and drafting notes in support of [redacted] claims, damages, and expert analysis (3.7); review and analyze EB and [redacted] correspondence relating to [redacted] invoices in connection with the same (0.9); review correspondence and correspond with CHH regarding latest [redacted] calculations to assist EB (0.3).	4.90	750.00	3,675.00
2/18/25	CS	Begin drafting Phase 2 opening slides (2.5); review and potential exhibits for Phase 2 hearing (1.2)	3.70	850.00	3,145.00
2/18/25	CHH	Assist EB, BA, and JS with targeted searching regarding curtailments in support of phase 2 (1.0); update internal targeted searching memorandum in light of same (0.2); attend daily checkpoint teleconference with EB, PB, and HM regarding phase 2 document review (0.7); assist EB, PB, and HM with further targeted searching in light of same (1.5); assist PB with [redacted] (Rhodium) direct preparations (0.1).	3.50	350.00	1,225.00
2/18/25	NC	Continue preparing memorandum for EB regarding annotated portions of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	1.20	350.00	420.00
2/18/25	PB	Attend daily checkpoint teleconference with EB, PB, HM, and CH regarding phase 2 document review (0.7); follow-up call with CH regarding same (0.3); draft direct examination outline for Phase 2 testimony (3.8).	4.80	850.00	4,080.00
2/18/25	ASA	Assist EB by gathering relevant analysis by expert [redacted] (0.4); update internal detailed tracking memorandum (0.3); search for and identify documentation related to Phase 2 invoices (0.3).	1.00	350.00	350.00
2/18/25	HM	Attend daily checkpoint teleconference with EB, PB, HM, and CH regarding phase 2 document review (0.7); revise and continue drafting phase 2 invoices analysis memorandum (6.0).	6.70	700.00	4,690.00
2/18/25	SD	Print and compile materials for mediation session (1.1); compile mediation materials into an e-binder (0.8).	1.90	350.00	665.00
2/18/25	TT	Continue analyzing and summarizing prior [redacted] testimony for EB in support of phase 2 trial preparation.	8.80	525.00	4,620.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/18/25	MV	Further update and revise internal exhibit list (1.0); further review admitted trial exhibits used in Phase 1 and update official Phase 2 exhibit list regarding the same (0.5).	1.50	425.00	637.50
2/19/25	VO	Attend mediation.	9.00	1025.00	9,225.00
2/19/25	PS	Review Whinstone's emergency motion to continue phase 2 and confer with team regarding same and mediation updates.	2.40	1450.00	3,480.00
2/19/25	EB	Attend teleconference with PB regarding action items including additional phase 2 exhibit searches (0.2); review and comment on draft [redacted] direct examination [redacted] (0.9); attention to case management and upcoming hearing staffing (0.4); analyze additional information from [redacted] regarding [redacted] invoice and correspond with [redacted] regarding follow-up requests (1.1); attend teleconference with SR regarding high priority [redacted] and phase 2 action items (0.2); correspond with Stris team and co-counsel regarding high priority action items including [redacted] deposition (0.2); prepare for same (1.5); attend teleconference with PB regarding phase 2 witness preparation and exhibits (1.0); prepare Rhodium witness preparation materials (1.9); review, propose revisions, and correspond with BA and PB regarding motion in limine (0.7); review mediation updates and correspond with Stris team members and Fulcrum regarding status and resulting action items (0.2).	8.30	1250.00	10,375.00
2/19/25	BA	Attend and participate in mediation (6); review and revise motion in limine for phase 2 and correspond and confer with team regarding same (2.8); review Whinstone's motion to continue hearing, confer with team regarding same, and begin drafting opposition to same (1.2).	10.00	1200.00	12,000.00
2/19/25	JS	Prepare for Phase 2 trial.	2.20	1025.00	2,255.00
2/19/25	SR	Confer with EB regarding [redacted] and phase 2 high priority action items (0.2); review team and [redacted] correspondence and documents pertaining to [redacted] invoices and June 10, 2023 mining in connection with [redacted] phase 2 and damages analysis (0.7)	.90	750.00	675.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/19/25	CS	Review and analyze emergency motion to continue Phase 2 hearing (0.5); draft section of response to motion to continue (2.0); continue drafting Phase 2 opening slides (0.6); review edits to and revise motion in limine (2.1); prepare exhibits, declaration, and proposed order granting motion in limine (1.3) finalize and file motion in limine and supporting materials (1.4).	7.90	850.00	6,715.00
2/19/25	NC	Continue preparing memorandum for EB regarding annotated portions of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims.	2.10	350.00	735.00
2/19/25	PB	Preparation for Phase 2 trial (4.9); teleconference with EB regarding priority discovery items (0.2); teleconference with EB regarding key Phase 2 preparation issues (1.0); teleconference with JS regarding preparation for Phase 2 opening (0.3).	6.40	850.00	5,440.00
2/19/25	ASA	Support mediation efforts of attorneys ahead of Phase 2 hearing (6.5); review Whinstone's motion to continue hearing and draft shell of opposition to same at request of BA (1.0); revise internal tracking memorandum to reflect case updates and relevant preparatory material ahead of Phase 2 hearing (0.5).	8.00	350.00	2,800.00
2/19/25	HM	Revise phase 2 invoice analysis memorandum (3.6); review and analyze documents for EB (1.5).	5.10	700.00	3,570.00
2/19/25	TT	Analyze and summarize [redacted] testimony of Whinstone witness for EB in preparation for phase 2 (9.0).	9.00	525.00	4,725.00
2/19/25	MV	Further revise internal exhibit list to cover documents cited in draft motion in limine (4.0); correspond with QE paralegal regarding exhibit list requirements (0.1); create further targeted searches, review hits, and correspond with attorneys regarding same (2.0); pull additional documents for attorneys to be used as Phase 2 trial exhibits (0.4).	6.50	425.00	2,762.50

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Date	Tkpr	Description	Hours	Rate	Amount
2/20/25	PS	Prepare for (1.4) and attend (0.7) teleconference with EB, CS, PB, SR, HM, and MV regarding action items in support of emergency hearing and phase 2 imminent deadlinesreview draft opposition to Whinstone motion and email EB and team (0.4); attend portion of zoom with EB, BA, JS, and PB regarding high priority action items (0.4).	2.90	1450.00	4,205.00
2/20/25	EB	Confer with NC regarding status and revisions to [redacted] memorandum (0.1); attend teleconference with PS, CS, PB, SR, HM, and MV regarding action items in support of emergency hearing and phase 2 imminent deadlines (1.1); confer and review and respond to correspondence with Stris team and co-counsel regarding emergency hearing and high priority action items including phase 2 contingency preparations (0.5); attend to same in consultation with Stris team and co-counsel (3.5); correspond with opposing counsel regarding Peters deposition and phase 2 agreement memorialization (); attend teleconference with BA, JS, PB, P. Tomasco, and other fiduciaries with SAFE representatives regarding mediation strategy (0.7); attend further Stris team teleconference regarding high priority action items (0.6); confer with BA, JS, and P. Tomasco regarding action items including revisions to phase 2 order and client update and convey same (0.9).	7.30	1250.00	9,125.00
2/20/25	BA	Continue drafting opposition to motion to continue and preparing for phase 2 hearing if needed, including conferring with EB regarding same and conferring with CS regarding filings (1); correspond and confer with CS regarding potential filing of opposition to Whinstone's continuance motion and potential hearing on motion in limine and confer with EB regarding potential hearing on motion in limine/status conference (0.2); participate in teleconference with P. Tomasco, mediator Mullin, SAFE representations and client representatives to discuss mediation (0.7); confer with EB, PB, JS, and PS regarding offer from SAFEs/Riot and next steps (0.6); confer with EB, P. Tomasco, and JS regarding upcoming status conference, steps to finalize agreement regarding phase 2, and mediation/offer (1); correspond with litigation and bankruptcy team regarding Rhodium and Whinstone's proposals to document agreement regarding phase 2 and (0.4).	3.90	1200.00	4,680.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/20/25	JS	Attend call with SAFE group and Debtor team regarding Riot settlement offer (0.8); evaluate and move forward next steps in light of same (0.7).	1.50	1025.00	1,537.50
2/20/25	SR	Continue reviewing and analyzing materials and drafting notes in support of [redacted] claims, damages, and expert analysis (4.1); attend teleconference with PS, EB, CS, PB, HM, and MV regarding action items in support of emergency hearing and phase 2 imminent deadlines (1.1); review and revise Opposition to Whinstone's Continuance Motion (0.4).	5.60	750.00	4,200.00
2/20/25	CS	Attend teleconference with PS, EB, CS, PB, SR, HM, and MV regarding action items in support of emergency hearing and phase 2 imminent deadlines (1.1); review and revise opposition to motion to continue (2.2); draft declaration in support of opposition to motion to continue phase 2 hearing and compile exhibits in support of the same (1.1); review motion in limine to prepare for hearing regarding the same (0.4); continue preparing Phase 2 opening slides (0.3).	5.10	850.00	4,335.00
2/20/25	NC	Confer with EB regarding case status and high priority action items (0.1); add additional materials and continue preparing memorandum for EB regarding annotated portions of phase 1 materials and related questions and action items in support of [redacted] phase 2 and damages claims (1.5).	1.60	350.00	560.00
2/20/25	PB	Preparation for Phase 2 trial, including exhibits and drafting direct examination outline (3.5); attend portion of teleconference with PS, EB, CS, SR, HM, and MV regarding action items in support of emergency hearing and Phase 2 imminent deadlines (0.7); attend teleconference with Ad Hoc Group regarding mediation (0.7); attend follow-up call with EB, JS, BA, and PS regarding same (0.6); teleconference with R. Izakelian, R. Lopez, and R. Vasquez regarding document transfer (0.2).	5.70	850.00	4,845.00
2/20/25	ASA	Create witness preparation PowerPoint at request of PB.	1.50	350.00	525.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/20/25	HM	Attend teleconference with PS, EB, CS, PB, SR, HM, and MV regarding action items in support of emergency hearing and phase 2 imminent deadlines (1.1); review and revise [redacted] deposition outline (1.0); revise phase 2 invoices analysis memorandum (1.2); review and analyze documents for phase 2 exhibit list (1.1).	4.40	700.00	3,080.00
2/20/25	MV	Continue revising exhibit list and preparing additional exhibits (3.0); review confidentiality designations and prepare exhibit cover sheets for filing (0.5); conduct additional searches for bates versions of invoices (0.5); attend teleconference with PS, EB, CS, PB, SR, HM regarding action items in support of emergency hearing and phase 2 imminent deadlines (1.1).	5.60	425.00	2,380.00
2/21/25	PS	Confer with team and plan for damages case.	.90	1450.00	1,305.00
2/21/25	EB	Confer with SR regarding high priority action items in wake of phase 2 resolution (0.2); confer with and advise Stris team members including JS, CS, and TT regarding same (0.4); attend hearing (0.1); attention to resulting action items including correspondence with co-counsel and opposing counsel and revisions to agreed order (2.6).	3.30	1250.00	4,125.00
2/21/25	BA	Prepare for and participate in status conference/hearing to discuss phase 2 issues (0.5); review draft proposed agreed orders and correspond with team regarding same (0.3).	.80	1200.00	960.00
2/21/25	JS	Continue planning for damages case.	1.50	1025.00	1,537.50
2/21/25	SR	Confer with EB regarding high priority action items in support of damages analysis and in wake of phase 2 resolution (0.2); continue reviewing materials and drafting notes in connection with the same (6.7).	6.90	750.00	5,175.00
2/21/25	CS	Attend hearing on motion to continue and motion in limine (0.2); review and revise proposed agreed order on motion to assume contracts and exhibit thereto (1.0); research statute of limitations issues for damages complaint and begin drafting memorandum regarding the same (2.9).	4.10	850.00	3,485.00
2/21/25	PB	Attend hearing regarding Phase 2 trial scheduling.	.30	850.00	255.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/21/25	ASA	Assist EB with formatting and finalizing of proposed agreed order granting Debtors' motion and supplemental motion to assume certain executory contracts with Whinstone US, Inc. prior to filing (2.0); at request of PB, excerpt relevant portions of bates-stamped documents for use in witness preparation PowerPoint (0.7); update internal status memorandum to reflect agreement and cancellation of Phase 2 hearing (0.2).	2.90	350.00	1,015.00
2/21/25	HM	Review and analyze hot documents identified in phase 2 document review.	.60	700.00	420.00
2/21/25	SD	Prepare materials for BA for 02-21-2025 hearing (0.3).	.30	350.00	105.00
2/22/25	SR	Continue reviewing materials and drafting notes in support of [redacted] claims, damages, and expert analysis	4.90	750.00	3,675.00
2/24/25	EB	Confer with W. Thompson (0.2) and JS (0.5) regarding status and high priority action items; attend teleconferences with [redacted] (0.8) regarding same and BA (0.3) regarding high priority research action items; advise TB and CS regarding research questions regarding appeal and damages complaint (0.5); attend teleconference with Stris team and A. Swartz regarding document and discovery related action items (1.1); review updates and correspond with TB and CS regarding follow-up questions (0.1); attention to case management (0.5); review updates and correspond with HM regarding [redacted] (0.1); review notice of appeal and update [redacted] regarding same (0.1); attention to resulting action items including corresponding with TB regarding additional analysis and next steps regarding same (0.3).	.40	1250.00	500.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/24/25	BA	Review order entered on motion to assume, convey same to client, correspond with PS, JS, and EB regarding potential appeal of order on motion to assume, review appeal documents filed by Whinstone, and review research on same from TB (0.4); confer with EB regarding high priority action items including appeal and document review for adversary proceeding (0.3); participate in teleconference with EB, JS, PB, HM, and A. Swartz to discuss high priority action items, including appeal of order on motion to assume and discovery matters related to adversary proceeding (1.1); review draft notice of appearance for adversary proceeding and correspond with team regarding same (0.1).	1.90	1200.00	2,280.00
2/24/25	JS	Call with EB regarding high priority action items in connection with settlement and damages case (0.5); call with EB, BA, PS, HM, SR, and A. Schwartz regarding document discovery issues in connection with damages case (1.1); review and evaluate research issues in connection with Whinstone appeal and damages case (1.7); prepare for mediation follow-up and confer with client team regarding same (2.2).	6.50	1025.00	6,662.50
2/24/25	SR	Attend teleconference with EB, BA, JS, PB, HM, A. Schwartz to discuss high priority action items relating to damages complaint (1.1); review materials and take notes in connection with the same to assist EB analysis (7.9).	9.00	750.00	6,750.00
2/24/25	TB	Review procedures and engage in legal research regarding bankruptcy appeals both to the district court and on direct certified appeal to the Fifth Circuit and plan regarding appeal of prior decisions.	5.20	1200.00	6,240.00
2/24/25	CS	Continue researching statute of limitations for fraudulent inducement claim and drafting legal memorandum regarding the same (4.1).	4.10	850.00	3,485.00
2/24/25	JH	Update bankruptcy docket.	1.00	350.00	350.00
2/24/25	PB	Prepare documents for disclosure in response to Rule 2004 request (1.0); call with discovery vendor regarding same (0.1); attend strategy teleconference with EB, BA, JS, HM, and A. Swartz regarding discovery action items (1.1).	2.20	850.00	1,870.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/24/25	ASA	Update detailed tracking memorandum to reflect case developments and precise substance of the agreed order on the motion to assume (0.3); attention to ensuring proper docket notices for attorneys in adversarial damages case at request of EB (1.4).	1.70	350.00	595.00
2/24/25	HM	Confer with PB, EB, JS, BA, SR, and A. Swartz regarding appeal of motion to assume and high priority discovery items for adversary case (1.1); coordinate with ASA and PH regarding case management and notices of filing (2.2); draft notices of appearance for adversary case (0.7).	4.00	700.00	2,800.00
2/25/25	VO	Confer with JS regarding mediation issues and strategy.	.50	1025.00	512.50
2/25/25	PS	Review JS assessment in support of settlement and briefly evaluate relevant underlying documents.	.60	1450.00	870.00
2/25/25	EB	Review initial research results from TB and CS (0.3); attend teleconference with BA regarding high priority action items including follow-up research requests (0.3); advise TB and CS regarding same (0.3); attention to discovery-related action items including document assessment and collection (1.5); advise HM regarding revisions to notice of appearance (0.1); attend checkpoint teleconference with BA, clients, and co-counsel (0.5); correspond with TT regarding instructions for upcoming [redacted] and revisions to prior summary (0.2); review and respond to correspondence from BA and JS regarding additional high priority analysis and action items including correspondence to opposing counsel (0.2).	3.40	1250.00	4,250.00
2/25/25	BA	Attend teleconference with EB regarding high priority action items including follow-up research requests (0.3); participate in teleconference with litigation counsel, bankruptcy counsel, and client regarding case status and strategy (0.5); review update from JS on meeting with mediator, confer with W. Thompson regarding supersedeas deposit in Milam County, research and draft proposed email to Whinstone's counsel regarding same, and convey to litigation team and bankruptcy counsel for review (0.4).	1.20	1200.00	1,440.00
2/25/25	JS	Review and evaluate SAFE note and next steps in connection with mediation (5.9); attend call with mediator and client team (1.3).	7.20	1025.00	7,380.00

Stris & Maher LLP

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Date	Tkpr	Description	Hours	Rate	Amount
2/25/25	SR	Continue reviewing materials and taking notes in support of [redacted] claims, damages, and expert analysis.	1.30	750.00	975.00
2/25/25	TB	Research and planning regarding appeal schedule and legal research regarding path going forward for appeal.	3.60	1200.00	4,320.00
2/25/25	CS	Continue researching statute of limitations issues on fraudulent inducement claim and drafting memorandum regarding the same (3.8).	3.80	850.00	3,230.00
2/25/25	HM	Review and respond to team correspondence regarding documents for use in adversary proceeding (2.5); finalize and file notices of appearance for BA and JS in adversary proceeding (0.5).	3.00	700.00	2,100.00
2/25/25	TT	Review and analyze damages complaint to assist EB with analysis of additional supporting material.	1.00	525.00	525.00
2/26/25	PS	Confer with JS regarding strategic planning.	.90	1450.00	1,305.00
2/26/25	EB	Review updated statute of limitations research from CS (0.1); correspond with BA, JS, and CS regarding revisions to same (0.1); review correspondence and initial research results from TB regarding appeal and correspond regarding same (0.1); work on discovery-related action items including coordinating and instructing Stris team regarding further [redacted] review (2.0); begin reviewing revised summary from TT (0.1).	2.40	1250.00	3,000.00
2/26/25	BA	Review and analyze drafts of memorandum regarding fraudulent inducement claim prepared by CS and correspond with CS, JS, and EB regarding edits to same (0.6); review AEO documents for which designation is being challenged by SAFEs and correspond with bankruptcy counsel regarding same and scheduling of meeting with SAFEs to discuss (0.4); review document preservation letter sent by Whinstone to Rhodium investors, research same, and correspond with EB regarding follow up research on nonparties' preservation obligations (0.3).	1.30	1200.00	1,560.00
2/26/25	JS	Strategic planning for damages case.	3.00	1025.00	3,075.00
2/26/25	SR	Continue reviewing materials and conducting factual research in connection with damages complaint and draft memorandum summarizing preliminary findings (7.8); correspond with EB regarding the same (0.2).	8.00	750.00	6,000.00

Stris & Maher LLP

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Date	Tkpr	Description	Hours	Rate	Amount
2/26/25	TB	Legal research regarding grounds for dismissal of bankruptcy appeals.	4.00	1200.00	4,800.00
2/26/25	CS	Continue reviewing and analyzing case law regarding statute of limitations for fraudulent inducement claim and continue revising memorandum regarding the same (1.9).	1.90	850.00	1,615.00
2/26/25	CHH	Assist CS with targeted searches regarding Winter Storm Uri release.	.30	350.00	105.00
2/26/25	JH	Distribute documents previously designated Highly Confidential and challenged by SAFE entities to BA, HM and PB at BA request (0.5); update bankruptcy docket (0.4); update adversary case docket (0.2).	1.10	350.00	385.00
2/26/25	PB	Prepare for teleconference with SAFEs regarding discovery matters.	.30	850.00	255.00
2/26/25	ASA	Analyze materials and revise memorandum with instructions for additional damages-related and potential privilege review as instructed by EB and HM (5.0); attend to further updates to internal detailed tracking memorandum (0.4).	5.40	350.00	1,890.00
2/26/25	HM	Review and respond to team correspondence regarding preparation for the adversary case (0.5); perform legal research for EB, BA, and JS (1.0); review and analyze discovery requests and productions for correspondence regarding Winter Storm Uri in phase 1 for EB (2.2).	3.70	700.00	2,590.00
2/26/25	TT	Analyze and summarize additional [redacted] testimony regarding [redacted].	5.50	525.00	2,887.50
2/27/25	PS	Attend teleconference with EB, BA, JS, PB, CS, TB, MV, SR, CHH, ASA and JHA to discuss strategic and high-priority action items related to the adversary proceeding and district court appeal.	.80	1450.00	1,160.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/27/25	EB	Correspond with BA, TB, and JS regarding further appeal research (0.1); confer with W. Thompson regarding status and high priority action items and correspond with W. Thompson and A. Swartz regarding pro hac applications (0.2); review drafts and correspond with PS, JS and SR regarding revisions to same (0.1); review order assigning district judge Hanks and correspond with ASA and JHA regarding resulting action items (0.1); review procedure and materials from JHA regarding assigned judge and correspond with A. Swartz and SR regarding revisions resulting from same (0.6); analyze revised statute of limitations memorandum and correspond with BA, JS, and CS regarding next steps (0.2); correspond with co-counsel regarding same (0.1); work on discovery-related action items and strategy (1.1); update [redacted] regarding status (0.1); attention to case management including correspond with HM regarding calendaring of additional deadlines (0.1); prepare for (0.4) and lead (1.0) Stris team teleconference to discuss high priority action items; correspond with HM, TT, and CHH to coordinate further [redacted] review (0.2); review memorandum from SR regarding Uri representations, analyze related documents, and correspond with CS and SR regarding revisions to same (1.2); analyze potential next steps in light of correspondence from HM regarding third party preservation obligations and correspond with BA, JS, and HM regarding same (0.2).	5.70	1250.00	7,125.00
2/27/25	BA	Attend first half of teleconference with EB, JS, PB, PS, CS, TB, MV, SR, CHH, ASA and JHA to discuss strategic and high-priority action items related to the adversary proceeding and district court appeal (0.5); confer with EB regarding appeal and adversary proceeding action items (0.2).	.70	1200.00	840.00
2/27/25	JS	Continue evaluating SAFE issues in connection with mediation (1.3); continue strategic planning for damages case (1.0); confer with [redacted] regarding issues related to mediation (0.5); attend portion of teleconference with EB, BA, PB, PS, CS, TB, MV, SR, CHH, ASA and JHA to discuss strategic and high-priority action items related to the adversary proceeding and district court appeal (0.5); attend teleconference with SAFE group and QE regarding professional eyes only designation issue (0.2).	3.50	1025.00	3,587.50

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Date	Tkpr	Description	Hours	Rate	Amount
2/27/25	SR	Attend teleconference with EB, BA, JS, PB, PS, CS, TB, MV, CHH, ASA and JHA to discuss strategic and high-priority action items related to the adversary proceeding and district court appeal (1); review team pro hac vice applications and conduct legal research in connection with the same (0.4); continue conducting factual research in connection with damages complaint (1.5).	2.90	750.00	2,175.00
2/27/25	TB	Legal research and planning regarding stay of bankruptcy proceedings in light of appeal (4.4); attend part of planning teleconference with Stris attorneys PS, EB, BA, JS, CS, PB, SR, MV, CHH, ASA, and JSA (0.5).	4.90	1200.00	5,880.00
2/27/25	CS	Attend teleconference with EB, BA, JS, PB, PS, TB, MV, SR, CHH, ASA and JHA to discuss strategic and high-priority action items related to the adversary proceeding and district court appeal (1.0); review and revise memorandum regarding factual background of [redacted] (2.4).	3.40	850.00	2,890.00
2/27/25	CHH	Attend teleconference with EB, BA, JS, PB, PS, CS, TB, MV, SR, CHH, ASA and JHA to discuss strategic and high-priority action items related to the adversary proceeding and district court appeal (1.0); assist JS and PS with SAFE document searches (0.2); coordinate with vendor, EB, QH, and TT regarding [redacted] and review (0.5); assist SR with preparation of pro hac vice applications for appeal (0.2).	1.90	350.00	665.00
2/27/25	JH	Attend teleconference with EB, BA, JS, PB, PS, CS, TB, MV, SR, CHH, ASA and JHA to discuss strategic and high-priority action items related to the adversary proceeding and district court appeal (1.0); prepare notes for same (0.6); research background information on [redacted] for Whinstone appeal to S.D. Tex. (1.0).	2.60	350.00	910.00
2/27/25	PB	Attend portion of teleconference with EB, BA, JS, PS, CS, TB, MV, SR, CHH, ASA and JHA to discuss strategic and high-priority action items related to the adversary proceeding and district court appeal (0.5); teleconference with JS regarding meet and confer (0.1); attend meet and confer with counsel for SAFEs regarding confidentiality issues (0.3).	.90	850.00	765.00

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Date	Tkpr	Description	Hours	Rate	Amount
2/27/25	ASA	Attend teleconference with EB, BA, JS, PB, PS, CS, TB, MV, SR, CHH, and JHA to discuss strategic and high-priority action items related to the adversary proceeding and district court appeal (1.0); update internal memorandum to reflect recent developments (0.2).	1.20	350.00	420.00
2/27/25	HM	Conduct research for EB and BA relating to non-party preservation obligations in support of response to correspondence asserting same.	1.50	700.00	1,050.00
2/27/25	TT	Analyze and summarize [redacted] of [redacted] in support of damages claim.	4.20	525.00	2,205.00
2/27/25	MV	Attend teleconference with EB, BA, JS, PB, PS, CS, TB, SR, CHH, ASA and JHA to discuss strategic and high-priority action items related to the adversary proceeding and district court appeal.	1.00	425.00	425.00
2/28/25	EB	Review and analyze stay research from TB (0.3); correspond with BA, TB, JS, and litigation fellows regarding follow-up questions and requests (0.1); advise NC regarding assistance with privilege log review and related research and analysis (0.2); begin analyzing same (2.8); review and respond to team correspondence regarding status and high priority action items (0.5); attention to case management (0.2); attend teleconference with TT regarding initial questions and guidance regarding further [redacted] review (0.2); attention to mediation update and resulting action items (0.1); analyze materials and work on discovery strategy (1.0).	5.40	1250.00	6,750.00
2/28/25	BA	Review pro hac motion and judge's procedures.	.30	1200.00	360.00
2/28/25	JS	Work on high priority action items in connection with damages case.	2.00	1025.00	2,050.00
2/28/25	SR	Attend to pro hac vice applications for PKS, JS, BA, and CS and correspond with team regarding the same (1.1); continue conducting factual research in connection with damages complaint (2).	3.10	750.00	2,325.00
2/28/25	TB	Analyze potential arguments, conduct research, and summarize legal issues involved in potential stay of bankruptcy proceedings.	3.50	1200.00	4,200.00

Stris & Maher LLP

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Date	Tkpr	Description	Hours	Rate	Amount
2/28/25	CS	Review and approve pro hac vice application for appeal of Phase 1 ruling to district court.	.10	850.00	85.00
2/28/25	CHH	Assist SR with preparation of pro hac vice applications for appeal (0.4); emails with EB, QH, and TT regarding [redacted] collection from vendor (0.2); summarize TB research regarding bankruptcy stay (0.3);	.90	350.00	315.00
2/28/25	NC	Work on preparation of privilege log as advised by EB.	5.20	350.00	1,820.00
2/28/25	JH	Check for updates in ongoing matter [redacted] at SR request.	.80	350.00	280.00
2/28/25	ASA	Review [redacted] memorandum and begin preparation of timeline of relevant events at request of EB.	1.10	350.00	385.00
2/28/25	HM	Review and revise adversary case review memorandum (0.8); continue performing research for EB (1.8).	2.60	700.00	1,820.00
2/28/25	TT	Analyze and summarize additional Rhodium communications in support of damages claim.	8.10	525.00	4,252.50
		TOTAL PROFESSIONAL SERVICES			**$ 736,447.50**

Invoice # 14486 March 28, 2025

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Peter K. Stris	PS	Partner	11.50	1,450.00	16,675.00
Elizabeth Brannen	EB	Partner	85.00	1,250.00	106,250.00
Bridget Asay	BA	Partner	52.40	1,200.00	62,880.00
Tillman Breckenridge	TB	Partner	47.00	1,200.00	56,400.00
Victor O'Connell	VO	Partner	19.90	1,025.00	20,397.50
John Stokes	JS	Partner	87.10	1,025.00	89,277.50
Colleen Smith	CS	Associate	83.40	850.00	70,890.00
Peter Brody	PB	Associate	53.30	850.00	45,305.00
Sarah Rahimi	SR	Associate	63.70	750.00	47,775.00
Helen Marsh	HM	Associate	84.60	700.00	59,220.00
Tanya Tice	TT	Discovery Associate	142.40	525.00	74,760.00
Monica Viramontes	MV	Sr Paralegal	40.50	425.00	17,212.50
Andrew Atsalis	ASA	Fellow	71.20	350.00	24,920.00
Cynthia Huang	CHH	Fellow	49.50	350.00	17,325.00
Sebastian Delgado	SD	Fellow	2.20	350.00	770.00
Nicholas Capalbo	NC	Fellow	32.30	350.00	11,305.00
Jaida Hodge-Adams	JH	Fellow	43.10	350.00	15,085.00
Total			**969.10**		**$ 736,447.50**

Invoice # 14486 March 28, 2025

EXPENSES ADVANCED

Date	Task	Description	Amount
2/01/25		Logikcull Discovery Solutions (February 2025).	2,646.00
2/04/25		Peregrine Consultants - January 2025.	8,400.00
2/14/25		Bankruptcy court filing fee.	100.00
2/15/25		AA airfare for Dallas mediation.	521.78
2/18/25		AA lodging in Dallas for mediation.	657.96
2/25/25		Setec Investigations invoice.	3,374.68
2/26/25		AA transportation to airport.	79.20
2/28/25		Logikcull Discovery Solutions (March 2025).	2,646.00
		TOTAL EXPENSES ADVANCED	**$ 18,425.62**
		TOTAL THIS INVOICE	**$ 754,873.12**

Invoice # 14486 March 28, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14366	1/13/25	132,202.25	111,327.25	20,875.00
14459	2/21/25	840,030.97	.00	840,030.97

Previous Balance	$ 860,905.97
Balance Due This Invoice	$ 754,873.12
TOTAL BALANCE DUE	**$ 1,615,779.09**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ .00	$ 840,030.97	$ 20,875.00	$ .00	$ .00	$ 860,905.97

Stris

March 28, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14500
Client # 00346
Matter # 008

INVOICE SUMMARY

For professional services rendered through February 28, 2025

RE: Non-working Travel for Whinstone Dispute

Total Professional Services	$ 26,757.50
50% discount	$ -13,378.75
Net Professional Services	$ 13,378.75
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 13,378.75**

Electronic Invoice

Invoice # 14500 March 28, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
2/18/25	VO	Travel to mediation.	4.50	1025.00	4,612.50
2/18/25	BA	Travel from Montpelier VT to Dallas TX, not otherwise billed.	4.60	1200.00	5,520.00
2/18/25	ASA	Travel from Barnstable, MA to Dallas, TX to support mediation efforts.	7.00	350.00	2,450.00
2/19/25	VO	Return travel from mediation.	3.00	1025.00	3,075.00
2/20/25	BA	Travel back to Montpelier, VT from Dallas TX following mediation.	7.50	1200.00	9,000.00
2/20/25	ASA	Return travel from Dallas, TX to Barnstable, MA after supporting mediation efforts.	6.00	350.00	2,100.00

TOTAL PROFESSIONAL SERVICES	**$ 26,757.50**
50% discount	$ -13,378.75
NET PROFESSIONAL SERVICES	**$ 13,378.75**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Bridget Asay	BA	Partner	12.10	1,200.00	14,520.00
Victor O'Connell	VO	Partner	7.50	1,025.00	7,687.50
Andrew Atsalis	ASA	Fellow	13.00	350.00	4,550.00
Total			**32.60**		**$ 26,757.50**

TOTAL THIS INVOICE **$ 13,378.75**

Stris

March 28, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14499
Client # 00346
Matter # 007

INVOICE SUMMARY

For professional services rendered through February 28, 2025

RE: Retention and Fee Applications

Total Professional Services	$ 16,177.50
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 16,177.50**
Previous Balance	$ 9,832.00
TOTAL BALANCE DUE	**$ 26,009.50**

Electronic Invoice

Invoice # 14499 March 28, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
2/10/25	CHH	Begin working on first interim fee application.	1.00	350.00	350.00
2/11/25	VO	Emails and confer with CH regarding quarterly fee application (0.4); emails with B. Howell regarding same (0.1)	.50	1025.00	512.50
2/11/25	CHH	Draft first interim fee application.	5.50	350.00	1,925.00
2/12/25	CHH	Draft first interim fee application.	3.00	350.00	1,050.00
2/13/25	VO	Review, revise, and further prepare interim fee application.	5.30	1025.00	5,432.50
2/13/25	CHH	Assist VO with exhibits for first interim fee application.	.20	350.00	70.00
2/20/25	EB	Prepare portions of monthly fee statement.	.50	1250.00	625.00
2/21/25	EB	Prepare portions of monthly fee statement.	3.40	1250.00	4,250.00
2/21/25	NC	Assist EB with portions of fee statements.	1.80	350.00	630.00
2/24/25	VO	Work on January fee application.	1.30	1025.00	1,332.50
		TOTAL PROFESSIONAL SERVICES			**$ 16,177.50**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	3.90	1,250.00	4,875.00
Victor O'Connell	VO	Partner	7.10	1,025.00	7,277.50
Cynthia Huang	CHH	Fellow	9.70	350.00	3,395.00
Nicholas Capalbo	NC	Fellow	1.80	350.00	630.00
Total			**22.50**		**$ 16,177.50**

TOTAL THIS INVOICE **$ 16,177.50**

Stris & Maher LLP

Invoice # 14499 March 28, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14381	1/13/25	6,285.00	5,028.00	1,257.00
14472	2/21/25	8,575.00	.00	8,575.00

Previous Balance	$ 9,832.00
Balance Due This Invoice	$ 16,177.50
TOTAL BALANCE DUE	**$ 26,009.50**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ .00	$ 8,575.00	$ 1,257.00	$ .00	$ .00	$ 9,832.00

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

STRIS & MAHER LLP'S SEVENTH MONTHLY FEE STATEMENT
FOR THE PERIOD MARCH 1, 2025, THROUGH MARCH 31, 2025

Stris & Maher LLP ("Stris & Maher") submits, pursuant to the Order Granting the Motion of the Debtors to Establish Procedures for Interim Compensation and Reimbursement of Expenses for Professionals (the "Interim Compensation Order") (ECF No. 264) entered on October 14, 2024, this monthly fee statement for the payment of interim compensation rendered and reimbursement of expenses incurred during the period March 1, 2025, through March 31, 2025 (the "Monthly Fee Statement").

Stris & Maher seeks payment of interim compensation in the total amount of $416,800.00 (80% of the services rendered), plus $21,970.41 (100% of the interim expenses incurred). *See* Interim Compensation Order at ¶ 1(a). Summaries of the fees and expenses are attached as Exhibits 1, 2, and 3. Invoices reflecting detailed time entries are attached hereto as Exhibit 4.

[1] Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), Rhodium Encore Sub LLC (1064), Rhodium Enterprises, Inc. (6290), Rhodium Industries LLC (4771), Rhodium Ready Ventures LLC (8618), Rhodium Renewables LLC (0748), Rhodium Renewables Sub LLC (9511), Rhodium Shared Services LLC (5868), and Rhodium Technologies LLC (3973). The mailing and service address of Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

Pursuant to the Interim Compensation Order, any party objecting to the payment of interim compensation and reimbursement of expenses shall serve within 14 days after delivery of the Monthly Fee Statement a written notice, via email, upon Stris & Maher and each of the other Fee Notice Parties (as listed below) (the "Written Notice"). The Written Notice shall set forth with reasonable detail the nature of the objection and the amount at issue. If the parties are unable to reach a resolution of the objection within 14 calendar days, the objecting party shall file its objection (the "Objection") with this Court within 3 business days and serve such Objection on Stris & Maher and each of the other Fee Notice Parties. See Interim Compensation Order ¶ 1(c).

The Fee Notice Parties as defined in the Interim Compensation Order are:

a. Rhodium Enterprises, Inc., Attn: Charles Topping (chucktopping@rhdm.com) and Morgan Soule (morgansoule@rhdm.com), 2617 Bissonnet Street, Suite 234, Houston, Texas 77005;

b. Debtors' Bankruptcy Counsel, c/o Quinn Emanuel Urquhart & Sullivan, LLP, Attn: Patricia B. Tomasco (pattytomasco@quinnemanuel.com); Razmig Izakelian (razmigizakelian@quinnemanuel.com), Alain Jaquet (alainjaquet@quinnemanuel.com), and Joanna D. Caytas (joannacaytas@quinnemanuel.com), 700 Louisiana, Suite 3900, Houston, Texas 77002;

c. Debtors' Financial Advisor, c/o Province, Attn: Mark Robinson (mrobinson@provincefirm.com); David Dunn (ddunn@provincefirm.com); Kirsten Lee (klee@province.com); and Andrew Popescu (apopescu@provincefirm.com), 2360 Corporate Circle, Suite 340, Henderson, Nevada 89074;

d. Galaxy Digital, LLC, in its capacity as DIP Agent, c/o Orrick, Herrington & Sutcliffe LLP, Ryan C. Wooten (rwooten@orrick.com), 609 Main, 40th Floor, Houston, Texas 77002, and Robert Trust (rtrust@orrick.com), Mark Franke (mfranke@orrick.com) and Brandon Batzel (bbatzel@orrick.com), 51 West 52nd Street, New York, New York 10019;

e. Counsel or proposed counsel to any statutory committee appointed in these Chapter 11 Cases; and

f. United States Trustee, Ha Minh Nguyen (ha.nguyen@usdoj.gov), 515 Rusk, Suite 3516, Houston, Texas 77002.

If no objection is timely served pursuant to the Interim Compensation Order, the Debtors shall be authorized and directed to pay Stris & Maher an amount equal to 80% of the fees and 100% of the expenses listed herein, or if an objection is timely served, such percentage of fees and expenses that are not subject to an objection, as stated in the Interim Compensation Order.

Respectfully submitted this 29th day of April, 2025.

QUINN EMANUEL URQUHART & SULLIVAN, LLP

/s/ Patricia B. Tomasco
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Cameron Kelly (SBN 24120936)
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-and-

STRIS & MAHER LLP

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Helen Marsh (pro hac vice)

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-and-

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408 W. 11th Street, 5th Floor
Austin, TX 78701

Counsel for Debtors and Debtors in Possession

CERTIFICATE OF SERVICE

I certify that, on April 29, 2025, a true and correct copy of the foregoing Monthly Fee Statement was served through the Court's Electronic Case Filing system of the United States Bankruptcy Court for the Southern District of Texas.

/s/ Patricia B. Tomasco
Patricia B. Tomasco

EXHIBIT 1

Summary of Legal Fees for the Fee Period

Matter #	Matter Description	Total Hours	Total Fees	80% of Fees
001	Midas Green Patent Litigation	15.4	$16,695.00	$13,356.00
004	Whinstone Dispute, Excluding Tarrant County Litigation	580.4	$493,202.50	$394,562.00
007	Retention and Fee Applications	9.8	$11,102.50	$8,882.00
Total		605.6	$521,000.00	$416,800.00

EXHIBIT 2

Summaries of Hours Billed by Stris & Maher Attorneys and Paraprofessionals

Midas Green Patent Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	1,250.00	9.70	12,125.00
Bridget Asay	Partner	1997	1,200.00	.50	600.00
Ken Halpern	Partner	1997	1,100.00	1.70	1,870.00
Helen Marsh	Associate	2024	700.00	2.50	1,750.00
Andrew Atsalis	Litigation Fellow	N/A	350.00	1.00	350.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Peter Stris	Founding Partner	2001	1,450.00	23.80	34,510.00
Elizabeth Brannen	Managing Partner	2001	1,250.00	61.50	76,875.00
Bridget Asay	Partner	1997	1,200.00	27.60	33,120.00
Tillman Breckenridge	Partner	2003	1,200.00	47.90	57,480.00
Matthew Seligman	Partner	2013	1,100.00	23.80	26,180.00
Victor O'Connell	Partner	2012	1,025.00	18.90	19,372.50
John Stokes	Partner	2016	1,025.00	73.90	75,747.50
Colleen Smith	Associate	2015	850.00	44.80	38,080.00
Peter Brody	Associate	2016	850.00	4.00	3,400.00
Sarah Rahimi	Associate	2019	750.00	8.70	6,525.00
Helen Marsh	Associate	2024	700.00	21.90	15,330.00
Lisa Sherrod	Lead Discovery Assoc	2001	625.00	15.30	9,562.50
Tanya Tice	Discovery Associate	1989	525.00	132.70	69,667.50
Monica Viramontes	Senior Paralegal	N/A	425.00	11.90	5,057.50
Andrew Atsalis	Litigation Fellow	N/A	350.00	26.30	9,205.00
Cynthia Huang	Litigation Fellow	N/A	350.00	7.70	2,695.00
Nicholas Capalbo	Litigation Fellow	N/A	350.00	3.10	1,085.00
Jaida Hodge-Adams	Litigation Fellow	N/A	350.00	26.60	9,310.00

Retention and Fee Applications

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	1,250.00	8.30	10,375.00
Victor O'Connell	Partner	2012	1,025.00	.30	307.50
Nicholas Capalbo	Litigation Fellow	N/A	350.00	1.20	420.00

EXHIBIT 3

Summaries of Expenses for the Fee Period

Midas Green Patent Litigation

Expense	Amount
E-discovery platform fees	$3,765.00
Expert fees	$7,950.00
Total	$11,715.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Expense	Amount
E-discovery platform fees	$2,646.00
Litigation support	$2,776.30
Travel	$4,433.11
Court fees	$400.00
Total	$10,255.41

EXHIBIT 4

Stris

April 23, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14530
Client # 00346
Matter # 001

INVOICE SUMMARY

For professional services rendered through March 31, 2025

RE: Midas Green Litigation

Total Professional Services	$ 16,695.00
Total Expenses Advanced	$ 11,715.00
TOTAL THIS INVOICE	**$ 28,410.00**
Previous Balance	$ 21,361.00
TOTAL BALANCE DUE	**$ 49,771.00**

Electronic Invoice

Stris & Maher LLP

Invoice # 14530 April 23, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
3/03/25	EB	Review docket and confer with Texas counsel regarding status and anticipated timing (0.4); update [redacted] regarding same and GRC request (0.1).	.50	1250.00	625.00
3/04/25	EB	Review correspondence from counsel for GRC and correspond with [redacted] regarding response to same.	.10	1250.00	125.00
3/05/25	EB	Correspond with (0.1) and attend teleconference with counsel for GRC regarding confidentiality inquiry (0.1).	.20	1250.00	250.00
3/06/25	EB	Correspond with R. Harrington regarding revised objections to Midas proofs of claim (0.2); advise HM regarding research in support of additional grounds for same (0.3); analyze results and perform further research in support of same (1.9); propose revisions to same (0.7).	3.10	1250.00	3,875.00
3/06/25	ASA	Review and compile internal documents regarding technical expert to provide information requested by KH and EB in support of oppositoin to Midas patent claim.	.50	350.00	175.00
3/06/25	HM	Conduct research for EB regarding Kessler doctrine and law of the case.	2.50	700.00	1,750.00
3/07/25	EB	Analyze further revised objections to Midas proof of claim and correspond with R. Harrington regarding same.	.40	1250.00	500.00
3/10/25	EB	Correspond with JHA and ASA regarding objections to Midas claims.	.10	1250.00	125.00
3/13/25	EB	Review and respond to correspondence from KH regarding inquiry from opposing counsel (0.1); review correspondence from opposing counsel regarding notice to Rhodium (0.1); begin analyzing issues resulting from same (0.4).	.60	1250.00	750.00
3/13/25	KJH	Attend teleconference with Midas counsel H. Pogorzelski regarding GRC subpoena to Midas for Rhodium documents (0.2); correspond with EB regarding same and resulting action items (0.3).	.50	1100.00	550.00

Stris & Maher LLP

Invoice # 14530 April 23, 2025

Date	Tkpr	Description	Hours	Rate	Amount
3/14/25	EB	Review and analyze issues relating to further correspondence from counsel for Midas Green relating to Immersion Systems (0.5); discuss same with BA (0.5); advise PB and ASA regarding research in support of Immersion Systems analysis (0.1); review results of same (0.1); correspond with [redacted] and [redacted] regarding update from Midas-GRC discovery hearing and response to outstanding inquiries (0.2).	1.40	1250.00	1,750.00
3/14/25	BA	Confer with EB regarding requests for production to Midas Greene of Rhodium/Immersion documents in a separate lawsuit.	.50	1200.00	600.00
3/17/25	EB	Prepare initial responses to correspondence from opposing counsel and correspond with [redacted] and [redacted] regarding same (0.2); review further correspondence from opposing counsel and additional third party recipient (Ameritex) and respond to counsel for Ameritex (0.2); analyze discovery hearing transcript (0.4); correspond with KH regarding same (0.1); send initial responses to opposing counsel (0.1).	1.00	1250.00	1,250.00
3/17/25	KJH	Confer with EB regarding GRC subpoena to Midas (0.1); correspond with EB regarding status and action items in support of proposed written dispositive motions order from Judge Albright (0.2).	.30	1100.00	330.00
3/18/25	EB	Review correspondence from KH regarding status and potential steps in support of request for written ruling (0.1); prepare for (0.1); and attend (0.3) teleconference with counsel for Ameritex; correspond with KH regarding resulting action items (0.1).	.60	1250.00	750.00
3/18/25	KJH	Analyze, confer with PB regarding, and update EB regarding Ameritex information in support of response to Ameritex counsel and to Midas regarding Rhodium's position on subpoena seeking Ameritex documents from Midas-Rhodium litigation.	.80	1100.00	880.00

Invoice # 14530 April 23, 2025

Date	Tkpr	Description	Hours	Rate	Amount
3/19/25	EB	Respond to correspondence from counsel for Ameritex with interim update and review interim update from opposing counsel (0.1); correspond with [redacted] regarding open questions and action items including potential motion practice and deadline (0.2); correspond with opposing counsel and ASA regarding status and subpoena scope (0.2); confer with KH regarding action items including record assessment in support of response to Ameritex (0.1).	.60	1250.00	750.00
3/19/25	KJH	Teleconference with EB regarding record assessment in support of response to GRC subpoena to Midas seeking Rhodium and Ameritex documents.	.10	1100.00	110.00
3/19/25	ASA	Detailed tracking of Rhodium, Ameritex, and Midas positions based upon correspondence regarding third- party subpoena and potential production of Rhodium and Ameritex documents as outside counsel eyes only.	.50	350.00	175.00
3/20/25	EB	Review correspondence from counsel for Midas and proposed orders submitted by GRC and Midas (0.2); correspond with clients (0.1) and counsel for Ameritex (0.1) regarding same.	.40	1250.00	500.00
3/21/25	EB	Review and analyze order and update [redacted] and [redacted] regarding same (0.2); confer with counsel for Ameritex regarding Rhodium position with respect to confidentiality and subpoena scope and advise ASA regarding updates to [redacted] memorandum (0.2).	.40	1250.00	500.00
3/23/25	EB	Correspond with opposing counsel and counsel for Ameritex regarding Rhodium position (0.1); correspond with opposing counsel to request notice to Immersion Systems in the event of future broader scope subpoena (0.1).	.20	1250.00	250.00
3/26/25	EB	Update [redacted] and [redacted] regarding status of case and interim update from discussions with [redacted] and opposing counsel.	.10	1250.00	125.00
		TOTAL PROFESSIONAL SERVICES			**$ 16,695.00**

Invoice # 14530 April 23, 2025

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	9.70	1,250.00	12,125.00
Bridget Asay	BA	Partner	.50	1,200.00	600.00
Ken Halpern	KJH	Partner	1.70	1,100.00	1,870.00
Helen Marsh	HM	Associate	2.50	700.00	1,750.00
Andrew Atsalis	ASA	Fellow	1.00	350.00	350.00
Total			**15.40**		**$ 16,695.00**

EXPENSES ADVANCED

Date	Task	Description	Amount
2/28/25		JND Discovery Invoice for February 2025.	3,765.00
3/04/25		Peregrine Consultants - February 2025.	7,950.00
		TOTAL EXPENSES ADVANCED	**$ 11,715.00**
		TOTAL THIS INVOICE	**$ 28,410.00**

Invoice # 14530 April 23, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14380	1/13/25	8,990.00	7,192.00	1,798.00
14471	2/21/25	25,380.00	21,057.00	4,323.00
14498	3/28/25	15,240.00	.00	15,240.00

Previous Balance	$ 21,361.00
Balance Due This Invoice	$ 28,410.00
TOTAL BALANCE DUE	**$ 49,771.00**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 15,240.00	$ .00	$ 4,323.00	$ 1,798.00	$ .00	$ 21,361.00

Stris

April 23, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14517
Client # 00346
Matter # 004

INVOICE SUMMARY

For professional services rendered through March 31, 2025

RE: Whinstone Litigation

Total Professional Services	$ 493,202.50
Total Expenses Advanced	$ 10,255.41
TOTAL THIS INVOICE	**$ 503,457.91**
Previous Balance	$ 902,700.62
TOTAL BALANCE DUE	**$ 1,406,158.53**

Trust Funds Remaining on Account $ 115,369.59

Electronic Invoice

Invoice # 14517 April 23, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
3/01/25	JS	Review and evaluate issues arising from mediation.	1.00	1025.00	1,025.00
3/02/25	JS	Evaluate strategy for Whinstone litigation in connection with potential plan confirmation issues.	1.70	1025.00	1,742.50
3/02/25	TT	Analyze and summarize additional Rhodium materials for EB in support of damages claim.	2.60	525.00	1,365.00
3/03/25	VO	Confer with JS regarding strategy for damages case.	.80	1025.00	820.00
3/03/25	EB	Update TB regarding case status and upcoming action items including record designations (0.1); advise NC, further revise, and correspond with BA, JS, and PB regarding revisions to initial analysis of Whinstone privilege log to support further review and assessment of issues and deficiencies relating to same (0.9); correspond with SR, CHH, and A. Swartz regarding pro hac applications (0.1); work on discovery strategy and staffing for damages case and assess highest priority action items (2.0); review and analyze update from HM regarding Whinstone's [redacted] discovery representations and correspond with SR, ASA, and NC regarding revisions to related memorandum and timeline (0.4); analyze and correspond with TT regarding updates from further review (0.2).	3.70	1250.00	4,625.00
3/03/25	BA	Correspond and confer with CS regarding analysis of issues with respect to adversary proceeding (0.3); correspond with EB, PB, and JS regarding analysis of Whinstone's privilege log as relevant to claims in adversary proceeding (0.1).	.40	1200.00	480.00
3/03/25	JS	Confer with VO regarding strategy for damages case (0.8); evaluate next steps in light of mediation outcome (0.5).	1.30	1025.00	1,332.50
3/03/25	SR	Attend to pro hac vice applications for PKS, JS, BA, and CS and correspond with team regarding the same (1.0); review CS edits to memorandum relating to damages complaint and further revise same to incorporate additional facts and research (2.2).	3.20	750.00	2,400.00
3/03/25	TB	Telephone call with EB to discuss status and upcoming action items.	.10	1200.00	120.00

Invoice # 14517 April 23, 2025

Date	Tkpr	Description	Hours	Rate	Amount
3/03/25	CS	Correspond and confer with BA to discuss research on various questions related to adversary proceeding (0.3); begin reviewing and analyzing case law and drafting memorandum regarding the same (3.7).	4.00	850.00	3,400.00
3/03/25	CHH	Finalize pro hac vice applications for bankruptcy appeal and confer with SR and PH regarding same (0.5); telephone call with SDTX clerk regarding same (0.2).	.70	350.00	245.00
3/03/25	NC	Update privilege log analysis as directed by EB and circulate to attorney team.	1.30	350.00	455.00
3/03/25	ASA	Continue preparing timeline of key representations related to [redacted].	2.40	350.00	840.00
3/03/25	HM	Review, analyze, and summarize phase 1 discovery correspondence and documents for EB.	2.00	700.00	1,400.00
3/03/25	TT	Analyze and summarize additional Rhodium materials for EB in support of damages claim.	8.00	525.00	4,200.00
3/04/25	EB	Advise litigation fellows in support of discovery-related action items (0.2); review and analyze updates from TT and advise regarding further document review and analysis (0.3); attention to preservation notices sent to third-parties (0.2).	.70	1250.00	875.00
3/04/25	BA	Participate in weekly teleconference with client, litigation counsel, and bankruptcy counsel to discuss appeal, adversary proceeding, case strategy, and settlement discussions.	1.00	1200.00	1,200.00
3/04/25	JS	Attend weekly client touchpoint call (1.0); evaluate next steps in light of mediation outcome (0.5).	1.50	1025.00	1,537.50
3/04/25	SR	Review and analyze documents to be added to memorandum summarizing factual research relating to damages complaint and correspond with MV regarding the same.	.60	750.00	450.00
3/04/25	CS	Continue analyzing case law and drafting memorandum in support of adversary proceeding [redacted].	3.60	850.00	3,060.00
3/04/25	CHH	Update draft pro hac vice applications for bankruptcy appeal (0.2); telephone call with SDTX clerk regarding same (0.2); file pro hac vice applications for bankruptcy appeal (0.3).	.70	350.00	245.00
3/04/25	JHA	Check for ongoing updates in litigation pending against [redacted] at SR request.	1.80	350.00	630.00

Stris & Maher LLP

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Date	Tkpr	Description	Hours	Rate	Amount
3/04/25	ASA	Review client documents to revise [redacted] for reference by document reviewers in support of damages case (0.7); update document review memorandum with information requested by EB (0.8).	1.50	350.00	525.00
3/04/25	HM	Coordinate with ASA, JHA, and CH regarding ongoing task assignments.	.50	700.00	350.00
3/04/25	TT	Analyze and summarize additional Rhodium materials for EB in support of damages claim.	9.30	525.00	4,882.50
3/04/25	MV	Create saved searches in support of attorney review of additional documents.	1.00	425.00	425.00
3/05/25	EB	Review updated draft and advise NC regarding privilege log analysis (0.2); review team and client correspondence and begin analyzing response to client inquiry (0.7).	.90	1250.00	1,125.00
3/05/25	BA	Correspond with opposing counsel and [redacted] regarding state court bond deposit.	.10	1200.00	120.00
3/05/25	JS	Work on high priority action items for damages case.	2.50	1025.00	2,562.50
3/05/25	NC	Update privilege log analysis.	1.20	350.00	420.00
3/05/25	JHA	Update dockets, including the bankruptcy original and adversary proceedings and the district court appeal.	2.50	350.00	875.00
3/05/25	PB	Coordinate transfer of ESI to co-counsel for response to Rule 2004 requests.	.50	850.00	425.00
3/05/25	TT	Analyze and summarize additional Rhodium materials for EB in support of damages claim.	8.10	525.00	4,252.50
3/06/25	VO	Attend teleconference with PS, EB, JS, CS, PB, SR, HM, MV, CHH, JHA, & ASA to discuss high-priority action items related to the adversary proceeding and district court appeal, including coordination with bankruptcy counsel, assignment of document review responsibilities, and ongoing legal research.	.80	1025.00	820.00
3/06/25	PS	Prepare for (0.4) and attend (0.8) weekly team zoom.	1.20	1450.00	1,740.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/06/25	EB	Confer with NC regarding status of privilege log analysis (0.1) and BA regarding high priority action items (0.1); attend teleconference with W. Thompson and [redacted] regarding motion to withdraw the reference (0.1); prepare for (0.5) and attend (0.8) Stris team meeting regarding status and high priority action items related to the adversary proceeding and district court appeal, including coordination with bankruptcy counsel, assignment of document review responsibilities, and ongoing legal research; review related materials and review and respond to team correspondence regarding high priority action items in support of document assessment, claim objections, and analysis in response to client inquiry (0.5).	2.10	1250.00	2,625.00
3/06/25	BA	Review, research, and edit draft omnibus objection to SAFEs' claim, correspond with JS regarding same, and convey comments on same to P. Tomasco (2.4); review draft opposition to motion to withdraw the reference and correspond with P. Tomasco and team regarding same (0.9); review draft memorandum from P. Tomasco regarding [redacted] and research related issues (0.4).	3.70	1200.00	4,440.00
3/06/25	JS	Attend teleconference with PS, EB, VO, CS, PB, SR, HM, MV, CHH, JHA, & ASA to discuss high-priority action items related to the adversary proceeding and district court appeal, including coordination with bankruptcy counsel, assignment of document review responsibilities, and ongoing legal research (0.8); review and evaluate SAFE claim objection (0.9); review and evaluate [redacted] issues (1.0); review and evaluate contract [redacted] issues (1.5); continue to work on high priority action items for damages case (1.0).	5.20	1025.00	5,330.00
3/06/25	SR	Attend teleconference with PS, EB, VO, JS, CS, PB, HM, MV, CHH, JHA, & ASA to discuss high-priority action items related to the adversary proceeding and district court appeal, including coordination with bankruptcy counsel, assignment of document review responsibilities, and ongoing legal research.	.80	750.00	600.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/06/25	CS	Attend teleconference with PS, EB, VO, JS, PB, SR, HM, MV, CHH, JHA, & ASA to discuss high-priority action items related to the adversary proceeding and district court appeal, including coordination with bankruptcy counsel, assignment of document review responsibilities, and ongoing legal research (0.8); review and analyze memorandum regarding [redacted] (1.0); review and analyze power contracts regarding [redacted] or [redacted] economic value (2.4).	4.20	850.00	3,570.00
3/06/25	CHH	Attend teleconference with PS, EB, VO, JS, CS, PB, SR, HM, MV, JHA, & ASA to discuss high-priority action items related to the adversary proceeding and district court appeal, including coordination with bankruptcy counsel, assignment of document review responsibilities, and ongoing legal research.	.80	350.00	280.00
3/06/25	JHA	Attend teleconference with PS, EB, VO, JS, CS, PB, SR, HM, MV, CHH & ASA to discuss high-priority action items related to the adversary proceeding and district court appeal, including coordination with bankruptcy counsel, assignment of document review responsibilities, and ongoing legal research (0.8); update dockets, including bankruptcy original and adversary proceedings, and district court appeal (0.7).	1.50	350.00	525.00
3/06/25	PB	Attend teleconference with PS, EB, VO, JS, CS, SR, HM, MV, CHH, JHA, & ASA to discuss high-priority action items related to the adversary proceeding and district court appeal, including coordination with bankruptcy counsel, assignment of document review responsibilities, and ongoing legal research (0.8); correspondence with JS regarding [redacted] obligations (0.2).	1.00	850.00	850.00
3/06/25	ASA	Attend teleconference with PS, EB, VO, JS, CS, PB, SR, HM, MV, CHH, and JHA to discuss high-priority action items related to the adversary proceeding and district court appeal, including coordination with bankruptcy counsel, assignment of document review responsibilities, and ongoing legal research (0.8); update document review memorandum to reflect attorney priorities (0.4).	1.20	350.00	420.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/06/25	HM	Attend teleconference with PS, EB, VO, JS, CS, PB, SR, MV, CHH, JHA, & ASA to discuss high-priority action items related to the adversary proceeding and district court appeal, including coordination with bankruptcy counsel, assignment of document review responsibilities, and ongoing legal research (0.8); update damages case document review memorandum (0.5).	1.30	700.00	910.00
3/06/25	TT	Analyze and summarize additional Rhodium materials for EB in support of damages claim.	8.50	525.00	4,462.50
3/06/25	MV	Attend teleconference with PS, EB, VO, JS, CS, PB, SR, HM, CHH, JHA, & ASA to discuss high-priority action items related to the adversary proceeding and district court appeal, including coordination with bankruptcy counsel, assignment of document review responsibilities and ongoing legal research.	.80	425.00	340.00
3/07/25	EB	Review and respond to updates from TT (0.1); analyze same and correspond with BA and JS regarding potential addition to amended complaint (0.4); correspond with litigation fellows and HM regarding [redacted] action items including [redacted] updates (0.1).	.60	1250.00	750.00
3/07/25	JS	Continue strategic planning for damages case (3.9); confer with [redacted] regarding latest settlement negotiations with Riot (0.2).	4.10	1025.00	4,202.50
3/07/25	ASA	Prepare exports for review in support of damages case (0.6); begin review of additional Rhodium documents to identify information in support of damages case (0.9).	1.50	350.00	525.00
3/07/25	TT	Analyze and summarize additional Rhodium materials for EB in support of damages claim.	7.10	525.00	3,727.50
3/09/25	TT	Analyze and summarize additional Rhodium materials for EB in support of damages claim.	2.90	525.00	1,522.50
3/10/25	EB	Analyze and summarize additional Rhodium materials for EB in support of damages claim.	.60	1250.00	750.00
3/10/25	JS	Continue work on analysis of [redacted] energization.	2.00	1025.00	2,050.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/10/25	JHA	Review and update bankruptcy dockets, including district court appeal, bankruptcy appeal and adversary proceeding dockets (1.0); confer with EB regarding status of bankruptcy objections to Midas Green proof of claim in the related matter (0.3).	1.30	350.00	455.00
3/10/25	ASA	Continue analysis of additional Rhodium documents to identify information in support of damages case.	3.70	350.00	1,295.00
3/10/25	TT	Analyze and summarize additional Rhodium materials for EB in support of damages claim.	9.30	525.00	4,882.50
3/11/25	EB	Review correspondence, begin analyzing issues, and correspond with BA, TB, and JS regarding appellate record designations (0.6); review correspondence and materials from P. Tomasco regarding same (0.1); attention to case management (0.5).	1.20	1250.00	1,500.00
3/11/25	BA	Participate in weekly call with bankruptcy counsel, litigation counsel, and client (0.4); review Whinstone's designation of record for appeal, correspond with EB, TB, and JS regarding issues related to same, correspond with P. Tomasco regarding same, and review related research (0.4); correspond with P. Tomasco and with W. Thompson and A. Swartz regarding preparation of motion to recover bond deposit with state court (0.3).	1.10	1200.00	1,320.00
3/11/25	JS	Continue evaluating [redacted] energization issue (2.0); review and evaluate letter from SAFE group regarding disclosure of Stris and LKC information (1.2) and confer with P. Tomasco regarding same (0.2); continue preparing go-forward strategy and evaluating key issues in connection with damages case (1.7); attend portion of weekly touchpoint call (0.6).	5.70	1025.00	5,842.50
3/11/25	TB	Plan regarding document designation response; review document designations; review opinion on appropriate designations.	.70	1200.00	840.00
3/11/25	CS	Continue analyzing case law and drafting memorandum regarding adversary proceeding.	1.90	850.00	1,615.00
3/11/25	ASA	Continue analysis of additional Rhodium documents to identify information in support of damages case.	2.20	350.00	770.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/11/25	TT	Analyze and summarize additional Rhodium materials for EB in support of damages claim.	8.20	525.00	4,305.00
3/12/25	VO	Confer with JS regarding assignments and strategy (1.0); review and respond to email from P. Tomasco regarding draft letter (0.6); confer with PS regarding same (0.3).	1.90	1025.00	1,947.50
3/12/25	EB	Correspond with TT regarding review status and action items (0.1); confer with HM regarding high priority discovery-related action items (0.1); analyze materials and advise HM and litigation fellows regarding revisions to review memorandum (0.5); review team correspondence and correspondence with co-counsel regarding objections to SAFE discovery requests and analyze draft of same (0.2); attention to case management (0.3).	1.20	1250.00	1,500.00
3/12/25	BA	Begin outlining and analyzing issues for motion to release supersedeas deposit in state court (1.5); review and analyze issues relating to energizing [redacted] and correspond with JS regarding same (0.5); review proposed response and correspondence regarding SAFE discovery requests and correspond with JS regarding status of certain discovery matters (0.4).	2.40	1200.00	2,880.00
3/12/25	JS	Evaluate response letter regarding SAFE document requests (0.5) and confer with B. Roth regarding same (0.1); evaluate issues regarding appellate record designation (0.4); further revise [redacted] energization analysis (0.7); evaluate discovery issues that remain to be addressed in damages case (1.5).	3.20	1025.00	3,280.00
3/12/25	TB	Review record designations and docket to assess potential further designations.	1.90	1200.00	2,280.00
3/12/25	CS	Continue analyzing case law and drafting memorandum regarding adversary proceeding.	4.50	850.00	3,825.00
3/12/25	HM	Confer with EB about high priority discovery items (0.1); coordinate with PH to ensure compliance with case deadlines (0.1).	.20	700.00	140.00
3/12/25	TT	Analyze and summarize additional Rhodium materials for EB in support of damages claim.	9.50	525.00	4,987.50

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Date	Tkpr	Description	Hours	Rate	Amount
3/13/25	VO	Prepare for (0.3) and attend call with P. Tomasco, JS, W. Thomson, and others regarding response to letter (0.7); emails with P. Tomasco and legal team regarding same (0.3).	1.30	1025.00	1,332.50
3/13/25	PS	Prepare for (0.5) and attend (0.9) weekly team zoom.	1.40	1450.00	2,030.00
3/13/25	EB	Prepare for (0.5) and lead (0.9) Stris team meeting; attend teleconference with TT, HM, ASA and JHA regarding status and action items in support of further review (0.5); attend teleconference with MV regarding high priority action items including fellow management (0.2); work on offensive discovery strategy (1.4); review and respond to team correspondence and correspond with Stris team regarding action items including document and privilege log review and analysis (0.2).	3.70	1250.00	4,625.00
3/13/25	BA	Attend portion of teleconference with MV, EB, PS, JS, TB, CS, PB, HM, SR, CHH, and JHA to discuss high-priority action items related to the bankruptcy trial, adversary proceeding and district court appeal (0.6); continue reviewing Whinstone's record designations for appeal, research issues relating to record designations and motion to strike improper designations, and correspond with P. Tomasco regarding same (0.5); confer with CH regarding Whinstone's record designations (0.1); review correspondence from R. Mates regarding discovery matters and correspond with JS and PB regarding same (0.1); continue analyzing appeal issues raised by Whinstone and correspond with TB, EB, and JS regarding potential waiver of appellate issues (0.5); review potential exhibits for supersedeas bond filing and correspond with JH and HM regarding preparation of exhibits and declaration for supersedeas bond filing (0.3).	2.10	1200.00	2,520.00
3/13/25	JS	Attend teleconference with MV, EB, PS, TB, CS, PB, HM, SR, CHH, and JHA to discuss high-priority action items related to the bankruptcy trial, adversary proceeding and district court appeal (0.9); push forward key action items related to damages issues on Building D and Winter Storm Uri (1.9).	2.80	1025.00	2,870.00
3/13/25	SR	Attend teleconference with MV, EB, PS, JS, TB, CS, PB, HM, CHH, and JHA to discuss high-priority action items related to the bankruptcy trial, adversary proceeding and district court appeal.	.90	750.00	675.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/13/25	TB	Review Second Interim Order and plan regarding record needs and counter designations and work on same (4.2); attend part of Stris team call regarding appellate action items including waiver research (0.3).	4.50	1200.00	5,400.00
3/13/25	CS	Attend teleconference with MV, EB, PS, JS, TB, PB, HM, SR, CHH, and JHA to discuss high-priority action items related to the bankruptcy trial, adversary proceeding and district court appeal (0.6); continue reviewing and analyzing case law in preparation for responding answer in adversary proceeding and drafting memorandum regarding the same (3.2).	3.80	850.00	3,230.00
3/13/25	CHH	Attend teleconference with MV, EB, PS, JS, TB, CS, PB, HM, SR, and JHA to discuss high-priority action items related to the bankruptcy trial, adversary proceeding and district court appeal.	.60	350.00	210.00
3/13/25	JHA	Attend teleconference with MV, EB, PS, JS, TB, CS, PB, HM, SR, and CHH to discuss high-priority action items related to the bankruptcy trial, adversary proceeding and district court appeal (0.6); update internal tracking memorandum with exhibits offered and admitted, including for a limited purpose, in support of appellate motion practice as directed by BA (1.0); attend teleconference with TT, ASA, EB, CHH and HM to discuss ongoing review of Rhodium materials (0.5); begin reviewing additional assigned materials in support of damages claims (2.0); prepare exhibits and provide materials for upcoming motion regarding supersedeas deposit at BA request (1.5).	5.60	350.00	1,960.00
3/13/25	PB	Attend teleconference with MV, EB, PS, JS, TB, CS, HM, SR, CHH, and JHA to discuss high-priority action items related to the bankruptcy trial, adversary proceeding and district court appeal.	.90	850.00	765.00
3/13/25	ASA	Finalize Damages Phase document review memorandum and circulate to EB, HM, CHH, JHA, and TT (0.8); attend teleconference with EB, TT, HM, and JHA to discuss and assign roles for analysis and review in support of same (0.5); correspond with MV about review project (0.2); continue analysis of additional Rhodium documents to identify information in support of damages case (2.9).	4.40	350.00	1,540.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/13/25	HM	Attend teleconference with EB, TT, ASA and JHA regarding status and action items in support of further document review (0.5); prepare for (0.1) and attend (0.9) teleconference with MV, EB, PS, JS, TB, CS, PB, SR, CHH, and JHA to discuss high-priority action items related to the bankruptcy trial, adversary proceeding and district court appeal.	1.50	700.00	1,050.00
3/13/25	TT	Attend teleconference with EB, HM, ASA and JHA regarding status and action items in support of further Rhoidum document review (0.5); analyze and summarize additional Rhodium materials for EB in support of damages claim (8.0).	8.50	525.00	4,462.50
3/13/25	MV	Attend teleconference with EB, PS, JS, TB, CS, PB, HM, SR, CHH, and JHA to discuss high-priority action items related to the bankruptcy trial, adversary proceeding and district court appeal (0.9); attend teleconference with EB regarding high priority action items including fellow management (0.2); assess and follow-up with fellows and attorneys regarding ongoing document assignments and action items (0.2).	1.30	425.00	552.50
3/14/25	EB	Prepare for (0.5) and attend portion of teleconference to advise HM and MV regarding damages case document review and case management (0.6); analyze current privilege log materials (0.4); correspond with PB, MV, NC, and ASA regarding family analysis of same (0.2); review correspondence from BA and analyze issues and record relating to appellate waiver arguments (1.0); review and respond to correspondence from BA regarding supplemental record designations (0.1).	2.80	1250.00	3,500.00
3/14/25	BA	Continue researching and reviewing issues for record designation and motion to strike portions of Whinstone's designations, and correspond with CH and JH regarding research and documents for same.	1.90	1200.00	2,280.00
3/14/25	JS	Prepare for (0.5) and attend (0.4) call regarding [redacted] exit financing questions; continue evaluating next steps for damages case and possible Whinstone settlement (0.9).	1.80	1025.00	1,845.00
3/14/25	SR	Review and analyze documents to be added to memorandum summarizing factual research relating to damages complaint.	2.40	750.00	1,800.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/14/25	TB	Review docket and document designations and plan regarding responsive designations (5.0); plan regarding research on waiver issues (0.9).	5.90	1200.00	7,080.00
3/14/25	CS	Continue reviewing and analyzing case law in preparation for composing response to Whinstone and Riot's answer to or motion to dismiss damages action; continue drafting memorandum regarding the same (6.0).	6.00	850.00	5,100.00
3/14/25	CHH	Provide documents to BA in support of additional designations to record on appeal (0.5); review and analyze Whinstone's designations and pull pleadings relating to same (1.0).	1.50	350.00	525.00
3/14/25	NC	Update and circulate updated privilege log analysis for attorney review.	.20	350.00	70.00
3/14/25	JHA	Continue reviewing and analyzing assigned Rhodium documents in support of damages case (2.1); compile exhibits and supporting materials for motion to strike Whinstone designations (1.0).	3.10	350.00	1,085.00
3/14/25	ASA	Analyze past briefing at request of PB and EB to confirm pertinent information about Immersion Systems.	2.10	350.00	735.00
3/14/25	HM	Confer with HM, EB, and MV regarding damages case document review and case management.	1.70	700.00	1,190.00
3/14/25	TT	Analyze and summarize additional Rhodium materials for EB in support of damages claim.	7.80	525.00	4,095.00
3/14/25	MV	Confer with HM and EB regarding damages case document review and case management (1.7); review damages case review memorandum and related documents (1.0); correspond with team regarding ongoing oversight of fellows regarding document review and assign batches for review (0.3); review and respond to correspondence related to privilege log (0.5); conduct document review in support of damages case and begin summary of findings regarding same (3.5).	7.00	425.00	2,975.00
3/15/25	TB	Research regarding waiver and planning regarding response to waived issues.	2.10	1200.00	2,520.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/15/25	CS	Continue analyzing case law and drafting memorandum in support of adversary proceeding in preparation for responding to answers or motions to dismiss.	2.90	850.00	2,465.00
3/16/25	VO	Review and analyze [redacted], and [redacted] documents and summaries of key information relating to same.	1.60	1025.00	1,640.00
3/16/25	PS	Review documents provided and curated by J. Stokes for purposes of assessing key strategic issues pertaining to damages claim, potential settlement, and proposed plan terms.	4.50	1450.00	6,525.00
3/16/25	EB	Confer with JS regarding high priority action items and assignments including searching in support of objection to SAFE claim, approval for fraudulent inducement amendment, and appellate waiver research (0.5); analyze materials relating to support for fraudulent inducement claim (3.5); correspond with BA, TB, MS, and JS regarding analysis of same (1.6); correspond with CHH regarding systems access and related action items (0.1).	5.70	1250.00	7,125.00
3/16/25	BA	Correspond with EB and MS regarding issues related to fraudulent inducement claim (0.3); continue analyzing issues for and drafting filings for response to Whinstone's designation of record materials (0.5).	.80	1200.00	960.00
3/16/25	JS	Confer with EB regarding high priority action items and assignments including searching in support of objection to SAFE claim, approval for fraudulent inducement amendment, and appellate waiver research (0.5); review complaint and existing research in connection with same (0.4).	.90	1025.00	922.50
3/16/25	TB	Conduct further legal research regarding waiver via agreement and failure to raise.	5.10	1200.00	6,120.00
3/16/25	CS	Continue research in support of response to Whinstone and Riot answers to or motions to dismiss damages action and drafting memorandum regarding same.	3.10	850.00	2,635.00
3/16/25	MS	Analyze documents and materials regarding fraudulent inducement issue.	2.70	1100.00	2,970.00
3/16/25	TT	Analyze and summarize additional Rhodium materials for EB in support of damages claim.	6.30	525.00	3,307.50

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Date	Tkpr	Description	Hours	Rate	Amount
3/17/25	VO	Review documents provided and curated by JS for purposes of assessing key strategic issues pertaining to damages claim, potential settlement, and proposed plan terms (4.8); confer with JS and EB regarding damages and other high-priority items (0.5).	5.30	1025.00	5,432.50
3/17/25	PS	Review documents provided and curated by JS for purposes of assessing key strategic issues pertaining to damages claim, potential settlement, and proposed plan terms.	4.30	1450.00	6,235.00
3/17/25	EB	Review and respond to team correspondence regarding discovery and document-related action items (0.2); evaluate high priority damages-related tasks (0.5); correspond with ASA regarding prioritization of litigation fellow tasks (0.1); analyze additional materials to prepare for (1.3) and confer with JS and MS regarding fraudulent inducement analysis (0.7); correspond with HM regarding and provide additional information to MS in support of same (0.1); review updates from TT, confer with Stris Team regarding background, and advise TT regarding further Rhodium document review and analysis (0.2); confer with VO and JS regarding Building D analysis and high priority action items (0.5); review update from TB regarding appellate record designations and correspondence from BA regarding next steps (0.1); review and analyze Building D correspondence, materials, and legal research from co-counsel and determine next steps in support of development of proof regarding same (2.0); attend teleconference with HM regarding factual memorandum assessing same (0.2); review and provide supporting materials and further instructions to HM (0.3); begin reviewing Riot and Whinstone filings moving to withdraw the reference and dismiss damages complaint (1.0).	7.20	1250.00	9,000.00
3/17/25	BA	Correspond with CH and with JH regarding status of analysis relevant to record designations for appeal (0.2); begin reviewing transcripts as relevant to both supplemental designations and motion to strike Whinstone's designations (1.5).	1.70	1200.00	2,040.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/17/25	JS	Confer with EB and MS regarding fraudulent inducement analysis (0.7); correspond with EB and MS regarding same (0.2); confer with VO and EB regarding Building D and other high priority issues (0.5); review and evaluate Riot and Whinstone responses to damages complaint (2.5); review documents in connection with SAFE analysis related to Whinstone settlement issues (1.2); review SAFE claim objection (1.0); evaluate high priority next steps in connection with damages complaint (1.4); review and evaluate draft motion to return bond in Milam County (0.8).	8.30	1025.00	8,507.50
3/17/25	TB	Research regarding waiver of arguments by contract and judicial waiver (4.6); review documents and advise regarding document designations for appeal (0.6).	5.20	1200.00	6,240.00
3/17/25	CHH	Continue assisting BA with designations for bankruptcy appeal (0.4); assist JS and LS with targeted searching and analysis for Whinstone settlement (0.4); organize and provide documents to various attorneys per EB request (0.1).	.90	350.00	315.00
3/17/25	MS	Analyze documents and expert reports regarding fraudulent inducement issue (2.3); conduct legal research regarding same (4.9); attend teleconference with EB and JS regarding fraudulent inducement analysis (0.7).	7.90	1100.00	8,690.00
3/17/25	JHA	Review Phase 1 hearing transcripts and update internal tracking memorandum with exhibits offered and admitted in support of appellate motion practice as directed by BA (1.3); continue reviewing assigned materials in support of damages phase (2.5).	3.80	350.00	1,330.00
3/17/25	PB	Analyze Whinstone motions to dismiss and to withdraw reference.	.80	850.00	680.00
3/17/25	ASA	Continue review and analysis of assigned Rhodium documents for information for damages case.	2.60	350.00	910.00
3/17/25	HM	Begin reviewing documents and drafting Building D analysis (1.3); confer with EB about Building D analysis (0.2).	1.50	700.00	1,050.00
3/17/25	TT	Analyze and summarize additional Rhodium materials for EB in support of damages claim.	10.50	525.00	5,512.50
3/17/25	LS	Perform targeted search, review of search results, and compilation of findings for attorney J. Stokes.	7.70	625.00	4,812.50

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Date	Tkpr	Description	Hours	Rate	Amount
3/18/25	VO	Review settlement term sheet and emails with team regarding same (0.4); review and analyze omnibus claim objection and underlying SAFE documents, including reviewing EB redlines to same (1.4); confer with JS regarding same (0.3); attend videoconference with co-counsel and client representatives (0.8).	2.90	1025.00	2,972.50
3/18/25	PS	Review documents provided and curated by JS for purposes of assessing key strategic issues pertaining to damages claim, potential settlement, and proposed plan terms.	4.20	1450.00	6,090.00
3/18/25	EB	Continue reviewing and analyzing Riot and Whinstone motions and ensure staffing and coverage to respond to same (1.2); advise NC and ASA correspond with BA, JS, NC, and ASA regarding preparation of opposition papers responding to same and potential motion to strike jury demand (0.2); review updates from TT regarding document review and analysis and advise regarding same (0.1); correspond with LS regarding additional targeted searching (0.1); attend teleconference with LS regarding same (0.4); prepare for (0.2) and attend (0.4) teleconference with litigation fellows and TT regarding review and matter status, client instructions, and prioritization of non-extended deadline-related tasks; attend teleconference with BA regarding status and high priority action items (0.2); review term sheet (0.1); propose revisions to term sheet including to address intellectual property issues in consultation with BA and JS (0.5); correspond with BA, JS, and co-counsel and review further correspondence regarding further revisions to same (0.1); review update from LS and correspond with JS, LS, and CHH regarding next steps in support of targeted SAFE searches and review (0.1); review and analyze additional Building D materials and further instruct HM regarding analysis of same (0.2); analyze and propose revisions to SAFE claim objection and correspond with JS regarding same (2.5); attend portion of checkpoint teleconference with BA, JS, client and co-counsel (0.7); advise associates and litigation fellows regarding damages case stand down and status memorialization (0.2); attend teleconference with JS, client and co-counsel to discuss SAFE issues (1.5); consult with JS regarding resulting action items including high priority research and assess staffing for same (0.1).	8.80	1250.00	11,000.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/18/25	BA	Review draft term sheet from P. Tomasco and correspond with JS, EB, and VO regarding potential revisions to same (0.2); confer with EB regarding draft term sheet (0.2); confer with EB and JS regarding potential issues to flag in term sheet (0.5); continue reviewing record materials to prepare supplemental designations of record and motion to strike, correspond with JH regarding exhibit list, correspond with CH and CS regarding potential filings for designation, and convey draft record designations to litigation team for input (4.6); participate in teleconference with client, bankruptcy counsel, and litigation team (0.8).	6.20	1200.00	7,440.00
3/18/25	JS	Evaluate SAFE issues in connection with Whinstone settlement (2.3); attend weekly touchpoint call (0.8); attend call with QE, SMLLP, and Province teams regarding SAFE issues in connection with Whinstone settlement (1.5); further conversation with EB regarding same (0.1).	4.70	1025.00	4,817.50
3/18/25	TB	Continue waiver research.	5.90	1200.00	7,080.00
3/18/25	CHH	Assist BA with additional designations for appeal (0.5); teleconference with EB, HM, JHA, and ASA regarding case updates and high priority action items (0.4); summarize LS research findings regarding SAFEs for EB and JS review (0.3).	1.20	350.00	420.00
3/18/25	NC	Assist ASA with materials in support of responses to Riot and Whinstone motions.	.40	350.00	140.00
3/18/25	MS	Conduct further research and analysis regarding fraudulent inducement.	9.30	1100.00	10,230.00
3/18/25	JHA	Finish reviewing Phase 1 hearing transcripts to update and qc internal tracking memorandum with exhibits offered and admitted in support of appellate motion practice as directed by BA (2.5); attend teleconference with EB, HM, CHH, and ASA regarding case updates and high priority action items (0.4).	2.90	350.00	1,015.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/18/25	ASA	Prepare materials for Rhodium's responses to Riot's Motion to Dismiss and Motion to Withdraw Reference (0.8); prepare materials for Rhodium's responses to Whinstone's Motion to Dismiss and Motion to Withdraw Reference (0.8); correspond with EB regarding Building D materials and information (0.2); teleconference with EB, HM, JHA, and CHH regarding case updates and high priority action items (0.4); record detailed update of document review efforts to facilitate reference by attorneys (0.3).	2.50	350.00	875.00
3/18/25	HM	Continue drafting Building D memorandum (4.1); teleconference with EB, JHA, CH, and ASA regarding case updates and high priority action items (0.4).	4.50	700.00	3,150.00
3/18/25	TT	Analyze and summarize additional Rhodium materials for EB in support of damages claim (7.9); attend portion of teleconference with EB, HM, JHA, CH and ASA regarding case updates and high priority action items (0.2); assist HM in the identification of Building D documents for detailed timeline (0.8); amend summary and analysis of Building D documents for detailed timeline (0.2).	9.10	525.00	4,777.50
3/18/25	LS	Telephone call with attorney E. Brannen to discuss high priority targeted search requests (0.4) targeted search, review of search results, and compilation of findings relating to Temple for attorney EB (1.6); targeted search, review of search results, and compilation of findings related executed Building D contracts for EB, JS, and HM (5.6).	7.60	625.00	4,750.00
3/19/25	VO	Confer with PS and JS regarding key strategic issues.	.50	1025.00	512.50
3/19/25	PS	Review documents provided and curated by J. Stokes for purposes of assessing key strategic issues pertaining to damages claim, potential settlement, and proposed plan terms (3.6); confer with JS and VO regarding same (0.5).	4.10	1450.00	5,945.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/19/25	EB	Assess status and high priority action items in support of Whinstone settlement and SAFE issues (1.0); attend teleconference with TB regarding investor priority claims and research (0.2); review and analyze initial research from P. Tomasco (0.3); revise objections to SAFE claim to incorporate edits from VO (0.2); continue assessing strategic issues (0.8); correspond with patent prosecution counsel regarding status of pending patent applications (0.1); advise associates and TT regarding status and high priority action items (0.4); assess further documents located by LS (1.0); attend teleconference with TT regarding analysis of documents in support of settlement (0.2); confer with BA regarding appeal status and coverage of non-stayed deadlines (0.2); review BA and JS comments and propose further revisions to term sheet (0.6); correspond with co-counsel regarding same (0.1).	5.10	1250.00	6,375.00
3/19/25	BA	Review revisions to term sheet and convey suggested edits to JS and EB (0.3); correspond with P. Tomasco regarding upcoming deadlines and confer with EB regarding appeal deadlines and term sheet (0.2); review draft motion to approve settlement and convey suggested edits to EB and JS (0.4); review initial admitted exhibit list from JH, correspond with JH regarding revisions to same, and correspond with HM regarding review and revision of same (0.4).	1.30	1200.00	1,560.00
3/19/25	JS	Confer with PS and VO regarding key strategic issues.	.50	1025.00	512.50
3/19/25	TB	Confer with E. Brannen regarding priority of appeal issues and issues regarding investor interest in bankruptcy (0.2); Plan research and research regarding bankruptcy rules regarding investor interest (5.4).	5.60	1200.00	6,720.00
3/19/25	MS	Conduct legal research regarding fraudulent inducement issue (1.4); review and analyze [redacted] complaint and research and analyze issues as requested by EB and JS in support of settlement (2.5).	3.90	1100.00	4,290.00
3/19/25	HM	Conduct research and draft notice of withdrawal as counsel for HM.	1.10	700.00	770.00
3/19/25	TT	Analyze and summarize third party materials for EB in support of potential Whinstone settlement.	6.50	525.00	3,412.50

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Date	Tkpr	Description	Hours	Rate	Amount
3/20/25	VO	Attend teleconference with team regarding case developments and assignments including upcoming appellate filing and research in support of potential settlement and proposed plan terms (0.8); confer with PS and JS regarding key strategic issues (0.8).	1.60	1025.00	1,640.00
3/20/25	PS	Review documents provided and curated by JS for purposes of assessing key strategic issues pertaining to damages claim, potential settlement, and proposed plan terms (3.1); confer with VO and JS regarding same (0.8).	3.90	1450.00	5,655.00
3/20/25	EB	Review client and counsel initial comments on motion to assume, propose further revisions, and correspond with client and co-counsel regarding same (0.9); prepare for (0.5) and lead (0.8) Stris team meeting regarding case developments and assignments including upcoming appellate filing and research in support of potential settlement and proposed plan terms; review updates from TT regarding further analysis (0.2); correspond with JS and TT regarding next steps in support of same (0.1); continue analyzing SAFE issues, further revise, and correspond with co-counsel regarding objection to SAFE claim (2.6); attend portion of teleconference with JS, clients, and co-counsel regarding same (0.5); review and respond to further team correspondence and additional SAFE discovery- related correspondence (0.3).	5.90	1250.00	7,375.00
3/20/25	BA	Correspond with EB regarding term sheet (0.1); participate in portion of teleconference regarding strategy for plan and SAFE issues (0.5); correspond and confer with HM regarding exhibit list for appeal (0.3); attend portion of teleconference with EB, TB, JS, VO, CS, PB, SR, HM, MV, CHH, JHA, and ASA regarding case developments and assignments including upcoming appellate filing and research in support of potential settlement and proposed plan terms (0.5).	1.40	1200.00	1,680.00

Invoice # 14517 April 23, 2025

Date	Tkpr	Description	Hours	Rate	Amount
3/20/25	JS	Continued work on SAFE issues in connection with Whinstone settlement (3.8); attend call with client and counsel teams regarding same (1.1); review and evaluate further correspondence from SAFEs regarding document requests related to litigation team (1.3); review and evaluate issues affecting Debtors in connection with SAFE subpoena of Imperium (0.9); attend teleconference with EB, BA, TB, VO, CS, PB, SR, HM, MV, CHH, JHA, and ASA regarding case developments and assignments including upcoming appellate filing and research in support of potential settlement and proposed plan terms.	7.90	1025.00	8,097.50
3/20/25	SR	Attend teleconference with EB, BA, TB, JS, VO, CS, PB, HM, MV, CHH, JHA, and ASA regarding case developments and assignments including upcoming appellate filing and research in support of potential settlement and proposed plan terms.	.80	750.00	600.00
3/20/25	TB	Legal research regarding subordination of claims (5.1); Attend teleconference with EB, BA, JS, VO, CS, PB, SR, HM, MV, CHH, JHA, and ASA regarding case developments and assignments including upcoming appellate filing and research in support of potential settlement and proposed plan terms. (0.8).	5.90	1200.00	7,080.00
3/20/25	CS	Attend teleconference with EB, BA, TB, JS, VO, PB, SR, HM, MV, CHH, JHA, and ASA regarding case developments and assignments including upcoming appellate filing and research in support of potential settlement and proposed plan terms.	.80	850.00	680.00
3/20/25	CHH	Attend teleconference with EB, BA, TB, JS, VO, CS, PB, SR, HM, MV, JHA, and ASA regarding case developments and assignments including upcoming appellate filing and research in support of potential settlement and proposed plan terms.	.80	350.00	280.00
3/20/25	JHA	Attend teleconference with EB, BA, TB, JS, VO, CS, PB, SR, HM, MV, CHH and ASA regarding case developments and assignments including upcoming appellate filing and research in support of potential settlement and proposed plan terms.	.80	350.00	280.00
3/20/25	PB	Attend teleconference with EB, BA, TB, JS, VO, CS, PB, SR, HM, MV, CHH, JHA, and ASA regarding case developments and assignments including upcoming appellate filing and research in support of potential settlement and proposed plan terms.	.80	850.00	680.00

Stris & Maher LLP

Invoice # 14517 April 23, 2025

Date	Tkpr	Description	Hours	Rate	Amount
3/20/25	ASA	Attend teleconference with EB, BA, TB, JS, VO, CS, PB, SR, HM, MV, CHH and JHA regarding case developments and assignments including upcoming appellate filing and research in support of potential settlement and proposed plan terms (0.8); assist HM with preparation of notice of withdrawal as counsel (1.0).	1.80	350.00	630.00
3/20/25	HM	Create Exhibit List for Appeal document for BA (6.8); attend teleconference with EB, BA, TB, JS, VO, CS, PB, SR, MV, CHH, JHA, and ASA regarding case developments and assignments including upcoming appellate filing and research in support of potential settlement and proposed plan terms (0.8).	7.60	700.00	5,320.00
3/20/25	TT	Analyze and summarize additional Rhodium (5.0) and SEC (4.0) materials for EB in support of potential Whinstone settlement.	9.00	525.00	4,725.00
3/20/25	MV	Attend teleconference with EB, BA, TB, JS, VO, CS, PB, SR, HM, CHH, JHA, and ASA regarding case developments and assignments including upcoming appellate filing and research in support of potential settlement and proposed plan terms.	.80	425.00	340.00
3/21/25	VO	Emails and confer with team regarding preparation of correspondence to counsel for SAFE AHG regarding Whinstone settlement, and analyze issues relating to same.	2.20	1025.00	2,255.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/21/25	EB	Attend teleconference with JS regarding high priority action items including response to discovery requests from counsel for SAFEs (0.7); review proposed final motion, term sheet, and proposed order (0.3); attend teleconference with client and co-counsel to discuss same (0.8); correspond with prosecution counsel (0.1); correspond with and advise CS regarding research in support of opposition to SAFE discovery requests (0.2); continue analyzing SAFE discovery issues (0.3); correspond with TT regarding revisions to memorandum (0.1); revise correspondence to counsel for SAFEs and correspond with BA, JS, co-counsel and clients regarding further revisions to same (0.7); review privilege research and memorandum from co-counsel (0.5); revise, finalize, and send response to most recent correspondence responding to SAFE discovery demands including agreed upon confidential projections document (0.6); begin analyzing materials from prosecution counsel (1.0); review proposed press release and correspondence from co-counsel regarding same (0.1); review Stris team correspondence including regarding SAFE research updates from TB (0.2).	5.60	1250.00	7,000.00
3/21/25	BA	Correspond with CS and P. Tomasco regarding appeal designations (0.2); review correspondence from K. Yang, review draft motion for protective order, and correspond with team regarding potential responses to SAFE counsel (0.4).	.60	1200.00	720.00
3/21/25	JS	Evaluate follow-on issues related to the Whinstone settlement and its impacts on potential plan confirmation (2.7); review, evaluate, and respond to discovery issues related to SAFE requests as to Stris and Lehotsky fees (2.0); prepare discovery correspondence related to SAFE involvement in Whinstone mediation (2.8); confer with EB regarding high priority action items including response to discovery requests regarding Stris and LKC fees in the Whinstone litigation (0.7).	8.20	1025.00	8,405.00
3/21/25	TB	Legal research regarding contracts potentially bearing upon Whinstone settlement (4.4); draft quick summary regarding assessment of same (0.6).	5.00	1200.00	6,000.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/21/25	CS	Review and analyze case law in preparation for responding to SAFE Committee discovery requests and begin drafting memorandum regarding the same.	5.50	850.00	4,675.00
3/21/25	TT	Analyze and summarize additional SEC materials for EB in support of Whinstone settlement issues.	1.50	525.00	787.50
3/22/25	EB	Review, analyze, and correspond with P. Tomasco, JS regarding further correspondence to counsel for SAFEs (0.2); review publicly available materials and update ERCOT expert regarding matter status (0.1); continue evaluating settlement implications with respect to SAFE and additional third party asserted claims and positions (1.0).	1.30	1250.00	1,625.00
3/22/25	JS	Further evaluate interaction of SAFEs with Whinstone settlement.	1.90	1025.00	1,947.50
3/23/25	EB	Review correspondence from SAFE counsel and correspond with JS and co-counsel regarding response to same (0.2); review drafts and correspondence from BA for upcoming non-stayed appellate filing and correspond with BA, JS, and CS regarding potential revisions to same (0.6).	.80	1250.00	1,000.00
3/23/25	BA	Correspond with P. Tomasco and with CS and team regarding appeal designations and related filings (0.3); review new proof of claim from N. Cerasuolo (0.1); review correspondence with SAFE AHGs (0.2).	.60	1200.00	720.00
3/23/25	JS	Further discovery correspondence regarding SAFE interaction with Whinstone settlement issues.	1.10	1025.00	1,127.50
3/24/25	EB	Prepare for (0.2) and attend (0.4) teleconference with prosecution counsel; continue analyzing related materials and correspond with prosecution counsel and clients regarding potential interim action items and questions (1.0); review further correspondence from mediator and SAFE counsel and correspond with JS and P. Tomasco regarding response to same (0.2); propose revisions to non-abated appellate filing and correspond with BA, JS, and CS regarding same (0.2).	2.00	1250.00	2,500.00
3/24/25	BA	Correspond with CS and EB regarding appeal designations, review and revise same, correspond with P. Tomasco regarding same, correspond with M. Moore and opposing counsel regarding filing of same and need for stipulation to abate further deadlines, and approve filing of same.	1.10	1200.00	1,320.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/24/25	JS	Continued work regarding SAFE interaction with Whinstone settlement and related next steps.	4.90	1025.00	5,022.50
3/24/25	CS	Review, revise, finalize, and file appellees' designations to record for appeal to district court.	1.20	850.00	1,020.00
3/24/25	CHH	Assist JS with research and collection of documents from discovery database.	.20	350.00	70.00
3/25/25	EB	Attend portion of checkpoint teleconference with BA, JS, clients, and co-counsel regarding status and high priority action items including with respect to IP (0.2); review and respond to correspondence from JS regarding client instructions and update MS and TB regarding same (0.1).	.30	1250.00	375.00
3/25/25	JS	Continued work on interaction of SAFE with Whinstone settlement and related issues (2.3); attend weekly touchpoint call (0.4).	2.70	1025.00	2,767.50
3/25/25	CS	Continue reviewing and analyzing case law in preparation for responding to SAFE discovery concerning Whinstone settlement and continue drafting memorandum regarding the same.	3.30	850.00	2,805.00
3/25/25	JHA	Prepare draft stipulation to abate deadlines at BA request.	2.20	350.00	770.00
3/26/25	EB	Attend teleconference with W. Thompson regarding expert report and analysis inquiry from [redacted] (0.1); correspond with BA, JS, ASA, JHA, and W. Thompson regarding response to same (0.2); confer with [redacted] and [redacted] regarding high priority action items including upcoming renewal deadline for document vendor (0.1); correspond with Stris team members regarding timing and correspondence with vendor regarding same (0.1).	.50	1250.00	625.00
3/26/25	BA	Review expert reports and correspond with EB and JS regarding inquiry from [redacted] (0.5); revise proposed stipulation to abate appeal deadlines, correspond with P. Tomasco, and advise JH regarding further revisions to same (0.4).	.90	1200.00	1,080.00
3/26/25	JHA	Edit draft Stipulation to Abate Deadlines at BA request.	.10	350.00	35.00
3/27/25	EB	Correspond with Stris team and vendor regarding document hosting renewal options.	.10	1250.00	125.00

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Date	Tkpr	Description	Hours	Rate	Amount
3/28/25	EB	Correspond with vendor to reiterate time-sensitive request for document hosting platform renewal options (0.1); communicate with Stris team members regarding assessment of data hosting size and anticipated needs (0.1).	.20	1250.00	250.00
3/28/25	ASA	Analyze data hosting needs and correspond with vendor regarding data usage at request of EB ahead of renewal deadline.	.40	350.00	140.00
3/31/25	PS	Review mediation appointment order (0.1); confer with team regarding same (0.1).	.20	1450.00	290.00
3/31/25	EB	Correspond with Stris team and vendor and assign MV to assess data hosting size and anticipated needs and pricing options (0.2); attend teleconference with MV and review update from MV regarding status of discussions (0.2); update [redacted] regarding same (0.1).	.50	1250.00	625.00
3/31/25	BA	Review mediation appointment order (0.1); correspond with PS, JS, and EB regarding plan mediation and upcoming hearings and confer with EB regarding same (0.2).	.30	1200.00	360.00
3/31/25	CHH	Correspond with vendor regarding discovery platform usage, issues, and needs in advance of potential renewal.	.30	350.00	105.00
3/31/25	JHA	Update files and attend to detailed tracking regarding recent filings and case developments.	1.00	350.00	350.00
3/31/25	MV	Correspond with vendor regarding options for potential contract renewal (0.3); obtain options from separate vendor and correspond regarding potential data transfer needs (0.2); analyze and correspond with EB regarding options (0.3); attend teleconference with MV regarding same (0.2).	1.00	425.00	425.00
		TOTAL PROFESSIONAL SERVICES			**$ 493,202.50**

Stris & Maher LLP

Invoice # 14517 April 23, 2025

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Peter K. Stris	PS	Partner	23.80	1,450.00	34,510.00
Elizabeth Brannen	EB	Partner	61.50	1,250.00	76,875.00
Bridget Asay	BA	Partner	27.60	1,200.00	33,120.00
Tillman Breckenridge	TB	Partner	47.90	1,200.00	57,480.00
Matthew Seligman	MS	Partner	23.80	1,100.00	26,180.00
Victor O'Connell	VO	Partner	18.90	1,025.00	19,372.50
John Stokes	JS	Partner	73.90	1,025.00	75,747.50
Colleen Smith	CS	Associate	44.80	850.00	38,080.00
Peter Brody	PB	Associate	4.00	850.00	3,400.00
Sarah Rahimi	SR	Associate	8.70	750.00	6,525.00
Helen Marsh	HM	Associate	21.90	700.00	15,330.00
Lisa Sherrod	LS	Lead Discovery Assoc	15.30	625.00	9,562.50
Tanya Tice	TT	Discovery Associate	132.70	525.00	69,667.50
Monica Viramontes	MV	Sr Paralegal	11.90	425.00	5,057.50
Andrew Atsalis	ASA	Fellow	26.30	350.00	9,205.00
Cynthia Huang	CHH	Fellow	7.70	350.00	2,695.00
Nicholas Capalbo	NC	Fellow	3.10	350.00	1,085.00
Jaida Hodge-Adams	JHA	Fellow	26.60	350.00	9,310.00
Total			**580.40**		**$ 493,202.50**

Invoice # 14517 April 23, 2025

EXPENSES ADVANCED

Date	Task	Description	Amount
2/11/25		BA airfare for mediation.	1,168.35
2/17/25		VO Airfare to Dallas for mediation.	560.49
2/19/25		BA transportation while in Dallas for mediation.	82.64
2/19/25		VO transportation for mediation.	161.63
2/20/25		BA transportation while in Dallas for mediation.	88.48
2/20/25		VO lodging in Dallas for mediation.á	651.89
2/20/25		VO airfare for mediation.	216.99
2/21/25		BA lodging for mediation in Dallas.	1,466.64
2/21/25		BA airpot parking for mediation.	36.00
3/05/25		CS pro hac application fee.	100.00
3/05/25		PS pro hac application fee.	100.00
3/05/25		JS pro hac application fee.	100.00
3/05/25		BA pro hac application fee.	100.00
3/17/25		Setec invoice - forensic investigation.	2,776.30
4/01/25		Logikcull Discovery Solutions (April 2025).	2,646.00
		TOTAL EXPENSES ADVANCED	**$ 10,255.41**
		TOTAL THIS INVOICE	**$ 503,457.91**

Invoice # 14517 April 23, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14366	1/13/25	132,202.25	111,327.25	20,875.00
14459	2/21/25	840,030.97	713,078.47	126,952.50
14486	3/28/25	754,873.12	.00	754,873.12

Previous Balance	$ 902,700.62
Balance Due This Invoice	$ 503,457.91
TOTAL BALANCE DUE	**$ 1,406,158.53**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 754,873.12	$ .00	$ 126,952.50	$ 20,875.00	$ .00	$ 902,700.62

Stris

April 23, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14532
Client # 00346
Matter # 007

INVOICE SUMMARY

For professional services rendered through March 31, 2025

RE: Retention and Fee Applications

Total Professional Services	$ 11,102.50
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 11,102.50**
Previous Balance	$ 19,149.50
TOTAL BALANCE DUE	**$ 30,252.00**

Electronic Invoice

Invoice # 14532 April 23, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
3/05/25	EB	Begin working on February monthly fee statement.	.50	1250.00	625.00
3/06/25	VO	Attention to process for quarterly fee application (0.2); prepare certificate of no objection (0.1).	.30	1025.00	307.50
3/11/25	EB	Work on monthly fee statement (0.4); advise NC regarding same (0.1).	.50	1250.00	625.00
3/12/25	NC	Assist EB with portions of monthly fee statement.	1.20	350.00	420.00
3/27/25	EB	Continue working on portion of monthly fee statement.	1.90	1250.00	2,375.00
3/28/25	EB	Continue preparing monthly fee statement.	2.80	1250.00	3,500.00
3/31/25	EB	Continue preparing monthly fee statement.	2.60	1250.00	3,250.00
		TOTAL PROFESSIONAL SERVICES			**$ 11,102.50**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	8.30	1,250.00	10,375.00
Victor O'Connell	VO	Partner	.30	1,025.00	307.50
Nicholas Capalbo	NC	Fellow	1.20	350.00	420.00
Total			**9.80**		**$ 11,102.50**

TOTAL THIS INVOICE **$ 11,102.50**

Invoice # 14532 April 23, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14381	1/13/25	6,285.00	5,028.00	1,257.00
14472	2/21/25	8,575.00	6,860.00	1,715.00
14499	3/28/25	16,177.50	.00	16,177.50

Previous Balance	$ 19,149.50
Balance Due This Invoice	$ 11,102.50
TOTAL BALANCE DUE	**$ 30,252.00**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 16,177.50	$ .00	$ 1,715.00	$ 1,257.00	$ .00	$ 19,149.50

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

STRIS & MAHER LLP'S EIGHTH MONTHLY FEE STATEMENT
FOR THE PERIOD APRIL 1, 2025, THROUGH APRIL 30, 2025

Stris & Maher LLP ("Stris & Maher") submits, pursuant to the Order Granting the Motion of the Debtors to Establish Procedures for Interim Compensation and Reimbursement of Expenses for Professionals (the "Interim Compensation Order") (ECF No. 264) entered on October 14, 2024, this monthly fee statement for the payment of interim compensation rendered and reimbursement of expenses incurred during the period April 1, 2025, through April 30, 2025 (the "Monthly Fee Statement").

Stris & Maher seeks payment of interim compensation in the total amount of $63,240.00 (80% of the services rendered), plus $7,530.00 (100% of the interim expenses incurred). *See* Interim Compensation Order at ¶ 1(a). Summaries of the fees and expenses are attached as Exhibits 1, 2, and 3. Invoices reflecting detailed time entries are attached hereto as Exhibit 4.

[1] Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), Rhodium Encore Sub LLC (1064), Rhodium Enterprises, Inc. (6290), Rhodium Industries LLC (4771), Rhodium Ready Ventures LLC (8618), Rhodium Renewables LLC (0748), Rhodium Renewables Sub LLC (9511), Rhodium Shared Services LLC (5868), and Rhodium Technologies LLC (3973). The mailing and service address of Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

Pursuant to the Interim Compensation Order, any party objecting to the payment of interim compensation and reimbursement of expenses shall serve within 14 days after delivery of the Monthly Fee Statement a written notice, via email, upon Stris & Maher and each of the other Fee Notice Parties (as listed below) (the "Written Notice"). The Written Notice shall set forth with reasonable detail the nature of the objection and the amount at issue. If the parties are unable to reach a resolution of the objection within 14 calendar days, the objecting party shall file its objection (the "Objection") with this Court within 3 business days and serve such Objection on Stris & Maher and each of the other Fee Notice Parties. See Interim Compensation Order ¶ 1(c).

The Fee Notice Parties as defined in the Interim Compensation Order are:

a. Rhodium Enterprises, Inc., Attn: Charles Topping (chucktopping@rhdm.com) and Morgan Soule (morgansoule@rhdm.com), 2617 Bissonnet Street, Suite 234, Houston, Texas 77005;

b. Debtors' Bankruptcy Counsel, c/o Quinn Emanuel Urquhart & Sullivan, LLP, Attn: Patricia B. Tomasco (pattytomasco@quinnemanuel.com); Razmig Izakelian (razmigizakelian@quinnemanuel.com), Alain Jaquet (alainjaquet@quinnemanuel.com), and Joanna D. Caytas (joannacaytas@quinnemanuel.com), 700 Louisiana, Suite 3900, Houston, Texas 77002;

c. Debtors' Financial Advisor, c/o Province, Attn: Mark Robinson (mrobinson@provincefirm.com); David Dunn (ddunn@provincefirm.com); Kirsten Lee (klee@province.com); and Andrew Popescu (apopescu@provincefirm.com), 2360 Corporate Circle, Suite 340, Henderson, Nevada 89074;

d. Galaxy Digital, LLC, in its capacity as DIP Agent, c/o Orrick, Herrington & Sutcliffe LLP, Ryan C. Wooten (rwooten@orrick.com), 609 Main, 40th Floor, Houston, Texas 77002, and Robert Trust (rtrust@orrick.com), Mark Franke (mfranke@orrick.com) and Brandon Batzel (bbatzel@orrick.com), 51 West 52nd Street, New York, New York 10019;

e. Counsel or proposed counsel to any statutory committee appointed in these Chapter 11 Cases; and

f. United States Trustee, Ha Minh Nguyen (ha.nguyen@usdoj.gov), 515 Rusk, Suite 3516, Houston, Texas 77002.

If no objection is timely served pursuant to the Interim Compensation Order, the Debtors shall be authorized and directed to pay Stris & Maher an amount equal to 80% of the fees and 100% of the expenses listed herein, or if an objection is timely served, such percentage of fees and expenses that are not subject to an objection, as stated in the Interim Compensation Order.

Respectfully submitted this 22nd day of May, 2025.

QUINN EMANUEL URQUHART & SULLIVAN, LLP

/s/ Patricia B. Tomasco
Patricia B. Tomasco (SBN 01797600)
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-and-

STRIS & MAHER LLP

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408 W. 11th Street, 5th Floor
Austin, TX 78701

Counsel for Debtors and Debtors in Possession

CERTIFICATE OF SERVICE

I certify that, on May 22, 2025, a true and correct copy of the foregoing Monthly Fee Statement was served through the Court's Electronic Case Filing system of the United States Bankruptcy Court for the Southern District of Texas.

/s/ Patricia B. Tomasco
Patricia B. Tomasco

EXHIBIT 1

Summary of Legal Fees for the Fee Period

Matter #	Matter Description	Total Hours	Total Fees	80% of Fees
001	Midas Green Patent Litigation	52.3	$55,720.00	$44,576.00
004	Whinstone Dispute, Excluding Tarrant County Litigation	2.7	$3,037.50	$2,430.00
007	Retention and Fee Applications	21.4	$20,292.50	$16,234.00
Total		76.4	$79,050.00	$63,240.00

EXHIBIT 2

Summaries of Hours Billed by Stris & Maher Attorneys and Paraprofessionals

Midas Green Patent Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	1,250.00	2.10	$2,625.00
Victor O'Connell	Partner	2012	1,025.00	.30	$307.50
Andrew Atsalis	Litigation Fellow	N/A	350.00	.30	$105.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	1,250.00	24.00	$30,000.00
Bridget Asay	Partner	1997	1,200.00	12.20	$14,640.00
John Stokes	Partner	2016	1,025.00	7.90	$8,097.50
Monica Viramontes	Senior Paralegal	N/A	425.00	1.50	$637.50
Andrew Atsalis	Litigation Fellow	N/A	350.00	.40	$140.00
Cynthia Huang	Litigation Fellow	N/A	350.00	.30	$105.00
Sebastian Delgado	Litigation Fellow	N/A	350.00	.40	$140.00
Jaida Hodge-Adams	Litigation Fellow	N/A	350.00	5.60	$1,960.00

Retention and Fee Applications

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	1,250.00	9.80	$12,250.00
Victor O'Connell	Partner	2012	1,025.00	5.90	$6,047.50
Cynthia Huang	Litigation Fellow	N/A	350.00	4.40	$1,540.00
Nicholas Capalbo	Litigation Fellow	N/A	350.00	1.30	$455.00

EXHIBIT 3

Summaries of Expenses for the Fee Period

Midas Green Patent Litigation

Expense	Amount
E-discovery platform fees	$7,530.00
Total	$7,530.00

EXHIBIT 4

Stris

May 14, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14560
Client # 00346
Matter # 001

INVOICE SUMMARY

For professional services rendered through April 30, 2025

RE: Midas Green Litigation

Total Professional Services	$ 3,037.50
Total Expenses Advanced	$ 7,530.00
TOTAL THIS INVOICE	**$ 10,567.50**
Previous Balance	$ 37,579.00
TOTAL BALANCE DUE	**$ 48,146.50**

Electronic Invoice

Stris & Maher LLP

Invoice # 14560 May 14, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
4/10/25	EB	Communicate with [redacted] regarding status of district court case and objection to Midas proof of claim (0.1); analyze current draft opposition to same (0.4); correspond with P. Tomasco regarding same and related action items with respect to district court (0.1).	.60	1250.00	750.00
4/15/25	EB	Communicate with CHH and ASA regarding status and analyze information in support of responding to client inquiry (0.1); correspond with [redacted], B. Rice, P. Tomasco, and D. Holzman regarding same (0.1).	.20	1250.00	250.00
4/16/25	VO	Review and revise EB declaration in support of objection to Midas Green's proof of claim.	.30	1025.00	307.50
4/16/25	EB	Confirm information (0.1) and revise declaration in support of objection to Midas Green claim (0.9); correspond with VO (0.1) and R. Harrington (0.1) regarding revisions to same.	1.20	1250.00	1,500.00
4/16/25	ASA	Collect requested documentation at request of EB to assist with drafting of declaration in support of Rhodium's objection to Midas Green's proof of claim.	.30	350.00	105.00
4/22/25	EB	Instruct ASA regarding status and action items following submission of amended objection to Midas Green proof of claim.	.10	1250.00	125.00
		TOTAL PROFESSIONAL SERVICES			**$ 3,037.50**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	2.10	1,250.00	2,625.00
Victor O'Connell	VO	Partner	.30	1,025.00	307.50
Andrew Atsalis	ASA	Fellow	.30	350.00	105.00
Total			**2.70**		**$ 3,037.50**

Invoice # 14560 May 14, 2025

EXPENSES ADVANCED

Date	Task	Description	Amount
1/31/25		JND Discovery Invoice for January 2025.	3,765.00
3/31/25		JND Discovery Invoice for March 2025.	3,765.00
		TOTAL EXPENSES ADVANCED	**$ 7,530.00**
		TOTAL THIS INVOICE	**$ 10,567.50**

Invoice # 14560 May 14, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14380	1/13/25	8,990.00	7,192.00	1,798.00
14471	2/21/25	25,380.00	21,057.00	4,323.00
14498	3/28/25	15,240.00	12,192.00	3,048.00
14530	4/23/25	28,410.00	.00	28,410.00

Previous Balance	$ 37,579.00
Balance Due This Invoice	$ 10,567.50
TOTAL BALANCE DUE	**$ 48,146.50**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 28,410.00	$ 3,048.00	$ 4,323.00	$ .00	$ 1,798.00	$ 37,579.00

Stris

May 14, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14547
Client # 00346
Matter # 004

INVOICE SUMMARY

For professional services rendered through April 30, 2025

RE: Whinstone Litigation

Total Professional Services	$ 55,720.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 55,720.00**
Previous Balance	$ 798,574.91
TOTAL BALANCE DUE	**$ 854,294.91**

Trust Funds Remaining on Account $ 115,369.59

Electronic Invoice

Stris & Maher LLP

Invoice # 14547 May 14, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
4/01/25	EB	Correspond with MV regarding and analyze document hosting options and recommendations (0.2); correspond with Rhodium regarding same (0.1); correspond with BA and JS and review correspondence from co-counsel regarding high priority action items including motion to stay appeal deadlines (0.1); advise MV regarding correspondence with vendor and review same (0.1).	.50	1250.00	625.00
4/01/25	BA	Correspond with EB and JS regarding abatement of appeal deadlines pending settlement (0.1); revise draft proposed filing regarding same (0.4); correspond with P. Tomasco regarding further edits to same, and convey draft of same to M. Moore for review (0.1).	.60	1200.00	720.00
4/01/25	MV	Assess and negotiate vendor renewal hosting contract and cold storage options including with alternative vendor (1.3); provide options to EB for next steps (0.2).	1.50	425.00	637.50
4/04/25	EB	Review and comment on draft settlement agreement (0.7); correspond with BA, JS, and VO regarding same (0.1).	.80	1250.00	1,000.00
4/04/25	BA	Review, analyze, and propose edits on draft settlement agreement (2.6); convey same to JS and EB for further review (0.1); review comments from JS, EB, and W. Thompson (0.1); convey edits and comments on draft settlement agreement from Stris team to P. Tomasco (0.2).	3.00	1200.00	3,600.00
4/07/25	BA	Review witness and exhibits lists, and exhibits, for settlement hearing (0.5); correspond with JS regarding settlement hearing (0.2).	.70	1200.00	840.00
4/08/25	EB	Review update from BA regarding client checkpoint teleconference and correspond with BA and JS regarding resulting action items (0.1); communicate with [redacted] regarding upcoming license review (0.1).	.20	1250.00	250.00

Stris & Maher LLP

Invoice # 14547 May 14, 2025

Date	Tkpr	Description	Hours	Rate	Amount
4/08/25	BA	Attend hearing on settlement approval by telephone (0.6); review order approving settlement (0.2); participate in portion of weekly client update call with [redacted] W. Thompson, and J. Cohn (0.5); correspond with JS, EB, and PS regarding status of LKC fee dispute in connection with Whinstone litigation (0.3).	1.60	1200.00	1,920.00
4/09/25	EB	Begin analyzing draft license agreement as requested by [redacted] (1.0); correspond with [redacted] and [redacted] regarding same (0.1); attend teleconference with [redacted] regarding same (0.3).	1.40	1250.00	1,750.00
4/09/25	JHA	Detailed tracking of docket updates for bankruptcy proceeding, adversary proceeding, bankruptcy appeal, and district court appeal.	1.00	350.00	350.00
4/10/25	EB	Continue analyzing and propose revisions to draft license agreement (1.9); prepare for and attend teleconference with [redacted] and [redacted] regarding same (0.9); further revise same to incorporate client feedback (0.8); correspond with [redacted] regarding additional information in support of same (0.1).	3.70	1250.00	4,625.00
4/10/25	BA	Correspond with EB, JS, and team regarding client's position on potential fee dispute.	.20	1200.00	240.00
4/10/25	JHA	Attention to detailed tracking of further docket updates for bankruptcy proceeding.	.20	350.00	70.00
4/13/25	EB	Begin reviewing and analyzing Whinstone proposed changes to license agreement.	.50	1250.00	625.00
4/13/25	BA	Review bankruptcy appeal rules and correspond with P. Tomasco, JS, and W. Thompson regarding [redacted] regarding stay of appellate deadlines.	.20	1200.00	240.00

Invoice # 14547 May 14, 2025

Date	Tkpr	Description	Hours	Rate	Amount
4/14/25	EB	Continue analyzing Whinstone proposed changes to license agreement (0.9); correspond with co-counsel and client regarding same (0.2); attend teleconference to discuss same and proposed further changes (0.8); implement same (0.4); analyze PSA confidentiality provision and related client and co-counsel correspondence (0.2); propose revisions and correspond with co-counsel and clients regarding same (0.2); review correspondence from [redacted] regarding and provide feedback on and propose revisions to additional provision of PSA concerning patent claims (0.2).	2.90	1250.00	3,625.00
4/14/25	CHH	Assist EB with fact research and information from various docket items in support of drafting of portion of PSA.	.30	350.00	105.00
4/14/25	ASA	Provide informaiton and documentation to EB as requested to support potential revisions to settlement agreement.	.40	350.00	140.00
4/15/25	EB	Prepare for and attend teleconference with JS, W. Thompson, and client contacts regarding status and high priority action items including PSA and license agreement progression and anticipated timing of Whinstone close (0.2); analyze Whinstone's proposed changes to license agreement and correspond with [redacted] P. Tomasco, and D. Holzman regarding same (1.5); attend teleconference with [redacted] P. Tomasco, and D. Holzman regarding same (0.4); revise same (0.3); review client questions and correspond with D. Holzman regarding proposed revisions to confidentiality provision of PSA (0.3); review and advise in response to inquiry from [redacted] regarding PSA disclosure of status of Midas Green claim (0.4).	3.10	1250.00	3,875.00
4/16/25	EB	Correspond with [redacted] and P. Tomasco regarding status and rescheduling of hearing on objections to updated LKC retention application.	.10	1250.00	125.00
4/16/25	JHA	Update bankruptcy docket to reflect and track recent filings and documents.	.50	350.00	175.00
4/17/25	EB	Communicate with JS regarding high priority action items including continuance (0.1); review Whinstone further changes to license agreement and correspond with clients and co-counsel regarding same (0.2).	.30	1250.00	375.00

Invoice # 14547 May 14, 2025

Date	Tkpr	Description	Hours	Rate	Amount
4/18/25	EB	Continue analyzing license agreement and confidentiality PSA provision proposed changes (0.2); attend call with client and co-counsel (1.0); prepare for (0.5) and attend (0.7) meet and confer call with co-counsel and counsel for Whinstone to discuss same; confer with D. Holtzman regarding further revisions to same (0.3); correspond with JS regarding status and high priority action items (0.1).	2.80	1250.00	3,500.00
4/18/25	JS	Review and evaluate extension request and confer with team regarding next steps on same.	.90	1025.00	922.50
4/21/25	EB	Review filings and correspondence and correspond with BA, JS, [redacted], and co-counsel regarding status and high priority action items including review of proposed revisions to PSA.	.50	1250.00	625.00
4/21/25	BA	Correspond with JS and EB regarding status of LKC fee matter, Stris retention, and Whinstone settlement (0.1); review draft motion for extension of time with respect to LKC fee matter and correspond with EB and JS regarding same (0.2).	.30	1200.00	360.00
4/22/25	EB	Correspond with [redacted], and co-counsel regarding response to Whinstone [redacted] request (0.2); attend teleconference with [redacted] regarding same and next steps (0.1); correspond with BA and JS regarding high priority action items (0.2); correspond with counsel for Whinstone regarding interim response to [redacted] and to inquire about timing on license agreement comments (0.1); review correspondence from prosecution counsel and respond regarding status of two additional applications (0.1); analyze Whinstone proposed further revisions to license agreement and correspond with D. Holzman regarding proposed further response to same (0.4); attend checkpoint teleconference with [redacted], BA, JS, and co-counsel (0.5); confer with [redacted] regarding proposed further changes on license agreement (0.1); revise and correspond with clients and P. Tomasco regarding same (0.2); correspond with counsel for Whinstone regarding same (0.1).	2.00	1250.00	2,500.00

Stris & Maher LLP

Invoice # 14547 May 14, 2025

Date	Tkpr	Description	Hours	Rate	Amount
4/22/25	BA	Review discovery from LKC to Rhodium and correspond with JS and EB regarding same (0.2); review objection filed by SAFEs and review calendar/docket regarding status of emergency extension request, and correspond with JS and EB regarding same (0.2); participate in team call with client ([redacted]) and JS, EB, W. Thompson and J. Cohn to discuss pending matters including status of settlement documents and LKC fee dispute (0.5).	.90	1200.00	1,080.00
4/22/25	JHA	Attention to detailed tracking of further docket updates and document management for bankruptcy proceeding.	2.00	350.00	700.00
4/23/25	EB	Analyze and communicate with client contacts, co-counsel, prosecution counsel, and counsel for Whinstone regarding further revisions to license agreement and PSA confidentiality provision (1.7); instruct litigation fellows and qc confidentiality designations on patent applications (0.2); correspond with prosecution counsel, client contacts, and counsel for Whinstone regarding same (0.1); correspond with JS and BA regarding status and high priority action items including Rhodium's position on discovery and disclosure in response to new requests (0.4); review draft [redacted] declaration (0.2); confer with BA and JS regarding analysis of and potential revisions to draft [redacted] declaration (0.5).	3.10	1250.00	3,875.00
4/23/25	BA	Confer with JS and EB regarding analysis of and potential revisions to draft [redacted] declaration.	.50	1200.00	600.00
4/23/25	JS	Attend to high priority action items regarding LKC retention application (2.1); attend status conference addressing in part same (0.3).	2.40	1025.00	2,460.00
4/23/25	JHA	Attention to detailed tracking of further docket updates.	.90	350.00	315.00
4/24/25	EB	Review and analyze revised [redacted] declaration from BA (0.2); confer with BA, [redacted] regarding same (0.5); further revise same (0.3); correspond with BA and JS regarding proposed dismissal papers (0.1).	1.10	1250.00	1,375.00

Stris & Maher LLP

Invoice # 14547 May 14, 2025

Date	Tkpr	Description	Hours	Rate	Amount
4/24/25	BA	Draft proposed declaration for [redacted] in connection with LKC fee (2.2); confer with [redacted], and EB regarding same (0.5); confer with JS and with JS and [redacted] regarding issues related to LKC fee and Whinstone settlement (0.3); review proposed dismissal papers and accompanying orders for purposes of executing Whinstone settlement and correspond with EB and JS regarding same (0.4).	3.40	1200.00	4,080.00
4/24/25	JS	Further work on high priority action items in connection with revised LKC retention application.	3.30	1025.00	3,382.50
4/24/25	SD	Assist BA with preparation of [redacted] declaration.	.40	350.00	140.00
4/25/25	EB	Attend teleconference with co-counsel and counsel for Whinstone regarding final action items in support of execution of settlement, license, and accompanying documents (0.2); review updates and correspond with PS, BA, VO, and JS regarding same and anticipated closing and dismissal timing (0.1).	.30	1250.00	375.00
4/25/25	BA	Review edits from [redacted] on draft declaration and correspond with [redacted] regarding same (0.2); confer with JS regarding status conference and LKC fee matter (0.2).	.40	1200.00	480.00
4/25/25	JS	Prepare for (0.3) and attend (0.2) status conference regarding LKC fee dispute.	.50	1025.00	512.50
4/29/25	EB	Review and confirm filing of dismissal papers and correspond with BA regarding upcoming teleconference with [redacted].	.10	1250.00	125.00
4/29/25	BA	Correspond with JS regarding status of mediation and [redacted] declaration, correspond with JS, EB, and client regarding meeting to discuss [redacted] declaration, review various court orders on filings implementing settlement, and correspond with litigation team regarding Milam County filing.	.20	1200.00	240.00
4/29/25	JS	Further work on high priority action items for LKC revised retention application.	.80	1025.00	820.00

Stris & Maher LLP

Invoice # 14547 May 14, 2025

Date	Tkpr	Description	Hours	Rate	Amount
4/30/25	EB	Review correspondence from counsel for Whinstone regarding software and transition support (0.1); communicate with PS, BA, VO, and JS regarding status and high priority action items (0.2); prepare for and attend teleconference with [redacted] and P. Tomasco regarding response to Whinstone inquiry and review further updates regarding same (0.3).	.60	1250.00	750.00
4/30/25	BA	Review correspondence from Whinstone's counsel and client regarding transition issues and correspond with EB regarding same.	.20	1200.00	240.00
4/30/25	JHA	Attention to detailed tracking of further docket updates and document organization for bankruptcy proceeding, adversary proceeding, and district court appeal.	1.00	350.00	350.00
		TOTAL PROFESSIONAL SERVICES			**$ 55,720.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	24.00	1,250.00	30,000.00
Bridget Asay	BA	Partner	12.20	1,200.00	14,640.00
John Stokes	JS	Partner	7.90	1,025.00	8,097.50
Monica Viramontes	MV	Sr Paralegal	1.50	425.00	637.50
Andrew Atsalis	ASA	Fellow	.40	350.00	140.00
Cynthia Huang	CHH	Fellow	.30	350.00	105.00
Sebastian Delgado	SD	Fellow	.40	350.00	140.00
Jaida Hodge-Adams	JHA	Fellow	5.60	350.00	1,960.00
Total			**52.30**		**$ 55,720.00**

TOTAL THIS INVOICE **$ 55,720.00**

Invoice # 14547 May 14, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14366	1/13/25	132,202.25	111,327.25	20,875.00
14459	2/21/25	840,030.97	713,078.47	126,952.50
14486	3/28/25	754,873.12	607,583.62	147,289.50
14517	4/23/25	503,457.91	.00	503,457.91

Previous Balance	$ 798,574.91
Balance Due This Invoice	$ 55,720.00
TOTAL BALANCE DUE	**$ 854,294.91**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 503,457.91	$ 147,289.50	$ 126,952.50	$ .00	$ 20,875.00	$ 798,574.91

Stris

May 14, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14561
Client # 00346
Matter # 007

INVOICE SUMMARY

For professional services rendered through April 30, 2025

RE: Retention and Fee Applications

Total Professional Services	$ 20,292.50
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 20,292.50**
Previous Balance	$ 17,310.00
TOTAL BALANCE DUE	**$ 37,602.50**

Electronic Invoice

Invoice # 14561 May 14, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
3/25/25	NC	Assist EB with preparation of fee statements.	1.30	350.00	455.00
4/02/25	VO	Prepare February 2025 fee application.	1.50	1025.00	1,537.50
4/10/25	VO	Work on quarterly fee application (1.0); advise CHH regarding action items and next steps in support of same (0.1).	1.10	1025.00	1,127.50
4/12/25	EB	Assess and begin working on amended retention application to clarify scope to include representing Debtors in response to objections to LKC amended retention agreement.	.50	1250.00	625.00
4/13/25	EB	Attend teleconference with [redacted] regarding status and action items in support of amended retention application (0.3); update PS, VO, and JS regarding same and correspond with VO regarding related materials (0.1); continue working on same (0.5).	.90	1250.00	1,125.00
4/14/25	VO	Emails with EB regarding amended retention application.	.20	1025.00	205.00
4/14/25	EB	Continue preparing amended retention application (0.7); correspond with PS, VO, JS, [redacted] and [redacted] regarding same (0.1).	.80	1250.00	1,000.00
4/15/25	VO	Review and revise application to update retention order (0.8); emails with team regarding same (0.2).	1.00	1025.00	1,025.00
4/15/25	EB	Revise proposed order in support of amended and clarified retention application to incorporate feedback from [redacted] (0.1); update VO regarding status and continue preparing amended application (0.7); correspond with [redacted] regarding same (0.1); further revise and prepare updated retention application and proposed order and correspond with clients and PS, VO, and JS regarding same (1.2).	2.10	1250.00	2,625.00
4/15/25	CHH	Assist VO in preparing second interim fee application.	4.20	350.00	1,470.00
4/16/25	VO	Further prepare quarterly fee application (0.8); correspond with CHH regarding same (0.1).	.90	1025.00	922.50
4/16/25	EB	Advise NC regarding preparation of portions of monthly fee statement.	.10	1250.00	125.00
4/17/25	VO	Correspond with EB regarding clarified retention application and supporting materials.	.30	1025.00	307.50

Stris & Maher LLP

Invoice # 14561 May 14, 2025

Date	Tkpr	Description	Hours	Rate	Amount
4/17/25	EB	Correspond with NC and review portions of monthly fee statement (0.1); communicate with [redacted], P. Tomasco, B. Howell, and Stris Team regarding final revisions to and filing of updated Stris retention application and supporting materials (0.7).	.80	1250.00	1,000.00
4/17/25	CHH	Assist VO with finalizing second interim fee application and proposed order to same.	.20	350.00	70.00
4/22/25	EB	Continue preparing portions of monthly fee application.	1.70	1250.00	2,125.00
4/23/25	EB	Continue preparing portions of monthly fee application.	2.90	1250.00	3,625.00
4/28/25	VO	Prepare March monthly fee application (0.8); emails with B. Howell and client regarding filing of same (0.1).	.90	1025.00	922.50
		TOTAL PROFESSIONAL SERVICES			**$ 20,292.50**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	9.80	1,250.00	12,250.00
Victor O'Connell	VO	Partner	5.90	1,025.00	6,047.50
Cynthia Huang	CHH	Fellow	4.40	350.00	1,540.00
Nicholas Capalbo	NC	Fellow	1.30	350.00	455.00
Total			**21.40**		**$ 20,292.50**

TOTAL THIS INVOICE **$ 20,292.50**

Invoice # 14561 May 14, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14381	1/13/25	6,285.00	5,028.00	1,257.00
14472	2/21/25	8,575.00	6,860.00	1,715.00
14499	3/28/25	16,177.50	12,942.00	3,235.50
14532	4/23/25	11,102.50	.00	11,102.50

Previous Balance	$ 17,310.00
Balance Due This Invoice	$ 20,292.50
TOTAL BALANCE DUE	**$ 37,602.50**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 11,102.50	$ 3,235.50	$ 1,715.00	$ .00	$ 1,257.00	$ 17,310.00

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

STRIS & MAHER LLP'S NINTH MONTHLY FEE STATEMENT
FOR THE PERIOD MAY 1, 2025, THROUGH MAY 31, 2025

Stris & Maher LLP ("Stris & Maher") submits, pursuant to the Order Granting the Motion of the Debtors to Establish Procedures for Interim Compensation and Reimbursement of Expenses for Professionals (the "Interim Compensation Order") (ECF No. 264) entered on October 14, 2024, this monthly fee statement for the payment of interim compensation rendered and reimbursement of expenses incurred during the period May 1, 2025, through May 31, 2025 (the "Monthly Fee Statement").

Stris & Maher seeks payment of interim compensation in the total amount of $143,678.00 (80% of the services rendered), plus $7,394.36 (100% of the interim expenses incurred). *See* Interim Compensation Order at ¶ 1(a). Summaries of the fees and expenses are attached as Exhibits 1, 2, and 3. Invoices reflecting detailed time entries are attached hereto as Exhibit 4.

[1] Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), Rhodium Encore Sub LLC (1064), Rhodium Enterprises, Inc. (6290), Rhodium Industries LLC (4771), Rhodium Ready Ventures LLC (8618), Rhodium Renewables LLC (0748), Rhodium Renewables Sub LLC (9511), Rhodium Shared Services LLC (5868), and Rhodium Technologies LLC (3973). The mailing and service address of Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

Pursuant to the Interim Compensation Order, any party objecting to the payment of interim compensation and reimbursement of expenses shall serve within 14 days after delivery of the Monthly Fee Statement a written notice, via email, upon Stris & Maher and each of the other Fee Notice Parties (as listed below) (the "Written Notice"). The Written Notice shall set forth with reasonable detail the nature of the objection and the amount at issue. If the parties are unable to reach a resolution of the objection within 14 calendar days, the objecting party shall file its objection (the "Objection") with this Court within 3 business days and serve such Objection on Stris & Maher and each of the other Fee Notice Parties. See Interim Compensation Order ¶ 1(c).

The Fee Notice Parties as defined in the Interim Compensation Order are:

a. Rhodium Enterprises, Inc., Attn: Charles Topping (chucktopping@rhdm.com) and Morgan Soule (morgansoule@rhdm.com), 2617 Bissonnet Street, Suite 234, Houston, Texas 77005;

b. Debtors' Bankruptcy Counsel, c/o Quinn Emanuel Urquhart & Sullivan, LLP, Attn: Patricia B. Tomasco (pattytomasco@quinnemanuel.com); Razmig Izakelian (razmigizakelian@quinnemanuel.com), Alain Jaquet (alainjaquet@quinnemanuel.com), and Joanna D. Caytas (joannacaytas@quinnemanuel.com), 700 Louisiana, Suite 3900, Houston, Texas 77002;

c. Debtors' Financial Advisor, c/o Province, Attn: Mark Robinson (mrobinson@provincefirm.com); David Dunn (ddunn@provincefirm.com); Kirsten Lee (klee@province.com); and Andrew Popescu (apopescu@provincefirm.com), 2360 Corporate Circle, Suite 340, Henderson, Nevada 89074;

d. Galaxy Digital, LLC, in its capacity as DIP Agent, c/o Orrick, Herrington & Sutcliffe LLP, Ryan C. Wooten (rwooten@orrick.com), 609 Main, 40th Floor, Houston, Texas 77002, and Robert Trust (rtrust@orrick.com), Mark Franke (mfranke@orrick.com) and Brandon Batzel (bbatzel@orrick.com), 51 West 52nd Street, New York, New York 10019;

e. Counsel or proposed counsel to any statutory committee appointed in these Chapter 11 Cases; and

f. United States Trustee, Ha Minh Nguyen (ha.nguyen@usdoj.gov), 515 Rusk, Suite 3516, Houston, Texas 77002.

If no objection is timely served pursuant to the Interim Compensation Order, the Debtors shall be authorized and directed to pay Stris & Maher an amount equal to 80% of the fees and 100% of the expenses listed herein, or if an objection is timely served, such percentage of fees and expenses that are not subject to an objection, as stated in the Interim Compensation Order.

Respectfully submitted this 13th day of June, 2025.

QUINN EMANUEL URQUHART & SULLIVAN, LLP

/s/ Patricia B. Tomasco
Patricia B. Tomasco (SBN 01797600)
Joanna D. Caytas (SBN 24127230)
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-and-

STRIS & MAHER LLP

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Peter Brody (pro hac vice)
Helen Marsh (pro hac vice)

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-and-

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408 W. 11th Street, 5th Floor
Austin, TX 78701

Counsel for Debtors and Debtors in Possession

CERTIFICATE OF SERVICE

I certify that, on June 13, 2025, a true and correct copy of the foregoing Monthly Fee Statement was served through the Court's Electronic Case Filing system of the United States Bankruptcy Court for the Southern District of Texas.

/s/ Patricia B. Tomasco
Patricia B. Tomasco

EXHIBIT 1

Summary of Legal Fees for the Fee Period

Matter #	Matter Description	Total Hours	Total Fees	80% of Fees
001	Midas Green Patent Litigation	6.20	$6,170.00	$4,936.00
004	Whinstone Dispute, Excluding Tarrant County Litigation	169.00	$159,317.50	$127,454.00
007	Retention and Fee Applications	13.10	$14,110.00	$11,288.00
Total		188.3	$179,597.50	$143,678.00

EXHIBIT 2

Summaries of Hours Billed by Stris & Maher Attorneys and Paraprofessionals

Midas Green Patent Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	1,250.00	3.90	$4,875.00
Bridget Asay	Partner	1997	1,200.00	.40	$480.00
Colleen Smith	Partner	2015	850.00	.30	$255.00
Andrew Atsalis	Litigation Fellow	N/A	350.00	.20	$70.00
Nicholas Capalbo	Litigation Fellow	N/A	350.00	1.40	$490.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	1,250.00	53.00	$66,250.00
Bridget Asay	Partner	1997	1,200.00	32.00	$38,400.00
Victor O'Connell	Partner	2012	1,025.00	.50	$512.50
John Stokes	Partner	2016	1,025.00	33.60	$34,440.00
Colleen Smith	Associate	2015	850.00	2.30	$1,955.00
Peter Brody	Associate	2016	850.00	.40	$340.00
Monica Viramontes	Senior Paralegal	N/A	425.00	12.00	$5,100.00
Quoc Hoang	Legal Tech Specialist	N/A	350.00	.50	$175.00
Andrew Atsalis	Litigation Fellow	N/A	350.00	3.50	$1,225.00
Cynthia Huang	Litigation Fellow	N/A	350.00	.70	$245.00
Sebastian Delgado	Litigation Fellow	N/A	350.00	14.50	$5,075.00
Nicholas Capalbo	Litigation Fellow	N/A	350.00	.60	$210.00
Jaida Hodge-Adams	Litigation Fellow	N/A	350.00	15.40	$5,390.00

Retention and Fee Applications

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	1,250.00	2.40	$3,000.00
Bridget Asay	Partner	1997	1,200.00	4.20	$5,040.00
Victor O'Connell	Partner	2012	1,025.00	.90	$922.50
John Stokes	Partner	2016	1,025.00	4.50	$4,612.50
Colleen Smith	Partner	2015	850.00	.30	$255.00
Nicholas Capalbo	Litigation Fellow	N/A	350.00	.70	$280.00

EXHIBIT 3

Summaries of Expenses for the Fee Period

Midas Green Patent Litigation

Expense	Amount
E-discovery platform fees	$3,765.00
Total	$3,765.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Expense	Amount
E-discovery platform fees	$2,646.00
E-discovery related costs	$983.36
Total	$3,629.36

EXHIBIT 4

Stris

June 10, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14587
Client # 00346
Matter # 001

INVOICE SUMMARY

For professional services rendered through May 31, 2025

RE: Midas Green Litigation

Total Professional Services	$ 6,170.00
Total Expenses Advanced	$ 3,765.00
TOTAL THIS INVOICE	**$ 9,935.00**
Previous Balance	$ 13,906.50
TOTAL BALANCE DUE	**$ 23,841.50**

Electronic Invoice

Stris & Maher LLP

Invoice # 14587 June 10, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
5/08/25	EB	Review and respond to P. Tomasco regarding notice of filing of Midas reply (0.1); review same (0.1).	.20	1250.00	250.00
5/09/25	EB	Correspond with BA and JS regarding status and high priority action items (0.2); attend teleconference with BA and JS regarding GMO request for declaration (0.2); correspond with [redacted] regarding protective order compliance and related vendor and document issues (0.2).	.40	1250.00	500.00
5/09/25	NC	Prepare notice of filing for EB (0.8); prepare exhibits for same for EB (0.6).	1.40	350.00	490.00
5/09/25	ASA	Assist NC with preparation of notice of order.	.20	350.00	70.00
5/20/25	EB	Communicate with P. Tomasco regarding and begin preparing for hearing on Midas claim.	.50	1250.00	625.00
5/21/25	EB	Correspond with R. Harrington regarding hearing on objection to Midas proof of claim.	.10	1250.00	125.00
5/27/25	EB	Begin preparing for hearing and [redacted] on Midas proof of claim in consultation with BA, JS, and R. Harrington.	.50	1250.00	625.00
5/27/25	BA	Confer with EB regarding [redacted] to Midas claim and correspond with EB and Quinn team regarding same.	.20	1200.00	240.00
5/28/25	EB	Prepare and coordinate contact with clerk and opposing counsel regarding hearing request (0.2); update client regarding status and next steps (0.1); coordinate filing of notice of hearing with CS (0.2); assess potential further briefing in advance of hearing and correspond with co-counsel regarding same (1.0).	1.50	1250.00	1,875.00
5/28/25	BA	Correspond with EB and team regarding outreach to court on Midas Green hearing.	.20	1200.00	240.00
5/28/25	CS	Review, finalize and file notice of hearing.	.30	850.00	255.00
5/29/25	EB	Correspond with R. Harrington regarding next steps to prepare for upcoming hearing.	.10	1250.00	125.00

Stris & Maher LLP

Invoice # 14587 June 10, 2025

Date	Tkpr	Description	Hours	Rate	Amount
5/30/25	EB	Continue working on next steps in support of opposition to Midas Green claim in consultation with co-counsel (0.5); update BA and JS regarding same (0.1).	.60	1250.00	750.00
		TOTAL PROFESSIONAL SERVICES			**$ 6,170.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	3.90	1,250.00	4,875.00
Bridget Asay	BA	Partner	.40	1,200.00	480.00
Colleen Smith	CS	Associate	.30	850.00	255.00
Andrew Atsalis	ASA	Fellow	.20	350.00	70.00
Nicholas Capalbo	NC	Fellow	1.40	350.00	490.00
Total			**6.20**		**$ 6,170.00**

EXPENSES ADVANCED

Date	Task	Description	Amount
5/16/25		JND Discovery Invoice for April 2025.	3,765.00
		TOTAL EXPENSES ADVANCED	**$ 3,765.00**
		TOTAL THIS INVOICE	**$ 9,935.00**

Invoice # 14587 June 10, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14530	4/23/25	28,410.00	25,071.00	3,339.00
14560	5/14/25	10,567.50	.00	10,567.50

Previous Balance	$ 13,906.50
Balance Due This Invoice	$ 9,935.00
TOTAL BALANCE DUE	**$ 23,841.50**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 10,567.50	$ 3,339.00	$ .00	$ .00	$ .00	$ 13,906.50

Stris

June 10, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14575
Client # 00346
Matter # 004

INVOICE SUMMARY

For professional services rendered through May 31, 2025

RE: Whinstone Litigation

Total Professional Services	$ 159,317.50
Total Expenses Advanced	$ 3,629.36
TOTAL THIS INVOICE	**$ 162,946.86**
Previous Balance	$ 154,360.50
TOTAL BALANCE DUE	**$ 317,307.36**

Trust Funds Remaining on Account $ 115,369.59

Electronic Invoice

Invoice # 14575 June 10, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
5/01/25	EB	Attention to high priority action items including protective order compliance.	.50	1250.00	625.00
5/01/25	MV	Discuss Logikcull download data options with chief technology officer, correspondence regarding the same (0.2); review protective order regarding destruction of documents after dismissal, correspondence regarding next steps for data destruction and download of client data (0.5).	.70	425.00	297.50
5/02/25	EB	Review draft and correspond with BA and JS regarding [redacted] declaration (0.2); further revise same (0.3); prepare for (0.2) and attend (0.7) teleconference with BA and [redacted] regarding declaration and protective order compliance; correspond with MV regarding next steps in support of protective order compliance (0.1).	1.50	1250.00	1,875.00
5/02/25	BA	Confer with EB and [redacted] to discuss and revise declaration (0.7); review revised declaration and correspond with EB and JS regarding same ().1).	.80	1200.00	960.00
5/02/25	JS	Work on declaration of [redacted] in connection with LKC revised retention application.	.40	1025.00	410.00
5/05/25	EB	Correspond with BA, JS, co-counsel and clients regarding status and action items including additional dismissal papers and compliance with settlement agreement provisions (0.4); evaluate further potential revisions to [redacted] declaration (0.2).	.60	1250.00	750.00
5/05/25	BA	Review comments from [redacted] regarding declaration, correspond with EB and JS regarding same, and review settlement agreements as requested by [redacted] in connection with declaration (0.4); correspond with EB and JS regarding arbitration dismissal and review docket for arbitration (0.2).	.60	1200.00	720.00
5/05/25	JHA	Prepare memorandum with links to important documents for attorney use.	2.00	350.00	700.00

Invoice # 14575 June 10, 2025

Date	Tkpr	Description	Hours	Rate	Amount
5/06/25	EB	Review related correspondence, revise [redacted] declaration, and correspond with BA, JS, and [redacted] regarding next steps in support of same (0.4); correspond with BA, JS, ASA, and co-counsel regarding updates and action items including filing of arbitration dismissal request and client updates (0.2); correspond with BA, KH, VO, ASA, client, and counsel for [redacted] regarding response to transcript request (0.3).	.90	1250.00	1,125.00
5/06/25	BA	Correspond with AA, EB and team regarding AAA docket and efile, review final stipulation of dismissal and efile same (0.3); correspond JS, and with EB and JS regarding LKC fee dispute (0.2); confer with EB and correspond with EB and team regarding request from [redacted] for deposition transcript, and research same (0.3).	.80	1200.00	960.00
5/06/25	JHA	Prepare memorandum with links to important documents for attorney use.	3.00	350.00	1,050.00
5/06/25	ASA	Correspond with EB, BA, and A. Swartz (Lehotsky Keller Cohn) regarding filing of joint motion to dismiss arbitration (0.3); file and organize closing American Arbitration Association documentation at request of BA (0.5).	.80	350.00	280.00
5/07/25	EB	Review correspondence regarding final revisions to [redacted] declaration (0.1); work on protective order compliance requirements and related vendor and document issues (0.2).	.30	1250.00	375.00
5/07/25	JS	Work on finalization of [redacted] declaration in support of LKC amended retention application (0.8); evaluate Debtor arguments in support of LKC amended retention application (0.5).	1.30	1025.00	1,332.50
5/07/25	JHA	Detailed tracking of docket updates for bankruptcy proceeding.	.60	350.00	210.00

Invoice # 14575 June 10, 2025

Date	Tkpr	Description	Hours	Rate	Amount
5/08/25	EB	Continue assessing requirements and working on protective order compliance (1.1); correspond with PB and MV regarding same (0.1); review and respond to correspondence with BA and JS regarding high priority action items including client update regarding SAFE objections (0.1).	1.30	1250.00	1,625.00
5/08/25	BA	Confer with JS regarding reply in support of application to amend LKC retention (0.3); begin researching and drafting reply memorandum in support of Debtors' application to amend LKC retention and correspond with JS regarding strategy for same (2.1); correspond with EB, JS, PB and [redacted] regarding status and high priority action items (0.5).	2.90	1200.00	3,480.00
5/08/25	JHA	Continue preparing memorandum with links to important documents for attorney use.	.50	350.00	175.00
5/08/25	SD	Research docket and pull documents related to Lehotsky Keller Cohen's retention dispute (1.6); begin preparing Rhodium's response to SAFE's objection to the Lehotsky Keller Cohen retention for BA (0.9).	2.50	350.00	875.00
5/09/25	EB	Attend teleconference with BA and JS regarding GMO request for declaration (0.2); attend to and correspond with [redacted] regarding protective order compliance and related vendor and document issues (0.4).	.60	1250.00	750.00
5/09/25	BA	Correspond with EB regarding status and high priority action items including recent filings (0.2); confer with EB and JS regarding high priority action items including GMO request for business records (0.2).	.40	1200.00	480.00
5/09/25	JS	Confer with EB and BA regarding GMO subpoena (0.2).	.20	1025.00	205.00
5/09/25	JHA	Continue preparing memorandum with links to important documents for attorney use.	2.00	350.00	700.00
5/09/25	SD	Work on debtors' reply to objection of the ad hoc group of SAFE parties for BA.	1.60	350.00	560.00
5/10/25	EB	Review and respond to correspondence from BA and JS regarding client teleconference.	.10	1250.00	125.00
5/10/25	BA	Continue researching and drafting reply in support of Debtors' application to amend LKC retention (3.3).	3.30	1200.00	3,960.00

Invoice # 14575 June 10, 2025

Date	Tkpr	Description	Hours	Rate	Amount
5/11/25	BA	Continue researching and drafting reply in support of Debtors' application to amend LKC retention and correspond with JS regarding same.	1.00	1200.00	1,200.00
5/12/25	EB	Attend portion of teleconference with BA, [redacted] and [redacted] regarding action items including protective order compliance and related document issues (0.6); correspond with MV regarding database backup process and client request (0.2); correspond with P. Tomasco, R. Izakelian, clients, and Stris team regarding same (0.1).	.90	1250.00	1,125.00
5/12/25	BA	Confer with [redacted] and E. Brannen regarding matters related to protective order and data preservation needs (0.5); confer with [redacted] regarding issues related to LKC retention dispute (0.1); confer with [redacted] and P. Tomasco regarding protective order/data preservation and Stris retention matter (0.3); (0.8); correspond with SD regarding review of transcript of prior status conference regarding LKC retention (0.2); correspond with W. Thompson regarding deadline for filings related to LKC retention dispute (0.1); correspond and confer with JS regarding LKC retention dispute and briefing on same (0.1); continue researching and drafting reply in support of updated LKC retention (1.7).	3.00	1200.00	3,600.00
5/12/25	JS	Review BA draft of reply regarding LKC retention application.	.50	1025.00	512.50
5/12/25	JHA	Continue preparing memorandum with links to important documents for attorney use.	2.20	350.00	770.00
5/12/25	SD	Evaluate transcripts and trancribed audio recordings to confirm information for BA regarding LCK retention.	1.40	350.00	490.00
5/12/25	MV	Review correspondence regarding transfer of client data (0.1); evaluate steps for transfer of data and correspond with vendor regarding same (0.2).	.30	425.00	127.50
5/13/25	EB	Review and correspond with BA and JS regarding action items including further revisions to Debtors' draft reply submission in support of LKC amended fee application (0.4); correspond with R. Izakelian regarding protective order compliance and related document issues and procedures (0.1).	.50	1250.00	625.00

Invoice # 14575 June 10, 2025

Date	Tkpr	Description	Hours	Rate	Amount
5/13/25	BA	Review and revise draft reply in support of LKC retention and convey same to [redacted] for review, and review comments and suggestions from [redacted] on same (0.6); review question from LKC's counsel regarding [redacted] issues and correspond with JS regarding same (0.2) and confer with JS regarding same (0.2).	1.00	1200.00	1,200.00
5/13/25	JS	Attend teleconference with BA regarding LKC retention application (0.2).	.20	1025.00	205.00
5/13/25	CHH	Assist MV with pull of Logikcull data for clients.	.10	350.00	35.00
5/13/25	PB	Correspond with EB and MV to provide information in support of client data request.	.40	850.00	340.00
5/13/25	MV	Work on exporting of client data from Logikcull including corresponding with vendor and creating searches and initial downlod of files (4.7); update EB regarding estimate of project scope (0.3).	5.00	425.00	2,125.00
5/14/25	EB	Correspond with Stris team regarding status and high priority action items (0.5); advise MV regarding information in support of file backup request from client and co-counsel (0.1).	.60	1250.00	750.00
5/14/25	BA	Research [redacted] issues as relevant to LKC retention, correspond with JS and EB regarding same, and confer with JS regarding same.	.30	1200.00	360.00
5/14/25	JS	Evaluate [redacted] issues and confer with BA regarding same (0.4) and prepare [redacted] declaration (1.5).	1.90	1025.00	1,947.50
5/14/25	CHH	Review and respond to attorney correspondence.	.10	350.00	35.00
5/14/25	MV	Continue working on exporting of client data including correspondence with vendor regarding redacted and native unredacted files, running test export, and discussing same with QH.	1.50	425.00	637.50
5/15/25	EB	Assess and review and respond to correspondence with BA, JS, co-counsel and client regarding response to inquiry concerning [redacted].	.50	1250.00	625.00

Invoice # 14575 June 10, 2025

Date	Tkpr	Description	Hours	Rate	Amount
5/15/25	BA	Review client request regarding [redacted] and correspond with EB regarding same (0.1); continue drafting reply in support of LKC retention, correspond with JS and EB regarding same, and revise draft to incorporate client comments and convey revisions to JS and EB (1.2).	1.30	1200.00	1,560.00
5/15/25	JS	Work on Debtors' reply in support of LKC updated retention.	2.50	1025.00	2,562.50
5/15/25	SD	Cite check and assist BA with finalization of Debtors' reply to SAFE Group's objection to Lehotsky Keller Cohen amended retention agreement.	3.50	350.00	1,225.00
5/16/25	EB	Communicate with J. Cohn regarding status and action items in advance of hearing on LKC updated fee application (0.1); review, revise, and correspond with BA, JS, and CS regarding revisions to draft reply in support of same and [redacted] declaration (1.7); review and correspond with BA, JS, P. Tomasco, and R. Izakelian regarding action items including opposition to SAFE motion to compel and motion for protective order (0.7); review related correspondence and confer with BA and JS regarding deposition request (0.2).	2.70	1250.00	3,375.00
5/16/25	BA	Convey new discovery subpoenas from SAFE AHG to P. Tomasco and [redacted] (0.1); review draft motion for a protective order prepared by Quinn and convey comments on same (0.3); review final draft of reply memorandum in support of LKC retention and correspond with SD and CS as needed to assist in finalizing same and confirm filing of same, and correspond with [redacted] regarding same (0.8); review correspondence from AHG regarding request for deposition and confer with JS and EB regarding same (0.2); confer with SD regarding preparation of exhibit and witness list, correspond with JS regarding potential witness, and convey initial draft of same to JS (0.4).	1.80	1200.00	2,160.00
5/16/25	CHH	Precisely track and organize documents and deadlines for attorney use.	.20	350.00	70.00
5/16/25	SD	Continue assisting BA with revisions to Debtors' reply regarding Lehotsky Keller Cohn retention (1.4); research regarding witness and exhibit lists and begin drafting Debtors' witness and exhibit list for Lehotsky Keller Cohn retention hearing (1.6).	3.00	350.00	1,050.00

Stris & Maher LLP

Invoice # 14575 June 10, 2025

Date	Tkpr	Description	Hours	Rate	Amount
5/16/25	MV	Correspond with CHH regarding action items in support of client data export including additional production in separate workspace.	.20	425.00	85.00
5/17/25	EB	Review correspondence from counsel for SAFE AHG (0.1); correspond with BA and JS regarding revisions to response to same (0.2).	.30	1250.00	375.00
5/17/25	BA	Correspond with JS and EB regarding responses to SAFE AHG.	.20	1200.00	240.00
5/17/25	JS	Review and evaluate next steps in light of SAFE AHG notice of deposition of C. Topping and correspond with SAFE AHG regarding same.	3.10	1025.00	3,177.50
5/18/25	EB	Correspond with BA and JS regarding revisions to further correspondence with counsel for SAFE AHG regarding upcoming hearing and strategy for same.	.70	1250.00	875.00
5/18/25	BA	Review ongoing correspondence with SAFE AHG's regarding upcoming hearing and correspond with JS and EB regarding [redacted] and for hearing (0.5); draft exhibit and witness list and convey same to JS and EB for review, and correspond with CS regarding upcoming filing (0.6).	1.10	1200.00	1,320.00
5/18/25	JS	Further review and evaluate next steps in light of SAFE AHG notice of deposition of C. Topping and correspond with SAFE AHG regarding same.	4.00	1025.00	4,100.00
5/19/25	EB	Attend teleconference with BA, JS, and counsel for LKC regarding discussions with counsel for SAFE AHG regarding challenge to C. Topping declaration (0.5); attention to negotiations and communications addressing same (1.3); review and correspond with BA regarding revisions to exhibit and witness lists (0.2); correspond with BA and JS regarding protective order compliance and [redacted] (0.1); begin preparing for C. Topping deposition preparation (1.0).	3.10	1250.00	3,875.00

Stris & Maher LLP

Invoice # 14575 June 10, 2025

Date	Tkpr	Description	Hours	Rate	Amount
5/19/25	BA	Participate in teleconference with JS, EB, and LKC's counsel to discuss potential continuance of hearing, prep for same, and planned conferral with SAFE AHG (.5); correspond with JS, EB, SD, and CS as needed for final revisions to and finalization of exhibit and witness list, and review and approve same for filing (0.5); draft motion for continuance and/or acceptance of Topping declaration and correspond with SD and JH as needed for assistance with formatting and revisions to same (1.2); review correspondence with SAFE AHG in attempt to negotiate continuance and correspond and confer with JS regarding strategy for and responses to same (0.6); correspond with EB regarding [redacted] issues (0.1); correspond with CS and JS regarding joint motion for continuance, and with Quinn team regarding procedure for same (0.1).	3.00	1200.00	3,600.00
5/19/25	JS	Work on SAFE AHG challenge to C. Topping declaration, including correspondence and calls with opposing counsel, client coordination regarding continuance, and preparation of motion for continuance in light of AHG's unreasonable positions.	7.70	1025.00	7,892.50
5/19/25	CS	Draft stipulation to continue hearing on updated application to employ LKC; draft updated notice of hearing; review docket entries and email communications in preparation for drafting the same; review, finalize and file witness and exhibit list.	1.80	850.00	1,530.00
5/19/25	JHA	Collect materials including emergency motions at BA request (1.0); assist with preparing draft emergency motion (0.5); provide requested additional information to BA including regarding Texas Southern District [redacted] and procedures (0.6).	2.10	350.00	735.00
5/19/25	SD	Continue preparing exhibits to accompany Debtors' witness list (1.3); assist BA and JS with potential motion seeking continuance (1.2).	2.50	350.00	875.00
5/20/25	VO	Confer with BA, EB, and JS regarding strategy for upcoming hearing on AHG discovery disputes and strategy for upcoming deposition and hearing related to LKC retention dispute.	.50	1025.00	512.50

Invoice # 14575 June 10, 2025

Date	Tkpr	Description	Hours	Rate	Amount
5/20/25	EB	Advise NC regarding revisions to notice of rescheduled hearing and correspond with BA, JS, CS, NC, co-counsel and opposing parties regarding same (0.2); correspond with counsel for Whinstone regarding document issues (0.1); review and analyze SAFE AHG correspondence and reply briefing on motion to compel Imperium and Debtors and communicate with BA and JS regarding same (0.4); continue preparing for C. Topping deposition preparation (1.5); confer with BA, VO (portion), and JS regarding [redacted] for same and upcoming hearing on AHG discovery disputes and hearing related to LKC retention dispute (0.8).	3.00	1250.00	3,750.00
5/20/25	BA	Confer with JS, EB, and VO (portion) regarding [redacted] for upcoming hearing on AHG discovery disputes and [redacted] for upcoming deposition and hearing related to LKC retention dispute (0.8); review filings related to AHG discovery disputes and objection to AHG claim (0.3); correspond with EB and JS regarding outreach from M. Fox regarding LKC dispute (0.1); correspond with JS and JH action items in support of upcoming hearing and ensuring [redacted] properly requested (0.1); review draft joint request for continuance, review court order granting continuance, review draft notice of hearing, correspond with Quinn team to review same, and assist EB and team with finalizing same (0.2).	1.50	1200.00	1,800.00
5/20/25	CS	Review, finalize and file updated notice of hearing on updated application to employ LKC; email communications regarding the same.	.50	850.00	425.00
5/20/25	CHH	Precisely track and organize documents for attorney use (0.2); precisely track and calendar deadlines for attorney use (0.1).	.30	350.00	105.00
5/20/25	NC	Revise notice of rescheduling of hearing on LKC fee application	.60	350.00	210.00
5/20/25	JHA	Assist BA and JS with preparation for motion to compel hearing and filing privileges.	1.00	350.00	350.00
5/20/25	MV	Continue working on export of unredacted client documents.	.10	425.00	42.50
5/21/25	EB	Continue preparing for deposition preparation of C. Topping pertaining to LKC application for updated fee motion (4.9); analyze interim implications for same from hearing on SAFE and Rhodium discovery motions in consultation with JS (0.2).	5.10	1250.00	6,375.00

Invoice # 14575 June 10, 2025

Date	Tkpr	Description	Hours	Rate	Amount
5/21/25	BA	Attend motion hearing to monitor with respect to matters relating to Stris, to LKC retention, and to documents produced related to Whinstone litigation, and confer with JS regarding same.	2.00	1200.00	2,400.00
5/21/25	JS	Prepare for and attend hearing on motion to compel filed by SAFE AHG in light of potential connection to LKC retention application (1.8); evaluate next steps in connection with deposition of C. Topping and hearing on LKC retention application in light of same (1.0).	2.80	1025.00	2,870.00
5/21/25	JHA	Attention to attorney requests regarding documents and updates to filing status (0.8); correspond with Houston bankryptcy court regarding filing status for JS (0.2).	1.00	350.00	350.00
5/22/25	EB	Continue preparing for C. Topping deposition (3.5); review portions of rough transcript of [redacted] in support of same (1.2).	4.70	1250.00	5,875.00
5/22/25	BA	Provide research and analysis to EB in preparation for deposition preparation of C. Topping.	.40	1200.00	480.00
5/22/25	JS	Work on preparation for deposition of C. Topping.	.80	1025.00	820.00
5/22/25	QH	Assist with export and download of multiple-part zipped files for requested [redacted].	.50	350.00	175.00
5/22/25	MV	Continue working on export and back up of client documents including correspondence with EB and vendor regarding metadata and potential de-duplification and review of search fields for export.	2.50	425.00	1,062.50
5/23/25	EB	Continue preparing for C. Topping deposition preparation (3.0); attend teleconference with [redacted] regarding same (0.2); correspond with BA, VO, JS, and ASA regarding action items in support of same and resulting from discovery hearing (0.1); begin working on production of certain pre-petition invoices (0.5); correspond with R. Izakelian regarding same (0.1).	3.90	1250.00	4,875.00
5/23/25	BA	Review discovery requests from LKC related to LKC dispute; correspond with EB and review correspondence from AHG regarding Topping deposition parameters.	.20	1200.00	240.00

Invoice # 14575 June 10, 2025

Date	Tkpr	Description	Hours	Rate	Amount
5/23/25	ASA	Analyze recent filings related to Debtors' application for an updated order authorizing the retention and employment of Lehotsky Keller Cohn LLP at request of EB, review full docket for related filings, and prepare all relevant briefing and supporting material to assist EB with preparation of C. Topping for upcoming deposition.	2.20	350.00	770.00
5/23/25	MV	Review download of zip files containing client data to check file format and functionality of load files.	.20	425.00	85.00
5/24/25	EB	Review and communicate with BA, JS, co-counsel, and [redacted] regarding inquiry concerning Whinstone [redacted] invoice.	.30	1250.00	375.00
5/24/25	BA	Review Whinstone invoices forwarded by [redacted], research same, and correspond with EB and team regarding potential response to same.	.40	1200.00	480.00
5/25/25	EB	Review and respond to correspondence from BA and co-counsel regarding inquiry concerning Whinstone [redacted] invoice.	.10	1250.00	125.00
5/25/25	BA	Research background on payment of [redacted] charges, draft proposed response to Whinstone objecting to [redacted], and convey analysis and proposed draft to client, litigation team, and Quinn team for review.	.60	1200.00	720.00
5/26/25	BA	Correspond with client, EB, and P. Tomasco regarding mistaken Whinstone invoice for [redacted].	.10	1200.00	120.00
5/27/25	EB	Continue preparing for and assisting C. Topping with preparation for deposition (4.8); confer with BA regarding issues and analysis in support of same (0.4); communicate with BA, JS, and [redacted] regarding hearing scheduled for June 4 (0.1); continue attending to invoices for production in consultation with R. Izakelian, BA, and JS (0.7); confer with BA and JS regarding potential [redacted], hearing, and deposition preparation (0.5).	6.50	1250.00	8,125.00

Invoice # 14575 June 10, 2025

Date	Tkpr	Description	Hours	Rate	Amount
5/27/25	BA	Monitor court hearing as potentially relevant to LKC dispute and update EB and JS regarding same (0.2); analyze issues and confer with EB to assist with deposition preparation for C. Topping (0.4); correspond with EB and JS regarding potential [redacted] for LKC dispute and confer with JS and EB regarding issues related to same (0.5); correspond with EB and JS regarding redaction of LKC and Stris invoices for production (0.1); confer with EB and JS regarding potential [redacted], hearing, and deposition preparation (0.5).	1.70	1200.00	2,040.00
5/27/25	JS	Prepare for and attend portion of deposition preparation session with C. Topping and EB (1.4); prepare for hearing on LKC retention application (1.5).	3.90	1025.00	3,997.50
5/28/25	EB	Continue preparing for C. Topping deposition (4.0); communicate with [redacted], BA, and JS regarding preparation for same and related hearing (0.2).	4.20	1250.00	5,250.00
5/28/25	BA	Assist with matters for preparation for C. Topping deposition, including corresponding with EB and JS regarding issues for same, and regarding invoice production.	.60	1200.00	720.00
5/28/25	JHA	Detailed tracking of docket updates for bankruptcy proceeding.	1.00	350.00	350.00
5/28/25	MV	Continue working on export of client data including creation of additional downloads containing unredacted and redacted data.	1.50	425.00	637.50
5/29/25	EB	Continue preparing for C. Topping deposition.	5.90	1250.00	7,375.00
5/29/25	BA	Confer with EB to assist in preparing for deposition of C. Topping and meet with EB and [redacted] regarding same.	3.00	1200.00	3,600.00
5/29/25	JS	Prepare for hearing on LKC retention application.	2.00	1025.00	2,050.00
5/29/25	ASA	Conduct research at request of EB in preparation for upcoming deposition of C. Topping on June 3, 2025.	.50	350.00	175.00
5/30/25	EB	Continue preparing for deposition of C. Topping (4.0); communicate with T. Schmeltz and P. Lohse regarding same (0.2).	4.20	1250.00	5,250.00
5/30/25	JS	Attend portion of deposition preparation session with [redacted] and EB (1.5); prepare for hearing on LKC retention application (0.8).	2.30	1025.00	2,357.50

Invoice # 14575 June 10, 2025

TOTAL PROFESSIONAL SERVICES **$ 159,317.50**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	53.00	1,250.00	66,250.00
Bridget Asay	BA	Partner	32.00	1,200.00	38,400.00
Victor O'Connell	VO	Partner	.50	1,025.00	512.50
John Stokes	JS	Partner	33.60	1,025.00	34,440.00
Colleen Smith	CS	Associate	2.30	850.00	1,955.00
Peter Brody	PB	Associate	.40	850.00	340.00
Monica Viramontes	MV	Sr Paralegal	12.00	425.00	5,100.00
Quoc Hoang	QH	Legal Technology Spe	.50	350.00	175.00
Andrew Atsalis	ASA	Fellow	3.50	350.00	1,225.00
Cynthia Huang	CHH	Fellow	.70	350.00	245.00
Sebastian Delgado	SD	Fellow	14.50	350.00	5,075.00
Nicholas Capalbo	NC	Fellow	.60	350.00	210.00
Jaida Hodge-Adams	JHA	Fellow	15.40	350.00	5,390.00
Total			**169.00**		**$ 159,317.50**

EXPENSES ADVANCED

Date	Task	Description	Amount
5/01/25		Logikcull Discovery Solutions (May 2025).	2,646.00
5/22/25		Purchase of (4) hard drives for data backup.	983.36

TOTAL EXPENSES ADVANCED **$ 3,629.36**

TOTAL THIS INVOICE **$ 162,946.86**

Invoice # 14575 June 10, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14517	4/23/25	503,457.91	404,817.41	98,640.50
14547	5/14/25	55,720.00	.00	55,720.00

Previous Balance	$ 154,360.50
Balance Due This Invoice	$ 162,946.86
TOTAL BALANCE DUE	**$ 317,307.36**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 55,720.00	$ 98,640.50	$ .00	$ .00	$ .00	$ 154,360.50

Stris

June 10, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14588
Client # 00346
Matter # 007

INVOICE SUMMARY

For professional services rendered through May 31, 2025

RE: Retention and Fee Applications

Total Professional Services	$ 14,110.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 14,110.00**
Previous Balance	$ 22,513.00
TOTAL BALANCE DUE	**$ 36,623.00**

Electronic Invoice

Invoice # 14588 June 10, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
5/07/25	EB	Advise NC regarding preparation of portions of monthly fee statement.	.20	1250.00	250.00
5/07/25	NC	Assist EB with preparation of fee statements.	.80	350.00	280.00
5/09/25	EB	Review and revise reply in support of updated retention application to address SAFE objection (0.5); correspond with BA and JS regarding same (0.1).	.60	1250.00	750.00
5/09/25	BA	Confer with EB and JS regarding Ad Hoc Group's objection to updated Stris retention (0.3); draft reply in support of updated Stris retention, convey same to JS and EB for review, and review edits from JS to same (1.0).	1.30	1200.00	1,560.00
5/09/25	JS	Work on Stris reply regarding Stris retention application.	1.50	1025.00	1,537.50
5/10/25	BA	Review comments from P. Tomasco and [redacted] on draft reply in support of updated Stris retention, research and further revise same, and convey revised draft to JS and EB for review.	1.80	1200.00	2,160.00
5/10/25	JS	Work on Stris reply regarding Stris retention application.	1.50	1025.00	1,537.50
5/12/25	VO	Prepare certificate of no objection and emails with B. Howell regarding same.	.20	1025.00	205.00
5/12/25	EB	Review and correspond with BA and JS regarding action items including revisions to updated draft reply in support of amended engagement order.	.40	1250.00	500.00
5/12/25	BA	Revise reply in support of Stris retention, convey same to JS, P. Tomasco, and [redacted] for review, further revise and finalize same and correspond with CS for filing (0.8); correspond with JS, B. Howell, and P. Tomasco regarding status conference on Stris retention and notice of hearing for same, and correspond with JS regarding status conference (0.2).	1.00	1200.00	1,200.00
5/12/25	JS	Work on reply regarding Stris retention application.	1.50	1025.00	1,537.50
5/12/25	CS	File Reply to Ad Hoc Group of Safe Parties Objection to Debtor's Application for an Updated Order Authorizing the Retention and Employment of Stris & Maher LLP as Special Litigation Counsel.	.30	850.00	255.00

Stris & Maher LLP

Invoice # 14588 June 10, 2025

Date	Tkpr	Description	Hours	Rate	Amount
5/13/25	EB	Prepare portions of monthly fee statement.	.70	1250.00	875.00
5/13/25	BA	Attend by teleconference status conference on Stris retention.	.10	1200.00	120.00
5/20/25	EB	Continue working on portions of monthly fee statement.	.50	1250.00	625.00
5/21/25	VO	Prepare April monthly fee application (0.5); emails with B. Howell and client regarding same (0.2).	.70	1025.00	717.50

TOTAL PROFESSIONAL SERVICES **$ 14,110.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	2.40	1,250.00	3,000.00
Bridget Asay	BA	Partner	4.20	1,200.00	5,040.00
Victor O'Connell	VO	Partner	.90	1,025.00	922.50
John Stokes	JS	Partner	4.50	1,025.00	4,612.50
Colleen Smith	CS	Associate	.30	850.00	255.00
Nicholas Capalbo	NC	Fellow	.80	350.00	280.00
Total			**13.10**		**$ 14,110.00**

TOTAL THIS INVOICE **$ 14,110.00**

Invoice # 14588 June 10, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14532	4/23/25	11,102.50	8,882.00	2,220.50
14561	5/14/25	20,292.50	.00	20,292.50

Previous Balance	$ 22,513.00
Balance Due This Invoice	$ 14,110.00
TOTAL BALANCE DUE	**$ 36,623.00**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 20,292.50	$ 2,220.50	$ .00	$ .00	$ .00	$ 22,513.00

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

STRIS & MAHER LLP'S NINTH MONTHLY FEE STATEMENT
FOR THE PERIOD JUNE 1, 2025, THROUGH JUNE 30, 2025

Stris & Maher LLP ("Stris & Maher") submits, pursuant to the Order Granting the Motion of the Debtors to Establish Procedures for Interim Compensation and Reimbursement of Expenses for Professionals (the "Interim Compensation Order") (ECF No. 264) entered on October 14, 2024, this monthly fee statement for the payment of interim compensation rendered and reimbursement of expenses incurred during the period June 1, 2025, through June 30, 2025 (the "Monthly Fee Statement").

Stris & Maher seeks payment of interim compensation in the total amount of $181,376.00 (80% of the services rendered), plus $11,305.52 (100% of the interim expenses incurred). *See* Interim Compensation Order at ¶ 1(a). Summaries of the fees and expenses are attached as Exhibits 1, 2, and 3. Invoices reflecting detailed time entries are attached hereto as Exhibit 4.

[1] Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), Rhodium Encore Sub LLC (1064), Rhodium Enterprises, Inc. (6290), Rhodium Industries LLC (4771), Rhodium Ready Ventures LLC (8618), Rhodium Renewables LLC (0748), Rhodium Renewables Sub LLC (9511), Rhodium Shared Services LLC (5868), and Rhodium Technologies LLC (3973). The mailing and service address of Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

Pursuant to the Interim Compensation Order, any party objecting to the payment of interim compensation and reimbursement of expenses shall serve within 14 days after delivery of the Monthly Fee Statement a written notice, via email, upon Stris & Maher and each of the other Fee Notice Parties (as listed below) (the "Written Notice"). The Written Notice shall set forth with reasonable detail the nature of the objection and the amount at issue. If the parties are unable to reach a resolution of the objection within 14 calendar days, the objecting party shall file its objection (the "Objection") with this Court within 3 business days and serve such Objection on Stris & Maher and each of the other Fee Notice Parties. See Interim Compensation Order ¶ 1(c).

The Fee Notice Parties as defined in the Interim Compensation Order are:

a. Rhodium Enterprises, Inc., Attn: Charles Topping (chucktopping@rhdm.com) and Morgan Soule (morgansoule@rhdm.com), 2617 Bissonnet Street, Suite 234, Houston, Texas 77005;

b. Debtors' Bankruptcy Counsel, c/o Quinn Emanuel Urquhart & Sullivan, LLP, Attn: Patricia B. Tomasco (pattytomasco@quinnemanuel.com); Razmig Izakelian (razmigizakelian@quinnemanuel.com), Alain Jaquet (alainjaquet@quinnemanuel.com), and Joanna D. Caytas (joannacaytas@quinnemanuel.com), 700 Louisiana, Suite 3900, Houston, Texas 77002;

c. Debtors' Financial Advisor, c/o Province, Attn: Mark Robinson (mrobinson@provincefirm.com); David Dunn (ddunn@provincefirm.com); Kirsten Lee (klee@province.com); and Andrew Popescu (apopescu@provincefirm.com), 2360 Corporate Circle, Suite 340, Henderson, Nevada 89074;

d. Galaxy Digital, LLC, in its capacity as DIP Agent, c/o Orrick, Herrington & Sutcliffe LLP, Ryan C. Wooten (rwooten@orrick.com), 609 Main, 40th Floor, Houston, Texas 77002, and Robert Trust (rtrust@orrick.com), Mark Franke (mfranke@orrick.com) and Brandon Batzel (bbatzel@orrick.com), 51 West 52nd Street, New York, New York 10019;

e. Counsel or proposed counsel to any statutory committee appointed in these Chapter 11 Cases; and

f. United States Trustee, Ha Minh Nguyen (ha.nguyen@usdoj.gov), 515 Rusk, Suite 3516, Houston, Texas 77002.

If no objection is timely served pursuant to the Interim Compensation Order, the Debtors shall be authorized and directed to pay Stris & Maher an amount equal to 80% of the fees and 100% of the expenses listed herein, or if an objection is timely served, such percentage of fees and expenses that are not subject to an objection, as stated in the Interim Compensation Order.

Respectfully submitted this 17th day of July, 2025.

QUINN EMANUEL URQUHART & SULLIVAN, LLP

/s/ Patricia B. Tomasco
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Joanna D. Caytas (SBN 24127230)
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-and-

STRIS & MAHER LLP

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-and-

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408 W. 11th Street, 5th Floor
Austin, TX 78701

Counsel for Debtors and Debtors in Possession

CERTIFICATE OF SERVICE

I certify that, on July 17, 2025, a true and correct copy of the foregoing Monthly Fee Statement was served through the Court's Electronic Case Filing system of the United States Bankruptcy Court for the Southern District of Texas.

/s/ Patricia B. Tomasco
Patricia B. Tomasco

EXHIBIT 1

Summary of Legal Fees for the Fee Period

Matter #	Matter Description	Total Hours	Total Fees	80% of Fees
001	Midas Green Patent Litigation	72.1	$78,860.00	$63,088.00
004	Whinstone Dispute, Excluding Tarrant County Litigation	141.9	$133,992.50	$107,194.00
007	Retention and Fee Applications	6.7	$7,227.50	$5,782.00
008	Non-working Travel	7.4	$6,640.00	$5,312.00
Total			$226,720.00	$181,376.00

EXHIBIT 2

Summaries of Hours Billed by Stris & Maher Attorneys and Paraprofessionals

Midas Green Patent Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	1,250.00	13.90	$17,375.00
Tillman Breckenridge	Partner	2003	1,200.00	11.40	$13,680.00
Ken Halpern	Partner	1997	1,100.00	41.90	$46,090.00
Andrew Atsalis	Litigation Fellow	N/A	350.00	4.90	$1,715.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	1,250.00	34.20	$42,750.00
Bridget Asay	Partner	1997	1,200.00	26.20	$31,440.00
John Stokes	Partner	2016	1,025.00	43.40	$44,485.00
Peter Brody	Associate	2016	850.00	.30	$255.00
Colleen Smith	Associate	2015	850.00	.50	$425.00
Rachel Fleischer	Staff Attorney	2021	525.00	2.40	$1,260.00
Monica Viramontes	Senior Paralegal	N/A	425.00	15.50	$6,587.50
Quoc Hoang	Legal Tech Specialist	N/A	350.00	3.00	$1,050.00
Andrew Atsalis	Litigation Fellow	N/A	350.00	2.30	$805.00
Sebastian Delgado	Litigation Fellow	N/A	350.00	11.70	$4,095.00
Nicholas Capalbo	Litigation Fellow	N/A	350.00	2.40	$840.00

Retention and Fee Applications

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	1,250.00	3.70	$4,625.00
Victor O'Connell	Partner	2012	1,025.00	.60	$615.00
John Stokes	Partner	2016	1,025.00	1.70	$1,742.50
Nicholas Capalbo	Litigation Fellow	N/A	350.00	.70	$245.00

Non-Working Travel[2]

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
John Stokes	Partner	2016	1,025.00	6.00	$6,150.00
Sebastian Delgado	Litigation Fellow	N/A	350.00	1.40	$490.00
Total after 50% discount					

[2] Stris & Maher has billed its time for travel during which no work was performed on a separate invoice at a 50% discount.

EXHIBIT 3

Summaries of Expenses for the Fee Period

Midas Green Patent Litigation

Expense	Amount
E-discovery platform fees	$3,765.00
Travel	$1,052.36
Total	$4,817.36

Whinstone Dispute, Excluding the Tarrant County Litigation

Expense	Amount
E-discovery platform fees	$2,646.00
Travel	$1,851.47
Court transcription services	$1,990.69
Total	$6,488.16

EXHIBIT 4

Stris

July 16, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14614
Client # 00346
Matter # 001

INVOICE SUMMARY

For professional services rendered through June 30, 2025

RE: Midas Green Litigation

Total Professional Services	$ 78,860.00
Total Expenses Advanced	$ 4,817.36
TOTAL THIS INVOICE	**$ 83,677.36**
Previous Balance	$ 5,180.50
TOTAL BALANCE DUE	**$ 88,857.86**

Electronic Invoice

Stris & Maher LLP

Invoice # 14614 July 16, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
6/02/25	EB	Work on reply in advance of hearing on objection to Midas Green claim.	.50	1250.00	625.00
6/03/25	EB	Advise TB regarding action items in support of reply brief (0.2); review and update client and co-counsel regarding correspondence from counsel for Midas (0.1).	.30	1250.00	375.00
6/03/25	TB	Review and analyze documents in support of further filing on objection to Midas claim (0.3) confer with EB regarding same (0.2).	.50	1200.00	600.00
6/04/25	EB	Correspond with counsel for Midas Green (0.1); review and respond to correspondence from R. Harrington (0.1).	.20	1250.00	250.00
6/05/25	EB	Attend teleconference with counsel for Midas Green (0.2); update client and co-counsel regarding same (0.1); correspond with Stris team regarding status and upcoming action items (0.1).	.40	1250.00	500.00
6/09/25	EB	Continue working on [redacted] brief and hearing preparation (0.3); attend teleconference with KH regarding same (0.3); correspond with R. Harrington and update TB and KH regarding status and brief (0.1).	.70	1250.00	875.00
6/09/25	KJH	Teleconference with EB regarding opposition brief to proof of claim and hearing prep on that claim.	.30	1100.00	330.00
6/09/25	TB	Analyze materials to assist with reply brief and hearing preparation.	.90	1200.00	1,080.00
6/10/25	EB	Update [redacted] regarding status and action items in support of upcoming hearing.	.10	1250.00	125.00
6/10/25	TB	Continue analyzing materials including summary judgment transcript to assist EB with hearing preparation and further briefing.	.50	1200.00	600.00
6/10/25	ASA	Prepare materials for EB, TB, and KH in support of further briefing and preparation for hearing.	.80	350.00	280.00
6/11/25	EB	Prepare status summary as requested by [redacted].	.80	1250.00	1,000.00
6/14/25	TB	Continue analyzing district court materials to assist EB and KH with further briefing and EB with hearing preparation.	1.40	1200.00	1,680.00

Stris & Maher LLP

Invoice # 14614 July 16, 2025

Date	Tkpr	Description	Hours	Rate	Amount
6/15/25	TB	Continue analyzing Midas-related bankruptcy court materials to assist EB and KH with further briefing and EB with hearing preparation.	3.60	1200.00	4,320.00
6/16/25	EB	Correspond with R. Harrington regarding status and action items in support of reply brief.	.10	1250.00	125.00
6/16/25	KJH	Review and analyze bankruptcy court filings and record on motion for summary judgment of noninfringement in preparation for reply and hearing on objection to claim in bankruptcy court.	3.20	1100.00	3,520.00
6/16/25	TB	Continue assisting with preparation for July 8 hearing.	.50	1200.00	600.00
6/17/25	EB	Continue preparing for hearing on objections to Midas claims.	1.00	1250.00	1,250.00
6/17/25	KJH	Conduct additional research on [redacted] of district court's oral order granting summary judgment [redacted] in preparation for reply and bankruptcy court hearing on objection to claim.	3.80	1100.00	4,180.00
6/18/25	KJH	Teleconference with EB regarding status, research findings, and further tasks to prepare for hearing (0.3); further research record and law and draft analysis and talking points regarding [redacted] of district court's bench ruling [redacted] in support of further briefing and hearing preparation (3.2).	3.50	1100.00	3,850.00
6/19/25	KJH	Further research [redacted] of oral summary judgment ruling and factual record, and revise analysis in preparation for hearing on Midas's proof of claim.	5.20	1100.00	5,720.00
6/20/25	EB	Review correspondence from KH and Texas counsel in support of preparation for hearing on objection to Midas claim (0.1); continue analyzing materials in preparation for same including research updates and analysis from KH (1.0).	1.10	1250.00	1,375.00
6/20/25	KJH	Research and revise analysis of [redacted] of Western District's grant of summary judgment, research [redacted] of claim under [redacted], and correspond with EB regarding same (4.8); teleconference with E. Winston (Quinn) regarding same (0.2).	5.00	1100.00	5,500.00
6/21/25	EB	Correspond with KH regarding status and action items in support of hearing preparation.	.10	1250.00	125.00

Invoice # 14614 July 16, 2025

Date	Tkpr	Description	Hours	Rate	Amount
6/23/25	EB	Analyze and correspond with KH regarding next steps in support of objection to Midas claim.	.50	1250.00	625.00
6/23/25	KJH	Research law on [redacted] of patent claims in bankruptcy court in preparation for review of reply brief and for July 8 hearing (2); correspond with E. Brannen regarding [redacted] at summary judgment hearing regarding [redacted] its rulings (0.1).	2.10	1100.00	2,310.00
6/24/25	EB	Attend teleconference with R. Harrington regarding status and action items in support of reply brief (0.2); analyze and correspond with KH regarding same and potential further arguments in support of objections to Midas claim (3.5).	3.70	1250.00	4,625.00
6/24/25	KJH	In preparation for editing reply and for hearing on Midas' proof of claim, research [redacted] of patent claim in bankruptcy court, and teleconference with EB regarding same.	2.10	1100.00	2,310.00
6/25/25	EB	Correspond with KH regarding update and further research in support of additional arguments for opposition to Midas claim (0.2); continue analyzing same (1.0); correspond with R. Harrington and KH regarding next steps in support of draft reply (0.1); work on same (1.1).	2.40	1250.00	3,000.00
6/25/25	KJH	Review draft reply brief in opposition to Midas proof of claim and initial revisions from TB and correspond with EB regarding issues to be addressed in same.	.40	1100.00	440.00
6/25/25	TB	Review reply brief and prior briefing and edit reply brief on objection to Midas Green claim.	1.80	1200.00	2,160.00
6/26/25	EB	Advise PB and MV regarding preservation and maintenance of document database (0.1); correspond with TB, KH, and R. Harrington regarding further revisions to reply brief in support of objection to Midas claim and related [redacted] issues (0.4).	.50	1250.00	625.00

Invoice # 14614 July 16, 2025

Date	Tkpr	Description	Hours	Rate	Amount
6/26/25	KJH	Teleconference with EB regarding revisions to reply brief in opposition to Midas proof of claim (0.2); teleconference with TB regarding reply brief tasks (0.1); teleconference with R. Harrington regarding reply brief in opposition to Midas proof of claim (0.3); correspond with EB and R. Harrington regarding US trustee's [redacted] (0.1); teleconference and correspond with VO regarding research into [redacted] for use in reply brief (0.1); teleconference and correspond with AA regarding research into [redacted] and [redacted] in patent case for use in reply brief (0.2); research [redacted] of claims [redacted] for drafting material for reply brief (1.4).	2.40	1100.00	2,640.00
6/26/25	TB	Propose further edits to revised reply brief on Midas Green objection.	2.20	1200.00	2,640.00
6/27/25	KJH	Revise draft reply in opposition to Midas's proof of claim.	3.10	1100.00	3,410.00
6/27/25	ASA	Analyze deposition transcripts, expert reports, and correspondence between counsel regarding [redacted] in support of KH and drafting of reply in opposition to Midas's proof of claim.	1.90	350.00	665.00
6/29/25	KJH	Revise draft reply in opposition to Midas proof of claim, research case law and factual record to support arguments in reply, and correspond with EB, TB and ASA regarding same.	6.80	1100.00	7,480.00
6/30/25	EB	Continue working on further opposition brief including analyzing revisions proposed by TB and KH and additional arguments for incorporation into same.	1.50	1250.00	1,875.00
6/30/25	KJH	Research law relating to [redacted] of claims purporting to cover post-bankruptcy petition conduct and [redacted] of claims [redacted].	3.70	1100.00	4,070.00
6/30/25	KJH	Teleconference with AA regarding statistics on Midas/Rhodium patent litigation and adjustments to reply in opposition to Midas proof of claim (0.2); teleconference with R. Harrington regarding revisions to reply in opposition to Midas proof of claim (0.1).	.30	1100.00	330.00

Stris & Maher LLP

Invoice # 14614 July 16, 2025

Date	Tkpr	Description	Hours	Rate	Amount
6/30/25	ASA	Revise draft reply in opposition to Midas's proof of claim at request of KH and circulate with EB and TB (0.2); analyze deposition transcripts to calculate cumulative time already spent taking depositions as a data point in support of draft reply in opposition to Midas's proof of claim (1.6); correspond with KH regarding further edits to draft reply in opposition to Midas's proof of claim (0.2); analyze and provide attorneys with statistical figures related to past document productions (0.2).	2.20	350.00	770.00
		TOTAL PROFESSIONAL SERVICES			**$ 78,860.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	13.90	1,250.00	17,375.00
Tillman Breckenridge	TB	Partner	11.40	1,200.00	13,680.00
Ken Halpern	KJH	Partner	41.90	1,100.00	46,090.00
Andrew Atsalis	ASA	Fellow	4.90	350.00	1,715.00
Total			**72.10**		**$ 78,860.00**

EXPENSES ADVANCED

Date	Task	Description	Amount
5/31/25		JND Discovery Invoice for May 2025.	3,765.00
6/03/25		EB airfare for hearing in Houston.	1,052.36
		TOTAL EXPENSES ADVANCED	**$ 4,817.36**
		TOTAL THIS INVOICE	**$ 83,677.36**

Stris & Maher LLP

Invoice # 14614 July 16, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14530	4/23/25	28,410.00	25,071.00	3,339.00
14560	5/14/25	10,567.50	9,960.00	607.50
14587	6/10/25	9,935.00	8,701.00	1,234.00

Previous Balance	$ 5,180.50
Balance Due This Invoice	$ 83,677.36
TOTAL BALANCE DUE	**$ 88,857.86**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ .00	$ 1,234.00	$ 3,946.50	$ .00	$ .00	$ 5,180.50

Stris

July 16, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14602
Client # 00346
Matter # 004

INVOICE SUMMARY

For professional services rendered through June 30, 2025

RE: Whinstone Litigation

Total Professional Services	$ 133,992.50
Total Expenses Advanced	$ 6,488.16
TOTAL THIS INVOICE	**$ 140,480.66**
Previous Balance	$ 141,648.00
TOTAL BALANCE DUE	**$ 282,128.66**

Trust Funds Remaining on Account $ 115,369.59

Electronic Invoice

Stris & Maher LLP

Invoice # 14602 July 16, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
6/02/25	EB	Address correspondence and document requests from counsel for SAFE AHG in advance of C. Topping deposition (1.5); continue preparing for (2.7) and defend (3.0) same; begin attending to resulting action items including assessment of additional requested documents (1.2); assist with preparation for upcoming hearing on LKC amended fee application (1.0).	9.40	1250.00	11,750.00
6/02/25	BA	Review emailed document request from SAFE AHG and correspondence from JS regarding same (0.1); confer with JS and EB regarding document request, privilege issues, and response to same (1); review and redact requested document, confer with SD as needed for assistance with same, and correspond with EB and JS regarding redactions and privilege issues (0.8); confer with JS and correspond with bankruptcy counsel, CS and SD as needed to direct preparation of, review, and ensure filing of exhibit and witness hearing for LKC dispute (0.3); correspond and confer with JS regarding ongoing demands from SAFE AHG (0.2); correspond with JS, and with JS and EB, regarding hearing [redacted] and witness preparation, Topping deposition and further document requests, and outreach to Akin regarding hearing (0.4); review rough TR of Topping deposition to assist with hearing preparation (0.8).	3.60	1200.00	4,320.00
6/02/25	JS	Prepare for hearing on LKC retention application (6.9); attend portions of deposition of C. Topping in connection with same (1.8).	8.70	1025.00	8,917.50
6/02/25	CS	Review, finalize, and file witness and exhibit list for hearing on retention of LKC as special litigation counsel.	.30	850.00	255.00
6/02/25	SD	Analyze draft application for order authorizing Lehotsky Keller Cohn as special litigation counsel and application to employ Lehotsky Keller Cohn as special litigation counsel as instructed by BA (1.9); prepare new draft of debtors' witness and exhibit list, prepare proposed PDF, compile exhibits to be filed along with debtors' witness and exhibit list, and send to BA, CS, and JS (0.5).	2.40	350.00	840.00

Stris & Maher LLP

Invoice # 14602 July 16, 2025

Date	Tkpr	Description	Hours	Rate	Amount
6/02/25	MV	Review and correspond with vendor regarding status of client document downloads.	.20	425.00	85.00
6/02/25	RF	Review, analyze, calendar, and inform the team of new filings.	.60	525.00	315.00
6/03/25	EB	Analyze and address requests from counsel for SAFE AHG for further documents (1.9); continue analyzing materials including transcript and exhibits and assisting with preparation for C. Topping testimony at LKC retention application hearing (3.1); meet with [redacted] (BA present for portion) regarding same (1.7); attend meet and confer requested by counsel for SAFE AHG (0.5).	7.20	1250.00	9,000.00
6/03/25	BA	Analyze action items to assist with hearing preparation (0.8); review multiple additional SAFE document requests and begin assessing privilege, burden, and work product issues and correspond with EB and JS regarding same (1.0); correspond with JS regarding [redacted] and legal analysis in preparation for hearing on LKC dispute, outline [redacted], and convey same to JS (1.0); confer with EB and [redacted] to assist in witness preparation for hearing (0.8); prepare for meet and confer with SAFE counsel (0.3); participate in meet and confer with SAFE AHG, EB, JS, and other counsel in preparation for hearing on LKC matter, and confer further with EB and JS regarding same (0.7).	4.60	1200.00	5,520.00
6/03/25	JS	Prepare for hearing on LKC retention application.	10.30	1025.00	10,557.50
6/03/25	ASA	Prepare briefing and supporting documentation at request of JS in support of his preparation for June 4 hearing regarding retention of Lehotsky Keller Cohn LLP.	2.30	350.00	805.00
6/03/25	SD	Obtain and organize C. Topping deposition materials in advance of hearing (0.3); prepare and provide BA and JS with additional materials including replies regarding Lehotsky Keller Cohn's retention application (0.3).	.60	350.00	210.00
6/03/25	MV	Continue working with vendor to secure client document exports.	.50	425.00	212.50
6/03/25	RF	Review, analyze, and inform EB, BA, JS, and CS of new filings.	.10	525.00	52.50

Invoice # 14602 July 16, 2025

Date	Tkpr	Description	Hours	Rate	Amount
6/04/25	EB	Review and correspond with BA and JS regarding new objectionable correspondence from counsel for SAFE AHG (0.4); review newly added SAFE AHG exhibits (0.2); continue assisting with hearing preparation (1.0); attend hearing on LKC updated fee application (3.0); begin attending to resulting action items including assessing material for 5-page brief (0.5).	5.10	1250.00	6,375.00
6/04/25	BA	Review correspondence from SAFE AHG changing position regarding exhibit agreements and correspond with JS and EB regarding hearing [redacted] (0.4); monitor hearing on LKC dispute (2.0); analyze points for post hearing memorandum and correspond with SD regarding research for same (0.2).	2.60	1200.00	3,120.00
6/04/25	JS	Prepare for and attend hearing on LKC retention application, including redoing direct examination in light of SAFE AHG's withdrawal of agreement to proceed partially by declaration.	11.30	1025.00	11,582.50
6/04/25	MV	Check status of exporting of client data to confirm progress and timing.	.10	425.00	42.50
6/04/25	RF	Review and analyze new filings (0.2); correspond with EB, BA, JS, and CS regarding same (0.2).	.40	525.00	210.00
6/05/25	EB	Work on 5-page submission in consultation with BA, JS, co-counsel, and counsel for LKC.	2.60	1250.00	3,250.00
6/05/25	BA	Confer with JS, EB, and LKC team regarding post-hearing brief and [redacted] for same (0.7); confer with SD as needed regarding research for same, and research and begin drafting same (2.9).	3.60	1200.00	4,320.00
6/05/25	JS	Work on potential [redacted] with objectors (0.9); work on post-hearing brief (1.5).	2.40	1025.00	2,460.00
6/05/25	SD	Research bankruptcy treatises concerning Rule 2014 for BA (1.7); prepare and send materials to BA (0.5); begin drafting debtors' post-hearing memorandum as directed by BA (0.4).	2.60	350.00	910.00
6/05/25	MV	Continue assessing progress of client data downloads and update EB regarding status.	.20	425.00	85.00
6/05/25	RF	Review, analyze, and correspond with EB, BA, JS, and CS regarding new filings.	.30	525.00	157.50

Invoice # 14602 July 16, 2025

Date	Tkpr	Description	Hours	Rate	Amount
6/06/25	EB	Continue working on 5-page brief and supporting research (2.0); confer with BA regarding [redacted] and edits to same (0.2).	2.20	1250.00	2,750.00
6/06/25	BA	Continue researching and drafting post-hearing memorandum regarding LKC dispute and convey drafts to JS and EB for review (5.3): confer with EB regarding [redacted] and edits to draft (0.2).	5.50	1200.00	6,600.00
6/06/25	JS	Review and evaluate post-hearing brief (2.0); work on potential [redacted] with objectors (1.2).	3.20	1025.00	3,280.00
6/06/25	SD	Assist BA with materials in support of post-hearing briefing.	.30	350.00	105.00
6/06/25	MV	Continue working on export of client data.	.20	425.00	85.00
6/06/25	RF	Correspond with EB, BA, JS, and CS regarding status and new filings.	.20	525.00	105.00
6/07/25	EB	Continue working on 5-page post-hearing brief in consultation with BA and JS (1.0); review and communicate with BA and JS regarding [redacted] relating to same (0.2).	1.20	1250.00	1,500.00
6/07/25	BA	Review correspondence from AHG regarding potential [redacted] and request for additional information, review LKC response to same, and correspond with JS and EB regarding same.	.20	1200.00	240.00
6/07/25	JS	Work on post-hearing brief (1.3); continued work on potential [redacted] with objectors and evaluating information request from SAFE AHG in connection with same (1.0).	2.30	1025.00	2,357.50
6/08/25	BA	Correspond with JS regarding research questions for post-hearing memorandum and AHG request for extension.	.10	1200.00	120.00
6/09/25	EB	Continue working on 5-page post-hearing brief.	1.50	1250.00	1,875.00
6/09/25	BA	Continuing researching issues relevant to LKC fee dispute, review and edit draft memorandum, and review court order regarding deadline and audio recording.	1.60	1200.00	1,920.00
6/09/25	JS	Work on post-hearing brief.	1.90	1025.00	1,947.50
6/09/25	MV	Continue working to export client documents.	.50	425.00	212.50
6/09/25	RF	Correspond with EB, BA, JS, and CS regarding action items and pleadings.	.60	525.00	315.00

Invoice # 14602 July 16, 2025

Date	Tkpr	Description	Hours	Rate	Amount
6/10/25	EB	Continue revising and communicating with BA, JS, client and co-counsel regarding final revisions to post-hearing brief including to incorporate comments from client and co-counsel.	4.90	1250.00	6,125.00
6/10/25	BA	Review revisions to joint filing from LKC's attorneys, correspond with EB and JS regarding same and further potential revisions, and confer with JS regarding same (0.8); confer with EB and [redacted] regarding same (0.1); confer as needed with SD to supervise cite check for joint post-hearing filing, continue researching and revising same, correspond with JS, EB, and LKC's attorneys regarding same, and finalize and final same (3.2).	4.10	1200.00	4,920.00
6/10/25	JS	Work on and assist in finalizing post-hearing brief.	3.30	1025.00	3,382.50
6/10/25	SD	Assist EB, BA, and JS with final revisions to and finalization of post-hearing memorandum.	5.00	350.00	1,750.00
6/10/25	MV	Continue working to export client data for backup.	.20	425.00	85.00
6/10/25	RF	Correspond with EB, BA, JS, and CS regarding new filings.	.20	525.00	105.00
6/11/25	BA	Review SAFE AHG's post-hearing memorandum (0.2); correspond with JS and EB regarding data storage (0.1).	.30	1200.00	360.00
6/11/25	QH	Download and transfer multiple-part zip files from Logikcull onto an external hard drive.	1.20	350.00	420.00
6/11/25	PB	Discuss status and advise MV regarding database export of client documents.	.50	850.00	425.00
6/11/25	SD	Review, organize, and track post-hearing briefing and qc docket updating of earlier filings related to LKC retention to ensure completeness and accuracy.	.80	350.00	280.00
6/11/25	MV	Meet with PB regarding next steps in support of export of client documents (0.5); continue working on same in consultation with QH and preparing for end of vendor hosting cotract (3.3).	3.80	425.00	1,615.00
6/12/25	EB	Correspond with BA and JS regarding data storage issues and correspondence with client regarding same.	.10	1250.00	125.00
6/12/25	MV	Continue working to save and verify exported client files including load files to external hard drive.	1.20	425.00	510.00

Stris & Maher LLP

Invoice # 14602 July 16, 2025

Date	Tkpr	Description	Hours	Rate	Amount
6/16/25	QH	Download and transfer 00346 RHOD - Gen 001 export of 148 multiple-part zip files from Logikcull onto an external hard drive.	1.80	350.00	630.00
6/16/25	MV	Check status of data transfer.	.10	425.00	42.50
6/17/25	MV	Continue working on (1.2), update EB regarding (0.2), and draft memoranda regarding (1.5) export of client data.	2.90	425.00	1,232.50
6/18/25	MV	Correspond with vendor regarding end of document hosting and end of contract process.	.20	425.00	85.00
6/20/25	NC	Review and organize recent filings for attorney review.	2.40	350.00	840.00
6/20/25	MV	Correspond with EB regarding instructions to vendor and end of contract process.	.20	425.00	85.00
6/26/25	MV	Continue working on end of document vendor and client backup process in consultation with EB, PB, and QH.	1.20	425.00	510.00
6/27/25	MV	Review correspondence from QH regarding status and next steps in support of vendor contract termination and work on same.	.50	425.00	212.50
6/30/25	MV	Work with vendor on final steps to terminate contract and confirm exports of client data.	3.50	425.00	1,487.50
		TOTAL PROFESSIONAL SERVICES			**$ 133,992.50**

Invoice # 14602 July 16, 2025

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	34.20	1,250.00	42,750.00
Bridget Asay	BA	Partner	26.20	1,200.00	31,440.00
John Stokes	JS	Partner	43.40	1,025.00	44,485.00
Colleen Smith	CS	Associate	.30	850.00	255.00
Peter Brody	PB	Associate	.50	850.00	425.00
Rachel Fleischer	RF	Staff Attorney	2.40	525.00	1,260.00
Monica Viramontes	MV	Sr Paralegal	15.50	425.00	6,587.50
Quoc Hoang	QH	Legal Technology Spe	3.00	350.00	1,050.00
Andrew Atsalis	ASA	Fellow	2.30	350.00	805.00
Sebastian Delgado	SD	Fellow	11.70	350.00	4,095.00
Nicholas Capalbo	NC	Fellow	2.40	350.00	840.00
Total			**141.90**		**$ 133,992.50**

EXPENSES ADVANCED

Date	Task	Description	Amount
5/29/25		JS airfare for hearing on LKC retention.	1,176.96
5/30/25		JS lodging for hearing on LKC retention.	325.24
6/01/25		Logikcull Discovery Solutions (June 2025).	2,646.00
6/03/25		Vendor fee for transcripts for Charles Topping dated 06/02/2025.	1,990.69
6/04/25		JS transportation for hearing on LKC retention.	349.27
		TOTAL EXPENSES ADVANCED	**$ 6,488.16**
		TOTAL THIS INVOICE	**$ 140,480.66**

Stris & Maher LLP

Invoice # 14602 July 16, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14517	4/23/25	503,457.91	404,817.41	98,640.50
14547	5/14/25	55,720.00	44,576.00	11,144.00
14575	6/10/25	162,946.86	131,083.36	31,863.50
		Previous Balance		$ 141,648.00
		Balance Due This Invoice		$ 140,480.66
		TOTAL BALANCE DUE		**$ 282,128.66**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ .00	$ 31,863.50	$ 109,784.50	$ .00	$ .00	$ 141,648.00

Stris

July 16, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14615
Client # 00346
Matter # 007

INVOICE SUMMARY

For professional services rendered through June 30, 2025

RE: Retention and Fee Applications

Total Professional Services	$ 7,227.50
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 7,227.50**
Previous Balance	$ 9,101.00
TOTAL BALANCE DUE	**$ 16,328.50**

Electronic Invoice

Invoice # 14615 July 16, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
5/13/25	JS	Prepare for and attend status conference on Stris retention application.	1.70	1025.00	1,742.50
6/05/25	EB	Begin preparing portions of monthly fee statement.	.50	1250.00	625.00
6/05/25	NC	Assist EB in preparation of monthly fee statements.	.70	350.00	245.00
6/06/25	EB	Continue preparing portions of monthly fee statement.	.90	1250.00	1,125.00
6/09/25	EB	Continue preparing portions of monthly fee statement.	1.20	1250.00	1,500.00
6/10/25	EB	Continue preparing portions of monthly fee statement.	1.10	1250.00	1,375.00
6/13/25	VO	Prepare May monthly fee statement.	.60	1025.00	615.00

TOTAL PROFESSIONAL SERVICES **$ 7,227.50**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	3.70	1,250.00	4,625.00
Victor O'Connell	VO	Partner	.60	1,025.00	615.00
John Stokes	JS	Partner	1.70	1,025.00	1,742.50
Nicholas Capalbo	NC	Fellow	.70	350.00	245.00
Total			**6.70**		**$ 7,227.50**

TOTAL THIS INVOICE **$ 7,227.50**

Invoice # 14615 July 16, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14532	4/23/25	11,102.50	8,882.00	2,220.50
14561	5/14/25	20,292.50	16,234.00	4,058.50
14588	6/10/25	14,110.00	11,288.00	2,822.00

Previous Balance	$ 9,101.00
Balance Due This Invoice	$ 7,227.50
TOTAL BALANCE DUE	**$ 16,328.50**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ .00	$ 2,822.00	$ 6,279.00	$ .00	$ .00	$ 9,101.00

Stris

July 16, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14630
Client # 00346
Matter # 008

INVOICE SUMMARY

For professional services rendered through June 30, 2025

RE: Non-working Travel

Total Professional Services	$ 6,640.00
50% discount	$ -3,320.00
Net Professional Services	$ 3,320.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 3,320.00**

Electronic Invoice

Stris & Maher LLP

Invoice # 14630 July 16, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
6/03/25	JS	Non-working travel to hearing on LKC retention.	2.00	1025.00	2,050.00
6/04/25	JS	Non-working return travel from hearing on LKC retention.	4.00	1025.00	4,100.00
6/05/25	SD	Travel to and from Vermont Law School to conduct research on bankruptcy treatises concerning Rule 2014 and employment of an attorney for BA .	1.40	350.00	490.00

TOTAL PROFESSIONAL SERVICES	**$ 6,640.00**
50% discount	$ -3,320.00
NET PROFESSIONAL SERVICES	**$ 3,320.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
John Stokes	JS	Partner	6.00	1,025.00	6,150.00
Sebastian Delgado	SD	Fellow	1.40	350.00	490.00
Total			**7.40**		**$ 6,640.00**

TOTAL THIS INVOICE **$ 3,320.00**

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

STRIS & MAHER LLP'S ELEVENTH MONTHLY FEE STATEMENT
FOR THE PERIOD JULY 1, 2025, THROUGH JULY 31, 2025

Stris & Maher LLP ("Stris & Maher") submits, pursuant to the Order Granting the Motion of the Debtors to Establish Procedures for Interim Compensation and Reimbursement of Expenses for Professionals (the "Interim Compensation Order") (ECF No. 264) entered on October 14, 2024, this monthly fee statement for the payment of interim compensation rendered and reimbursement of expenses incurred during the period July 1, 2025, through July 31, 2025 (the "Monthly Fee Statement").

Stris & Maher seeks payment of interim compensation in the total amount of $128,704.00 (80% of the services rendered), plus $5,387.03 (100% of the interim expenses incurred). *See* Interim Compensation Order at ¶ 1(a). Summaries of the fees and expenses are attached as Exhibits 1, 2, and 3. Invoices reflecting detailed time entries are attached hereto as Exhibit 4.

[1] Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), Rhodium Encore Sub LLC (1064), Rhodium Enterprises, Inc. (6290), Rhodium Industries LLC (4771), Rhodium Ready Ventures LLC (8618), Rhodium Renewables LLC (0748), Rhodium Renewables Sub LLC (9511), Rhodium Shared Services LLC (5868), and Rhodium Technologies LLC (3973). The mailing and service address of Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

Pursuant to the Interim Compensation Order, any party objecting to the payment of interim compensation and reimbursement of expenses shall serve within 14 days after delivery of the Monthly Fee Statement a written notice, via email, upon Stris & Maher and each of the other Fee Notice Parties (as listed below) (the "Written Notice"). The Written Notice shall set forth with reasonable detail the nature of the objection and the amount at issue. If the parties are unable to reach a resolution of the objection within 14 calendar days, the objecting party shall file its objection (the "Objection") with this Court within 3 business days and serve such Objection on Stris & Maher and each of the other Fee Notice Parties. See Interim Compensation Order ¶ 1(c).

The Fee Notice Parties as defined in the Interim Compensation Order are:

a. Rhodium Enterprises, Inc., Attn: Charles Topping (chucktopping@rhdm.com) and Morgan Soule (morgansoule@rhdm.com), 2617 Bissonnet Street, Suite 234, Houston, Texas 77005;

b. Debtors' Bankruptcy Counsel, c/o Quinn Emanuel Urquhart & Sullivan, LLP, Attn: Patricia B. Tomasco (pattytomasco@quinnemanuel.com); Razmig Izakelian (razmigizakelian@quinnemanuel.com), Alain Jaquet (alainjaquet@quinnemanuel.com), and Joanna D. Caytas (joannacaytas@quinnemanuel.com), 700 Louisiana, Suite 3900, Houston, Texas 77002;

c. Debtors' Financial Advisor, c/o Province, Attn: Mark Robinson (mrobinson@provincefirm.com); David Dunn (ddunn@provincefirm.com); Kirsten Lee (klee@province.com); and Andrew Popescu (apopescu@provincefirm.com), 2360 Corporate Circle, Suite 340, Henderson, Nevada 89074;

d. Galaxy Digital, LLC, in its capacity as DIP Agent, c/o Orrick, Herrington & Sutcliffe LLP, Ryan C. Wooten (rwooten@orrick.com), 609 Main, 40th Floor, Houston, Texas 77002, and Robert Trust (rtrust@orrick.com), Mark Franke (mfranke@orrick.com) and Brandon Batzel (bbatzel@orrick.com), 51 West 52nd Street, New York, New York 10019;

e. Counsel or proposed counsel to any statutory committee appointed in these Chapter 11 Cases; and

f. United States Trustee, Ha Minh Nguyen (ha.nguyen@usdoj.gov), 515 Rusk, Suite 3516, Houston, Texas 77002.

If no objection is timely served pursuant to the Interim Compensation Order, the Debtors shall be authorized and directed to pay Stris & Maher an amount equal to 80% of the fees and 100% of the expenses listed herein, or if an objection is timely served, such percentage of fees and expenses that are not subject to an objection, as stated in the Interim Compensation Order.

Respectfully submitted this 19th day of August, 2025.

QUINN EMANUEL URQUHART & SULLIVAN, LLP

/s/ Patricia B. Tomasco
Patricia B. Tomasco (SBN 01797600)
Cameron Kelly (SBN 24120936)
Alain Jaquet (*pro hac vice)*
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-and-

STRIS & MAHER LLP

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-and-

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Austin, TX 78701

Counsel for Debtors and Debtors in Possession

CERTIFICATE OF SERVICE

I certify that, on August 19, 2025, a true and correct copy of the foregoing Monthly Fee Statement was served through the Court's Electronic Case Filing system of the United States Bankruptcy Court for the Southern District of Texas.

/s/ Patricia B. Tomasco
Patricia B. Tomasco

EXHIBIT 1

Summary of Legal Fees for the Fee Period

Matter #	Matter Description	Total Hours	Total Fees	80% of Fees
001	Midas Green Patent Litigation	166.10	$147,572.50	$118,058.00
004	Whinstone Dispute, Excluding Tarrant County Litigation	5.30	$2,485.00	$1,988.00
007	Retention and Fee Applications	8.60	$5,822.50	$4,658.00
008	Non-working Travel	8.00	$5,000.00	$4,000.00
Total		188.00	$160,880.00	$128,704.00

EXHIBIT 2

Summaries of Hours Billed by Stris & Maher Attorneys and Paraprofessionals

Midas Green Patent Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	1,250.00	63.70	$79,625.00
Tillman Breckenridge	Partner	2003	1,200.00	3.10	$3,720.00
Ken Halpern	Partner	1997	1,100.00	31.60	$34,760.00
Peter Brody	Associate	2016	850.00	11.50	$9,775.00
Monica Viramontes	Senior Paralegal	N/A	425.00	.30	$127.50
Andrew Atsalis	Litigation Fellow	N/A	350.00	42.30	$14,805.00
Nicholas Capalbo	Litigation Fellow	N/A	350.00	13.60	$4,760.00

Whinstone Dispute, Excluding the Tarrant County Litigation

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Bridget Asay	Partner	1997	1,200.00	.30	$360.00
Monica Viramontes	Senior Paralegal	N/A	425.00	5.0	$2,125.00

Retention and Fee Applications

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	1,250.00	2.0	2,500.00
Victor O'Connell	Partner	2012	1,025.00	1.5	1,537.50
Cynthia Huang	Litigation Fellow	N/A	350.00	5.1	1,785.00

Non-Working Travel[2]

Professional	Position with the Applicant	Year Admitted	Hourly Rate	Total Hours	Total Compensation
Elizabeth Brannen	Managing Partner	2001	1,250.00	8.0	$10,000.00
Total after 50% discount					$5,000.00

[2] Stris & Maher has billed its time for travel during which no work was performed on a separate invoice at a 50% discount.

EXHIBIT 3

Summaries of Expenses for the Fee Period

Midas Green Patent Litigation

Expense	Amount
E-discovery platform fees	$3,765.00
Travel	$1,032.58
Printing services	$47.04
Total	**$4,844.62**

Whinstone Dispute, Excluding the Tarrant County Litigation

Expense	Amount
Printing services	$542.41
Total	**$542.41**

EXHIBIT 4

Stris

August 7, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14650
Client # 00346
Matter # 001

INVOICE SUMMARY

For professional services rendered through July 31, 2025

RE: Midas Green Litigation

Total Professional Services	$ 147,572.50
Total Expenses Advanced	$ 4,844.62
TOTAL THIS INVOICE	**$ 152,417.12**
Previous Balance	$ 15,771.99
TOTAL BALANCE DUE	**$ 168,189.11**

Electronic Invoice

Invoice # 14650 August 7, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
7/01/25	EB	Review current draft further brief opposing Midas claim (0.3); work on same (0.5) and correspond with KH, TB, and ASA regarding further revisions to same (0.4).	1.20	1250.00	1,500.00
7/01/25	KJH	Further review and revise reply in opposition to Midas's proof claim and correspond with EB and TB regarding same.	1.90	1100.00	2,090.00
7/01/25	TB	Revise reply brief opposing Midas patent claim.	3.10	1200.00	3,720.00
7/01/25	ASA	Assist KH and TB with edits to reply brief opposing Midas patent claim and work with R. Harrington to implement same.	2.00	350.00	700.00
7/02/25	EB	Prepare for hearing on objection to Midas claim.	1.80	1250.00	2,250.00
7/02/25	KJH	Work on revisions to reply brief in consultation with R. Harrington.	.70	1100.00	770.00
7/03/25	EB	Attend teleconferences with KH (0.5) and R. Harrington (0.2) regarding action items in support of revisions to further brief objecting to Midas claim and hearing; prepare for hearing (4.8); review and communicate with R. Harrington regarding further revised brief (0.7).	6.20	1250.00	7,750.00
7/03/25	KJH	Teleconferences with EB regarding revisions to reply in opposition to Midas's proof of claim (0.5); teleconferences with R. Harrington regarding revisions to reply in opposition to Midas's proof of claim (0.2); review events in Western District of Texas action since summary judgment hearing and correspond with EB regarding same (0.4); review and revise reply in opposition to Midas's proof of claim (0.6); review case law regarding exclusion of postpetition conduct from claim in bankruptcy and correspond with EB regarding same (0.4).	2.10	1100.00	2,310.00
7/03/25	ASA	Prepare materials requested by EB in preparation for upcoming hearing (1.6); correspond with B. Howell regarding sealed briefing in preparation for same (0.1).	1.70	350.00	595.00

Stris & Maher LLP

Invoice # 14650 August 7, 2025

Date	Tkpr	Description	Hours	Rate	Amount
7/07/25	EB	Continue preparing for hearing on objection to Midas claim (8.0); review proposed final further brief and correspond with P. Tomasco, R. Harrington, and KH regarding same (0.3); correspond with KH, PB, ASA, and R. Harrington regarding summary judgment hearing slides (0.1).	8.40	1250.00	10,500.00
7/07/25	KJH	Review and revise reply brief in opposition to proof of claim and correspond with R. Harrington and EB regarding same.	.70	1100.00	770.00
7/08/25	EB	Continue preparing for (3.9) and attend (0.5) hearing on objection to Midas proof of claim; attend to resulting action items in consultation with P. Tomasco and R. Harrington (0.5); update Stris team and begin preparing summary judgment motion (1.5); confer with KH regarding same (0.3).	6.70	1250.00	8,375.00
7/08/25	KJH	Analyze hearing on Midas' proof of claim in support of subsequent briefing (0.3); confer with EB regarding same (0.3); conduct research in support of further briefing including regarding status of Midas's [redacted] on asserted patents (1.0).	1.60	1100.00	1,760.00
7/09/25	EB	Continue working on summary judgment motion.	1.20	1250.00	1,500.00
7/09/25	KJH	Work on portions of summary judgment briefing.	1.50	1100.00	1,650.00
7/09/25	ASA	Conduct research relating to deponents from district court case for EB and KH in support of summary judgment briefing (0.8); attention to detailed tracking of deadlines set by S.D. Texas Bankruptcy Court (0.2).	1.00	350.00	350.00
7/10/25	EB	Continue working on summary judgment motion (2.0); and estimation motion (0.3); correspond with prospective client witness regarding status (0.1).	2.40	1250.00	3,000.00
7/11/25	EB	Correspond with ASA regarding documents and potential exhibits for summary judgment motion.	.20	1250.00	250.00
7/11/25	NC	Attention to detailed tracking of recent filings and hearing materials.	.50	350.00	175.00
7/11/25	ASA	Prepare materials for EB in support of drafting of motion for summary judgment and motion for estimation.	3.20	350.00	1,120.00
7/13/25	EB	Continue working on summary judgment motion.	1.20	1250.00	1,500.00
7/15/25	EB	Work on summary judgment motion.	2.00	1250.00	2,500.00

Invoice # 14650 August 7, 2025

Date	Tkpr	Description	Hours	Rate	Amount
7/15/25	NC	Assist EB with preparation of additional materials for summary judgmetn motion.	.70	350.00	245.00
7/16/25	EB	Prepare for (0.5) and attend (0.8) teleconference with clients regarding upcoming briefing and next steps in support of hearing preparation; correspond with [redacted] experts regarding upcoming hearing (0.2); continue working on summary judgment briefing (1.1).	2.60	1250.00	3,250.00
7/16/25	NC	Continue assisting EB with additional materials in support of summary judgment motion and hearing.	.90	350.00	315.00
7/16/25	PB	Assess and assist EB with action items in support of hearing preparation.	.20	850.00	170.00
7/17/25	EB	Correspond with [redacted] expert regarding upcoming hearing.	.10	1250.00	125.00
7/18/25	EB	Prepare (0.2) for and attend (0.5) teleconference with [redacted] expert; update client and co-counsel regarding same (0.1); continue working on summary judgment motion and hearing preparation (1.5).	2.30	1250.00	2,875.00
7/20/25	EB	Review and respond to correspondence from co-counsel and client regarding expert.	.10	1250.00	125.00
7/21/25	EB	Confer with KH regarding status and action items in support of summary judgment motion, Rule 11 motion, and hearing preparation including expert retention (0.3); correspond with [redacted] expert regarding same (0.2); continue working on summary judgment brief (4.0).	4.50	1250.00	5,625.00
7/21/25	KJH	Teleconference with EB regarding brief in support of summary judgment motion in bankruptcy court.	.30	1100.00	330.00
7/21/25	NC	Assist EB and ASA with upcoming filing.	.40	350.00	140.00
7/21/25	ASA	Assist EB (2.4) and KH (0.4) with drafting of portions and collection and analysis of material including district court briefing and expet reports in support of summary judgment motion.	2.80	350.00	980.00

Invoice # 14650 August 7, 2025

Date	Tkpr	Description	Hours	Rate	Amount
7/22/25	EB	Work on declaration in support of summary judgment motion (0.6); continue drafting brief in support of same (4.9); correspond with KH, PB, ASA, and NC regarding action items in support of same (0.2); attend teleconference with KH, ASA, and NC regarding same (0.4).	6.10	1250.00	7,625.00
7/22/25	KJH	Teleconference with EB, ASA, and NC regarding preparation of motion for summary judgment in bankruptcy court.	.40	1100.00	440.00
7/22/25	NC	Attend teleconference with EB, KH, and ASA regarding action items in support of preparation of motion for summary judgment in bankruptcy court.	.40	350.00	140.00
7/22/25	ASA	Teleconference with EB, KH, and NC regarding preparation of motion for summary judgment in bankruptcy court (0.4); review initial draft of motion for summary judgment and prepare additional exhibits requested by EB (1.6).	2.00	350.00	700.00
7/23/25	EB	Continue revising summary judgment motion (1.5); correspond with KH, PB, ASA, and NC regarding further revisions to same (0.2).	1.70	1250.00	2,125.00
7/23/25	KJH	Review and revise draft motion for summary judgment and confer and correspond with EB regarding same.	9.20	1100.00	10,120.00
7/23/25	NC	Compile and qc supporting documents for Brannen Declaration in support of summary judgment motion.	2.80	350.00	980.00
7/23/25	PB	Draft portions of motion for summary judgment in bankruptcy proceeding (3.8); review correspondence from EB regarding same (0.2).	4.00	850.00	3,400.00
7/23/25	ASA	Assist PB with further drafting and revisions to summary judgment motion.	1.10	350.00	385.00
7/24/25	EB	Review Midas subpoenas to Chase and Cameron Blackmon and correspond with K. Halpern, P. Tomasco, and clients regarding same (0.3); further revise summary judgment motion (0.6).	.90	1250.00	1,125.00
7/24/25	KJH	Review Midas subpoenas to Chase and Cameron Blackmon and correspond with E. Brannen, P. Tomasco, [redacted], and [redacted] regarding same (0.3); further revise motion for summary judgment (4.5).	4.80	1100.00	5,280.00

Invoice # 14650 August 7, 2025

Date	Tkpr	Description	Hours	Rate	Amount
7/24/25	NC	Continue compiling and reviewing documents for Brannen declaration.	1.10	350.00	385.00
7/24/25	PB	Draft motion for summary judgment on Midas's bankruptcy claims.	1.30	850.00	1,105.00
7/24/25	ASA	Draft and revise declaration in support of summary judgment motion as instructed by EB.	3.10	350.00	1,085.00
7/25/25	EB	Correspond with KH, PB, ASA, and NC regarding revisions to and next steps in support of summary judgment motion and supporting documents (0.2); review correspondence from KH and R. Harrington regarding estimation motion (0.1).	.30	1250.00	375.00
7/25/25	KJH	Review and revise draft motion to estimate and correspond with R. Harrington, EB and PB regarding same (0.8); correspond with EB, PB, AA, R. Harrington and P. Tomasco regarding revisions to draft motion for summary judgment (0.4).	1.20	1100.00	1,320.00
7/25/25	NC	Continue revising supporting declaration for summary judgment motion.	.30	350.00	105.00
7/25/25	ASA	Assist KH with further revisions to draft summary judgment motion (4.1); compile additional District Court documents in preparation for use as exhibits (1.5).	5.60	350.00	1,960.00
7/25/25	MV	Correspond with PB regarding Relativity vendor and document status.	.10	425.00	42.50
7/26/25	PB	Revise draft motion for summary judgment on Midas bankruptcy claims for patent infringement.	1.00	850.00	850.00
7/27/25	KJH	Further revise motion for summary judgment of noninfringement.	1.50	1100.00	1,650.00
7/28/25	EB	Continue working on summary judgment motion and supporting documents (3.7); correspond with PB regarding additional research in support of damages section of same (0.2); review and comment on estimation motion (1.9); advise KH, PB, ASA, and NC regarding next steps in support of same and supporting Brannen declaration and documents (0.4).	6.20	1250.00	7,750.00
7/28/25	KJH	Correspond with EB and ASA regarding revisions to summary judgment motion.	.20	1100.00	220.00

Invoice # 14650 August 7, 2025

Date	Tkpr	Description	Hours	Rate	Amount
7/28/25	NC	Continue assisting attorneys with further revisions to summary judgment motion and supporting documents including review of previously submitted jury instructions as requested by EB.	2.30	350.00	805.00
7/28/25	PB	Continue revising draft motion for summary judgment on Midas patent claims for bankruptcy court.	2.90	850.00	2,465.00
7/28/25	ASA	Continue assisting attorneys with further revisions to summary judgment motion and supporting declaration.	4.30	350.00	1,505.00
7/29/25	EB	Review and further revise summary judgment motion (2.3); review and revise supporting Brannen declaration (0.5); communicate with R. Harrington, KH, PB, ASA, and NC regarding next steps in support of same including preparation of proposed order, confirmation of applicable procedures, final review and revisions, and redactions from brief (0.4); review revised estimation motion and correspond with R. Harrington regarding further revisions to same (0.2); analyze next steps regarding Midas subpoenas in GRC case and correspond with client and co-counsel regarding same (0.2).	3.60	1250.00	4,500.00
7/29/25	NC	Assist ASA with legal cite checking of summary judgment motion (3.9); prepare and revise proposed order in support of same as directed by EB (0.3).	4.20	350.00	1,470.00
7/29/25	PB	Revise, finalize, and oversee filing of motion for summary judgment on Midas bankruptcy claims regarding patent infringement.	2.10	850.00	1,785.00
7/29/25	ASA	Assist PB with final revisions to, and cite checking and compilation of summary judgment and voluminous supporting materials (10.0); correspond and coordinate with R. Harrington and B. Howell regarding finalization and filing of same (0.5).	10.50	350.00	3,675.00
7/30/25	EB	Correspond with PB, ASA, and NC regarding high priority action items including compilation of recent filings for [redacted] expert and hearing preparation (0.5); attend teleconference with C. Underwood regarding upcoming hearing and Midas subpoenas (0.1); review and respond to client correspondence regarding service of subpoena and analyze next steps to oppose and potentially quash same (0.3); prepare for hearing (1.0).	1.90	1250.00	2,375.00

Invoice # 14650 August 7, 2025

Date	Tkpr	Description	Hours	Rate	Amount
7/30/25	ASA	Compile materials for [redacted] expert as requested by EB (2.7); correspond with B. Howell regarding proof of service of sealed documents (0.3); begin assembling materials for EB for use at upcoming August 22 hearing (0.6).	3.60	350.00	1,260.00
7/31/25	EB	Correspond with Stris team, clients, and P. Tomasco regarding high priority action items (0.5); attend teleconference with [redacted] expert regarding status and upcoming hearing (0.2); work on sanctions motion (0.3), hearing preparation (0.5), and opposition to Midas subpoena to Chase Blackmon in GRC case (0.6).	2.10	1250.00	2,625.00
7/31/25	KJH	Research and work on drafting sanctions motion.	5.50	1100.00	6,050.00
7/31/25	ASA	Assist KH with requested legal research including regarding Rule 11 and Federal Rule of Bankruptyc Procedure 9011.	1.40	350.00	490.00
7/31/25	MV	Update EB regarding Relativity vendor status and terms with respect to documents potentially needed for upcoming hearing.	.20	425.00	85.00
		TOTAL PROFESSIONAL SERVICES			**$ 147,572.50**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	63.70	1,250.00	79,625.00
Tillman Breckenridge	TB	Partner	3.10	1,200.00	3,720.00
Ken Halpern	KJH	Partner	31.60	1,100.00	34,760.00
Peter Brody	PB	Associate	11.50	850.00	9,775.00
Monica Viramontes	MV	Sr Paralegal	.30	425.00	127.50
Andrew Atsalis	ASA	Fellow	42.30	350.00	14,805.00
Nicholas Capalbo	NC	Fellow	13.60	350.00	4,760.00
Total			**166.10**		**$ 147,572.50**

Invoice # 14650 August 7, 2025

EXPENSES ADVANCED

Date	Task	Description	Amount
6/30/25		JND Discovery Invoice for June 2025.	3,765.00
7/07/25		EB lodging for hearing in Houston.	946.81
7/08/25		EB transportation for hearing in Houston.	42.43
7/09/25		EB transportation for hearing in Houston.	43.34
7/11/25		Document printing for hearing.	47.04
		TOTAL EXPENSES ADVANCED	**$ 4,844.62**
		TOTAL THIS INVOICE	**$ 152,417.12**

Stris & Maher LLP

Invoice # 14650 August 7, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14614	7/16/25	83,677.36	67,905.37	15,771.99

Previous Balance	$ 15,771.99
Balance Due This Invoice	$ 152,417.12
TOTAL BALANCE DUE	**$ 168,189.11**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 15,771.99	$ .00	$ .00	$ .00	$ .00	$ 15,771.99

Stris

August 7, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14638
Client # 00346
Matter # 004

INVOICE SUMMARY

For professional services rendered through July 31, 2025

RE: Whinstone Litigation

Total Professional Services	$ 2,485.00
Total Expenses Advanced	$ 542.41
TOTAL THIS INVOICE	**$ 3,027.41**
Previous Balance	$ 26,798.50
TOTAL BALANCE DUE	**$ 29,825.91**

Trust Funds Remaining on Account $ 115,369.59

Electronic Invoice

Stris & Maher LLP

Invoice # 14638 August 7, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
7/01/25	MV	Continue working on final client data export.	5.00	425.00	2,125.00
7/08/25	BA	Review ruling on motion to update LCK retention application and attend to final action items including client update.	.30	1200.00	360.00
		TOTAL PROFESSIONAL SERVICES			**$ 2,485.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Bridget Asay	BA	Partner	.30	1,200.00	360.00
Monica Viramontes	MV	Sr Paralegal	5.00	425.00	2,125.00
Total			**5.30**		**$ 2,485.00**

EXPENSES ADVANCED

Date	Task	Description	Amount
6/23/25		Vendor fee for hearing document printing.	542.41
		TOTAL EXPENSES ADVANCED	**$ 542.41**
		TOTAL THIS INVOICE	**$ 3,027.41**

Stris & Maher LLP

Invoice # 14638 August 7, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14602	7/16/25	140,480.66	113,682.16	26,798.50
		Previous Balance		$ 26,798.50
		Balance Due This Invoice		$ 3,027.41
		TOTAL BALANCE DUE		**$ 29,825.91**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 26,798.50	$ .00	$ .00	$ .00	$ .00	$ 26,798.50

Stris

August 7, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14651
Client # 00346
Matter # 007

INVOICE SUMMARY

For professional services rendered through July 31, 2025

RE: Retention and Fee Applications

Total Professional Services	$ 5,822.50
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 5,822.50**
Previous Balance	$ 1,445.50
TOTAL BALANCE DUE	**$ 7,268.00**

Electronic Invoice

Stris & Maher LLP

Invoice # 14651 August 7, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
7/01/25	CHH	Assist VO with drafting and preparing third interim fee application and supporting documents.	4.80	350.00	1,680.00
7/08/25	VO	Review and revise CH draft of quarterly fee application.	.70	1025.00	717.50
7/08/25	CHH	Review and analyze docket materials and B. Howell (Quinn) email pertaining to plan status and draft section of third interim fee application regarding same.	.30	350.00	105.00
7/13/25	EB	Begin preparing monthly fee statement.	.80	1250.00	1,000.00
7/15/25	EB	Work on portions of monthly fee statement.	.80	1250.00	1,000.00
7/16/25	EB	Continue preparing portions of monthly fee statement.	.40	1250.00	500.00
7/17/25	VO	Prepare June fee application.	.80	1025.00	820.00
		TOTAL PROFESSIONAL SERVICES			**$ 5,822.50**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	2.00	1,250.00	2,500.00
Victor O'Connell	VO	Partner	1.50	1,025.00	1,537.50
Cynthia Huang	CHH	Fellow	5.10	350.00	1,785.00
Total			**8.60**		**$ 5,822.50**

TOTAL THIS INVOICE **$ 5,822.50**

Stris & Maher LLP

Invoice # 14651 August 7, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14615	7/16/25	7,227.50	5,782.00	1,445.50

Previous Balance	$ 1,445.50
Balance Due This Invoice	$ 5,822.50
TOTAL BALANCE DUE	**$ 7,268.00**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 1,445.50	$ .00	$ .00	$ .00	$ .00	$ 1,445.50

Stris

August 7, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14652
Client # 00346
Matter # 008

INVOICE SUMMARY

For professional services rendered through July 31, 2025

RE: Non-working Travel for Whinstone Dispute

Total Professional Services	$ 10,000.00
50% discount	$ -5,000.00
Net Professional Services	$ 5,000.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 5,000.00**
Previous Balance	$ 664.00
TOTAL BALANCE DUE	**$ 5,664.00**

Electronic Invoice

Stris & Maher LLP

Invoice # 14652 August 7, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
7/07/25	EB	Travel to Houston for hearing on objection to Midas claim.	2.20	1250.00	2,750.00
7/09/25	EB	Return travel from Houston hearing.	5.80	1250.00	7,250.00

TOTAL PROFESSIONAL SERVICES	**$ 10,000.00**
50% discount	$ -5,000.00
NET PROFESSIONAL SERVICES	**$ 5,000.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	8.00	1,250.00	10,000.00
Total			**8.00**		**$ 10,000.00**

TOTAL THIS INVOICE **$ 5,000.00**

Stris & Maher LLP

Invoice # 14652 August 7, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14630	7/16/25	3,320.00	2,656.00	664.00

Previous Balance	$ 664.00
Balance Due This Invoice	$ 5,000.00
TOTAL BALANCE DUE	**$ 5,664.00**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ 664.00	$ .00	$ .00	$ .00	$ .00	$ 664.00

IN THE UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

In re:	§	Chapter 11
	§	
RHODIUM ENCORE LLC, *et al.*,[1]	§	Case No. 24-90448 (ARP)
	§	
Debtors.	§	
	§	(Jointly Administered)
	§	

STRIS MAHER LLP'S T ELFTH MONTHLY FEE STATEMENT
FOR THE PERIOD AUGUST 1, 2025, THROUGH AUGUST 1, 2025

Stris & Maher LLP ("Stris & Maher") submits, pursuant to the Order Granting the Motion of the Debtors to Establish Procedures for Interim Compensation and Reimbursement of Expenses for Professionals (the "Interim Compensation Order") (ECF No. 264) entered on October 14, 2024, this monthly fee statement for the payment of interim compensation rendered and reimbursement of expenses incurred during the period August 1, 2025, through August 31, 2025 (the "Monthly Fee Statement").

Stris & Maher seeks payment of interim compensation in the total amount of $188,408.00 (80 of the services rendered), plus $1,258.81 (100 of the interim expenses incurred). *ee* Interim Compensation Order at 1(a). Summaries of the fees and expenses are attached as Exhibits 1, 2, and 3. Invoices reflecting detailed time entries are attached hereto as Exhibit 4.

[1] Debtors in these chapter 11 cases and the last four digits of their corporate identification numbers are as follows: Rhodium Encore LLC (3974), Jordan HPC LLC (3683), Rhodium JV LLC (5323), Rhodium 2.0 LLC (1013), Rhodium 10MW LLC (4142), Rhodium 30MW LLC (0263), Jordan HPC Sub LLC (0463), Rhodium 2.0 Sub LLC (5319), Rhodium 10MW Sub LLC (3827), Rhodium 30MW Sub LLC (4386), Rhodium Encore Sub LLC (1064), Rhodium Enterprises, Inc. (6290), Rhodium Industries LLC (4771), Rhodium Ready Ventures LLC (8618), Rhodium Renewables LLC (0748), Rhodium Renewables Sub LLC (9511), Rhodium Shared Services LLC (5868), and Rhodium Technologies LLC (3973). The mailing and service address of Debtors in these chapter 11 cases is 2617 Bissonnet Street, Suite 234, Houston, TX 77005.

Pursuant to the Interim Compensation Order, any party objecting to the payment of interim compensation and reimbursement of expenses shall serve within 14 days after delivery of the Monthly Fee Statement a written notice, via email, upon Stris & Maher and each of the other Fee Notice Parties (as listed below) (the "Written Notice"). The Written Notice shall set forth with reasonable detail the nature of the objection and the amount at issue. If the parties are unable to reach a resolution of the objection within 14 calendar days, the objecting party shall file its objection (the "Objection") with this Court within 3 business days and serve such Objection on Stris & Maher and each of the other Fee Notice Parties. See Interim Compensation Order 1(c).

The Fee Notice Parties as defined in the Interim Compensation Order are:

a. Rhodium Enterprises, Inc., Attn: Charles Topping (chucktopping rhdm.com) and Morgan Soule (morgansoule rhdm.com), 2617 Bissonnet Street, Suite 234, Houston, Texas 77005;

b. Debtors' Bankruptcy Counsel, c/o Quinn Emanuel Urquhart & Sullivan, LLP, Attn: Patricia B. Tomasco (pattytomasco quinnemanuel.com); Razmig Izakelian (razmigizakelian quinnemanuel.com), Alain Jaquet (alainjaquet quinnemanuel.com), and Joanna D. Caytas (joannacaytas quinnemanuel.com), 700 Louisiana, Suite 3900, Houston, Texas 77002;

c. Debtors' Financial Advisor, c/o Province, Attn: Mark Robinson (mrobinson provincefirm.com); David Dunn (ddunn provincefirm.com); Kirsten Lee (klee province.com); and Andrew Popescu (apopescu provincefirm.com), 2360 Corporate Circle, Suite 340, Henderson, Nevada 89074;

d. Galaxy Digital, LLC, in its capacity as DIP Agent, c/o Orrick, Herrington & Sutcliffe LLP, Ryan C. Wooten (rwooten orrick.com), 609 Main, 40th Floor, Houston, Texas 77002, and Robert Trust (rtrust orrick.com), Mark Franke (mfranke orrick.com) and Brandon Batzel (bbatzel orrick.com), 51 West 52nd Street, New ork, New ork 10019;

e. Counsel or proposed counsel to any statutory committee appointed in these Chapter 11 Cases; and

f. United States Trustee, Ha Minh Nguyen (ha.nguyen usdoj.gov), 515 Rusk, Suite 3516, Houston, Texas 77002.

If no objection is timely served pursuant to the Interim Compensation Order, the Debtors shall be authorized and directed to pay Stris & Maher an amount equal to 80 of the fees and 100 of the expenses listed herein, or if an objection is timely served, such percentage of fees and expenses that are not subject to an objection, as stated in the Interim Compensation Order.

Respectfully submitted this 12th day of September, 2025.

QUINN EMANUEL URQUHART & SULLIVAN, LLP

/s/ atricia . Tomasco
Patricia B. Tomasco (SBN 01797600)
Cameron Kelly (SBN 24120936)
Alain Jaquet (*pro hac vice*
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Razmig Izakelian (*pro hac vice*)
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Email: razmigizakelian quinnemanuel.com

-and-

STRIS & MAHER LLP

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Email: cmith stris.com

CERTIFICATE OF SERVICE

I certify that, on September 12, 2025, a true and correct copy of the foregoing Monthly Fee Statement was served through the Court's Electronic Case Filing system of the United States Bankruptcy Court for the Southern District of Texas.

/s/ atricia . Tomasco
Patricia B. Tomasco

EXHIBIT 1

S r L F r F P r d

M r	M r D r	T H r	T F	80 F
001	Midas Green Patent Litigation	257.4	$232,210.00	$185,768.00
007	Retention and Fee Applications	3.0	$3,300.00	$2,640.00
Total		260.4	$235,510.00	$188,408.00

EXHIBIT 2

S r H r B d S r M r A r d P r r

M d Gr P L

Pr	P A	Y r Ad d	H r R	T H r	T C
Elizabeth Brannen	Managing Partner	2001	1,250.00	75.20	$94,000.00
Ken Halpern	Partner	1997	1,100.00	78.30	$86,130.00
Peter Brody	Associate	2016	850.00	20.90	$17,765.00
Tanya Tice	Staff Attorney	1989	525.00	30.00	$15,750.00
Monica Viramontes	Senior Paralegal	N/A	425.00	.20	$85.00
Andrew Atsalis	Litigation Fellow	N/A	350.00	47.30	$16,555.00
Nicholas Capalbo	Litigation Fellow	N/A	350.00	5.50	$1,925.00

R d F A

Pr	P A	Y r Ad d	H r R	T H r	T C
Elizabeth Brannen	Managing Partner	2001	1,250.00	1.90	$2,375.00
Victor O'Connell	Partner	2012	1,025.00	.80	$820.00
Cynthia Huang	Litigation Fellow	N/A	350.00	.30	$105.00

EXHIBIT

S r E r F P r d

M d Gr P L

E	A
Travel	$557.00
Printing services	$701.81
Total	**1,258.81**

EXHIBIT 4

Stris

September 12, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14680
Client # 00346
Matter # 001

INVOICE SUMMARY

For professional services rendered through August 31, 2025

RE: Midas Green Litigation

Total Professional Services	$ 232,210.00
Total Expenses Advanced	$ 1,258.81
TOTAL THIS INVOICE	**$ 233,468.81**
Previous Balance	$ 168,189.11
TOTAL BALANCE DUE	**$ 401,657.92**

Electronic Invoice

Stris & Maher LLP

Invoice # 14680 September 12, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
8/01/25	EB	Prepare for upcoming hearing and initial meeting with [redacted] expert regarding same (2.5); work on sanctions motion (0.4); correspond with client and Stris team regarding Midas subpoena and objections to same (0.1).	3.00	1250.00	3,750.00
8/01/25	KJH	Continue researching and drafting motion for sanctions against Midas, teleconference with E. Brannen regarding same and with A. Atsalis regarding supporting materials needed.	7.10	1100.00	7,810.00
8/01/25	NC	Attention to detailed tracking of deadlines and updating of case management materials in wake of recently served subpoenas.	.40	350.00	140.00
8/01/25	ASA	Prepare and finalize binder materials and correspond with print vendor to assist E. Brannen with preparations for August 22, 2025 hearing regarding motion for summary judgment (1.0); assist attorney K. Halpern format Rule 9011 motion (0.3).	1.00	350.00	350.00
8/02/25	EB	Correspond with K. Halpern and R. Harrington regarding sanctions motion (0.1); begin reviewing and commenting on same (0.6).	.70	1250.00	875.00
8/03/25	EB	Continue working on sanctions motion.	.80	1250.00	1,000.00
8/04/25	EB	Prepare for (0.9) and attend (1.2) initial preparation meeting with [redacted] expert; confer with TT regarding action items in support of hearing on objection to Midas proof of claim and estimation motion (0.2); correspond with K. Halpern and R. Harrington regarding sanctions motion and next steps in support of same (0.2); update client and co-counsel regarding damages expert (0.1); attend teleconference with K. Halpern and P. Brody regarding objections to Midas subpoena in the GRC case and potential motion to quash and sanctions motion (0.3); review client correspondence regarding subpoena (0.1); continue preparing for upcoming hearing on summary judgment motion (1.9).	4.90	1250.00	6,125.00

Stris & Maher LLP

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Date	Tkpr	Description	Hours	Rate	Amount
8/04/25	KJH	Attend teleconference with [redacted] expert [redacted] and E. Brannen regarding preparation for [redacted] testimony at hearing Midas's patent infringement claims (1.2); attend teleconference with E. Brannen and P. Brody regarding response to Midas subpoenas on Cameron and Chase Blackmon (0.3).	1.50	1100.00	1,650.00
8/04/25	NC	Research regarding previously filed subpoena objections; correspond with E. Brannen regarding same.	.30	350.00	105.00
8/04/25	PB	Teleconference with EB regarding response to Blackmon subpoenas	.30	850.00	255.00
8/04/25	TT	Prepare analysis and materials to assist E. Brannen with upcoming hearing.	6.00	525.00	3,150.00
8/05/25	EB	Correspond with client regarding Midas v. GRC subpoena service and objections (0.1); continue preparing for hearing on motion to estimate and summary judgment on Midas claims (5.0); review and comment on draft Rule 11 letter (0.2); correspond with K. Halpern and R. Harrington regarding revisions to and next step in support of sanctions motion (0.1); correspond with client and damages expert regarding upcoming hearing (0.1).	5.50	1250.00	6,875.00
8/05/25	KJH	Correspond with E. Brannen and R. Harrington (Quinn) regarding revisions to draft motion for sanctions (0.1); review [redacted] expert report on [redacted] and correspond with E. Brannen, A. Atsalis, and P. Brody regarding images to be used for summary judgment hearing (0.3); research and begin drafting motion to quash Midas subpoena (2.4).	2.80	1100.00	3,080.00
8/05/25	PB	Analyze potential exhibits for use at bankruptcy hearing.	.40	850.00	340.00
8/05/25	TT	Continue preparing materials to assist E. Brannen with upcoming hearing scheduled for August 22.	8.00	525.00	4,200.00
8/06/25	EB	Correspond with R. Harrington regarding revisions to and next steps in support of sanctions motion and P. Tomasco regarding remote hearing sealing of proprietary exhibits (0.1); prepare for (1.4) and attend (1.5) preparation meeting for upcoming hearing with clients; begin revising direct examination materials in light of same (1.3); instruct Stris team members regarding action items in support of same (0.5).	4.80	1250.00	6,000.00

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Date	Tkpr	Description	Hours	Rate	Amount
8/06/25	KJH	Review draft motion for sanctions and correspond with R. Harrington and E. Brannen regarding revisions to, and plan for, same (0.3); research and draft motion to quash subpoenas to Chase and Cameron Blackmon (3).	3.30	1100.00	3,630.00
8/06/25	NC	Research regarding previous filings in Bankruptcy Court and corresponding filings in District Court to support hearing preparation.	2.20	350.00	770.00
8/06/25	ASA	Review and analyze expert reports, briefing, exhibits, produced documents, and internal records for specific material, including images of specific components of allegedly infringing device, requested by E. Brannen in preparation for presentation and witness testimony during August 22, 2025 hearing.	3.80	350.00	1,330.00
8/06/25	TT	Prepare materials to assist E. Brannen with upcoming hearing on August 22 (8.0).	8.00	525.00	4,200.00
8/07/25	EB	Work on materials in support of client direct examination at upcoming hearing (1.7); continue preparing for hearing (2.0); review correspondence from R. Harrington regarding revised sanctions motion (0.1); correspond with B. Harrington and Stris team regarding exhibit and witness lists and sealing of exhibits (0.1).	3.90	1250.00	4,875.00
8/07/25	NC	Update E. Brannen regarding research into previous filings in Bankruptcy Court and corresponding filings in District Court to support hearing preparation.	.70	350.00	245.00
8/07/25	PB	Draft response to subpoena to Chase Blackmon in Midas Green patent litigation.	.70	850.00	595.00
8/07/25	TT	Continue preparing materials to assist E. Brannen with upcoming hearing scheduled for August 22.	8.00	525.00	4,200.00
8/07/25	MV	Review correspondence from attorney E. Brannen related to contract with vendor, review previous correspondence with vendor and upload contract to iManage.	.20	425.00	85.00

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Date	Tkpr	Description	Hours	Rate	Amount
8/08/25	EB	Review correspondence from counsel for Midas regarding subpoenas to Chase and Cameron Blackmon in GRC case and correspond with K. Halpern, P. Brody, A. Atsalis, and N. Capalbo regarding next steps in support of response, opposition, and potential motion to quash same (0.2); continue preparing for upcoming hearing including revising client materials, corresponding with client, and preparing expert materials (6.1).	6.30	1250.00	7,875.00
8/08/25	PB	Revise draft responses and objections to Midas Green subpoena to Chase Blackmon.	.50	850.00	425.00
8/08/25	ASA	Assist P. Brody with drafting and formatting of objections to subpoenas to Cameron Blackmon and Chase Blackmon requesting documents from Midas Green Technologies v. Rhodium case and documents related to patent asserted by Midas.	1.50	350.00	525.00
8/10/25	EB	Correspond with P. Brody regarding revisions to objections to Midas subpoenas to Chase and Cameron Blackmon in GRC case.	.50	1250.00	625.00
8/11/25	EB	Review and work on response to correspondence from counsel for Midas proposing amendments to proofs of claim in consultation with K. Halpern, P. Brody, P. Tomasco, and R. Harrington (0.7); communicate with K. Halpern and P. Brody regarding opposition to Chase and Cameron Blackmon subpoenas and motion to quash same (0.5); prepare for (1.5) and attend (1.8) further meeting with [redacted] expert to prepare for upcoming hearing.	4.50	1250.00	5,625.00
8/11/25	KJH	Prepare for (0.2) and attend (1.8) teleconference with E. Brannen and expert to prepare for 8/22 hearing on Midas's proof of claim; attend teleconference with E. Brannen and P. Brody regarding Midas subpoenas to Blackmons (0.5); research facts and law and draft motion to quash Midas subpoenas and correspond with A. Atsalis regarding record research needed for same (8.2).	10.70	1100.00	11,770.00
8/11/25	NC	Assist A. Atsalis with objections to Blackmon subpoena.	.10	350.00	35.00

Invoice # 14680 September 12, 2025

Date	Tkpr	Description	Hours	Rate	Amount
8/11/25	PB	Revise response to subpoena to Chase Blackmon and prepare response to subpoena to Cameron Blackmon (0.8); communicate with E. Brannen and K. Halpern regarding same (0.6).	1.40	850.00	1,190.00
8/11/25	ASA	Assist K. Halpern with drafting of motion to quash by analyzing discovery requests, deposition transcripts, and deposition notices served in Midas Green v. Rhodium matter to identify duplicative content in subpoenas served on Chase Blackmon and Cameron Blackmon (2.8); assist P. Brody and E. Brannen with preparation of objections to subpoenas and motion to quash by conducting legal research into relevant granted motions by Judge Gilliland and in the Western District of Texas (3.3).	6.10	350.00	2,135.00
8/12/25	EB	Work with [redacted] expert, client, and co-counsel to respond to rescheduling correspondence from clerk (0.4); continue preparing for same (1.3); correspond with counsel for Midas in consultation with co-counsel and client regarding basis for objection to proposed amendments (0.5); revise objections to Midas subpoena to Chase and Cameron Blackmon in GRC case, serve, and correspond with counsel for Midas regarding same (1.4); review draft motion to quash (0.2); correspond with K. Halpern and A. Atsalis regarding initial revisions to same (0.1).	3.90	1250.00	4,875.00
8/12/25	KJH	Complete draft motion to quash subpoenas to Chase and Cameron Blackmon and correspond with E. Brannen and A. Atsalis regarding same.	4.80	1100.00	5,280.00
8/12/25	NC	Implement further K. Halpern edits to motion to quash subpoena; correspond with K. Halpern regarding same.	.80	350.00	280.00
8/12/25	ASA	Work on motion to quash subpoena to Chase Blackmon and Cameron Blackmon at request of K. Halpern (0.4); assist E. Brannen and P. Brody with finalization of objections and responses to subpoenas served on Cameron Blackmon and Chase Blackmon by Midas Green (1.8).	2.20	350.00	770.00

Invoice # 14680 September 12, 2025

Date	Tkpr	Description	Hours	Rate	Amount
8/13/25	EB	Continue working on motion to quash subpoenas to Cameron and Chase Blackmon in GRC case (1.1); review and analyze Midas opposition briefs to estimation and summary judgment motions (1.0); correspond with Stris team and R. Harrington regarding research and action items in support of replies to same (0.2); begin working on reply in support of summary judgment motion (0.8); attend meet and confer teleconference with K. Halpern and opposing counsel H. Pogorzelski regarding subpoenas to Cameron and Chase Blackmon in GRC case (0.5); attention to resulting action items including client update and response to correspondence from opposing counsel (0.3); attend teleconference with K. Halpern, P. Brody, R. Harrington, and A. Atsalis regarding Midas oppositions and reply briefs (0.7); continue preparing for hearing on same including correspondence with clients and [redacted] and [redacted] experts (0.6).	5.20	1250.00	6,500.00
8/13/25	KJH	Review Midas opposition to motion for summary judgment (0.5); teleconference with E. Brannen, P. Brody and R. Harrington regarding Midas opposition to motion for summary judgment and planning for reply brief (0.7); revise draft motion to quash and research law and confer with E. Brannen and A. Atsalis regarding same (2.2); attend meet and confer teleconference with E. Brannen and H. Pogorzelski regarding meet and confer on subpoenas to Blackmon brothers (0.5); draft patent section of reply brief in support of motion for summary judgment (3.2).	7.10	1100.00	7,810.00
8/13/25	NC	No Charge - Travel research regarding flights and hotel rooms for upcoming hearing; correspond with E. Brannen and expert regarding same	1.20	350.00	N/C
8/13/25	PB	Communicate with E. Brannen regarding action items (0.2); revise draft motion to quash (1.7); teleconference with E. Brannen, K. Halpern, A. Atsalis, and R. Harrington [Quinn] regarding replies in support of motions (0.7).	2.60	850.00	2,210.00

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Date	Tkpr	Description	Hours	Rate	Amount
8/13/25	ASA	Assist K. Halpern and E. Brannen with finalization of motion to quash by insert citations to supporting exhibits (0.8); proofread and cite check motion to quash (1.6); draft declaration in support of motion to quash at request of E. Brannen (1.2); prepare documents for use as exhibits in support of motion to quash (1.5); teleconference with E. Brannen, K. Halpern, P. Brody and R. Harrington regarding Midas opposition to motion for summary judgment and planning for reply brief (0.7); organize sealed opposition motions and supporting material filed by Midas Green and circulate with team and client at request of E. Brannen (0.2).	6.00	350.00	2,100.00
8/14/25	EB	Prepare for (0.2) and attend (0.4) client teleconference regarding high priority action items; continue preparing for hearing including revising expert materials and assessing Midas opposition points to refute with key evidence and testimony (3.2).	3.80	1250.00	4,750.00
8/14/25	KJH	Draft patent section of reply brief in support of motion for summary judgment.	6.30	1100.00	6,930.00
8/14/25	NC	No Charge - Attend to hotel and flight bookings for clients and expert.	3.40	350.00	N/C
8/14/25	PB	Draft reply in support of motion for summary judgment.	5.80	850.00	4,930.00
8/14/25	ASA	Analyze Midas Green's opposition to motion for summary judgment in order to assist with drafting of reply (0.6); file correspondence regarding narrowing of subpoenas to assist E. Brannen, P. Brody, and K. Halpern's with edits to motion to quash (0.2); calendar updated hearing date of September 23, 2025 (0.1).	.90	350.00	315.00
8/15/25	EB	Correspond with [redacted] expert and K. Halpern regarding hearing preparation.	.10	1250.00	125.00
8/15/25	KJH	Draft patent section of reply in support of motion for summary judgment and research law in support of same.	7.70	1100.00	8,470.00
8/15/25	NC	Compile and track recent filings for attorney analysis.	.40	350.00	140.00
8/15/25	PB	Revise portions of draft reply in support of motion for summary judgment.	2.00	850.00	1,700.00
8/16/25	EB	Review, analyze, and begin revising reply in support of summary judgment motion.	1.10	1250.00	1,375.00

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Date	Tkpr	Description	Hours	Rate	Amount
8/16/25	KJH	Complete initial draft of patent law section of reply in support of motion for summary judgment and research law in support of same.	5.20	1100.00	5,720.00
8/17/25	EB	Revise summary judgment reply (2.3); correspond with K. Halpern, P. Brody, and A. Atsalis regarding next steps in support of same (0.1).	2.40	1250.00	3,000.00
8/17/25	PB	Revise draft reply in support of motion for summary judgment.	.90	850.00	765.00
8/18/25	EB	Continue working on reply in support of summary judgment motion (4.7); advise K. Halpern regarding further revisions to same (0.1).	4.80	1250.00	6,000.00
8/18/25	KJH	Conduct additional research in support of and further revise reply brief in support of summary judgment motion including to implement E. Brannen comments.	6.90	1100.00	7,590.00
8/18/25	PB	Revise draft reply in support of motion for summary judgment.	1.20	850.00	1,020.00
8/18/25	ASA	Assist E. Brannen, K. Halpern, and P. Brody with edits to Debtors' Reply in Support of Motion for Summary Judgment by revising citations, formatting and phrasing of draft pursuant to attorney requests.	3.20	350.00	1,120.00
8/19/25	EB	Continue revising reply in support of summary judgment motion including to incorporate comments from clients and co-counsel (3.3); review and propose revisions to draft estimation reply (0.9); correspond with K. Halpern and R. Harrington regarding further revisions to same (0.1).	4.30	1250.00	5,375.00
8/19/25	KJH	Research case law and propose revisions to draft reply in support of motion to estimate (1.0); review and revise draft reply in support of summary judgment (1.4).	2.40	1100.00	2,640.00
8/19/25	ASA	Cite-check of and revise Debtors' Reply in Support of Motion for Summary Judgment at request of E. Brannen (4.8); assist with iterative edits and finalization of same and supporting documents (2.8).	7.60	350.00	2,660.00

Invoice # 14680 September 12, 2025

Date	Tkpr	Description	Hours	Rate	Amount
8/20/25	EB	Attention to potential motion to quash subpoenas to Cameron and Chase Blackmon regarding Midas subpoena in GRC litigation given extended deadline and failure to narrow subpoena (0.4); communicate with K. Halpern and P. Brody regarding same (0.1).	.50	1250.00	625.00
8/21/25	EB	Correspond with (0.2) and attend teleconference with (0.5) K. Halpern, clients, and co-counsel regarding Midas position with respect to subpoenas to Cameron and Chase Blackmon; advise K. Halpern, P. Brody, and A. Atsalis regarding revisions to motion to quash (0.3); further revise same and supporting documents (0.9); continue preparing [redacted] expert materials in advance of upcoming teleconference to prepare for hearing (2.0).	3.90	1250.00	4,875.00
8/21/25	KJH	Attend teleconference with E. Brannen, [redacted] and [redacted] regarding response to Midas meet-and-confer email relating to subpoenas to Blackmons (0.5); research record and correspond with E. Brannen, P. Brody, and A. Atsalis regarding prior testimony of Chase Blackmon on GRC-related topics (0.5); review, comment on, research law for, and propose edits to draft motion to quash subpoena (3.3); review key points for [redacted] testimony and '457 patent to extract helpful material (1).	5.30	1100.00	5,830.00
8/21/25	NC	Correspond with E. Brannen, [redacted], Patty Tomasco, and Rachel Harrington regarding upcoming meeting.	.20	350.00	70.00
8/21/25	PB	Revise draft motion to quash including to implement comments from E. Brannen.	2.80	850.00	2,380.00
8/21/25	ASA	Assist E. Brannen, K. Halpern, and P. Brody with finalization of motion to quash subpoenas by editing, proofreading, inserting citations, and cite-checking iterative changes to draft (3.8); excerpt and highlight case materials for use as exhibits pursuant to local rules (1.2); draft revised declaration of [redacted] to ensure accurate listing of Rhodium entities and additional exhibits (1.1); coordinate with E. Brannen and implement final edits prior to filing (0.6); file motion to quash and supporting exhibits via ECF (0.5).	6.60	350.00	2,310.00

Invoice # 14680 September 12, 2025

Date	Tkpr	Description	Hours	Rate	Amount
8/22/25	EB	Prepare for upcoming teleconference with [redacted] expert (1.0); correspond with expert, K. Halpern, P. Brody, and A. Atsalis regarding same and related action items (0.1); attend teleconference with K. Halpern, P. Brody, and A. Atsalis regarding same (0.7).	1.80	1250.00	2,250.00
8/22/25	PB	Attend portion of teleconference with E. Brannen, K. Halpern, and A. Atsalis regarding hearing preparation action items.	.50	850.00	425.00
8/22/25	ASA	Attend meeting with E. Brannen, K. Halpern, and P. Brody regarding preparation and support for upcoming [redacted] expert meeting (0.7); organize case management and detailed tracking materials to reflect recent case activity and ensure attorney organization in advance of upcoming hearing (0.1).	.80	350.00	280.00
8/23/25	KJH	Review asserted '457 patent and propose additions to expert hearing testimony.	1.00	1100.00	1,100.00
8/23/25	KJH	Attend teleconference with E. Brannen, P. Brody and A. Atsalis regarding planning for Rhodium summary judgment hearing and outstanding tasks (0.5); draft correspondence with Midas counsel H. Pogorzelski regarding motion to quash subpoena (0.9).	1.40	1100.00	1,540.00
8/25/25	EB	Continue preparing for hearing including upcoming preparation meeting with [redacted] expert (1.0); correspond with K. Halpern, P. Brody, and A. Atsalis regarding updates to materials in support of same (0.2).	1.20	1250.00	1,500.00
8/25/25	PB	Revise draft engagement letter for damages expert J. Saitz.	.50	850.00	425.00
8/26/25	EB	Continue preparing for (1.0) and attend (1.7) hearing preparation meeting with K. Halpern, P. Brody, A. Atsalis, and [redacted] expert.	2.70	1250.00	3,375.00
8/26/25	KJH	Attend teleconference with [redacted] expert [redacted], E. Brannen, P. Brody, and A. Atsalis regarding preparation for summary judgment and evidentiary hearing.	1.70	1100.00	1,870.00
8/26/25	ASA	Attend hearing preparation meeting with E. Brannen, K. Halpern, P. Brody, A. Atsalis, and [redacted] expert (1.7); prepare presentation and assist with edits to motion for summary judgment presentation at request of E. Brannen (2.2).	3.90	350.00	1,365.00

Invoice # 14680 September 12, 2025

Date	Tkpr	Description	Hours	Rate	Amount
8/27/25	EB	Review and correspond with clients and co-counsel regarding narrowed Midas GRC subpoena proposal (0.1); attend teleconference with P. Brody and clients to discuss response to same (0.3); correspond with (0.1) and attend meet and confer teleconference with (0.5) K. Halpern and counsel to Midas in GRC case concerning same (0.5); attention to resulting action items including client update and correspondence with opposing counsel to confirm extension (0.1); prepare for next meeting with [redacted] expert (0.5).	2.00	1250.00	2,500.00
8/27/25	KJH	Attend teleconference with E. Brannen and Midas counsel H. Pogorzelski to meet and confer about Midas subpoenas to Chase and Cameron Blackmon (0.5); review Pokharna infringement report for doctrine-of-equivalents arguments (1.1).	1.60	1100.00	1,760.00
8/27/25	PB	Attend teleconference with clients and E. Brannen regarding response to Midas subpoena in GRC litigation.	.30	850.00	255.00
8/28/25	EB	Correspond with [redacted] expert (0.1); attend teleconference with K. Halpern, P. Brody, and A. Atsalis to revise materials for [redacted] expert direct examination (1.0).	1.10	1250.00	1,375.00
8/28/25	KJH	Attend teleconference with E. Brannen, P. Brody and A. Atsalis regarding [redacted] direct examination hearing [redacted] (1); correspond with A. Atsalis regarding scheduling (0.1); confer with A. Atsalis regarding edits to [redacted] (0.4).	1.50	1100.00	1,650.00
8/28/25	PB	Teleconference with E. Brannen, K. Halpern, and A. Atsalis regarding preparation for hearing on motion for summary judgment.	1.00	850.00	850.00
8/28/25	ASA	Attend teleconference with E. Brannen, K. Halpern, and P. Brody regarding [redacted] direct examination hearing [redacted] (1); correspond with K. Halpern regarding scheduling (0.1); confer with K. Halpern regarding edits to [redacted] direct exam materials (0.4); edit same as directed by K. Halpern (0.6)..	2.10	350.00	735.00
8/29/25	EB	Review Midas motion to amend claim and related correspondence with co-counsel (0.2); correspond with K. Halpern, P. Brody, and A. Atsalis regarding high priority action items (0.2); continue preparing for hearing on opposition to Midas claim (1.1).	1.50	1250.00	1,875.00

Stris & Maher LLP

Invoice # 14680 September 12, 2025

Date	Tkpr	Description	Hours	Rate	Amount
8/29/25	NC	Work on upcoming hearing materials for E. Brannen.	.40	350.00	140.00
8/29/25	ASA	Assist P. Brody with analysis of District Court Motion to Exclude [redacted] (0.2); assist E. Brannen with analysis of Midas Green's motion for leave to file amended proof of claims (0.3); calculate and perform detailed tracking of deadlines triggered by Midas Green's motion and calendar deadlines related to subpoenas to Cameron and Chase Blackmon (0.2); continue edits to direct examination materials and circulate with E. Brannen, K. Halpern, and P. Brody (0.9).	1.60	350.00	560.00
		TOTAL PROFESSIONAL SERVICES			**$ 232,210.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	75.20	1,250.00	94,000.00
Ken Halpern	KJH	Partner	78.30	1,100.00	86,130.00
Peter Brody	PB	Associate	20.90	850.00	17,765.00
Tanya Tice	TT	Staff Attorney	30.00	525.00	15,750.00
Monica Viramontes	MV	Sr Paralegal	.20	425.00	85.00
Andrew Atsalis	ASA	Fellow	47.30	350.00	16,555.00
Nicholas Capalbo	NC	Fellow	5.50	350.00	1,925.00
Total			**257.40**		**$ 232,210.00**

EXPENSES ADVANCED

Date	Task	Description	Amount
8/12/25		Vendor fee for preparation of briefing binders.	701.81
8/15/25		EB airfare for 09/23 hearing.	557.00
		TOTAL EXPENSES ADVANCED	**$ 1,258.81**
		TOTAL THIS INVOICE	**$ 233,468.81**

Stris & Maher LLP

Invoice # 14680 September 12, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14614	7/16/25	83,677.36	67,905.37	15,771.99
14650	8/07/25	152,417.12	.00	152,417.12

Previous Balance	$ 168,189.11
Balance Due This Invoice	$ 233,468.81
TOTAL BALANCE DUE	**$ 401,657.92**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ .00	$ 168,189.11	$ .00	$ .00	$ .00	$ 168,189.11

Stris

September 12, 2025

Rhodium Enterprises
Charles Topping
General Counsel and Secretary
chucktopping@rhdm.com

Invoice # 14681
Client # 00346
Matter # 007

INVOICE SUMMARY

For professional services rendered through August 31, 2025

RE: Retention and Fee Applications

Total Professional Services	$ 3,300.00
Total Expenses Advanced	$ .00
TOTAL THIS INVOICE	**$ 3,300.00**
Previous Balance	$ 7,268.00
TOTAL BALANCE DUE	**$ 10,568.00**

Electronic Invoice

Invoice # 14681 September 12, 2025

PROFESSIONAL SERVICES

Date	Tkpr	Description	Hours	Rate	Amount
8/05/25	EB	Begin working on portions of monthly fee statement.	.40	1250.00	500.00
8/06/25	EB	Continue working on portions of monthly fee statement.	.60	1250.00	750.00
8/07/25	EB	Continue working on portions of monthly fee statement.	.90	1250.00	1,125.00
8/07/25	NC	Assist E. Brannen in preparation of monthly fee statements.	.30	350.00	105.00
8/19/25	VO	Prepare monthly fee application (0.7); emails with B. Howell and to serve application (0.1).	.80	1025.00	820.00
		TOTAL PROFESSIONAL SERVICES			**$ 3,300.00**

SUMMARY OF PROFESSIONAL SERVICES

Name	Tkpr	Title	Hours	Rate	Total
Elizabeth Brannen	EB	Partner	1.90	1,250.00	2,375.00
Victor O'Connell	VO	Partner	.80	1,025.00	820.00
Nicholas Capalbo	NC	Fellow	.30	350.00	105.00
Total			**3.00**		**$ 3,300.00**

TOTAL THIS INVOICE **$ 3,300.00**

Invoice # 14681 September 12, 2025

OUTSTANDING INVOICES

Invoice	Date	Total	Payments	Balance
14615	7/16/25	7,227.50	5,782.00	1,445.50
14651	8/07/25	5,822.50	.00	5,822.50

Previous Balance	$ 7,268.00
Balance Due This Invoice	$ 3,300.00
TOTAL BALANCE DUE	**$ 10,568.00**

AGED ACCOUNTS RECEIVABLE

Current - 30	31 - 60	61 - 90	91 - 120	Over 120	Total
$ .00	$ 7,268.00	$ .00	$ .00	$ .00	$ 7,268.00

FEES INCURRED BY QUINN EMANUEL REGARDING
THE MIDAS TECHNOLOGY CLAIM OBJECTION

DATE	QE	NARRATIVE	HOURS	HOURLY RATE	AMOUNT
2/5/25	RH	Draft Midas claim objection	3.4	$1,165.00	$3,961.00
2/6/25	RH	Revisions to the Midas claim objection	.9	$1,165.00	$1,048.50
2/6/25	RH	Legal research to support review of district court order in Midas litigation	2.5	$1,165.00	$2,912.50
3/7/25	RH	Revise the Midas claim objection	2.0	$1,165.00	$2,330.00
3/13/25	RH	Proof Midas claim objection and order	.8	$1,165.00	$932.00
4/10/25	RH	Revisions to Midas Green Claim objection (.8); draft motion to seal and order (1.1)	1.9	$1,165.00	$2,213.50
4/14/25	PT	Correspond with E. Brannen and C. Topping regarding filing Midas Green claim objection in light of the district court delay (.2)	.2	$1,945.00	$389.00
4/15/25	PT	Revise and finalize Midas claim objection (.3); coordinate filing of same with R. Harrington to do declaration to support preclusion (.2); follow up with R. Harrington regarding need to seal Midas claim objection (.3)	.8	$1,945.00	$1,556.00
4/15/25	BH	Work with attorneys to finalize the claim objection to the Midas Green proofs of claim (1.8); file the sealed claim objection and the unsealed claim objection (.6) and forward a copy of the sealed claim objection to the attorneys for Midas Green (.1)	2.5	$655.00	$1,637.50
4/15/25	RH	Draft and coordinate Brannen declaration (1.4); review and redact Midas claim objection (1.)	2.4	$1,165.00	$2,796.00
4/17/25	BH	Finalize (.6) and file the amended objection to the Midas Green claims (.3); finalize (.2) and file the Motion to Seal the Midas Green Claim Objection (.3); distribute file-stamped copies to the Client (.1)	1.5	$655.00	$982.50
5/8/25	PT	Review and analyze the Midas response to claim objection (.4) and	.6	$1,945.00	$1,167.00

DATE	QE	NARRATIVE	HOURS	HOURLY RATE	AMOUNT
		emails with E. Brannen regarding same (.2)			
5/28/25	PT	Review and respond to court inquiry regarding scheduling hearing on Midas Green claim objection with E. Brannen (.5); correspond with E. Brannen regarding logistics for claims objection hearing and potential for summary disposal (.2)	.7	$1,945.00	$1,361.50
5/30/25	PT	Conference call with Rachel Harrington, Elizabeth Brannen, Bridget Asay, John Stokes, Collen Smith to discuss strategy for Midas Green claim objection (.8); correspondence with R. Harrington regarding using dispositive motion on Midas Green and Proof claim objections and forward research (.4).	1.2	$1,945.00	$2,334.00
6/5/25	PT	Correspond with E. Brannen regarding Midas Green claim objection (.2)	.2	$1,945.00	$389.00
6/25/25	RH	Draft Midas Green reply (3.1)	3.1	$1,165.00	$3,611.50
6/26/25	RH	Call with co-counsel to discuss the Midas Green claim objection (.3)	.3	$1,165.00	$349.50
7/2/25	RH	Legal research into preclusion doctrines (3.5); call with K. Halpern to discuss claim objection (.5); draft Midas reply (5.8)	9.8	$1,165.00	$11,417.00
7/3/25	PT	Preparation for the hearing on the Midas Green claim objection (1.4)	1.4	$1,945.00	$2,723.00
7/3/25	RH	Draft the Midas reply (5.); identify and draft exhibit list (1.); incorporate revisions to reply (1.5); calls with E. Brannen to discuss reply (.3); draft proposed scheduling order (.6)	8.4	$1,165.00	$9,786.00
7/7/25	RH	Incorporate edits to the Midas Reply and proposed order (1.5); proof and finalize reply (.7); call with E. Brannen to discuss upcoming hearing (.3); legal research to distinguish opposition cases (1.5); create presentation for hearing (6.1).	10.1	$1,165.00	$11,766.50
7/8/25	BH	Prepare hearing notebooks and pleading notebooks for P. Tomasco	2.4	$655.00	$1,572.00

DATE	QE	NARRATIVE	HOURS	HOURLY RATE	AMOUNT
		and R. Harrington (1.1); attend part of the hearing by telephone (.8); finalize (.2) and file the proposed Scheduling Order for Contested Matter re Midas Claim Objection (.3).			
7/8/25	PT	Meeting with E. Brannen and R. Harrington regarding hearing presentation and hearing preparation (2.1); prepare for (.2) and participate in hearing on claim objection re Midas Green (1.); follow up review and revisions to proposed scheduling order (.4).	3.7	$1,945.00	$7,196.50
7/8/25	RH	Legal research into preclusion doctrines (1.1); revise presentation (1.); attend Midas hearing (1.); discuss strategy for Midas claim objection (1.5); draft revised proposed order (.5); legal research into Delaware statute of limitations (1.)	6.1	$1,165.00	$7,106.50
7/18/25	PT	Correspond with E. Brannen regarding retaining expert for Midas Green litigation (.1)	.1	$1,945.00	$194.50
7/24/25	PT	Review subpoena request from Midas Green and correspondence with E. Brannen and C. Topping regarding same and timing compared to hearing on summary judgment motion (.8)	.8	$1,945.00	$1,556.00
7/24/25	RH	Draft Midas Claim estimation motion	4.0	$1,165.00	$4,660.00
7/25/25	RH	Draft Midas estimation motion (5.5); review motion for summary judgment (.6)	6.1	$1,165.00	$7,106.50
7/28/25	PT	Review, revise and suggest additional revisions to motion for summary judgment (1.2); correspondence with E. Brannen regarding additional charges to motion for summary judgment against Midas Green (.7)	1.9	$1,945.00	$3,695.50
7/29/25	RH	Revise and incorporate comments to Midas estimation motion (3.1); draft proposed order (.5); finalize estimation motion (.5); draft motion	5.6	$1,165.00	$6,524.00

DATE	QE	NARRATIVE	HOURS	HOURLY RATE	AMOUNT
		to seal (.5); review and send edits to motion for summary judgment (1.)			
8/5/25	PT	Correspondence with E. Brannen regarding procedures for hearing (.1); review and revise proposed rule 11 letter to Midas Green and additional research regarding 1927 to include in letter (1.3)	1.4	$1,945.00	$2,723.00
8/6/25	PT	Correspond with E. Brannen regarding hearing preparation for Midas claim objection and witness logistics (.2)	.2	$1,945.00	$389.00
8/11/25	PT	Review and suggest response to amended Midas Green claims (.4); correspondence with chambers and E. Brannen regarding rescheduling hearing (.6)	1.0	$1,945.00	$1,945.00
8/12/25	RH	Draft notice of rescheduled hearing regarding Midas Claims	.4	$1,165.00	$466.00
8/12/25	PT	Coordinate reset hearing date with E. Brannen and chambers and correspondence regarding briefing schedule (.9); correspondence with E. Brannen regarding timing for sanctions motion (.2); review and suggest revisions to letter to Midas counsel (.3); coordinate hearing date notice (.1)	1.5	$1,945.00	$2,917.50
8/13/25	RH	Review Midas opposition papers (.5); legal research into related issues (4.4).	4.9	$1,165.00	$5,708.50
8/13/25	BH	Draft Notice of Rescheduled Hearing regarding Midas Green Technology's claims (.3) and file same (.3).	.6	$655.00	$393.00
8/15/25	RH	Legal Research in support of Reply to Midas estimation motion (5.8)	5.8	$1,165.00	$6,757.00
8/19/25	RH	Revisions to Midas estimation reply (4.8); proof reply (.5)	5.3	$1,165.00	$6,174.50
8/19/25	BH	Work with attorneys to finalize (4.1) and file the Reply in Support of Summary Judgment Motion in Support of Amended Omnibus Objection to Claims filed by Midas Green Technologies (.4); serve both J	4.8	$655.00	$3,144.00

DATE	QE	NARRATIVE	HOURS	HOURLY RATE	AMOUNT
		Thomas (.2); distribute same to the Client (.1)			
8/28/25	PT	Review and comment on filing by Midas Green	.3	$1,945.00	$583.50
8/4/25	PT	Review and comment on draft rule 11 letter to Midas Green (.3)	.3	$1,945.00	$583.50
Total			111.9		$137,059.50

US010405457B2

(12) **United States Patent**
Boyd et al.

(10) **Patent No.: US 10,405,457 B2**
(45) **Date of Patent: Sep. 3, 2019**

(54) **APPLIANCE IMMERSION COOLING SYSTEM**

(71) Applicants: **Christopher L. Boyd**, Austin, TX (US); **James P. Koen**, Round Rock, TX (US); **David Christopher Laguna**, Austin, TX (US); **Thomas R. Turner**, Georgetown, TX (US); **Kenneth D. Swinden**, Hutto, TX (US); **Mario Conti Garcia**, Austin, TX (US); **John Charles Tribou**, Austin, TX (US)

(72) Inventors: **Christopher L. Boyd**, Austin, TX (US); **James P. Koen**, Round Rock, TX (US); **David Christopher Laguna**, Austin, TX (US); **Thomas R. Turner**, Georgetown, TX (US); **Kenneth D. Swinden**, Hutto, TX (US); **Mario Conti Garcia**, Austin, TX (US); **John Charles Tribou**, Austin, TX (US)

(73) Assignee: **Midas Green Technologies, LLC**, Austin, TX (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 680 days.

(21) Appl. No.: **14/355,533**

(22) PCT Filed: **Dec. 13, 2013**

(86) PCT No.: **PCT/US2013/075126**

§ 371 (c)(1),
(2) Date: **Apr. 30, 2014**

(87) PCT Pub. No.: **WO2014/109869**

PCT Pub. Date: **Jul. 17, 2014**

(65) **Prior Publication Data**

US 2015/0181762 A1 Jun. 25, 2015

Related U.S. Application Data

(60) Provisional application No. 61/737,200, filed on Dec. 14, 2012, provisional application No. 61/832,211, filed on Jun. 7, 2013.

(51) **Int. Cl.**
H01L 23/44 (2006.01)
H05K 7/20 (2006.01)

(52) **U.S. Cl.**
CPC ***H05K 7/20236*** (2013.01); ***H01L 23/44*** (2013.01); ***H05K 7/20272*** (2013.01)

(58) **Field of Classification Search**
CPC H05K 7/20236; H05K 7/20272; H01L 23/42; H01L 23/44
(Continued)

(56) **References Cited**

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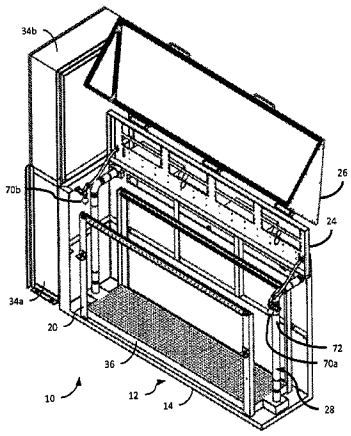
Primary Examiner — Devon Russell
(74) *Attorney, Agent, or Firm* — Jeffrey Van Myers

(57) **ABSTRACT**

A appliance immersion tank system comprising: a generally rectangular tank adapted to immerse in a dielectric fluid a plurality of appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, the long axis of the tank; a primary circulation facility adapted to circulate the dielectric fluid through the tank; a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulating in the primary circulation facility, and to dissipate to the environment the heat so extracted; and a control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank. A plenum, positioned adjacent the bottom of the tank, is adapted to dispense the dielectric fluid substantially uni-
(Continued)



formly upwardly through each appliance slot. A weir, integrated horizontally into a long wall of the tank, is adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot. All active and most passive components of both the primary and secondary fluid circulation facilities, and the control facility are fully redundant, and are adapted automatically to operate in a fail-soft mode.

16 Claims, 7 Drawing Sheets

(58) **Field of Classification Search**
USPC 361/699
See application file for complete search history.

(56) **References Cited**

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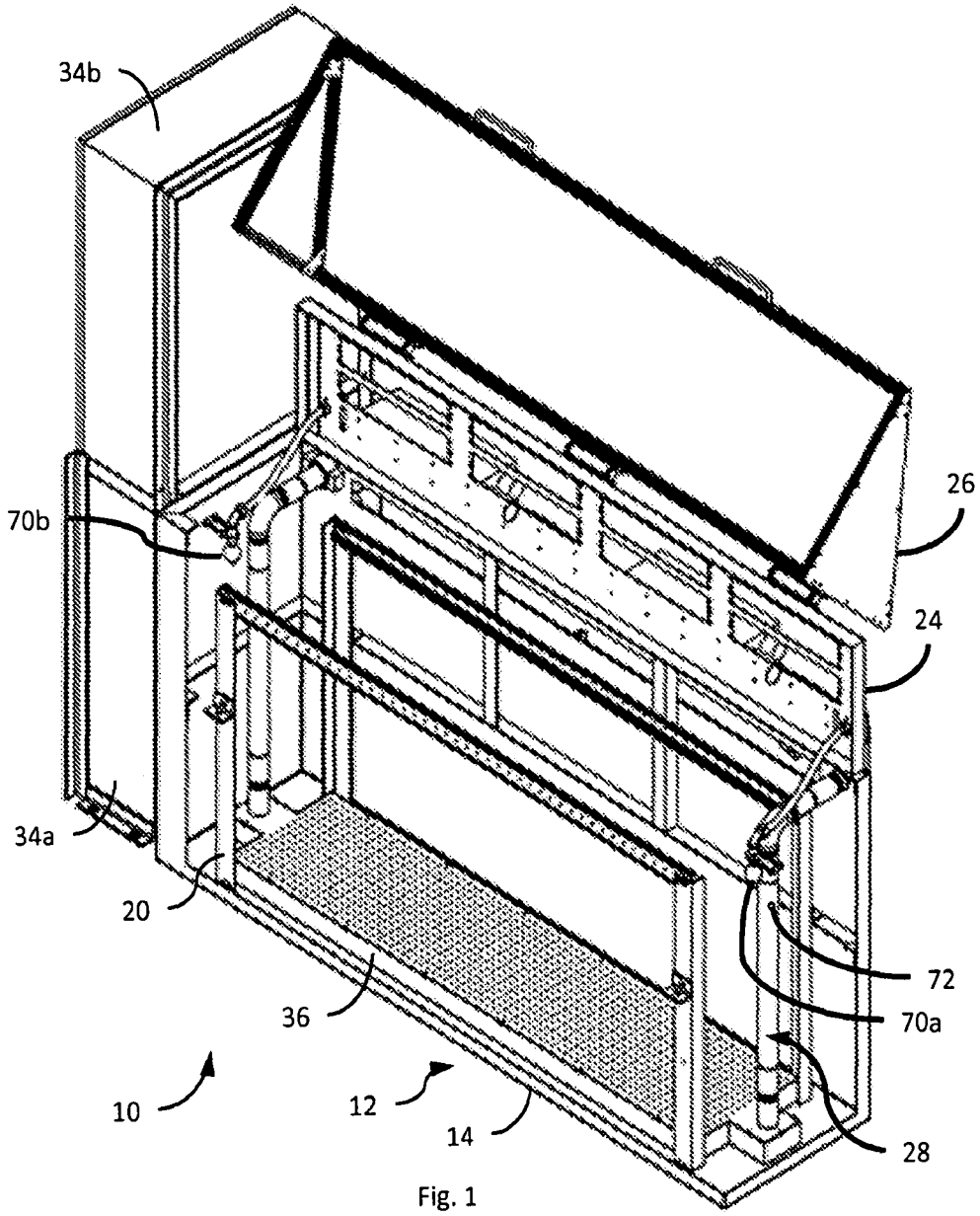


Fig. 1

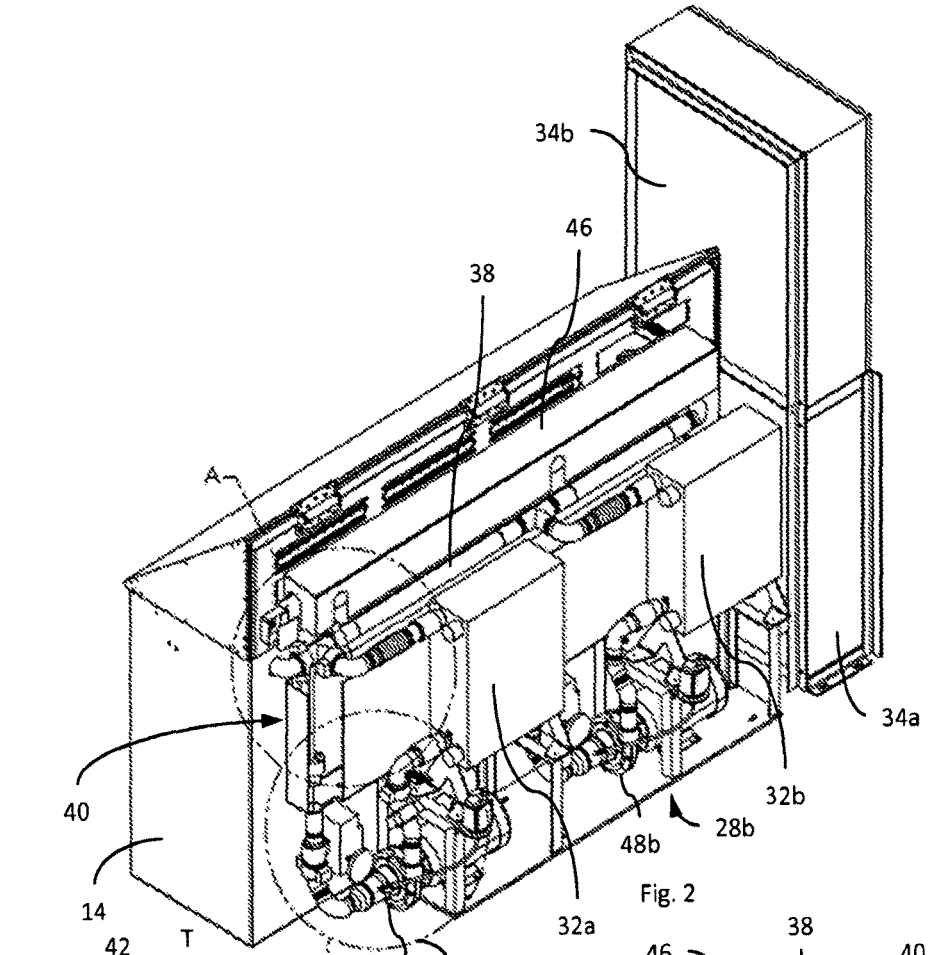


Fig. 2

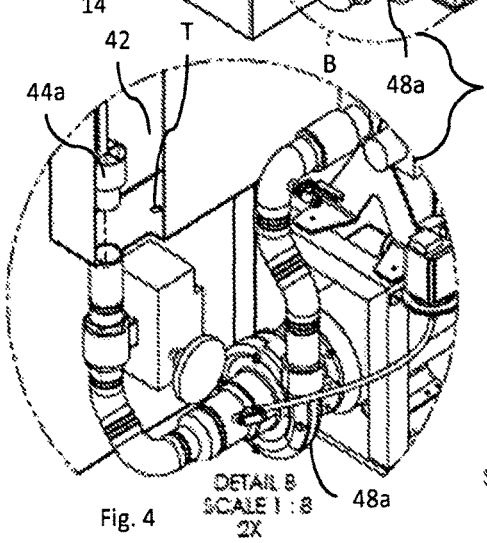


Fig. 4

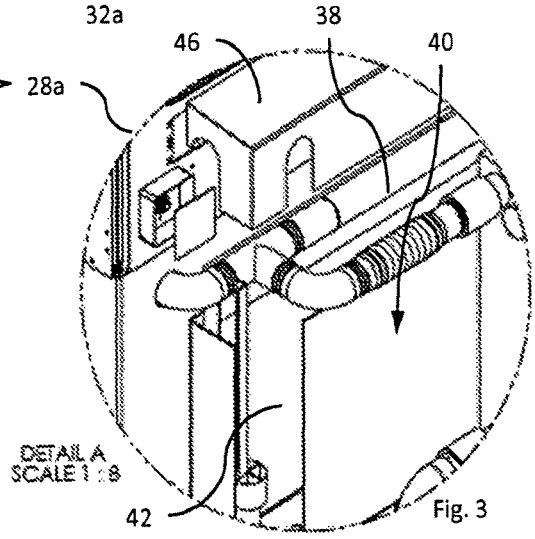


Fig. 3

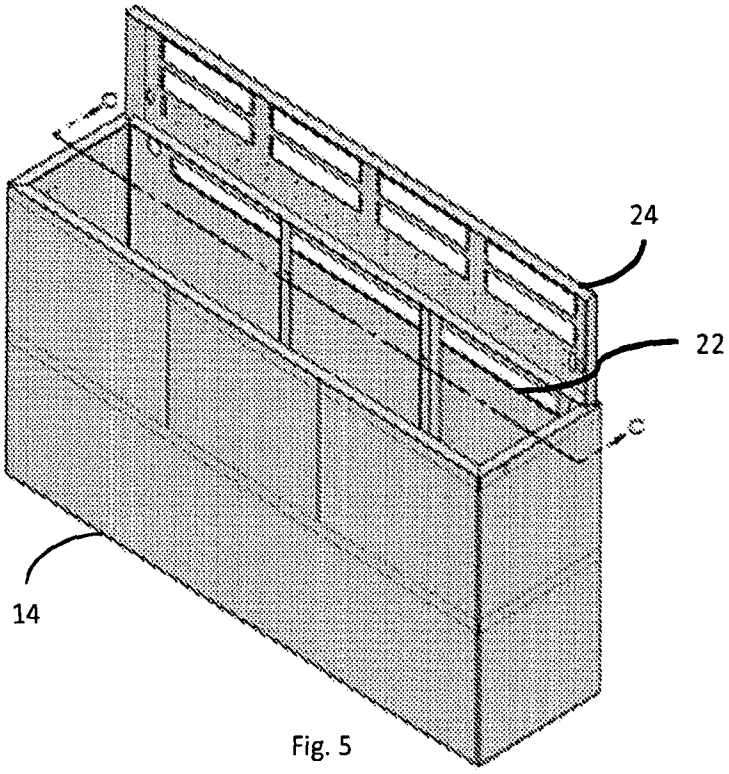
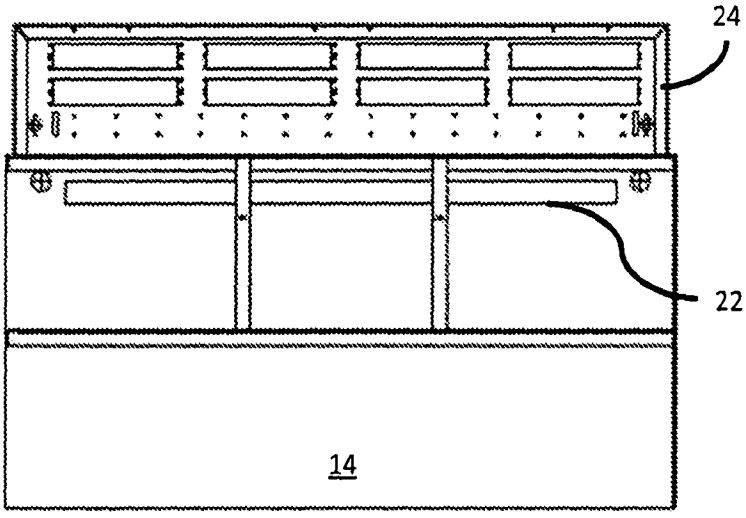


Fig. 5



Section C-C

Fig. 6

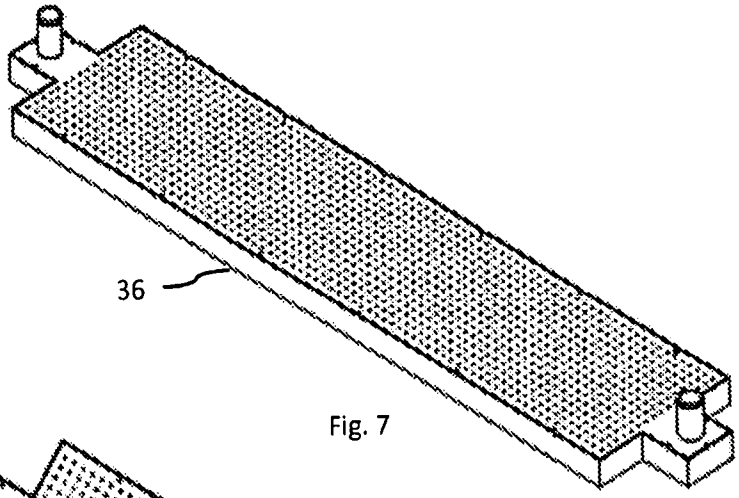


Fig. 7

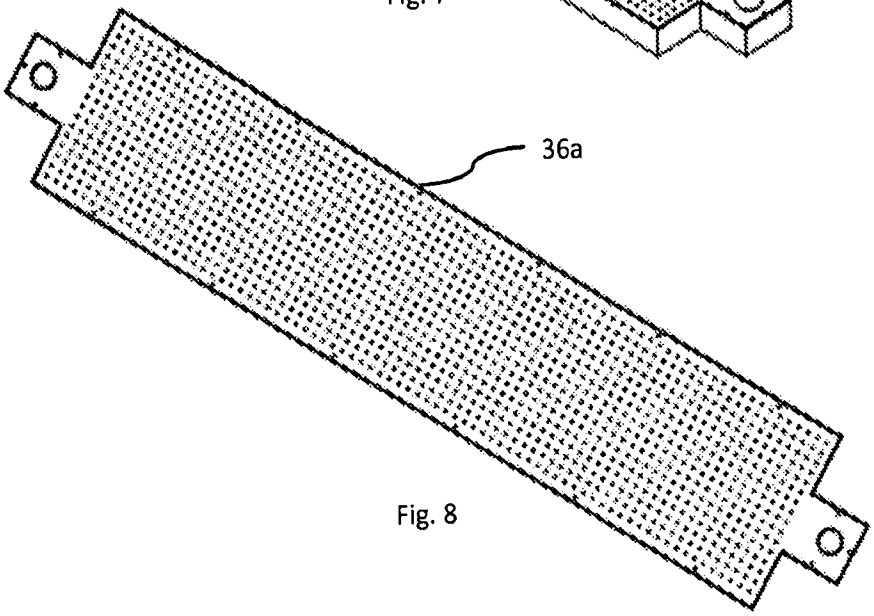


Fig. 8

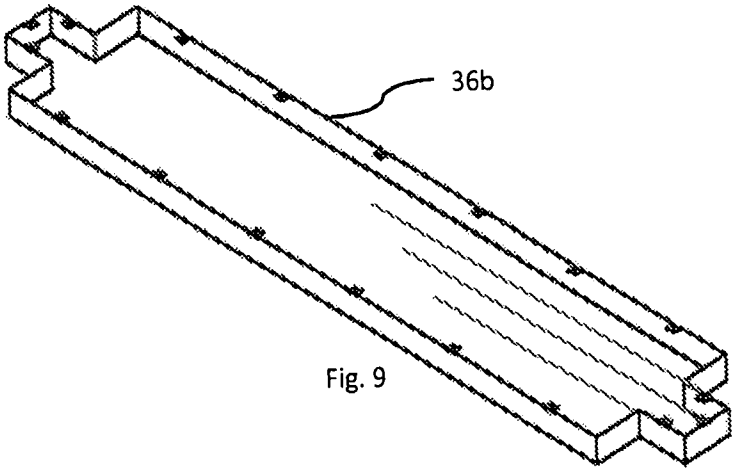


Fig. 9

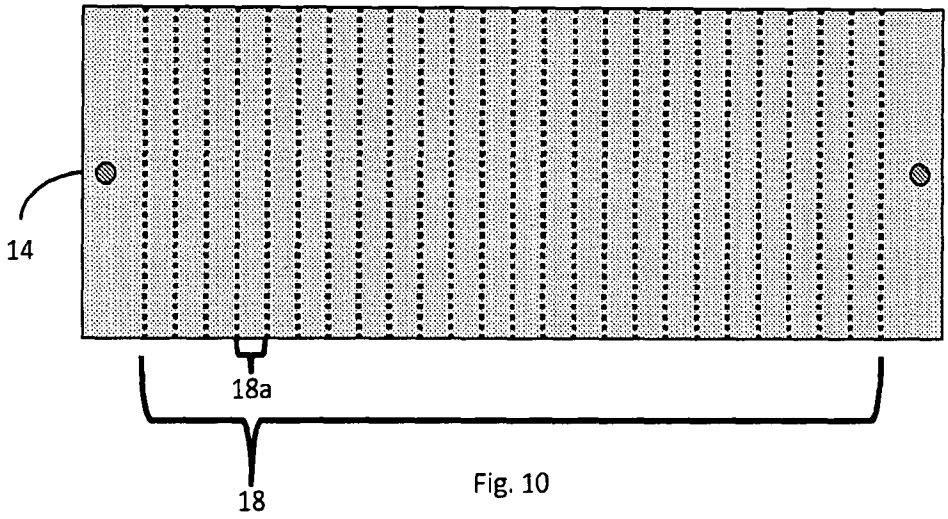


Fig. 10

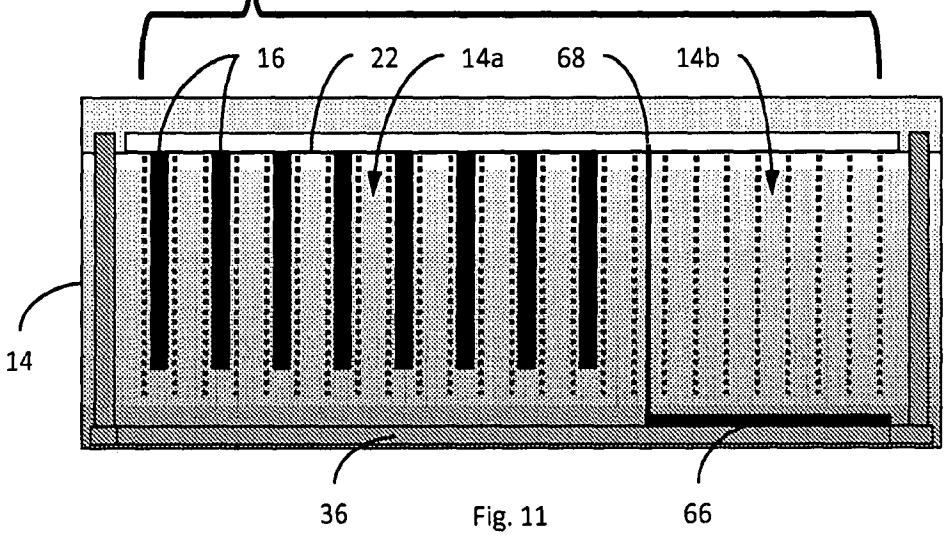


Fig. 11

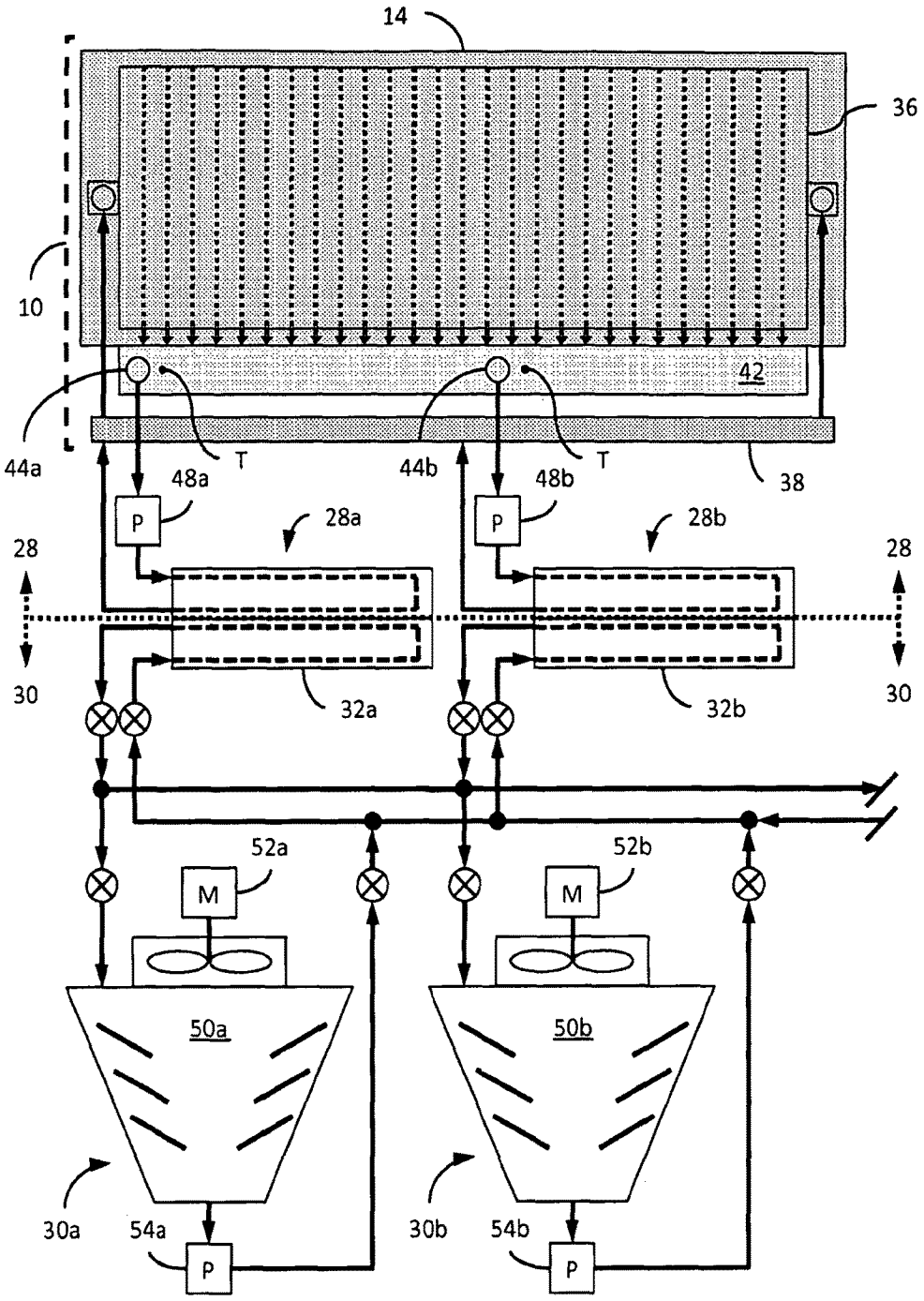

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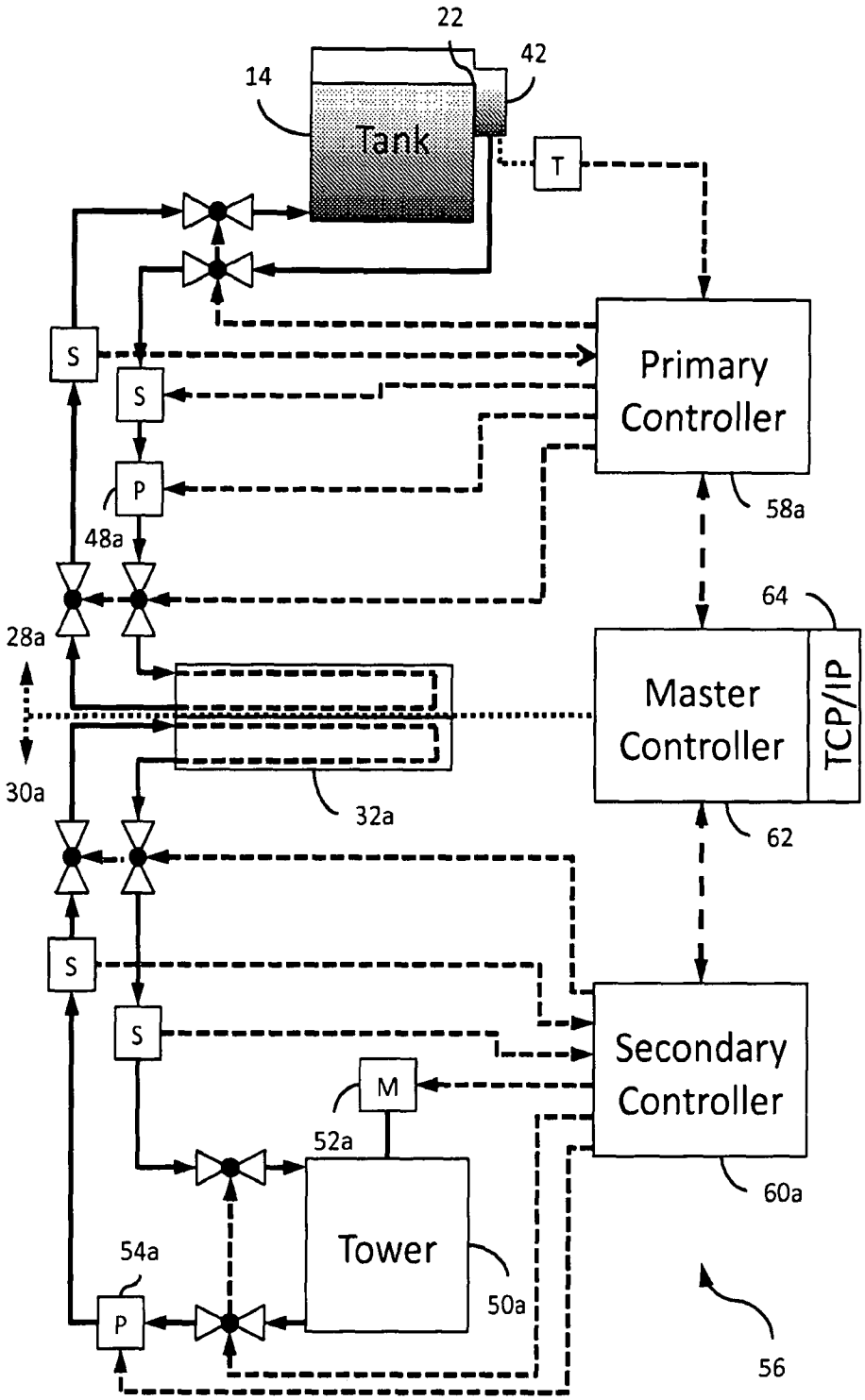
Fig. 12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Master Controller
TCP/IP
30a
32a
62
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S
M
52a
Secondary Controller
60a
Tower
54a
P
50a
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Fig. 13

APPLIANCE IMMERSION COOLING SYSTEM

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is related to the following Provisional Applications:

1. Ser. No. 61/737,200, filed 14 Dec. 2012 ("First Parent Provisional"); and
2. Ser. No. 61/832,211, filed 7 Jun. 2013 ("Second Parent Provisional");

and hereby claims benefit of the filing dates thereof pursuant to 37 CFR § 1.78(a)(4). (Collectively, "Parent Provisionals"). The subject matter of the Parent Provisionals, each in its entirety, is expressly incorporated herein by reference.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to electrical appliance cooling systems, and, in particular, to an improved appliance immersion cooling system and method of operation.

2. Description of the Related Art

In general, in the descriptions that follow, we will italicize the first occurrence of each special term of art which should be familiar to those skilled in the art of immersion cooling systems. In addition, when we first introduce a term that we believe to be new or that we will use in a context that we believe to be new, we will bold the term and provide the definition that we intend to apply to that term.

U.S. Pat. No. 4,590,538, "Immersion Cooled High Density Electronic Assembly", Cray (filed 18 Nov. 1981 and issued 20 May 1986) ("Cray"), is an early example of an immersion system for cooling electronic components during normal operation. On information and belief, the machine disclosed therein was the Cray-2 super-computer ("Cray-2") manufactured by Cray Research, Inc. ("Cray Research"), of Chippewa Falls, Wis. Of particular interest to the present application is the description of the significant advantages resulting from using an electrically non-conductive or dielectric fluid to extract heat from electronic circuit assemblies during normal operation (see, e.g., col. 1, line 66-col. 2, line 29).

On information and belief, Cray Research released, in 1985, a marketing brochure entitled "The CRAY-2 Computer System" (a copy of which is submitted herewith) describing the Cray-2. Of particular interest in this brochure is the description therein of the significant advantages resulting from using a dielectric fluid to extract heat from electronic circuit assemblies during normal operation (see, pages 10 and 13).

U.S. Pat. No. 5,167,511, "High Density Interconnect Apparatus", Krajewski, et al. (issued 27 Nov. 1992) ("Krajewski"), discloses another example of an immersion system for cooling electronic components during normal operation (see, e.g., col. 2, lines 43-51). On information and belief, a machine implementing the Krajewski system was also marketed by Cray Research as a follow-on super-computer to the Cray-2.

One particular problem in the vertical-stack-type systems disclosed in the above references is the necessity of draining the cooling fluid whenever physical access to the electronic modules was required. In general, such an operation, besides being time consuming, requires the entire system to be switched off, especially if the component requiring attention

is an essential element in the system architecture, such as the central processing unit ("CPU"). One possible solution to this problem is to immerse circuit assemblies vertically into a tank containing the cooling fluid such that each of the various assemblies can be withdrawn independently from the tank for servicing, replacement, upgrade, etc. One interesting example of such a system is disclosed in a web-presentation entitled "Puget Custom Computer's mineral-oil-cooled PC", by Nilay Patel ("Puget") (posted 12 May 2007 at 11:57 AM; a copy of which is submitted herewith). As noted by the author, the lack of supplemental apparatus in the Puget system to extract waste heat from the oil inherently limited its operating capabilities.

Another problem with the Cray Research systems in particular is the nature and cost of the chosen cooling fluid: fluorocarbon liquids. As is known, other dielectric fluids, such as mineral oil, have better heat transfer characteristics; of course, being an oil, the use thereof does represent a greater residue problem on modules that may be repairable. Notwithstanding, the Puget system implemented precisely this design choice.

US Patent Application Publication 2011/0132579, "Liquid Submerged, Horizontal Computer Appliance Rack and Systems and Method of Cooling such a Appliance Rack", Best, et al. ("Best"), discloses a appliance immersion tank system, include support apparatus for extracting waste heat from the tank cooling fluid and dissipating to the environment the heat so extracted. Although an improvement in several respects over the prior art discussed above, this system exhibits, inter alia, the following problems: generally non-uniform flow patterns through the several appliance slots within the tank, potentially resulting in uneven cooling across all slots; constricted dielectric fluid supply and return ports resulting in unnecessarily high fluid flow velocities at the respective points of connection to the tank; poor scalability; and inadequate attention to fail-soft operation.

The subject matter of all of the prior art references discussed above, each in its entirety, is expressly incorporated herein by reference.

We submit that what is needed is an improved appliance tank immersion system and method of operation. In particular, we submit that such a system should provide performance generally comparable to the best prior art techniques but more efficiently and effectively than known implementations of such prior art techniques.

BRIEF SUMMARY OF THE INVENTION

In accordance with a preferred embodiment of our invention, . . .

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

Our invention may be more fully understood by a description of certain preferred embodiments in conjunction with the attached drawings in which:

FIG. **1** illustrates, in partial cut-away form, a front perspective of a tank module of an appliance immersion cooling system constructed in accordance with our invention;

FIG. **2** illustrates a rear perspective of the tank module shown in FIG. **1**;

FIG. **3** illustrates a close-up perspective of a detail A of FIG. **2**;

FIG. **4** illustrates a close-up perspective of a detail B of FIG. **2**;

FIG. **5** illustrates, in perspective view, several details of the tank shown in FIG. **1**, with special emphasis on the dielectric fluid recovery weir integrated into the long rear wall of the tank;

FIG. **6** illustrates, in cross-section view, the section C-C in FIG. **5**;

FIG. **7** illustrates, in perspective view, the plenum facility shown in FIG. **1**;

FIG. **8** illustrates, in top plan view, the orifice plate portion of the plenum facility shown in FIG. **7**;

FIG. **9** illustrates, in perspective view, the chamber portion of the plenum facility shown in FIG. **7**;

FIG. **10** illustrates, in top plan view, a plurality of appliance slots distributed vertically along, and extending transverse to, a long axis of the tank of FIG. **1**;

FIG. **11** illustrates, in longitudinal cross-sectional view, the plurality of appliance slots distributed vertically along, and extending transverse to, the long axis of the tank of FIG. **1**;

FIG. **12** illustrates, in flow schematic form, one instantiation of a flow arrangement suitable for implementing our invention; and

FIG. **13** illustrates, in control schematic form, one instantiation of a flow control facility suitable for implementing our invention.

In the drawings, similar elements will be similarly numbered whenever possible. However, this practice is simply for convenience of reference and to avoid unnecessary proliferation of numbers, and is not intended to imply or suggest that our invention requires identity in either function or structure in the several embodiments.

DETAILED DESCRIPTION OF THE INVENTION

Shown in FIG. **1** (front view) and FIG. **2** (rear view) is a tank module **10** adapted for use in an appliance immersion cooling system constructed in accordance with a preferred embodiment of our invention. For convenience of reference, we have illustrated in FIG. **1** the tank facility **12** of the immersion module **10** in partial cut-away to emphasize several important internal facilities; we have shown the tank facility **12** in isolation in FIG. **5**. In general, the tank facility **12** comprises: a tank **14** adapted to immerse in a dielectric fluid a plurality of electrical appliances **16**, e.g., contemporary computer servers (see, e.g., FIG. **11**), each in a respective appliance slot **18***a* distributed vertically along, and extending transverse to, a long axis of the tank **14** (see, generally, FIG. **10**); an appliance rack facility **20** of convention design adapted to suspend the appliances **16** (see, e.g., FIG. **11**) in respective appliance slots **18** (see, FIG. **10**); a weir **22** (best seen in isolation in FIG. **5** and FIG. **6**), integrated horizontally into one long wall of the tank **14** adjacent all appliance slots **18**, and adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each of the appliance slots **18**; an interconnect panel facility **24** attached to the upper rear edge of the tank **14** and adapted to mount various appliance power distribution equipment, cable interconnection panels and the like (none shown); and a cover **26** adapted to be opened and closed from the front of the tank **14** (and which may include a translucent portion to allow viewing of the interior of the tank **14** when in the closed position). In addition to the tank facility **12**, the immersion module **10** comprises: a primary circulation facility **28** (portions of which are shown in both FIG. **1** and FIG. **2**); a secondary fluid circulation facility **30** (of which only redundant heat exchangers **32***a* and **32***b* are shown in FIG. **2**); and control equipment cabinets **34***a* and **34***b*, each adapted to accommodate the module status and control equipment associated with a respective one of the primary circulation facilities **28***a* and **28***b* (see, FIG. **13**).

As can be best seen in FIG. **2**, the primary circulation facility **28** (comprising redundant sub-facilities **28***a* and **28***b*) comprises both passive (conduits, couplers, etc.) and active (valves, pumps, sensors, etc.) components; a subset of the passive components are shared, whereas, in general, the active components are duplicated and adapted to cooperate in operation as separate, redundant sub-facilities. Excluding the tank **14**, the primary shared component is the plenum facility **36** (see, FIG. **1** and FIG. **7**) comprising an orifice plate **36***a* (see, FIG. **8**) and a plenum chamber **36***b* (see, FIG. **9**). As can be seen in FIG. **1**, cooled dielectric fluid is pumped into both ends of the plenum facility **36** via a shared distribution header **38** (see, FIG. **2** and FIG. **3**). In general, the plenum plate **36***a* comprises at least one row of orifices vertically aligned with each appliance slot **18***a*, with the dimensions and flow rates of each set being adapted to provide substantially equal flow of the dielectric fluid upwardly into each appliance slot **18***a*. Preferably, each appliance slot **18***a* is supplied via several rows of orifices, thus generally tending to reduce the volume of the dielectric fluid exiting each orifice and to make the flow of dielectric fluid more uniform upwardly through the appliance slots **18**. One further shared component is the dielectric fluid recovery facility **40** (FIG. **2**) comprising a dielectric fluid recovery reservoir **42** (see, FIG. **3**, FIG. **4** and FIG. **13**) positioned vertically beneath the overflow lip of the weir **22** and adapted smoothly to receive the dielectric fluid as it flows over the weir **22**; the dielectric fluid recovery reservoir **42** is further adapted to allow the recovered fluid to be removed from the reservoir **42** via redundant recovery ports **44***a* and **44***b* (only port **44***a* can be seen in FIG. **2** as the port **44***b* is obscured by the heat exchanger **32***a*; but see FIG. **12**). As can be seen in both FIG. **3** and FIG. **4**, we consider it desirable to provide a vortex breaker at the input of each of the recovery ports **44**. Also, we provide a removable recovery reservoir cover **46** adapted to also cover a major portion of the distribution header **38**; note that, in both FIG. **2** and FIG. **3**, we have illustrated the reservoir cover **46** in a partially raised orientation so as to better depict details that would otherwise be obscured. Note that we have constructed the reservoir **42** such that the average height of dielectric fluid above the recovery ports **44** develops sufficient hydrostatic head to meet the requirements of the pumps **48**, while also tending to minimize the likelihood of breaking suction during normal operation.

At this point in the primary circulation facility **28**, we provide fully redundant sub-facilities **28***a* and **28***b*, each comprising a primary circulation pump (**48***a* and **48***b*) and associated passive and active components which, collectively, provide the motive power for circulating the dielectric fluid through the shared components and tank **14**. As can be generally seen, each of these sub-facilities **28***a* and **28***b* is adapted to recover the dielectric fluid exiting the tank **14** via the weir **22**, re-pressurize the recovered fluid, pass the re-pressurized fluid through a respective one of the heat exchangers **32***a* and **32***b*, and then back to the plenum facility **36** via the header **38**.

Shown in FIG. **12** is one flow arrangement suitable for integrating our tank module **10** into a fully redundant, appliance immersion cooling system, comprising the primary circulation facility **28** and the secondary fluid circulation facility **30**. In general, the secondary fluid circulation facility **30** comprises redundant secondary circulation sub-

facilities **30***a* and **30***b*, each of which is adapted to circulate a cooling fluid, e.g., treated water, through the respective heat exchanger **32***a* and **32***b* to extract heat from dielectric fluid counter-circulating therethrough and to dissipate to the environment the heat so extracted. In the illustrated embodiment, each of the secondary fluid sub-facilities **30***a* and **30***b* comprise conventional cooling towers **50***a* (including fan facility **52***a*) and **50***b* (including fan facility **52***b*), and secondary circulation pumps **54***a* and **54***b*. To facilitate flexible operation in installations including multiple immersion modules **10** in combination with a plurality of secondary circulation sub-facilities **30**, a common header arrangement can be implemented as illustrated in the secondary fluid circulation loop, with flow control valves located at key flow control points as is known.

Shown in FIG. **13** is a control facility **56** adapted to monitor and control the operation of both the immersion module **10** (including all active components of the primary circulation facility **28**), and the secondary fluid circulation facility **30**. As will be evident to those skilled in this art, efficient operation of our immersion module **10** requires continuous monitoring and control of several essential operating parameters, including fluidic temperatures, pressures, conductivity and pH at several points in the primary and secondary circulation loops. Although the several sensory and control functions can be implemented using traditional dedicated hardware components, we prefer to employ at least one programmable logic controller ("PLC"), commercially available from any of a number of respected vendors, e.g., the Allen-Bradley brand of PLCs from Rockwell Automation, Inc. In the instantiation illustrated in FIG. **13**, we have depicted: a primary controller **58***a* adapted to monitor and control the operation of the primary circulation sub-facility **28***a* as a function of the temperature of the dielectric fluid in the tank **14**; a secondary controller **60***a* adapted to monitor and control the operation of the secondary fluid circulation sub-facility **30***a* as a function of the temperature of the dielectric fluid flowing through the heat exchanger **32***a*; and a master controller **62** adapted to coordinate the activities of the primary controller **58***a* and secondary controller **60***a*. As can be seen, we have incorporated into the primary circulation sub-facility **28***a*: supply and return sensors, including a temperature probe, T, inserted into a thermowell (not shown) installed in the bottom of the reservoir **42** adjacent a respective return port **44***a* (note that, in FIG. **4**, only one of the holes that receive the thermowells is illustrated, but both holes are illustrated in FIG. **12**); a pair of sensor facilities, S, which may sense temperature, pressure and conductivity, as deemed desirable); and return (and, if desired, supply) flow control valves and controls for the primary circulation pump **48***a*; of course, a redundant set of these components exists for the primary circulation sub-facility **28***b*. In general, the goal is to maintain the temperature of the dielectric fluid in the tank **14** between a predetermined minimum temperature and a predetermined maximum temperature.

As noted above, we have provided separate control equipment cabinets **34***a* and **34***b*, each adapted to accommodate the several components comprising a respective one of the primary controllers **58***a* and **58***b*. For convenience of access, we prefer to co-locate with each of the cooling towers **50** a protective housing (not shown) for the respective secondary controller **60**. Of course, the control facility **56** can be instantiated as a single, multi-module PLC facility, with similar or other combinations of monitoring devices as deemed most appropriate for a particular installation. Alternatively, one or more, and perhaps all, of the functions performed by the controllers **58**, **60** and **62** may be implemented in the form of dedicated application-specific software executing on a conventional computer platform having the appropriate resources; indeed, it would be entirely feasible to implement the entire control facility **56** on a server **16** installed in a tank **14**.

One desirable enhancement that we recommend is a remote control facility, implemented, e.g., via the master controller **62** (or by way of a direct, per-controller interface), adapted to facilitate remote monitoring of system status (e.g., temperatures, pressures, etc.) and control over system control parameters (e.g., temperature and pressure limits, etc.) to the primary controllers **58** and secondary controllers **60**. For example, using a conventional data communication hardware module **64**, e.g., an ethernet card implementing the TCP/IP protocol, a modern web browser can be adapted to provide a graphical user interface ("GUI") with sufficient functionality to facilitate monitoring and control of an entire installation from a remote location. Such a GUI may be implemented using any of a number of programming paradigms, e.g., PHP, .NET and the like.

Operational control of redundant, continuous process flow systems is generally well known. Preferable, each of the several redundant sub-facilities are routinely activated to assure current functionality, and to allow the inactive sub-facility to be serviced according to an established schedule. We believe this continuous rotation of system resources to be so important that we recommend switching the sub-facilities at least once, and preferably, several times, per day; although this is possible to implement manually, we prefer to enable the master controller **62** to control the sequencing of the several switch-over operations. One further aspect of this sophistication in control is the ability to perform stress testing of the several sub-systems under controlled conditions so as to assure appropriate response to real-time emergencies.

In our First Parent Provisional, we have disclosed an alternate embodiment comprising an appliance immersion tank facility wherein the function of the plenum facility **36** is performed by a manifold facility comprising a ladder-arrangement of tubular spray bars, each bar of which supplies dielectric fluid to a respective appliance slot. As we noted, one particular advantage of this arrangement is that individual spray bars may be shut off if the respective appliance slot is not occupied and, thus, save energy. To further increase energy efficiency, we have provided optional vertical flow barriers adapted to partition the tank into an active portion, having active appliances, and a stagnant portion, having no active appliances. One further enhancement we disclosed is the provision of temperature sensors per appliance slot, such that the flow rate through each spray bar can be dynamically varied as a function of the temperature of the dielectric fluid exiting the respective slot. Other operative configurations will be readily perceived by those skilled in this art.

In a manner analogous to the embodiment described in our First Parent Provisional, it would be advantageous, from an energy point of view, to provide a plurality of flow barrier plates **66** (shown by way of example only in FIG. **11**), each adapted to be attached to the top of the plenum facility **36** so as substantially to block the flow of the dielectric fluid through the row(s) of orifices in the plenum plate **36***a* corresponding to at least a respective one of the appliance slots **18***a*; an elastomeric layer (not shown) could be provided on the interface surface of the plate(s) **66** to enhance the sealing effect. Such an arrangement would allow the total flow through the plenum facility **36** to be adjusted, in the

field, as a function of the actual number of active appliances **16** in the tank **14**. Further, this arrangement can incorporate a relocatable vertical baffle plate **68** (see FIG. **11**) adapted substantially to partition the tank **14** into an active portion **14***a* containing the active appliances **16** and an inactive portion **14***b* containing no appliances (or at least no active appliances **16**); preferably, the baffle plate **68** is adapted to be mounted in the appliance rack facility **28** in a manner similar to an actual appliance **16** (the baffle plate **68** need not fully block the flow of dielectric fluid between the active portion **14***a* and inactive portion **14***b*, but only significantly impede the flow between these portions). Note that, in the example scenario illustrated in FIG. **11**, we have shown one possible arrangement of a total of 8 active appliances **16** distributed across 16 appliance slots **18***a* so as to spread the total heat load across adjacent empty slots **18***a*. Such an optimal arrangement is possible only if less than a majority of the available appliance slots **18***a* are occupied by an active appliance **16**. Clearly, such optional adjunct facilities enhance flexibility in operation, accommodating dynamic adjustment of the flow rates in the primary circulation sub-facilities **28***a* and **28***b* under variable heat loads, while providing opportunities to conserve energy that might otherwise be expended moving the dielectric fluid through the inactive portion **14***b* of the tank **14**. Other operative configurations will be readily perceived by those skilled in this art.

In our Second Parent Provisional, we have disclosed another embodiment comprising a more conventional, less-modularized instantiation with appropriate flow and control facilities. In this embodiment, we chose to implement tank clusters, comprising, e.g., **4** appliance immersion tank facilities, with substantially all of the other equipment being constructed from stand-alone, commercially available components. Such an arrangement offers greater opportunities to select and install improved components, or to add enhancements to the installation, as deemed desirable after initial installation. Other operative configurations will be readily perceived by those skilled in this art.

As we noted above with reference to the embodiment illustrated in FIG. **12**, the secondary flow header facility is well adapted to allow any secondary circulation sub-facility **30** to be connected to any active heat exchanger **32**. Such a facility provides great flexibility in dealing with unusual system conditions, especially in installations wherein the secondary circulation sub-facilities **30***a* and **30***b* are each sized to support a cluster of tank modules **10**. Imagine, for example, that, while one of the secondary circulation facilities **30**, say sub-facility **30***a*, is being serviced, the activities of the set of appliances **16** in one tank **14** in the cluster are higher than normal, resulting in a rise in temperature in that tank **14** above the desired maximum. In response, the master controller **62** can direct Primary Controllers **58***a* and **58***b* assigned to tank **14** to operate both of the primary circulation sub-facilities **28***a* and **28***b* simultaneously, i.e., in parallel. Using the secondary flow header facility, the heat being extracted by both of the heat exchangers **32***a* and **32***b* may be dissipated using the resources of the single on-line secondary circulation sub-facility **30***b*. Thus, one clear advantage of this alternate embodiment is the ability dynamically to perform load balancing across all system resources. Other operative configurations to support sub-system load balancing will be readily perceived by those skilled in this art.

Preferably, one or more filters (not shown) are included in the flow path through each of the primary circulation sub-facilities **28***a* and **28***b* to remove any particulates or other undesirable foreign matter that may have been picked up by the dielectric fluid on its passage though the entire primary circulation facility **28**; chemical sensors may also be provided to detect the presence of unexpected chemicals that may indicate failure of sub-components within one of the appliances **16**. Similar components, such as pH sensors, may also included in the secondary fluid circulation facility **30**.

As can be seen generally in FIG. **1**, we provide a pair of low dielectric fluid level sensors **70***a* and **70***b* adapted to trigger an alarm signal in the event that, for whatever reason, the level of the dielectric fluid in the tank **14** drops below a predetermined minimum level. Additionally, the responsive primary controller **58** can initiate other actions to address the detected problem, including activating audio alarms, transmitting electronic alert signals and the like.

To solve a reciprocal problem, namely leakage from an external portion of the primary circulation loop **28** resulting in the dielectric fluid in the tank **14** being back-siphoned through the plenum facility **36**, we recommend incorporating a siphon breaker **72** (see, FIG. **1**) in the supply pipe at a predetermined location well above the plenum facility **36** but somewhat below the level of the weir **24**. Such a siphon breaker can be as simple as a relatively small diameter hole **72** drilled through the supply pipe at the selected location; due to the relatively high viscosity of the dielectric fluid, even when heated, any resulting leakage during normal operation will be relatively insignificant. Other operative responses to address these and other unusual fluidic conditions will be readily perceived by those skilled in this art.

As is known (see, e.g., Best), many conventional, commercially available electrical/electronic appliances include components that will not function correctly if immersed in a dielectric fluid, especially one as viscous as mineral oil: cooling fans and rotating media disk drives. In general, all cooling fans are unnecessary in an immersion cooling system and can be simply removed. The media drives, however, are usually necessary for normal appliance operation. One option is to remove each drive, totally seal the drive against fluid entry, and reinstall the now-sealed drive (pre-sealed drives are also available). Another option is to remove the drive and mount it on the interconnect panel facility **24**; typically special cabling will be required to re-attach the drive to the internal appliance socket. Yet another option is to replace the rotating media drive with a solid-state drive having no moving components. Other operative configurations will be readily perceived by those skilled in this art.

It will be recognized that, in all of the embodiments described herein, emphasis was placed on minimizing the total volume of the dielectric fluid circulating throughout each immersion module **10**. We submit that the key concept here is to move the secondary fluid to the point of heat exchange with the primary fluid, rather than to move the primary fluid to the point of heat exchange with the secondary fluid. Thus, in our preferred embodiment, all of the essential components of the primary circulation facility **28** are tightly co-located with the tank **14** so as to form a highly-integrated module. Further, our placement of the reservoir **42** outside of (but immediately adjacent to) the tank **14** tends to reduce the total volume of the dielectric fluid (as opposed to the alternative arrangement we proposed in our First Provisional, wherein a recovery trough was disposed within the tank **14**); then, we positioned the components comprising the primary circulation sub-facilities **28** so as to be vertically beneath the footprint of the reservoir **42**. In addition to conserving valuable floor space in a typical data center installation, the resulting modular configuration facilitates both easy initial installation and subsequent

upgrade to efficiently satisfy increasing data center workloads. Indeed, our invention greatly enhances system scalability, a key concern to data center operators. Finally, our system-wide redundancy substantially assures fail-soft operation during periods of unusual environmental conditions, infrastructure instability or political unrest.

Although we have described our invention in the context of particular embodiments, one of ordinary skill in this art will readily realize that many modifications may be made in such embodiments to adapt either to specific implementations. By way of example, it will take but little effort to adapt our invention for use with electronic appliances other than contemporary servers; and to adjust the dimensions of the appliance accommodation slots accordingly. Similarly, practitioners in the art will readily recognize that other, known secondary circulation facilities may be employed effectively, including forced air, vapor compression systems, earth-water sink loops, waste heat recovery and recycling systems, and the like (see, e.g., the several alternatives discussed in Best). Further, the several elements described above may be implemented using any of the various known manufacturing methodologies, and, in general, be adapted so as to be operable under either hardware or software control or some combination thereof, as is known in this art.

Thus it is apparent that we have provided an improved system and method of operation for immersion cooling of appliances and the like. In particular, we submit that such a method and apparatus provides performance generally comparable to the best prior art techniques but more efficiently and effectively than known implementations of such prior art techniques.

What we claim is:

1. An appliance immersion cooling system comprising:

a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank, the tank comprising:

a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, having an overflow lip adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot; and;

a dielectric fluid recovery reservoir positioned vertically beneath the overflow lip of the weir and adapted to receive the dielectric fluid as it flows over the weir;

a primary circulation facility adapted to circulate the dielectric fluid through the tank, comprising:

a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot;

a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulating in the primary circulation facility, and to dissipate to the environment the heat so extracted; and

a control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

2. The system of claim **1** wherein the tank and primary circulation facility comprise a highly-integrated module.

3. The system of claim **1** wherein the tank further comprises:

an interconnect panel facility adapted to mount appliance support equipment.

4. The system of claim **1** wherein the primary circulation facility further comprises:

at least first and second primary circulation sub-facilities, each adapted to operate independently to circulate the dielectric fluid through the tank;

wherein the control facility is further adapted to coordinate the operation of the first and second primary circulation sub-facilities and the secondary fluid circulation facilities so to maintain the temperature of the dielectric fluid in the tank substantially between a predetermined minimum temperature and a predetermined maximum temperature.

5. The system of claim **1** wherein the control facility further comprises a communication facility adapted to facilitate monitoring and control of the control facility from a remote location.

6. A tank module adapted for use in an appliance immersion cooling system, the tank module comprising:

a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank, the tank comprising:

a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, having an overflow lip adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot; and;

a dielectric fluid recovery reservoir positioned vertically beneath the overflow lip of the weir and adapted to receive the dielectric fluid as it flows over the weir;

a primary circulation facility adapted to circulate the dielectric fluid through the tank, comprising:

a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot; and

a control facility adapted to control the operation of the primary fluid circulation facility as a function of the temperature of the dielectric fluid in the tank.

7. The module of claim **6** wherein the tank and primary circulation facility comprise a highly-integrated module.

8. The module of claim **6** wherein the tank further comprises:

an interconnect panel facility adapted to mount appliance support equipment.

9. The module of claim **6** wherein the primary circulation facility further comprises:

at least first and second primary circulation sub-facilities, each adapted to operate independently to circulate the dielectric fluid through the tank;

wherein the control facility is further adapted to coordinate the operation of the first and second primary circulation sub-facilities so to maintain the temperature of the dielectric fluid in the tank substantially between a predetermined minimum temperature and a predetermined maximum temperature.

10. The module of claim **6** wherein the control facility further comprises a communication facility adapted to facilitate monitoring and control of the control facility from a remote location.

11. A tank module (**10**) adapted for use in an appliance immersion cooling system, the tank module comprising:

a tank (**12**) adapted to immerse in a dielectric fluid a plurality of electrical appliances (**16**), each in a respective appliance slot (**18**) distributed vertically along, and extending transverse to, a long wall of the tank (**10**), the tank (**10**) comprising:

a weir **22**, integrated horizontally into the long wall of the tank (**10**) adjacent all appliance slots (**18**),

adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot (**18**);

a primary circulation facility (**28**) adapted to circulate the dielectric fluid through the tank (**10**), comprising:

a plenum (**36**), positioned adjacent the bottom of the tank (**10**), adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot (**18**); and

a control facility (**58**) adapted to control the operation of the primary fluid circulation facility (**28**) as a function of the temperature of the dielectric fluid in the tank (**10**).

12. The tank module of claim **11** wherein the tank further comprises:

an interconnect panel facility (**24**) adapted to mount appliance support equipment.

13. The module of claim **11** wherein the primary circulation facility further comprises:

at least first and second primary circulation sub-facilities (**28***a*, **28***b*), each adapted to operate independently to circulate the dielectric fluid through the tank;

wherein the control facility is further adapted to coordinate the operation of the first and second primary circulation sub-facilities so to maintain the temperature of the dielectric fluid in the tank substantially between a predetermined minimum temperature and a predetermined maximum temperature.

14. The module of claim **11** wherein the control facility further comprises a communication facility (**62**, **64**) adapted to facilitate monitoring and control of the control facility from a remote location.

15. An appliance immersion cooling system comprising a tank module according to any one of the preceding claims **11** through **14**.

16. An appliance immersion cooling system according to claim **15**, further comprising:

a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulating in the primary circulation facility, and to dissipate to the environment the heat so extracted.

* * * * *

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(12) **United States Patent**
Boyd et al.

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(54) **APPLIANCE IMMERSION COOLING SYSTEM**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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H05K 7/20 (2006.01)

(52) **U.S. Cl.**
CPC ***H05K 7/20236*** (2013.01); ***H01L 23/44*** (2013.01); ***H05K 7/20272*** (2013.01)

(58) **Field of Classification Search**
CPC H05K 7/20236; H05K 7/20272; H05K 7/20327; H01L 23/44
See application file for complete search history.

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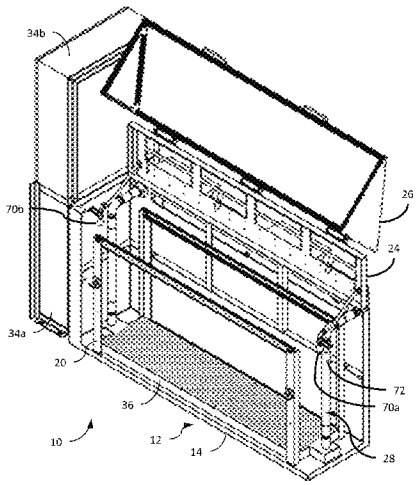
(57) **ABSTRACT**

A appliance immersion tank system comprising: a generally rectangular tank adapted to immerse in a dielectric fluid a plurality of appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, the long axis of the tank; a primary circulation facility adapted to circulate the dielectric fluid through the tank; a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulating in the primary circulation facility, and to dissipate to the environment the heat so extracted; and a control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank. A plenum, positioned adjacent the bottom of the tank, is adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot. A weir, integrated horizontally into a long wall of the tank, is adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot. All active and most passive components of both the primary and secondary fluid circulation facilities, and the control facility are fully redundant, and are adapted automatically to operate in a fail-soft mode.

10 Claims, 7 Drawing Sheets



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(60) Provisional application No. 61/832,211, filed on Jun. 7, 2013.

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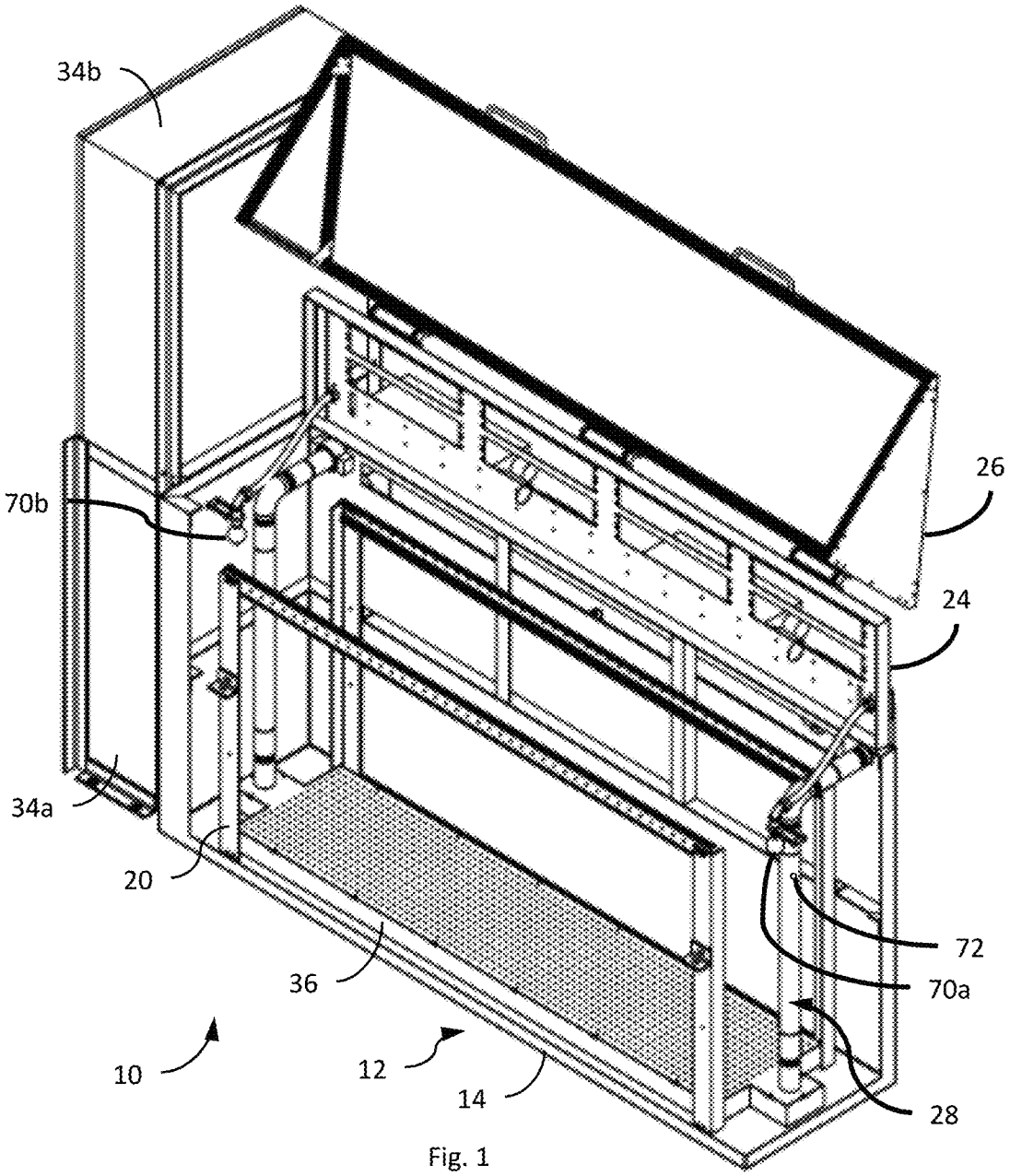


Fig. 1

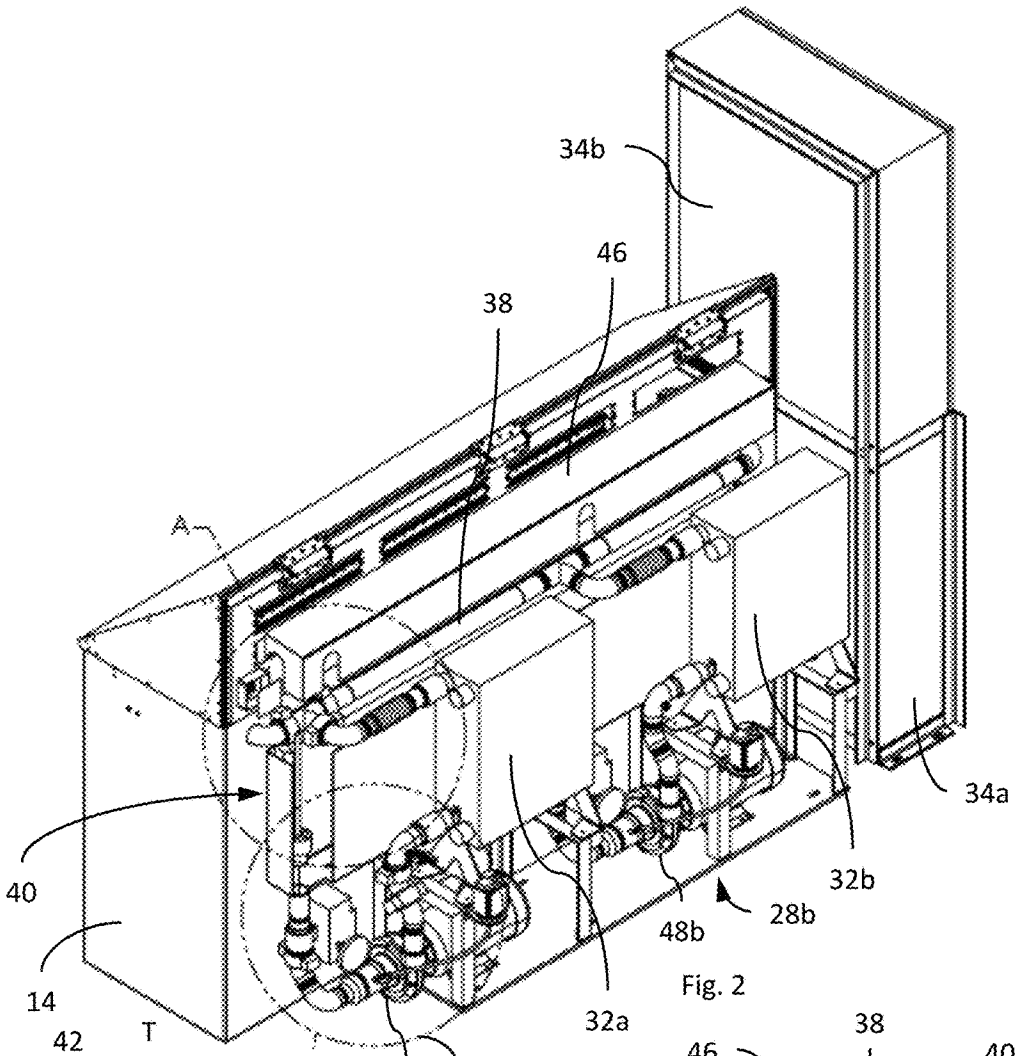


Fig. 2

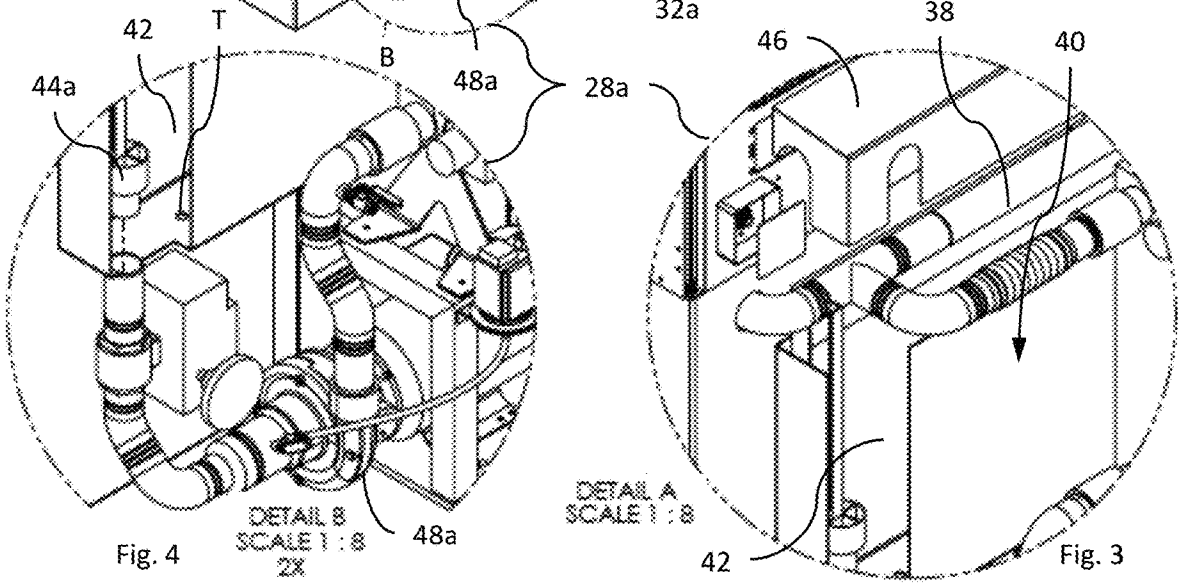


Fig. 4

Fig. 3

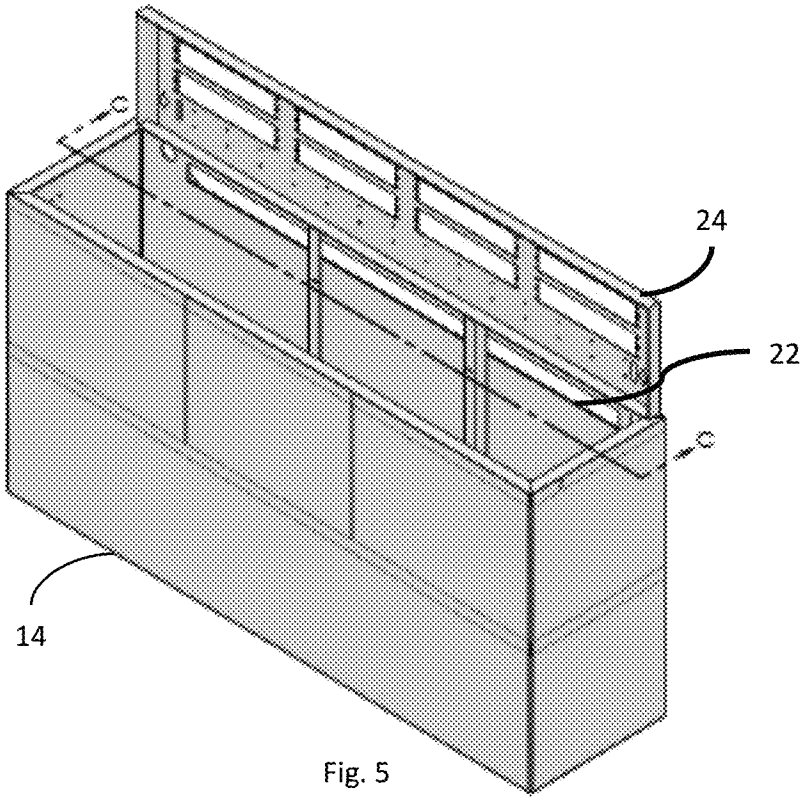
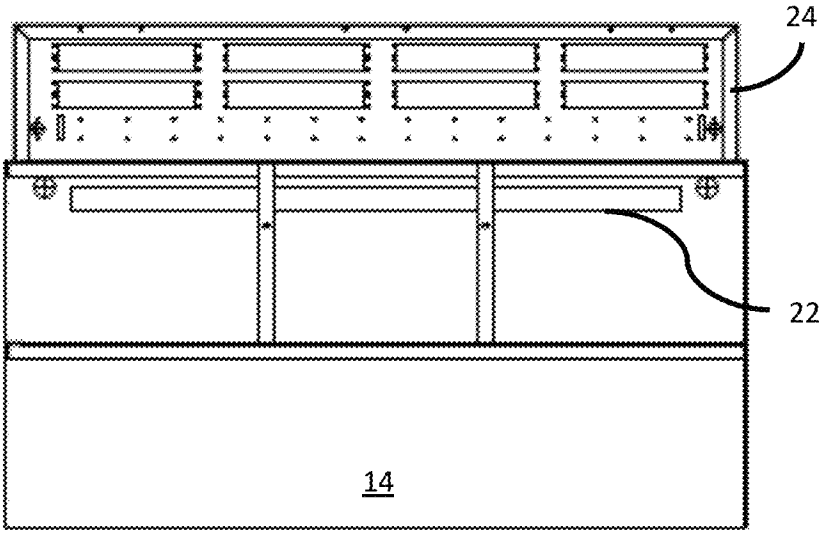


Fig. 5



Section C-C

Fig. 6

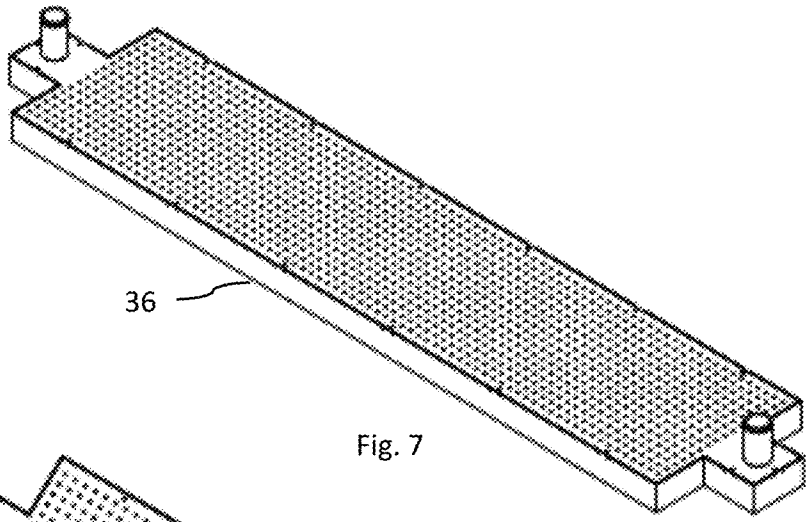


Fig. 7

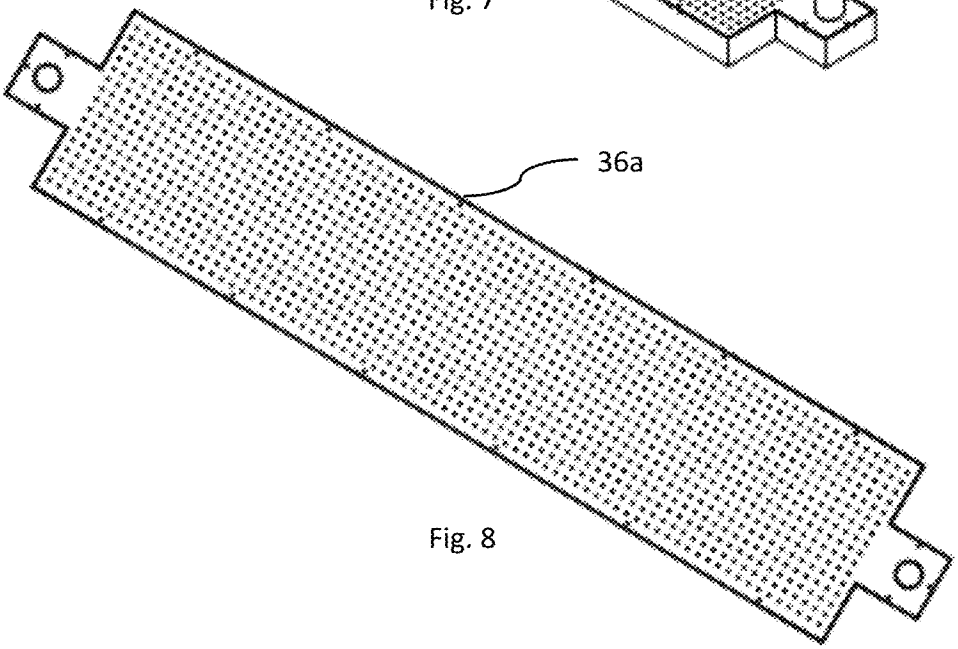


Fig. 8

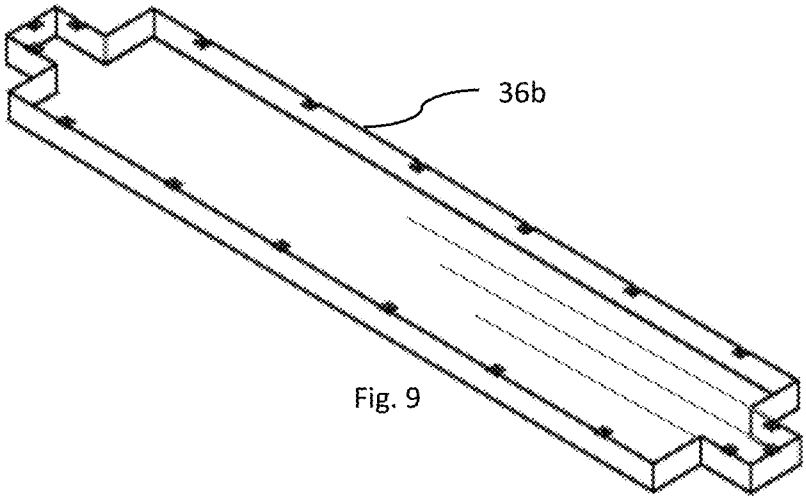


Fig. 9

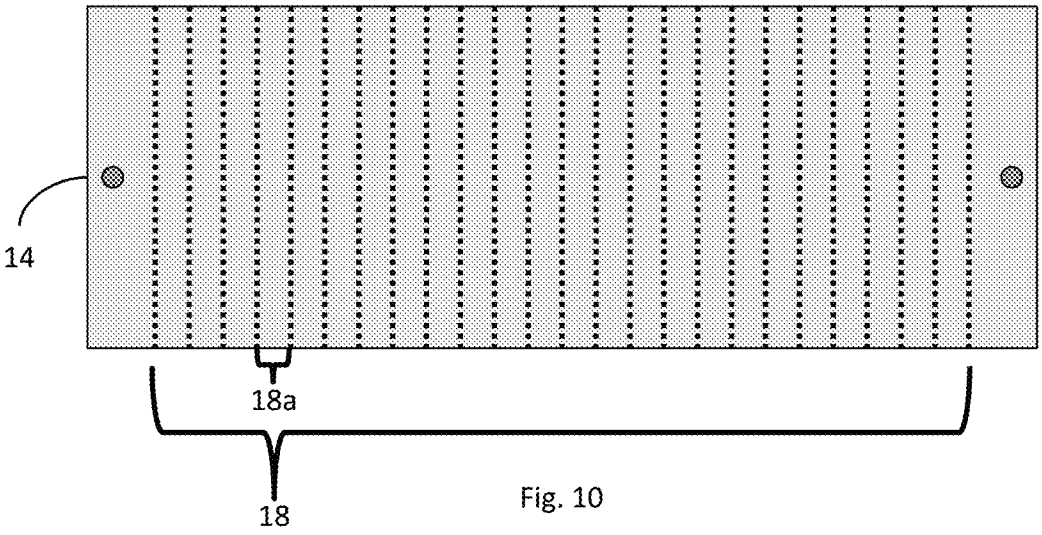


Fig. 10

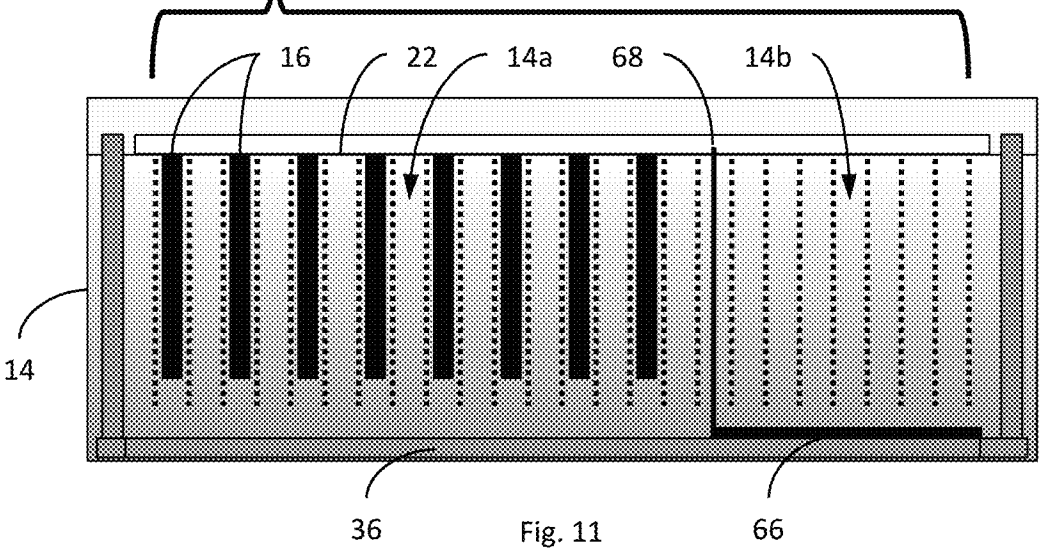


Fig. 11

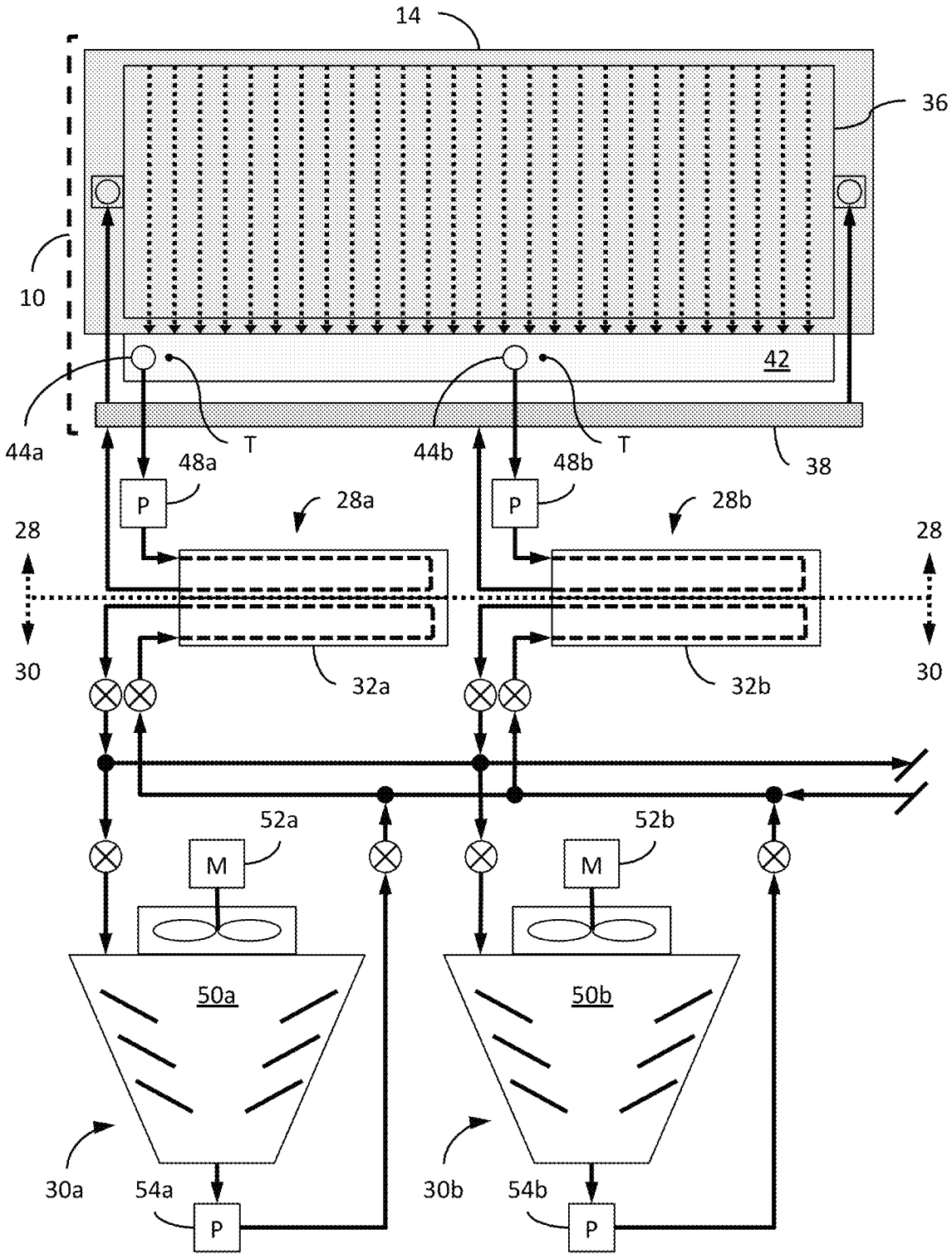

14
36
10
42
44a
T
48a
44b
T
48b
38
P
28a
P
28b
28
28
30
30
32a
32b
52a
52b
M
M
50a
50b
30a
54a
30b
54b
P
P

Fig. 12

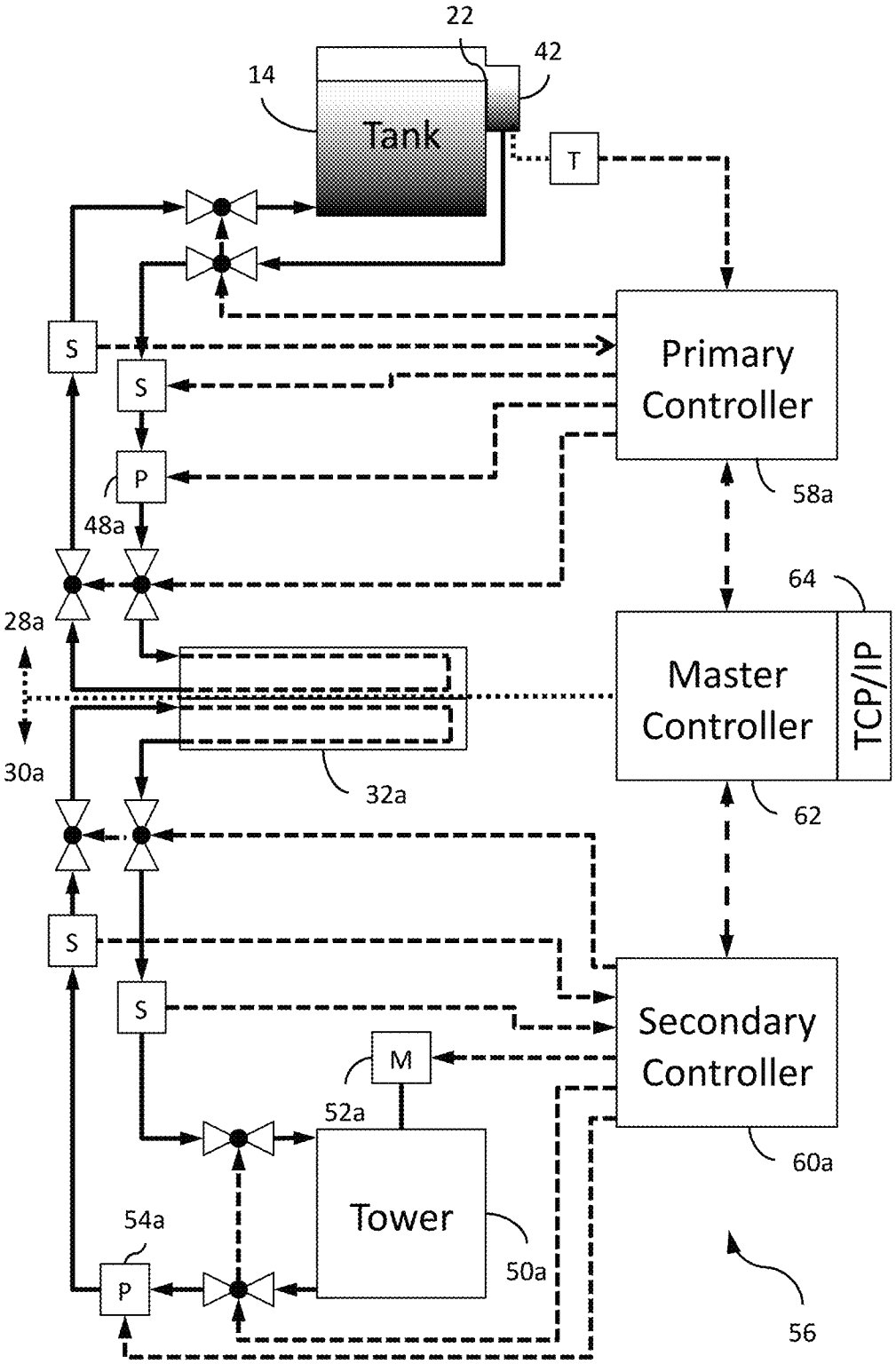

22
42
14
Tank
T
S
S
Primary Controller
P
58a
48a
64
28a
Master Controller
TCP/IP
30a
32a
62
S
S
Secondary Controller
M
52a
60a
Tower
54a
50a
P
56

Fig. 13

APPLIANCE IMMERSION COOLING SYSTEM

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is related to the following Provisional applications:

1. Ser. No. 61/737,200, filed 14 Dec. 2012 ("First Parent Provisional"); and

2. Ser. No. 61/832,211, filed 7 Jun. 2013 ("Second Parent Provisional");

and hereby claims benefit of the filing dates thereof pursuant to 37 CFR § 1.78(a)(4). (Collectively, "Parent Provisionals"). The subject matter of the Parent Provisionals, each in its entirety, is expressly incorporated herein by reference.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to electrical appliance cooling systems, and, in particular, to an improved appliance immersion cooling system and method of operation.

2. Description of the Related Art

In general, in the descriptions that follow, we will italicize the first occurrence of each special term of art which should be familiar to those skilled in the art of immersion cooling systems. In addition, when we first introduce a term that we believe to be new or that we will use in a context that we believe to be new, we will bold the term and provide the definition that we intend to apply to that term.

U.S. Pat. No. 4,590,538, "Immersion Cooled High Density Electronic Assembly", Cray (filed 18 Nov. 1981 and issued 20 May 1986) ("Cray"), is an early example of an immersion system for cooling electronic components during normal operation. On information and belief, the machine disclosed therein was the Cray-2 super-computer ("Cray-2") manufactured by Cray Research, Inc. ("Cray Research"), of Chippewa Falls, Wis. Of particular interest to the present application is the description of the significant advantages resulting from using an electrically non-conductive or dielectric fluid to extract heat from electronic circuit assemblies during normal operation (see, e.g., col. 1, line 66—col. 2, line 29).

On information and belief, Cray Research released, in 1985, a marketing brochure entitled "The CRAY-2 Computer System" (a copy of which is submitted herewith) describing the Cray-2. Of particular interest in this brochure is the description therein of the significant advantages resulting from using a dielectric fluid to extract heat from electronic circuit assemblies during normal operation (see, pages 10 and 13).

U.S. Pat. No. 5,167,511, "High Density Interconnect Apparatus", Krajewski, et al. (issued 27 Nov. 1992) ("Krajewski"), discloses another example of an immersion system for cooling electronic components during normal operation (see, e.g., col. 2, lines 43-51). On information and belief, a machine implementing the Krajewski system was also marketed by Cray Research as a follow-on super-computer to the Cray-2.

One particular problem in the vertical-stack-type systems disclosed in the above references is the necessity of draining the cooling fluid whenever physical access to the electronic modules was required. In general, such an operation, besides being time consuming, requires the entire system to be switched off, especially if the component requiring attention is an essential element in the system architecture, such as the central processing unit ("CPU"). One possible solution to this problem is to immerse circuit assemblies vertically into a tank containing the cooling fluid such that each of the various assemblies can be withdrawn independently from the tank for servicing, replacement, upgrade, etc. One interesting example of such a system is disclosed in a web-presentation entitled "Puget Custom Computer's mineral-oil-cooled PC", by Nilay Patel ("Puget") (posted 12 May 2007 at 11:57 AM; a copy of which is submitted herewith). As noted by the author, the lack of supplemental apparatus in the Puget system to extract waste heat from the oil inherently limited its operating capabilities.

Another problem with the Cray Research systems in particular is the nature and cost of the chosen cooling fluid: fluorocarbon liquids. As is known, other dielectric fluids, such as mineral oil, have better heat transfer characteristics; of course, being an oil, the use thereof does represent a greater residue problem on modules that may be repairable. Notwithstanding, the Puget system implemented precisely this design choice.

US Patent Application Publication 2011/0132579, "Liquid Submerged, Horizontal Computer Appliance Rack and Systems and Method of Cooling such a Appliance Rack", Best, et al. ("Best"), discloses a appliance immersion tank system, include support apparatus for extracting waste heat from the tank cooling fluid and dissipating to the environment the heat so extracted. Although an improvement in several respects over the prior art discussed above, this system exhibits, inter alia, the following problems: generally non-uniform flow patterns through the several appliance slots within the tank, potentially resulting in uneven cooling across all slots; constricted dielectric fluid supply and return ports resulting in unnecessarily high fluid flow velocities at the respective points of connection to the tank; poor scalability; and inadequate attention to fail-soft operation.

The subject matter of all of the prior art references discussed above, each in its entirety, is expressly incorporated herein by reference.

We submit that what is needed is an improved appliance tank immersion system and method of operation. In particular, we submit that such a system should provide performance generally comparable to the best prior art techniques but more efficiently and effectively than known implementations of such prior art techniques.

BRIEF SUMMARY OF THE INVENTION

In accordance with a preferred embodiment of our invention, . . .

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

Our invention may be more fully understood by a description of certain preferred embodiments in conjunction with the attached drawings in which:

FIG. **1** illustrates, in partial cut-away form, a front perspective of a tank module of an appliance immersion cooling system constructed in accordance with our invention;

FIG. **2** illustrates a rear perspective of the tank module shown in FIG. **1**;

FIG. **3** illustrates a close-up perspective of a detail A of FIG. **2**;

FIG. **4** illustrates a close-up perspective of a detail B of FIG. **2**;

FIG. **5** illustrates, in perspective view, several details of the tank shown in FIG. **1**, with special emphasis on the dielectric fluid recovery weir integrated into the long rear wall of the tank;

FIG. **6** illustrates, in cross-section view, the section C-C in FIG. **5**;

FIG. **7** illustrates, in perspective view, the plenum facility shown in FIG. **1**;

FIG. **8** illustrates, in top plan view, the orifice plate portion of the plenum facility shown in FIG. **7**;

FIG. **9** illustrates, in perspective view, the chamber portion of the plenum facility shown in FIG. **7**;

FIG. **10** illustrates, in top plan view, a plurality of appliance slots distributed vertically along, and extending transverse to, a long axis of the tank of FIG. **1**;

FIG. **11** illustrates, in longitudinal cross-sectional view, the plurality of appliance slots distributed vertically along, and extending transverse to, the long axis of the tank of FIG. **1**;

FIG. **12** illustrates, in flow schematic form, one instantiation of a flow arrangement suitable for implementing our invention; and

FIG. **13** illustrates, in control schematic form, one instantiation of a flow control facility suitable for implementing our invention.

In the drawings, similar elements will be similarly numbered whenever possible. However, this practice is simply for convenience of reference and to avoid unnecessary proliferation of numbers, and is not intended to imply or suggest that our invention requires identity in either function or structure in the several embodiments.

DETAILED DESCRIPTION OF THE INVENTION

Shown in FIG. **1** (front view) and FIG. **2** (rear view) is a tank module **10** adapted for use in an appliance immersion cooling system constructed in accordance with a preferred embodiment of our invention. For convenience of reference, we have illustrated in FIG. **1** the tank facility **12** of the immersion module **10** in partial cut-away to emphasize several important internal facilities; we have shown the tank facility **12** in isolation in FIG. **5**. In general, the tank facility **12** comprises: a tank **14** adapted to immerse in a dielectric fluid a plurality of electrical appliances **16**, e.g., contemporary computer servers (see, e.g., FIG. **11**), each in a respective appliance slot **18***a* distributed vertically along, and extending transverse to, a long axis of the tank **14** (see, generally, FIG. **10**); an appliance rack facility **20** of convention design adapted to suspend the appliances **16** (see, e.g., FIG. **11**) in respective appliance slots **18** (see, FIG. **10**); a weir **22** (best seen in isolation in FIG. **5** and FIG. **6**), integrated horizontally into one long wall of the tank **14** adjacent all appliance slots **18**, and adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each of the appliance slots **18**; an interconnect panel facility **24** attached to the upper rear edge of the tank **14** and adapted to mount various appliance power distribution equipment, cable interconnection panels and the like (none shown); and a cover **26** adapted to be opened and closed from the front of the tank **14** (and which may include a translucent portion to allow viewing of the interior of the tank **14** when in the closed position). In addition to the tank facility **12**, the immersion module **10** comprises: a primary circulation facility **28** (portions of which are shown in both FIG. **1** and FIG. **2**); a secondary fluid circulation facility **30** (of which only redundant heat exchangers **32***a* and **32***b* are shown in FIG. **2**); and control equipment cabinets **34***a* and **34***b*, each adapted to accommodate the module status and control equipment associated with a respective one of the primary circulation facilities **28***a* and **28***b* (see, FIG. **13**).

As can be best seen in FIG. **2**, the primary circulation facility **28** (comprising redundant sub-facilities **28***a* and **28***b*) comprises both passive (conduits, couplers, etc.) and active (valves, pumps, sensors, etc.) components; a subset of the passive components are shared, whereas, in general, the active components are duplicated and adapted to cooperate in operation as separate, redundant sub-facilities. Excluding the tank **14**, the primary shared component is the plenum facility **36** (see, FIG. **1** and FIG. **7**) comprising an orifice plate **36***a* (see, FIG. **8**) and a plenum chamber **36***b* (see, FIG. **9**). As can be seen in FIG. **1**, cooled dielectric fluid is pumped into both ends of the plenum facility **36** via a shared distribution header **38** (see, FIG. **2** and FIG. **3**). In general, the plenum plate **36***a* comprises at least one row of orifices vertically aligned with each appliance slot **18***a*, with the dimensions and flow rates of each set being adapted to provide substantially equal flow of the dielectric fluid upwardly into each appliance slot **18***a*. Preferably, each appliance slot **18***a* is supplied via several rows of orifices, thus generally tending to reduce the volume of the dielectric fluid exiting each orifice and to make the flow of dielectric fluid more uniform upwardly through the appliance slots **18**. One further shared component is the dielectric fluid recovery facility **40** (FIG. **2**) comprising a dielectric fluid recovery reservoir **42** (see, FIG. **3**, FIG. **4** and FIG. **13**) positioned vertically beneath the overflow lip of the weir **22** and adapted smoothly to receive the dielectric fluid as it flows over the weir **22**; the dielectric fluid recovery reservoir **42** is further adapted to allow the recovered fluid to be removed from the reservoir **42** via redundant recovery ports **44***a* and **44***b* (only port **44***a* can be seen in FIG. **2** as the port **44***b* is obscured by the heat exchanger **32***a*; but see FIG. **12**). As can be seen in both FIG. **3** and FIG. **4**, we consider it desirable to provide a vortex breaker at the input of each of the recovery ports **44**. Also, we provide a removable recovery reservoir cover **46** adapted to also cover a major portion of the distribution header **38**; note that, in both FIG. **2** and FIG. **3**, we have illustrated the reservoir cover **46** in a partially raised orientation so as to better depict details that would otherwise be obscured. Note that we have constructed the reservoir **42** such that the average height of dielectric fluid above the recovery ports **44** develops sufficient hydrostatic head to meet the requirements of the pumps **48**, while also tending to minimize the likelihood of breaking suction during normal operation.

At this point in the primary circulation facility **28**, we provide fully redundant sub-facilities **28***a* and **28***b*, each comprising a primary circulation pump (**48***a* and **48***b*) and associated passive and active components which, collectively, provide the motive power for circulating the dielectric fluid through the shared components and tank **14**. As can be generally seen, each of these sub-facilities **28***a* and **28***b* is adapted to recover the dielectric fluid exiting the tank **14** via the weir **22**, re-pressurize the recovered fluid, pass the re-pressurized fluid through a respective one of the heat exchangers **32***a* and **32***b*, and then back to the plenum facility **36** via the header **38**.

Shown in FIG. **12** is one flow arrangement suitable for integrating our tank module **10** into a fully redundant, appliance immersion cooling system, comprising the primary circulation facility **28** and the secondary fluid circu-

lation facility **30**. In general, the secondary fluid circulation facility **30** comprises redundant secondary circulation sub-facilities **30***a* and **30***b*, each of which is adapted to circulate a cooling fluid, e.g., treated water, through the respective heat exchanger **32***a* and **32***b* to extract heat from dielectric fluid counter-circulating therethrough and to dissipate to the environment the heat so extracted. In the illustrated embodiment, each of the secondary fluid sub-facilities **30***a* and **30***b* comprise conventional cooling towers **50***a* (including fan facility **52***a*) and **50***b* (including fan facility **52***b*), and secondary circulation pumps **54***a* and **54***b*. To facilitate flexible operation in installations including multiple immersion modules **10** in combination with a plurality of secondary circulation sub-facilities **30**, a common header arrangement can be implemented as illustrated in the secondary fluid circulation loop, with flow control valves located at key flow control points as is known.

Shown in FIG. **13** is a control facility **56** adapted to monitor and control the operation of both the immersion module **10** (including all active components of the primary circulation facility **28**), and the secondary fluid circulation facility **30**. As will be evident to those skilled in this art, efficient operation of our immersion module **10** requires continuous monitoring and control of several essential operating parameters, including fluidic temperatures, pressures, conductivity and pH at several points in the primary and secondary circulation loops. Although the several sensory and control functions can be implemented using traditional dedicated hardware components, we prefer to employ at least one programmable logic controller ("PLC"), commercially available from any of a number of respected vendors, e.g., the Allen-Bradley brand of PLCs from Rockwell Automation, Inc. In the instantiation illustrated in FIG. **13**, we have depicted: a primary controller **58***a* adapted to monitor and control the operation of the primary circulation sub-facility **28***a* as a function of the temperature of the dielectric fluid in the tank **14**; a secondary controller **60***a* adapted to monitor and control the operation of the secondary fluid circulation sub-facility **30***a* as a function of the temperature of the dielectric fluid flowing through the heat exchanger **32***a*; and a master controller **62** adapted to coordinate the activities of the primary controller **58***a* and secondary controller **60***a*. As can be seen, we have incorporated into the primary circulation sub-facility **28***a*: supply and return sensors, including a temperature probe, T, inserted into a thermowell (not shown) installed in the bottom of the reservoir **42** adjacent a respective return port **44***a* (note that, in FIG. **4**, only one of the holes that receive the thermowells is illustrated, but both holes are illustrated in FIG. **12**); a pair of sensor facilities, S, which may sense temperature, pressure and conductivity, as deemed desirable); and return (and, if desired, supply) flow control valves and controls for the primary circulation pump **48***a*; of course, a redundant set of these components exists for the primary circulation sub-facility **28***b*. In general, the goal is to maintain the temperature of the dielectric fluid in the tank **14** between a predetermined minimum temperature and a predetermined maximum temperature.

As noted above, we have provided separate control equipment cabinets **34***a* and **34***b*, each adapted to accommodate the several components comprising a respective one of the primary controllers **58***a* and **58***b*. For convenience of access, we prefer to co-locate with each of the cooling towers **50** a protective housing (not shown) for the respective secondary controller **60**. Of course, the control facility **56** can be instantiated as a single, multi-module PLC facility, with similar or other combinations of monitoring devices as deemed most appropriate for a particular installation. Alternatively, one or more, and perhaps all, of the functions performed by the controllers **58**, **60** and **62** may be implemented in the form of dedicated application-specific software executing on a conventional computer platform having the appropriate resources; indeed, it would be entirely feasible to implement the entire control facility **56** on a server **16** installed in a tank **14**.

One desirable enhancement that we recommend is a remote control facility, implemented, e.g., via the master controller **62** (or by way of a direct, per-controller interface), adapted to facilitate remote monitoring of system status (e.g., temperatures, pressures, etc.) and control over system control parameters (e.g., temperature and pressure limits, etc.) to the primary controllers **58** and secondary controllers **60**. For example, using a conventional data communication hardware module **64**, e.g., an ethernet card implementing the TCP/IP protocol, a modern web browser can be adapted to provide a graphical user interface ("GUI") with sufficient functionality to facilitate monitoring and control of an entire installation from a remote location. Such a GUI may be implemented using any of a number of programming paradigms, e.g., PHP, .NET and the like.

Operational control of redundant, continuous process flow systems is generally well known. Preferable, each of the several redundant sub-facilities are routinely activated to assure current functionality, and to allow the inactive sub-facility to be serviced according to an established schedule. We believe this continuous rotation of system resources to be so important that we recommend switching the sub-facilities at least once, and preferably, several times, per day; although this is possible to implement manually, we prefer to enable the master controller **62** to control the sequencing of the several switch-over operations. One further aspect of this sophistication in control is the ability to perform stress testing of the several sub-systems under controlled conditions so as to assure appropriate response to real-time emergencies.

In our First Parent Provisional, we have disclosed an alternate embodiment comprising an appliance immersion tank facility wherein the function of the plenum facility **36** is performed by a manifold facility comprising a ladder-arrangement of tubular spray bars, each bar of which supplies dielectric fluid to a respective appliance slot. As we noted, one particular advantage of this arrangement is that individual spray bars may be shut off if the respective appliance slot is not occupied and, thus, save energy. To further increase energy efficiency, we have provided optional vertical flow barriers adapted to partition the tank into an active portion, having active appliances, and a stagnant portion, having no active appliances. One further enhancement we disclosed is the provision of temperature sensors per appliance slot, such that the flow rate through each spray bar can be dynamically varied as a function of the temperature of the dielectric fluid exiting the respective slot. Other operative configurations will be readily perceived by those skilled in this art.

In a manner analogous to the embodiment described in our First Parent Provisional, it would be advantageous, from an energy point of view, to provide a plurality of flow barrier plates **66** (shown by way of example only in FIG. **11**), each adapted to be attached to the top of the plenum facility **36** so as substantially to block the flow of the dielectric fluid through the row(s) of orifices in the plenum plate **36***a* corresponding to at least a respective one of the appliance slots **18***a*; an elastomeric layer (not shown) could be provided on the interface surface of the plate(s) **66** to enhance

the sealing effect. Such an arrangement would allow the total flow through the plenum facility **36** to be adjusted, in the field, as a function of the actual number of active appliances **16** in the tank **14**. Further, this arrangement can incorporate a relocatable vertical baffle plate **68** (see FIG. **11**) adapted substantially to partition the tank **14** into an active portion **14***a* containing the active appliances **16** and an inactive portion **14***b* containing no appliances (or at least no active appliances **16**); preferably, the baffle plate **68** is adapted to be mounted in the appliance rack facility **28** in a manner similar to an actual appliance **16** (the baffle plate **68** need not fully block the flow of dielectric fluid between the active portion **14***a* and inactive portion **14***b*, but only significantly impede the flow between these portions). Note that, in the example scenario illustrated in FIG. **11**, we have shown one possible arrangement of a total of 8 active appliances **16** distributed across **16** appliance slots **18***a* so as to spread the total heat load across adjacent empty slots **18***a*. Such an optimal arrangement is possible only if less than a majority of the available appliance slots **18***a* are occupied by an active appliance **16**. Clearly, such optional adjunct facilities enhance flexibility in operation, accommodating dynamic adjustment of the flow rates in the primary circulation sub-facilities **28***a* and **28***b* under variable heat loads, while providing opportunities to conserve energy that might otherwise be expended moving the dielectric fluid through the inactive portion **14***b* of the tank **14**. Other operative configurations will be readily perceived by those skilled in this art.

In our Second Parent Provisional, we have disclosed another embodiment comprising a more conventional, less-modularized instantiation with appropriate flow and control facilities. In this embodiment, we chose to implement tank clusters, comprising, e.g., 4 appliance immersion tank facilities, with substantially all of the other equipment being constructed from stand-alone, commercially available components. Such an arrangement offers greater opportunities to select and install improved components, or to add enhancements to the installation, as deemed desirable after initial installation. Other operative configurations will be readily perceived by those skilled in this art.

As we noted above with reference to the embodiment illustrated in FIG. **12**, the secondary flow header facility is well adapted to allow any secondary circulation sub-facility **30** to be connected to any active heat exchanger **32**. Such a facility provides great flexibility in dealing with unusual system conditions, especially in installations wherein the secondary circulation sub-facilities **30***a* and **30***b* are each sized to support a cluster of tank modules **10**. Imagine, for example, that, while one of the secondary circulation facilities **30**, say sub-facility **30***a*, is being serviced, the activities of the set of appliances **16** in one tank **14** in the cluster are higher than normal, resulting in a rise in temperature in that tank **14** above the desired maximum. In response, the master controller **62** can direct Primary Controllers **58***a* and **58***b* assigned to tank **14** to operate both of the primary circulation sub-facilities **28***a* and **28***b* simultaneously, i.e., in parallel. Using the secondary flow header facility, the heat being extracted by both of the heat exchangers **32***a* and **32***b* may be dissipated using the resources of the single on-line secondary circulation sub-facility **30***b*. Thus, one clear advantage of this alternate embodiment is the ability dynamically to perform load balancing across all system resources. Other operative configurations to support sub-system load balancing will be readily perceived by those skilled in this art.

Preferably, one or more filters (not shown) are included in the flow path through each of the primary circulation sub-facilities **28***a* and **28***b* to remove any particulates or other undesirable foreign matter that may have been picked up by the dielectric fluid on its passage though the entire primary circulation facility **28**; chemical sensors may also be provided to detect the presence of unexpected chemicals that may indicate failure of sub-components within one of the appliances **16**. Similar components, such as pH sensors, may also included in the secondary fluid circulation facility **30**.

As can be seen generally in FIG. **1**, we provide a pair of low dielectric fluid level sensors **70***a* and **70***b* adapted to trigger an alarm signal in the event that, for whatever reason, the level of the dielectric fluid in the tank **14** drops below a predetermined minimum level. Additionally, the responsive primary controller **58** can initiate other actions to address the detected problem, including activating audio alarms, transmitting electronic alert signals and the like.

To solve a reciprocal problem, namely leakage from an external portion of the primary circulation loop **28** resulting in the dielectric fluid in the tank **14** being back-siphoned through the plenum facility **36**, we recommend incorporating a siphon breaker **72** (see, FIG. **1**) in the supply pipe at a predetermined location well above the plenum facility **36** but somewhat below the level of the weir **24**. Such a siphon breaker can be as simple as a relatively small diameter hole **72** drilled through the supply pipe at the selected location; due to the relatively high viscosity of the dielectric fluid, even when heated, any resulting leakage during normal operation will be relatively insignificant. Other operative responses to address these and other unusual fluidic conditions will be readily perceived by those skilled in this art.

As is known (see, e.g., Best), many conventional, commercially available electrical/electronic appliances include components that will not function correctly if immersed in a dielectric fluid, especially one as viscous as mineral oil: cooling fans and rotating media disk drives. In general, all cooling fans are unnecessary in an immersion cooling system and can be simply removed. The media drives, however, are usually necessary for normal appliance operation. One option is to remove each drive, totally seal the drive against fluid entry, and reinstall the now-sealed drive (pre-sealed drives are also available). Another option is to remove the drive and mount it on the interconnect panel facility **24**; typically special cabling will be required to re-attach the drive to the internal appliance socket. Yet another option is to replace the rotating media drive with a solid-state drive having no moving components. Other operative configurations will be readily perceived by those skilled in this art.

It will be recognized that, in all of the embodiments described herein, emphasis was placed on minimizing the total volume of the dielectric fluid circulating throughout each immersion module **10**. We submit that the key concept here is to move the secondary fluid to the point of heat exchange with the primary fluid, rather than to move the primary fluid to the point of heat exchange with the secondary fluid. Thus, in our preferred embodiment, all of the essential components of the primary circulation facility **28** are tightly co-located with the tank **14** so as to form a highly-integrated module. Further, our placement of the reservoir **42** outside of (but immediately adjacent to) the tank **14** tends to reduce the total volume of the dielectric fluid (as opposed to the alternative arrangement we proposed in our First Provisional, wherein a recovery trough was disposed within the tank **14**); then, we positioned the components comprising the primary circulation sub-facilities **28** so as to be vertically beneath the footprint of the reservoir

42. In addition to conserving valuable floor space in a typical data center installation, the resulting modular configuration facilitates both easy initial installation and subsequent upgrade to efficiently satisfy increasing data center workloads. Indeed, our invention greatly enhances system scalability, a key concern to data center operators. Finally, our system-wide redundancy substantially assures fail-soft operation during periods of unusual environmental conditions, infrastructure instability or political unrest.

Although we have described our invention in the context of particular embodiments, one of ordinary skill in this art will readily realize that many modifications may be made in such embodiments to adapt either to specific implementations. By way of example, it will take but little effort to adapt our invention for use with electronic appliances other than contemporary servers; and to adjust the dimensions of the appliance accommodation slots accordingly. Similarly, practitioners in the art will readily recognize that other, known secondary circulation facilities may be employed effectively, including forced air, vapor compression systems, earth-water sink loops, waste heat recovery and recycling systems, and the like (see, e.g., the several alternatives discussed in Best). Further, the several elements described above may be implemented using any of the various known manufacturing methodologies, and, in general, be adapted so as to be operable under either hardware or software control or some combination thereof, as is known in this art.

Thus it is apparent that we have provided an improved system and method of operation for immersion cooling of appliances and the like. In particular, we submit that such a method and apparatus provides performance generally comparable to the best prior art techniques but more efficiently and effectively than known implementations of such prior art techniques.

What we claim is:

1. An appliance immersion cooling system comprising:
- a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank, the tank comprising:
  - a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot;
- a primary circulation facility adapted to circulate the dielectric fluid through the tank, comprising:
  - a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot;
- a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulating in the primary circulation facility, and to dissipate to the environment the heat so extracted; and
- a control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

2. The system of claim 1 wherein the tank and primary circulation facility comprise a tightly co-located module.

3. The system of claim 1 wherein the tank further comprises:
- an interconnect panel facility adapted to mount appliance support equipment.

4. The system of claim 1 wherein the primary circulation facility further comprises:
- at least first and second primary circulation sub-facilities, each adapted to operate independently to circulate the dielectric fluid through the tank;
- wherein the control facility is further adapted to coordinate the operation of the first and second primary circulation sub-facilities and the secondary fluid circulation facilities so to maintain the temperature of the dielectric fluid in the tank substantially between a predetermined minimum temperature and a predetermined maximum temperature.

5. The system of claim 1 wherein the control facility further comprises a communication facility adapted to facilitate monitoring and control of the control facility from a remote location.

6. A tank module adapted for use in an appliance immersion cooling system, the tank module comprising:
- a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank, the tank comprising:
  - a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot;
- a primary circulation facility adapted to circulate the dielectric fluid through the tank, comprising:
  - a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot; and
- a control facility adapted to control the operation of the primary fluid circulation facility as a function of the temperature of the dielectric fluid in the tank.

7. The module of claim 6 wherein the tank and primary circulation facility comprise a tightly co-located module.

8. The module of claim 6 wherein the tank further comprises:
- an interconnect panel facility adapted to mount appliance support equipment.

9. The module of claim 6 wherein the primary circulation facility further comprises:
- at least first and second primary circulation sub-facilities, each adapted to operate independently to circulate the dielectric fluid through the tank;
- wherein the control facility is further adapted to coordinate the operation of the first and second primary circulation sub-facilities so to maintain the temperature of the dielectric fluid in the tank substantially between a predetermined minimum temperature and a predetermined maximum temperature.

10. The module of claim 6 wherein the control facility further comprises a communication facility adapted to facilitate monitoring and control of the control facility from a remote location.

* * * * *

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(12) **United States Patent**
Blackmon et al.

(10) **Patent No.: US 12,317,450 B1**
(45) **Date of Patent: May 27, 2025**

(54) **FLUID CIRCULATION SYSTEMS AND METHODS FOR COOLING HAVING A COLLECTOR**

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H05K 7/20 (2006.01)
G06F 1/20 (2006.01)

(52) **U.S. Cl.**
CPC ***H05K 7/20272*** (2013.01); ***G06F 1/206*** (2013.01); ***H05K 7/20236*** (2013.01); ***H05K 7/20263*** (2013.01)

(58) **Field of Classification Search**
CPC .. H05K 7/20; H05K 7/20236; H05K 7/20263; H05K 7/20272; H05K 7/203;
(Continued)

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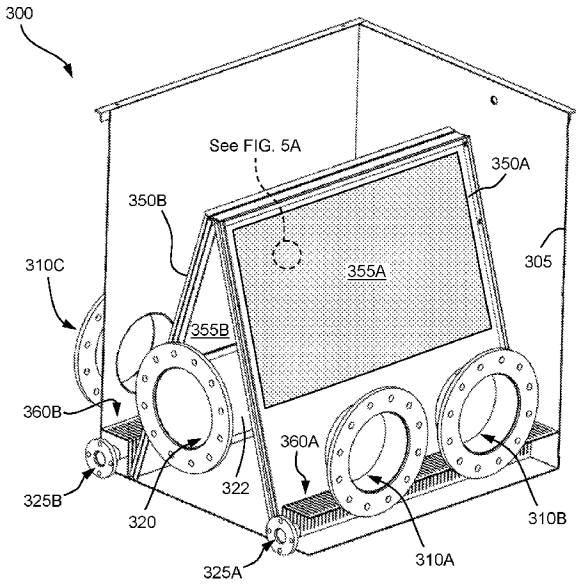
(57) **ABSTRACT**

A fluid circulation system for cooling a plurality of computing devices with a dielectric fluid includes a fluid tank, a cooler, and a collector. The fluid tank includes a bottom having a plurality of apertures for receiving the dielectric fluid. The fluid tank is configured to hold the plurality of computing devices with a first computing device of the plurality of computing devices disposed over a first group of the apertures of the plurality of apertures. The cooler is configured to receive the dielectric fluid and remove thermal energy from the dielectric fluid. The collector includes a first cavity, a second cavity, a plate separating the first cavity from the second cavity, a collector inlet that opens into the first cavity and is configured to supply dielectric fluid into the collector, and a collector outlet. The fluid tank, cooler, and collector are fluidly connected in a fluid circuit.

20 Claims, 9 Drawing Sheets



(58) **Field of Classification Search**
CPC H05K 7/20318; H05K 7/20327; H05K 7/20772; H05K 7/208; H05K 7/20809; H05K 7/20818; G06F 1/20; G06F 1/206; B01D 18/0031; B01D 35/18; F25D 3/005; F28D 15/00; F28F 13/00; F01P 11/028
See application file for complete search history.

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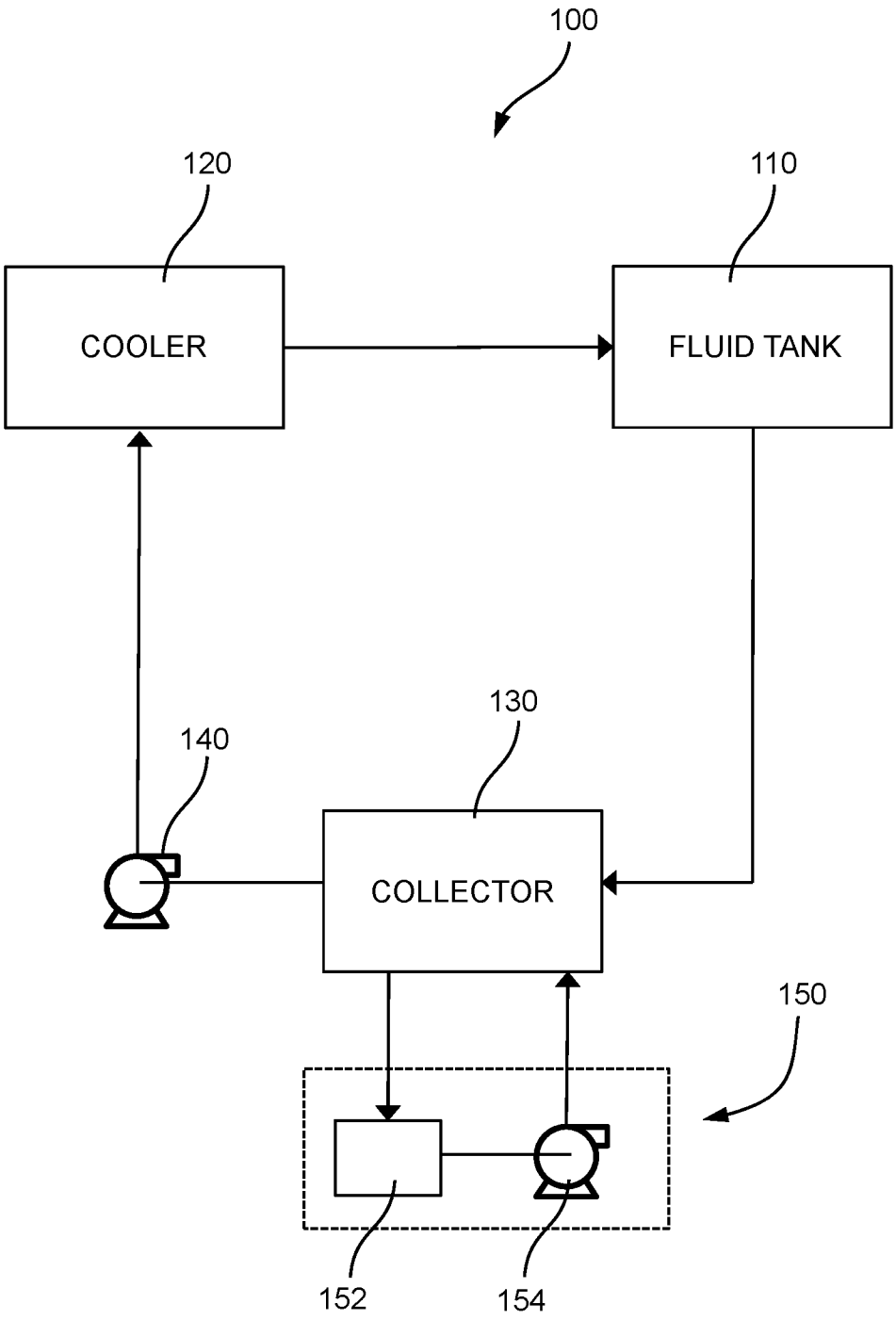

FIG. 1

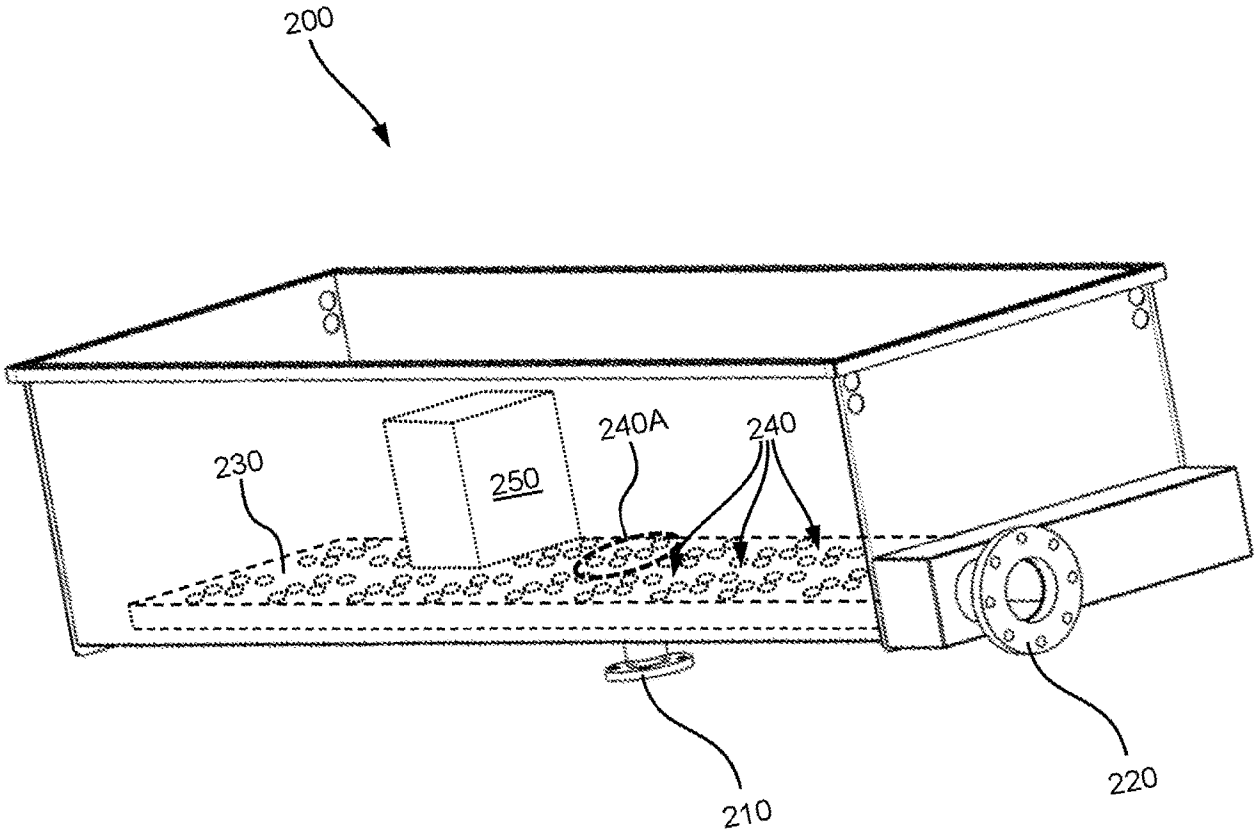

FIG. 2

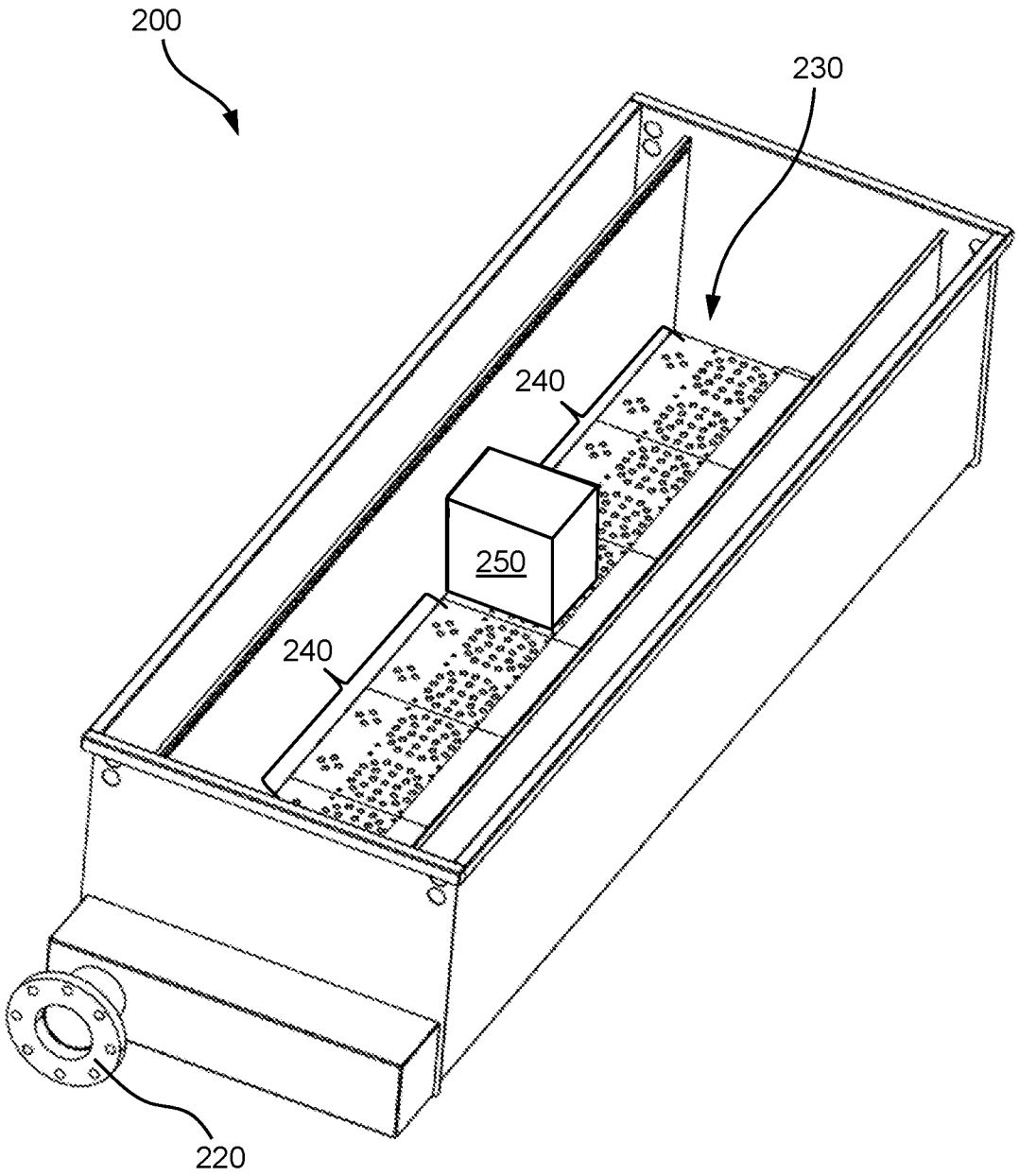

FIG. 2A

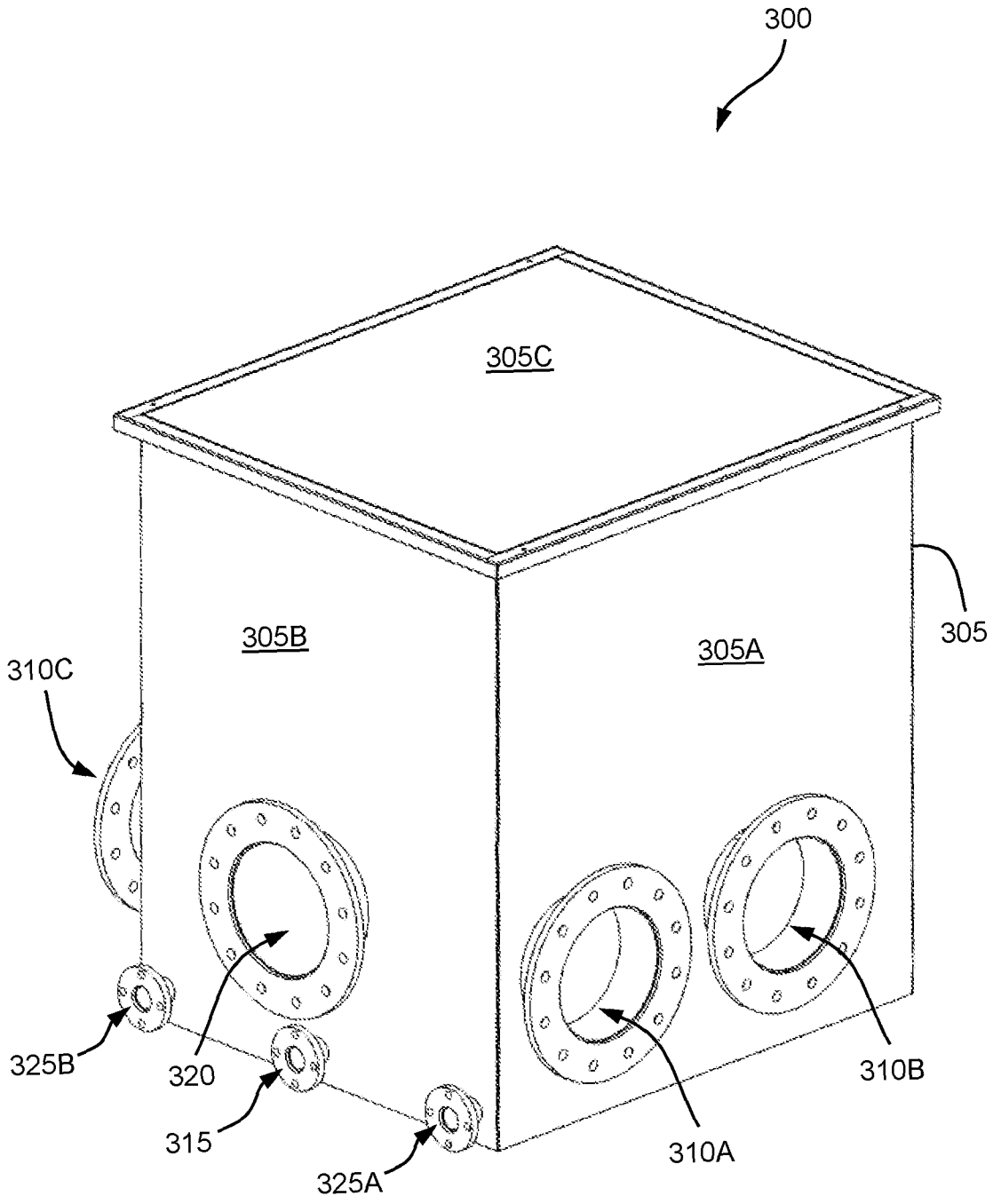

FIG. 3

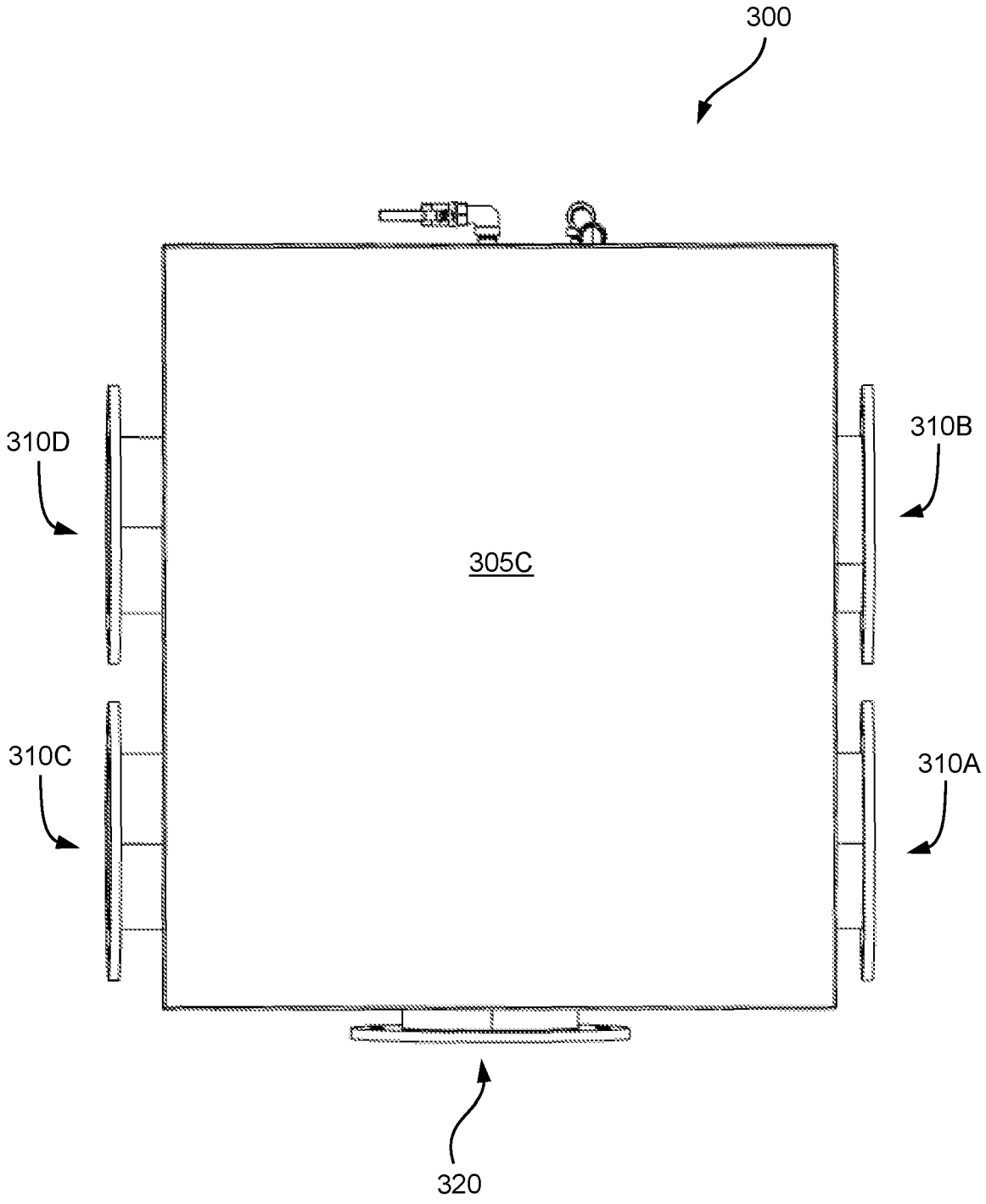

FIG. 4

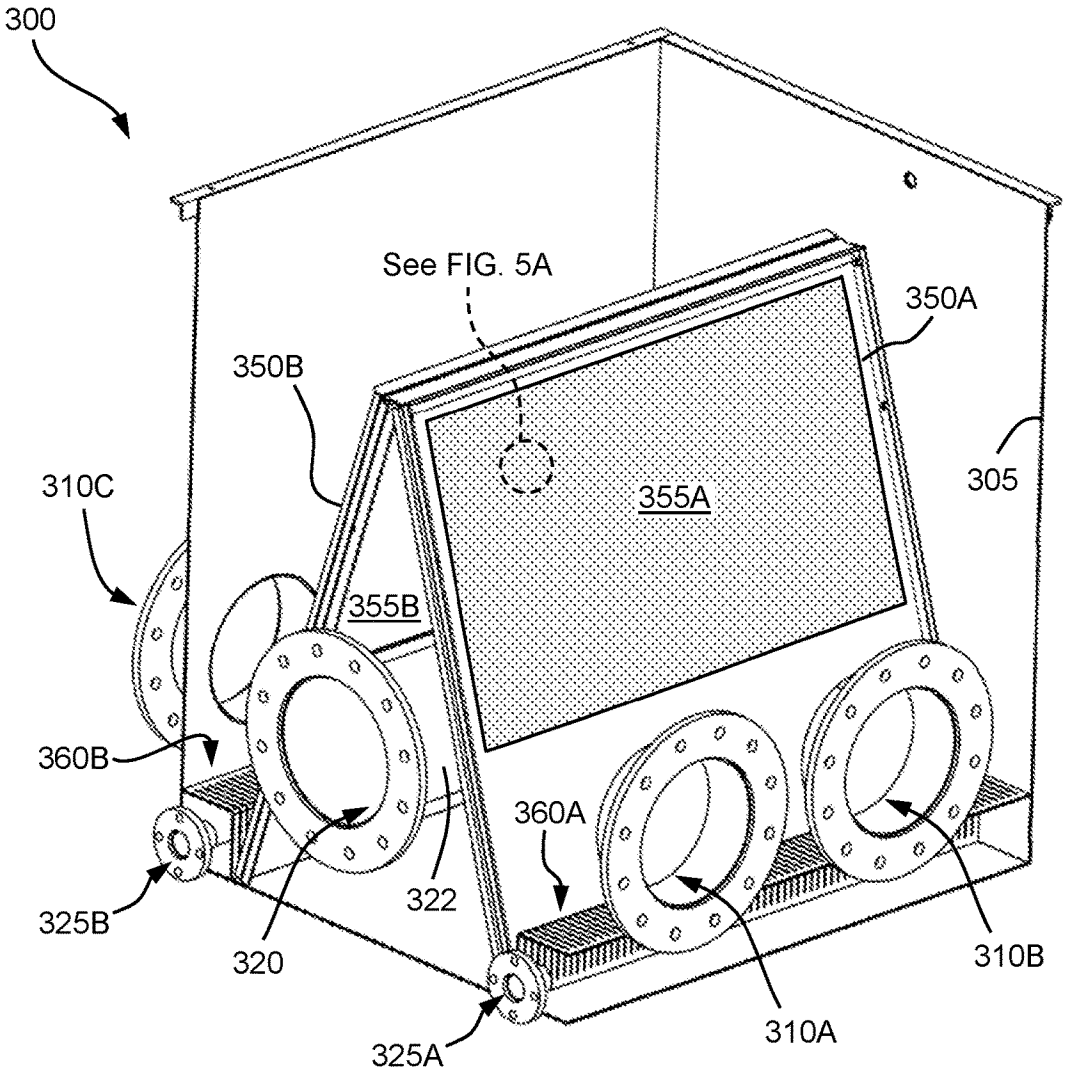
300
See FIG. 5A
350A
350B
305
310C
355A
355B
360B
360A
322
325B
320
310B
310A
325A

FIG. 5

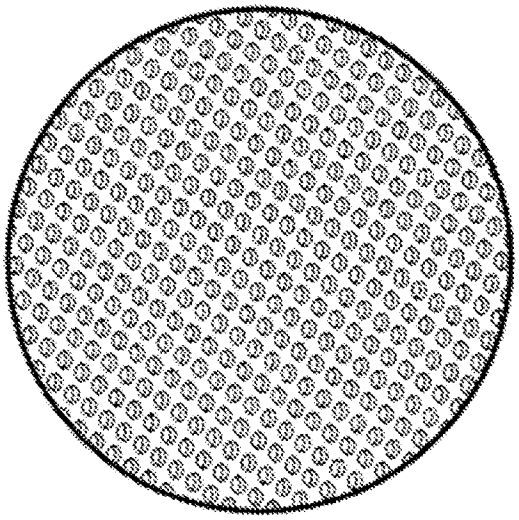

FIG. 5A

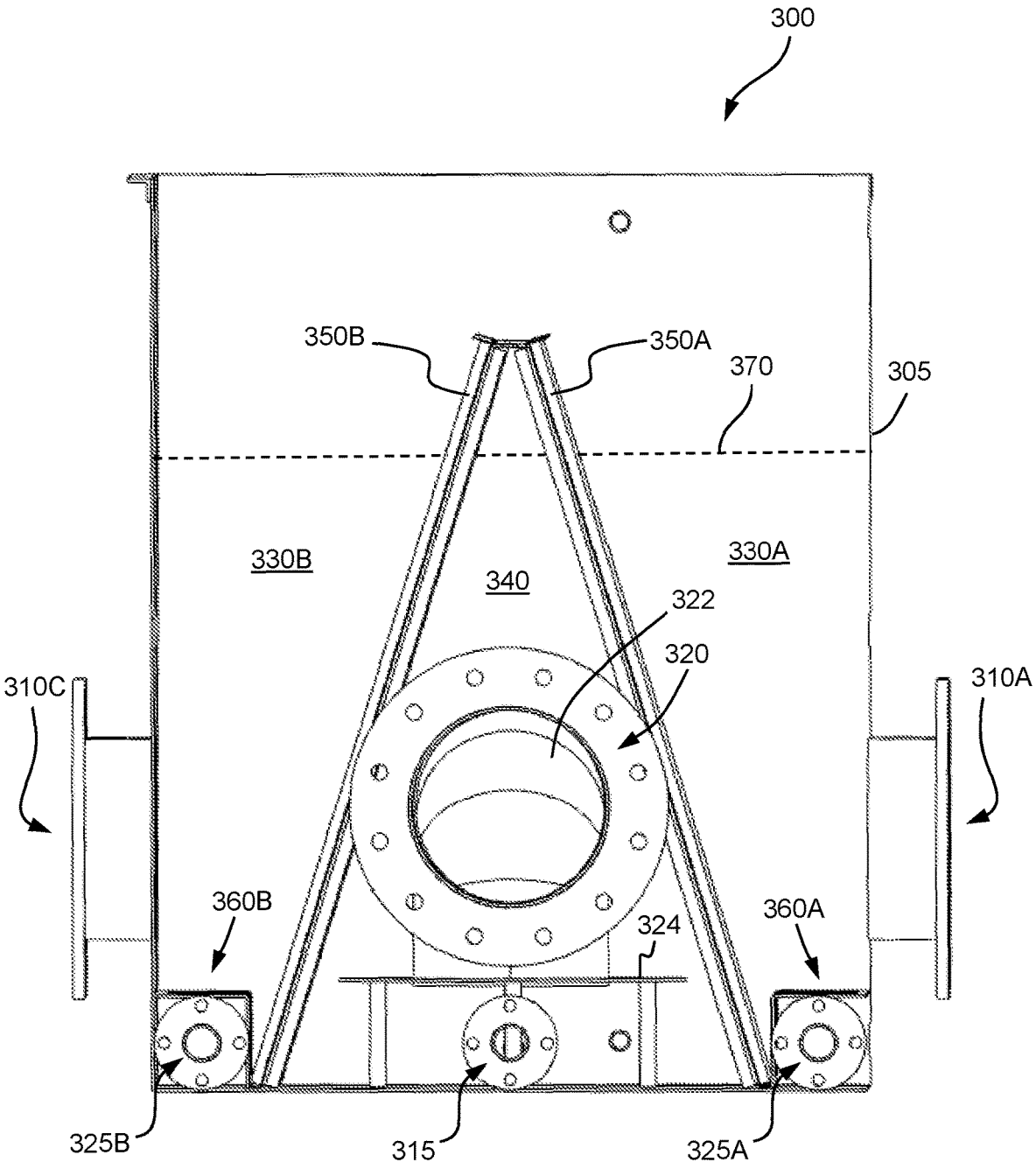
300
350B
350A
370
305
330B
340
330A
322
320
310C
310A
360B
360A
324
325B
315
325A

FIG. 6

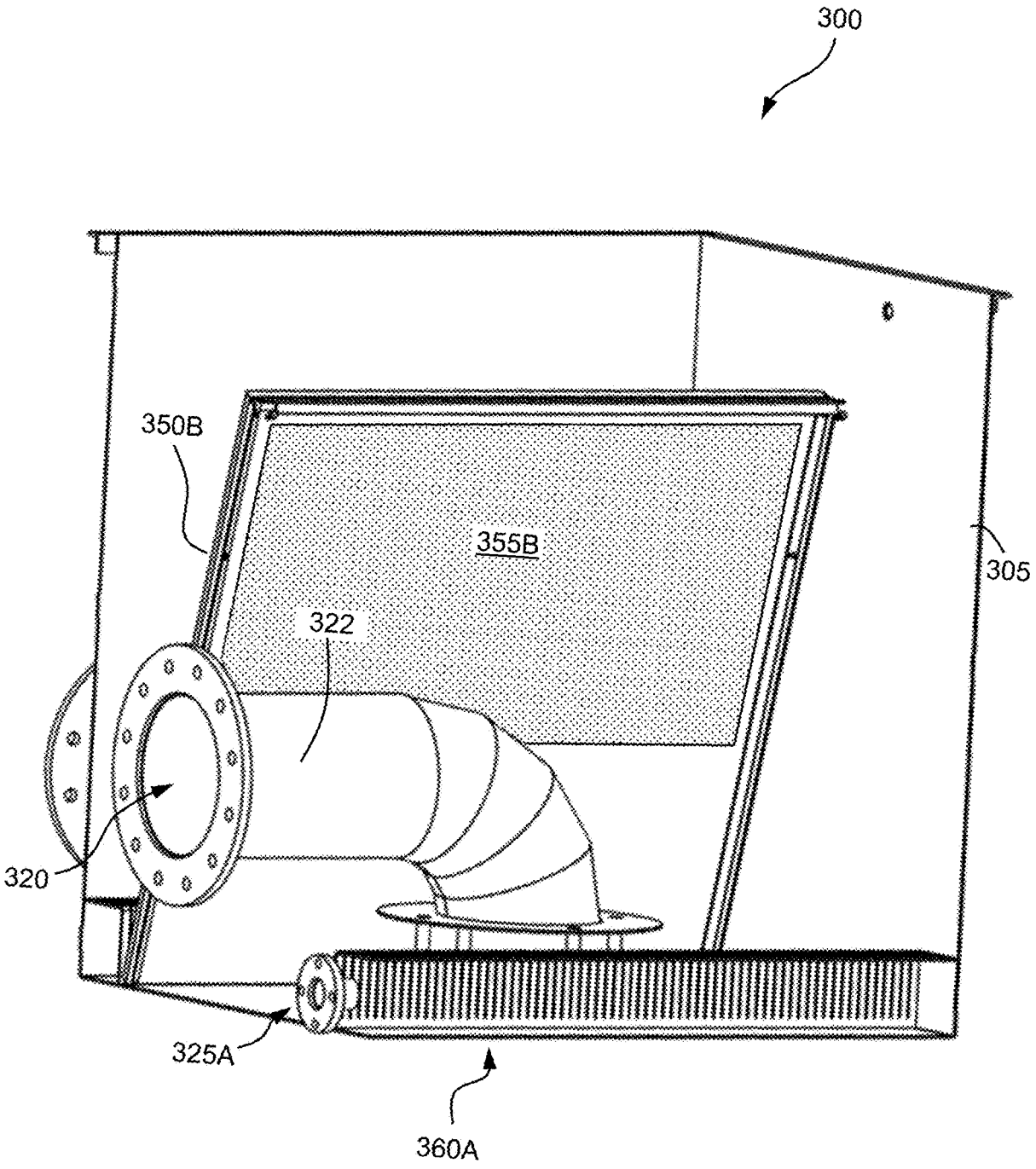

FIG. 7

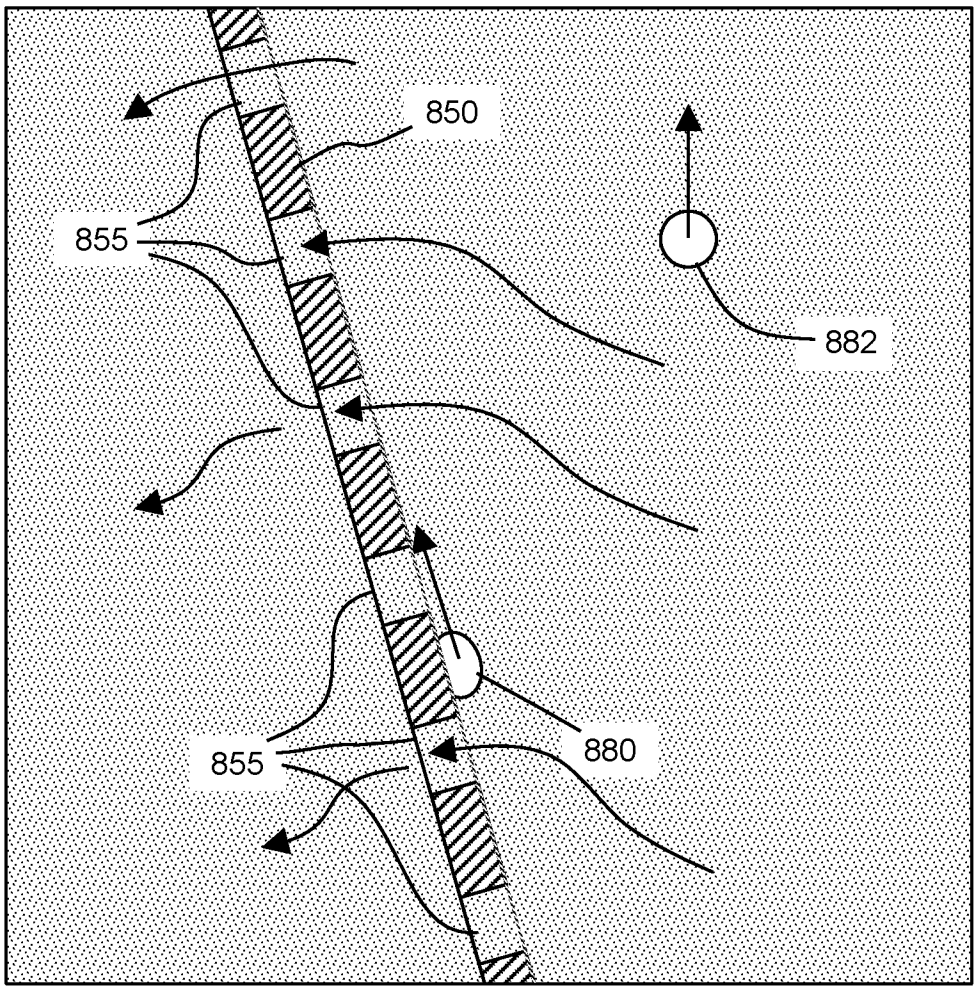

FIG. 8

FLUID CIRCULATION SYSTEMS AND METHODS FOR COOLING HAVING A COLLECTOR

CROSS-REFERENCE TO RELATED APPLICATION

The present application claims priority to U.S. Provisional Application No. 63/277,160, filed Nov. 8, 2021, which is hereby incorporated by reference.

BACKGROUND

Computing devices generate heat during operation. Thermal management systems may be used to dissipate heat that is generated by the computing devices.

SUMMARY

Embodiments described herein relate to fluid circulation systems and methods for cooling a plurality of computing devices with a dielectric fluid. Example fluid circulation systems described herein have a collector including cavities and a plate. The plate includes perforations that provide fluid access for moving the fluid from one cavity to another cavity. Beneficially, embodiments described herein may improve the heat transfer performance of the fluid circulation system.

In a first aspect, a fluid circulation system for cooling a plurality of computing devices with a dielectric fluid is disclosed. The fluid circulation system includes a fluid tank, a cooler, and a collector. The fluid tank includes a bottom having a plurality of apertures for receiving the dielectric fluid. The fluid tank is configured to hold the plurality of computing devices with a first computing device of the plurality of computing devices disposed over a first group of the apertures of the plurality of apertures. The cooler is configured to receive the dielectric fluid and remove thermal energy from the dielectric fluid. The collector includes a first cavity, a second cavity, a plate separating the first cavity from the second cavity, a collector inlet that opens into the first cavity and is configured to supply dielectric fluid into the collector, and a collector outlet. The plate is disposed at an angle such that a portion of the first cavity is positioned above a portion of the second cavity. The plate includes a plurality of perforations that provide fluid access for moving the dielectric fluid from the first cavity to the second cavity. The fluid tank, cooler, and collector are fluidly connected in a fluid circuit.

In an embodiment of the fluid circulation system, a first fluid path through the collector extends from the collector inlet, through the first cavity, through the plurality of perforations of the plate, through the second cavity, and to the collector outlet.

In another embodiment of the fluid circulation system, a cross-sectional area of the first cavity at an opening of the collector inlet is substantially greater than a cross-sectional area of the collector inlet so as to reduce a velocity of dielectric fluid entering the collector.

In another embodiment the fluid circulation system, the collector further includes a filtering chamber disposed under at least a portion of the first cavity and below the collector inlet.

In another embodiment of the fluid circulation system, a second fluid path through the collector extends from the collector inlet, through the first cavity, through the filtering chamber, and to a filter outlet.

In another embodiment of the fluid circulation system, the filter outlet is coupled to a filter, and the filter is coupled to a return configured to return dielectric fluid to the second cavity of the collector.

In another embodiment of the fluid circulation system, a majority of the plurality of perforations of the plate are disposed above the collector inlet so as to direct dielectric fluid in the first cavity upward and promote bubble dissipation in the first cavity.

In another embodiment of the fluid circulation system, one perforation of the plurality of perforations of the plate is smaller than one aperture of the plurality of apertures of the bottom of the fluid tank.

In another embodiment of the fluid circulation system, the system includes a pump configured to circulate the dielectric fluid through the fluid circuit.

In another embodiment of the fluid circulation system, the pump is disposed between the collector and the cooler.

In another embodiment of the fluid circulation system, the collector further includes a third cavity, a second plate separating the third cavity from the second cavity, and a second collector inlet that opens into the third cavity. The second plate is disposed at an angle such that a portion of the third cavity is positioned above a portion of the second cavity, and the second plate includes a plurality of perforations that provide fluid access for moving the dielectric from the first cavity to the second cavity.

In another embodiment of the fluid circulation system, the fluid tank is one of a plurality of fluid tanks including a second fluid tank, and a circulation path through the fluid circulation system comprises, in sequence, the plurality of fluid tanks, the collector, and the cooler.

In another embodiment of the fluid circulation system, the second collector inlet is opposite the collector inlet.

In another embodiment of the fluid circulation system, the plate and the second plate are oriented at opposite angles over the second cavity, and an upper end of the second plate contacts an upper end of the plate.

In another embodiment of the fluid circulation system, the fluid tank has an open volume.

In another aspect, a method of cooling a plurality of computing devices in a fluid circulation system is disclosed. The method includes pumping a dielectric fluid through a fluid circulation system such that the dielectric fluid flows along a plurality of paths through portions of the fluid circulation system. The plurality of paths includes a cooling path flowing through a fluid tank holding a plurality of computing devices, a restoring path flowing through a collector, and a heat exchange path flowing through a cooler so as to remove thermal energy from the dielectric fluid. The cooling path extends into the fluid tank through a plurality of apertures in a bottom of the fluid tank and upward past the plurality of computing devices so as to receive thermal energy from the plurality of computing devices. The restoring path extends through a collector inlet into a first cavity of the collector, from the first cavity of the collector through a plurality of perforations in a plate into a second cavity of the collector, and from the second cavity of the collector to a collector outlet.

In an embodiment of the method, the dielectric fluid is pumped through the fluid circulation system in a circuit including, in sequence, the cooling path, the restoring path, and the heat exchange path.

In another embodiment of the method, the plurality of computing devices are submerged in the fluid tank.

In another embodiment of the method, bubbles in the dielectric fluid rise in the first cavity and flow out of the restoring path.

In another embodiment of the method, a cross-sectional area of the first cavity at an opening of the collector inlet is substantially greater than a cross-sectional area of the collector inlet so as to reduce a velocity of dielectric fluid entering the collector thereby causing solids in the dielectric fluid to fall in the first cavity and flow out of the restoring path.

These as well as other aspects, advantages, and alternatives will become apparent to those of ordinary skill in the art by reading the following detailed description with reference where appropriate to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings are included to provide a further understanding of the systems and methods of the disclosure, and are incorporated in and constitute a part of this specification. The drawings are not necessarily to scale, and sizes of various elements may be changed for clarity. The drawings illustrate one or more embodiment(s) of the disclosure, and together with the description serve to explain the principles and operation of the disclosure. In the drawings, similar symbols typically identify similar components, unless context dictates otherwise.

FIG. **1** is a schematic depiction of a fluid circulation system, according to an example embodiment.

FIG. **2** is a perspective view of a fluid tank, according to an example embodiment.

FIG. **2**A is another perspective view of a fluid tank, according to an example embodiment.

FIG. **3** is a perspective view of a collector, according to an example embodiment.

FIG. **4** is a top view of a collector shown in FIG. **3**, according to an example embodiment.

FIG. **5** is a perspective view of aspects of the collector shown in FIG. **3**, according to an example embodiment.

FIG. **5**A is a detailed view of a portion of FIG. **5**.

FIG. **6** is a front view of aspects of the collector shown in FIG. **3**, according to an example embodiment.

FIG. **7** is a perspective view of aspects of the collector shown in FIG. **3**, according to an example embodiment.

FIG. **8** is a schematic depiction of fluid flow on a plate, according to an example embodiment.

DETAILED DESCRIPTION

The following detailed description describes various features and functions of the disclosed apparatus, system, and methods with reference to the accompanying figures. The illustrative apparatus, system, and method embodiments described herein are not meant to be limiting. It will be readily understood that certain aspects of the disclosed apparatus, system, and methods can be arranged and combined in a wide variety of different configurations, all of which are contemplated herein.

I. Introduction

An example fluid circulation system for cooling a plurality of computing devices with a dielectric fluid includes a fluid tank, a cooler, and a collector. The collector includes a first cavity, a second cavity, a plate separating the first cavity from the second cavity, a collector inlet that opens into the first cavity and is configured to supply dielectric fluid into the collector, and a collector outlet. The plate is positioned above a portion of the second cavity, and the plate includes a plurality of perforations that provide fluid access for moving the dielectric fluid from the first cavity to the second cavity. Beneficially, flowing dielectric fluid through the collector may reduce dissolved gases and the presence of bubbles in the dielectric fluid and/or reduce solids in fluid paths of the fluid circulation system.

An example method of cooling the plurality of computing device includes pumping dielectric fluid through a restoring path flowing through the collector. The restoring path extends through the collector inlet into the first cavity, from the first cavity through the plurality of perforations into the second cavity, and from the second cavity to the collector outlet.

II. Example Systems

FIG. **1** is a schematic depiction of a fluid circulation system **100**, according to an example embodiment. The fluid circulation system **100** includes a fluid tank **110**, a cooler **120**, and a collector **130** fluidly connected in a fluid circuit. In the fluid circulation system **100**, a dielectric fluid flows through at least the fluid tank **110**, collector **130**, and cooler **120**. Fluid paths are as indicated in FIG. **1** and flow direction of a fluid in a given fluid path is indicated by one or more arrows. FIG. **1** is illustrative only and other fluids, components (e.g., piping, valves, seals, sensors), and/or fluid paths may be included in embodiments of a fluid circulation system.

The fluid tank **110** is configured to hold a plurality of computing devices. Dielectric fluid may flow through the fluid tank **110** to receive thermal energy from the plurality of computing devices. By receiving thermal energy from the plurality of computing devices, the dielectric fluid may cool the plurality of computing devices.

The cooler **120** is configured to receive dielectric fluid and remove thermal energy from the dielectric fluid. The dielectric fluid may flow through the cooler **120** so as to remove thermal energy from the dielectric fluid. In some embodiments, the cooler **120** includes a cooling tower configured to receive air to absorb thermal energy from the dielectric fluid. The cooling tower may transfer thermal energy from the dielectric fluid to atmospheric air. The cooler **120** may take the form of other components that serve a similar thermal purpose as well, including a heat exchanger. The heat exchanger, such as a shell-and-tube heat exchanger, may be configured to receive water or another liquid coolant to absorb thermal energy from the dielectric fluid.

The collector **130** is configured to receive dielectric fluid. As described herein, the collector **130** may restore the dielectric fluid so as to improve the heat transfer performance of the fluid circulation system **100**. The collector **130** may be coupled downstream of the fluid tank **110** and upstream of the cooler **120**. However, in other embodiments, the collector **130** may be arranged in different positions in the fluid circulation system **100**, including downstream of the cooler **120** and upstream of the fluid tank **110**.

The fluid circulation system **100** may also include a pump **140** configured to circulate dielectric fluid through at least the fluid tank **110**, the cooler **120**, and the collector **130**. The pump **140** is fluidly connected to the fluid circuit. The pump **140** may be coupled downstream of the collector **130** and upstream of the cooler **120**. However, in other embodiments, the pump **140** may be arranged in different positions in the fluid circulation system **100**, including downstream of the cooler **120** and upstream of the fluid tank **110**. The pump **140**

may be formed by any actuator or mechanism that moves fluid, such as a rotary, piston, or other pumps. In some embodiments, the pump **140** may pump dielectric fluid through the fluid circulation system **100** at a constant speed or at variable speeds.

The fluid circulation system **100** may also include a filtering system **150** configured to filter dielectric fluid. The filtering system **150** is fluidly connected to the collector **130**. The filtering system **150** includes a filter **152** and a pump **154**. The filter **152** is configured to receive dielectric fluid and filter the dielectric fluid. The pump **154** is configured to circulate dielectric fluid through the collector **130** and the filter **152**. The pump **154** may take the form of or be similar in form to the pump **140**.

Although the fluid circulation system **100** is described above with respect to fluid tank **110**, in some embodiments, fluid tank **110** is one of a plurality of fluid tanks. In some embodiments, the plurality of fluid tanks may include 6 fluid tanks, 12 fluid tanks, 18 fluid tanks, or 24 fluid tanks. Dielectric fluid may flow through at least the plurality of fluid tanks, collector **120**, and collector **130**. In some embodiments, a circulation path through the fluid circulation system **100** includes, in sequence, the plurality of fluid tanks, the collector, and the cooler. The term dielectric fluid, as used herein, includes various dielectric fluids that are known in the art and can suitably be used in the systems and methods described herein. For example, the dielectric fluids may be an oil-based dielectric, such as a hydrocarbon-based oil dielectric or silicone oil dielectric, and may have a dielectric strength above 40 kV at 2 mm.

FIG. **2** is a perspective view of a fluid tank **200**, according to an example embodiment. The fluid tanks described herein may take the form of the fluid tank **200**. The fluid tank **200** includes an inlet **210**, an outlet **220**, and a bottom **230**. In some embodiments, the inlet **210** is coupled downstream of the cooler **120**, and the outlet **220** is coupled upstream of the collector **130**. However, in other embodiments, the inlet **210** and outlet **220** may be coupled to other components in the fluid circulation **100**. In FIG. **2**, a sidewall of the fluid tank **200** is removed for illustration. FIG. **2**A is another perspective view of the fluid tank **200**, according to an example embodiment.

The bottom **230** of the fluid tank **200** includes a plurality of apertures **240**. The fluid tank **200** is configured to hold a plurality of computing devices. Groups of apertures of the plurality of apertures **240** may be associated with a particular computing device of the plurality of computing devices. In FIG. **2**, a first computing device **250** of the plurality of computing devices is disposed over a first group of apertures of the plurality of apertures **240**. A second group apertures **240**A is shown in FIG. **2**. The term computing device, as used herein, includes devices configured to execute software, including servers and desktop computers. Computing devices may include one or more processors, memory, and input/output connections.

In the fluid circulation system **100**, dielectric fluid flows through the inlet **210** through the plurality of apertures **240** upward past the first computing device **250** and the other computing devices of the plurality of computing devices so as to receive thermal energy from the first computing device **250** and the other computer devices of the plurality of computing devices. The dielectric fluid, having received thermal energy from the plurality of computing devices, then flows through outlet **220**.

The fluid tank **200** may have an open volume, and the plurality of computing devices may be submerged in the dielectric fluid. For example, in some embodiments, the plurality of computing devices may be fully submerged in the fluid tank **200**. In other embodiments, at least one computing device of the plurality of computing devices, such as the first computing device **250**, may be partially submerged in dielectric fluid. For example, the first computing device **250** may be partially submerged within the fluid tank **200**.

In some embodiments, the plurality of apertures **240** may include between 5 to 10, 10 to 15, 15 to 20, 20 to 25, 25 to 30, or 30 to 35 groups of apertures. Other numbers of groups of apertures of the plurality of apertures are possible as well.

In some embodiments, the plurality of computing devices may include between 5 to 10, 10 to 15, 15 to 20, 20 to 25, 25 to 30, and 30 to 35 computing devices. Other numbers of computing devices in the plurality of computing devices are possible as well.

FIG. **3** is a perspective view of a collector **300**, according to an example embodiment. The collectors described herein may take the form of the collector **300**. The collector **300** includes a housing **305**, a collector inlet **310**A, and a collector outlet **320**. In some embodiments, the inlet **310**A is coupled to the outlet **220** of the fluid tank **200**, and the outlet **320** is coupled to the cooler **120**. The inlet **310**A may be configured to receive dielectric fluid with thermal energy from the plurality of computing devices. However, in other embodiments, the inlet **310**A and outlet **320** may be coupled to other components of the fluid circulation system **100**. The housing **305** may be a container having four sidewalls and a top. The first sidewall **305**A, second sidewall **305**B, and top **305**C are shown in FIG. **3**. FIG. **4** shows a top view of the collector **300**, according to an example embodiment.

The collector **300** may also include a filter outlet **325**A and a filter inlet **315**. In some embodiments, the filter outlet **325**A is coupled downstream of the inlet **310**A and upstream of the filter system **150**. The filter system **150** is configured to receive a portion of dielectric fluid via the filter outlet **325**A and filter the portion of dielectric fluid. In some embodiments, the filter inlet **315** is coupled downstream of the filter system **150** and coupled to the outlet **320**. The filter inlet **315** is configured to receive dielectric fluid filtered by the filter system **150** and convey the filtered dielectric electric fluid to the outlet **320**.

FIGS. **5**, **5**A, and **6** show aspects of the collector **300**, according to an example embodiment. FIG. **5** is a perspective view of aspects of the collector **300** in which first sidewall **305**A, second sidewall **305**B, and top **305**C are removed for illustration. FIG. **6** is a front view of the collector **300** in which the second sidewall **305**B is removed for illustration.

The collector **300** includes a first cavity **330**A, a second cavity **340**, and a plate **350**A separating the first cavity **330**A from the second cavity **340**. The inlet **310**A opens into the first cavity **330**A and is configured to supply dielectric fluid into the collector **300**.

The plate **350**A is disposed at an angle such that a portion of the first cavity **330**A is positioned above a portion of the second cavity **340**. Further, the plate **350**A includes a plurality of perforations **355**A that provide fluid access for moving dielectric fluid from the first cavity **330**A to the second cavity **340**. FIG. **5**A shows aspects of the plate **350**A and the plurality of perforations **355**A.

In some embodiments, a first fluid path through the collector **300** extends from the inlet **310**A, through the first cavity **330**A, through the plurality of perforations **355**A, through the second cavity **340**, and to the outlet **320**. The collector **300** may also include piping **322** configured to convey dielectric fluid from the second cavity **340** to the

outlet **320**. The piping **322** may be referred to as a downspout. In some embodiments, dielectric fluid flowing through the plurality of perforations **355**A and into the second cavity **340** contacts an outer surface of the piping **322**.

Further, the collector **300** may also include a flange **324** at an end of the piping **322**. The flange **324** may reduce formation of vortices as the dielectric fluid flows from the second cavity through the piping **322**.

Moreover, in some embodiments, a cross-sectional area of the first cavity **330**A at an opening of the inlet **310**A is substantially greater than a cross-sectional area of the inlet **310**A. For example, the cross-sectional area of the first cavity **330**A may be at least 50% greater than the cross-sectional area of the opening of the inlet **310**A, sometimes at least 100% greater, at least 200% greater, or more. As a result of this change in the cross-sectional area, the velocity of the dielectric fluid may substantially drop as it flows into the collector. The decrease in velocity helps any bubbles in the dielectric fluid to rise to the fluid surface, where they are dissipated. Likewise, the decrease in velocity also helps any solids that have accumulated in the dielectric fluid to fall out of the first fluid path and move toward the bottom of the first cavity **330**A.

In some embodiments, a majority of the plurality of perforations **355**A are disposed above the inlet **310**A so as to direct dielectric fluid in the first cavity **330**A upward before it passes through the perforations **355**A in the plate **350**A. This upward trajectory of the dielectric fluid may help remove bubbles from the dielectric fluid. For example, the rising fluid may carry the lighter bubbles upward initiating the rise of the bubbles. As the dielectric fluid flows through the first cavity **330**A, the bubbles may continue to rise toward the liquid surface, where they are dissipated. Moreover, the rise of the dielectric fluid in the first cavity **330**A, which results from the elevated position of the perforations **355**A compared to the inlet **310**A, also increases the length of the first fluid path through the first cavity **330**A. Accordingly, any bubbles in the dielectric fluid have a longer opportunity to rise out of the dielectric fluid.

In some embodiments, one perforation of the plurality of perforations **355**A is smaller than one aperture of the plurality of apertures **240**. For example, one perforation of the plurality of perforations **355**A may be 0.25 inch in diameter and one aperture of the plurality of apertures **240** may be 0.5 inch in diameter. Further, in some embodiments, the average size of the perforations **355**A is smaller than the average size of the apertures **240**. Likewise, in some embodiments, the majority of perforations **355**A have a smaller size than the majority of apertures **240**. Beneficially, where some perforations of the plurality of perforations **355**A are smaller than some apertures of the plurality of apertures **240**, the plurality of perforations **355**A may function as a course filter media that does not impede flow of dielectric fluid to the pump **140**. Further, in some embodiments, the plurality of perforations **355**A have a mesh size of 60 wires per inch. In some such embodiments, the plurality of perforations **355**A may increase nucleation of bubbles in the dielectric fluid.

Further, in some embodiments, a level **370** of dielectric fluid may be maintained in the collector **300** during operation of the collector. The level **370** may be between 12 to 24 inches, 24 to 36 inches, and 36 to 48 inches. In some embodiments, the collector **300** may be configured to receive a flow rate of dielectric fluid in a range from 300 GPM to 2000 GPM, such as 300 GPM to 900 GPM, 900 GPM to 1400 GPM, 1400 GPM to 2000 GPM, and 1000 GPM to 2000 GPM.

The collector **300** may also include a filter chamber **360**A disposed under at least a portion of the first cavity **330**A and below the inlet **310**A. The filter chamber **360**A is coupled to the filter outlet **325**A. In some embodiments, a second fluid path through the collector **300** extends from the inlet **310**A, through the first cavity **330**A, through the filtering chamber **360**A and to the filter outlet **325**A. In some embodiments, solids in the dielectric fluid may be carried by the dielectric fluid through the second fluid path.

The collector **300** may also include other inlets, another cavity, another plate, another filter chamber, and another filter outlet. Additional inlets, cavity, plate, filter chamber, and filter outlet may enable the collector **300** to receive dielectric fluid from more fluid tanks. In the illustrated example, the collector **300** includes second collector inlet **310**B, third collector inlet **310**C, and fourth collector inlet **310**D.

The third inlet **310**C is opposite of the inlet **310**A, and the third inlet **310**C opens into a third cavity **330**B and is configured to supply dielectric into the collector **300**. The collector **300** may also include a second plate **350**B that separates the third cavity **330**B from the second cavity **340**.

The second plate **350**B is disposed at an angle such that a portion of the third cavity **330**B is positioned above a portion of the second cavity **340**. Further, the second plate **350**B includes a plurality of perforations **355**B that provide fluid access for moving dielectric fluid from the third cavity **330**B to the second cavity **340**.

In some embodiments, a third fluid path through the collector **300** extends from the third inlet **310**C, through the third cavity **330**B, through the plurality of perforations **355**B, through the second cavity **340**, and to the outlet **320**.

Further, in some embodiments, a cross-sectional area of the third cavity **330**B at an opening of the third inlet **310**C is substantially greater than a cross-sectional area of the third inlet **310**C so as to reduce a velocity of dielectric fluid entering the collector **300**.

Moreover, in some embodiments, a majority of the plurality of perforations **355**B are disposed above the third inlet **310**C so as to direct dielectric fluid in the third cavity **330**B upward and promote bubble dissipation in the third cavity **330**B.

In some embodiments, the third inlet **310**C, the third cavity **330**B, the second plate **350**B, and the plurality of perforations **355**B may be the same as or similar to the inlet **310**A, the first cavity **330**A, the plate **350**A, and the plurality of perforations **355**A, respectively, and function in a similar manner, respectively. For example, the plate **350**A and the second plate **350**B may be oriented at opposite angles over the second cavity **340**, and an upper end of the second plate **350**B may contact an upper end of the plate **350**A.

However, in other embodiments, the third inlet **310**C may have a different size than the inlet **310**A, the third cavity **330**B may have a different size than the first cavity **330**A, the second plate **350**B may have a different size than the plate **350**A, and the plurality of perforations **355**B may have a different size than the plurality of perforations **355**A. For example, the angle of the second plate **355**B between the third cavity **330**B and the second cavity **340** may be different than the angle of the plate **355**A between the first cavity **330**A and the second cavity **340**.

The collector **300** may also include a filter chamber **360**B disposed under at least a portion of the third cavity **330**A and below the third inlet **310**C. The filter chamber **360**B is coupled to a filter outlet **325**B. The filter outlet **325**B in turn is coupled to filter system **150**. In some embodiments, a fourth fluid path through the collector **300** extends from the

third inlet **310**C, through the third cavity **330**B, through the filtering chamber **360**B and to the filter outlet **325**B. Further, in some embodiments, solids in the dielectric fluid may be carried by the dielectric fluid through the fourth fluid path.

In some embodiments, the filter chamber **360**B and the filter outlet **325**B may be the same as or similar to the filter chamber **360**A and filter outlet **325**A, respectively, and function in a similar manner, respectively. However, in other embodiments, the filter chamber **360**B may have a different size than the filter chamber **360**A, and the filter outlet **325**B may have a different size than the filter outlet **325**A.

FIG. **7** shows aspects of the collector **300**, according to an example embodiment. FIG. **7** is a perspective view of aspects of the collector **300** in which the first sidewall **305**A, inlets **310**A and **310**B, top **305**C, and plate **350**A are removed for illustration.

The second inlet **310**B is parallel to the inlet **310**A, and second inlet **310**B opens into the first cavity **330**A and is configured to supply dielectric fluid into the collector **300**. The second inlet **310**B may function the same as or similar to the inlet **310**A. In some embodiments, the second inlet **310**B may have the same size as the inlet **310**A. However, in other embodiments, the second inlet **310**B may have a different size than the inlet **310**A.

In some embodiments, a fifth fluid path through the collector **300** extends from the second inlet **310**B, through the first cavity **330**A, through the plurality of perforations **355**A, through the second cavity **340**, and to the outlet **320**.

In some embodiments, the filter chamber **360**A is disposed below the second inlet **310**B. Further, in some embodiments, a sixth fluid path through the collector **300** extends from the second inlet **310**B, through the first cavity **330**A, through the filtering chamber **360**A and to the filter outlet **325**A.

The fourth inlet **310**D is parallel to the third inlet **310**C, and the fourth inlet **310**D opens into the third cavity **330**B and is configured to supply dielectric fluid into the collector **300**. The fourth inlet **310**D may function the same as or similar to the third inlet **310**C. In some embodiments, the fourth inlet **310**D may have the same size as the third inlet **310**C. However, in other embodiments, the fourth inlet **310**D may have a different size than the third inlet **310**C.

In some embodiments, a seventh fluid path through the collector **300** extends from the fourth inlet **310**D, through the third cavity **330**B, through the plurality of perforations **355**B, through the second cavity **340**, and to the outlet **320**.

In some embodiments, the filter chamber **360**B is disposed below the fourth inlet **310**D. Further, in some embodiments, an eighth fluid path through the collector **300** extends from the fourth inlet **310**D, through the third cavity **330**B, through the filtering chamber **360**B and to the filter outlet **325**B.

In some embodiments, each of inlets **310**A-**310**D is configured to receive dielectric fluid from multiple fluid tanks. For example, each of inlets **310**A-**310**B may be coupled to two, four, six, or eight fluid tanks. Further, in some embodiments, each of inlets **310**A-**310**D is coupled to the same number of fluid tanks. However, in other embodiments, at least one of inlets **310**A-**310**D is coupled to more fluid tanks than the other inlets.

FIG. **8** is a schematic depiction of fluid flow through a plate **850** of a collector, according to an example embodiment. Dielectric fluid flow through plates **350**A and **350**B may take the form of the fluid flow depicted in FIG. **8**. The plate **850** includes a plurality of perforations **855** that extend directly through the plate, i.e., in a direction perpendicular to the surface of the plate **850**. Accordingly, because the plate **850** is disposed at an angle with respect to gravity, the perforations **855** include a downward trajectory through the plate **850**. Thus, while the dielectric fluid easily flows through the perforations **855**, as depicted by the arrows in FIG. **8**, any bubbles in the dielectric fluid may be hindered from passing through the plate **850** as a result of their buoyancy. Specifically, the propensity of the bubbles to rise in the dielectric fluid will hinder the bubbles from flowing through the downward perforations **855**. Rather, as shown by the example bubble **880**, bubbles may tend to slide upward along the surface of the plate **850** until they detach or reach the fluid surface. Any bubbles that detach may be inclined to rise, as shown by example bubble **882**. While the illustrated plates **350**A, **350**B of the example embodiments are disposed at angles in the collector, this phenomenon can also be achieved by angling the path of the perforations through the plate. For example, in some embodiments, the plate may be vertical and include perforations that may have a downward trajectory in the direction from the first cavity to the second cavity.

The reduction of dissolved gases and bubbles in the dielectric fluid resulting from the collector **300** may improve the heat transfer performance of the fluid circulation system **100**. For example, reduction of dissolved gases and bubbles in the dielectric fluid may increase the amount of thermal energy the dielectric fluid may receive from the plurality of computing device. As another example, reduction of dissolved gases and bubbles in the dielectric fluid may reduce oxidation of the dielectric fluid, which may in turn increase the useful life of the dielectric fluid. As yet another example, reduction in dissolved gases and bubbles may in turn reduce turbulent flow through the pump **140** and/or reduce cavitation in the pump **140**, which may improve the performance of the pump **140** and/or the useful life of the pump **140**. The term useful life, as used herein, includes the time to repair or replace all or at least some of one component with a new component. Repairing or replacing a component of the fluid circulation system **100**, including the dielectric fluid and pump **140**, may involve downtime of the fluid circulation system **100**.

The reduction of solids in the first and third fluid paths by the collector **300** may improve the heat transfer performance of the fluid circulation system **100**. As examples, reduction in solids in the first fluid path may improve the useful life of the pump **140**, improve the efficiency of the pump **140**, increase the amount of thermal energy the dielectric fluid may receive from the plurality of computer devices, and/or increase the useful life of the dielectric fluid.

The above-described components of fluid circulation systems may be composed of a variety of different materials. For example, the components of the collector **300** described above may be formed of metal, such as aluminum or steel.

III. Example Methods

Methods for cooling a plurality of computing devices with a dielectric fluid may be carried out in whole or in part by a component or components of a fluid circulation system, such as the fluid circulation system **100**. An example method may involve pumping a dielectric fluid through a fluid circulation system such that the dielectric fluid flows along a plurality of paths through portions of the fluid circulation system. The pump may take the form of the pump **140**.

In an example method, the plurality of paths includes a cooling path, a restoring path, and a heat exchange path. In some embodiments, the dielectric fluid is pumped through

the fluid circulation system in a circuit including, in sequence, the cooling path, the restoring path, and the heat exchange path.

In an example method, the cooling path flows through a fluid tank holding a plurality of computing devices, and the cooling path extends in the fluid tank through a plurality of apertures in a bottom of the fluid tank and upward past the plurality of computing devices so as to receive thermal energy from the plurality of computing devices. In some embodiments, the plurality of computing devices are submerged in the fluid tank. The fluid tank may take the form of the fluid tank **200**, and the plurality of apertures may take the form of the plurality of apertures **240**.

In an example method, the restoring path flows through a collector, and the restoring path extends through a collector inlet into a first cavity of the collector, from the first cavity of the collector through a plurality of perforations in a plate into a second cavity of the collector, and from the second cavity of the collector to a collector outlet. In some embodiments, bubbles in the dielectric fluid rise in the first cavity and flow out of the restoring path. Further, in some embodiments, a cross-sectional area of the first cavity at an opening of the collector inlet is substantially greater than a cross-sectional area of the collector inlet so as to reduce a velocity of dielectric fluid entering the collector thereby causing solids in the dielectric fluid to fall in the first cavity and flow out of the restoring path. The collector may take the form of the collector **300**, the collector inlet may take the form of the inlet **310**A, the inlet **310**B, the inlet **310**C, or the inlet **310**D, the first cavity of the collector may take the form of the first cavity **330**A or the first cavity **330**B, the plurality of perforations in a plate may take the form of the plurality of perforations **355**A in the plate **350**A or the plurality of perforations **355**B in the plate **350**B, the second cavity of the collector may take the form of the second cavity **340**, and the collector outlet may take the form of the outlet **320**.

In an example method, the heat exchange path flows through a cooler so as to remove thermal energy from the dielectric fluid. The cooler may take the form of cooler **120**.

The plurality of paths may also include a filtering path. In an example method, the filtering path extends through the first cavity in the collector to a filter chamber in the collector, from the filter chamber of the collector to a filter outlet of the collector, from the filter outlet of the collector to a filtering system, from the filtering system to a filter inlet of the collector, and from the filter inlet of the collector into the second cavity of the collector. The filter chamber may take the form of the filter chamber **360**A or the filter chamber **360**B, the filter outlet of the collector may take the form of the filter outlet **325**A or the filter outlet **325**B, the filtering system may take the form of filtering system **150**, and the filter inlet of the collector may take the form of filter inlet **315**.

IV. Conclusion

Although the disclosure has been described above in connection with specific embodiments, features of one embodiment may be employed with other embodiments as the skilled artisan would recognize, even if not explicitly stated herein.

Examples given above are merely illustrative and are not meant to be an exhaustive list of all possible embodiments, applications, or modifications of the disclosure. Thus, various modifications and variations of the described apparatus, system, and methods will be apparent to those skilled in the art without departing from the scope and spirit of the disclosure.

Any numerical values recited herein include all values from the lower value to the upper value in increments of one unit provided that there is a separation of at least two units between any lower value and any higher value. As an example, if it is stated that the value of a variable such as, for example, size, length, flow rate and the like, is, for example, from 1 to 90, specifically from 20 to 80, more specifically from 30 to 70, it is intended that values such as 15 to 85, 22 to 68, 43 to 51, 30 to 32, etc. are expressly enumerated in this specification. For values which are less than one, one unit is considered to be 0.0001, 0.001, 0.01 or 0.1 as appropriate. These are only examples of what is specifically intended and all possible combinations of numerical values between the lowest value and the highest value enumerated are to be considered to be expressly stated in this application in a similar manner.

The invention claimed is:

1. A fluid circulation system for cooling a plurality of computing devices with a dielectric fluid, the fluid circulation system comprising:

a fluid tank comprising a bottom having a plurality of apertures for receiving the dielectric fluid, wherein the fluid tank is configured to hold the plurality of computing devices with a first computing device of the plurality of computing devices disposed over a first group of the apertures of the plurality of apertures;

a cooler configured to receive the dielectric fluid and remove thermal energy from the dielectric fluid; and

a collector comprising:

a first cavity,

a second cavity,

a plate separating the first cavity from the second cavity, wherein the plate is disposed at an angle such that a portion of the first cavity is positioned above a portion of the second cavity, and wherein the plate includes a plurality of perforations that provide fluid access for moving the dielectric fluid from the first cavity to the second cavity,

a collector inlet that opens into the first cavity and is configured to supply the dielectric fluid into the collector, and

a collector outlet,

wherein the fluid tank, the cooler, and the collector are fluidly connected in a fluid circuit.

2. The fluid circulation system of claim **1**, wherein a first fluid path through the collector extends from the collector inlet, through the first cavity, through the plurality of perforations of the plate, through the second cavity, and to the collector outlet.

3. The fluid circulation system of claim **2**, wherein a cross-sectional area of the first cavity at an opening of the collector inlet is greater than a cross-sectional area of the collector inlet so as to reduce velocity of the dielectric fluid entering the collector.

4. The fluid circulation system of claim **3**, wherein the collector further comprises a filtering chamber disposed under at least a portion of the first cavity and below the collector inlet.

5. The fluid circulation system of claim **4**, wherein a second fluid path through the collector extends from the collector inlet, through the first cavity, through the filtering chamber, and to a filter outlet.

6. The fluid circulation system of claim **5**, wherein the filter outlet is coupled to a filter, and wherein the filter is

coupled to a return configured to return the dielectric fluid to the second cavity of the collector.

7. The fluid circulation system of claim **2**, wherein a majority of the plurality of perforations of the plate are disposed above the collector inlet so as to direct the dielectric fluid in the first cavity upward and promote bubble dissipation in the first cavity.

8. The fluid circulation system of claim **1**, wherein one perforation of the plurality of perforations of the plate is smaller than one aperture of the plurality of apertures of the bottom of the fluid tank.

9. The fluid circulation system of claim **1**, further comprising a pump configured to circulate the dielectric fluid through the fluid circuit.

10. The fluid circulation system of claim **9**, wherein the pump is disposed between the collector and the cooler.

11. The fluid circulation system of claim **1**, wherein the collector further comprises:

a third cavity,

a second plate separating the third cavity from the second cavity, wherein the second plate is disposed at an angle such that a portion of the third cavity is positioned above a portion of the second cavity, and wherein the second plate includes a plurality of perforations that provide fluid access for moving the dielectric fluid from the first cavity to the second cavity, and

a second collector inlet that opens into the third cavity.

12. The fluid circulation system of claim **11**, wherein the fluid tank is one of a plurality of fluid tanks including a second fluid tank, and wherein a circulation path through the fluid circulation system comprises, in sequence, the plurality of fluid tanks, the collector, and the cooler.

13. The fluid circulation system of claim **11**, wherein the second collector inlet is opposite the collector inlet.

14. The fluid circulation system of claim **11**, wherein the plate and the second plate are oriented at opposite angles over the second cavity, and wherein an upper end of the second plate contacts an upper end of the plate.

15. The fluid circulation system of claim **1**, wherein the fluid tank has an open volume.

16. A method of cooling a plurality of computing devices in a fluid circulation system, the method comprising:

pumping a dielectric fluid through the fluid circulation system such that the dielectric fluid flows along a plurality of paths through portions of the fluid circulation system, the plurality of paths including:

a cooling path flowing through a fluid tank holding the plurality of computing devices, the cooling path extending into the fluid tank through a plurality of apertures in a bottom of the fluid tank and upward past the plurality of computing devices so as to receive thermal energy from the plurality of computing devices;

a restoring path flowing through a collector, the restoring path extending through a collector inlet into a first cavity of the collector, from the first cavity of the collector through a plurality of perforations in a plate into a second cavity of the collector, and from the second cavity of the collector to a collector outlet; and

a heat exchange path flowing through a cooler so as to remove thermal energy from the dielectric fluid.

17. The method of claim **16**, wherein the dielectric fluid is pumped through the fluid circulation system in a circuit including, in sequence, the cooling path, the restoring path, and the heat exchange path.

18. The method of claim **16**, wherein the plurality of computing devices are submerged in the fluid tank.

19. The method of claim **16**, wherein bubbles in the dielectric fluid rise in the first cavity and flow out of the restoring path.

20. The method of claim **16**, wherein a cross-sectional area of the first cavity at an opening of the collector inlet is greater than a cross-sectional area of the collector inlet so as to reduce velocity of the dielectric fluid entering the collector thereby causing solids in the dielectric fluid to fall in the first cavity and flow out of the restoring path.

* * * * *

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

MIDAS GREEN TECHNOLOGIES, LLC *
*
VS. *
*
RHODIUM ENTERPRISES, INC., ET AL. *

April 9, 2024

CIVIL ACTION NO. 6:22-CV-50

BEFORE THE HONORABLE ALAN D ALBRIGHT
PRETRIAL HEARING (via Zoom)

APPEARANCES:

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Proceedings recorded by mechanical stenography, transcript produced by computer-aided transcription.

09:33 (Hearing begins.)

09:33 DEPUTY CLERK: A civil action in Case 6:22-CV-50, Midas Green Technologies, LLC versus Rhodium Enterprises, Incorporated, et al. Case called for a pretrial conference.

09:33 THE COURT: If I could have announcements from counsel, please.

09:33 MR. SMITH: Your Honor, for plaintiff Midas Green, Michael Smith. And with me today are Mr. Joe Thomas, Mr. Bill Kolegraff, and Mr. Grant Thomas; and we're ready to proceed.

09:33 MR. UNDERWOOD: Good morning, Your Honor. Travis Underwood on behalf of the Rhodium defendants. With me is my law partner Melissa Smith. We also have from the Stris & Maher firm our lead counsel, Liz Brannen, along with two other members from her firm, Peter Brody and Sarah Rahimi; and we're ready to proceed.

09:34 THE COURT: With this group, I feel like I'm an honorary Eastern District of Texas judge. What an honor. If I could have only been picked to serve there.

09:34 I will take up first the motion to correct inventorship. And I'll hear argument on that, please.

09:34 Mr. Thomas, I think that's you, or Mr. Kolegraff. Okay.

09:34 MR. KOLEGRAFF: Good morning. This is William Kolegraff.

09:34 THE COURT: Good morning to you, sir.

09:34 MR. KOLEGRAFF: Yes. So this patent was originally issued with seven named inventors. However, during the process of preparing for this case for trial, we discovered that six of the inventors should not have been named. We provided a correction of inventorship document, which was sent to the Patent and Trademark Office about a year ago. We're still waiting to hear back from them.

09:35 So what we did is, in an abundance of caution, just in case we don't get this resolved by the PTO by the time trial starts, we've asked the Court to order the director of the office to correct the inventorship. So right here, we believe we've met our burden for clear and convincing evidence. Every one of the --

09:35 THE COURT: Does that mean I get to tell Kathi Vidal what to do, or is it someone else?

09:35 MR. KOLEGRAFF: Yes. You do. I could help draft that order for you.

09:35 (Laughter.)

09:35 MR. KOLEGRAFF: But we do believe we've met the burden for clear and convincing evidence. First of all, the package that we have duplicated for you in the filing is the exact package that we submitted to the Patent and Trademark Office, which meets all the statutory requirements. All the six inventors that are being removed have signed declarations that they agree that they should be removed from the patent.

09:35 The remaining inventor, Christopher Boyd, has agreed that he is the sole inventor. And Midas Technology, the assignee of all the rights in interest in the patent, has also agreed to this change. So we don't see any reason why this can't be allowed because there's clear and convincing evidence to remove these inventors.

09:36 Now, Rhodium does try to muddy the water and they bring up the names of two other people that they say may be inventors, Rainone and Christian Best. That really is irrelevant to this particular motion.

09:36 This motion is merely to remove six named inventors that were wrongly named on the patent, and if they believe others should be added, then they can take that up at a separate -- separate matter. And just as a point of interest, they don't have any standing to do

this anyway because they don't represent Rainone or Christian Best, as far as we know.

THE COURT: Okay. Response?

MS. BRANNEN: Good morning, Your Honor. Elizabeth Brannen from Stris & Maher on behalf of the Rhodium defendants.

I guess we really should have briefed the point about Ms. Vidal, who -- Director Vidal, who I remember fondly as Kathi Kelly Lutton, but the reason we think this Court should not tell her agency what to do:

First of all, I think they say in their reply, they expect the agency to rule soon anyway. So there is the chance that we can just see what the Patent Office does. But the reason I would ask the Court to deny the motion is that the correct inventorship is a disputed issue in our litigation.

We do contend that there are two omitted inventors, who they're not even trying to add. And we don't think the record that they've submitted to this Court even tries to meet their clear and convincing burden to prove that all six of the guys they say should come off actually didn't contribute.

You know, two of them, and we've cited examples in our brief, testified that they contributed

09:37 to conception of one or more aspects of the claimed
09:38 invention. So I don't -- if you grant the motion, we
09:38 don't believe you'd be correcting anything. We just
09:38 don't think they met their burden. And at this point,
09:38 it may be best to see what the agency does.
09:38 THE COURT: Anything else from the
09:38 plaintiffs?
09:38 MR. KOLEGRAFF: Yeah. Just on the issue
09:38 of disputes of inventorship, there is no dispute on the
09:38 removal of these six. Those six, all six, have agreed
09:38 to do this. All six have testified that they're not
09:38 inventors. All six have testified that they are
09:38 comfortable with, and believe it's correct, that
09:38 Christopher Boyd is the sole inventor.
09:38 That's all, Your Honor.
09:38 THE COURT: Anything else?
09:38 MS. BRANNEN: Your Honor, in our brief,
09:38 we cited testimony from two of them to the effect that
09:38 they contributed to conception, and so that would not
09:38 make it proper to remove them. We don't think they've
09:38 met the clear and convincing burden.
09:38 THE COURT: Okay. I'll be back in a
09:38 second.
09:38 (Pause in proceedings.)
09:43 THE COURT: Okay. I'm going to grant the

09:43 dismissal of the six; but with regard to the additional
09:43 two, I'm not sure -- I'll hear from defendant. I'm not
09:43 sure, procedurally, that issue is in front of me. I
09:43 don't think you're raising it in a response to a motion
09:43 properly put in front of me.
09:44 I'm really asking you. Is that wrong?
09:44 I'm thinking if it were, like, in a pleading or
09:44 something, it would be in front of me, or it's an issue
09:44 that the Patent Office should take up.
09:44 MS. BRANNEN: Good morning, Your Honor.
09:44 I think we would agree that doesn't -- the point I was
09:44 trying to make on this motion is, it wouldn't, from our
09:44 perspective, be a correction. So we were hoping the
09:44 Court would deny this motion on that basis. But I
09:44 think we can present evidence to the jury about whether
09:44 the patent is invalid for failure to list those two
09:44 individuals who we believe should be listed, who
09:44 they're not even asking you to add.
09:44 THE COURT: And have you raised that
09:44 issue formally in the case?
09:44 MS. BRANNEN: We have, Your Honor.
09:44 THE COURT: Okay. Okay. Well, then
09:44 we'll take that up at trial.
09:44 Next up, I have -- give me one second --
09:44 the motion to exclude rebuttal report and testimony of

09:44 Dr. Alfonso Ortega.

09:45 And for the record, I have: Paragraphs 91, 92, 133 through 146, 178, 184, 189 and 90, 213, 222, 239 and 277.

09:45 I'll hear argument on that, please.

09:45 MR. THOMAS: Good morning, Your Honor. Joseph Thomas on behalf of the plaintiff Midas Green Technology.

09:45 Your Honor, this is a case that is, in my 40 years of practice, I've never seen. A law firm directly engage a party who was supporting an expert and use the privilege to shield from discovery all communications, all test data, all test parameters, and produce nothing but a simple result file, which is what happened here today -- or happened in this case.

09:46 We think the law's very clear under Rule 26 that anything the expert relies upon must be produced in a case, and had Mr. Ortega functioned, as the defendants claim, as his support staffer -- is the term that they've used -- all of this would have been discoverable, none of this would have been hidden from us.

09:46 And as it stands, the only thing we have access to is a simple result file that, of course, shows a result that Dr. Ortega likes and counsel for

Rhodium likes, but none of the underlying test parameters, test conditions, test failures, the convergence data has been produced. And this kind of -- I guess it's almost a policy argument, I mean, whether the Court would sanction and allow lawyers to --

THE COURT: I got it. I got it.

Is there anything else you need to add?

MR. THOMAS: No, Your Honor. We briefed this and it seems like you've read it. I would just point out, we think the Cellular Communications Equipment case is really on point here, and this report should be excluded.

THE COURT: The portion -- the paragraphs I just read out should be excluded, right?

MR. THOMAS: Well, we think the -- there's a basis to exclude the entire report. We've also, alternatively, cited specifically paragraphs that rely on and use in reference to this CFD report. I can recite those for you if you want, Your Honor. They're in our moving papers.

THE COURT: No. I -- okay.

I'll hear a response.

MS. BRANNEN: Good morning, Your Honor.

We think that the criticisms are wrong on

09:47 the facts about what happened, and also about the law.
09:47 So Dr. Ortega, to start with, opines that limitations
09:48 of the patent claims are missing and this motion, as I
09:48 think the Court has observed, only affects one
09:48 limitation, the plenum limitation.
09:48 And what Dr. Ortega did for that
09:48 limitation, it requires a plenum at the bottom of the
09:48 tank; and that has to be adapted to dispense the
09:48 dielectric fluid in the tank substantially uniformly
09:48 upwardly through each appliance slot.
09:48 The first thing that Dr. Ortega did was
09:48 to look at the design of the tank, the thing they're
09:48 pointing to is the plenum. One part of it has a bunch
09:48 of holes in it and it's designed to send the fluid
09:48 where things are hottest and need to be cooled the
09:48 most.
09:48 And he used his expertise to say this --
09:48 you know, this doesn't go substantially uniformly
09:48 upwardly. He reached that conclusion separately on the
09:48 plenum limitation.
09:48 Then he used data from the CFD analysis
09:48 that they challenge. Now, whether they're right, that
09:49 the -- his graduate student, who he trained how to do
09:49 CFD -- whether they're right, that that was an
09:49 independent expert, nontestifying expert, or whether

09:49 we're right, that that was his support staff, his
09:49 graduate student, the standard for what we had to do
09:49 was the same. Any of the data that Dr. Ortega relied
09:49 upon, reviewed and relied upon, we had to produce to
09:49 them. And we did that.
09:49 And their motion says we didn't give CAD
09:49 files, for example. That's flatly wrong. We can look
09:49 at their own expert's report at Paragraphs 132 and 52,
09:49 and he cites those CAD files because we produced them
09:49 in November.
09:49 They're also -- they also try to say that
09:49 there was cherry-picking. No. Dr. Ortega said,
09:49 here's -- that's a very large set of data. I want to
09:49 see the part that's right -- you know, he chose the
09:49 place he wanted to see it based on the claim language,
09:49 which requires the fluid to be going substantially
09:50 uniformly upwardly through the appliance slot.
09:50 That data that he relied upon, we have
09:50 produced to them. They never asked for additional data
09:50 from us in discovery. They never used this Court's
09:50 robust and efficient discovery dispute processes to say
09:50 we should have given them anything more.
09:50 And they're just wrong that
09:50 communications with support staff or nontestifying
09:50 experts get produced under Rule 26. They don't. The

09:50 thing that gets produced is what we have produced, what
09:50 the expert relied upon.
09:50 There is a case in response to the
09:50 argument they make in reply that I would like to call
09:50 the Court's attention to where the fact pattern is very
09:50 similar and the expert who was undisclosed was found to
09:50 be -- there was no exclusion of the testifying expert's
09:50 report. That is National Wildlife Insurance Company
09:50 versus Western National Life Insurance Company. It's a
09:51 2011 case, 2011 Westlaw 840976, from the Western
09:51 District of Texas on March 3rd of 2011.
09:51 And there is also a major goose/gander
09:51 violation going on here, because we haven't had a
09:51 privilege log or the production of any communications
09:51 with the support staff of any of Midas Green's experts.
09:51 They want to have their Dr. Lee testify
09:51 about claim charts that he admittedly did not prepare.
09:51 They want to have their damages expert Mr. O'Bryan be
09:51 able to rely on hearsay from his subordinates.
09:51 So with everything going on, there's
09:51 certainly no basis, no authority whatsoever, for
09:51 excluding the entirety of Dr. Ortega's opinions. But
09:51 even his opinions about the CFD that they're
09:51 challenging, there is no basis to exclude those, not
09:51 under the facts of what actually happened and not under

09:52 1 the law of what Rule 26 protects from discovery and
09:52 2 what it allows to be discoverable.
09:52 3 THE COURT: I'll be back in just a
09:52 4 second.
09:52 5 (Pause in proceedings.)
09:52 6 THE COURT: The Court is going to grant
09:52 7 the motion with respect to those paragraphs.
09:52 8 With respect to the issues that counsel
09:52 9 brought up at the end under the goose/gander standard,
09:52 10 if you have issues with what they've done, I'll
09:53 11 certainly entertain those separately.
09:53 12 Next I have the motion to exclude
09:53 13 Dr. Pokharna.
09:53 14 MS. BRANNEN: Good morning, Your Honor.
09:53 15 We are asking to control aspects of
09:53 16 Dr. Pokharna's expert report that we learned about for
09:53 17 the first time in the -- in his report itself that were
09:53 18 not in the final infringement contentions and also to
09:53 19 exclude his opinion about a system at the Temple
09:53 20 facility of my client that is admittedly inoperable
09:53 21 because they ran out of money and they never actually
09:53 22 finished installing what is accused. And so we think
09:53 23 it would not be -- it's just unreliable to convene a
09:53 24 jury, and there's no fact issue over that.
09:53 25 So to start with the new opinions that

09:53 were undisclosed, we set those forth in our brief, but
09:54 I would point out, Your Honor, this is a case where
09:54 they didn't even tell us they were planning to amend
09:54 the contentions. They didn't move to amend earlier,
09:54 give us any warning.
09:54 And so the prejudice that we are
09:54 complaining about is that if we had known that these
09:54 theories might be something Dr. Pokharna would present,
09:54 we would have had the ability to take fact discovery
09:54 and conduct our fact discovery with that in mind.
09:54 And it's not a simple case of just
09:54 getting to depose Dr. Pokharna again for an hour.
09:54 There are seven named inventors, six of whom are coming
09:54 off. There were two -- there was a corporate witness
09:54 for Midas Green and another witness for Midas Green
09:54 about their systems. There were many Rhodium
09:54 witnesses.
09:54 It's just really unfair, and it shows a
09:54 disrespect for the rules to have not even alerted us
09:54 that they wanted to amend the final infringement
09:54 contentions and to disclose these theories for the
09:54 first time there.
09:54 With regard to the systems that are
09:55 inoperable, that's just silly to have a trial about
09:55 that. There's no fact dispute over that, and it would

09:55 be a waste of judicial and party resources to do it.

09:55 So we would ask that that not -- you know, the system was over two years ago. Our client concededly ran out of money, never installed it.

09:55 Their expert has conceded it cannot measure temperature. It's not wired in. There's just nothing to present to the jury.

09:55 And it would be unreliable for Dr. Pokharna to opine that systems in that state practice any of the limitations.

09:55 THE COURT: A response?

09:55 MR. KOLEGRAFF: Yes. This is William Kolegraff.

09:55 First of all, there's absolutely no -- nothing was hidden here from them. There's nothing new that was put in Dr. Pokharna's report. For example, this whole idea that Prime Controls, they were surprised about, is, well, just very surprising.

09:56 Because on March 15th, 2023, we fully set out to them in a supplement to Interrog 4 (sic), which is Exhibit D here, the exact way that the Prime Controls was set up and that Prime Controls was going to be the infringing set of devices.

09:56 In response to our having done that supplement to Rog 10, they came back in their

09:56 Supplement Rog 1 and said: As a result of the system
09:56 described in plaintiff's supplemental response to
09:56 Interrogatory No. 10 and accused in plaintiff's final
09:56 infringement contentions...
09:56 They admitted that what was in the final
09:56 infringement contentions were these Prime Control
09:56 devices. So there's absolutely no surprise here.
09:56 Also, this actually is in the
09:56 contentions. We don't say the name "Prime Controls"
09:56 with the name "Prime Controls," but it's actually set
09:56 out that says: The control -- from the contentions --
09:57 the control facility includes an automated controlling
09:57 with software that measures and monitors and controls
09:57 the pumps, dry coolers, and temperature of the fluid.
09:57 That's exactly what the Prime Control
09:57 systems does. So Prime Control has been fully set out,
09:57 including Exhibit E, which is a manual that we have
09:57 cited to, that is the exact Prime Controls manual.
09:57 As far as the Kelvion coolers, in the
09:57 contentions themselves, we lay out that there are two
09:57 Kelvion coolers. There's a Guntner coolers at the
09:57 Rockdale facilities; there's Kelvion coolers at the
09:57 Temple facility. And they form the second -- secondary
09:57 cooling facility.
09:57 Again, those are fully disclosed in the

09:57 contentions, and they were the basis for Dr. Pokharna's report.

As far as what was installed not being reliable, yes. It is true that they installed significant portions of the Prime Control systems at Temple, and then because they ran out of money, they did delay that process.

However, we do know that there is evidence that says that they are planning on re- -- turning that system on -- finishing that system and turning it on later.

So they have substantially installed the Prime Control systems. They're on the 99-yard line. They just haven't flipped the actual switch.

The system is still adapted to -- it's still capable of taking these measurements once they finish and flip the switch.

So they also have this issue where they don't believe that we have disclosed the slots, that they were surprised that we have the slots.

Well, again, if you look through the -- our opposition, we put pictures of the slots in the first amended complaint. We had -- in our supplement to No. 4, we actually had a picture of the tape with red lines showing where the slots were.

09:59 There's absolutely no surprise whatsoever to anything in the -- Dr. Pokharna's report.

09:59 THE COURT: I'll be back in just a second.

09:59 (Pause in proceedings.)

10:00 THE COURT: The Court grants that motion.

10:00 The next motion we have up is the motion the exclude James Lee. I'll hear from defendants on that.

10:00 MS. BRANNEN: Your Honor, on this motion, we had two aspects of it. Sorry. For a moment, I wasn't sure if you were calling on us or the other counsel.

10:00 But the first aspect is a correction -- what they call a correction, but it's really an addition to Dr. Lee's report that he served at the end of a deposition.

10:00 Their position just doesn't make any sense on this. They argue simultaneously that it is duplicative of what was already in his report and that it's necessary.

10:01 It can't be both. And all I know is that it's too late, and we ask Your Honor to exclude it.

10:01 The other thing that we are focusing on in this motion is the fact that Dr. Lee is their

10:01 rebuttal expert, not their opening expert.

10:01 And he gave an opinion that based on charts that he did not prepare, that apparently counsel prepared, as they say they had been produced in discovery, he gave an opinion that Midas' products practice the patents.

10:01 We think that opinion is unreliable. But in any event, it's too late -- too late for their damages expert, their opening expert to have relied upon it.

10:01 And that's basically about it for that opinion. It's not plausible, and it also is too late for the purposes they want to use it for in the case.

10:02 THE COURT: Who's going to respond to this?

10:02 MR. THOMAS: Joseph Thomas.

10:02 THE COURT: Is there any reason why -- I think I've gone over this -- why this couldn't be taken care of by just allowing this gentleman to be deposed now?

10:02 I'm asking you, Counsel.

10:02 MR. THOMAS: You're asking Mr. Thomas?

10:02 THE COURT: I'm asking you. I'm asking you. I don't know how to make it any clearer. I'm asking you to respond.

10:02 MR. THOMAS: The -- Mr. Thomas. Yes.

10:02 THE COURT: Yes.

10:02 MR. THOMAS: We're happy to let him be deposed again if they want to. We don't think they need to. They had his --

10:02 THE COURT: Well, I'm -- stop while you're ahead. I'm going to allow them -- I'm going to deny the motion and allow them to depose the witness.

10:02 Now, going back to Mr. -- or Dr. Pokharna. Is he your only infringement expert?

10:03 MR. THOMAS: Yes.

10:03 THE COURT: So what I'm going to do is -- it will obviously impact the trial setting, but I'm going to allow you to amend his report, see if you can fix it. And you all will need to get together with opposing counsel and figure out how long you think it'll take for Dr. Pokharna to address any of the issues that you think would make his opinion survive a future challenge.

10:03 And then y'all can set up a schedule to figure out how to deal with that in terms of rebuttal reports and all that. So I'm going to allow him to amend his report.

10:03 Next up I have the motion to exclude -- I don't know if it's a doctor or not. I don't think it

10:03 is -- Duross O'Bryan. This is the defendants' motion.

10:04 MS. BRANNEN: Thank you, Your Honor.

10:04 THE COURT: This one -- this one has both lost profits and a reasonable royalty analysis.

10:04 MS. BRANNEN: That's correct.

10:04 Is my screen successfully sharing? We prepared a few slides on this one.

10:04 Midas' damages opinion -- damages expert makes four main errors that we believe are substantial and not just matters that we should have to cross them on, Your Honor. The first error pervades both his lost profits and his reasonable royalty damages.

10:08 (Clarification by Reporter.)

10:08 (Recess taken.)

10:08 THE COURT: Let's go back on the record.

10:08 MS. BRANNEN: Thank you, Your Honor. This is Elizabeth Brannen, addressing the motion to exclude Midas' damages expert, Mr. O'Bryan.

10:08 The first error he made pervades his lost profits and reasonable royalty opinions, both of them. And he basically doubles his damages number by assuming that Rhodium would continue infringing for almost three years past trial, even if there's a jury verdict of infringement.

10:09 Now, the patent -- he's -- the patent

10:09 doesn't expire till something like 2035. He's not
10:09 giving an opinion about a fully paid-up license. This
10:09 is something different going on. He's saying he has
10:09 the ability to award damages after trial based on
10:09 speculation that my client would continue to infringe.
10:09 And there's just no basis for that. Certainly no
10:09 reliable basis.
10:09 If we look at the basis he said he had --
10:09 I'll try sharing my screen here to put some of this --
10:09 make some of this visible -- he's relying only on a
10:09 single projection, and that projection is something
10:09 that Rhodium filed in connection with a potential
10:09 merger transaction. And that document just says that
10:09 Midas -- that Rhodium -- excuse me -- plans to expand
10:09 its operations to full capacity if the merger goes
10:10 through.
10:10 Well, two problems. First of all,
10:10 expanding your operations doesn't say anything about
10:10 whether you would continue infringing or ignore an
10:10 infringing verdict. And even more importantly, that
10:10 merger never happened. It was canceled. And
10:10 Mr. O'Bryan omitted the -- didn't take into account the
10:10 fact that he just assumed that --
10:10 THE COURT: Let me interrupt you and hear
10:10 a response to that argument.

10:10 MR. THOMAS: Your Honor, the representations made in that S-1 were for a merger that was canceled, but the representations were not conditional. They did not say, If we get the merger, we'll do this expansion. They just said that our business plan is to expand.

That's what they told their investors. They had existing investors and the prospective new investors through the merger. So those representations are from Rhodium of their own expansion plans, which are reasonable for Mr. O'Bryan to rely upon.

THE COURT: Did he or did he not rely on that merger when he -- when he comes in and he says, This is what I did. I looked and there's this document that shows there's going to be a merger and -- to rely on and the merger didn't happen, is that what he's going to say?

MR. THOMAS: No. He's going to say these are representations that they issued that were not conditioned upon the merger. They were made in the public forum. And I'm going to rely on their representations to their investors that they had a plan -- they have a plan to expand.

THE COURT: Okay. Is there anything else you'd like to say with respect to the lost profits

10:11 argument that the defendant is making?

10:11 MR. THOMAS: Yes, Your Honor. The lost profit analysis was done correctly. It was based on information that was available to the experts. Both sides' experts have acknowledged there are no licenses. This is relatively brand-new technology in this field. This immersion cooling technology hasn't been licensed.

10:12 Mr. O'Bryan properly used the sales of the product as a basis, and there's good case law we cited for him to rely upon the sales as a basis to determine the reasonable royalty, and the profits from those sales to support that reasonable royalty analysis.

10:12 THE COURT: Would you give me an example?

10:12 MR. THOMAS: Yes. They -- they -- our deadlines made a significant sale to a company known as RITE. It's a public company. It's one of the largest bitcoin mining companies in the -- North America, if not the U.S. -- if not nationally -- internationally.

10:12 And those sales occurred well within months or within a year or so of the time that the license would have been negotiated. And under the Book of Wisdom, Mr. O'Bryan used those sales to forecast what the expected profits would be of my client in terms of making assumption on how to --

10:13 THE COURT: How does the Book of Wisdom, what does that have to do with lost profits?

10:13 MR. THOMAS: Well, the lost -- we believe that the sale of the --

10:13 THE COURT: No, no. What does the book of profits -- what does that have to do with lost profits? I don't understand.

10:13 MR. THOMAS: Well, the -- we believe that the case law allows Mr. O'Bryan --

10:14 THE COURT: Tell me any case that discusses the Book of Wisdom in a context of lost profits.

10:14 MR. THOMAS: Okay. Well, Your Honor, we don't need the Book of Wisdom. Rhodium installed 200 megawatts. He's using their actual installation as the basis to determine a sale that would have been made by my client to Rhodium of those products. And using those -- that sales information, he projected his lost profits.

10:14 THE COURT: Okay. I'll be back in just a second.

10:14 (Pause in proceedings.)

10:15 THE COURT: This question is for -- sorry for all the coughing -- either party, but I'll start with the party that is moving for this, the defendant.

10:15 What specific paragraphs in his -- in the
10:16 report are you asking me to strike on lost profits?
10:16 Can you articulate those into the record?
10:16 MS. BRANNEN: Your Honor, I would need a
10:16 moment to pull it up and articulate them into the
10:16 record, but we're asking to strike his entire lost
10:16 profits opinion, because he has no basis --
10:16 THE COURT: Is it -- I'm sorry. Is it
10:16 divided up, lost profits -- I'm making this up --
10:16 Page 1 through 10, reasonable royalty, 11 through 20.
10:16 Is it -- is it that clean?
10:16 MS. BRANNEN: I believe it's fairly
10:16 clean. Let me show my screen to give an example of one
10:16 page. Let me see if I can do it.
10:16 So here's an example of a table in his
10:16 report. And he's very clear at the top about what his
10:16 reasonable royalty number is. And then underneath
10:16 that, he's clear -- he's got a separate line item for
10:16 what his lost profits opinion is. And so the report is
10:16 well organized in the sense that his lost profits
10:16 opinions are coherent. And I apologize that I don't
10:17 know exactly those, but if we take a short break, I
10:17 can --
10:17 THE COURT: Here's what I'm going to do.
10:17 We've gone over -- I'm going to grant the motion with

10:17 respect to lost profits. Same deal. If the
10:17 defendant -- I'm sorry -- the plaintiff wants to have
10:17 their expert redo the lost profits and try and go
10:17 again, that's fine. You all need to figure out how to
10:17 do the schedule.
10:17 I'm going to deny the motion with respect
10:17 to the -- his reasonable royalty calculations.
10:17 Next up, I have the motion for summary
10:17 judgment of noninfringement. I'll hear from the
10:17 defendant on that, please.
10:17 MS. BRANNEN: Thank you, Your Honor.
10:17 May I clarify the Court's ruling on
10:17 Mr. O'Bryan? The posttrial damages period that he has
10:17 is in his lost profits, but it also pervades his
10:18 reasonable royalty. Is there a separate ruling on the
10:18 aspect of damages --
10:18 THE COURT: So I usually don't have a
10:18 problem with the jury answering future reasonable
10:18 royalty, because then at least we have a reasonable
10:18 royalty rate. And if the plaintiff is successful, then
10:18 the jury will have spoken as to the reasonable royalty
10:18 rate, which is probably what I would consider applying
10:18 on damages going forward, if you continued to make
10:18 sales.
10:18 And they're not going to get those

10:18 damages, future damages, unless you -- the sales were
10:18 actually made. And the way I've done it in the past,
10:18 both as a lawyer and as a judge, is let's say plaintiff
10:18 wins. Reasonable royalty rate -- I'll make up
10:18 something -- 5 percent. I would allow you -- allow the
10:18 defendant to continue to sell and -- but they would
10:18 have to put into the registry of the Court the
10:19 6 percent. If you stopped selling, there would be no
10:19 future damages under a reasonable royalty deal. Does
10:19 that sound -- is that what you were asking me?
10:19 MS. BRANNEN: Thank you, Your Honor.
10:19 Yes. I think it clarifies it. In other words, as I
10:19 understand it, lost profits, they've got to completely
10:19 redo it if they want to try to get it in.
THE COURT: Correct.
10:19 MS. BRANNEN: Reasonable royalty, they --
10:19 THE COURT: And I'll say right now, lost
10:19 profits -- is there -- let me ask the plaintiffs: Is
10:19 there no request for an injunction here?
10:19 MR. THOMAS: No. No, Your Honor. There
10:19 isn't.
10:19 THE COURT: Okay. Is there a reason
10:19 there's not a request for injunction?
10:19 MR. THOMAS: I'm sorry. I misspoke.
10:19 There is a request for an injunction.

10:19 THE COURT: Okay. So generally speaking again, what I will do is, with regard -- if it's a lost profits, I probably will have to -- I probably won't give them a question on future lost profits, but again, and this is because we don't know whether there'd be any, I will take up the injunction question because you all, I assume, are competitors or you wouldn't have lost profits.

And so but I will -- so don't anticipate getting a lost profits question going forward, but if you can redo it and you think you can get past a Daubert challenge, I'll do it for both prior. And then if -- again, only if the plaintiff wins, if the defendant comes in and says, No, you shouldn't give an injunction, well, then we'll have to figure out a way to be fair to the plaintiff to make sure how we assess damages going forward. And I'll take care of that.

So did I make it clearer or less clear on what I just said for everyone? I'm happy to answer any questions that you have.

MS. BRANNEN: Your Honor, this is Elizabeth Brannen for Rhodium. Just I think it's clear with respect to the original question I was asking.

So for their reasonable royalty, they're not going to get a damages award past trial

10:21 automatically, they have to present what it is through
10:21 trial and then they can get a separate ruling on if
10:21 Rhodium were to continue to infringe, what could the
10:21 reasonable royalty be after that. Have I --
10:21 THE COURT: Right. And I've seen it
10:21 handled two ways, and I would let you all argue what's
10:21 fair. I've seen it where the jury's given an amount --
10:21 I'm making this up again -- 5 percent. And so you give
10:21 the 5 percent. This is where the Book of Wisdom does
10:21 come in. You know, they will have figured that out.
10:21 But I've also seen judges who have
10:21 considered giving a slightly higher, going forward,
10:21 because it's now -- the jury's now found infringement.
10:21 So but they're -- I'm not going to award -- now, I
10:21 didn't hear anyone talk about a lump sum. If there is
10:21 a lump-sum award that goes through the end of the --
10:22 that would go through the end of the patent, whenever
10:22 that is, which is a period going forward, but
10:22 obviously, it's an amount that neither of y'all have
10:22 done yet and that someone would say, as opposed to
10:22 reasonable royalty, we would take -- the plaintiff
10:22 would have taken a lump sum of X and y'all would have
10:22 paid a lump sum of X and -- y'all have -- but y'all
10:22 haven't done that. So that's not an issue here.
10:22 So as far as I can tell, from the way the

10:22 plaintiffs have structured their damages model, they
10:22 won't be getting future damages until we see if they
10:22 win and what I do on the injunction, and then if there
10:22 is not an injunction and you all do continue to sell
10:22 what the jury has determined to be infringing, I'll
10:22 make sure we come up with some way of making sure the
10:22 plaintiff is protected financially.
10:22 Anything else?
10:22 MS. BRANNEN: Just I would like to
10:22 clarify, my client is not a competitor of Midas Green,
10:23 not even allegedly. And that's part of why they have
10:23 such a trouble of meeting the lost profits standard.
10:23 THE COURT: Well, then they're going to
10:23 have a really tough time getting an injunction.
10:23 MS. BRANNEN: I don't even believe
10:23 there's a live injunction request, Your Honor. That
10:23 was news to me. I do not think they've preserved it.
10:23 I certainly don't think they have --
10:23 THE COURT: Well, they've told me there's
10:23 an injunction request. Maybe there is; maybe there
10:23 isn't. I don't know.
10:23 MS. BRANNEN: Thank you.
10:23 THE COURT: I'm up with the law, that
10:23 they only get one if y'all are competitors. And I
10:23 don't know -- I'll know much better after trial whether

10:23 or not I think you're competitors.

10:23 MR. THOMAS: Your Honor, that is a disputed issue in this case. We contend, Your Honor, we are competitors.

10:23 THE COURT: Well, I have no way of knowing which of you is right.

10:23 So next up we have the motion for summary judgment of noninfringement. I'll take that up.

10:23 MS. BRANNEN: Thank you, Your Honor.

10:23 So the technology at issue involves systems for pooling bitcoin miners. The computers that do the mining get very hot when they're mining bitcoin.

10:24 And in particular, the patent and the accused systems -- and you can see a picture -- some of the accused systems, they relate to their immersion cooling systems. Meaning, there are miners that get immersed in dielectric fluid. It doesn't conduct electricity. And as the liquid is circulated through the system, it removes heat from the miners.

10:24 We believe a lot of limitations are missing, but we focused our motion on a single claim limitation. And we believe it's the rare case where Midas doesn't have any evidence that Rhodium uses anything like this limitation that's shown here.

10:24 And it requires the system to have a

10:24 control facility, and that control facility has to be
10:24 adapted to coordinate the operation of two different
10:25 fluid circulation facilities, a primary facility and a
10:25 secondary facility.
10:25 And it has to be adapted to coordinate
10:25 their operation based on this recited variable as a
10:25 function of the temperature of the dielectric fluid in
10:25 the tank containing the bitcoin miners.
10:25 And we don't -- basically, for the
10:25 primary fluid circulation facility, you can think of
10:25 that as the pipes and pumps. That's what they say it
10:25 is. We may take issue with that at trial, but not for
10:25 purposes of this motion.
10:25 Similarly, for the secondary fluid
10:25 circulation facility, they point to these large coolers
10:25 that have fans in them. So you can think of the
10:25 primary as pumps and pipes; secondary, they say it's
10:25 the fans and the dry coolers.
10:25 And we pointed out in our motion that we
10:25 don't take the temperature of the fluid in the tank,
10:26 and we don't use it for anything, let alone to
10:26 coordinate either of those facilities, those fluid
10:26 circulation facilities.
10:26 Reading their opposition, you could be
10:26 forgiven for assuming that I'd be standing in front of

10:26 you asking for a very narrow special construction of
10:26 this term, but that's not what we're doing.
10:26 Our motion, we construed nothing. We
10:26 agree that this term gets its plain meaning, and we
10:26 don't have this limitation or anything like it.
10:26 And so in our motion, we went through all
10:26 the various theories their expert had put forth, some
10:26 of which have been addressed in the motion to exclude
10:26 Dr. Pokharna, where the opinions weren't in their final
10:26 infringement contentions.
10:26 But we went through all the various
10:26 theories of why they said this limitation was present,
10:26 and we debunked each of them. And we showed why the
10:26 limitation isn't there literally and why, in those
10:26 instances when he had offered an opinion under the
10:26 doctrine of equivalents, there was no -- nothing in the
10:27 report, no evidence that could satisfy that standard
10:27 for insubstantial differences for same
10:27 function-way-result.
10:27 So the first thing I'd like to hopefully
10:27 establish in this motion is that based on the DMM
10:27 Specialities case, which we cite in our reply at Page 2
10:27 and also just common sense, their opposition makes no
10:27 attempt whatsoever to defend or salvage any of
10:27 Dr. Pokharna's theories under the doctrine of

10:27 equivalents.

10:27 You can scour their opposition. The word
10:27 "equivalent" isn't there. "Equivalents" isn't there.
10:27 "DOE" isn't there. "Insubstantial" or "substantial
10:27 differences," it's just not discussed. They have
10:27 waived this.

10:27 And I'm happy also to go through each of
10:27 the things that they have -- all the various theories
10:27 they pointed to and show why there is a failure under
10:27 the plain meaning of this limitation to show that we
10:27 have anything like it.

10:28 But the first system that they accuse are
10:28 the Prime Controls and Kelvion sensors. Those are the
10:28 ones that are admittedly inoperable that I believe have
10:28 been excluded in connection with Dr. Pokharna's report.

10:28 And I don't think this is fixable, Your
10:28 Honor. There is no -- there's attorney argument, and
10:28 we heard some of the attorney argument from
10:28 Mr. Kolegraff.

10:28 But this is a system where most of the
10:28 sensors are missing and none of the sensors they're
10:28 pointing to is wired in. And perhaps more importantly,
10:28 their expert, you can see the interrogatory response
10:28 they cite to in their opposition at Page 13, saying:
10:28 Even where a sensor is connected, it is not wired in.

10:28 Their expert, Dr. Pokharna, conceded that in its present state, this system cannot measure temperature.

10:28 Now, even if this was operational, they haven't explained what they believe the plain meaning of this limitation is or why what this system was designed to measure would actually be adapted to coordinate both control facilities.

10:29 And so that's also another problem with this whole theory, that you can see up here the sensors, where they would go, are in an entirely different building and they have a little sign they have labeled -- their own expert has labeled that the building containing the tanks with the miners is in a completely different place.

10:29 This wouldn't be the variable they need to show that we're using, and they also can't show that it would be adapted to coordinate both fluid circulation facilities.

10:29 The only evidence they give is shown here, that it would be adapted to adjust the fan speed. Well, that's what they say is the secondary circulation facility. In order to survive summary judgment, they should have to present evidence and explain how that evidence could lead a reasonable juror to believe that

10:30 the claim language is satisfied with respect to both
10:30 circulation facilities and being adapted to coordinate
10:30 the operation of both of them. And they just can't do
10:30 that for the main thing that they spent the most time
10:30 on in their brief, which is this Prime Controls and
10:30 Kelvion coolers.
10:30 And by the way, they briefed those
10:30 separately, but Prime Controls and other vendors were
10:30 hired to build the monitoring system for the Kelvion
10:30 cooler. So even though they talk about the Prime
10:30 Control system and then they talk about the Kelvion
10:30 coolers, you can see, for example, from their brief at
10:30 Page 18, the thing they're citing to for the Kelvion
10:30 coolers as evidence that those infringe, that's all
10:30 design documents of Prime Controls. That was
10:30 admittedly never installed and is admittedly
10:30 inoperable, cannot measure any temperature.
10:30 So at the last page of their brief, they
10:30 give a couple throwaways to try to defend a theory of
10:31 infringement based on the Guntner coolers. These are
10:31 shown here. These are only at Rhodium's Rockdale
10:31 facility.
10:31 And again, the tanks containing the
10:31 miners are in one place, and the coolers they're
10:31 pointing to are outside the building. And what their

10:31 theory is here is that Rhodium measures the temperature
10:31 of the fluid after it comes out of the cooler.
10:31 Well, that obviously is not literally the
10:31 same thing as the fluid in the tanks nor is it even
10:31 arguably insubstantially different.
10:31 And they also -- for this one too, all
10:31 they say is that we might use it to adjust the fan
10:31 speed in these coolers. There's no evidence they can
10:31 point the Court to of how this is in any way adapted to
10:31 coordinate the operation of what they've pointed to as
10:31 the primary fluid circulation facility, the pumps and
10:31 the pipes.
10:31 So it's deficient in multiple respects.
10:31 And the single paragraph in their opposition that's
10:32 dedicated to try to revive this doesn't answer the
10:32 question of how this is using the right variable in any
10:32 way, let alone using any variable to control both fluid
10:32 circulation facilities. They only talk about fans.
10:32 Then the final thing that they also try
10:32 to revive is the fact that in both facilities, Temple
10:32 and Rockdale, Rhodium can measure the temperature of
10:32 the chips in the miners and the printed circuit boards
10:32 in the miners.
10:32 Their expert, though -- obviously
10:32 measuring a chip temperature or a board temperature is

10:32 not measuring the temperature of the tank fluid. And
10:32 their expert admitted those are different. So there's
10:32 no literal infringement. There's no analysis of why it
10:32 would be insubstantially different.
10:32 And again, here too, all they say with
10:32 PCB temperature is that we can monitor it. All they
10:32 say with chip temperature is that we can shut off the
10:33 miner or reduce power to the miner.
10:33 But what they haven't said is what
10:33 evidence is there anywhere in the record that we could
10:33 use either the chip or PCB temperature to coordinate
10:33 the operation of the pumps and pipes or of the fans,
10:33 which they say are the primary and the secondary
10:33 circulation facilities.
10:33 There is no evidence. It's a rare case
10:33 where none of their theories even make sense. And we
10:33 hope they should have to articulate one that we can at
10:33 least understand what this jury is going to be asked to
10:33 decide before they would be allowed to proceed.
10:33 THE COURT: A response?
10:33 MR. KOLEGRAFF: Yes. So as -- there are
10:33 just a lot of triable issues of material fact here.
10:33 And what Rhodium has done to try to eliminate those
10:33 facts is they've taken a very unusual reading -- a
10:33 plain reading of Claim 1.

10:33 And what they're trying to say is that you have to have your temperature sensor in the tank to take the temperature of the fluid.

10:34 Their entire motion is based upon that premise, that they have to require a sensor in the tank taking the temperature of the fluid. But the claim just doesn't say that.

10:34 Now, this is extremely important to it. On Page 2 of their motion, they say: In other words, to infringe Midas' asserted claims, a cooling system must take advantage of the dielectric fluid while it is -- must take the temperature while it is in the tank.

10:34 They say the same thing on Page 4: Neither of the tanks have a fluid temperature in the tank.

10:34 This is repeated throughout their motion. That is the basis for this entire motion, is that there has to be a temperature sensor inside the tank in order to take the temperature.

10:34 If we look at Claim 1 and parse it, it talks about: A control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

10:35 That plain reading does not say where a temperature sensor has to be. It certainly doesn't place it in the tank. It certainly doesn't even say you have to take the measurement of the fluid itself.

All you have to do is collect enough information so that you can coordinate the operation of the two circulation facilities.

So here you can have that sensor -- that temperature sensor, you could have it in the tank. You don't have to. But you could have it on the pipe leading out of the tank. You could have it on the inlet pipe to the tank. You could have it further down towards the coolers.

Every one of those data points, every one of those points, is going to give you sufficient data in order to make decisions on how you want to run your pumps and fans.

For example, we are talking about the Guntner coolers, which are the coolers that sit out in the -- outside the building, there, we are measuring the fluid temperature that comes out of the cooler.

That is the exact same temperature as is going into the tank. So we are measuring the temperature of the fluid in the tank, and we adjust the fan speeds of that Guntner -- excuse me -- Rhodium

10:36 adjusts the fan speeds of the Guntner cooler to make sure that that inlet temperature to the tank remains very constant.

We know for a fact that the claim does not require that the temperature sensor be in the tank, and we know it for at least a couple of reasons.

First of all, if we look at Figure 13 of the patent, there are sensors that are shown not only in the reservoir, which is separate from the tank, but the temperature sensors are also shown in the fluid pipes and shown in the fluid pipes of the primary circulation facility and shown as the temperature sensors in the secondary facility.

So even the embodiments that we have in the patent do not show the sensor in the tank.

It's also shown in Figures 4 and 12 where you have the tank, which is numbered 14, the tank 14 does not have a sensor in it. The only sensor is in the recovery reservoir, which is No. 42. So again, even the embodiments that we have in the patent do not require that the sensor be in the tank.

So let's talk a little bit about Prime Controls. Prime Controls is a very sophisticated control system that has no other purpose in life but to control and manage the system at the Temple facility.

10:37 There are temperature sensors, there are pump controls, there are reporting facilities. They spent millions of dollars putting this thing in, and it has no noninfringing functionality.

Again, if you look at Exhibit G of our opposition, you can see that they have the layout of the complete system, the entire plumbing and design system. H shows a picture of the Kelvion and Temple coolers that have the temperature sensors installed. They're already there in the pipes.

They talked about saddles being installed. They purchased saddles to put on those pipes so they can make the finishing of the installation even easier.

If you look at Exhibit I, there is an issued-for-approval manual on how this whole system is supposed to be put together, this Prime Control system, and it shows all of these things working and in operation. So it's almost fully installed. They just haven't flipped the final switch.

And let's -- we're going to suggest here, is that they have just not turned on that switch because of this litigation. As soon as this litigation is over, you know, they're very likely to turn this thing back on because, again, they've got a million

10:39 dollars of sunk costs, that they're going to need to
10:39 turn on. And we have an e-mail, this is from a Depo
10:39 Exhibit 77, that says: Our plan -- and that's
10:39 referring to Rhodium -- Our plan is to get Prime
10:39 Controls paid back and then have Prime Controls finish
10:39 the rest of the work on the site.
10:39 So that is a huge issue of fact, whether
10:39 or not Rhodium is going to reactivate or activate this
10:39 Prime Controls when this litigation is over.
10:39 Also, so -- also, how much work they have
10:39 left to do is also a huge issue of fact as it goes to
10:39 Prime Controls.
10:39 As far as any waiver, we've waved
10:39 nothing. We attached the entire report of
10:40 Dr. Pokharna, where he goes not only through literal
10:40 infringement, he goes through doctrine of equivalents
10:40 infringement on all of these issues.
10:40 As far as the Kelvion systems at Temple,
10:40 that really reduces down to the same arguments we were
10:40 just talking about with Prime Controls. That is, the
10:40 temperature sensors are there. The computers are in
10:40 place. It's basically all set to go, they just have to
10:40 finish wiring it up and then they're going to be able
10:40 to control the Kelvion coolers based upon the
10:40 temperature of the coolant.

10:40 At Guntner, which is at the Rockdale facility, that we do know is in operation. They actually have the Guntner coolers that sense the temperature of the fluid as it's exiting the Guntner coolers. And based upon that temperature, they adjust the fan speed. This is in the Guntner motor managing manual.

They adjust the speed of the fans to keep that outlook temperature the same. That outlook temperature fluid is the temperature of the fluid as it's going into the tank.

Finally, we get to the Restful API, which is this idea that we're checking the temperature of the fluid in the tank by using functionality built into the miners. These miners, which are just very sophisticated computers, actually have a couple different sets of temperature gauges, sensors inside of the miners. One of those is to measure the temperature of the PCB board, the printed circuit board. And the printed circuit board is what's setting up against the fluid. So that is measuring the temperature of the fluid.

And based upon that, the system automatically puts more power on to the miner, if it can handle warming the fluid similar. If the fluid is

too warm, then it actually powers down the miner; it has the miner generate less power. That way it adjusts the amount of heat that is injected into the system, which is controlling the circulation of both the primary and the secondary circulation facilities.

So here we just have a lot of issues of fact as to whether or not Prime Controls is going to be actually finished. We've got questions of fact as to how the Guntner is actually managing the fan speed to control the temperature of the tank; and really, all gets down to their assertion that the temperature probe has to be in the tank, which is just not the plain meaning of this claim.

So with that, I'll turn it back.

MS. BRANNEN: May I respond?

THE COURT: Rebuttal?

Please.

MS. BRANNEN: Thank you.

So I'll try to make five or fewer points. First, I want to talk about what we did not hear. Normally, to oppose summary judgment where we would -- you would hear the plaintiff saying, This is what I think the plain meaning of this limitation is, and this is the evidence I'm pointing you to, Judge, where a reasonable jury could find that the temperature of the

10:43 fluid in the tank is part of the -- is adapted to
10:43 control both of these variables.
10:43 We've never heard that.
10:43 We've heard them saying that I'm asking
10:43 you to give an overly narrow claim construction. I'm
10:43 not. But they need to be doing something. If they're
10:43 not measuring it with a sensor in the tank, they need
10:43 to be explaining what evidence there is that we do
10:43 anything like using that temperature of the fluid in
10:43 the tank to coordinate the operation -- to be adapted
10:43 to coordinate the operation of two different control
10:43 facilities.
10:43 And I didn't hear counsel give an
10:43 explanation of what that limitation means or what
10:43 evidence satisfies it.
10:43 With respect to Prime Controls -- and
10:43 this applies to Prime Controls and the Kelvion coolers
10:43 where they were going to install sensors but never did.
10:43 The most -- this is where we heard counsel try to point
10:43 to evidence, but he points to some unidentified
10:44 deposition testimony that I'm not sure was even in the
10:44 opposition brief, and is from several years ago, I
10:44 believe, saying that at one point Rhodium planned to
10:44 have Prime Controls finish its work.
10:44 That is of no moment now.

10:44 If we're going to have a trial now, we can't have an advisory opinion about a system that isn't in place. And that would -- even if we could, that would be an enormous waste of resources. We need to have a trial over the system as it exists now. And Mr. Kolegraff is not pointing to any evidence that all Rhodium needs to do is turn on the switch. The evidence is to the contrary.

Their own evidence that they cite to this Court is that none of the sensors is wired in. Their expert concedes that the system is incapable of measuring temperature. We really ought not to have a trial over Prime Controls and Kelvion, which may never be finished, may be changed. It's not the province of federal courts to have a trial over something that might happen with a system in the future.

There also is no evidence of how these sensors, which are nowhere near the tank containing the bitcoin miners, if they were operational, would be used to coordinate the operation of both the fans and the coolers. That's what they say they would do, but how would that be adapted to coordinate the operation of what they say counts as the primary circulation facility, the pumps and the pipes?

We didn't hear that. We won't hear that,

10:45 from them or their expert, because they have no
10:45 evidence of that. And they haven't tried to point Your
10:45 Honor to that evidence now.
10:45 The third point I'd like to make is about
10:45 Guntner. Mr. Kolegraff misstated the record. I will
10:45 show -- this is their opposition brief, Docket 164.
10:46 Near the end, I think we're at Page 21. Yeah.
10:46 Page 21.
10:46 The Guntner coolers -- which he
10:46 acknowledges are outside the building -- the
10:46 temperature sensors there sense the temperature -- I'm
10:46 quoting from their brief -- sense the temperature of
10:46 the dielectric fluid flowing out of the evaporative
10:46 cooler.
10:46 The job of that cooler is to cool. So
10:46 it's obviously not the same as the temperature of the
10:46 liquid when it's in the tank with the miners. And
10:46 their expert concedes as much, and they have completely
10:46 abandoned any effort to explain how it's
10:46 insubstantially different or how, under the doctrine of
10:46 equivalents, this theory could survive.
10:46 And the second thing about Guntner, all
10:46 they say at that page of their brief is that the sensor
10:46 there in that Guntner cooler is adapted to adjust the
10:46 cooler's fan speed. Okay. So they have evidence to

10:47 get to the jury on one of the two circulation facilities that they need.

But we didn't even hear Mr. Kolegraff point to any evidence about coordination of the primary facility, the pumps and the pipes, because Guntner, there is no evidence from which a reasonable juror could conclude that this claim limitation is satisfied.

And finally, on Restful API, I will say, we heard attorney argument, but all they're really saying is that Rhodium can monitor the temperature of the chips. They're not pointing to any evidence that the chip temperature or the PCB board temperature is actually adapted to coordinate the operation of anything that they've pointed to as the primary or secondary circulation facilities.

And to -- just to conclude, at minimum, Your Honor, I hope we have at least made the case narrower on doctrine of equivalents, because they did not -- they can't save that by just saying, Oh, but we attached our expert report.

Well, our brief went through the expert report and explained why what the expert said couldn't count -- wasn't enough to get to a jury on doctrine of equivalents. And they made no attempt to defend that, and they shouldn't get to revive it now.

10:48 MR. KOLEGRAFF: Your Honor?

10:48 THE COURT: Yes, sir.

10:48 MR. KOLEGRAFF: May I address those points or...

10:48 Yes. So you asked if we ever described where we get our plain meaning that the temperature probe does not have to be in the tank. I don't want to repeat myself, but yes. We did have evidence that we've shown the Court today.

10:48 For example, Figure 4 and Figure 12 of the patent shows that the sensors don't have to be in the tank. Figure 13 actually shows that you could have the sensors on the fluid lines and the reservoir. You could have it on the -- on the coolant lines. You could have it in the primary. You could have it in the secondary.

10:48 You can put that -- those temperature probes wherever you want them and still control the primary and secondary circulation of those.

10:48 Something we have to understand when we look at the Rhodium system, because we're talking about primary versus secondary, here the primary is the portion of the system that takes the fluid and flows it through the tank, which extracts heat from the miner. The secondary's what happens out at the coolers, where

10:49 you take that fluid and cool it through the evaporative
10:49 cooler.
10:49 So where do we have to measure? This is
10:49 our Point No. 2.
10:49 So she's saying we haven't talked about
10:49 where we actually take the measurements. Well, if
10:49 you're talking about Prime Controls, they take the
10:49 measurements all over the place.
10:49 Their system has no noninfringing
10:49 functionality. It is adapted to take the temperatures
10:49 and control the fans.
10:49 True. At this exact moment in time the
10:49 wires haven't been hooked up, but we have evidence, we
10:49 have the e-mail that says they are planning to hook
10:49 these things up when they get the chance.
10:49 So they are going to use this system at
10:49 some point. It's just not believable that you're going
10:49 to have millions of dollars worth of control equipment
10:49 sitting there, all of these computers, a room full of
10:49 computers meant to control this facility, and you're
10:50 not going to turn it on.
10:50 So again, the same thing with the Prime
10:50 Control and the Kelvion. Even though it can't measure
10:50 today, it certainly is adapted to.
10:50 Now, again, Ms. Brannen said that I

10:50 misquoted how the Guntner works. I thought I got that
10:50 right, because I do understand that what's flowing --
10:50 what we are measuring is the output of the Guntner
10:50 cooler. That is true.
10:50 And that -- and I think I pointed out
10:50 that the output of the Guntner cooler is actually the
10:50 input to the tank.
10:50 So we are measuring the fluid temperature
10:50 of the temperature in the tank. It's just we're
10:50 measuring that at the input line rather than the output
10:50 line.
10:50 So she asked: How is that coordinating
10:50 primary and secondary?
10:50 Well, you have the fans on the Guntner
10:50 cooler, which are adjusting to keep that output at a
10:50 certain temperature or temperature range to make sure
10:50 the miners are being cooled. That is affecting the
10:51 temperature of the fluid as it flows through the
10:51 primary system and through the secondary system.
10:51 We are coordinating the control of the
10:51 facilities by using the output temperature from that
10:51 Guntner cooler.
10:51 As far as the Restful API, I think we've
10:51 shown pretty strongly in the expert report that we are
10:51 measuring at a temperature of the fluid using the PCB

10:51 inside the miner itself, and then that is used to reset the miner to either increase power if it can be run warmer or decrease power if you need it to run cooler.

So I think we've shown this in all of it. Again, there's a -- plenty of genuine issues of fact here for denying this motion.

THE COURT: I'll be back in a few seconds.

(Pause in proceedings.)

10:54 THE COURT: The Court is going to grant the motion for summary judgment of noninfringement. I think that fully takes care of the case for the time being.

I'm not going to take up the motions in limine given my ruling on that motion, which I think obviates the need for a trial at this time.

Is there anything else we need to take up today?

MR. KOLEGRAFF: Your Honor, would we be able to readdress this -- after we get Pokharna's report redone, would we be able to readdress this issue on the motion for summary judgment?

THE COURT: Well, you know, you have -- you've had your chance, but obviously, it's a fairly severe ruling. Let me talk to my clerks and see if

10:55 they think anything additional that an expert would say might benefit us. And if it is, we'll let you know. As of right now, I don't think it would.

So anything besides that?

MR. SMITH: Your Honor, if I could ask one more question about the Court's ruling.

There's been a fair amount of argument today about how the systems are today versus after how the systems are turned on or wired or whatever.

So I think we'd want to confirm the scope of the Court's ruling so we would know whether a claim against the facilities, once they're put into operation, would be affected by the Court's ruling today, or would that be a different set of facts?

THE COURT: That would be a different set of facts. I don't know --

MR. SMITH: Thank you, Your Honor.

THE COURT: Yeah. I don't know that it would change the ruling ultimately, but, you know, that clearly is an issue in this case.

MR. SMITH: Okay. Thank you, Your Honor.

THE COURT: Okay. Have a good day. Take care.

(Hearing adjourned.)

UNITED STATES DISTRICT COURT)

WESTERN DISTRICT OF TEXAS)

I, Kristie M. Davis, Official Court Reporter for the United States District Court, Western District of Texas, do certify that the foregoing is a correct transcript from the record of proceedings in the above-entitled matter.

I certify that the transcript fees and format comply with those prescribed by the Court and Judicial Conference of the United States.

Certified to by me this 11th day of April 2024.

/s/ Kristie M. Davis

KRISTIE M. DAVIS
Official Court Reporter
800 Franklin Avenue
Waco, Texas 76701
(254) 340-6114
kmdaviscsr@yahoo.com

10:56

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

MIDAS GREEN TECHNOLOGIES, LLC	§	
Plaintiff	§	
V.	§	Civil Action Number:
RHODIUM ENTERPRISES, INC., RHODIUM TECHNOLOGIES, LLC, RHODIUM 10MW, LLC, RHODIUM 2.0, LLC, RHODIUM 30MW, LLC, RHODIUM RENEWABLES, LLC, RHODIUM RENEWABLES SUB, LLC, AND RHODIUM READY VENTURES, LLC	§	6:22-cv-00050-ADA
Defendants	§	

C O N F I D E N T I A L

REMOTE VIDEOTAPED DEPOSITION
OF
THE CORPORATE REPRESENTATIVE
OF
MIDAS GREEN TECHNOLOGIES, LLC
(CHRISTOPHER L. BOYD)
THURSDAY, SEPTEMBER 21, 2023
VOLUME 1 OF 2

* * * * * * * * * * * *

Remote Videotaped Deposition of the Corporate Representative of Midas Green Technologies, LLC, Christopher L. Boyd, produced as a witness at the instance of the plaintiff, and duly sworn, was taken in the above-styled and numbered cause on the 21st day of September, 2023, from 10:11 a.m. to 5:03 p.m. (CST), before Camille A. Bruess, CSR, RPR, in and for the State of Texas, reported by stenographic method and conducted utilizing the secure web-based deposition software and video teleconferencing services offered by Veritext Legal Solutions with the witness appearing remotely from his residence, pursuant to a subpoena, Defendants' Notice of 30(b)(6) Deposition of Midas Green Technologies, and in accordance with the Federal Rules of Civil Procedure and the provisions stated on the record or attached hereto.

* * * * * * * * * * * *

A P P E A R A N C E S

(All via Zoom Video Communications)

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Senior Paralegal
Thomas, Whitelaw & Kolegraff, LLP.
Mr. Daniel Lapeyrouse
Videographer
Veritext Legal Solutions

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BOYD NUMBER	DESCRIPTION	PAGE MARKED
Exhibit 01	Defendants' Notice of 30(b)(6) Deposition of Midas Green Technologies, LLC dated 8/11/23 for 9/1/23 at 9:00 a.m. Pacific time, Certificate of Service (11 pgs.)	12 17*(R) 18 (R)
Exhibit 02	Copy of LinkedIn profile/resumé of Chris Boyd (7 pgs.)	16 85 (R)
Exhibit 03	Email dated 3/31/11 to Mr. Best, Mr. Lewis, and Silas Boyle, copy to Mr. Koen from Mr. Gibbs, Subject: GR Cooling/VFA Call, Bates MIDAS0303011	96

EXHIBIT INDEX (Cont'd.)

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Exhibit 04	(Marked Confidential) Copy of	113
	Company Intro slides of Green	137 (R)
	Revolution Cooling, Inc. dated	140 (R)
	February, 2011, Bates	
	MIDAS0302662-2691	
Exhibit 05	(Marked Proprietary & confidential)	131
	Document titled Midas Green Tech	
	Company background, Bates	
	MIDAS0331871-75	
Exhibit 06	Copy of a document titled Notes -	146
	Midas Green meeting - 6.18.12,	
	Bates MIDAS0319406-409	

*(R) = Referenced

Document Break

coolant rather than put some sensors on the servers themselves?

A. Uh, the servers actually have temperature sensors built into them. So, you know, the easier way to have done that would be to go and directly measure the CPU temperature. 02:48

Q. So given that the servers have temperature sensors built into them and you just said it would be a relatively easy --

A. Uh-huh. 02:48

Q. -- variable to -- to extract from those sensors, why didn't you just do that?

A. Uh, software development would have been required. You've got a -- the API to read the temperature of the CPU has to be supported by the operating system. Uh, not all flavors of free BSD and Linux implemented that interface at the time in a way that was workable. And I'm not a software developer. So it's easier -- it's easier to put a sensor -- you know, multiple temperature sensors or even a single temperature sensor in a strategic location in the tank than it is to write a bunch of software. 02:48 02:49

Q. So the need to write additional software is what would have made it expensive.

A. Yes. 02:49

Q. Is that what you're saying?

A. It was outside of -- it was outside of my skill set, and software development is expensive.

Q. And at the time did Midas have no in-house software developers who could have taken on that task? 02:49

A. We did not.

Q. Did Midas consider hiring a software developer as an employee as a way to get that service more cheaply than contracting out that work?

A. I don't recall having any conversations around that. 02:49

Q. Okay. So did you present on immersion cooling with Christian Best at the South by Southwest Conference in July of 2011?

A. Christian was not present. 02:50

Q. Ah. Was there a discussion that he would be present before the fact?

A. Uh, I know that we discussed it with him because they loaned us the tank that we used in the demonstration. Uh, I don't recall him either asking or us asking for him to be present. 02:50

Q. Okay. Let me, uh, introduce an exhibit that might refresh your memory. Here we go. Sorry. (Pause) Well, and now I cannot find it, which is very odd. Okay. 02:52

Document Break

Changes and Signature Page contains any changes and the reasons therefor:

__X__ was not requested by the deponent or counsel for the plaintiff before the completion of the deposition.

That the amount of time used by each party at the deposition is as follows:

Mr. Kolegraff 0 hours, 0 minutes

Mr. Halpern 4 hours, 28 minutes

I further certify that I am neither attorney nor counsel for, related to, nor employed by any of the parties in the action in which this testimony was taken.

Further, I am not a relative or employee of any attorney of record in this cause, nor am I financially or otherwise interested in the outcome of the action.

Subscribed and sworn to on this 3rd day of October, 2023.

CAMILLE A. BRUESS, RPR, Texas CSR #3824

Expiration Date: 4/30/25

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

Midas Green Technologies, LLC, Plaintiff, - vs. - **Rhodium Enterprises, Inc.;** **Rhodium Technologies LLC;** **Rhodium 10MW LLC;** **Rhodium 2.0 LLC;** **Rhodium 30MW LLC;** **Rhodium Encore LLC;** **Rhodium Renewables LLC;** **Rhodium Renewables Sub LLC; and** **Rhodium Ready Ventures LLC;** Defendants.	Case No. 6:22-cv-00050-ADA **Jury Trial Demanded**

THIRD AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Midas Green Technologies, LLC ("Midas" or "Plaintiff") hereby brings this action for patent infringement against the following: (1) Rhodium Enterprises, Inc., (2) Rhodium Technologies LLC, (3) Rhodium 10MW LLC, (4) Rhodium 2.0 LLC, (5) Rhodium 30MW LLC, (6) Rhodium Encore LLC, (7) Rhodium Renewables LLC, (8) Rhodium Renewables Sub LLC; and (9) Rhodium Ready Ventures LLC. (collectively, "Rhodium" or "Defendants").

Midas alleges infringement of U.S. Patent No 10,405,457, entitled "Appliance Immersion Cooling System" (the "'457 Patent") and U.S. Patent No. 10,820,446, entitled "Appliance Immersion Cooling System" (the "'446 Patent"), at least by reason of Defendants' continued operation of their infringing bitcoin mining facilities in Rockdale, Texas, Temple, Texas and a third location[1] in Texas.

True and correct copies of the '457 and '446 Patents (collectively, the "Asserted Patents") are attached as **Exhibits A and B**, respectively.

I. PARTIES

1. Plaintiff Midas Green Technologies, LLC is a Texas limited liability company with its principal place of business at 7801 N Capital of Texas Hwy # 230, Austin, TX 78731. Midas designs and builds immersion cooling solutions for use in data centers including cryptocurrency mining facilities. Midas has been an innovative pioneer in the application of immersion cooling technology.

2. Defendant Rhodium Enterprises, Inc. is a Delaware corporation formed on April 22, 2021. Rhodium Enterprises, Inc. conducts business in Texas, including in this District, and including in the Waco Division, including by way of its subsidiaries as described herein. According to its most recent SEC filing, Rhodium Enterprises, Inc. is a holding company and the sole managing member of Defendant Rhodium Technologies LLC. *See* SEC Amendment No. 6 to Form S-1 at F-16, Rhodium Enterprises, Inc. (Jan. 18, 2022), *see*

[1] The third location is information learned from Defendants' Further Supplemental Responses, of which is Attached as Exhibit D, page 9. The full text of Defendants' Further Supplemental Responses is not included in the body of the Complaint as they are marked Confidential-Outside Attorneys' Eyes Only and therefore filed under seal.

https://www.sec.gov/Archives/edgar/data/0001874985/000121390022002442/fs12022a6_rhodium.htm.

3. Defendant Rhodium Technologies LLC is a Delaware limited liability company formed on October 23, 2020. Rhodium Technologies LLC was formerly known as Rhodium Enterprises LLC. Rhodium Technologies LLC is a subsidiary of Defendant Rhodium Enterprises, Inc. Rhodium Technologies LLC conducts business in Texas, including in this District, and including in the Waco Division, including by way of its subsidiaries as described herein. According to the foregoing most-recent Amended SEC Form S-1 filing, Defendant Rhodium Technologies LLC is a holding company. In the foregoing most-recent Amended SEC Form S-1 filing, Defendant Rhodium Technologies LLC is known as "Rhodium Holdings."

4. Defendant Rhodium 10MW LLC is a Delaware limited liability company formed on March 12, 2021. Rhodium 10MW LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium 10MW LLC conducts business in Texas, including in this District, and including in the Waco Division.

5. Defendant Rhodium 2.0 LLC is a Delaware limited liability company formed on December 17, 2020. Rhodium 2.0 LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium 2.0 LLC conducts business in Texas, including in this District, and including in the Waco Division.

6. Defendant Rhodium 30MW LLC is a Delaware limited liability company formed on April 1, 2020. Rhodium 30MW LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium 30MW LLC conducts business in Texas, including in this District, and including in the Waco Division.

7. Defendant Rhodium Encore LLC is a Delaware limited liability company formed on January 1, 2021. Rhodium Encore LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium Encore LLC conducts business in Texas, including in this District, and including in the Waco Division.

8. Defendant Rhodium Renewables LLC is a Delaware limited liability company formed on March 17, 2021. Rhodium Renewables LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium Renewables LLC conducts business in Texas, including in this District, and including in the Waco Division.

9. Defendant Rhodium Renewables Sub LLC is a Delaware limited liability company formed on April 25, 2022, with a principal office at 4146 W. US Highway 79, Rockdale, Texas 76567-5278. Rhodium Renewables Sub LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium Renewables Sub LLC conducts business in Texas, including in this District, and including in the Waco Division.

10. Defendant Rhodium Ready Ventures LLC is a Delaware limited liability company formed on August 23, 2022, with a principal office at 4146 W. US Highway 79, Rockdale, Texas 76567-5278. Rhodium Ready Ventures LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium Ready Ventures LLC conducts business in Texas, including in this District, and including in the Waco Division.

11. The foregoing SEC filing describes each of Defendants Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, Rhodium Encore LLC, Rhodium Industries LLC, and Rhodium Renewables LLC, as operating subsidiaries of Rhodium Technologies LLC. This SEC filing (dated January 18, 2022) also refers to i Ventures Enterprises LLC (then doing business as Energy Tech LLC) as a related party. Accordingly, these defendants will be collectively be referenced herein as "the Rhodium Operating Subsidiaries."

12. After Midas filed this case on January 13, 2022, and after the January 18, 2022 date of the aforementioned SEC filing, Jordan HPC Sub LLC, Rhodium Renewables Sub LLC, and Rhodium Ready Ventures LLC were formed by certain of the other Defendants, ostensibly to be governed by Rhodium Technologies LLC. After the filing of this case and of the aforementioned SEC filing, Rhodium 10MW Sub LLC, Rhodium 30MW Sub LLC, Rhodium Encore Sub LLC, and Rhodium 2.0 Sub LLC were formed by certain of the other Defendants, ostensibly to be governed by Rhodium JV LLC. Accordingly, these companies, whether a

defendant or not, will be collectively referenced herein as "the Rhodium Post-Filing Operating Subsidiaries."

13. Chase Blackmon is a Texas resident, is a co-founder and the Chief Operating Officer of both Rhodium Enterprises, Inc., and Rhodium Technologies LLC. Chase Blackmon is a director nominee for the board of directors of Rhodium Enterprises. Chase Blackmon also owns shares of both Rhodium Enterprises and Rhodium Technologies by way of an entity called Imperium Investment Holdings LLC ("Imperium"). Imperium is the majority and controlling owner of both Rhodium entities. According to the foregoing SEC filing, Chase Blackmon controls 25% of the voting interests in Imperium. Chase Blackmon personally directed, participated in, authorized, and/or ratified the infringing conduct of the Defendants. For example, on information and belief, Chase Blackmon helped design Defendants' infringing immersion cooling systems, and he directs, participates in, and makes decisions regarding the making and use of the infringing immersion cooling systems.

14. Cameron Blackmon is a Texas resident, is a co-founder and the Chief Technology Officer of both Rhodium Enterprises, Inc., and Rhodium Technologies LLC. Cameron Blackmon is a director nominee for the board of directors of Rhodium Enterprises. Cameron Blackmon also owns shares of both Rhodium Enterprises and Rhodium Technologies through Imperium. According to the foregoing SEC filing, Cameron Blackmon controls 25% of the voting interests in Imperium. On information and belief, Cameron Blackmon personally directed, participated in, authorized, and/or ratified the infringing conduct of the Defendants. For example, on information and belief, Cameron Blackmon helped design and develop Defendants' infringing immersion cooling systems, and he directs, participates in, and makes decisions regarding the making and use of the infringing immersion cooling systems.

15. Nathan Nichols is a Texas resident, is a co-founder and the Chief Executive Officer of both Rhodium Enterprises, Inc., and Rhodium Technologies LLC. Nathan Nichols serves on the board of directors for Rhodium Enterprises. Nathan Nichols also owns

shares of both Rhodium Enterprises and Rhodium Technologies through Imperium. According to the foregoing SEC filing, Nathan Nichols controls 25% of the voting interests in Imperium. On information and belief, Nathan Nichols personally directed, participated in, authorized, and/or ratified the infringing conduct of the Defendants. For example, on information and belief, Nathan Nichols helped design and develop Defendants' infringing immersion cooling systems, and he directs, participates in, and makes decisions regarding the making and use of the infringing immersion cooling systems.

16. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, and the Defendant Rhodium Operating Subsidiaries have common stock ownership. Each of Chase Blackmon, Cameron Blackmon, and Nathan Nichols (the "Individuals") owns shares of both Defendant Rhodium Enterprises, Inc., and Defendant Rhodium Technologies LLC through Imperium. See SEC Amendment No. 6 to Form S-1 at 102. Rhodium Technologies LLC in turn directly or indirectly owns all of the outstanding equity interests in the Rhodium Operating Subsidiaries. *Id*. at 103-05. Rhodium Technologies LLC also directly or indirectly owns all of the outstanding equity interests in the Rhodium Post-Filing Operating Subsidiaries.

17. The Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries, share common directors and officers with Defendant Rhodium Enterprises, Inc., and Defendant Rhodium Technologies LLC.

18. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, and the Rhodium Operating Subsidiaries file consolidated financial statements. *Id.* at F-17 ("The condensed consolidated financial statements include the accounts of Rhodium Enterprises Inc. and its respective subsidiaries.")

19. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, the Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries were incorporated by Cameron Blackmon, acting on behalf of Imperium, a third party under the control of the Individuals.

20. The Rhodium Operating Subsidiaries, as well as the Rhodium Post-Filing Operating Subsidiaries, are presently undercapitalized and exist for the purposes of illegitimately shielding Defendant Rhodium Enterprises, Inc., and Rhodium Technologies LLC, and in turn the Individuals, from liability. On information and belief, the Rhodium Operating Subsidiaries, as well as the Rhodium Post-Filing Operating Subsidiaries, would be unable to satisfy any money judgement levied against them because of their undercapitalization and because their revenues flow directly to Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC.

21. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC finance the Rhodium Operating Subsidiaries, as well as the Rhodium Post-Filing Operating Subsidiaries.

22. Rhodium Shared Services LLC directly pays the salaries of all Rhodium officers and employees, with the exception that Rhodium Shared Services LLC indirectly pays the salary of Rhodium Chief Financial Officer Nicholas Cerasuolo by way of its subsidiary, Rhodium Shared Services PR Inc.

23. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, the Defendant Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries, use each other's properties as their own. For example, on information and belief, some or all of them operate out of the same Rockdale, Texas bitcoin mining facility, among other facilities.

24. The daily operations of Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, the Defendant Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries are not kept separate. For example, they collectively operate the same bitcoin mining operation. *Id.* At F-16 ("The Company, together with its subsidiaries, operates a digital mining operation"). As discussed above, on information and belief, some or all of them operate out of the same Rockdale, Texas bitcoin mining facility, among other facilities. On information and belief, they also have common

business departments.

25. The Rhodium Operating Subsidiaries, as well as the Rhodium Post-Filing Operating Subsidiaries, receive no business except through that allocated and arranged by Defendant Rhodium Enterprises, Inc. and/or Defendant Rhodium Technologies LLC. For example, Defendant Rhodium Enterprises, Inc. and/or Defendant Rhodium Technologies LLC negotiate contracts on behalf of the Defendant Rhodium Operating Subsidiaries and the Rhodium Post-Filing Operating Subsidiaries, or vice versa.

26. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, and the Defendant Rhodium Operating Subsidiaries do not observe corporate formalities, including keeping separate books. See *Id*. at F-17 ("The condensed financial statements include the accounts of Rhodium Enterprises Inc. and its respective subsidiaries. All inter-company accounts, balances, and transactions have been eliminated.") (emphasis added). On information and belief, the same is true with respect to the Rhodium Post-Filing Operating Subsidiaries.

27. Each Rhodium Operating Subsidiary and Rhodium Post-Filing Operating Subsidiary is an agent of Defendants Rhodium Enterprises, Inc., and Defendant Rhodium Technologies LLC (aka Rhodium Holdings) and their owners and operators, Chase Blackmon, Cameron Blackmon, and Nathan Nichols. Defendant Rhodium Enterprises, Inc. Defendant Rhodium Technologies LLC, the Defendant Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries therefore act as a common enterprise, their actions ultimately being directed by the Individuals. Specifically, the Individuals direct and control the activities of Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC, and those Defendants in turn direct and control the activities of the operating subsidiaries. The operating subsidiaries do not function as separate entities, but rather as controlled agents of the parent entities and the operating subsidiaries act on behalf of the parent entities. See, e.g., SEC Amendment No. 6 to Form S-1 at F-17 (referring to the operating subsidiaries as "the subsidiaries through which the Company operates its assets").

II. JURISDICTION

28. This is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 101 et seq. The Court therefore has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

29. Defendants are subject to this Court's specific and general personal jurisdiction, pursuant to constitutional due process and the Texas Long-Arm Statute, due at least to their extensive business in this District, including by reason of their infringement alleged herein. Specifically, and for example, Defendants own and operate an infringing bitcoin mining facility in Rockdale, Texas. See SEC Amendment No. 6 to Form S-1 at l (referring to Defendants' Rockdale location as the "initial Texas site"). Rockdale, Texas is located in Milam County, which is within the Western District of Texas. In addition, Defendants' second Texas site is in Temple, Texas. Temple, Texas is located in Bell County, which is also within the Western District of Texas. Further, Defendants' third Texas site[2] is within the Northern District of Texas.

30. Jurisdiction is also found as Defendant Rhodium Enterprises, Inc., and Defendant Rhodium Technologies LLC direct and control the infringing activities of the other Defendants. Further, Rhodium Enterprises, Inc. and Rhodium Technologies LLC purchase immersion cooling system tanks and other components, and then provide those infringing tanks for other Defendants to use. *See*, for example, **Exhibit C**, which is a manufacturing and purchase agreement whereby Rhodium Enterprises, Inc. purchases tanks and other immersion cooling products that infringe the Midas Asserted Patents, which Rhodium Enterprises, Inc. then provides either directly or indirectly to other Defendants. The entirety of the purchase agreement is marked Confidential-Outside Attorneys' Eyes Only and therefore filed under seal.

31. In further support of jurisdiction, each of the Defendant subsidiaries infringes

[2] The third location is information learned from Defendants' Further Supplemental Responses, the relevant portion of which is Attached as Exhibit D, page 9. The full text of Defendants' Further Supplemental Responses is not included in the body of the Complaint as they are marked Confidential-Outside Attorneys' Eyes Only and therefore are filed under seal.

the Midas patented immersion cooling system as claimed in the Assert Patents. The use of the tanks is admitted in Defendants' Further Supplemental Responses of which is Attached as **Exhibit D**. The entirety of the Defendants' Further Supplemental Responses is not included below as they are marked Confidential-Outside Attorneys' Eyes Only. Instead, citations are provided to where Rhodium admits use of the tanks.

Defendant Rhodium Operating Subsidiaries

Rhodium 10MW LLC - - page 8, at paragraph labeled "2"

Rhodium 2.0 LLC - - page 8, at paragraph labeled "2"

Rhodium 30MW LLC - - page 7, at paragraph labeled "1"

Rhodium Encore LLC - - page 8, at paragraph labeled "2"

Rhodium Renewables LLC - - page 8, at paragraph labeled "2"

Defendants also Identified as Rhodium Post-Filing Operating Subsidiaries

Rhodium Renewables Sub LLC - - page 9, first indented paragraph

Rhodium Ready Ventures LLC - - page 9, second indented paragraph

III. VENUE

32. Venue is proper in this district under 28 U.S.C. §§ 139l(b) and 1400(b). All Defendants have at least two places of business in this District and in the Waco Division, i.e., in Rockdale, Texas and in Temple, Texas. Defendants have committed acts of infringement, or a portion thereof, at these two locations within this District and within this Division.

IV. THE ASSERTED PATENTS

A. The'457 Patent

33. U.S. Patent No. 10,405,457, entitled "Appliance Immersion Cooling System," was duly and legally issued on September 3, 2019 by the U.S. Patent and Trademark Office. The underlying application, U.S. Patent Application No. 14/355,533, was filed on April 30, 2014. A true and correct copy of the '457 Patent is attached as **Exhibit A** and incorporated by reference.

34. Midas is the assignee of all right, title, and interest in the'457 Patent, including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the'457 Patent. Accordingly, Midas possesses the exclusive right and has standing to prosecute the present action for infringement of the '457 Patent by Defendants.

B. The'446 Patent

35. U.S. Patent No. 10,820,446 entitled "Appliance Immersion Cooling System," was duly and legally issued on October 27, 2020 by the U.S. Patent and Trademark Office. The underlying application, U.S. Patent Application No. 16/243,732, was filed on January 9, 2019, and is a continuation of the application which issued as the '457 Patent filed on April 30, 2014. A true and correct copy of the '446 Patent is attached as **Exhibit B** and incorporated by reference.

36. Midas is the assignee of all right, title, and interest in the'446 Patent, including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the'446 Patent. Accordingly, Midas possesses the exclusive right and has standing to prosecute the present action for infringement of the '446 Patent by Defendants.

V. RHODIUM AND ITS INFRINGEMENTS

37. Rhodium Defendants are part of "an industrial-scale digital asset technology company" that "mine[s] bitcoin" with a "fully integrated" liquid cooling system. *See* SEC Amendment No. 6 to Form S-1 at 1.

38. Rhodium's "founders spent the previous four years developing, testing, and collecting field operational data to optimize the application of [their] liquid-cooling technology to mining bitcoin." *Id.* Rhodium designs, builds, and operates data centers, also called "mining farms" consisting of "bitcoin miners" (i.e. high-powered computers) submerged in dielectric cooling fluid within specialized tank modules. *Id.* at 1, 22. The miners mine bitcoin and thus generate revenue. The liquid cooling system permits Rhodium

to "predictably and consistently mine more bitcoin with fewer miners" by "optimize[ing] the hash rate, or processing power" of the miners. *Id.* at 1.

39. According to the foregoing SEC filing, Rhodium does not sell immersion cooling products to third parties, but instead is a fully integrated bitcoin mining operation that designs, builds, and then operates its own allegedly proprietary immersion cooling systems to mine bitcoin and generate revenue. *Id.* at 1. Rhodium and its non-defendant subsidiaries operate as a common enterprise controlled by Rhodium Enterprises and/or by Rhodium Technologies, and/or by their officers and primary shareholders the Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols.

40. Rhodium Defendants own and operate a bitcoin mining facility in Rockdale, Texas. Below are images from Rhodium's Rockdale facility showing the infringing liquid immersion cooling systems and tank modules:

See, e.g., "Investor Presentation 17.02.2020. In connection with proposed acquisition of Distributed Ledger Technologies Ireland, Ltd, Element ASA" (February 17, 2020), downloaded from https://dltx.com/uploads/images/Reports-and-Documents/Presentations-and-Docs/Exemption-Doc/Element_Investor_Presentation_210217.pdf.

41. Accordingly, Defendants have directly infringed at least claims 1, 2, 5-7, 10,

11, 14 and 15 of the ‘457 Patent and at least claims 1, 2, 5-7 and 10 of the '446 Patent. Attached as **Exhibit E** is the claim chart for independent claims 1 and 6 of the ‘457 Patent. Attached as **Exhibit F** is the claim chart for independent claims 1 and 6 of the’446 Patent. These claim charts are excerpts from Midas’ Final Infringement Contentions, which were served on Defendants on November 21, 2022. Midas provided claim charts for all asserted claims in its Final Infringement contentions. Exhibits E and F are designated Confidential-Outside Attorneys’ Eyes Only and therefore filed under seal.

VI. DEFENDANTS' KNOWLEDGE OF THE ASSERTED PATENTS, THEIR INFRINGEMENTS, AND THE PRIOR CLAIM CONSTRUCTION ORDER

42. As detailed below, all Defendants have had actual notice of the Asserted Patents and their own infringements for some time. For example, the Individuals became aware of the ‘457 Patent and their infringements thereof no later than February 2020, when they received a notice letter from Midas addressed to another entity founded by the Individuals, i.e., Immersion Systems LLC. Further, the Individuals became aware of the ‘457 Patent and their infringements thereof, no later than November 24, 2020, when Midas amended its lawsuit against Immersion Systems to assert the '457 Patent.

43. Before founding any of their Rhodium entities, Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols began to commercialize certain liquid immersion cooling systems intended to be used in bitcoin mining operations. To sell those liquid immersion cooling systems to third parties, the Individuals formed an entity called Immersion Systems LLC in 2018. Exemplary YouTube videos show Chase Blackmon and Cameron Blackmon working on such immersion cooling systems. *See* AntMiner S9 - Immersion CoolingTest, Feb. 17, 2018. https://www.youtube.com/watch?v=DRck1Iegf2A (last accessed March 28, 2023); immersion Cooling- Beta Test 1, Feb. 17, 2018, https://www.youtube.com/watch?v=SzUO-PMtda4 (last accessed March 28, 2023); *see also* SEC Amendment No. 6 to F01m S-1 at 1 ("Our founders spent the previous four years developing, testing, and collecting field operational data to optimize the application of our

liquid-cooling technology to mining bitcoin.").

Cameron Blackmon

Chase Blackmon

44. From Immersion Systems' YouTube channel and Twitter feed, numerous images and videos are available of these liquid immersion cooling systems. For example, below is a picture from a November 12, 2019 tweet, depicting a stack of immersion cooling tank modules, from Immersion System's Twitter feed with the caption "Another shipment out! Here was have [sic] 5 Bitmain S9 tanks, fitting 42 miners each." *See* https://twitter.com/ImmersionSystem/status/1194318079758610438 (last accessed on March 28, 2023)

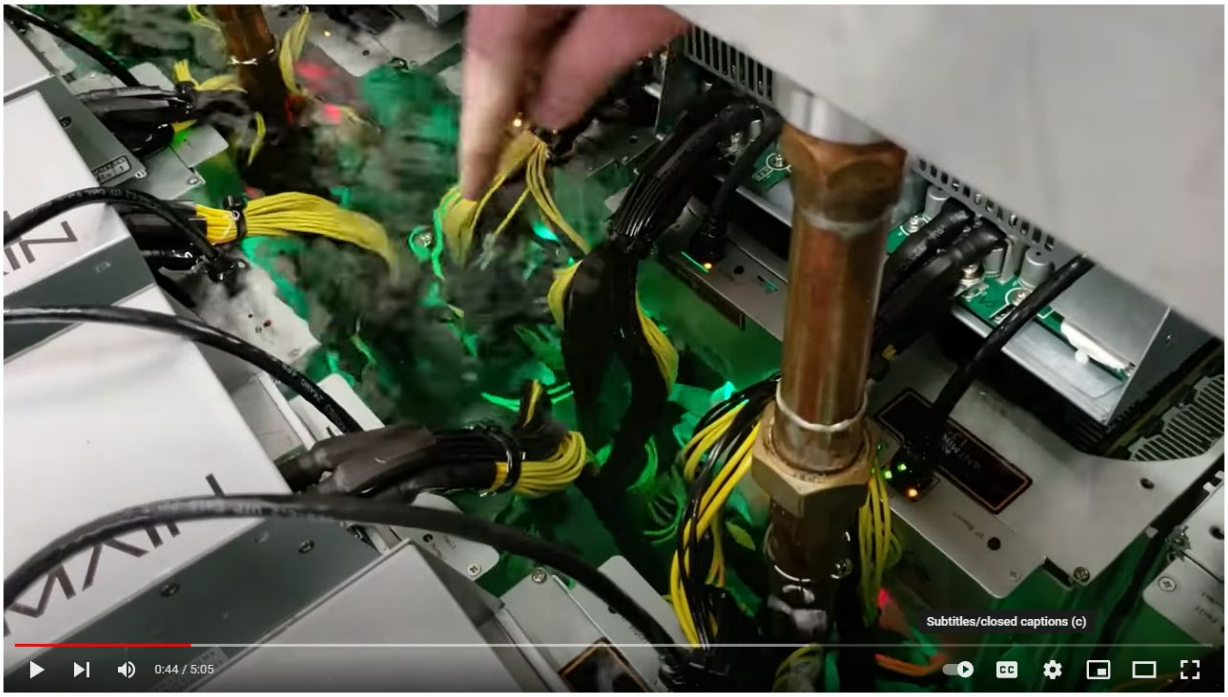
45. In another example, below is a picture from an October 15, 2019 tweet, with the caption "Another shipment ready to go at Immersion Systems! We deploy, at industrial scale, liquid immersion crypto-mining solutions. We provide free fluid extraction and tech replacement if you want to upgrade your miners on site. Contact us at sales@immersionsystems.io for more info."

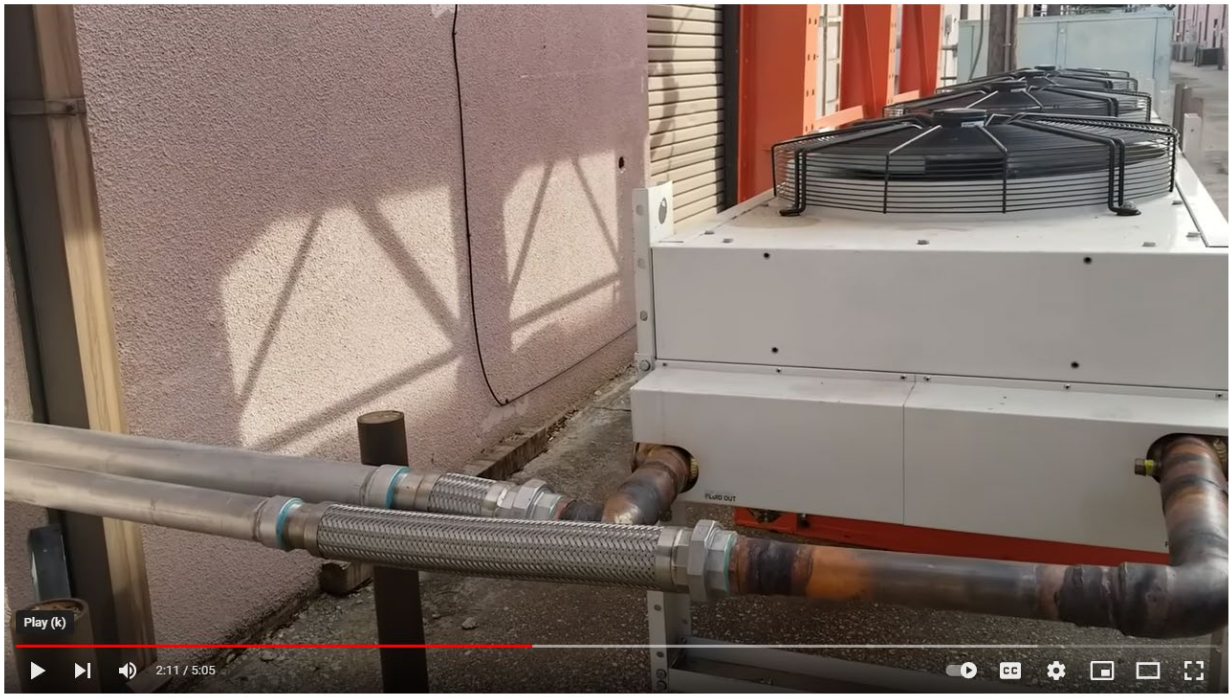
46. In another example, below is a picture from a July 21, 2019 tweet, with the caption "Preparing another order for shipping out this week! All of our systems are thoroughly tested prior to shipping. @ourbcma @MiningDisrupt #immersioncooling #mining #bitcoin."

47. In another example, Immersion System's YouTube channel 1oaded a five-minute video entitled "Introduction" on December 10, 2018. See https://www.youtube.com/watch?v=kQ6cycss5ds (last accessed March 28, 2023). That video features Individual Chase Blackmon and contains detailed explanations and videos clips of Immersion Systems' "flagship" immersion cooling system, designed by Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols.

48. The exemplar video shows the structure of the immersion cooling systems designed by Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols, including its central area with appliance slots, holed weir design, winged fluid recovery chambers on either side of the central area, the dielectric fluid flowing up through the central

area and the appliance slots, and the pump system sending the heated dielectric fluid to a dry cooler and then back. *See id.* at 0:44 ("In here, you can see this is BitCool that we use to pump up through the miners and then it exits the sides in a fluid recovery chamber.").





49. From approximately 2018 to 2020, Immersion Systems promoted infringing immersion cooling systems with this design to third parties for use in bitcoin mining operations.

50. On the basis of these videos and photos, Midas sent a detailed letter and claim chart to Immersion Systems on February 7, 2020, explaining that Immersion Systems' immersion cooling systems infringed the'457 Patent. On information and belief, each of the Individuals received and actually read Midas' February 7, 2020 letter around the time that it was sent. Immersion did not respond to that letter, or a second letter sent shortly thereafter.

51. After Immersion Systems did not respond to the second letter from Midas, Midas filed suit against Immersion Systems on May 29, 2020 in the Northern District of Texas, *Midas Green Technologies, LLC v. Immersion Systems LLC,* No. 4:20-cv-00555-O (hereafter, "the Immersion Systems Litigation."). On November 24, 2020, Midas amended its complaint to include detailed allegations of patent infringement for the'446 Patent.

52. The individuals decided to shut down Immersion Systems in 2020, shortly

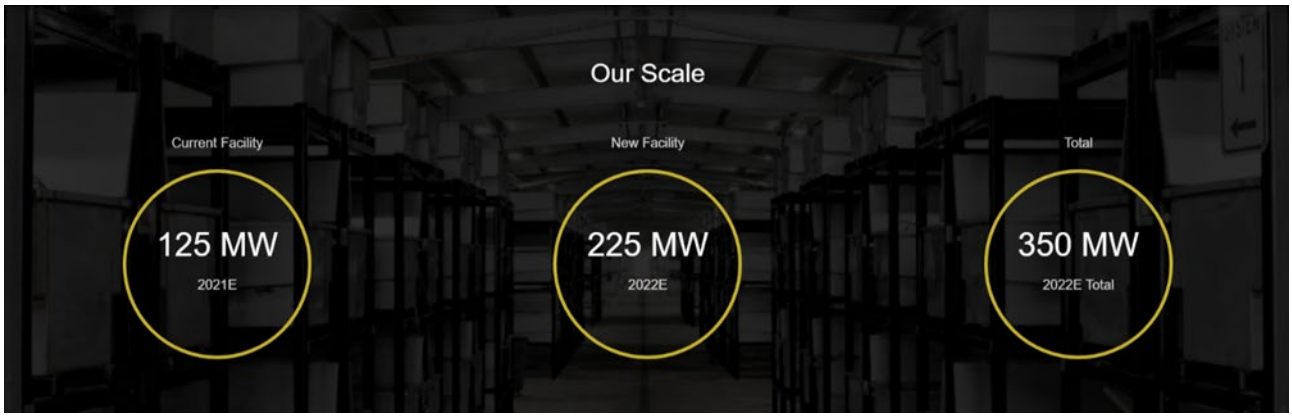
after receiving Midas' first letter on February 7, 2020. On information and belief, the Individuals made this decision to cease conducting business under Immersion Systems because they then knew that their particular immersion cooling systems infringed the'457 Patent.

53. Around this time, as detailed further below, the Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols formed their first Rhodium entity in April 2020, *i.e.,* Defendant Rhodium 30MW LLC. The purpose of this entity (and of the other Defendant Rhodium Operating Subsidiaries and Rhodium Post-Filing Operating Subsidiaries) was not to sell immersion cooling systems to third parties, but rather to use immersion cooling systems to mine bitcoin.

54. During the pendency of the Immersion Systems Litigation, the Individuals caused Immersion Systems to take steps to conceal the existence of the Individuals' new Rhodium businesses.

55. Exemplary photos from Defendants' Rockdale, Texas facility (see above), and as well as photos from Rhodium's website (rhdm.com, see below), appear to suggest that the immersion cooling systems of Rhodium are materially identical to the immersion cooling systems previously promoted by the Individuals by way of Immersion Systems.

56. Because the immersion cooling systems products previously promoted by Immersion Systems and the immersion cooling systems used by Rhodium appear to be materially identical, each of the Individuals had actual notice that the immersion cooling systems



of Rhodium infringed the'457 Patent, as of February 2020. Despite this knowledge, on information and belief, the Individuals acting through one or more of the Defendants, decided to utilize the particular immersion cooling systems that they had previously promoted via Immersion Systems, in the Defendants' new Rhodium-labelled bitcoin mining business ventures.

57. On information and belief, all of the Rhodium Defendants had actual and constructive notice and knowledge of the '457 Patent as of their founding, at least by virtue of the actual notice of the '457 Patent possessed by the Individuals.

58. On information and belief, all of the Rhodium Defendants had actual knowledge that their immersion cooling systems would infringe the '457 Patent as of their founding, at least by virtue of the knowledge of infringement possessed by the Individuals.

59. On information and belief, each of the Defendants gained actual notice of the '446 Patent in November of 2020, by virtue of the filing by Midas of its amended complaint in the Immersion Systems Litigation. Each of the Defendants had actual notice that the immersion cooling systems of Rhodium infringed the'446 Patent, by virtue of the filing by Midas of its amended complaint.

60. During the course of the Immersion Systems Litigation, Midas and Immersion Systems submitted a Joint Claim Construction Chart (Dkt. 82) in which the parties agreed to the

proper construction of two claim terms, i.e., "weir" and "plenum," and in which the parties further agreed that seventeen other claim terms should be afforded their plain and ordinary meaning. A true and correct copy of that filing is attached as **Exhibit G**.

61. On November 22, 2021, the Court in the Immersion Systems Litigation issued its claim construction order, rejecting arguments from Immersion System that the '457 and'446 Patents were invalid as indefinite, and adopting Midas' proposed constructions as plain and ordinary meaning, with regard to two disputed claim terms. A true and correct copy of the Court's claim construction order is attached as **Exhibit H**. In its claim construction order, the Court also adopted the proposed constructions for nineteen agreed-upon terms and phrases as set forth in the parties' Joint Claim Construction Chart (Dkt. 82).

62. As of their receipt of the foregoing claim construction ruling from the Immersion Systems Litigation in late November 2021, the Defendants knew or should have known that the Asserted Patents were valid and infringed by Defendants, to the extent they did not already possess such knowledge.

63. The Amended SEC Form S-1 filed by Defendant Rhodium Enterprises, Inc. on December 14, 2021 discloses the existence of the Immersion Systems Litigation, as well as acknowledging the possibility that Midas might file a patent infringement lawsuit against Rhodium. *See* SEC Amendment No. 4 to Form S-1 at 29, Rhodium Enterprises, Inc. (Dec. 14, 2021), *available at* https://sec.report/Document/0001213900-21-065116/fs12021a4_rhodium.htm. Notably, the Form S-1 does *not* state that the Rhodium systems or tanks are different in any material respect from the accused Immersion systems or tanks, amounting to a tacit admission that they are the same or similar in all material respects. *Id.* Even after Midas filed the Original Complaint in this action, Rhodium filed an amended Form S-1 acknowledging the lawsuit but not containing any statements that the Rhodium systems or tanks differ in any material respect from the infringing Immersion systems or tanks. SEC Amendment No. 6 to Form S-1 at 4. Defendants' disclosure of the Immersion Systems Litigation, and a corresponding litigation risk to the Rhodium entities, in its Form S-1 further demonstrates

its knowledge of the Asserted Patents and of its infringement.

64. As of the filing of this suit on January 13, 2022, each of the Defendants is well aware of the Asserted Patents, and each of the Defendants is well aware of their infringements thereof.

VII. CAUSES OF ACTION

Count 1: Infringement of U.S. Patent No. 10,405,457

65. Midas incorporates by reference the preceding paragraphs, as if set forth herein.

66. The '457 Patent was filed April 30, 2014, and legally issued by the United States Patent and Trademark Office on September 3, 2019. The '457 Patent is valid and enforceable and presumed as such pursuant to 35 U.S.C. § 282.

67. Without a license or permission from Midas, Defendants have directly infringed and continue to directly infringe one or more claims of the '457 Patent by making, having made, using, offering for sale, or selling products and devices that embody the patented invention in violation of 35 U.S.C. § 271.

68. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC directly infringe the '457 Patent under 35 USC §271(a) by (1) providing infringing immersion cooling systems to other Defendants; (2) controlling and directing the direct infringement of one or more of the other Defendants; and (3) benefitting and profiting from the infringement of one or more of the other Defendants. The other Defendants directly infringe the '457 Patent under 35 USC §271(a) by their admitted use of infringing immersion cooling systems.

69. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC further indirectly infringe the '457 Patent by (1) directing other third parties to design, build or install infringing products and devices; and (2) controlling and directing the direct infringement of one or more of the other Defendants.

70. Defendants' infringement has been, and continues to be, knowing, intentional, and willful, at least beginning February 7, 2020, with the delivery of Midas' noticed letter to Immersion Systems, of which the Individuals had contemporaneous notice.

71. Defendants' acts of infringement of the '457 Patent have caused and will continue to cause Midas damages for which Midas is entitled compensation pursuant to 35 U.S.C. § 284. Defendants' acts of infringement of the '457 Patent have caused and will continue to cause Midas immediate and irreparable harm unless such infringing activities are enjoined by this Court pursuant to 35 U.S.C. § 283. Midas has no adequate remedy at law.

A. Direct Infringement

72. Defendants have directly infringed one or more claims of the '457 Patent in the Western District of Texas, the State of Texas, and elsewhere in the United States, by at least making, having made, using, selling, and/or offering for sale appliance immersion cooling systems that satisfy every limitation of at least claims 1 and 6 of the'457 Patent. If any limitation of claim 1 or 6 is not practiced in a literal sense, then that limitation is present under the doctrine of equivalents.

73. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have directly infringed one or more claims of the '457 Patent in the Western District of Texas, the State of Texas, and elsewhere in the United States by way of: (1) directing and controlling the activities of the Defendant Rhodium Operating Entities and the Defendants identified as Rhodium Post-Filing Operating Subsidiaries; and (2) benefiting and profiting from the other Defendants infringing actions. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC also purchase infringing immersion cooling tanks and provided those infringing tanks to one or more of the other Defendants.

74. See **Exhibit E** which is an exemplary claim chart detailing representative infringement of claims 1 and 6 of the'457 Patent.

B. Induced Infringement

75. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have been and are inducing infringement of the '457 Patent by actively and knowingly inducing others, including other Defendants, to make, have made and/or use, the infringing

immersion cooling systems and tank modules that embody the invention claimed in the '457 Patent in violation of 35 U.S.C. § 271(b). Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have also induced infringement by willfully directing and controlling the infringing activities of other third parties, such as manufacturers and installers, to make, have made, or use the infringing immersion cooling systems and tank modules.

76. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have possessed specific intent to induce infringement of the'457 Patent. Specifically, Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have long been aware of the '457 Patent and the specific manner in which their immersion cooling system design infringes the'457 Patent, by virtue of detailed claim charts provided to the Individuals and either shared with all other Defendants or that all other Defendants have knowledge of their infringement through the knowledge of the Individuals, who are officers, directors, and owners of the Rhodium Defendants. Despite this knowledge of the patent and the infringing design, Defendants have induced third parties to take actions that they know will infringe, either directly or contributorily, through the actions described in this section and throughout this complaint. For example, Defendant Rhodium Enterprises, Inc. directed Ameritex Machine and Fabrication, LLC ("Ameritex") to make and sell its infringing immersion tanks. See Exhibit C.

77. Defendants have induced infringement by providing designs and instructions to third party manufacturers, such as Ameritex and contractors to have made infringing immersion cooling systems and tank modules. *Id.*

78. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have induced infringement by willfully providing infringing directions, instructions and designs for immersion cooling systems and tank modules to other Defendants, third party manufacturing companies, such as Ameritex and other contractors, for knowing use in infringing activity to mine bitcoin and generate revenue. *Id.*

Count 2: Infringement of U.S. Patent No. 10,820,446

79. Midas incorporates by reference the preceding paragraphs, as if set forth herein.

80. The ‘446 Patent was filed January 9, 2019, and legally issued by the United States Patent and Trademark Office on October 27, 2020. The ‘446 Patent is valid and enforceable, and presumed as such pursuant to 35 U.S.C. § 282.

81. Without a license or permission from Midas, Defendants have directly infringed and continue to directly infringe one or more claims of the’446 Patent, by making, having made, using, offering for sale, or selling products and devices that embody the patented invention in violation of 35 U.S.C. § 271.

82. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC directly infringe the ‘446 Patent under 35 USC §271(a) by; (1) providing infringing immersion cooling systems to other Defendants; (2) controlling and directing the direct infringement of one or more of the other Defendants; and (3) benefitting and profiting from the infringement of one or more of the other Defendants. The other Defendants directly infringe the ‘446 Patent under 35 USC §271(a) by their admitted use of infringing immersion cooling systems.

83. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC further indirectly infringe the ‘446 Patent by; (1) directing other third parties to design, build or install infringing products and devices; and (2) controlling and directing the direct infringement of one or more of the other Defendants. Defendants' infringement has been, and continues to be, knowing, intentional, and willful, at least beginning November 24, 2020, with the filing of Midas' amended complaint against Immersion Systems, of which the Individuals had contemporaneous notice.

84. Defendants' acts of infringement of the ‘446 Patent have caused and will continue to cause Midas damages for which Midas is entitled compensation pursuant to 35 U.S.C. § 284. Defendants' acts of infringement of the ‘446 Patent have caused and will

continue to cause Midas immediate and irreparable harm unless such infringing activities are enjoined by this Court pursuant to 35 U.S.C. § 283. Midas has no adequate remedy at law.

C. Direct infringement

85. Defendants have directly infringed one or more claims of the '446 Patent in the Western District of Texas, the State of Texas, and elsewhere in the United States, by at least making, having made, using, selling, and/or offering for sale appliance immersion cooling systems that satisfy every limitation of at least claims 1 and 6 of the'446 Patent. If any limitation of claims 1 or 6 is not practiced in a literal sense, then that limitation is present under the doctrine of equivalents.

86. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have directly infringed one or more claims of the '446 Patent in the Western District of Texas, the State of Texas, and elsewhere in the United States by way of (1) directing and controlling the activities of the Defendant Rhodium Operating Entities and the Defendants identified as Rhodium Post-Filing Operating Subsidiaries and (2) benefiting and profiting from the other Defendants infringing actions. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC also purchase infringing immersion cooling tanks and provided those infringing tanks to one or more of the other Defendants.

87. See **Exhibit F** which is an exemplary claim chart detailing representative infringement of claims 1 and 6 of the'446 Patent.

D. Induced Infringement

88. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have been and are inducing infringement of the '446 Patent by actively and knowingly inducing others, including other Defendants, to make, have made, and/or use, the infringing immersion cooling systems and tank modules that embody the invention claimed in the '446 Patent in violation of 35 U.S.C. § 27l(b). Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have also induced infringement by willfully

directing and controlling the infringing activities of other third parties, such as manufacturers and installers, to make, have made, or use the infringing immersion cooling systems and tank modules.

89. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have possessed specific intent to induce infringement of the'446 Patent. Specifically, Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have long been aware of the '446 Patent and the specific manner in which their immersion cooling system design infringes the'446 Patent, by virtue of detailed claim charts provided to the Individuals and either shared with all other Defendants or that all other Defendants have knowledge of their infringement through the knowledge of the Individuals, who are officers, directors, and owners of the Rhodium Defendants.

90. Despite this knowledge of the patent and the infringing design, Defendants have induced third parties to take actions that they know will infringe, either directly or contributorily, through the actions described in this section and throughout this complaint. For example, Defendant Rhodium Enterprises, Inc. directed Ameritex Machine and Fabrication, LLC ("Ameritex") to make and sell it infringing immersion tanks.

91. Defendants have induced infringement by providing designs and instructions to third party manufacturers, such as Ameritex, and contractors to have made infringing immersion cooling systems and tank modules.

92. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have induced infringement by willfully providing infringing directions, instructions and designs for immersion cooling systems and tank modules to other Defendants, third party manufacturing companies, such as Ameritex and other contractors, for knowing use in infringing activity to mine bitcoin and generate revenue.

Count 3: Willfulness and Egregiousness

93. Midas incorporates by reference the preceding paragraphs, as if set forth herein.

94. Defendants have willfully and maliciously infringed the '457 and'446 Patents at least since the date of their actual notice of the patents and their infringement. Specifically, despite receiving detailed claim charts both in letters and having received such information through the Immersion Systems litigation showing that their immersion cooling systems designs infringes Midas' patents, Defendants have continued to operate their infringing immersion cooling systems. Indeed, Defendants have aggressively sought to expand their operations and add additional immersion cooling systems, knowing throughout their existence that they infringe Midas' patents.

95. The Individuals (by way of Immersion Systems) actively sought to conceal the existence of their Rhodium business and did not reveal its existence during the course of the Immersion Systems litigation, despite clear discovery obligations to do so. The Individuals also actively sought to conceal that Immersion Systems had ceased business operations, continuing in the Northern District of Texas litigation for the true benefit of the Defendants.

96. At the same time, on information and belief, the Individuals, and/or Rhodium directly or indirectly bankrolled the filing and prosecution, nominally in the name of Immersion Systems, of an *Inter parties* review proceeding directed to attempt to invalidate the'457 Patent, as well as a Post-Grant review proceeding directed to attempt to invalidate the'446 Patent.

97. Defendants' infringement has been egregious, wanton, malicious, and in bad faith.

98. The Individuals, who are the officers, directors, and owners of the Defendants, possessed full knowledge that their immersion cooling systems design infringed the '457 and'446 Patents, knew these patents were valid, did not attempt to procure a license to these valid patents, and instead proceeded to start a new business using the same or substantially the same infringing design. As Rhodium advertises, this immersion cooling system design is critical to their business and a primary driver of their profitability, and yet Defendants have knowingly and maliciously stolen Midas' patented and innovative technology for their own profit without compensating the inventors of the technology.

Additional Allegations Relating to the Asserted Patents

99. The '457 Patent is directed to an improved appliance immersion cooling system and method of operation. Specifically, the '457 Patent seeks to solve at least two problems in the prior art of appliance immersion cooling systems: (1) the difficulty of maintenance and access to the electrical equipment in prior art vertical-stack-type systems, which necessitate draining the cooling fluid to gain access to the equipment; and (2) non-uniform flow patterns of the dielectric fluid within the tank and constricted dielectric fluid supply and return ports, resulting in uneven cooling and unnecessarily high fluid flow velocities. The invention of the '457 Patent is an improvement over the prior art and provides greater efficiency and effectiveness through ease of access to the electrical appliances in an open horizontal tank, substantially uniform fluid flow patterns through all appliance slots leading to substantially uniform cooling, and lower fluid flow velocities. The '457 Patent accomplishes these improvements through a unique, innovative design, as described below, that achieves substantially uniform flow of dielectric fluid upwardly through the tank, beginning from a plenum that substantially uniformly distributes the dielectric fluid across the bottom of the tank and then a weir that is adapted to facilitate substantially uniform recovery of the dielectric fluid that has cooled the appliances, where the fluid flows over the weir into fluid recovery reservoirs, to then be cycled and re-cooled, for recirculation into the tank. The '457 Patent therefore does not claim an abstract idea, law of nature, or natural phenomenon, but instead to a tangible, patent-eligible invention.

100. The '457 Patent claims, among other things, an appliance immersion cooling system that includes a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank. The tank includes a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, having an overflow lip adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot, and a dielectric fluid recovery reservoir positioned vertically beneath the

overflow lip of the weir and adapted to receive the dielectric fluid as it flows over the weir. The appliance immersion cooling system also includes a primary circulation facility adapted to circulate the dielectric fluid through the tank. The primary circulation facility includes a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot. The appliance immersion cooling system also, in some embodiments, includes a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulating in the primary circulation facility, and to dissipate to the environment the heat so extracted. The appliance immersion cooling system also includes a control facility adapted to coordinate the operation of the primary and, if included, the secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

101. The ‘457 Patent also claims, among other things, a tank module adapted for use in an appliance immersion cooling system. The tank module includes a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank. The tank includes a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, having an overflow lip adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot, and a dielectric fluid recovery reservoir positioned vertically beneath the overflow lip of the weir and adapted to receive the dielectric fluid as it flows over the weir. The tank module also includes a primary circulation facility adapted to circulate the dielectric fluid through the tank, including a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot, and a control facility adapted to control the operation of the primary fluid circulation facility as a function of the temperature of the dielectric fluid in the tank.

102. The ‘446 Patent is directed to an improved appliance immersion cooling system and method of operation. Specifically, the ‘446 Patent seeks to solve at least two

problems in the prior art of appliance immersion cooling systems: (1) the difficulty of maintenance and access to the electrical equipment in prior art vertical-stack-type systems, which necessitate draining the cooling fluid to gain access to the equipment; and (2) non-uniform flow patterns of the dielectric fluid within the tank and constricted dielectric fluid supply and return ports, resulting in uneven cooling and unnecessarily high fluid flow velocities. The invention of the '446 Patent is an improvement over the prior art and provides greater efficiency and effectiveness through ease of access to the electrical appliances in an open horizontal tank, substantially uniform fluid flow patterns through all appliance slots leading to substantially uniform cooling, and lower fluid flow velocities. The '446 Patent accomplishes these improvements through a unique, innovative design, as described below, that achieves substantially uniform flow of dielectric fluid upwardly through the tank, beginning from a plenum that substantially uniformly distributes the dielectric fluid across the bottom of the tank and then a weir that is adapted to facilitate substantially uniform recovery of the dielectric fluid that has cooled the appliances, where the fluid flows over the weir into fluid recovery reservoirs, to then be cycled and re-cooled, for recirculation into the tank. The '446 Patent therefore does not claim an abstract idea, law of nature, or natural phenomenon, but instead to a tangible, patent-eligible invention.

103. The '446 Patent claims, among other things, an appliance immersion cooling system that includes a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank. The tank includes a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot. The appliance immersion cooling system also includes a primary circulation facility adapted to circulate the dielectric fluid through the tank. The primary circulation facility includes a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot. The appliance immersion cooling system also includes, in at least

one embodiment, a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulation in the primary circulation facility, and to dissipate to the environment the heat so extracted, and a control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

104. The ‘446 Patent also claims, among other things, a tank module adapted for use in an appliance immersion cooling system. The tank module includes a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically long, and extending transverse to, a long wall of the tank. The tank includes a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot. The tank module also includes a primary circulation facility adapted to circulate the dielectric fluid through the tank, including a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot, and a control facility adapted to control the operation of the primary fluid circulation facility as a function of the temperature of the dielectric fluid in the tank.

VIII. JURY DEMAND

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Midas respectfully requests a trial by jury of any issues so triable by right.

PRAYER FOR RELIEF

Wherefore, Midas requests judgment against Defendants as follows:

A. Adjudging that all Defendants have directly infringed, the’457 Patent, in violation of 35 U.S.C. § 271(a);

B. Adjudging that Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have actively induced infringement of the’457 Patent, in violation of 35 U.S.C. § 271(b);

C. Adjudging that all Defendants have directly infringed the’446 Patent, in

violation of 35 U.S.C. § 27l(a);

D. Adjudging that Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have actively induced infringement of the'446 Patent, in violation of 35 U.S.C. § 271(b);

E. Permanently enjoining Defendants, their employees, agents, officers, directors, attorneys, successors, affiliates, subsidiaries, and assigns, and all of those in active concert and participation with any of the foregoing persons or entities from infringing, contributing to the infringement of, or inducing infringement of, the '457 Patent and of the'446 Patent;

F. Ordering Defendants to account for and pay damages adequate to compensate Midas for Defendants' infringement of, and inducement to infringe, the '457 Patent and the'446 Patent, including pre-judgment and post-judgment interest and costs, pursuant to 35 U.S.C. § 284;

G. Ordering an accounting by Defendants for any infringing activity not presented at trial and an award by the court of additional damages for any such infringing activity to Midas;

H. Ordering that the damages award by increased up to three times the actual amount assessed, pursuant to 35 U.S.C. § 284;

I. Declaring this case exceptional and ordering Defendants to pay the cost of this action, including all disbursements, and attorneys' fees as provided by 35 U.S.C. § 285, together with prejudgment interest; and

J. Awarding such other and further relief as this Court deems just and proper.

DATED: March 29, 2023

Respectfully submitted,

/s/ Joseph E. Thomas

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Counsel for Plaintiff
Midas Green Technologies, LLC

CERTIFICATE OF SERVICE

I hereby certify that counsel of record who have appeared electronically in this case are being served on March 29, 2023 via the email address that counsel provided to Court's ECF system.

/s/ Tierra Mendiola
Tierra Mendiola

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

Midas Green Technologies, LLC,	)	
	)	
Plaintiff,	)	Civil Action No. 6:22-CV-00050-ADA
	)	
v.	)	**JURY TRIAL DEMANDED**
	)	
Rhodium Enterprises, Inc.;	)	
Rhodium Technologies LLC;	)	
Rhodium 10MW LLC;	)	
Rhodium 2.0 LLC;	)	
Rhodium 30MW LLC;	)	
Rhodium Encore LLC;	)	
Rhodium Renewables LLC;	)	
Rhodium Renewables Sub LLC; and	)	
Rhodium Ready Ventures LLC.	)	
	)	
Defendants.	)	

DEFENDANTS' ANSWER TO PLAINTIFF'S THIRD AMENDED COMPLAINT AND COUNTERCLAIMS

Defendants Rhodium Enterprises, Inc., Rhodium Technologies LLC, Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, Rhodium Encore LLC, Rhodium Renewables LLC, Rhodium Renewables Sub LLC; and Rhodium Ready Ventures LLC. (collectively, "Rhodium" or "Defendants") hereby file their Answer to Midas Green Technologies, LLC ("Midas" or "Plaintiff")'s Third Amended Complaint for Patent Infringement.

I. PARTIES

Complaint Paragraph 1:

1. Plaintiff Midas Green Technologies, LLC is a Texas limited liability company with its principal place of business at 7801 N Capital of Texas Hwy # 230, Austin, TX 78731. Midas designs and builds immersion cooling solutions for use in data centers including cryptocurrency

mining facilities. Midas has been an innovative pioneer in the application of immersion cooling technology.

Response: Defendants admit, on information and belief, that Plaintiff is a Texas limited liability company with its principal place of business in Austin, Texas, that has offered immersion cooling solutions for sale. Defendants lack knowledge or information sufficient to form a belief about the business of Plaintiff's customers, and deny the remaining allegations of Paragraph 1.

Complaint Paragraph 2:

2. Defendant Rhodium Enterprises, Inc. is a Delaware corporation formed on April 22, 2021. Rhodium Enterprises, Inc. conducts business in Texas, including in this District, and including in the Waco Division, including by way of its subsidiaries as described herein. According to its most recent SEC filing, Rhodium Enterprises, Inc. is a holding company and the sole managing member of Defendant Rhodium Technologies LLC. *See* SEC Amendment No. 6 to Form S-1 *see* https://www.sec.gov/Archives/edgar/data/0001874985/000121390022002442/fs12022a6_rhodium.htm.

Response: Defendants admit that Rhodium Enterprises, Inc. is a Delaware corporation formed on April 22, 2021 and that it conducts business in Texas, including in the Waco Division of this District. Defendants admit that Rhodium Enterprises, Inc. is a holding company and the manager and a member of Rhodium Technologies LLC. To the extent that there are other allegations in this paragraph that require a response, Defendants deny those remaining allegations.

Complaint Paragraph 3:

3. Defendant Rhodium Technologies LLC is a Delaware limited liability company formed on October 23, 2020. Rhodium Technologies LLC was formerly known as Rhodium Enterprises LLC. Rhodium Technologies LLC is a subsidiary of Defendant Rhodium Enterprises,

Inc. Rhodium Technologies LLC conducts business in Texas, including in this District, and including in the Waco Division, including by way of its subsidiaries as described herein. According to the foregoing most-recent Amended SEC Form S-1 filing, Defendant Rhodium Technologies LLC is a holding company. In the foregoing most-recent Amended SEC Form S-1 filing, Defendant Rhodium Technologies LLC is known as "Rhodium Holdings."

Response: Defendants admit that Rhodium Technologies LLC is a limited liability company formed on October 23, 2020, and was formerly known as Rhodium Enterprises LLC. Defendants admit that Rhodium Technologies LLC is a subsidiary of Rhodium Enterprises, Inc. and that it conducts business in Texas, including in the Waco Division of this District. Defendants admit that Rhodium Technologies LLC is a holding company and is referenced as "Rhodium Holdings" in the referenced Amended SEC Form S-1 filing. To the extent that there are other allegations in this paragraph that require a response, Defendants deny those remaining allegations.

Complaint Paragraph 4:

4. Defendant Rhodium 10MW LLC is a Delaware limited liability company formed on March 12, 2021. Rhodium 10MW LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium 10MW LLC conducts business in Texas, including in this District, and including in the Waco Division.

Response: Admitted.

Complaint Paragraph 5:

5. Defendant Rhodium 2.0 LLC is a Delaware limited liability company formed on December 17, 2020. Rhodium 2.0 LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium 2.0 LLC conducts business in Texas, including in this District, and including in the Waco Division.

Response: Admitted.

Complaint Paragraph 6:

6. Defendant Rhodium 30MW LLC is a Delaware limited liability company formed on April 1, 2020. Rhodium 30MW LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium 30MW LLC conducts business in Texas, including in this District, and including in the Waco Division.

Response: Admitted.

Complaint Paragraph 7:

7. Defendant Rhodium Encore LLC is a Delaware limited liability company formed on January 1, 2021. Rhodium Encore LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium Encore LLC conducts business in Texas, including in this District, and including in the Waco Division.

Response: Defendants admit that Rhodium Encore LLC was formed in January 2021 (on January 8, 2021). Defendants admit the remaining allegations of Paragraph 7.

Complaint Paragraph 8:

8. Defendant Rhodium Renewables LLC is a Delaware limited liability company formed on March 17, 2021. Rhodium Renewables LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium Renewables LLC conducts business in Texas, including in this District, and including in the Waco Division.

Response: Admitted.

Complaint Paragraph 9:

9. Defendant Rhodium Renewables Sub LLC is a Delaware limited liability company formed on April 25, 2022, with a principal office at 4146 W. US Highway 79, Rockdale, Texas

76567-5278. Rhodium Renewables Sub LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium Renewables Sub LLC conducts business in Texas, including in this District, and including in the Waco Division.

Response: Admitted.

Complaint Paragraph 10:

10. Defendant Rhodium Ready Ventures LLC is a Delaware limited liability company formed on August 23, 2022, with a principal office at 4146 W. US Highway 79, Rockdale, Texas 76567-5278. Rhodium Ready Ventures LLC is an operating company and a subsidiary of Defendant Rhodium Technologies LLC. Rhodium Ready Ventures LLC conducts business in Texas, including in this District, and including in the Waco Division.

Response: Admitted.

Complaint Paragraph 11:

11. The foregoing SEC filing describes each of Defendants Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, Rhodium Encore LLC, Rhodium Industries LLC, and Rhodium Renewables LLC, as operating subsidiaries of Rhodium Technologies LLC. This SEC filing (dated January 18, 2022) also refers to i Ventures Enterprises LLC (then doing business as Energy Tech LLC) as a related party. Accordingly, these defendants will be collectively be referenced herein as "the Rhodium Operating Subsidiaries."

Response: Defendants admit that the referenced SEC filing is dated Januay 18, 2022. The SEC filing speaks for itself.

Complaint Paragraph 12:

12. After Midas filed this case on January 13, 2022, and after the January 18, 2022 date of the aforementioned SEC filing, Jordan HPC Sub LLC, Rhodium Renewables Sub LLC, and

Rhodium Ready Ventures LLC were formed by certain of the other Defendants, ostensibly to be governed by Rhodium Technologies LLC. After the filing of this case and of the aforementioned SEC filing, Rhodium 10MW Sub LLC, Rhodium 30MW Sub LLC, Rhodium Encore Sub LLC, and Rhodium 2.0 Sub LLC were formed by certain of the other Defendants, ostensibly to be governed by Rhodium JV LLC. Accordingly, these companies, whether a defendant or not, will be collectively referenced herein as "the Rhodium Post-Filing Operating Subsidiaries."

Response: Defendants admit that Jordan HPC Sub LLC, Rhodium Renewables Sub LLC, and Rhodium Ready Ventures LLC were formed after January 13, 2022, that Jordan HPC Sub LLC is governed by Rhodium Technologies, LLC, and that Rhodium 10MW Sub LLC, and Rhodium 30MW Sub LLC are governed by Rhodium JV LLC. The remaining allegations are vague as to "certain of the other Defendants," "ostensibly to be governed," and the companies intended to be included in "these companies," and Defendants thus lack information sufficient to admit or deny them. On that basis, Defendants deny the remaining allegations of Paragraph 12.

Complaint Paragraph 13:

13. Chase Blackmon is a Texas resident, is a co-founder and the Chief Operating Officer of both Rhodium Enterprises, Inc., and Rhodium Technologies LLC. Chase Blackmon is a director nominee for the board of directors of Rhodium Enterprises. Chase Blackmon also owns shares of both Rhodium Enterprises and Rhodium Technologies by way of an entity called Imperium Investment Holdings LLC ("Imperium"). Imperium is the majority and controlling owner of both Rhodium entities. According to the foregoing SEC filing, Chase Blackmon controls 25% of the voting interests in Imperium. Chase Blackmon personally directed, participated in, authorized, and/or ratified the infringing conduct of the Defendants. For example, on information and belief, Chase Blackmon helped design Defendants' infringing immersion cooling systems, and

he directs, participates in, and makes decisions regarding the making and use of the infringing immersion cooling systems.

Response: Defendants admit Chase Blackmon is a Texas resident, deny that he is a nominee and admit that he is a current member of the board of directors of Rhodium Enterprises, Inc. Defendants admit that the SEC filing referenced in this paragraph states that Chase Blackmon controls 25% of the voting interests in Imperium. Defendants deny that they or Chase Blackmon have engaged in any infringing conduct, including that they have not designed, made, or used any systems that infringe any valid and enforceable claim of any asserted patent. To the extent that there are other allegations in this paragraph that require a response, Defendants deny those remaining allegations.

Complaint Paragraph 14:

14. Cameron Blackmon is a Texas resident, is a co-founder and the Chief Technology Officer of both Rhodium Enterprises, Inc., and Rhodium Technologies LLC. Cameron Blackmon is a director nominee for the board of directors of Rhodium Enterprises. Cameron Blackmon also owns shares of both Rhodium Enterprises and Rhodium Technologies through Imperium. According to the foregoing SEC filing, Cameron Blackmon controls 25% of the voting interests in Imperium. On information and belief, Cameron Blackmon personally directed, participated in, authorized, and/or ratified the infringing conduct of the Defendants. For example, on information and belief, Cameron Blackmon helped design and develop Defendants' infringing immersion cooling systems, and he directs, participates in, and makes decisions regarding the making and use of the infringing immersion cooling systems.

Response: Defendants admit Cameron Blackmon is a Texas resident and is a co-founder and the Chief Technology Officer of Rhodium Enterprises, Inc. Defendants admit that the SEC filing

referenced in this paragraph states that Cameron Blackmon controls 25% of the voting interests in Imperium. Defendants deny that they or Cameron Blackmon have engaged in any infringing conduct, including that they have not designed, made, or used any systems that infringe any valid and enforceable claim of any asserted patent. To the extent that there are other allegations in this paragraph that require a response, Defendants deny those remaining allegations.

Complaint Paragraph 15:

15. Nathan Nichols is a Texas resident, is a co-founder and the Chief Executive Officer of both Rhodium Enterprises, Inc., and Rhodium Technologies LLC. Nathan Nichols serves on the board of directors for Rhodium Enterprises. Nathan Nichols also owns shares of both Rhodium Enterprises and Rhodium Technologies through Imperium. According to the foregoing SEC filing, Nathan Nichols controls 25% of the voting interests in Imperium. On information and belief, Nathan Nichols personally directed, participated in, authorized, and/or ratified the infringing conduct of the Defendants. For example, on information and belief, Nathan Nichols helped design and develop Defendants' infringing immersion cooling systems, and he directs, participates in, and makes decisions regarding the making and use of the infringing immersion cooling systems.

Response: Defendants admit on information and belief that Nathan Nichols is a Texas resident and admit that he is a co-founder of Rhodium Enterprises, Inc. Defendants admit that the SEC filing referenced in this paragraph states that Nathan Nichols controls 25% of the voting interests in Imperium. Defendants deny that they or Nathan Nicols have engaged in any infringing conduct, including that they have not designed, made, or used any systems that infringe any valid and enforceable claim of any asserted patent. To the extent that there are other allegations in this paragraph that require a response, Defendants deny those remaining allegations.

Complaint Paragraph 16:

16. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, and the Defendant Rhodium Operating Subsidiaries have common stock ownership. Each of Chase Blackmon, Cameron Blackmon, and Nathan Nichols (the "Individuals") owns shares of both Defendant Rhodium Enterprises, Inc., and Defendant Rhodium Technologies LLC through Imperium. *See* SEC Amendment No. 6 to Form S-1 at 102. Rhodium Technologies LLC in turn directly or indirectly owns all of the outstanding equity interests in the Rhodium Operating Subsidiaries. *Id*. at 103-05. Rhodium Technologies LLC also directly or indirectly owns all of the outstanding equity interests in the Rhodium Post-Filing Operating Subsidiaries.

Response: Defendants admit that Rhodium Technologies LLC directly or indirectly owns all of the outstanding equity interests in the Rhodium Operating Subsidiaries. Otherwise denied.

Complaint Paragraph 17:

17. The Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries, share common directors and officers with Defendant Rhodium Enterprises, Inc., and Defendant Rhodium Technologies LLC.

Response: Denied.

Complaint Paragraph 18:

18. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, and the Rhodium Operating Subsidiaries file consolidated financial statements. *Id.* at F-17 ("The condensed consolidated financial statements include the accounts of Rhodium Enterprises Inc. and its respective subsidiaries.")

Response: Admitted with respect to the SEC filing referenced in this paragraph.

Complaint Paragraph 19:

19. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, the

Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries were incorporated by Cameron Blackmon, acting on behalf of Imperium, a third party under the control of the Individuals.

Response: Defendants admit that Cameron Blackmon signed the incorporation documents for Rhodium Technologies LLC, the Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries. Defendants deny the remaining allegations of this paragraph.

Complaint Paragraph 20:

20. The Rhodium Operating Subsidiaries, as well as the Rhodium Post-Filing Operating Subsidiaries, are presently undercapitalized and exist for the purposes of illegitimately shielding Defendant Rhodium Enterprises, Inc., and Rhodium Technologies LLC, and in turn the Individuals, from liability. On information and belief, the Rhodium Operating Subsidiaries, as well as the Rhodium Post-Filing Operating Subsidiaries, would be unable to satisfy any money judgement levied against them because of their undercapitalization and because their revenues flow directly to Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC.

Response: Denied.

Complaint Paragraph 21:

21. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC finance the Rhodium Operating Subsidiaries, as well as the Rhodium Post-Filing Operating Subsidiaries.

Response: Denied.

Complaint Paragraph 22:

22. Rhodium Shared Services LLC directly pays the salaries of all Rhodium officers and employees, with the exception that Rhodium Shared Services LLC indirectly pays the salary

of Rhodium Chief Financial Officer Nicholas Cerasuolo by way of its subsidiary, Rhodium Shared Services PR Inc.

Response: Admitted that Rhodium Shared Services LLC directly pays the salaries of all Rhodium employees. Otherwise denied.

Complaint Paragraph 23:

23. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, the Defendant Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries, use each other's properties as their own. For example, on information and belief, some or all of them operate out of the same Rockdale, Texas bitcoin mining facility, among other facilities.

Response: Defendants admit that Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, and Rhodium Encore LLC operate out of the same Rockdale, Texas bitcoin mining facility. Otherwise denied.

Complaint Paragraph 24:

24. The daily operations of Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, the Defendant Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries are not kept separate. For example, they collectively operate the same bitcoin mining operation. *Id.* At F-16 ("The Company, together with its subsidiaries, operates a digital mining operation"). As discussed above, on information and belief, some or all of them operate out of the same Rockdale, Texas bitcoin mining facility, among other facilities. On information and belief, they also have common business departments.

Response: Denied.

Complaint Paragraph 25:

25. The Rhodium Operating Subsidiaries, as well as the Rhodium Post-Filing

Operating Subsidiaries, receive no business except through that allocated and arranged by Defendant Rhodium Enterprises, Inc. and/or Defendant Rhodium Technologies LLC. For example, Defendant Rhodium Enterprises, Inc. and/or Defendant Rhodium Technologies LLC negotiate contracts on behalf of the Defendant Rhodium Operating Subsidiaries and the Rhodium Post-Filing Operating Subsidiaries, or vice versa.

Response: Denied.

Complaint Paragraph 26:

26. Defendant Rhodium Enterprises, Inc., Defendant Rhodium Technologies LLC, and the Defendant Rhodium Operating Subsidiaries do not observe corporate formalities, including keeping separate books. See *Id*. at F-17 ("The condensed financial statements include the accounts of Rhodium Enterprises Inc. and its respective subsidiaries. All inter-company accounts, balances, and transactions have been eliminated.") (emphasis added). On information and belief, the same is true with respect to the Rhodium Post-Filing Operating Subsidiaries.

Response: Denied.

Complaint Paragraph 27:

27. Each Rhodium Operating Subsidiary and Rhodium Post-Filing Operating Subsidiary is an agent of Defendants Rhodium Enterprises, Inc., and Defendant Rhodium Technologies LLC (aka Rhodium Holdings) and their owners and operators, Chase Blackmon, Cameron Blackmon, and Nathan Nichols. Defendant Rhodium Enterprises, Inc. Defendant Rhodium Technologies LLC, the Defendant Rhodium Operating Subsidiaries, and the Rhodium Post-Filing Operating Subsidiaries therefore act as a common enterprise, their actions ultimately being directed by the Individuals. Specifically, the Individuals direct and control the activities of Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC, and those

Defendants in turn direct and control the activities of the operating subsidiaries. The operating subsidiaries do not function as separate entities, but rather as controlled agents of the parent entities and the operating subsidiaries act on behalf of the parent entities. *See, e.g.*, SEC Amendment No. 6 to Form S-1 at F-17 (referring to the operating subsidiaries as "the subsidiaries through which the Company operates its assets").

Response: Denied.

II. JURISDICTION

Complaint Paragraph 28:

28. This is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 101 et seq. The Court therefore has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

Response: Defendants admit that this is a civil action for patent infringement arising under the patent laws of the United States and admit that the Court has subject matter jurisdiction, but deny that Defendants have committed any act of infringement and deny the legal sufficiency of Plaintiff's complaint.

Complaint Paragraph 29:

29. Defendants are subject to this Court's specific and general personal jurisdiction, pursuant to constitutional due process and the Texas Long-Arm Statute, due at least to their extensive business in this District, including by reason of their infringement alleged herein. Specifically, and for example, Defendants own and operate an infringing bitcoin mining facility in Rockdale, Texas. *See* SEC Amendment No. 6 to Form S-1 at l (referring to Defendants' Rockdale location as the "initial Texas site"). Rockdale, Texas is located in Milam County, which is within the Western District of Texas. In addition, Defendants' second Texas site is in Temple, Texas.

Temple, Texas is located in Bell County, which is also within the Western District of Texas. Further, Defendants' third Texas site[1] is within the Northern District of Texas.

Response: Defendants do not contest the exercise of personal jurisdiction and admit that there are Rhodium sites in Texas, including in Rockdale and Temple, but deny having committed any act of infringement.

Complaint Paragraph 30:

30. Jurisdiction is also found as Defendant Rhodium Enterprises, Inc., and Defendant Rhodium Technologies LLC direct and control the infringing activities of the other Defendants. Further, Rhodium Enterprises, Inc. and Rhodium Technologies LLC purchase immersion cooling system tanks and other components, and then provide those infringing tanks for other Defendants to use. *See*, for example, **Exhibit C**, which is a manufacturing and purchase agreement whereby Rhodium Enterprises, Inc. purchases tanks and other immersion cooling products that infringe the Midas Asserted Patents, which Rhodium Enterprises, Inc. then provides either directly or indirectly to other Defendants. The entirety of the purchase agreement is marked Confidential-Outside Attorneys' Eyes Only and therefore filed under seal.

Response: Defendants do not contest the exercise of personal jurisdiction and admit that Exhibit C to the Third Amended Complaint appears to be a copy of a Manufacturing Services Agreement between Rhodium Industries LLC and Ameritex Machine and Fabrication, LLC. Defendants admit that Exhibit C is marked "Confidential – Outside Attorneys' Eyes Only" and therefore was filed under seal. Defendants deny the remaining allegations of Paragraph 30.

[1] The third location is information learned from Defendants' Further Supplemental Responses, the relevant portion of which is Attached as Exhibit D, page 9. The full text of Defendants' Further Supplemental Responses is not included in the body of the Complaint as they are marked Confidential-Outside Attorneys' Eyes Only and therefore are filed under seal.

Complaint Paragraph 31:

31. In further support of jurisdiction, each of the Defendant subsidiaries infringes the Midas patented immersion cooling system as claimed in the Assert Patents. The use of the tanks is admitted in Defendants' Further Supplemental Responses of which is Attached as **Exhibit D**. The entirety of the Defendants' Further Supplemental Responses is not included below as they are marked Confidential-Outside Attorneys' Eyes Only. Instead, citations are provided to where Rhodium admits use of the tanks.

Defendant Rhodium Operating Subsidiaries

Rhodium 10MW LLC - - page 8, at paragraph labeled "2"

Rhodium 2.0 LLC - - page 8, at paragraph labeled "2"

Rhodium 30MW LLC - - page 7, at paragraph labeled "1"

Rhodium Encore LLC - - page 8, at paragraph labeled "2"

Rhodium Renewables LLC - - page 8, at paragraph labeled "2"

Defendants also Identified as Rhodium Post-Filing Operating Subsidiaries

Rhodium Renewables Sub LLC - - page 9, first indented paragraph

Rhodium Ready Ventures LLC - - page 9, second indented paragraph

Response: Defendants do not contest the exercise of personal jurisdiction and admit that Exhibit D to the Third Amended Complaint appears to be a copy of Defendants' Further Supplemental Interrogatory Responses to Plaintiff's First Set of Interrogatories, but deny having committed any act of infringement.

III. VENUE

Complaint Paragraph 32:

32. Venue is proper in this district under 28 U.S.C. §§ 139l(b) and 1400(b). All

Defendants have at least two places of business in this District and in the Waco Division, *i.e.*, in Rockdale, Texas and in Temple, Texas. Defendants have committed acts of infringement, or a portion thereof, at these two locations within this District and within this Division.

Response: Defendants do not contest the propriety of venue but deny having committed any act of infringement.

IV. THE ASSERTED PATENTS

A. The '457 Patent

Complaint Paragraph 33:

33. U.S. Patent No. 10,405,457, entitled "Appliance Immersion Cooling System," was duly and legally issued on September 3, 2019 by the U.S. Patent and Trademark Office. The underlying application, U.S. Patent Application No. 14/355,533, was filed on April 30, 2014. A true and correct copy of the '457 Patent is attached as **Exhibit A** and incorporated by reference.

Response: Defendants admit that what purports, on its face, to be U.S. Patent No. 10,405,457, entitled "Appliance Immersion Cooling System," and issued on September 3, 2019 claiming priority to an underlying application, U.S. Patent Application No. 14/355,533, filed on April 30, 2014, is attached to the Third Amended Complaint as Exhibit A. On information and belief, Defendants deny that the patent was duly and legally issued.

Complaint Paragraph 34:

34. Midas is the assignee of all right, title, and interest in the '457 Patent, including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the '457 Patent. Accordingly, Midas possesses the exclusive right and has standing to prosecute the present action for infringement of the '457 Patent by Defendants.

Response: Defendants lack knowledge or information sufficient to form a belief about the truth

of the allegations of paragraph 34 and therefore deny them.

B. The ‘446 Patent

Complaint Paragraph 35:

35. U.S. Patent No. 10,820,446 entitled “Appliance Immersion Cooling System,” was duly and legally issued on October 27, 2020 by the U.S. Patent and Trademark Office. The underlying application, U.S. Patent Application No. 16/243,732, was filed on January 9, 2019, and is a continuation of the application which issued as the ‘457 Patent filed on April 30, 2014. A true and correct copy of the ‘446 Patent is attached as **Exhibit B** and incorporated by reference.

Response: Defendants admit that what purports, on its face, to be U.S. Patent No. 10,820,446 entitled “Appliance Immersion Cooling System,” issued on October 27, 2020, and claiming priority to an underlying application, U.S. Patent Application No. 16/243,732, filed on January 9, 2019, is attached to the Third Amended Complaint as Exhibit B. Defendants admit that what purports, on its face, to be U.S. Patent No. 10,820,446 indicates that U.S. Patent Application No. 16/243,732 was a continuation of the application which issued as the ‘457 Patent. On information and belief, Defendants deny that the patent was duly and legally issued.

Complaint Paragraph 36:

36. Midas is the assignee of all right, title, and interest in the ‘446 Patent, including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the ‘446 Patent. Accordingly, Midas possesses the exclusive right and has standing to prosecute the present action for infringement of the ‘446 Patent by Defendants.

Response: Defendants lack knowledge or information sufficient to form a belief about the truth of the allegations of Paragraph 36 and therefore deny them.

V. RHODIUM AND ITS [ALLEGED] INFRINGEMENTS

Complaint Paragraph 37:

37. Rhodium Defendants are part of "an industrial-scale digital asset technology company" that "mine[s] bitcoin" with a "fully integrated" liquid cooling system. *See* SEC Amendment No. 6 to Form S-1 at 1.

Response: Admitted that this paragraph quotes excerpts from the cited SEC document, which speaks for itself.

Complaint Paragraph 38:

38. Rhodium's "founders spent the previous four years developing, testing, and collecting field operational data to optimize the application of [their] liquid-cooling technology to mining bitcoin." *Id.* Rhodium designs, builds, and operates data centers, also called "mining farms" consisting of "bitcoin miners" (i.e. high-powered computers) submerged in dielectric cooling fluid within specialized tank modules. *Id.* at 1, 22. The miners mine bitcoin and thus generate revenue. The liquid cooling system permits Rhodium to "predictably and consistently mine more bitcoin with fewer miners" by "optimize[ing] the hash rate, or processing power" of the miners. *Id.* at 1.

Response: Defendants admit that Paragraph 38 contains excerpts from SEC filings, which speak for themselves. Defendants admit that some of Rhodium's business involves operating and contributing to the design of certain data centers, some of which use tank modules and liquid cooling systems. Defendants deny that all of their bitcoin mining uses liquid cooling systems.

Complaint Paragraph 39:

39. According to the foregoing SEC filing, Rhodium does not sell immersion cooling products to third parties, but instead is a fully integrated bitcoin mining operation that designs,

builds, and then operates its own allegedly proprietary immersion cooling systems to mine bitcoin and generate revenue. *Id.* at 1. Rhodium and its non-defendant subsidiaries operate as a common enterprise controlled by Rhodium Enterprises and/or by Rhodium Technologies, and/or by their officers and primary shareholders the Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols.

Response: Defendants admit that they do not sell immersion cooling products to third parties. Defendants admit that they generate revenue through bitcoin mining operations. The referenced SEC fiing speaks for itself. Defendants otherwise deny the allegations of Paragraph 39.

Complaint Paragraph 40:

40. Rhodium Defendants own and operate a bitcoin mining facility in Rockdale, Texas. Below are images from Rhodium's Rockdale facility showing the infringing liquid immersion cooling systems and tank modules:

See, e.g., "Investor Presentation 17.02.2020. In connection with proposed acquisition of Distributed Ledger Technologies Ireland, Ltd, Element ASA" (February 17, 2020), downloaded from https://dltx.com/uploads/images/Reports-and-Documents/Presentations-and-Docs/Exemption-Doc/Element_Investor_Presentation_210217.pdf.

Response: Defendants admit to operating a bitcoin mining facility in Rockdale, Texas, which Defendants do not own. As of the date of this answer, the link cited in Paragraph 40 is broken. The referenced document speaks for itsef. Defendants deny that any of their systems infringe any valid and enforceable claim of any asserted patent.

Complaint Paragraph 41:

41. Accordingly, Defendants have directly infringed at least claims 1, 2, 5-7, 10, 11, 14 and 15 of the '457 Patent and at least claims 1, 2, 5-7 and 10 of the '446 Patent. Attached as **Exhibit E** is the claim chart for independent claims 1 and 6 of the '457 Patent. Attached as **Exhibit F** is the claim chart for independent claims 1 and 6 of the '446 Patent. These claim charts are excerpts from Midas' Final Infringement Contentions, which were served on Defendants on November 21, 2022. Midas provided claim charts for all asserted claims in its Final Infringement contentions. Exhibits E and F are designated Confidential-Outside Attorneys' Eyes Only and therefore filed under seal.

Response: Defendants admit that excerpts from Midas' Final Infringement Contentions served on or about November 21, 2022 are attached as Exhibits E and F, but deny having infringed any asserted claim of either patent.

VI. DEFENDANTS' [ALLEGED] KNOWLEDGE OF THE ASSERTED PATENTS, THEIR [ALLEGED] INFRINGEMENTS, AND THE PRIOR CLAIM CONSTRUCTION ORDER

Complaint Paragraph 42:

42. As detailed below, all Defendants have had actual notice of the Asserted Patents and their own infringements for some time. For example, the Individuals became aware of the '457 Patent and their infringements thereof no later than February 2020, when they received a notice letter from Midas addressed to another entity founded by the Individuals, *i.e.*, Immersion Systems LLC. Further, the Individuals became aware of the '457 Patent and their infringements thereof, no

later than November 24, 2020, when Midas amended its lawsuit against Immersion Systems to assert the '457 Patent.

Response: Defendants admit that, on information and belief, Immersion Systems received a letter from Plaintiff in February 2020. Defendants deny the remaining allegations of Paragraph 42, including that Defendants deny having committed any act of infringement and deny having actual notice of their own alleged infringement.

Complaint Paragraph 43:

43. Before founding any of their Rhodium entities, Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols began to commercialize certain liquid immersion cooling systems intended to be used in bitcoin mining operations. To sell those liquid immersion cooling systems to third parties, the Individuals formed an entity called Immersion Systems LLC in 2018. Exemplary YouTube videos show Chase Blackmon and Cameron Blackmon working on such immersion cooling systems. *See* AntMiner S9 - Immersion CoolingTest, Feb. 17, 2018. https://www.youtube.com/watch?v=DRck1Iegf2A (last accessed March 28, 2023); immersion Cooling- Beta Test 1, Feb. 17, 2018, https://www.youtube.com/watch?v=SzUO-PMtda4 (last accessed March 28, 2023); *see also* SEC Amendment No. 6 to Form S-1 at 1 ("Our founders spent the previous four years developing, testing, and collecting field operational data to optimize the application of our liquid-cooling technology to mining bitcoin.").

Cameron Blackmon

Chase Blackmon

Response: Defendants admit that Chase Blackmon and Cameron Blackman formed an entity called Immersion Systems LLC in 2018. Defendants admit that the business of Immersion Systems LLC involved liquid cooling systems and that the images shown are from certain YouTube videos titled "AntMiner S9 - Immersion CoolingTest," posted on Feb. 17, 2018, accessible at https://www.youtube.com/watch?v=DRck1Iegf2A; and "Immersion Cooling - Beta Test 1," posted on Feb. 17, 2018, and accessible at https://www.youtube.com/watch?v=SzUO-PMtda4. Defendants admit that Paragraph 43 contains excerpts from SEC filings, which speak for themselves. To the extent there are other allegations in this paragraph that require a response, Defendants deny those remaining allegations.

Complaint Paragraph 44:

44. From Immersion Systems' YouTube channel and Twitter feed, numerous images

and videos are available of these liquid immersion cooling systems. For example, below is a picture from a November 12, 2019 tweet, depicting a stack of immersion cooling tank modules, from Immersion System's Twitter feed with the caption "Another shipment out! Here was have [sic] 5 Bitmain S9 tanks, fitting 42 miners each." *See* https://twitter.com/ImmersionSystem/status/1194318079758610438 (last accessed on March 28, 2023)

Response: Defendants admit that the image shown appears to be from Immersion Systems' Twitter feed with the caption, "Another shipment out! Here was have [*sic*] 5 Bitmain S9 tanks, fitting 42 miners each." To the extent there are other allegations in this paragraph that require a response, Defendants deny them.

Complaint Paragraph 45:

45. In another example, below is a picture from an October 15, 2019 tweet, with the caption "Another shipment ready to go at Immersion Systems! We deploy, at industrial scale, liquid immersion crypto-mining solutions. We provide free fluid extraction and tech replacement if you want to upgrade your miners on site. Contact us at sales@immersionsystems.io for more info."

Response: Defendants admit that the image shown appears to be from Immersion Systems' Twitter feed with the caption, "Another shipment ready to go at Immersion Systems! We deploy, at industrial scale, liquid immersion crypto-mining solutions. We provide free fluid extraction and tech replacement if you want to upgrade your miners on site. Contact us at sales@immersionsystems.io for more info." To the extent there are other allegations in this paragraph that require a response, Defendants deny them.

Complaint Paragraph 46:

46. In another example, below is a picture from a July 21, 2019 tweet, with the caption "Preparing another order for shipping out this week! All of our systems are thoroughly tested prior to shipping. @ourbcma @MiningDisrupt #immersioncooling #mining #bitcoin."

Response: Defendants admit that the image shown appears to be from Immersion System's Twitter feed with the caption, "Preparing another order for shipping out this week! All of our systems are thoroughly tested prior to shipping. @ourbcma @MiningDisrupt #immersioncooling #mining #bitcoin." To the extent there are other allegations in this paragraph that require a response, Defendants deny them.

Complaint Paragraph 47:

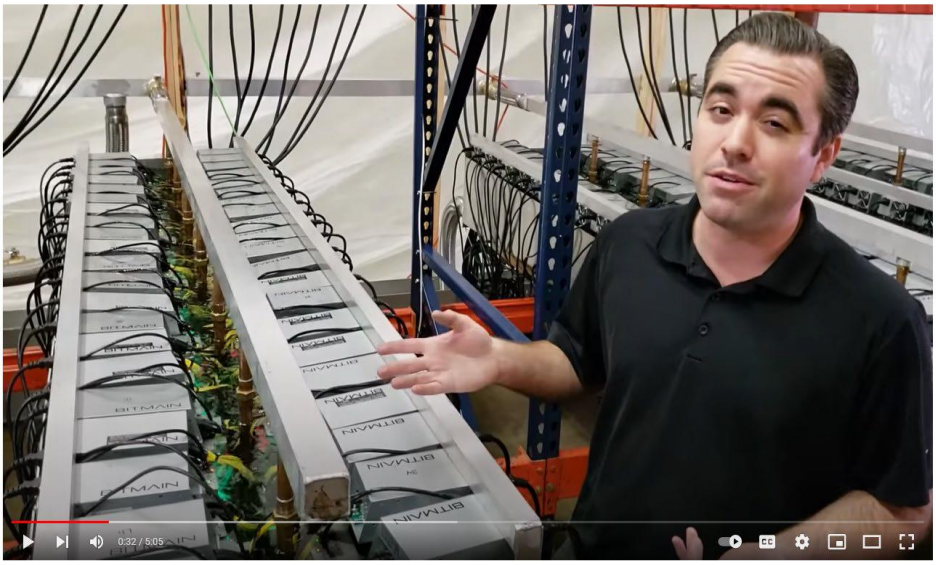
47. In another example, Immersion System's YouTube channel loaded a five- minute video entitled "Introduction" on December 10, 2018. *See*

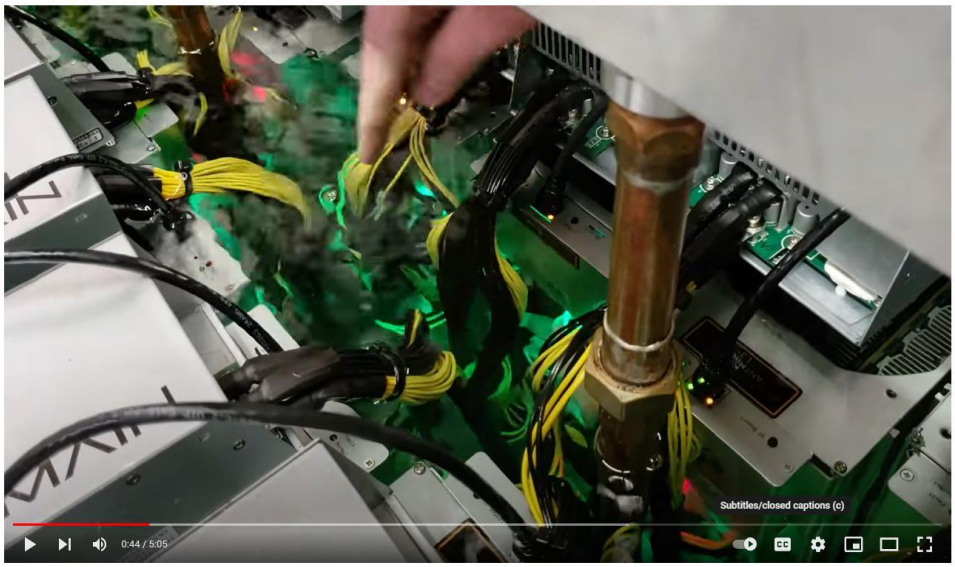
https://www.youtube.com/watch?v=kQ6cycss5ds (last accessed March 28, 2023). That video features Individual Chase Blackmon and contains detailed explanations and videos clips of Immersion Systems' "flagship" immersion cooling system, designed by Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols.

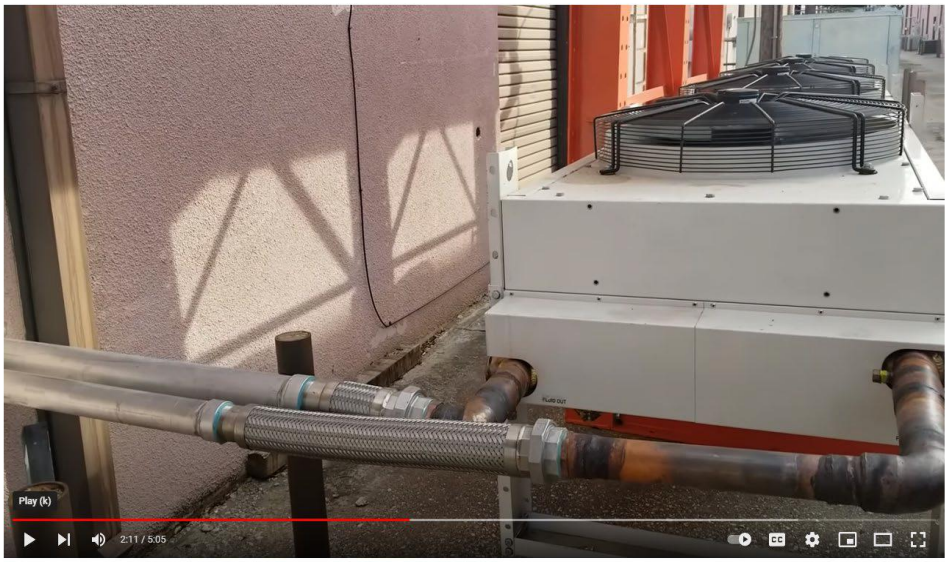
Response: Defendants admit that a video titled "Immersion Systems – Introduction," uploaded by a YouTube channel called "Immersion Systems" on December 10, 2018, is acceesible at https://www.youtube.com/watch?v=kQ6cycss5ds. The video speaks for itself. To the extent there are other allegations in this paragraph that require a response, Defendants deny them.

Complaint Paragraph 48:

48. The exemplar video shows the structure of the immersion cooling systems designed by Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols, including its central area with appliance slots, holed weir design, winged fluid recovery chambers on either side of the central area, the dielectric fluid flowing up through the central area and the appliance slots, and the pump system sending the heated dielectric fluid to a dry cooler and then back. *See id.* at 0:44 ("In here, you can see this is BitCool that we use to pump up through the miners and then it exits the sides in a fluid recovery chamber.").


0:32 / 5:05


Subtitles/closed captions (c)
0:44 / 5:05



Response: Defendants admit that the images shown are from a video titled "Immersion Systems – Introduction," uploaded by a YouTube channel called "Immersion Systems" on December 10, 2018, accessible at https://www.youtube.com/watch?v=kQ6cycss5ds. The video speaks for itself. To the extent there are other allegations in this paragraph that require a response, Defendants deny those remaining allegations.

Complaint Paragraph 49:

49. From approximately 2018 to 2020, Immersion Systems promoted infringing immersion cooling systems with this design to third parties for use in bitcoin mining operations.

Response: Denied.

Complaint Paragraph 50:

50. On the basis of these videos and photos, Midas sent a detailed letter and claim chart to Immersion Systems on February 7, 2020, explaining that Immersion Systems' immersion cooling systems infringed the '457 Patent. On information and belief, each of the Individuals received and actually read Midas' February 7, 2020 letter around the time that it was sent. Immersion did not respond to that letter, or a second letter sent shortly thereafter.

Response: Admitted that, on information and belief, Midas sent a letter on or about February 7, 2020 proposing a license to the '457 Patent. Denied as to the remaining allegations.

Complaint Paragraph 51:

51. After Immersion Systems did not respond to the second letter from Midas, Midas filed suit against Immersion Systems on May 29, 2020 in the Northern District of Texas, *Midas Green Technologies, LLC v. Immersion Systems LLC,* No. 4:20-cv-00555-O (hereafter, "the Immersion Systems Litigation."). On November 24, 2020, Midas amended its complaint to include detailed allegations of patent infringement for the '446 Patent.

Response: Defendants admit that Midas filed suit against Immersion Systems on May 29, 2020, in the Northern District of Texas, *Midas Green Technologies, LLC v. Immersion Systems LLC*, No. 4:20-cv-00555-O. Defendants admit that on November 24, 2020, Midas amended its complaint. To the extent there are other allegations in this paragraph that require a response, Defendants deny them.

Complaint Paragraph 52:

52. The individuals decided to shut down Immersion Systems in 2020, shortly after receiving Midas' first letter on February 7, 2020. On information and belief, the Individuals made this decision to cease conducting business under Immersion Systems because they then knew that their particular immersion cooling systems infringed the '457 Patent.

Response: Denied.

Complaint Paragraph 53:

53. Around this time, as detailed further below, the Individuals Chase Blackmon, Cameron Blackmon, and Nathan Nichols formed their first Rhodium entity in April 2020, *i.e.*, Defendant Rhodium 30MW LLC. The purpose of this entity (and of the other Defendant Rhodium

Operating Subsidiaries and Rhodium Post-Filing Operating Subsidiaries) was not to sell immersion cooling systems to third parties, but rather to use immersion cooling systems to mine bitcoin.

Response: Defendants admit that Rhodium 30MW LLC was formed in April 2020 not to sell immersion cooling systems to third parties, but rather to use immersion cooling systems to mine bitcoin. Defendants otherwise deny the allegations of Paragraph 53.

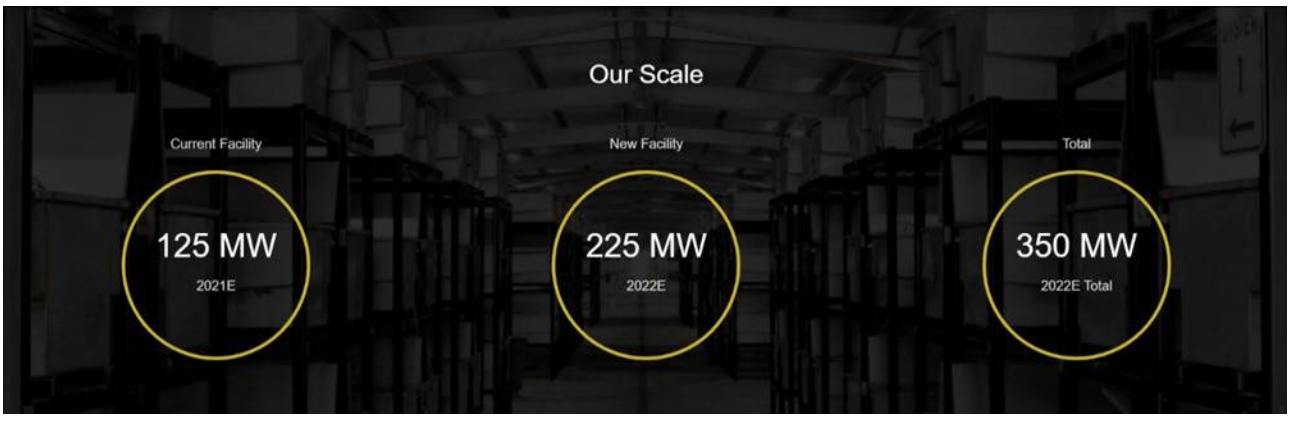
Complaint Paragraph 54:

54. During the pendency of the Immersion Systems Litigation, the Individuals caused Immersion Systems to take steps to conceal the existence of the Individuals' new Rhodium businesses.

Response: Denied.

Complaint Paragraph 55:

55. Exemplary photos from Defendants' Rockdale, Texas facility (see above), and as well as photos from Rhodium's website (rhdm.com, see below), appear to suggest that the immersion cooling systems of Rhodium are materially identical to the immersion cooling systems previously promoted by the Individuals by way of Immersion Systems.



Response: Defendants admit that the photo shown is from the website rhdm.com. Defendants otherwise deny the allegations of Paragraph 55.

Complaint Paragraph 56:

56. Because the immersion cooling systems products previously promoted by Immersion Systems and the immersion cooling systems used by Rhodium appear to be materially identical, each of the Individuals had actual notice that the immersion cooling systems of Rhodium infringed the '457 Patent, as of February 2020. Despite this knowledge, on information and belief, the Individuals acting through one or more of the Defendants, decided to utilize the particular immersion cooling systems that they had previously promoted via Immersion Systems, in the Defendants' new Rhodium-labelled bitcoin mining business ventures.

Response: Denied.

Complaint Paragraph 57:

57. On information and belief, all of the Rhodium Defendants had actual and constructive notice and knowledge of the '457 Patent as of their founding, at least by virtue of the actual notice of the '457 Patent possessed by the Individuals.

Response: Denied.

Complaint Paragraph 58:

58. On information and belief, all of the Rhodium Defendants had actual knowledge that their immersion cooling systems would infringe the '457 Patent as of their founding, at least

by virtue of the knowledge of infringement possessed by the Individuals.

Response: Denied.

Complaint Paragraph 59:

59. On information and belief, each of the Defendants gained actual notice of the '446 Patent in November of 2020, by virtue of the filing by Midas of its amended complaint in the Immersion Systems Litigation. Each of the Defendants had actual notice that the immersion cooling systems of Rhodium infringed the '446 Patent, by virtue of the filing by Midas of its amended complaint.

Response: Denied.

Complaint Paragraph 60:

60. During the course of the Immersion Systems Litigation, Midas and Immersion Systems submitted a Joint Claim Construction Chart (Dkt. 82) in which the parties agreed to the proper construction of two claim terms, *i.e.*, "weir" and "plenum," and in which the parties further agreed that seventeen other claim terms should be afforded their plain and ordinary meaning. A true and correct copy of that filing is attached as **Exhibit G**.

Response: Admitted.

Complaint Paragraph 61:

61. On November 22, 2021, the Court in the Immersion Systems Litigation issued its claim construction order, rejecting arguments from Immersion System that the '457 and '446 Patents were invalid as indefinite, and adopting Midas' proposed constructions as plain and ordinary meaning, with regard to two disputed claim terms. A true and correct copy of the Court's claim construction order is attached as **Exhibit H**. In its claim construction order, the Court also adopted the proposed constructions for nineteen agreed-upon terms and phrases as set forth in the

parties' Joint Claim Construction Chart (Dkt. 82).

Response: Defedants admit that the Court in the Immersion Systems Litigation issued an order On November 22, 2021 and that it is attached to the complaint as Exhibit H. The order speaks for itself. Defendants deny the complaint's characterization that the order "rejected arguments from Immersion Systems that the '457 and '446 Patents were invalid as indefinite." Defendants otherwise admit the allegations of Paragraph 61.

Complaint Paragraph 62:

62. As of their receipt of the foregoing claim construction ruling from the Immersion Systems Litigation in late November 2021, the Defendants knew or should have known that the Asserted Patents were valid and infringed by Defendants, to the extent they did not already possess such knowledge.

Response: Denied.

Complaint Paragraph 63:

63. The Amended SEC Form S-1 filed by Defendant Rhodium Enterprises, Inc. on December 14, 2021 discloses the existence of the Immersion Systems Litigation, as well as acknowledging the possibility that Midas might file a patent infringement lawsuit against Rhodium. *See* SEC Amendment No. 4 to Form S-1 at 29, Rhodium Enterprises, Inc. (Dec. 14, 2021), *available at* https://sec.report/Document/0001213900-21-065116/fs12021a4_rhodium.htm. Notably, the Form S-1 does *not* state that the Rhodium systems or tanks are different in any material respect from the accused Immersion systems or tanks, amounting to a tacit admission that they are the same or similar in all material respects. *Id.* Even after Midas filed the Original Complaint in this action, Rhodium filed an amended Form S-1 acknowledging the lawsuit but not containing any statements that the Rhodium systems or tanks

differ in any material respect from the infringing Immersion systems or tanks. SEC Amendment No. 6 to Form S-1 at 4. Defendants' disclosure of the Immersion Systems Litigation, and a corresponding litigation risk to the Rhodium entities, in its Form S-1 further demonstrate its knowledge of the Asserted Patents and of its infringement.

Response: Defendants admit that the referenced SEC filing discloses the existence of the Immersion Systems Litigation. The filing speaks for itself. Defendants otherwise deny the allegations of Paragraph 63.

Complaint Paragraph 64:

64. As of the filing of this suit on January 13, 2022, each of the Defendants is well aware of the Asserted Patents, and each of the Defendants is well aware of their infringements thereof.

Response: Denied.

VII. CAUSES OF ACTION

Count 1: [Alleged] Infringement of U.S. Patent No. 10,405,457

Complaint Paragraph 65:

65. Midas incorporates by reference the preceding paragraphs, as if set forth herein.

Response: To the extent that a response is required, Defendants repeat and reallege their responses to ¶¶ 1–64 of the Third Amended Complaint as if fully set forth therein.

Complaint Paragraph 66:

66. The '457 Patent was filed April 30, 2014, and legally issued by the United States Patent and Trademark Office on September 3, 2019. The '457 Patent is valid and enforceable and presumed as such pursuant to 35 U.S.C. § 282.

Response: Defendants do not understand the vague allegation that "[t]he '457 Patent was filed

April 30, 2014," and on that basis deny it. Defendants otherwise deny the allegations of Paragraph 66.

Complaint Paragraph 67:

67. Without a license or permission from Midas, Defendants have directly infringed and continue to directly infringe one or more claims of the '457 Patent by making, having made, using, offering for sale, or selling products and devices that embody the patented invention in violation of 35 U.S.C. § 271.

Response: Denied.

Complaint Paragraph 68:

68. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC directly infringe the '457 Patent under 35 USC §271(a) by (1) providing infringing immersion cooling systems to other Defendants; (2) controlling and directing the direct infringement of one or more of the other Defendants; and (3) benefitting and profiting from the infringement of one or more of the other Defendants. The other Defendants directly infringe the '457 Patent under 35 USC §271(a) by their admitted use of infringing immersion cooling systems.

Response: Denied.

Complaint Paragraph 69:

69. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC further indirectly infringe the '457 Patent by (1) directing other third parties to design, build or install infringing products and devices; and (2) controlling and directing the direct infringement of one or more of the other Defendants.

Response: Denied.

Complaint Paragraph 70:

70. Defendants' infringement has been, and continues to be, knowing, intentional, and willful, at least beginning February 7, 2020, with the delivery of Midas' noticed letter to Immersion Systems, of which the Individuals had contemporaneous notice.

Response: Denied.

Complaint Paragraph 71:

71. Defendants' acts of infringement of the '457 Patent have caused and will continue to cause Midas damages for which Midas is entitled compensation pursuant to 35 U.S.C. § 284. Defendants' acts of infringement of the '457 Patent have caused and will continue to cause Midas immediate and irreparable harm unless such infringing activities are enjoined by this Court pursuant to 35 U.S.C. § 283. Midas has no adequate remedy at law.

Response: Denied.

A. [Alleged] Direct Infringement

Complaint Paragraph 72:

72. Defendants have directly infringed one or more claims of the '457 Patent in the Western District of Texas, the State of Texas, and elsewhere in the United States, by at least making, having made, using, selling, and/or offering for sale appliance immersion cooling systems that satisfy every limitation of at least claims 1 and 6 of the '457 Patent. If any limitation of claim 1 or 6 is not practiced in a literal sense, then that limitation is present under the doctrine of equivalents.

Response: Denied.

Complaint Paragraph 73:

73. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC

have directly infringed one or more claims of the ‘457 Patent in the Western District of Texas, the State of Texas, and elsewhere in the United States by way of: (1) directing and controlling the activities of the Defendant Rhodium Operating Entities and the Defendants identified as Rhodium Post-Filing Operating Subsidiaries; and (2) benefiting and profiting from the other Defendants infringing actions. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC also purchase infringing immersion cooling tanks and provided those infringing tanks to one or more of the other Defendants.

Response: Denied.

Complaint Paragraph 74:

74. *See* **Exhibit E** which is an exemplary claim chart detailing representative infringement of claims 1 and 6 of the ‘457 Patent.

Response: Defendants admit that Exhibit E appears to be a claim chart. Defendants otherwise deny the allegations of Paragraph 74.

B. [Alleged] Induced Infringement

Complaint Paragraph 75:

75. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have been and are inducing infringement of the ‘457 Patent by actively and knowingly inducing others, including other Defendants, to make, have made and/or use, the infringing immersion cooling systems and tank modules that embody the invention claimed in the ‘457 Patent in violation of 35 U.S.C. § 271(b). Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have also induced infringement by willfully directing and controlling the infringing activities of other third parties, such as manufacturers and installers, to make, have made, or use the infringing immersion cooling systems and tank modules.

Response: Denied.

Complaint Paragraph 76:

76. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have possessed specific intent to induce infringement of the '457 Patent. Specifically, Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have long been aware of the '457 Patent and the specific manner in which their immersion cooling system design infringes the '457 Patent, by virtue of detailed claim charts provided to the Individuals and either shared with all other Defendants or that all other Defendants have knowledge of their infringement through the knowledge of the Individuals, who are officers, directors, and owners of the Rhodium Defendants. Despite this knowledge of the patent and the infringing design, Defendants have induced third parties to take actions that they know will infringe, either directly or contributorily, through the actions described in this section and throughout this complaint. For example, Defendant Rhodium Enterprises, Inc. directed Ameritex Machine and Fabrication, LLC ("Ameritex") to make and sell its infringing immersion tanks. *See* Exhibit C.

Response: Defendants admit that Exhibit C to the Third Amended Complaint, which was marked "Confidential – Outside Attorneys' Eyes Only" and filed under seal, is a copy of a Manufacturing Services Agreement between Rhodium Industries LLC and Ameritex Machine and Fabrication, LLC. The document speaks for itself. Defendants deny the remaining allegations of Paragraph 76.

Complaint Paragraph 77:

77. Defendants have induced infringement by providing designs and instructions to third party manufacturers, such as Ameritex and contractors to have made infringing immersion cooling systems and tank modules. *Id.*

Response: Denied.

Complaint Paragraph 78:

78. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have induced infringement by willfully providing infringing directions, instructions and designs for immersion cooling systems and tank modules to other Defendants, third party manufacturing companies, such as Ameritex and other contractors, for knowing use in infringing activity to mine bitcoin and generate revenue. *Id.*

Response: Denied.

Count 2: [Alleged] Infringement of U.S. Patent No. 10,820,446

Complaint Paragraph 79:

79. Midas incorporates by reference the preceding paragraphs, as if set forth herein.

Response: To the extent any response is required, Defendants repeat and reallege their responses to ¶¶ 1–78 of the Third Amended Complaint as if fully set forth therein.

Complaint Paragraph 80:

80. The ‘446 Patent was filed January 9, 2019, and legally issued by the United States Patent and Trademark Office on October 27, 2020. The ‘446 Patent is valid and enforceable, and presumed as such pursuant to 35 U.S.C. § 282.

Response: Defendants do not understand the vague allegation that “[t]he ‘446 Patent was filed January 9, 2019,” and on that basis deny it. Defendants deny the remaining allegations of Paragraph 80.

Complaint Paragraph 81:

81. Without a license or permission from Midas, Defendants have directly infringed and continue to directly infringe one or more claims of the ‘446 Patent, by making, having made,

using, offering for sale, or selling products and devices that embody the patented invention in violation of 35 U.S.C. § 271.

Response: Denied.

Complaint Paragraph 82:

82. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC directly infringe the '446 Patent under 35 USC §271(a) by; (1) providing infringing immersion cooling systems to other Defendants; (2) controlling and directing the direct infringement of one or more of the other Defendants; and (3) benefitting and profiting from the infringement of one or more of the other Defendants. The other Defendants directly infringe the '446 Patent under 35 USC §271(a) by their admitted use of infringing immersion cooling systems.

Response: Denied.

Complaint Paragraph 83:

83. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC further indirectly infringe the '446 Patent by; (1) directing other third parties to design, build or install infringing products and devices; and (2) controlling and directing the direct infringement of one or more of the other Defendants. Defendants' infringement has been, and continues to be, knowing, intentional, and willful, at least beginning November 24, 2020, with the filing of Midas' amended complaint against Immersion Systems, of which the Individuals had contemporaneous notice.

Response: Denied.

Complaint Paragraph 84:

84. Defendants' acts of infringement of the '446 Patent have caused and will continue to cause Midas damages for which Midas is entitled compensation pursuant to 35 U.S.C. § 284.

Defendants' acts of infringement of the '446 Patent have caused and willcontinue to cause Midas immediate and irreparable harm unless such infringing activities are enjoined by this Court pursuant to 35 U.S.C. § 283. Midas has no adequate remedy at law.

Response: Denied.

C. [Alleged] Direct infringement

Complaint Paragraph 85:

85. Defendants have directly infringed one or more claims of the '446 Patent in the Western District of Texas, the State of Texas, and elsewhere in the United States, by at least making, having made, using, selling, and/or offering for sale appliance immersion cooling systems that satisfy every limitation of at least claims 1 and 6 of the '446 Patent. If any limitation of claims 1 or 6 is not practiced in a literal sense, then that limitation is present under the doctrine of equivalents.

Response: Denied.

Complaint Paragraph 86:

86. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have directly infringed one or more claims of the '446 Patent in the Western District of Texas, the State of Texas, and elsewhere in the United States by way of (1) directing and controlling the activities of the Defendant Rhodium Operating Entities and the Defendants identified as Rhodium Post-Filing Operating Subsidiaries and (2) benefiting and profiting from the other Defendants infringing actions. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC also purchase infringing immersion cooling tanks and provided those infringing tanks to one or more of the other Defendants.

Response: Denied.

Complaint Paragraph 87:

87. *See* **Exhibit F** which is an exemplary claim chart detailing representative infringement of claims 1 and 6 of the ‘446 Patent.

Response: Defendants admit that Exhibit F appears to be a claim chart. Defendants otherwise deny the allegations of Paragraph 87.

D. [Alleged] Induced Infringement

Complaint Paragraph 88:

88. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have been and are inducing infringement of the ‘446 Patent by actively and knowingly inducing others, including other Defendants, to make, have made, and/or use, the infringing immersion cooling systems and tank modules that embody the invention claimed in the ‘446 Patent in violation of 35 U.S.C. § 271(b). Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have also induced infringement by willfully directing and controlling the infringing activities of other third parties, such as manufacturers and installers, to make, have made, or use the infringing immersion cooling systems and tank modules.

Response: Denied.

Complaint Paragraph 89:

89. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have possessed specific intent to induce infringement of the ‘446 Patent. Specifically, Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have long been aware of the ‘446 Patent and the specific manner in which their immersion cooling system design infringes the ‘446 Patent, by virtue of detailed claim charts provided to the Individuals and either shared with all other Defendants or that all other Defendants have knowledge of their infringement

through the knowledge of the Individuals, who are officers, directors, and owners of the Rhodium Defendants.

Response: Denied.

Complaint Paragraph 90:

90. Despite this knowledge of the patent and the infringing design, Defendants have induced third parties to take actions that they know will infringe, either directly or contributorily, through the actions described in this section and throughout this complaint. For example, Defendant Rhodium Enterprises, Inc. directed Ameritex Machine and Fabrication, LLC ("Ameritex") to make and sell it infringing immersion tanks.

Response: Defendants admit that Exhibit C to the Third Amended Complaint is a copy of a Manufacturing Services Agreement between Rhodium Industries LLC and Ameritex Machine and Fabrication, LLC, which was marked "Confidential – Outside Attorneys' Eyes Only" and filed under seal. Defendants deny the remaining allegations of Paragraph 90.

Complaint Paragraph 91:

91. Defendants have induced infringement by providing designs and instructions to third party manufacturers, such as Ameritex, and contractors to have made infringing immersion cooling systems and tank modules.

Response: Denied.

Complaint Paragraph 92:

92. Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have induced infringement by willfully providing infringing directions, instructions and designs for immersion cooling systems and tank modules to other Defendants, third party manufacturing companies, such as Ameritex and other contractors, for knowing use in infringing activity to mine

bitcoin and generate revenue.

Response: Denied.

Count 3: [Alleged] Willfulness and Egregiousness

Complaint Paragraph 93:

93. Midas incorporates by reference the preceding paragraphs, as if set forth herein.

Response: To the extent any response is required, Defendants repeat and reallege their responses to ¶¶ 1–92 of the Third Amended Complaint as if fully set forth therein.

Complaint Paragraph 94:

94. Defendants have willfully and maliciously infringed the '457 and '446 Patents at least since the date of their actual notice of the patents and their infringement. Specifically, despite receiving detailed claim charts both in letters and having received such information through the Immersion Systems litigation showing that their immersion cooling systems designs infringes Midas' patents, Defendants have continued to operate their infringing immersion cooling systems. Indeed, Defendants have aggressively sought to expand their operations and add additional immersion cooling systems, knowing throughout their existence that they infringe Midas' patents.

Response: Denied.

Complaint Paragraph 95:

95. The Individuals (by way of Immersion Systems) actively sought to conceal the existence of their Rhodium business and did not reveal its existence during the course of the Immersion Systems litigation, despite clear discovery obligations to do so. The Individuals also actively sought to conceal that Immersion Systems had ceased business operations, continuing in the Northern District of Texas litigation for the true benefit of the Defendants.

Response: Denied.

Complaint Paragraph 96:

96. At the same time, on information and belief, the Individuals, and/or Rhodium directly or indirectly bankrolled the filing and prosecution, nominally in the name of Immersion Systems, of an *Inter parties* review proceeding directed to attempt to invalidate the '457 Patent, as well as a Post-Grant review proceeding directed to attempt to invalidate the '446 Patent.

Response: Denied.

Complaint Paragraph 97:

97. Defendants' infringement has been egregious, wanton, malicious, and in bad faith.

Response: Denied.

Complaint Paragraph 98:

98. The Individuals, who are the officers, directors, and owners of the Defendants, possessed full knowledge that their immersion cooling systems design infringed the '457 and '446 Patents, knew these patents were valid, did not attempt to procure a license to these valid patents, and instead proceeded to start a new business using the same or substantially the same infringing design. As Rhodium advertises, this immersion cooling system design is critical to their business and a primary driver of their profitability, and yet Defendants have knowingly and maliciously stolen Midas' patented and innovative technology for their own profit without compensating the inventors of the technology.

Response: Denied.

Additional Allegations Relating to the Asserted Patents

Complaint Paragraph 99:

99. The '457 Patent is directed to an improved appliance immersion cooling system and method of operation. Specifically, the '457 Patent seeks to solve at least two problems in the prior art of appliance immersion cooling systems: (1) the difficulty of maintenance and access to

the electrical equipment in prior art vertical-stack-type systems, which necessitate draining the cooling fluid to gain access to the equipment; and (2) non-uniform flow patterns of the dielectric fluid within the tank and constricted dielectric fluid supply and return ports, resulting in uneven cooling and unnecessarily high fluid flow velocities. The invention of the '457 Patent is an improvement over the prior art and provides greater efficiency and effectiveness through ease of access to the electrical appliances in an open horizontal tank, substantially uniform fluid flow patterns through all appliance slots leading to substantially uniform cooling, and lower fluid flow velocities. The '457 Patent accomplishes these improvements through a unique, innovative design, as described below, that achieves substantially uniform flow of dielectric fluid upwardly through the tank, beginning from a plenum that substantially uniformly distributes the dielectric fluid across the bottom of the tank and then a weir that is adapted to facilitate substantially uniform recovery of the dielectric fluid that has cooled the appliances, where the fluid flows over the weir into fluid recovery reservoirs, to then be cycled and re-cooled, for recirculation into the tank. The '457 Patent therefore does not claim an abstract idea, law of nature, or natural phenomenon, but instead to a tangible, patent-eligible invention.

Response: Denied.

Complaint Paragraph 100:

100. The '457 Patent claims, among other things, an appliance immersion cooling system that includes a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank. The tank includes a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, having an overflow lip adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot, and a

dielectric fluid recovery reservoir positioned vertically beneath the overflow lip of the weir and adapted to receive the dielectric fluid as it flows over the weir. The appliance immersion cooling system also includes a primary circulation facility adapted to circulate the dielectric fluid through the tank. The primary circulation facility includes a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot. The appliance immersion cooling system also, in some embodiments, includes a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulating in the primary circulation facility, and to dissipate to the environment the heat so extracted. The appliance immersion cooling system also includes a control facility adapted to coordinate the operation of the primary and, if included, the secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

Response: The patent speaks for itself. Defendants deny that the patent claims patent-eligible subject matter or anything sufficiently innovative to be patentable.

Complaint Paragraph 101:

101. The ‘457 Patent also claims, among other things, a tank module adapted for use in an appliance immersion cooling system. The tank module includes a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank. The tank includes a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, having an overflow lip adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot, and a dielectric fluid recovery reservoir positioned vertically beneath the overflow lip of the weir and adapted to receive the dielectric fluid as it flows over the weir. The tank module also includes a primary circulation facility adapted to circulate the dielectric fluid

through the tank, including a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot, and a control facility adapted to control the operation of the primary fluid circulation facility as a function of the temperature of the dielectric fluid in the tank.

Response: The patent speaks for itself. Defendants deny that the patent claims patent-eligible subject matter or anything sufficiently innovative to be patentable.

Complaint Paragraph 102:

102. The ‘446 Patent is directed to an improved appliance immersion cooling system and method of operation. Specifically, the ‘446 Patent seeks to solve at least two problems in the prior art of appliance immersion cooling systems: (1) the difficulty of maintenance and access to the electrical equipment in prior art vertical-stack-type systems, which necessitate draining the cooling fluid to gain access to the equipment; and (2) non- uniform flow patterns of the dielectric fluid within the tank and constricted dielectric fluid supply and return ports, resulting in uneven cooling and unnecessarily high fluid flow velocities. The invention of the ‘446 Patent is an improvement over the prior art and provides greater efficiency and effectiveness through ease of access to the electrical appliances in an open horizontal tank, substantially uniform fluid flow patterns through all appliance slots leading to substantially uniform cooling, and lower fluid flow velocities. The ‘446 Patent accomplishes these improvements through a unique, innovative design, as described below, that achieves substantially uniform flow of dielectric fluid upwardly through the tank, beginning from a plenum that substantially uniformly distributes the dielectric fluid across the bottom of the tank and then a weir that is adapted to facilitate substantially uniform recovery of the dielectric fluid that has cooled the appliances, where the fluid flows over the weir into fluid recovery reservoirs, to then be cycled and re-cooled, for recirculation into the tank. The

'446 Patent therefore does not claim an abstract idea, law of nature, or natural phenomenon, but instead to a tangible, patent-eligible invention.

Response: The patent speaks for itself. Defendants deny that the patent claims patent-eligible subject matter or anything sufficiently innovative to be patentable.

Complaint Paragraph 103:

103. The '446 Patent claims, among other things, an appliance immersion cooling system that includes a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically along, and extending transverse to, a long wall of the tank. The tank includes a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot. The appliance immersion cooling system also includes a primary circulation facility adapted to circulate the dielectric fluid through the tank. The primary circulation facility includes a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot. The appliance immersion cooling system also includes, in at least one embodiment, a secondary fluid circulation facility adapted to extract heat from the dielectric fluid circulation in the primary circulation facility, and to dissipate to the environment the heat so extracted, and a control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

Response: The patent speaks for itself. Defendants deny that the patent claims patent-eligible subject matter or anything sufficiently innovative to be patentable.

Complaint Paragraph 104:

104. The '446 Patent also claims, among other things, a tank module adapted for use in

an appliance immersion cooling system. The tank module includes a tank adapted to immerse in a dielectric fluid a plurality of electrical appliances, each in a respective appliance slot distributed vertically long, and extending transverse to, a long wall of the tank. The tank includes a weir, integrated horizontally into the long wall of the tank adjacent all appliance slots, adapted to facilitate substantially uniform recovery of the dielectric fluid flowing through each appliance slot. The tank module also includes a primary circulation facility adapted to circulate the dielectric fluid through the tank, including a plenum, positioned adjacent the bottom of the tank, adapted to dispense the dielectric fluid substantially uniformly upwardly through each appliance slot, and a control facility adapted to control the operation of the primary fluid circulation facility as a function of the temperature of the dielectric fluid in the tank.

Response: The patent speaks for itself. Defendants deny that the patent claims patent-eligible subject matter or anything sufficiently innovative to be patentable.

Complaint Prayer for Relief:

Wherefore, Midas requests judgment against Defendants as follows:

A. Adjudging that all Defendants have directly infringed, the'457 Patent, in violation of 35 U.S.C. § 271(a);

B. Adjudging that Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have actively induced infringement of the '457 Patent, in violation of 35 U.S.C. § 271(b);

C. Adjudging that all Defendants have directly infringed the'446 Patent, in violation of 35 U.S.C. § 27l(a);

D. Adjudging that Defendant Rhodium Enterprises, Inc. and Defendant Rhodium Technologies LLC have actively induced infringement of the '446 Patent, in violation of 35 U.S.C.

§ 271(b);

E. Permanently enjoining Defendants, their employees, agents, officers, directors, attorneys, successors, affiliates, subsidiaries, and assigns, and all of those in active concert and participation with any of the foregoing persons or entities from infringing, contributing to the infringement of, or inducing infringement of, the '457 Patent and of the '446 Patent;

F. Ordering Defendants to account for and pay damages adequate to compensate Midas for Defendants' infringement of, and inducement to infringe, the '457 Patent and the '446 Patent, including pre-judgment and post-judgment interest and costs, pursuant to 35 U.S.C. § 284;

G. Ordering an accounting by Defendants for any infringing activity not presented at trial and an award by the court of additional damages for any such infringing activity to Midas;

H. Ordering that the damages award by increased up to three times the actual amount assessed, pursuant to 35 U.S.C. § 284;

I. Declaring this case exceptional and ordering Defendants to pay the cost of this action, including all disbursements, and attorneys' fees as provided by 35 U.S.C. § 285, together with prejudgment interest; and

J. Awarding such other and further relief as this Court deems just and proper.

Response to Prayer for Relief: Defendants deny that Plaintiff is entitled to any of the relief it requests in its Prayer for Relief.

GENERAL DENIAL

Defendants further deny each and every allegation contained in Midas's Third Amended Complaint to which Defendants have not specifically admitted, denied, or otherwise responded to herein.

DEFENDANTS' AFFIRMATIVE DEFENSES

Subject to their responses above, and upon information and belief, Defendants allege and assert the following defenses in response to the allegations of the Third Amended Complaint, undertaking the burden of proof only as to those defenses deemed affirmative defenses by law, regardless of how such defenses are denominated herein. In addition to affirmative defenses described below, subject to their responses above, Defendants specifically reserve all right to allege additional affirmative defenses pursuant to any scheduling order or that may otherwise be lawfully asserted in this action for any reason, including because those that become known through the course of discovery or further investigation.

FIRST AFFIRMATIVE DEFENSE

(Failure to State a Claim)

Midas has failed to state a claim upon which relief may be granted.

SECOND AFFIRMATIVE DEFENSE

(Invalidity of '457 Patent)

The claims of U.S. Patent No. 10,405,457 (the "'457 Patent") are invalid for failure to comply with the requirements of Title 35, United States Code, including at least §§ 101, 102, 103, and/or 112.

THIRD AFFIRMATIVE DEFENSE

(Invalidity of '446 Patent)

The claims of U.S. Patent No. 10,820,446 (the "'446 Patent") are invalid for failure to comply with the requirements of Title 35, United States Code, including at least §§ 101, 102, 103, and/or 112.

FOURTH AFFIRMATIVE DEFENSE

(Non-Infringement of '457 Patent)

Defendants have not infringed and do not infringe any valid and enforceable claim of the '457 Patent.

FIFTH AFFIRMATIVE DEFENSE

(Non-Infringement of '446 Patent)

Defendants have not infringed and do not infringe any valid and enforceable claim of the '446 Patent.

SIXTH AFFIRMATIVE DEFENSE

(Limitation on Damages)

Midas's claims for monetary damages are limited by the statute of limitations and, pursuant to 35 U.S.C. § 286, K.Mizra is not entitled to any purported damages suffered more than six (6) years prior to the filing of the Complaint.

SEVENTH AFFIRMATIVE DEFENSE

(Failure to Mark)

Midas' claims for recovery are barred or limited, in whole or in part, prior to the date on which Defendants received actual notice of Midas' allegations in infringement concerning the '457 Patent and the '446 Patent, including under 35 U.S.C. § 287.

EIGHTH AFFIRMATIVE DEFENSE

(Equitable Doctrines)

Midas' claims are barred by one or more of the doctrines of waiver, acquiescence, estoppel (including without limitation equitable estoppel and prosecution history estoppel), unenforceability, and unclean hands.

NINTH AFFIRMATIVE DEFENSE

(No Entitlement to Injunctive Relief)

Midas is not entitled to injunctive relief. Among other things, Midas is not able to meet the standards for such relief as set forth in *eBay Inc. v. MercExchange, LLC*, 547 U.S. 388 (2006).

TENTH AFFIRMATIVE DEFENSE

(Failure to Disclaim)

On information and belief, Midas' claims for recovery are barred or limited, in whole or in part, by 35 U.S.C. § 288 (failure to disclaim invalid claim(s)).

RESERVATION OF RIGHTS

Defendants expressly reserve the right to assert any other legal or equitable defenses to which they are shown to be entitled, including all affirmative defenses under Rule 8(c) of the Federal Rules of Civil Procedure, the Patent Laws of the United States, and any other defenses that may now exist or in the future be available based on discovery or further factual investigation in this case.

I. PRAYER FOR RELIEF

WHEREFORE, Defendants seek the following relief:

A. That the Court enter judgment in Defendants' favor;

B. That Midas take nothing by its Third Amended Complaint and that its claims against Defendants be dismissed with prejudice;

C. That judgment be entered finding that Defendants have not infringed and do not infringe any valid and enforceable claim of either the '457 Patent or the '446 Patent, either literally or under the Doctrine of Equivalents;

D. A judgment that the '457 Patent and the '446 Patent are invalid for failure to meet the conditions of patentability and/or otherwise comply with the requirements of 35 U.S.C. §§ 101, 102, 103, and/or 112;

E. A declaration that the '457 Patent and the '446 Patent are unenforceable;

F. An order declaring that Defendants are the prevailing party and that this is an exceptional case, awarding Defendants their costs, expenses, disbursements, and reasonable attorneys' fees under 35 U.S.C. § 285 and all other applicable statutes, rules, and common law;

G. That Defendants be granted such other and additional relief as this Court deems just and proper.

II. DEMAND FOR A JURY TRIAL

In accordance with Rule 38 of the Federal Rules of Civil Procedure, Defendants respectfully demand a jury of all issues triable to a jury in this action.

DEFENDANTS' COUNTERCLAIMS

Defendants and Counterclaim-Plaintiffs Rhodium Enterprises, Inc., Rhodium Technologies LLC, Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, Rhodium Encore LLC, Rhodium Renewables LLC, Rhodium Renewables Sub LLC; and Rhodium Ready Ventures LLC. (collectively, "Rhodium" or "Counterclaim-Plaintiffs") repeat and reallege the allegations provided in their Answer as though fully set forth herein. Rhodium further alleges, on knowledge as to its own actions and on information and belief as to all other matters, as follows:

1. This Court has personal jurisdiction over Plaintiff and Counterclaim-Defendant Midas Green Technologies, LLC ("Midas Green"), which, on information and belief, is a Texas limited liability company with its principal place of business in Texas, and has consented to the

exercise of such jurisdiction by filing its original complaint and Third Amended Complaint for Patent Infringement against Rhodium.

2. This Court has subject matter jurisdiction over these counterclaims because they arise under the Federal Declaratory Judgements Act, Title 28 U.S.C. §§ 2201 and 2202, and the laws of the United States relating to patents, Title 28 U.S.C. § 1338(a).

3. By filing its claims for patent infringement against Rhodium in this Court, Midas Green has consented to the propriety of venue over these counterclaims.

4. In its complaint, Midas Green accuses Rhodium of infringement of one or more claims of two United States Patents: U.S. Patent No. 10,405,457 ("the '457 Patent"), and U.S. Patent No. 10,820,446 ("the '446 Patent") (together, "the Asserted Patents").

5. The Asserted Patents are invalid and/or Rhodium has not infringed any valid claim of the Asserted Patents, whether directly, indirectly, contributorily, through the doctrine of equivalents, or otherwise.

6. Consequently, as a result of at least the allegations of Midas Green's Third Amended Complaint, an immediate, real, and justiciable controversy exists between Rhodium and Midas Green as to whether Rhodium infringes the Asserted Patents, and as to whether the Asserted Patents are valid and enforceable.

FIRST COUNTERCLAIM

Declaration of Non-Infringement of U.S. Patent No. 10,405,457

7. Rhodium repeats and realleges the allegations in Paragraphs 1–6 of its Counterclaims as though fully set forth herein.

8. Rhodium has not infringed and does not infringe any valid and enforceable claim of the '457 Patent, either literally or under the Doctrine of Equivalents, because the Accused

Products do not practice or possess the elements of the claims of the '457 Patent. At minimum, for example, the Accused Products do not have the required "control facility adapted to coordinate the operation of the primary [and secondary] fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank."

9. Every claim of the '457 Patent, by virtue of independent claims 1, 6, and 11, requires an appliance immersion cooling system with a "control facility adapted to coordinate the operation of the primary [and secondary] fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank."

10. The Accused Products do not contain the claimed "control facility," and Midas has presented no evidence that they do. In fact, Midas does not even contend that the Accused Products contain this limitation. Rather, Midas alleges only that the Accused Products may be altered such that they would satisfy the limitation. *See, e.g.*, Plaintiff's Supp. Resp. to Interrog. No. 10 (asserting that Accused Products *can*, for example, have sensors installed). This is insufficient to show infringement. The Asserted Claims require an appliance immersion cooling system to have the claimed "control facility"—not the mere ability to be altered to have one.

11. Additionally, the Accused Products do not contain the alleged "control" features as described by Midas. They do not, and without modification cannot even allegedly, coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

12. Absent a declaration of non-infringement, Midas Green will continue wrongfully to assert the '457 Patent against Rhodium, thereby causing Rhodium irreparable injury and damage. A judicial declaration is also reasonably calculated to prevent needless litigation, and is

necessary to resolve the actual controversy that exists between Rhodium and Midas Green and to determine the parties' respective rights regarding the '457 Patent.

13. Rhodium thus seeks a judgment declaring that Rhodium does not infringe, either literally or under the Doctrine of Equivalents, any claims of the '457 Patent.

SECOND COUNTERCLAIM

(Declaration of Non-Infringement of U.S. Patent No. 10,820,446)

14. Rhodium repeats and realleges the allegations in Paragraphs 1–13 of its Counterclaims as though fully set forth herein.

15. Defendants have not infringed and do not infringe any valid and enforceable claim of the '446 Patent, either literally or under the Doctrine of Equivalents, because the Accused Products do not practice the elements of the claims of the asserted patent. At minimum, for example, the Accused Products do not have a "control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank."

16. Every claim of the '446 Patent, by virtue of independent claims 1 and 6, requires an appliance immersion cooling system, or a tank module for use in such a system, with a "control facility adapted to [coordinate]/[control] the operation of the primary and secondary fluid circulation [facility]/[facilities] as a function of the temperature of the dielectric fluid in the tank."

17. The Accused Products do not contain the claimed "control facility," and Midas has presented no evidence that they do. In fact, Midas does not even contend that the Accused Products contain this limitation. Rather, Midas alleges only that the Accused Products may be altered such that they would satisfy the limitation. *See, e.g.*, Plaintiff's Supp. Resp. to Interrog. No. 10 (asserting that Accused Products *can*, for example, have sensors installed). This is insufficient to

show infringement. The Asserted Claims require an appliance immersion cooling system or tank to have the claimed "control facility"—not the mere ability to be altered to have one.

18. Additionally, the Accused Products do not contain the alleged "control" features as described by Midas. They do not, and without modification cannot even allegedly, coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank.

19. Absent a declaration of non-infringement, Midas Green will continue wrongfully to assert the '446 Patent against Rhodium, thereby causing Rhodium irreparable injury and damage. A judicial declaration is also reasonably calculated to prevent needless litigation, and is necessary to resolve the actual controversy that exists between Rhodium and Midas Green and to determine the parties' respective rights regarding the '446 Patent.

20. Rhodium thus seeks a judgment declaring that Rhodium does not infringe, either literally or under the Doctrine of Equivalents, any claims of the '446 Patent.

THIRD COUNTERCLAIM

(Declaration of Invalidity of U.S. Patent No. 10,405,457)

21. Rhodium repeats and realleges the allegations in Paragraphs 1–20 of its Counterclaims as though fully set forth herein.

22. The '457 Patent is invalid for failure to meet the conditions of patentability and/or otherwise comply with one or more of 35 U.S.C. §§ 102, 103, and 112.

23. For example, the claims of the '457 Patent are invalid under 35 U.S.C. §§ 102 and/or 103 because prior art, such as The Green Revolution Cooling tank invented by Christiaan Best (the "Best Tank"), U.S. Patent Application Publication No. 2014/0211412A1 (the "Best Publication"), U.S. Patent No. 10,123,462B2 ("Best '463 Patent"), U.S. Patent No. 5,167,511

("Krajewski '511"), U.S. Patent Application Publication No. 2006/0126292A1 (the "Pfahnl Publication"), Russian Federation Patent No. 2,500,013 ("Gryzhin '013"), U.S. Patent No. 3,406,244 ("Oktay '244"), Japanese Patent No. JPH04116758 U ("JP '758"), and U.S. Patent No. 9,992,914B2 ("Best '914 Patent"), discloses or renders obvious the limitations of the claims of the '457 Patent—at least as Midas asserts them.

24. As another example, as Midas is well aware, the '457 Patent is invalid for improper inventorship under 35 U.S.C. § 101 and pre-AIA 35 U.S.C. §§ 101 and 102(f) for naming incorrect inventors and/or omitting at least one inventor (Christiaan Best) who should have been named.

25. The claims of the '457 Patent are also invalid under 35 U.S.C. § 112 at least because they are indefinite and/or because the specification of the '457 Patent does not contain sufficient written description and/or enabling disclosure to support the claims as asserted by Midas.

26. Absent a declaration of invalidity, Midas Green will continue wrongfully to assert the '457 Patent against Rhodium, thereby causing Rhodium irreparable injury and damage. A judicial declaration is also reasonably calculated to prevent needless litigation, and is necessary to resolve the actual controversy that exists between Rhodium and Midas Green and to determine the parties' respective rights regarding the '457 Patent.

27. Rhodium thus seeks a judgment declaring that the claims of the '457 Patent are invalid.

FOURTH COUNTERCLAIM

(Declaration of Invalidity of U.S. Patent No. 10,820,446)

28. Rhodium repeats and realleges the allegations in Paragraphs 1–27 of its Counterclaims as though fully set forth herein.

29. The ‘446 Patent is invalid for failure to meet the conditions of patentability and/or otherwise comply with one or more of 35 U.S.C. §§ 102, 103, and 112.

30. For example, the claims of the ‘446 Patent are invalid under 35 U.S.C. §§ 102 and/or 103 because prior art, such as The Green Revolution Cooling tank invented by Christiaan Best (the “Best Tank”), U.S. Patent Application Publication No. 2014/0211412A1 (the “Best Publication”), U.S. Patent No. 10,123,462B2 (“Best ‘463 Patent”), U.S. Patent No. 5,167,511 (“Krajewski ‘511”), U.S. Patent Application Publication No. 2006/0126292A1 (the “Pfahnl Publication”), Russian Federation Patent No. 2,500,013 (“Gryzhin ‘013”), U.S. Patent No. 3,406,244 (“Oktay ‘244”), Japanese Patent No. JPH04116758 U (“JP ‘758”), and U.S. Patent No. 9,992,914B2 (“Best ‘914 Patent”), discloses or renders obvious the limitations of the claims of the ‘446 Patent—at least as Midas asserts them.

31. As another example, as Midas is well aware, the ‘446 Patent is invalid for improper inventorship under 35 U.S.C. § 101 and pre-AIA 35 U.S.C. §§ 101 and 102(f) for naming incorrect inventors and/or omitting at least one inventor (Christiaan Best) who should have been named.

32. The claims of the ‘446 Patent are also invalid under 35 U.S.C. § 112 at least because they are indefinite and/or because the specification of the ‘446 Patent does not contain sufficient written description and/or enabling disclosure to support the claims as asserted by Midas.

33. Absent a declaration of invalidity, Midas Green will continue wrongfully to assert the ‘446 Patent against Rhodium, thereby causing Rhodium irreparable injury and damage. A judicial declaration is also reasonably calculated to prevent needless litigation, and is necessary to resolve the actual controversy that exists between Rhodium and Midas Green and to determine the parties’ respective rights regarding the ‘446 Patent.

34. Rhodium thus seeks a judgment declaring that the claims of the ‘446 Patent are invalid.

FIFTH COUNTERCLAIM

(Declaration of Unenforceability of U.S. Patent No. 10,405,457)

35. Rhodium repeats and realleges the allegations in Paragraphs 1–34 of its Counterclaims as though fully set forth herein.

36. The ‘457 Patent is unenforceable based on inequitable conduct by at least Chris Boyd and Jim Koen. Each of Mr. Boyd and Mr. Koen owed a duty of candor to the USPTO, which included a duty to disclose to the USPTO all information known to them to be material to patentability. This included not only prior art, but also possible prior public uses, sales, offers to sell, derived knowledge, prior invention by another, and inventorship conflicts.

37. For example, despite knowing that the Best Tank was previously on sale, sold, publicly used, and in fact possessed by Midas Green, Mr. Boyd and Mr. Koen did not tell the USPTO about the existence of the Best Tank or the Best Publication, which are both material prior art to the ‘457 Patent and were known and available to Mr. Boyd and Mr. Koen during their prosecution of the ‘457 Patent.

38. Midas has admitted “that at least one individual associated with Midas was aware of the Best Tank prior to issuance of the Notice of Allowance for ‘457 Patent on September 14, 2018,” Plaintiff’s Resp. to Def’s. 1st Set of RFAs at 3, and also “that it did not disclose the Best Tank to the U.S.P.T.O. at any point prior to issuance of the Notice of Allowance for the ‘457 Patent on September 14, 2018,” *id.* at 6.

39. Mr. Boyd and Mr. Koen also failed to tell the USPTO that Christiaan Best was a coinventor as alleged above.

40. On information and belief, the single most reasonable inference that can be drawn is that Jim Koen and Chris Boyd intended to deceive the USPTO.

41. Absent a declaration of unenforceability, Midas Green will continue wrongfully to assert the '457 Patent against Rhodium, thereby causing Rhodium irreparable injury and damage. A judicial declaration is also reasonably calculated to prevent needless litigation, and is necessary to resolve the actual controversy that exists between Rhodium and Midas Green and to determine the parties' respective rights regarding the '457 Patent.

42. Rhodium thus seeks a judgment declaring that the claims of the '457 Patent are unenforceable.

SIXTH COUNTERCLAIM

(Declaration of Unenforceability of U.S. Patent No. 10,405,446)

43. Rhodium repeats and realleges the allegations of Paragraphs 1–42 of their Counterclaims as though fully set forth herein.

44. The '446 Patent is unenforceable based on inequitable conduct by at least Chris Boyd and Jim Koen. Each of Mr. Boyd and Mr. Koen owed a duty of candor to the USPTO, which included a duty to disclose to the USPTO all information known to them to be material to patentability. This included not only prior art, but also possible prior public uses, sales, offers to sell, derived knowledge, prior invention by another, and inventorship conflicts.

45. For example, despite knowing that the Best Tank was previously on sale, sold, publicly used, and in fact possessed by Midas Green, Mr. Boyd and Mr. Koen did not tell the USPTO about the existence of the Best Tank or the Best Publication, which are both material prior art to the '446 Patent and were known and available to Mr. Boyd and Mr. Koen during their prosecution of the '446 Patent.

46. Midas has admitted "that at least one individual associated with Midas was aware of the Best Tank prior to issuance of the Notice of Allowance for '446 Patent on April 16, 2020," Plaintiff's Resp. to Def's. 1st Set of RFAs at 4, and also "that it did not disclose the Best Tank to the U.S.P.T.O. at any point prior to issuance of the Notice of Allowance for the '446 Patent on April 16, 2020," *id.* at 7.

47. Mr. Boyd and Mr. Koen also failed to tell the USPTO that Christiaan Best was a coinventor as alleged above.

48. On information and belief, the single most reasonable inference that can be drawn is that Jim Koen and Chris Boyd intended to deceive the USPTO.

49. Absent a declaration of unenforceability, Midas Green will continue wrongfully to assert the '446 Patent against Rhodium, thereby causing Rhodium irreparable injury and damage. A judicial declaration is also reasonably calculated to prevent needless litigation, and is necessary to resolve the actual controversy that exists between Rhodium and Midas Green and to determine the parties' respective rights regarding the '446 Patent.

50. Rhodium thus seeks a judgment declaring that the claims of the '446 Patent are unenforceable.

PRAYER FOR RELIEF ON RHODIUM'S COUNTERCLAIMS

WHEREFORE, Rhodium seeks the following relief:

A. A declaration that Rhodium has not infringed and does not infringe any valid and enforceable claim of either the '457 Patent or the '446 Patent, either literally or under the Doctrine of Equivalents;

B. A declaration that the ‘457 Patent and the ‘446 Patent are invalid for failure to meet the conditions of patentability and/or otherwise comply with the requirements of 35 U.S.C. §§ 101, 102, 103, and/or 112;

C. A declaration that the ‘457 Patent and the ‘446 Patent are unenforceable;

D. That an order be entered enjoining Midas and its officer, agent, servants, employees, attorneys, and those in concert or participation with them from asserting infringement or instituting or continuing any action for infringement of the ‘457 Patent and the ‘446 Patent;

E. That pursuant to 35 U.S.C. § 285, Midas’s conduct in commencing and pursuing this action be found to render this an exceptional case and that Defendants be awarded attorneys’ fees in connection with this action;

F. A judgment in Rhodium’s favor on all of its counterclaims; and

G. For such other and additional relief as this Court deems just and proper.

JURY DEMAND

Rhodium hereby demands a trial by jury on all issue so triable.

Dated: April 26, 2023

Respectfully submitted,

By: */s/ Melissa R. Smith*

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Attorneys for Defendants Rhodium Enterprises, Inc., Rhodium Technologies LLC, Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, Rhodium Encore LLC, Rhodium Renewables LLC, Rhodium Renewables Sub LLC; and Rhodium Ready Ventures LLC

CERTIFICATE OF SERVICE

The undersigned hereby certifies that counsel of record who are deemed to have consented to electronic service are being served today, April 26, 2023, with a copy of this document via the Court's CM/ECF system.

/s/ Melissa R. Smith

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

Midas Green Technologies, LLC, Plaintiff, - vs. - **Rhodium Enterprises, Inc.;** **Rhodium Technologies LLC;** **Rhodium 10mw LLC;** **Rhodium 2.0 LLC;** **Rhodium 30mw LLC;** **Rhodium Encore LLC;** **Rhodium Renewables LLC;** **Rhodium Renewables Sub LLC;** **Rhodium Ready Ventures LLC** Defendants.	Civil Action No. 6:22-cv-00050-ADA **Jury Trial Demanded**

PLAINTIFF'S ANSWER TO DEFENDANT'S COUNTERCLAIMS

Plaintiff and Counter-Defendant Midas Green Technologies, LLC, through its undersigned counsel, hereby answer Counter-claimants Rhodium Enterprises, Inc., Rhodium Technologies LLC, Rhodium 10mw LLC, Rhodium 2.0 LLC, Rhodium 30mw LLC, Rhodium Encore LLC, Rhodium Renewables LLC, Rhodium Renewables Sub LLC and Rhodium Ready Ventures LLC's (collectively, "Counter-claimants" or "Rhodium") Counterclaim demand as follows:

RESPONSE TO FIRST COUNTERCLAIM

(Declaration of Non-Infringement of U.S. Patent No. 10,405,457)

Response to Counterclaim Paragraph 1:

Midas Green ADMITS this Court has personal jurisdiction.

Response to Counterclaim Paragraph 2:

Midas Green ADMITS this Court has subject matter jurisdiction.

Response to Counterclaim Paragraph 3:

Midas Green ADMITS that venue is proper in this Court.

Response to Counterclaim Paragraph 4:

ADMITTED.

Response to Counterclaim Paragraph 5:

DENIED.

Response to Counterclaim Paragraph 6:

Midas Green asserts that Rhodium has, and is, willfully infringing the valid Asserted Patents. To the extent this creates a "justiciable controversy", ADMITTED. Otherwise DENIED.

RESPONSE TO SECOND COUNTERCLAIM

(Declaration of Non-Infringement of U.S. Patent No. 10,820,446)

Response to Counterclaim Paragraph 7:

Responses to Counterclaims 1-6 are incorporated by reference as though fully set forth herein.

Response to Counterclaim Paragraph 8:

DENIED.

Response to Counterclaim Paragraph 9:

Midas Green ADMITS that each of claims 1, 6 and 11 of the '457 patent has a limitation directed to a "control facility". Midas Green DENIES that each of claims 1, 6 and 11 are directed to an "appliance immersion cooling system". To the extent not expressly admitted, DENIED.

Response to Counterclaim Paragraph 10:

DENIED.

Response to Counterclaim Paragraph 11:

DENIED.

Response to Counterclaim Paragraph 12:

Midas Green admits it will continue to assert the '457 patent against Rhodium's infringement. Otherwise, DENIED.

Response to Counterclaim Paragraph 13:

To the extent any response is needed, DENIED.

Response to Counterclaim Paragraph 14:

Responses to Counterclaims 1-13 are incorporated by reference as though fully set forth herein.

Response to Counterclaim Paragraph 15:

DENIED.

Response to Counterclaim Paragraph 16:

Midas Green ADMITS that each of claims 1 and 6 of the '446 patent has a limitation directed to a "control facility". Midas Green DENIES that each of claims, 1 and 6 are directed to an "appliance immersion cooling system". To the extent not expressly admitted, DENIED.

Response to Counterclaim Paragraph 17:

DENIED.

Response to Counterclaim Paragraph 18:

DENIED.

Response to Counterclaim Paragraph 19:

Midas Green admits it will continue to assert the '446 patent against Rhodium's infringement. Otherwise, DENIED.

Response to Counterclaim Paragraph 20:

To the extent any response is needed, DENIED.

RESPONSE TO THIRD COUNTERCLAIM

(Declaration of Invalidity of U.S. Patent No. 10,405,457)

Response to Counterclaim Paragraph 21:

Responses to Counterclaims 1-20 are incorporated by reference as though fully set forth herein.

Response to Counterclaim Paragraph 22:

DENIED.

Response to Counterclaim Paragraph 23:

DENIED.

Response to Counterclaim Paragraph 24:

DENIED.

Response to Counterclaim Paragraph 25:

DENIED.

Response to Counterclaim Paragraph 26:

Midas Green admits it will continue to assert the '457 patent against Rhodium's infringement. Otherwise, DENIED.

Response to Counterclaim Paragraph 27:

To the extent any response is needed, DENIED.

RESPONSE TO FOURTH COUNTERCLAIM

(Declaration of Invalidity of U.S. Patent No. 10,820,446)

Response to Counterclaim Paragraph 28:

Responses to Counterclaims 1-27 are incorporated by reference as though fully set forth herein.

Response to Counterclaim Paragraph 29:

DENIED.

Response to Counterclaim Paragraph 30:

DENIED.

Response to Counterclaim Paragraph 31:

DENIED.

Response to Counterclaim Paragraph 32:

DENIED.

Response to Counterclaim Paragraph 33:

Midas Green admits it will continue to assert the '446 patent against Rhodium's infringement. Otherwise, DENIED.

Response to Counterclaim Paragraph 34:

To the extent any response is needed, DENIED.

RESPONSE TO FIFTH COUNTERCLAIM

(Declaration of Unenforceability of U.S. Patent No. 10,405,457)

Response to Counterclaim Paragraph 35:

Responses to Counterclaims 1-34 are incorporated by reference as though fully set forth herein.

Response to Counterclaim Paragraph 36:

To the extent that Mr. Boyd and Mr. Koen owed a duty of candor to the USPTO, ADMITTED. Otherwise DENIED.

Response to Counterclaim Paragraph 37:

To the extent that Midas Green was in possession of a first generation GRN tank during prosecution of the '457 patent, ADMITTED. Otherwise DENIED.

Response to Counterclaim Paragraph 38:

Midas Green ADMITS these are two partial statements extracted from Plaintiff's Response to Defendants' RFAs. These two extracted statements must be read in the entirety of their context, and in light of other discovery responses. To the extent Rhodium attempts to use these partial statements to infer any inequitable conduct as to the '457 patent by Mr. Boyd or Mr. Koen, DENIED.

Response to Counterclaim Paragraph 39:

Mr. Best is not a coinventor of the '457 patent, so Midas Green ADMITS it never made such an assertion to the USPTO.

Response to Counterclaim Paragraph 40:

DENIED.

Response to Counterclaim Paragraph 41:

Midas Green admits it will continue to assert the '457 patent against Rhodium's infringement. Otherwise, DENIED.

Response to Counterclaim Paragraph 42:

To the extent any response is needed, DENIED.

RESPONSE TO SIXTH COUNTERCLAIM

(Declaration of Unenforceability of U.S. Patent No. 10,405,446)

Response to Counterclaim Paragraph 43:

Responses to Counterclaims 1-42 are incorporated by reference as though fully set forth herein.

Response to Counterclaim Paragraph 44:

To the extent that Mr. Boyd and Mr. Koen owed a duty of candor to the USPTO, ADMITTED. Otherwise DENIED.

Response to Counterclaim Paragraph 45:

To the extent that Midas Green was in possession of a first generation GRN tank during prosecution of the '446 patent, ADMITTED. Otherwise DENIED.

Response to Counterclaim Paragraph 46:

Midas Green ADMITS these are two partial statements extracted from Plaintiff's Response to Defendants' RFAs. These two extracted statements must be read in the entirety of their context, and in light of other discovery responses. To the extent Rhodium attempts to use these partial statements to infer any inequitable conduct as to the '446 patent by Mr. Boyd or Mr. Koen, DENIED.

Response to Counterclaim Paragraph 47:

Mr. Best is not a co-inventor of the '446 patent, so Midas Green ADMITS it never made such an assertion to the USPTO.

Response to Counterclaim Paragraph 48:

DENIED.

Response to Counterclaim Paragraph 49:

Midas Green admits it will continue to assert the '446 patent against Rhodium's infringement. Otherwise, DENIED.

Response to Counterclaim Paragraph 50:

To the extent any response is needed, DENIED.

PLAINTIFF AND CROSS DEFENDANT'S AFFIRMATIVE DEFENSES

FIRST AFFIRMATIVE DEFENSE

(Lack of Declaratory Judgment Jurisdiction)

1. The court lacks jurisdiction under the Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202, because there is currently no case or controversy between the parties.

SECOND AFFIRMATIVE DEFENSE

(Failure to State a Claim for Declaratory Judgment of Non-Infringement U.S. Patent No. 10,504,457)

2. The Cross-Complaint fails to state a claim for a declaratory judgment of non-infringement upon which relief may be granted. In particular, the Cross-Complaint fails to compare any claim of the patent-in-suit to any product of Plaintiff and fails to identify any claim limitations that are not present in the product with the exception of the allegation that the asserted claims do not have a "control facility".

3. The Cross-Complaint, therefore, fails to comply with the pleading requirements of Fed. R. Civ. P. 8, and should be dismissed under Fed. R. Civ. P. 12(b)(6).

THIRD AFFIRMATIVE DEFENSE

(Failure to State a Claim for Declaratory Judgment of Non-Infringement For U.S. Patent No. 10,820,446)

4. The Cross-Complaint fails to state a claim for a declaratory judgment of non-infringement upon which relief may be granted. In particular, the Cross-Complaint fails to

compare any claim of the patent-in-suit to any product of Plaintiff and fails to identify any claim limitations that are not present in the product, with the exception of the allegation that the asserted claims do not have a "control facility".

5. The Cross-Complaint, therefore, fails to comply with the pleading requirements of Fed. R. Civ. P. 8, and should be dismissed under Fed. R. Civ. P. 12(b)(6).

FOURTH AFFIRMATIVE DEFENSE

(Failure to State a Claim for Declaratory Judgment of Invalidity under 35 U.S.C. § 102 or § 103 For U.S. Patent No. 10,504,457)

6. The Cross-Complaint fails to state a claim for a declaratory judgment of invalidity under either 35 U.S.C. § 102, 35 U.S.C. § 103 or under 35 U.S.C. § 112 upon which relief may be granted. In particular, the Cross-Complaint fails to identify any prior art that allegedly renders any claim of the patent-in-suit anticipated under 35 U.S.C. § 102 or obvious under 35 U.S.C. § 103. Furthermore, the Cross-Complaint fails to compare any claim of the patent-in-suit to any prior art and fails to state where or how the limitations of any claim of the patent-in-suit are found in the prior art.

7. The Cross-Complaint, therefore, fails to comply with the pleading requirements of Fed. R. Civ. P. 8, and should be dismissed under Fed. R. Civ. P. 12(b)(6).

FIFTH AFFIRMATIVE DEFENSE

(Failure to State a Claim for Declaratory Judgment of Invalidity under 35 U.S.C. § 102 or § 103 For U.S. Patent No. 10,820,446)

8. The Cross-Complaint fails to state a claim for a declaratory judgment of invalidity under either 35 U.S.C. § 102, 35 U.S.C. § 103 or under 35 U.S.C. § 112 upon which relief may be granted. In particular, the Cross-Complaint fails to identify any prior art that allegedly renders any claim of the patent-in-suit anticipated under 35 U.S.C. § 102 or obvious under 35 U.S.C. § 103. Furthermore, the Cross-Complaint fails to compare any claim of the patent-in-suit to any

prior art and fails to state where or how the limitations of any claim of the patent-in-suit are found in the prior art.

9. The Cross-Complaint, therefore, fails to comply with the pleading requirements of Fed. R. Civ. P. 8, and should be dismissed under Fed. R. Civ. P. 12(b)(6).

SIXTH AFFIRMATIVE DEFENSE

(Failure to State a Claim for Declaratory Judgment of Invalidity under 35 U.S.C. § 112 For U.S. Patent No. 10,405,457 & U.S. Patent No. 10,820,446)

10. The Cross-Complaint fails to state a claim for a declaratory judgment of invalidity under 35 U.S.C. § 112 upon which relief may be granted. In particular, the Cross-Complaint fails to identify which requirement of Section 112 is being invoked and fails to state a basis for the asserted failure to comply with Section 112, with the exception of the allegation that the asserted claims do not have a "control facility".

11. The Cross-Complaint, therefore, fails to comply with the pleading requirements of Fed. R. Civ. P. 8, and should be dismissed under Fed. R. Civ. P. 12(b)(6).

SEVENTH AFFIRMATIVE DEFENSE

(Estoppel under 35 U.S C. § 315)

12. Plaintiff was the petitioner or real party in interest in an inter partes review before the Patent Trial and Appeal Board instituted on June 23, 2021 under No. IPR 2021-01176 that resulted in a final written decision dated January 6, 2022.

13. The grounds for invalidity of the patent-in-suit under 35 U.S.C. § 102, § 103 and § 112 asserted in the Cross-Complaint constitute grounds that were raised or reasonably could have raised during the inter partes review.

14. Defendant and Cross-Complainant should also be barred by estoppel from raising any claims for invalidity of the patent-in-suit under 35 U.S.C. § 102, § 103 and § 112 raised, or which could have been raised, during the prosecution history.

15. Defendant and Cross-Complainant is, therefore, estopped from asserting such grounds for invalidity in this action under 35 U.S C. § 315(e)(2).

EIGHTH AFFIRMATIVE DEFENSE

(Unclean Hands)

16. By virtue of Defendant and Cross-Complainant's own careless, negligent, and other wrongful conduct, Defendant and Cross-Complainant should be barred from recovering against Defendant by the equitable doctrine of unclean hands.

NINTH AFFIRMATIVE DEFENSE

(Laches)

17. Defendant and Cross-Complainant's waited an unreasonable period of time before asserting its claims, if any, against Plaintiff and Cross-Defendant, and therefore is barred from asserting such claims under the doctrine of laches.

PRAYER FOR RELIEF

Accordingly, Midas respectfully requests that this Court rule on Rhodium's Counterclaims as follows:

1. Declare that Rhodium's Counterclaims fail, and that Midas is not liable to Rhodium;
2. Order that Rhodium take nothing on its counterclaims;
3. Order that Rhodium pay Midas' reasonable attorneys' fees and costs; and
4. Order such other and further relief to Midas as this Court deems just and equitable.

DATED: June 8, 2023

Respectfully submitted,
/s/ Joseph E. Thomas

Joseph E. Thomas (*admitted p.h.v.*)
William J. Kolegraff (*admitted p.h.v.*)
Grant J. Thomas (*admitted p.h.v.*)
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Counsel for Plaintiff
Midas Green Technologies, LLC

CERTIFICATE OF SERVICE

I hereby certify that counsel of record who have appeared electronically in this case are being served with this document on June 8, 2023 by way of the primary email address that said counsel supplied to the Court's CM/ECF system.

/s/ Joseph E. Thomas
Joseph E. Thomas

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

Midas Green Technologies, LLC, Plaintiff, - vs. - **Rhodium Enterprises, Inc.**; **Rhodium Technologies LLC**; **Rhodium 10mw LLC**; **Rhodium 2.0 LLC**; **Rhodium 30mw LLC**; **Rhodium Encore LLC**; **Rhodium Renewables LLC**; **Rhodium Encore Sub LLC;** **Rhodium Renewables Sub LLC; and** **Rhodium Ready Ventures LLC** Defendants.	Civil Action No. 6:22-cv-00050-ADA **Jury Trial Demanded**

JOINT STATUS REPORT

Plaintiff Midas Green Technologies, LLC and Defendant Rhodium Enterprises, Inc., Rhodium Technologies, LLC, Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, Rhodium Encore LLC and Rhodium Renewables LLC (collectively, "Rhodium") hereby provide the following status report.

RECITALS

1. According to the Scheduling Order, the parties are to conduct two meet and confers to discuss narrowing the number of claims asserted and prior art references at issue to triable limits.
2. The Court further ordered the parties to file a joint report on or before February 20, 2024 on the results of the meet and confer.
3. On or about December 20, 2023 and February 19. 2024, the parties met and conferred and hereby stipulate as follows:

NUMBER OF ASSERTED PATENTS AND CLAIMS

Plaintiff will be alleging infringement of 1 Patent and a total of 2 claims at trial. The asserted patent is U.S. Patent Number No. 10,405,457 (the '457 Patent"). Plaintiff will be alleging infringement of claims 1 and 5 of the '457 Patent.

1. Patents

Plaintiff will dismiss infringement allegations surrounding U.S. Patent No. 10,820,446 patent. The only patent at issue is the '457 Patent.

2. Claims

Plaintiff will dismiss claim 6 from the '457 Patent; The only Claims at issue are 1 and 5 of the '457 Patent.

3. Invalidity

Rhodium has agreed to drop previously asserted prior art references from their defense. Specifically, Rhodium has dropped the following prior art references: U.S. Patent 2,500,013 (Gryzhin); and U.S. Patent No. 5,167,511 (Krajewski). Rhodium has also withdrawn U.S. Patent 4,590,538 (Cray) as a charted reference but continues to rely on Cray for background/evidence of the state of the art.

4. Defendants

Midas has agreed to dismiss without prejudice the following defendants named in the Complaint from allegations of infringement of the '457 Patent:

Rhodium Encore Sub LLC; Rhodium Renewables Sub LLC; and Rhodium Ready Ventures LLC.

CERTIFICATE OF CONFERENCE

I certify that counsel for all Parties have conferred in good faith and this motion is joint.

/s/ Joseph E. Thomas

DATED: February 20, 2024

Respectfully submitted,
/s/ Michael C. Smith

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Midas Green Technologies

/s/ *J. Travis Underwood*

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Attorneys for Defendants Rhodium Enterprises, Inc., Rhodium Technologies, LLC, Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, Rhodium Encore LLC and Rhodium Renewables LLC

CERTIFICATE OF SERVICE

I hereby certify that counsel of record who have appeared electronically in this case are being served with this document on February 20, 2024 by way of the primary email address that said counsel supplied to the Court's CM/ECF system.

/s/ Michael C. Smith

EXHIBIT 19 - SEALED

EXHIBIT 20 - SEALED

EXHIBIT 21 - SEALED

EXHIBIT 22 - SEALED

EXHIBIT 23 - SEALED

EXHIBIT 24 - SEALED

From: Corey Brown <Corey_Brown@txwd.uscourts.gov>
Sent: Thursday, January 30, 2025 3:25 PM
To: becca.skupin@solidcounsel.com; Elizabeth Brannen; gthomas@twtlaw.com; henry.pogorzelski@klgates.com; travis@gillamsmithlaw.com; jthomas@twtlaw.com; Ken Halpern; melissa@gillamsmithlaw.com; michael.smith@solidcounsel.com; Peter Brody; Sarah Rahimi; bkolegraff@twtlaw.com
Subject: Omnibus Order for 6.22.cv.0050

[External Email]
Counsel,

Given the time that has passed, it is necessary that the parties in this case submit a **joint** proposed order reflecting the parties' understandings of Judge Albright's rulings at the 4/9/2024 hearing (if there are disputes, please include proposed language in different colors). Please submit an omnibus order for all of the pretrial motions and a separate single order comprising all of the MILs. The Court will compare with its internal notes and enter the order reflecting those rulings shortly thereafter. Please prepare and submit these orders via response to this email (in Word form) by the end of day on February 7, 2024.

This will help this case begin to progress towards a resolution.

Regards,

Corey W. Brown
Law Clerk for the Honorable Alan D Albright
United States District Court, Western District of Texas
Direct: 254-750-1517
Corey_Brown@txwd.uscourts.gov

From: Joe Thomas <jthomas@twtlaw.com>
Sent: Friday, February 7, 2025 5:36 PM
To: Corey Brown
Cc: Ken Halpern; Elizabeth Brannen; Bridget Asay; travis@gillamsmithlaw.com; melissa@gillamsmithlaw.com; Sarah Rahimi; William Kolegraff; Grant Thomas; Tierra Mendiola; henry.pogorzelski@klgates.com; michael.smith@solidcounsel.com; Peter Brody
Subject: Proposed Omnibus Orders
Attachments: 2025-02-07 Midas v. Rhodium - Joint Pre-Trial Motions Ruling - Midas @ 1600 CST(508986917.1).docx; 2025-02-07 Midas v. Rhodium - Joint MIL Rulings.docx

[External Email]
To the Honorable Clerk of Judge Alan D. Albright:

As requested, attached are the joint proposed rulings on the Motions in Limine and Pre-Trial Rulings submitted jointly by Plaintiff Midas Green Technologies, LLC ("Midas") and Defendant Rhodium Enterprises Inc., et al. ("Rhodium"). As directed by Corey Brown, the disputed language proposed by Midas is in red and the disputed language proposed by Rhodium is in blue.

Please let the Parties know if you have any questions.

Document Break

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

Midas Green Technologies, LLC, Plaintiff, - vs. - **Rhodium Enterprises, Inc.**; **Rhodium Technologies LLC**; **Rhodium 10mw LLC**; **Rhodium 2.0 LLC**; **Rhodium 30mw LLC**; **Rhodium Encore LLC**; **Rhodium Renewables LLC**; Defendants.	CIVIL ACTION NO. 6:22-CV-00050-ADA **Jury Trial Demanded**

OMNIBUS ORDER ON PRE-TRIAL MOTIONS

This is a patent infringement case filed by the Plaintiff, Midas Green Technologies ("Midas"), against Defendants Rhodium Enterprises, Inc., Rhodium Technologies LLC; Rhodium 10MW LLC; Rhodium 2.0 LLC; Rhodium 30MW LLC; Rhodium Encore LLC; and Rhodium Renewables LLC (each a "Rhodium Entity" and collectively "Rhodium"). Although the Third Amended Claim for Patent Infringement that Midas filed on March 29, 2023 (Dkt. 106) asserted infringement of 2 patents, in a Joint Status Report filed on February 20, 2024 (Dkt. 144), the parties confirmed to the Court that all infringement claims relating to U.S. Patent No. 10,820,446 were dismissed, and that Midas would allege infringement at trial only of claims 1 and 5 of the sole remaining asserted patent, U.S. Patent No. 10,405,457 (*id.* at 2).

On April 9, 2024, after the parties submitted appropriate briefing, the Court held a pretrial conference to rule on the then-pending pretrial motions filed by the parties. The Court indicated from the bench how it intended to rule on these five motions. The Court ruled from the bench on five of those motions. No written orders were entered at that time.

Subsequently, on August 24, 2024 and August 29, 2024, the Rhodium Entities each filed a voluntary petition for relief under Chapter 11 of the United States Bankruptcy Code, 11 U.S.C. §§ 101-1330, as amended (the "Bankruptcy Code"), in the United States Bankruptcy Court for the Southern District of Texas (the "Bankruptcy Court"), *In re Rhodium Encore LLC et al.*, Case No. 24-90448 (Jointly Administered). On August 30, 2024, Rhodium filed a Suggestion of Bankruptcy in this Court [ECF 188], acknowledging this matter as stayed. On September 18, 2024 and November 20, 2024, Midas submitted proofs of claim against Rhodium, attaching its Third Amended Claim for Patent Infringement (Dkt. 106). On January 30, 2025, the Bankruptcy Court issued a limited relief from stay to allow "the District Court presiding over the patent infringement claim," i.e., this Court, "to enter a written order and judgment memorializing [its] April 9, 2024

bench ruling." *In re Rhodium Encore LLC et al.*, Case No. 24-90448, Dkt. 737. Notice of this Order was filed with this Court on February 3, 2025. [ECF 189]. This Court directed the parties to prepare a joint a joint omnibus proposed order on the pretrial motions. After review of the parties' joint submission the Court enters the following written order:

Midas' Motion for Summary Judgment to Remove Inventors Pursuant to 35 U.S.C. § 256

Midas' motion to correct inventorship pursuant to 35 U.S.C. 256. [ECF 149] is GRANTED. The Court hereby orders the United States Patent and Trademark Office to remove the following inventors as improperly listed: Kenneth D. Swinden; Mario Conti Garcia; John Charles Tribou; Thomas R. Turner; James P. Koen; and David Christopher Laguna. (Dkt. 187, 6:25-7:1.) The Court orders the date of the removal of these inventors shall be April 9, 2024.

Midas' Daubert Motion to Exclude the Rebuttal Report of Dr. Alfonso Ortega

Plaintiff Midas' Motion to exclude the Rebuttal Report and Testimony of Dr. Alphonso Ortega. [ECF 151] is GRANTED IN PART..

The Court grants Midas' Daubert Motion to Exclude the Rebuttal Report of Dr. Alfonso Ortega with reference to Computational Fluid Analysis, and hereby orders the following paragraphs excluded from evidence: 91, 92, 133-146, 178, 184, 189-190, 213, 222, 239, 277. (Dkt. 187, 7:22-8:4; 13:6-7.)

Rhodium's Daubert Motion to Exclude Portions of Dr. Himanshu Pokharna's Expert Report

Defendant Rhodium's Motion to Strike and Exclude the Testimony of Dr. Himanshu Pokharna. [ECF 152] is GRANTED IN PART.

The Court orders specifically that Dr. Pokharna's testimony regarding the "Prime Control's" Control System be excluded for failure to identify the System in Midas' Final Infringement Contentions. April 9, 2024 Pretrial Hearing Transcript 18:6. The Court grants leave to amend Dr. Pokharna's report to address any of the issues that Midas' believes would make Dr. Pokharna's opinion survive a future challenge. (Dkt. 187, 20:12-23.)

Defendant Rhodium's Motion to Strike and Exclude the Testimony of Dr. Himanshu Pokharna. [ECF 152] is GRANTED. (Dkt. 187, 18:6). Prior to reaching Defendants' summary judgment motion, the Court ruled that the motion was granted without prejudice so that Dr. Pokharna could amend his report to try to address any of the issues that Midas believed would make his opinion survive a future challenge (id. at 20:9-23); however, the subsequent summary judgment ruling mooted the need for any such attempt.

Rhodium's Daubert Motion to Exclude Portions of Dr. Jim Lee's Rebuttal Expert Report

Defendant Rhodium's Motion to Strike and Exclude the Testimony of Dr. James Lee. [ECF 153] is DENIED with leave to re-depose the witness.

The Court orders the parties to meet and confer regarding Rhodium's deposition of Dr. Jim Lee to the extent that a deposition is sought. (Dkt. 187, 20:6-8.)

Prior to reaching Defendants' summary judgment motion, the Court ruled that it would deny the motion and allow Defendants to depose Dr. Lee again (Dkt. 19:17-20:8); however, the subsequent summary judgment ruling rendered any such further deposition moot.

Rhodium's Daubert Motion to Exclude Duross O'Bryan's Expert Report

Defendant Rhodium's Motion to Strike and Exclude the Testimony of Duross O'Bryan. [ECF 154] is GRANTED IN PART.

The Court grants Rhodium's Daubert Motion to exclude Mr. O'Bryan's analysis of lost profits. April 9, 2024 Pretrial Hearing Transcript 26:24-27:1. The Court finds that the lost profits opinion is too unreliable to reach a jury. However, the Court grants Midas leave to amend the expert report. (Dkt. 187, 27:1-5.) The Court denies the Daubert Motion to exclude Mr. O'Bryan's analysis of reasonable royalties. (Dkt. 187, 27:6-7.) However, to the extent Midas seeks future, post-trial reasonable royalties, Midas must seek those separately based upon actual infringement, if any, rather than pre-trial projections. *Id.* 27:12-31:7.

Prior to reaching Defendants' summary judgment motion, the Court ruled that it would allow Midas leave to re-do the excluded portions of Mr. O'Bryan's damages expert report (Dkt. 27:1-5); however, the subsequent summary judgment ruling rendered any such amendment moot.

Rhodium's Motion for Summary Judgment

Defendant Rhodium's filed a Motion for Summary Judgment of Noninfringement. [ECF 155] is DENIED WITHOUT PREJUDICE.

The Court denies the Motion for Summary Judgment without prejudice to refiling following the previously referenced amendment of the expert report of Dr. Himanshu Pokharna. April 9, 2024 Pretrial Hearing Transcript 54:19-55:3.

Defendants' Motion for Summary Judgment of Noninfringement is **GRANTED**. For the reasons explained in Rhodium's briefing (Dkt. Nos. 155, 169) and discussed at the final pretrial conference (Dkt. No. 187 at 32:7-55:20), Rhodium's accused liquid immersion cooling systems do not infringe asserted claims 1 or 5 of U.S. Patent 10,405,457.

There is no evidence from which a reasonable juror could conclude that Rhodium's systems meet, literally or under the doctrine of equivalents, the plain meaning of the limitation requiring "a control facility adapted to coordinate the operation of the primary and secondary fluid

circulation facilities as a function of the temperature of the dielectric fluid in the tank."[1]

It is further **ORDERED** that the Clerk of Court is **DIRECTED** to enter Federal Rule of Civil Procedure 58 judgment in favor of Defendants in this matter.

SIGNED this ___ day of February, 2025

ALAN D ALBRIGHT

UNITED STATES DISTRICT COURT JUDGE

[1] If the Court were to adopt Rhodium's proposed text, Midas would respectfully request that the Court add the following text immediately following Rhodium's proposed text: "The Court's ruling is applicable to the Rhodium accused instrumentalities as they existed at the close of fact discovery." Rhodium does not agree to the foregoing additional text.

Document Break

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

Midas Green Technologies, LLC, Plaintiff, - vs. - **Rhodium Enterprises, Inc.**; **Rhodium Technologies LLC**; **Rhodium 10mw LLC**; **Rhodium 2.0 LLC**; **Rhodium 30mw LLC**; **Rhodium Encore LLC**; **Rhodium Renewables LLC**; Defendants.	CIVIL ACTION NO. 6:22-CV-00050-ADA **Jury Trial Demanded**

OMNIBUS ORDER ON MOTIONS IN LIMINE

This is a patent infringement case filed by the Plaintiff, Midas Green Technologies ("Midas"), against Defendants Rhodium Enterprises, Inc., Rhodium Technologies LLC; Rhodium 10MW LLC; Rhodium 2.0 LLC; Rhodium 30MW LLC; Rhodium Encore LLC; and Rhodium Renewables LLC (each a "Rhodium Entity" and collectively "Rhodium"). Although the Third Amended Claim for Patent Infringement that Midas filed on March 29, 2023 (Dkt. 106) asserted infringement of 2 patents, in a Joint Status Report filed on February 20, 2024 (Dkt. 144), the parties confirmed to the Court that all infringement claims relating to U.S. Patent No. 10,820,446 were dismissed, and that Midas would allege infringement at trial only of claims 1 and 5 of the sole remaining asserted patent, U.S. Patent No. 10,405,457 (*id.* at 2).

On April 9, 2024, the Court held a pretrial conference to rule on five separate pretrial motions filed by the parties, as well as a number of motions *in limine*. The Court declined to take up the motions *in limine* after hearing oral argument and ruling from the bench on the pretrial motions. No written orders were entered at that time.

Subsequently, on August 24, 2024 and August 29, 2024, the Rhodium Entities each filed a voluntary petition for relief under Chapter 11 of the United States Bankruptcy Code, 11 U.S.C. §§ 101-1330, as amended (the "Bankruptcy Code"), in the United States Bankruptcy Court for the Southern District of Texas (the "Bankruptcy Court"), *In re Rhodium Encore LLC et al.*, Case No. 24-90448 (Jointly Administered). On August 30, 2024, Rhodium filed a Suggestion of Bankruptcy in this Court [ECF 188], acknowledging this matter as stayed. On September 18, 2024 and November 20, 2024, Midas submitted proofs of claim against Rhodium, attaching its Third Amended Claim for Patent Infringement (Dkt. 106). On January 30, 2025, the Bankruptcy Court issued a limited relief from stay to allow "the District Court presiding over the patent infringement

claim," i.e., this Court, "to enter a written order and judgment memorializing [its] April 9, 2024 bench ruling." *In re Rhodium Encore LLC et al.*, Case No. 24-90448, Dkt. 737. This Court subsequently directed the parties to file a joint omnibus proposed order on the pretrial motions and a separate omnibus order on the motions in limine.

The following motions are DENIED WITHOUT PREJUDICE:

Plaintiff's Motion in Limine No. 1 [ECF 180]

Plaintiff's Motion in Limine No. 4 [ECF 173]

Plaintiff's Motion in Limine No. 23 [ECF 174]

Plaintiff's Motion in Limine No. [ECF 175]

Plaintiff's Motion in Limine No. [ECF 176]

Plaintiff's Motion in Limine No. [ECF 177]

Defendant's Motion in Limine No. 1 [ECF 172]

The Court declined to take up the pending motions *in limine* on April 9, 2024 (Dkt.Nos. 180, 172-77) given its ruling granting Defendants' summary judgment motion (Dkt. 187 at 54:10-16), and those motions are DENIED as moot.

SIGNED this ___ day of February, 2025

ALAN D ALBRIGHT

UNITED STATES DISTRICT COURT JUDGE

EXHIBIT 27 - SEALED

EXHIBIT 28 - SEALED

From: Elizabeth Brannen <EBrannen@stris.com>
Sent: Tuesday, August 15, 2023 5:33 PM
To: Joe Thomas; Grant Thomas; William Kolegraff
Cc: service-rhodiummidasgreen; Melissa Smith; travis@gillamsmithlaw.com; 'Henry.pogorzelski@klgates.com'; 'nicholas.lenning@klgates.com'; 'ruby.nagamine@klgates.com'; 'courtney.neufeld@klgates.com'; 'jim.shimota@klgates.com'; 'becca.skupin@solidcounsel.com'; 'Michael C. Smith - Scheef & Stone (michael.smith@solidcounsel.com)'; Tierra Mendiola
Subject: RE: Midas Green v. Rhodium - Inspection - Info needed

Joe, logistically in addition to what you've said you'll provide tomorrow please note that we also need copies of the drivers licenses for the background check.

On the merits, we will have to agree to disagree. The case is so weak that continuing to pursue it subjects Midas Green to an award of fees and costs in Rhodium's favor. Among other fatal problems, there is no basis for or hope of establishing the claimed control facility.

We also do not agree that the inspections should hold up depositions. Your stated position on this issue is inconsistent with your firm view that the systems as they exist could support a claim of infringement. If you promptly provide the requested information despite what is now over a week of delay we will work with you to try to sequence the depositions so that they happen after the inspection. But we do not agree that this is necessary or that any further extension would be warranted.

Given that you still insist on inspecting all 3 sites, despite our view that this makes no sense given the status of the small non-operational site, we will allow all 3 inspections. The requested information is a gating item on scheduling, but you had previously identified end of August as the desired timing and I think we should work toward that. We will have to check with Rhodium too, but, assuming all the security requirements and background checks are satisfied, could you tentatively plan for August 29th-30th or 30th-31st?

Best,
Liz

Elizabeth Rogers Brannen | **Stris & Maher LLP**
Managing Partner
777 South Figueroa Street, Suite 3850 | Los Angeles, CA 90017
111 N. Calhoun Street, Suite 10 | Tallahassee, FL 32301
Direct: 213.995.6809 | Fax: 213.261.0299
Email: ebrannen@stris.com | Website: www.stris.com
She, Her, Hers

From: Joe Thomas
Sent: Monday, August 14, 2023 6:18 PM
To: Elizabeth Brannen ; Grant Thomas ; William Kolegraff
Cc: service-rhodiummidasgreen ; Melissa Smith ; travis@gillamsmithlaw.com; 'Henry.pogorzelski@klgates.com' ; 'nicholas.lenning@klgates.com' ; 'ruby.nagamine@klgates.com' ; 'courtney.neufeld@klgates.com' ; 'jim.shimota@klgates.com' ; 'becca.skupin@solidcounsel.com' ; 'Michael C. Smith - Scheef & Stone (michael.smith@solidcounsel.com)' ; Tierra Mendiola & Stone (michael.smith@solidcounsel.com)' ; Tierra Mendiola
Subject: RE: Midas Green v. Rhodium - Inspection - Info needed

[External Email]
Liz:

First, we strongly disagree with your contention that we cannot prove infringement. The Rhodium systems are in fact designed and adapted to infringe and otherwise embody all elements of the Midas patents.

Second, we need the site inspections for our experts to inspect and corroborate our understanding the Rhodium systems as they currently exist. Since, as noted above, we are firm in our view of infringement, for the record, we have never stated or implied that we viewed a site inspection as a step to dismiss the case. This is a necessary discovery step before we can start taking depositions.

Third, we still insist on inspecting the equipment from all three sites. Please confirm that you will allow this third site inspection as well.

Finally, this will confirm that we will sign the NDAs that were provided and provide you with the list of names of the attendees, the experts' CV within two days and comply with the Attire requirements. Please provide us proposed dates ASAP for these inspections, or, if you prefer, we will provide proposed inspection dates to you.

Regards, Joe.

From: Elizabeth Brannen <EBrannen@stris.com>
Sent: Monday, August 14, 2023 12:29 PM
To: Joe Thomas <jthomas@twtlaw.com>; Grant Thomas <gthomas@twtlaw.com>; William Kolegraff <bkolegraff@twtlaw.com>
Cc: service-rhodiummidasgreen <service-rhodiummidasgreen@stris.com>; Melissa Smith <Melissa@gillamsmithlaw.com>; travis@gillamsmithlaw.com; 'Henry.pogorzelski@klgates.com' <Henry.pogorzelski@klgates.com>; 'nicholas.lenning@klgates.com' <nicholas.lenning@klgates.com>; 'ruby.nagamine@klgates.com' <ruby.nagamine@klgates.com>; 'courtney.neufeld@klgates.com' <courtney.neufeld@klgates.com>; 'jim.shimota@klgates.com' <jim.shimota@klgates.com>; 'becca.skupin@solidcounsel.com' <becca.skupin@solidcounsel.com>; 'Michael C. Smith - Scheef & Stone (michael.smith@solidcounsel.com)' <michael.smith@solidcounsel.com>; Tierra Mendiola <tmendiola@twtlaw.com>
Subject: Midas Green v. Rhodium - Inspection - Info needed

Joe, Bill, and Grant,

I write to follow up on Rhodium's request for dismissal and in the alternative for prompt information to facilitate your inspection request. When we spoke last Monday I reiterated that especially in light of the information confirmed by Rhodium's supplemental interrogatory responses there is no way Midas Green can prove infringement. The systems do not exist as Midas has alleged or identified in its contentions or integratory responses; infringement against Rhodium is not a viable claim.

In response to my request for confirmation that your client would dismiss the complaint I understood you to explain that instead, as a next step, Midas Green would like you and your outside, independent expert to inspect all three sites—including the non-functional experimental site that has been responsible for de minimis revenue. As I explained at that point in our conversation, the Rockdale and Temple sites have their own security requirements in place. If Midas Green will insist on inspection as a prerequisite to dismissal (which we believe is neither necessary nor the most sensible path for either party), as I requested a week ago: please provide, as soon as possible, the names, and for any expert(s), their CV and protective order undertaking.

To satisfy security measures at the facilities, we will also need to arrange to collect or have you submit the following as soon as possible:

- List of full names of the attendees, as each appears on each person's driver's license
- A copy of each attendee's driver license, as a third party background check will be performed a week or so before the site visit
- NDA(s) from each attendee: (1) Temple's Facilities Non-Disclosure Agreement; and (2)Whinstone's Data Center Rules and Acceptable Use Policy (please see the links below)

Please also note:
The facilities require proper Attire:

- Long Pants
- Steel-toe boots (please let us know the shoe sizes of the attendees and we will check to see if we already have pairs in those sizes that they can use while on site)
- Vests, hard hats, and protective eyewear (Rhodium will supply these items)

Recently, Whinstone has been undertaking random bag searches. It is recommended that bags not be brought on site. Please let us know if you will request assistance with bag storage.

Temple's NDA:

Can be retrieved at the following link:

-- Facilities Non-Disclosure Agreement:
https://secure.na2.documents.adobe.com/public/esignWidget?wid=CBFCIBAA3AAABLblqZhBhaRsoQj-AUoUPj3KiPPS7GCehxm-Qh0musXbQcHmKsbVTdzGs4j4l__b_gZMvP6o*

--To be electronically signed. Upon execution it is automatically uploaded and stored online.

Whinstone's NDA:

Can be retrieved at the following link:

--Whinstone's Data Center Rules ad Acceptable Use Policy:
https://secure.na2.documents.adobe.com/public/esignWidget?wid=CBFCIBAA3AAABLblqZhBTQWLGvSJI0hr9zeQLcQO1sr9nczuQ4L3T3guxm4vDfmazLzN6hnsqgwbHwX9KMfU*

Best,
Liz

Elizabeth Rogers Brannen | **Stris & Maher LLP**
Managing Partner
777 South Figueroa Street, Suite 3850 | Los Angeles, CA 90017
111 N. Calhoun Street, Suite 10 | Tallahassee, FL 32301
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Email: ebrannen@stris.com | Website: www.stris.com
She, Her, Hers

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EXHIBIT 30 - SEALED

EXHIBIT 31 - SEALED

EXHIBIT 32 - SEALED

EXHIBIT 33 - SEALED

EXHIBIT 34 - SEALED

EXHIBIT 35 - SEALED

EXHIBIT 36 - SEALED

EXHIBIT 38 - SEALED

IN THE UNITED STATES BANKRUPTCY COURT

FOR THE SOUTHERN DISTRICT OF TEXAS

HOUSTON DIVISION

IN RE:	§	CASE NO. 24-90448-11
	§	HOUSTON, TEXAS
RHODIUM ENCORE, LLC	§	TUESDAY,
AND AIR HPC LLC,	§	JULY 8, 2025
DEBTORS.	§	1:00 P.M. TO 1:28 P.M.

OMNIBUS OBJECTION

BEFORE THE HONORABLE ALFREDO R. PEREZ
UNITED STATES BANKRUPTCY JUDGE

APPEARANCES: SEE NEXT PAGE

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APPEARANCES (VIA ZOOM):

FOR THE DEBTORS:	QUINN EMANUEL URQUHART & SULLIVAN Patricia B. Tomasco, Esq. 700 Louisiana Street Suite 3900 Houston, TX 77002 713-221-7227
FOR MIDAS GREEN TECHNOLOGIES, LLC:	THOMAS WHITELAW & KOLEGRAFF Joseph Edward Thomas, Esq. 18101 Von Karman Avenue Suite 230 Irvine, CA 92612 949-679-6400

(Please also see Electronic Appearances.)

HOUSTON, TEXAS; TUESDAY, JULY 8, 2025; 1:00 P.M.

THE COURT: All right, good afternoon.

It is Tuesday, July 8, 2025. We're here for the 1:00 o'clock docket, Case No. 24-90448, Rhodium Enterprises, and in particular to the omnibus objection at Docket No. 953.

So, why don't we get appearances of counsel in the courtroom, and then we'll get appearances of counsel on the phone?

MS. TOMASCO: Good afternoon, Your Honor.

Patty Tomasco. I'm joined by my colleague, Rachel Harrington from Quinn Emanuel, also Elizabeth Brannen from the Stris law firm, and we're here on behalf of the Debtors and Debtors-in-Possession.

THE COURT: Thank you.

All right, anyone else wish to make an appearance?

(No audible response.)

THE COURT: Hello?

(No audible response.)

THE COURT: I think all the lines are unmuted.

Is anyone here representing Midas Green Technologies?

(No audible response.)

THE COURT: Mr. Thomas, are you on the line?

(No audible response.)

THE COURT: Ms. Schultz, can you hear me?

MS. SCHULTZ: I can, Your Honor, yes.

THE COURT: Okay. All right, because you're the only name that I have a name to.

Mr. Thomas, can you hear me?

(No audible response.)

THE COURT: It is Mr. Thomas who represents --

MS. TOMASCO: That's my understanding, Your Honor, the lead counsel. There's one other lawyer I can try to contact, but I don't see him on the screen.

THE COURT: Okay, why don't we take a five-minute recess, see if maybe you can contact him?

All right, we'll be in recess for 5 minutes.

You can sit down.

(Recess taken from 1:04 p.m. to 1:09 p.m.)

THE COURT: All right. So, we're back on the Record in Case No. 24-90448.

So, Ms. Tomasco, why don't we restart again?

MS. TOMASCO: Thank you, Your Honor

Patty Tomasco. I'm joined by my colleague, Rachel Harrington from Quinn Emanuel Urquhart & Sullivan. We're also joined by Elizabeth Brannen from the Stris law firm on behalf of the Debtors and Debtors-in-Possession.

THE COURT: Thank you.

All right, who else wishes to make an appearance?

MR. THOMAS: Your Honor, Joseph Thomas on behalf of Midas Green Technologies, along with partner Bill Kolegraff and associate Grant Thomas, here in my office.

THE COURT: Okay.

All right. Ms. Tomasco, is he taking the lead?

MS. TOMASCO: Your Honor, I had delusions of grandeur that I could handle this hearing, but I cannot. It was the course I didn't take in law school. And so, what I'm going to do is I hope to hand up -- we have a PowerPoint presentation, which if you make Ms. Harrington the presenter -- you need to turn on your camera, Ms. Harrington -- we also have one to hand up to the Court.

So, the presentation will be handled by Ms. Brannen. To the extent that we get to the end about what to do with the procedural posture, I can handle that part.

THE COURT: Yeah, why don't we move to that because I did read your reply this morning, and unfortunately, the objection had not been linked.

MS. TOMASCO: Oh.

THE COURT: So, only after I got your reply was I able to find it. It took me a little bit of digging. So, maybe we should deal with the procedural posture first because I'd like to do this on a full record, as opposed to not on a full record.

So, why don't we go to that, and then I'll let Mr. Thomas speak?

MS. TOMASCO: Your Honor, so, I'm actually really inspired by Ms. Brannen's lament here. A lot of money was spent in the proceedings below, and as you know, we also moved to lift the stay to allow Judge Albright to enter an Order, but we do have is sufficient for estoppel purposes here. I think the cases are uniform on that. I'm not going to expouse on them, but I do think it's sufficient for the Court to disallow the claim basically on preclusion grounds itself.

That being said, as the lawyer who wants to confirm a Plan in this case, I'm mindful that a claim of this size -- $30 to 50 million is putatively what they've asserted here -- is enough to keep us from being able to make meaningful distributions to the other stakeholders in the case.

For that reason, we want for there to be a Motion to Estimate if we're not able to dispose of the claim today, and to the extent that the Court believes that a summary judgment would put in front of the Court more resources. And again, I'm going to parrot Ms. Brannen in our conversation. We believe this claim is sanctionable. We think that under applicable patent law, this sort of in *seriatim* attacks on a technology that doesn't even come

close to what their patents provide for is something that the Debtors' estate should not have to bear the cost of.

That said, my overarching goal in these cases is to confirm a Plan and to make meaningful distribution to deserving stakeholders. This is not one of them, but I understand that we want this to be done right, so we build in the alternative of two things.

One is a summary judgment schedule, and the other is a Motion to Estimate. Obviously, our position is that the estimation should be at zero. And this is particularly important here because they're asserting damages into the future, and of course, there are no longer any operating entities at Rhodium. Although we still own our patents for the technology that we use, there are no longer any potentially infringing activities going on. So, estimation to me does seem to be particularly appropriate. So estimation to me does seem to be particularly appropriate. I hesitate to use estimation because I think it can be overused, but I think it may be appropriate in this case for the reason that they're claiming future damages, which we say is improper based on the Fifth Circuit case in *Peretto*.

That said, we've proposed -- and if you look at the last slide -- that the parties could assert summary judgment and the Court could hear this on summary judgment, but I urge the Court that we've already done a summary

judgment motion and we won. We just don't have an Order, right, but that's sufficient for the reasons that we've stated in our brief.

But if you want a do-over, if you want to make us spend that money again, we certainly can. Don't want to. Don't want to waste the estate's resources on something that's already been decided. That's the whole point of preclusion, but we've proposed the schedule that's on the last slide in the deck.

If the Court is inclined to do this, I would suggest layering into this schedule a Motion to Estimate at zero. This would give us time to have the claim not be a factor in confirmation or in distributions upon the effective date. It would not require us to make reserves for a claim which has no merit.

THE COURT: Okay, all right.

Mr. Thomas?

MR. THOMAS: Your Honor, as the Court will recall, the Debtor applied for relief from stay to go back to Judge Albright, and Judge Albright entered an Order requiring both parties to submit proposed Orders, which was done. There are competing Orders pending in front of Judge Albright since I'm going to say early February of this year. He has not decided anything yet.

It's possible he could rule for the Debtor. It's

possible he could rule for my client. It's possible he could deny the Motion for Summary Judgment without prejudice and allow the case to continue.

We see no reason why we should be eliminating Judge Albright's final ruling. It's important to my client to get that ruling because if it's one that we don't agree with, we'll have a record from which we can appeal.

Currently, there is no reasoning stand for any summary judgment ruling at all, which makes it, you know, something that can't even be appealed except to be remanded back for reasoning.

So, we see no effort by the Debtors' counsel to contact Judge Albright to ask him if there's urgency pending. And I was unaware that there's urgency pending. I don't know that there's a Plan on file, Plan of Reorganization yet on file that timing is critical, but if there is a timing issue, why not let Judge Albright be notified of that and ask him to make his ruling as the parties originally did and as the Bankruptcy Court originally did?

So, I see no reason why to cut Judge Albright out of this exercise when everybody agreed that that's how this proceeding ought to (glitch in the audio) make his final ruling.

And I can't explain why that hasn't happened,

except probably indecisiveness. It's not as clear to Judge Albright as it may be to counsel for the Debtor. It may be that he's got a lot more to consider than people are giving him credit for, but in any case, rather than go through these additional procedural hearings in Bankruptcy Court, why not have the Debtors' counsel or -- we'd be willing to work with a joint request to Judge Albright to ask him to make a ruling.

So, I just see no reason why the Debtor, after asking for permission to go back to Albright and telling the Court that was the proper court, is now saying we now need to skip Judge Albright and have a different ruling made by a different judge. It just doesn't make sense to me, and I don't think it makes sense to Judge Albright. I think that's the court of jurisdiction here, and the way to deal with this is having some further proceedings in front of Albright and not to have the Bankruptcy Court skip a District Court ruling on patent infringement and come to its own conclusion, which, by the way, may well differ from the final ruling.

If the Bankruptcy Court were to conclude, based on the hearing and briefing schedule proposed by the Debtor, that there's no infringement, what happens if Judge Albright later issues a ruling denying that motion and allowing the case to go forward? I mean, it creates a conclave of

procedural nightmares for both parties, and I think the cleanest thing to do is to let Judge Albright continue the exercise he was requested to do, and let the Court defer to him and then proceed accordingly.

So, Your Honor, that's really the extent of what I have to say on this right now.

THE COURT: All right.

Anything further?

MS. TOMASCO: Your Honor knows the exigencies of this case as well as I do. We need to confirm a Plan. Today was supposed to be our Disclosure Statement hearing. We're not here because of other reasons, but we do want to be prepared to confirm a Plan by the end of August.

Lots of things get more expensive as the case goes on, and what we have here is a situation in which the parties going to Judge Albright and asking him to rule; we already filed this Court's Order lifting the stay on Judge Albright's Docket. We've already interacted with the Court Clerk with respect to a ruling to memorialize what the judge ruled on the Record. We don't have the luxury of waiting forever.

This is too much money that they're claiming, and frankly, their argument that this Court doesn't have jurisdiction is invalid on its face. They've submitted to the jurisdiction of this Court under *Couch v. Landing.*

Everything to do with their claim is under this Court's jurisdiction. They are asking for a piece of the bankruptcy rest.

They cannot be heard to escape this Court, nor can they use this happenstance of Judge Albright not ruling to hang up this whole estate, and all of the creditors and interest holders who are waiting for their distribution. That's not fair.

THE COURT: All right.

All right. So, here's what I'm going to do. I do believe that the Proofs of Claim are clearly in front of me. I have exclusive jurisdiction to address, to deal with the Proofs of Claim. I do think that there is significant exigencies in order to get this case confirmed, and the stay was lifted a while back.

I'm not, in any way, shape, or form, trying to usurp Judge Albright's jurisdiction with respect to this. I'm trying to address the Proofs of Claim that are integral to the Plan confirmation process. So, I will go ahead and allow you to file the estimation motion, and we will schedule a hearing on the 26th.

And to the extent you want to file summary judgment motions on the schedule, I'm happy to listen to them. I can enter that Order, but I think you also need to be prepared, you know, for objection on the merits of the

Proof of Claim.

I have a hearing at 9:00 o'clock on the 26th, which should go --

MS. TOMASCO: The 26th of August, Your Honor?

THE COURT: August, yes.

MS. TOMASCO: Okay, all right. So, adopting, essentially, the schedule that we --

THE COURT: Yeah, adopting the schedule, but --

MS. TOMASCO: Okay.

THE COURT: -- but allowing the, you know, the parties -- I want to have a full record on the claim objection.

MS. TOMASCO: Understood, Your Honor.

MR. THOMAS: Yeah, Your Honor --

THE COURT: Yes.

MR. THOMAS: Your Honor, could I -- this is Mr. Thomas.

We just received, as you know, last night, like the Court did, this proposed schedule. I have no difficulty with this schedule. I am out of town on the 26th.

Would it be possible to move the hearing date by one week?

THE COURT: You want to move it up by one week? Yeah, we could do that.

MS. TOMASCO: I would prefer to move it --

MR. THOMAS: Or, actually, is it possible to move it back one week, I guess, is the first question?

THE COURT: The problem is that that's the week of Memorial --

MS. TOMASCO: Labor Day.

THE COURT: -- yeah, Labor Day, Labor Day weekend, and I'm pretty much going to be out from the 29th through the 3rd or 4th.

So, I mean, we can do the 22nd.

MR. THOMAS: Yeah, I could do the 22nd, Your Honor.

THE COURT: Okay, that would be virtual.

MS. TOMASCO: Virtual on the 22nd?

MR. THOMAS: Yes.

THE COURT: Yeah, virtual on the 22nd, but we can do the 22nd. And why don't we just submit a slightly revised form of Order that anybody can file moving papers, anything they want the estimation by the 29th? Responses will be due by --

(Unidentified speakers talking in the background.)

THE COURT: -- responses will be due -- by the 29th, responses will be due by the 12th instead of -- I'm just going to push you up a little bit on the estimation motion.

MS. TOMASCO: Sure. That's fine, Your Honor.

THE COURT: Okay, any responses due by the 12th, and then any replies due by the 19th. And then, that'll be three days before the hearing on the 22nd.

MS. TOMASCO: Very good, Your Honor.

THE COURT: Okay. And so --

MR. THOMAS: Your Honor, just so I'm clear, are you scheduling just an estimation hearing, or are you scheduling a summary judgment and an estimation?

THE COURT: I'm scheduling a full trial. To the extent that people want to file summary judgment, I'll consider that before the trial, and also, I'm going to consider the estimation. I want to address the Proofs of Claim in every respect. That's the focus of it is the five or six Proofs of Claim that you filed.

MR. THOMAS: Okay. So, the briefing -- if there is both a Motion to Estimate and a Motion for Summary Judgment, the briefing schedule is set.

THE COURT: Exactly, yeah. File everything by the 29th, responses due by the 12th, replies due by the 19th, and we'll have, you know, either a hearing on summary judgment or a trial on that date. And we'll start at -- since it's virtual, we can start at 8:30.

MS. TOMASCO: So, this is the first I've heard of a trial.

THE COURT: Yeah, to the extent that there is

additional testimony unrelated to the summary judgment on the claim objection, okay?

MS. TOMASCO: Okay.

THE COURT: I don't know that there is. I'm just saying I'm not going to limit you to either a summary judgment or a claim estimation. If you just want to go and rest on your objection and put on any evidence with respect to your objection, I'll take that as well.

MS. TOMASCO: Okay. So, this is a --

THE COURT: Trial is not the right word.

MS. TOMASCO: Okay. So --

THE COURT: A hearing.

MS. TOMASCO: A hearing, okay.

THE COURT: It can be evidentiary, if you want. That's the only thing I'm saying.

MS. TOMASCO: I got it, okay. I got it, Your Honor.

THE COURT: Okay.

MS. TOMASCO: Okay. And obviously, no discovery?

THE COURT: Is there any discovery needed? You guys have been discovering this forever. I mean, --

MS. TOMASCO: I just want to make it clear on the Record, no discovery.

THE COURT: Yeah, yeah. I think the Record -- I mean, I don't know anything that's happened since this case

has been stayed in that case.

MS. TOMASCO: All right. Thank you, Your Honor.

THE COURT: Okay, we're just doing the claim objection. All right.

MR. THOMAS: Okay.

THE COURT: All right. So, we're in recess till my 3:00 o'clock case.

Thank you.

MR. THOMAS: Thank you, Your Honor.

THE COURT: Thank you.

(Hearing adjourned at 1:28 p.m.)

* * * * *

I certify that the foregoing is a correct transcript to the best of my ability due to the condition of the electronic sound recording of the ZOOM/video/telephonic proceedings in the above-entitled matter.

/S/ MARY D. HENRY

*CERTIFIED BY THE AMERICAN ASSOCIATION OF ELECTRONIC REPORTERS AND TRANSCRIBERS, CET**337*

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JTT TRANSCRIPT #69904

DATE FILED: JULY 26, 2025

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EDUCATION

Ph.D., Mechanical Engineering, Stanford University, June 1986 (Supervisor: Prof. Robert J. Moffat)

M.S., Mechanical Engineering, Stanford University, August 1978

B.S., Mechanical Engineering, University of Texas at El Paso, August 1976

POSITIONS

8/18-present
8/05-8/17 *James R. Birle Endowed Chair Professor of Energy Technology*, Villanova University, College of Engineering, Villanova, Pennsylvania

8/21-present *Co-Director, The Villanova University Strategic Initiative for Climate, Justice, and Sustainability*—an initiative to form a University Institute

8/18-present
8/05-8/17 *Director, The Laboratory for Advanced Thermal and Fluid Systems*, Villanova University (from 1990-2005, the Laboratory was established and located at The University of Arizona, Tucson, Arizona)

9/11-8/17
1/21-present *Director, The National Science Foundation Industry/University Cooperative Research Center (I/UCRC) on Energy Smart Electronic Systems (ES2)* (with partners Binghamton University, Georgia Tech, University Texas-Arlington)

- Founding Director of Villanova Site of NSF ES2 Center
- Manage annual budget of $300,000
- Team Leader for ES2 team consisting of faculty, Post-Docs, graduate researchers, undergraduate student researchers

7/23-present *Visiting Professor*, Binghamton University, Department of Mechanical Engineering, Binghamton, N.Y.

8/18-8/20 *Associate Director, The National Science Foundation Industry/University Cooperative Research Center (I/UCRC) on Energy Smart Electronic Systems (ES2)* (a multi-university center: Binghamton University, Villanova University, University Texas-Arlington, Georgia Tech (affiliate))

- Direct support of Director (Dr. Bahgat Sammakia, Binghamton University)
- Focus on center-wide industry recruitment

8/17-8/18 *Dean, School of Engineering and John M. Sobrato Professor of Engineering*, Santa Clara University, Santa Clara, California

- Oversight of all Engineering academic and research programs, undergraduate and graduate
- Co-led Academic component of Phase II final detail design of new $300M STEM complex housing School of Engineering and Science Departments, including leading design of Center for Innovation (Maker Space)
- Recruited and hired Director of Engineering Development
- Recruited and hired Associate Dean for Finance and Administration
- Worked closely with Development Office and fellow Deans in fund-raising for STEM building and School of Engineering initiatives
- Developed new initiative for creation of Center for Innovation and Entrepreneurship with Dean of School of Business; secured $5M starter gift for initiation
- Hired four new faculty members in Computer Science, Electrical Engineering
- Re-structured Department of Civil Engineering to Department of Civil and Sustainable Engineering; created faculty line for Sustainability director
- Formed new School of Engineering Council for Diversity and Inclusion; instituted new mandatory training on unconscious bias for all faculty and staff

3/17-6/17 *Visiting Professor, Pontificia Universidad Catolica (Catholic University), Santiago de Chile, Departamento de Ingnieria Mecanica y Metalurgica*

8/12-5/16 *Associate Vice President for Research and Graduate Programs*, Villanova University, Villanova, Pennsylvania (Reporting to Provost; Villanova does not have the position of VP for Research)

- Founder and Director of the Office of Research and Graduate Programs
  - Oversight over all Research at Villanova University
  - Supervision of Assistant Vice-President for Research and Strategic Initiatives
  - Oversight over Graduate and On-Line Programs at Villanova University
  - Supervision of the Assistant Vice-President for On-Line Programs.
- Supervision of the Office of Research Administration (Director, two Associate Directors, five staff members)
  - Recruited and hired new Director
  - Worked with new Director on major re-structuring and revitalization of the Office including hiring/replacing key personnel
- Supervision of the Office for Undergraduate Research and Fellowships (Director, two Associate Directors, one staff member)
  - Recruited and hired new Director

10/07-8/12 *Associate Dean for Graduate Studies and Research*, Villanova University College of Engineering, Villanova, Pennsylvania

- Established the position of Associate Dean for Graduate Studies and Research
- Directed Research support and initiatives in College of Engineering
- Oversight of Graduate Programs and Graduate Student administration in College of Engineering
- Directed On-Line Programs in College of Engineering, Supervised Director for On-Line Programs
- Founding Chair, Ph.D. Program Committee, College of Engineering

- Chair—University Committee on Research Administration that lead to the most comprehensive changes in research support and administration at Villanova in 30 years

8/04-8/06 *Program Director, Division of Chemical and Thermal Systems, Directorate for Engineering, National Science Foundation, Washington D.C.*

- Program Director Thermal Transport and Thermal Processing Program (8/04-8/06)
- Acting Program Director Combustion Program (8/05-8/06)
- Program Director NSF Division Cross-cutting Nano Programs (NIRT and NER) (8/05-8/06)
- Directorate Representative, IGERT Program (Innovation in Graduate Programs)
- Directorate Representative, REU Program (Research Experiences Undergraduates)
- Co-Program Director NSF/Sandia Laboratories Engineering Research Program (2005)
- Initiating Program Manager: NSF / NIH Program on Energy Approaches to Obesity (2006)

8/04-8/05 *Professor, Department of Aerospace and Mechanical Engineering, The University of Arizona, Tucson, Arizona*

- Founder and Director, Heat Transfer Laboratory (1990-2004)
- Chair, AME Department Undergraduate Studies Committee (1997-2002)
- Chair, AME Department Committee on By-Laws (2002-2003)
- Co-Founder, College of Engineering Senior Design Day (2001)
- Faculty Advisor, Society of Hispanic Professional Engineers
- Faculty Advisor, Southern Arizona MESA (Math, Engineering and Science Achievement) (a STEM program for middle and high school students)
- Member of Steering Committee, University of Arizona NASA Space Grant Program (research for undergraduate students)
- Sloan Faculty Scholar--Sloan Foundation Coalition for Development of Minority Doctoral Candidates

8/94-8/04 *Associate Professor, Department of Aerospace and Mechanical Engineering, The University of Arizona, Tucson, Arizona*

6/97-8/97 *Visiting Professor, Technical University Delft, Delft, The Netherlands, Department of Applied Physics*

9/95-9/96 *Visiting Researcher, Semiconductor Electronics Division, National Institute of Standards and Technology, Gaithersburg, Maryland (sabbatical)*

1/88-8/94 *Assistant Professor, Department of Aerospace and Mechanical Engineering, The University of Arizona, Tucson, Arizona*

1/87-5/87 *Adjunct Professor, Mechanical Engineering Department, University of New Mexico, Albuquerque, New Mexico*

1/86-1/88 *Member of the Technical Staff, Geothermal Research Division, Sandia National Laboratories, Albuquerque, New Mexico*

6/81-6/86 *Research Assistant, Mechanical Engineering Department/Thermosciences Division, Stanford University, Stanford, California*

9/78-6/81 *Member of the Technical Staff, Fluid Mechanics and Heat Transfer Department, Sandia*
1/77-9/77 *National Laboratories, Albuquerque, New Mexico*

HONORS AND AWARDS

SEMITHERM Hall of Fame Award, 39th Annual Semiconductor Thermal Measurement, Modeling, and Management Symposium (SEMITHERM 2023), San Jose, CA, March 13-17, 2023.

InterPACK Intel Outstanding Paper Award-2022, ASME International Technical Conference and Exhibition on Packaging and Integration of Electronic and Photonic Microsystems (InterPACK® 2022), Garden, Grove CA, October 25-27, 2022.

Best Poster Award, 2022 NSF ES2 Center Spring Meeting, Binghamton University, Binghamton, NY, June 23, 2022, Kisitu, D. and Ortega, A.

The 2017 IEEE ITHERM Achievement Award (Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems), May 31, 2017 (for significant contributions to the field)

The 2012 Harvey Rosten Award for Excellence in the Physical Design of Electronics, for the paper: "An Investigation of Multi-Layer Min-Channel Heat Sinks with Channel Geometric Scale Variation Suggested by Constructal Scaling Principles," March 22, 2012.

Conference Best Paper Award - 2007 ASME International Electronics Packaging Conference: for the paper by Lei, N., Ortega, A., and Vaidyanathan, R., "Modeling and Optimization of Multilayer Minichannel Heat Sinks in Single-Phase Flow," *Proceedings of the ASME InterPACK 2007*, Paper No. IPACK2007-33329, Vancouver, B.C., Canada, July 8-12, 2007

ASME Fellow, 2004

Distinguished Service Award, Southern Arizona MESA (Math, Engineering, Science Achievement), May 2004

U. S. Army Medal of Commendation for Significant Research Contributions to the U.S. Army, January 2003

2002 IEEE SEMITHERM Significant Contributor Award ("Thermie" Award), IEEE Semiconductor Thermal Measurement and Management Symposium (SEMITHERM), 2002

Division Award for Outstanding Contributions to the Engineering and Science of Thermal Management of Electronic Equipment, ASME Electronic and Photonic Packaging Division, 2002

Hispanic Power Hitter Award, Hispanic Engineer and Information Technology, June 2002

Southwest Mechanics Lecture Series Distinguished Lecturer, 1997

Best Paper Award, 1993 Semiconductor Thermal Measurement and Management Symposium (SEMITHERM IX), February 1993

Most Outstanding Teacher Award-Assistant Professor, May 1992, Department of Aerospace and Mechanical Engineering, The University of Arizona

National Science Foundation, Presidential Young Investigator Award, 1990

Phi Kappa Phi—elected member

Pi Tau Sigma—elected member

Tau Beta Pi—elected member

Bel Air High School Outstanding Alumni Award, 1988 (El Paso, Texas)

Outstanding Mechanical Engineering Student, University of Texas-El Paso, 1976

Top Ten Students, University of Texas-El Paso, 1976
Men of Mines, University of Texas-El Paso, 1976

Lucille T. Stevens Memorial Scholar, University of Texas-El Paso, 1972-76

Top Ten Students, Bel Air High School, El Paso, TX; May 1972

The Highland Lad Award, awarded to the Outstanding Graduating Senior, Bel Air High School, El Paso, TX; May 1972

PROFESSIONAL ACTIVITIES

American Society of Mechanical Engineers (ASME)

Member, 1978-date
Fellow, 2004

Technical Communities Operating Board
Chair, Committee on Division Operations and Training 2009-2013

Heat Transfer Division
- Chair, Heat Transfer Division, Honors and Awards Committee, 2014-2017
- Member, Heat Transfer Division, Honors and Awards Committee, 2011-2017
- K-16 Committee on Heat Transfer in Electronic Equipment
  - Member 1990-date
  - Vice-Chair 1991-1994
  - Chair 1994-1997

Electronics Packaging Division
- Member 1997-date
- Treasurer 1998-2000
- Vice-Chair 2000-2001
- General Chairman 2001-2002
- Honors and Awards Chairman 2002-2003

ASME International Electronic and Photonic Packaging Conference and Exhibition (InterPack)
- Chair, Thermal Track, 2001

Technical Program Chair, 2003
General Conference Chair, 2005

Session Co-Chairman, "Forced Convection Cooling of Electronic Components," 1989 National Heat Transfer Conference, Philadelphia, Pennsylvania, August 1989

Session Chairman, "Numerical Simulation of Convection in Electronic Equipment Cooling," 1989 ASME Winter Annual Meeting, San Francisco, California, December 1989

Session Chairman, "High-Density Packaging of Electronic Components," 1991 ASME-JSME Joint Engineering Thermal Conference, Reno, Nevada, March 1991

Session Chairman, "Convective Mechanisms in Electronic Packaging," 1991 National Heat Transfer Conference, July 1991

Session Co-Chairman, "Fundamentals of Three-Dimensional Effects in Forced Convection," 1993 National Heat Transfer Conference, Atlanta, Georgia, August 1993

Session Co-Chairman, "Natural and Mixed Convection," ASME International Electronics Packaging Conference, Binghamton, New York, September 1993

Session Chairman, "Enhancing Natural Convection Cooling of Electronics Systems and Components," 1995 Natural Heat Transfer Conference, Portland, Oregon, August 1995

Panel Co-Chairman, "Design Issues and Technical Challenges in Thermal Management of Military Avionics," 1996 National Heat Transfer Conference, Houston, Texas, August 1996

Panel Co-Chairman, "Panel on Electronic Packaging: A Model for Dialog Between Industry, Academia, and Government," 1996 International Mechanical Engineering Conference and Exhibition, Atlanta, Georgia, November 1996

Program Committee Member; Session Chair, "Thermal Management: Air"; and Panel Co-Moderator, "Experimental/Numerical Characterization of Heat Sinks," The Pacific Rim/ASME International Intersociety Electronic and Photonic Packaging Conference, INTERPack '97, Mauna Lani, Hawaii, June 1997

Session Co-Chairman, "Fundamental Developments in Conjugate Heat Transfer in Electronics Packaging," 1997 ASME/AIChE National Heat Transfer Conference, Baltimore, Maryland, August 1997

Panel Moderator, "Compact Thermal Models for Electronic Packaging Design," 1997 ASME/ AIChE National Heat Transfer Conference, Baltimore, Maryland, August 1997

Session Chair, "Symposium on Thermal Management," 1997 ASME International Mechanical Engineering Conference and Exhibition, Dallas, Texas, November 1997

Session Chair, "Calibration, Error Analysis, and Modeling of Heat Flux Sensors for Convection Measurements," 1998 ASME International Mechanical Engineering Congress and Exhibition, Anaheim, California, November 1998

Program Co-Chair (Thermal Track), 1999 ASME/Pacific Rim International Intersociety Electronic and Photonic Packaging Conference (InterPACK '99), Maui, Hawaii, June 1999

Session Chair, "Thermal Management of Electronic Systems," 1999 National Heat Transfer Conference, Albuquerque, New Mexico, August 1999

Session Chair, "Air Cooling Limits in Thermal Management of Electronic Systems," 2000 ASME International Mechanical Engineering Congress and Exposition (IMECE), Orlando, Florida, November 2000

Co-Chair, Thermal Track Program, 2001 ASME/Pacific Rim International Intersociety Electronic and Photonic Packaging Conference (InterPAK'01), Kauai, Hawaii, June 2001

Session Chair, 2001 ASME International Mechanical Engineering Congress and Exposition, New York, New York, November 2001

Session Chair, 2002 ASME International Mechanical Engineering Congress and Exposition, New Orleans, Louisiana, November 2002

Session Chair and Panel Chair, 2003 ASME International Electronic and Photonic Packaging Conference and Exhibition, Maui, Hawaii, July 2003

Session Chair; 2003 ASME International Mechanical Engineering Congress and Exposition, Washington, DC, November 2003

Engineering Foundation

Scientific Committee, Engineering Foundation Conference, "Turbulent Heat Transfer," San Diego, California, March 1996

Co-Chair, Engineering Foundation Conference, "Turbulent Heat Transfer II," Manchester, United Kingdom, June 1998

Scientific Advisory Committee, 3rd International Symposium on Turbulence, Heat and Mass Transfer, Nagoya, Japan, April 2000

Panel Chairman, 2002 Engineering Foundation THERMES Conference, Santa Fe, New Mexico, January 2002

Scientific Advisory Committee, 4th International Symposium on Turbulence, Heat and Mass Transfer, Antalya, Turkey, October 2003

EUROTHERM

U.S. Liaison and Member of Program Committee, EUROTHERM Conference on Thermal Management of Electronic Systems
Seminar No. 29, Delft University of Technology, The Netherlands, June 1993
Seminar No. 45, Leuven, Belgium, September 1995
Seminar No. 58, Nantes, France, September 1997

Institute of Electrical and Electronics Engineers (IEEE)

CHMT Society, TC-9 Committee on Thermal Management of Electronics, 1992-date

Semiconductor Thermal Measurement and Management Symposium (SEMITHERM)
Organizing Committee, 1990-2001
Conference General Chairman, 1994
Executive Committee, 1998-date

Intersociety Conference on Thermal Phenomena in Electronic Equipment (ITHERM)
Program Committee 1994, 1996, 1998, 2000, 2002, 2004
Technical Program Chair 1992
Conference General Chairman 1994
Executive Committee 1994-date
Short Course Chair and Session Chair 2002, 2004

Electronic Components and Technology Conference (ECTC)
Session Chairman 1993

THERMINIC

Scientific Committee, THERMINIC 1997—International Workshop on Thermal Investigations of IC's and Microstructures, Cannes, France, September 1997

CONSULTING ACTIVITIES

Consultant and Expert Witness, Covington & Burling LLP, Los Angeles, CA 2020-21

Consultant and Expert Witness, Perkins Coie LLP, Los Angeles, CA 2020-21

Consultant and Expert Witness, Cooley LLP, Palo Alto, CA 2016-18

Executive Consultant, Microsoft Corporation, 2015-16

Consultant and Expert Witness, Kirk Ellis LLP, Chicago, IL 2015

Consultant and Expert Witness, Shiff Harden LLP, NY, NY 2014-15

Consultant and Expert Witness, Cadwalader Wickersham Taft LLP, NY, NY 2008

Executive Consultant (External Heat Transfer in Turbine Engine Vanes and Blades), Honeywell Engines and Systems, Tempe, AZ, 1999-2003

Independent Assessor, Boeing-Helicopter Systems, Independent Review Panel on Bearing Systems, Philadelphia, PA, February 2002

PROFESSIONAL SHORT COURSES

"Direct Air Cooling of Electronic Components," Second InterSociety Conference on Thermal Phenomena in Electronic Systems, ITHERM '90, sponsored by IEEE/ASME/SAE/NIST, Las Vegas, Nevada, May 23-25, 1990

"Fundamentals of Fluid Mechanics and Heat Transfer for Electronics Thermal Control," 1991 SEMITHERM—Semiconductor Thermal and Temperature Measurement Symposium, IEEE, Phoenix, Arizona, February 1991

"An Introduction to Thermal Phenomena in Microelectronics: A Mini-Course for Packaging Engineers," in-house short course, Advanced Micro Devices, Sunnyvale, California, March 16, 1993

"Fundamentals of Direct Air Cooling of Electronic Systems and Components," Pre-Conference Short Course, 1994 ASME-IEEE InterSociety Conference on Thermal Phenomena in Electronic Systems—ITHERM '94, Washington, D.C., May 4, 1994 (A. Ortega and R. J. Moffat)

"Fundamentals of Direct Air Cooling of Electronic Systems and Components," Pre-Conference Short Course, 1996 ASME-IEEE InterSociety Conference on Thermal Phenomena in Electronic Systems—ITHERM '96, Orlando, Florida, May 29, 1996 (A. Ortega and R. J. Moffat)

"Experimental Methods in Air Cooling of Electronics," 1997 IEEE Semiconductor Thermal Measurement and Management Symposium—SEMITHERM '97, Austin, Texas, January 26-27, 1997 (R. J. Moffat and A. Ortega)

"Design and Optimization of Heat Sinks for Electronic Devices," Flomerics Electronics Cooling Short Course Series, Washington, DC, June 16-17, 1999

"Design and Optimization of Heat Sinks for Electronic Devices," Flomerics Electronics Cooling Short Course Series, Santa Clara, California, August 31-September 1, 1999

"Design and Optimization of Heat Sinks for Electronic Devices," Flomerics Electronics Cooling Short Course Series, Dallas, Texas September 22-23, 1999

"Experimental Methods in Air Cooling of Electronics," Pre-Conference Short Course, 2000 ASME-IEEE Intersociety Conference on Thermal Phenomena in Electronic Systems—ITHERM 2000, Las Vegas, Nevada, May 23, 2000 (A. Ortega and R. J. Moffat)

"Fundamentals of Electronic Cooling," 22nd Telecommunications Energy Conference (INTELEC 2000), Phoenix, Arizona, September 2000 (G. Refai-Ahmed and A. Ortega)

"Principles of Dynamic Measurements for Characterization of Thermal Phenomena," 2003 ASME International Electronic and Photonic Packaging Conference, Maui, Hawaii, July 5-11, 2003 (A. Ortega and C. Lasance)

"Experimental Measurements in Thermal Management of Electronic Systems," 2004 IEEE Semiconductor Thermal Measurement and Management Symposium—SEMITHERM'04, San Jose, CA, March 7-8, 2004 (A. Ortega, R. J. Moffat, R. V. Westphal, and J. Rhee)

"Heat Sinks and Cold Plates: The Evolution of Heat Exchanger Technology in the Cooling of Electronic Systems," *Workshop on Advances in Small Scale Heat Exchangers and Fuel Cell Thermal Management for Process, IT, and Energy Industries*, January 8-9, 2010, Indian Institute of Technology—Delhi, New Delhi, India (Invited Short Course Lecture)

"Design of Air and Water Cooled Heat Exchangers for Electronics Cooling: A Critical Review of Data and Analysis Methods for Heat Sinks and Cold Plates," *26th IEEE Semiconductor Thermal Measurement, Modeling, and Management Symposium (SEMITHERM),* February 21, 2010, San Jose, CA. (A. Ortega)

"Transitioning from Air to Liquid Cooling: Design Fundamentals for Heat Sinks and Cold Plates" *28th IEEE Semiconductor Thermal Measurement, Modeling, and Management Symposium (SEMITHERM),* March 11, 2012, San Jose, CA (A. Ortega and Rahima Mohammed, Intel Corporation).

"Practical temperature measurements in electronic equipment: Understanding the source and impact of accumulated errors," 32nd *IEEE Semiconductor Thermal Measurement, Modeling, and Management Symposium (SEMITHERM),* March 14, 2016, San Jose, CA. (A. Ortega and Robert J. Moffat, Stanford University, Ret.)

"Experimental measurements in electronics cooling systems," 34th *IEEE Semiconductor Thermal Measurement, Modeling, and Management Symposium (SEMITHERM),* March 19, 2018, San Jose, CA (A. Ortega and Marcelo Del Valle).

"Introduction to the design and implementation of indirect liquid cooling for electronic systems," 35th *IEEE Semiconductor Thermal Measurement, Modeling, and Management Symposium (SEMITHERM),* March 18, 2019, San Jose, CA (A. Ortega and Rahima Mohammed).

MAJOR RESEARCH AREAS

Founder and Director, The Laboratory for Advanced Thermal and Fluid Systems, University of Arizona (1990-2004), Villanova University (2005-present)

Founding Director, The NSF Industry/University Cooperative Research Center on Energy Smart Electronic Systems (ES2), Villanova University (2011-2017)

Associate Director, The NSF Industry/University Cooperative Research Center on Energy Smart Electronic Systems (ES2), a Multi-University Center (2018-present)

Research Interests

Electronics Cooling: experimental, analytical, numerical investigation of thermal issues in electronic packaging; conjugate heat transfer; air cooling; impingement cooling; liquid cooling; two-phase cooling; spray cooling; micro- and mini-channels; model and simulation tool development

Thermal Management in Data Centers: Air cooling; liquid cooling; two-phase cooling; 1st and 2nd Law optimization; CFD applications in data center air flows; hybrid air-liquid cooling; dynamic cooling

Forced Convection in Complex Turbulent Flows: fundamental issues, separated flows, boundary layer flows, wall jets, impinging jets, applications to forced convection cooling of electronic devices, gas turbine blades, air-cooled heat exchangers

Experimental Convective Heat Transfer: fundamental and applied issues related to all types of convection and fluid flow; development of innovative diagnostics for measurement in the thermal sciences laboratory

Natural Convection: thermally stratified enclosures, convection in enclosures with highly temperature-dependent properties, passive cooling of electronic devices

Gas Turbine Heat Transfer: film cooling, experimental measurements of complex flow and heat transfer in complex vane passages, hot streak attenuation, leading edge heat transfer

Advanced Measurement Techniques: digital data acquisition, digital image processing, anemometry (hot wire and laser-Doppler), liquid crystal thermometry, flow visualization (smoke wire, laser-induced fluorescence)

Editorial Service and Reviewer Activities

Associate Technical Editor

ASME Journal of Heat Transfer, 2009-2013

ASME Journal of Electronic Packaging, 1997-2001

Gordon and Breach Book Series in Electronics Packaging (D. Agonafer, Ed.), Gordon and Breach Publishers, New York, New York, 1995-2000

Guest Editor

Ortega, A. and R. E. Simons, *IEEE Transactions on Components, Hybrids, and Manufacturing Technology*, Vol. 15, No. 5, October 1992.

Ortega, A., *IEEE Transactions on Components, Hybrids, and Manufacturing Technology*, September 1994.

Journal Reviewer

AIAA Journal of Thermophysics and Heat Transfer
ASME Journal of Electronic Packaging
ASME Journal of Fluids Engineering
ASME Journal of Heat Transfer
Enhanced Heat Transfer
Experimental Thermal and Fluid Science
IEEE Transactions on Components, Hybrids and Manufacturing Technology
International Journal of Thermal Science
International Communications in Heat and Mass Transfer
International Journal of Heat and Fluid Flow
International Journal of Heat and Mass Transfer
Journal of Thermophysics and Heat Transfer
Numerical Heat Transfer
Physics of Fluids
Paper Reviewer for numerous national and international conferences on heat transfer

Proposal Reviewer

Department of Energy, Basic Energy Sciences
Department of Energy, ARPA-E
National Science Foundation
Air Force Office of Scientific Research
University of California, Microelectronics Innovation and Computer Research Opportunities

PUBLICATIONS

Books

Ortega, A. and D. Agonafer, Editors, *Numerical Simulation of Convection in Electronic Equipment Cooling*, ASME HTD-Vol. 121, ASME, New York, 1989

Peterson, G. P., M. M. Yovanovich, P. Eibeck, and A. Ortega, Editors, *Heat Transfer in Electronics 1989*, ASME HTD-Vol. 111, ASME, New York, 1989

Ortega, A., D. Agonafer, and B. W. Webb, Editors, *Heat Transfer in Electronic Equipment 1991*, ASME HTD-Vol. 171, ASME, New York, 1991

Ortega, A. and S. P. Mulay, Editors, *Enhancing Natural Convection Cooling of Electronic Systems and Components*, ASME HTD-Vol. 303, ASME, New York, 1995

Amon, C., C. Belady, M. Boyle, C. Herman, S. J. Kim, S. Lee, A. Ortega, B. Sammakia, and S. Sathe, Editors, *Thermal Management of Handheld, Weavable, and Portable Electronics*, ASME HTD-Vol. 343, ASME, New York, 1997

Agonafer, D., C. Amon, C. Belady, G. Kowalski, and A. Ortega, Editors, *CAE/CAD and Thermal Management Issues in Electronic Systems*, ASME HTD-Vol. 356, EEP-Vol. 23, ASME, New York, 1997

Book Chapters

Moffat, R. J. and A. Ortega, "Direct Air-Cooling of Electronic Components," Chapter 3 in *Advances in Thermal Modeling of Electronic Components and Systems*, Vol. 1, A. Bar-Cohen and A. D. Kraus, eds., Hemisphere Publ. Corp., New York, 1988 [invited review]

Peterson, G. P. and A. Ortega, "Thermal Control of Electronic Equipment and Devices," pp. 181-314 in *Advances in Heat Transfer*, Vol. 20, J. P. Hartnett and T. F. Irvine, Jr., eds., Academic Press, Inc., New York, 1990 [invited review]

Ortega, A., "Conjugate Heat Transfer in Forced Air Cooling of Electronic Components," Chapter 4 in *Air Cooling Technology for Electronic Equipment*, S. J. Kim and S. W. Lee, eds., CRC Press, New York, 1996 [invited chapter]

Refereed Journal Articles

1. Ortega, A. and D. A. Glowka, "Frictional Heating and Convective Cooling of Polycrystalline Diamond Drag Tools During Rock Cutting," *Society of Petroleum Engineers Journal*, Vol. 24, pp. 121-128, 1984

2. Boehm, R. F., D. L. Berg, and A. Ortega, "Modeling of a Magma Energy Geothermal Open Cycle Power Plant," *ASME Journal of Energy Resources Technology*, Vol. 111, pp. 239-245, 1989

3. Ortega, A. and H. Kabir, "Substrate Conduction Mechanisms in Convectively Cooled Simulated Electronic Packages," *IEEE Transactions on Components, Hybrids, and Manufacturing Technology*, Vol. 15, pp. 771-777, 1992

4. Choi, C. Y. and A. Ortega, "Mixed Convection in an Inclined Channel with a Discrete Heat Source," *International Journal of Heat and Mass Transfer*, Vol. 36, pp. 3119-3134, 1993

5. Choi, C. Y., S. J. Kim, and A. Ortega, "Effects of Substrate Conductivity on Convective Cooling of Electronic Components," *Transactions of the ASME, Journal of Electronic Packaging*, Vol. 116, pp. 198-205, 1994

6. Kabir, H., A. Ortega, and C. L. Chan, "A Boundary Element Formulation of the Conjugate Heat Transfer from a Convectively Cooled Discrete Heat Source Mounted on a Conductive Substrate," *IEEE Transactions on Components, Packaging, and Manufacturing Technology*, Part A, Vol. 18, pp. 108-116, 1995

7. Sugavanam, R., A. Ortega, and C. Y. Choi, "A Numerical Investigation of Conjugate Heat Transfer from a Flush Heat Source on a Conductive Board in Laminar Channel Flow," *International Journal of Heat and Mass Transfer*, Vol. 38, pp. 2969-2984, 1995

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3. Lim, J. H., A. Ortega, and T. C. Cetas, "Interstitial Hyperthermia from Hot-Line Sources in Two Dynamic Phantoms With Directional Flow—Analysis and Experiment," Proc. North America Hyperthermia Group (NAHG) 9th Annual Meeting, Seattle, Washington, March 1989

4. Ortega, A., "An Approximate Superposition Approach for Thermal Analysis of Multichip Modules," Proc. 1990 National Electronic Packaging Conference (NEPCON WEST '90), Anaheim, California, February-March 1990

5. Ortega, A., "Thermal Design in Microelectronics," ISHM (International Society for Hybrid Microelectronics) Vendors Day Technical Program, Phoenix, May 10, 1990

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8. Lall, B. S. and A. Ortega, "Heat Transfer in a Low Aspect Ratio Horizontal Enclosure," Ninth Arizona Fluid Mechanics Conference, University of Arizona, Tucson, Arizona, February 26-27, 1993

9. Ramanathan, S., J. Chicci, and A. Ortega, "Analytical Models and Experimental Measurement of the Convective Interaction of Air-Cooled Electronic Components," Ninth Arizona Fluid Mechanics Conference, University of Arizona, Tucson, Arizona, February 26-27, 1993

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SCHOLARLY PRESENTATIONS

Invited Lectures at Conferences, Symposia, and Workshops

1. "Air Cooling of Electronic Components," First Intersociety Conference on Thermal Phenomena in Electronic Systems, sponsored by IEEE/ASME/SAE/NBS, Los Angeles, California, May 11, 1988

2. "Thermal Management in Electronic Systems—Thermal Modeling of Direct Air Cooling," Bell Northern Research (BNR) In-House Course on Thermal Management of Electronic Systems, Ottawa, Canada, August 21-24, 1989

3. "Thermal Management of Microelectronic Systems and Components," IMEC Summer Course on Packaging for Electronic Systems," Interuniversitair Micro-Electronica Centrum (Interuniversity Microelectronics Center), Leuven, Belgium, June 24-28, 1991

4. "Convection and Conduction Heat Transfer Issues in VLSI Electronic Packaging," ALCOA (Aluminum Company of America), ALCOA Technical Center, Pittsburgh, Pennsylvania, October 23, 1991

5. "Fluid Mechanics and Heat Transfer Issues in Microelectronics Thermal Management," Eighth Arizona Fluid Mechanics Conference, Arizona State University, Tempe, Arizona, February 28-29, 1992

6. "Future Needs in Fluid Dynamics Research of Computer Mechanics Problems," Symposium on Basic Research Needs in Fluid Mechanics Research, ASME Fluids Engineering Conference, Los Angeles, California, June 21-24, 1992 (with J. A. C. Humphrey)

7. "CFD Benchmark Definition for Electronic Packaging," Panel at 1992 National Heat Transfer Conference, San Diego, California, August 10, 1992 (Panelist)

8. "Direct Air Cooling of Electronics—A Perspective on Future Research," Bell-Northern Research University Forum on Thermal Packaging Technologies, Atlanta, Georgia, January 27-28, 1993

9. "Air Cooling of Electronics—The Future of Thermal Design in an Integrated Environment," FLOMERICS Users Conference, Boston, Massachusetts, May 1993 (Keynote Lecture)

10. "Natural Convection Cooling of Electronic Systems," NATO Advanced Study Institute on Cooling of Electronic Systems: Fundamentals and Applications, Izmir, Turkey, June 21-July 2, 1993

11. "Forced Convection Heat Transfer in Electronics Cooling," NATO Advanced Study Institute on Cooling of Electronic Systems: Fundamentals and Applications, Izmir, Turkey, June 21-July 2, 1993

12. "Organizing Cooperative Research on Thermal Management of Electronic Systems in Europe," Thermal Management of Electronic Systems—EUROTHERM Seminar No. 29, June 14-16, 1993, Delft University of Technology, The Netherlands (Keynote Lecture)

13. "Extending the Limits of Air Cooling," Panel on Extending the Limits of Air Cooling, 1994 ASME-IEEE InterSociety Conference on Thermal Phenomena in Electronic Systems—ITHERM '94, Washington, D.C., May 5, 1994

14. "Conjugate Forced Convection Heat Transfer in Air Cooling of Electronics," First International Symposium on Microelectronic Packaging and PCB Technology, Tsinhua University, Beijing, China, September 19-23, 1994 [Keynote Lecture]

15. "The Convective Heat Transfer Coefficient: Its Use and Mis-Use in Electronics Thermal Management," EUROTHERM Seminar No. 45—Thermal Management of Electronic Systems, Leuven, Belgium, September 21, 1995 [Keynote Lecture]

16. "Conjugate Heat Transfer: Beyond the Adiabatic Heat Transfer Coefficient in Air Cooling of Electronics," THERMINIC 1996—International Workshop on Thermal Investigations of IC's and Microstructures, Budapest, Hungary, September 25-27, 1996 [Keynote Lecture]

17. "Some Remarks on the Role of Experiments in CFD for Electronic Packaging," Panel on Future Directions of Commercial CFD Packages with Emphasis on Electronic Packaging, 1996 ASME International Mechanical Engineering Conference and Exhibition, Atlanta, Georgia, November 20, 1996 [Panelist]

18. "Conjugate Heat Transfer in Forced Air Cooling of Electronic Components," 1997 Nortel Thermal Technology Forum, Kanata, Ontario, Canada, February 17-18, 1997 [Keynote Lecture]

19. "Natural Convection Air Cooling in Very Small Enclosures," Pacific Rim/ASME International Intersociety Electronic and Photonic Packaging Conference (INTERPak'97), Island of Hawaii, June 1997

20. "Natural Convection Cooling of Electronics in Channels and Small Enclosures," Eurotherm Seminar No. 58, Thermal Management of Electronics III, Nantes, France, September 1997 [Keynote Lecture]

21. "Air Cooling Limits in Thermal Management of Electronic Systems," Panel Presentation on Emergent Problems in Thermal Management, 1999 ASME International Mechanical Engineering Congress and Exposition, Nashville, November 17, 1999

22. "Control of Heat Transfer in Jets by Passive Excitation of Instabilities," Panel Presentation on Significant Questions: Active Control of Heat Transfer-Chaos and Nonlinearity, 1999 ASME International Mechanical Engineering Congress and Exposition, Nashville, November 18, 1999

23. "Heat Transfer in the Thermal Management of Electronic Systems," I Congreso Internacional de Metal-Mecanica, Instituto Tecnologico de Hermosillo, y, Universidad Tecnologica de Hermosillo, Hermosillo, Mexico, September 2000 [Keynote Lecture]

24. "Single Phase Cooling of Electronic Components on Conductive PCB's: Experiments and Modeling Methodologies," Raytheon Missile Systems Mechanical and Materials Engineering Technology Symposium, Tucson, Arizona, September 11-13, 2001 [Keynote Lecture]

25. "Air Cooling of Electronics: A Personal Perspective 1981-2001," The THERMI Award Lecture, Presented on the occasion of accepting the SEMITHERM Significant Contributor Award, IEEE Semiconductor Thermal Measurement and Management Symposium, San Jose, California, March 14, 2002

26. "Modeling and Simulation in Thermal Management of Electronic Systems," Summit on Thermal Management of Electronics, Sponsored by the Cooling Zone, Marlborough, Massachusetts, August 28-29, 2002

27. "What are the Heat Flux Limits of Air Cooling," Panel on Challenges in Cooling High Heat Systems, ASME International Mechanical Engineering Congress and Exposition, New Orleans, Louisiana, November 17-22, 2002

28. "Air Cooling of Electronics: A Personal Perspective 1981-2001," The Oregon Center for Advanced Technology Education, and Portland State University, Beaverton, Oregon, February 15, 2003 [Invited Lecture]

29. "An Assessment of Air Cooling for Electronics Thermal Management," Korea Advanced Institute for Science and Technology (KAIST), Workshop on Thermal Management of Electronics, Taejon, South Korea, February 28, 2003

30. "Advanced in Heat Sinks and Heat Spreaders," 2003 ASME International Electronic and Photonic Packaging Conference and Exhibition, Maui, Hawaii, July 5-11, 2003 [Panel Presentation]

31. "Air Cooling of Electronic Components: Review of Research Developments in the Period 1981-2001 and Their Impact on Our Understanding of Cooling Limits," 2003 ASME International Mechanical Engineering Congress and Exposition (IMECE), Symposium in Honor of Richard Chu, Washington, D.C., November 16-21, 2003

32. "The Evolution of Air Cooling in Electronic Systems and Observations about its Limits," *18th National and 7th ISHT-ASME Heat and Mass Transfer Conference*, IIT-Guwahati, Guwahati, Aswaan, India, January 4-6, 2006. (Invited Keynote)

33. "The Evolution of Air Cooling in Electronic Systems and Observations about its Limits," *17th International Symposium on Transport Phenomena,* Toyama, Japan, September 4-8, 2006 (Invited Keynote).

34. "Coupled Convective and Conductive Transport in Single and Multi-Phase Liquid Flow Through Multilayer Mini-Channel Heat Sinks," *Eighteenth International Symposium on Transport Phenomena,"* Daejeon, Korea August 27-30, 2007 (Invited Keynote).

35. "A Perspective on National Science Foundation Research in the Thermal-Fluid Sciences," *Asian Symposium on Computational Heat Transfer and Fluid Flow,* Xi'an Jiao Tong University, Xi'an, Shannxi, China, October 19, 2007 (Invited Keynote).

36. "Convective Heat Transfer in Air Cooled Heat Sinks for Electronics Cooling," Xi'an Jiao Tong University, Xi'an, Shannxi, China, October 19, 2007 (Invited Presentation).

37. "Thermal Characterization of Multi-Layer Mini-Channel Heat Sinks in Single and Multi-Phase Flow," Xi'an Jiao Tong University, Xi'an, Shannxi, China, October 20, 2007 (Invited Presentation).

38. "Engineering Research in Nanotechnology at NSF," *Taller Nacional de NanoTecnologia*, Santiago, Chile, April 16-18, 2008 (Invited Keynote).

39. "Performance Limiters for Low Form Factor Electronics," Panel on Cooling Challenges and Energy Efficiency in Low Form Factor Electronics, *2008 IEEE ITHERM Conference*, Orlando, FL, May 29, 2008.

40. "Recent Investigations of Liquid Cooled Small Scale Heat Sinks for High Flux Heat Removal," Penn State University Optics Center, Pittsburgh, PA, June 15, 2009.

41. "Research in Thermal Management and Energy Technology at The Laboratory for Advanced Thermal and Fluid Systems—Villanova University," Hewlett-Packard Research Laboratories, Palo Alto, California, July 27, 2009

42. "Research in Thermal Management for High Flux Heat Removal," *IBM Corporate Cooling Council*, IBM Poughkeepsie, New York, October 14, 2009. (Invited Lecture)

43. "Research in Thermal Management for High Flux Heat Removal and Energy Storage," *Cisco Systems Thermal Forum*, Cisco Systems, San Jose, California, October 27, 2009. (Invited Keynote Speaker)

44. "Proposal Basics: Some Thoughts from a Former NSF Program Director," 2009 Society of Hispanic Professional Engineering (SHPE) National Conference, AHETEMS Graduate Institute, Washington, D.C., October 30, 2009. (Invited Lecture)

45. "Heat Sinks and Cold Plates: The Evolution of Heat Exchanger Technology in the Cooling of Electronic Systems," *Workshop on Advances in Small Scale Heat Exchangers and Fuel Cell Thermal Management for Process, IT, and Energy Industries*, January 8-9, 2010, Indian Institute of Technology—Delhi, New Delhi, India (Invited Lecture)

46. "The Effectiveness of Air and Liquid Cooled Heat Exchanger Devices for Electronics Thermal Management", Workshop on Thermal Management in Telecommunication Systems and Data Centers, Sponsored by Purdue University I/UCRC on Cooling Technologies, Richardson, TX, Oct. 25-26, 2010.

47. "Research in Thermal Management for High Heat Flux Heat Removal," Honeywell Engines and Systems, Phoenix, AZ, March 2, 2011.

48. "Design of Liquid Cooled Heat Sinks and Cold Plates: Some Fundamental Concepts for Transitioning from Air Cooled Solutions," 2011 Cooling Zone International Business and Technology Summit, Boston, MA October 5-6, 2011 (Invited Lecture).

49. "The Energy Costs of Cooling Electronic Systems: Reflections on Past Lessons and Future Opportunities," 2012 IEEE 28th Semiconductor Thermal Measurement and Management Symposium (SEMITHERM 28), San Jose, CA, March 20, 2012 (Invited Keynote Lecture).

50. "Indirect Liquid Cooling of Electronics with Mini- and Micro-Scale Cold Plates and Heat Sinks: Theoretical and Practical Implications for Enhanced Cooling and Energy Recovery," 2012 Cooling Zone International Business and Technology Summit, WEBCAST August 30, 2012 (Invited Lecture).

51. "The Center for Energy-Smart Electronic Systems: An NSF Industry/University Cooperative Research Center (I/UCRC)," 7x24 Exchange, Delaware Valley Section Meeting, November 29, 2012 (Invited Presentation).

52. "Designing Energy Efficient Data Centers: The National Science Foundation Industry University Cooperative Research Center (IUCRC) on Energy Smart Electronic Systems (ES2)," 2013 IEEE 29th Semiconductor Thermal Measurement and Management Symposium (SEMITHERM 29), San Jose, CA, March 20, 2013 (Invited Lecture).

53. "NSF: The Digital Utility," 7x24 Exchange 2013 Spring Conference, June 4, 2013, Boca Raton, FL (Invited Presentation, with Dave Crocker-Steel ORCA, and Kfir Godrich-Godrich Consulting Ltd.)

54. "VTAS: A One-Dimensional Network Modeling Tool for Thermodynamic Analysis of Data Center Cooling Systems from Chip to Cooling Tower," Data Center Transformation Conference, Leeds, UK, July 9, 2013.

55. "Uncovering Fundamental Issues in Thermal Management Applications: A Closer Examination of Impinging Synthetic Jets and Droplet Sprays for Cooling Electronics," *The 24th International Symposium on Transport Phenomena (ISTP 24),* Tokyo University of Science, Yamaguchi, Japan, November 1-5, 2013 (Invited Keynote).

56. "Local On-Demand Thermal Management of Data Centers," *2014 Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems (ITHERM 2014)*, Lake Buena Vista, FL, May 27-30, 2014. (invited Panelist).

57. "Research in Pumped and non-Pumped Single and Two-Phase Liquid Cooling Systems for Electronics," IBM Corporate Cooling Council, Poughkeepsie, NY, June 12, 2014 (invited talk).

58. "Energy Smart Systems and Trends in Data Center Thermal Management: The National Science Foundation Center for Energy Smart Electronic Systems," 2014 Cooling Zone International Business and Technology Summit, WEBCAST October 21, 2014 (Invited Lecture).

59. "Liquid Cooling at the Rack and Server Level," 2014 Cooling Zone International Business and Technology Summit, WEBCAST October 21, 2014 (Invited Lecture).

60. "The Internet isn't Free: The Energy Costs of Bits, Bytes, and Cooling in Today's Digital Information Factories," University of Cincinnati, Mechanical Engineering Department Graduate Seminar, February 5, 2016 (Invited Lecture).

61. "Lessons Learned in Designing Air Cooled Solutions and Implications for Indirect Liquid Cooling of Electronic Assemblies," MORE Electric Aircraft Symposium, Seattle, WA, August 30, 2016 (Invited Lecture)

62. "The Internet isn't Free: The Energy Costs of Bits, Bytes, and Cooling in Today's Digital Information Factories," Brigham Young University, Distinguished Lecturer Series, Mechanical Engineering Department Graduate Seminar, October 31, 2016 (Invited Distinguished Lecture).

63. "Lessons Learned in Designing Air-Cooled Solutions and Implications for Indirect Liquid Cooling of Electronic Assemblies," Boeing, Huntington Beach, CA, November 1, 2016 (Invited Lecture).

64. "Towards Energy Sustainability in Data Centers: Some Thoughts on Energy, Entropy, and Water," IMAPS Advanced Technology Workshop on Thermal Management, Los Gatos, CA, November 8, 2017 (Invited Keynote Lecture)

65. "Towards Energy Sustainability in Data Centers: Some Thoughts on Energy, Entropy, and Water," IEEE EPS Chapter Silicon Valley, Santa Clara, CA, May 9, 2018.

66. "Liquid Cooling is no Longer in the Future—It is Now: Recent Developments in Liquid and Two-Phase Cooling Research," 2019 Data Center Dynamics New York Conference, New York City, April 10, 2019 (Invited Presentation)

67. "Moving Toward Intelligent, Self-Sensing, Self-Regulating Data Centers," 2019 7x24 Exchange Spring Conference, Boca Raton, FL, June 4, 2019 (Invited Panel Presentation)

68. "Experimental and Computational Studies of Single and Two-Phase Liquid Cooling in Low Profile Cold Plates with Engineered Porosity," 31st Annual Electronics Packaging symposium-Small Systems Integration, GE Research, Niskayuna, NY, Sept. 5, 2019 (Invited Presentation)

69. "Recent Advances in Single Phase and Two-Phase Liquid Cooling Research at the NSF Center for Energy Smart Electronic Systems," SEMITHERM Thermal Technologies Workshop, Redmond, WA, Nov. 5, 2019 (Invited Presentation)

70. "Thermal & Hydraulic Performance of Refrigerant Based Two-Phase Cold Plates: Experimental Characterization and System Performance," Ortega, A., Valenzuela, F. and Schon, S., SEMITHERM Thermal Technologies Workshop, Redmond, WA, Nov. 5, 2019.

71. "Experimental Characterization of Refrigerant based Two-Phase Cold Plates to 1000 W: Thermal Metrology and Metrics," Valenzuela, F., Ortega, A. and Schon, S., SEMITHERM Two Phase Cooling Summit (Virtual), June 30, 2020 (Invited Presentation).

72. "Liquid Cooling as an Enabling Technology for High-Performance Electronic Systems," Ortega, A. and Sammakia, B., SEMITHERM Thermal Management for Power Electronics and Storage (TMPES) Virtual Workshop, July 28-30, 2020 (Invited Presentation).

73. "Liquid Cooling Panel Discussion," Moderator: T. Shedd, Semiconductor Thermal Measurement and Management Symposium, SEMITHERM 2021, Mar. 22-26, 2021 (Invited Panelist)

74. "Research and Development: Advanced Methods of Cooling Electronics," DVL Power Hour Podcast, June 10, 2021 (Invited Podcast Guest)

75. "Moving from Air to Hybrid to Liquid: The Pros and Cons of Liquid Cooing and its Various Technologies," Data Center Dynamics: Keeping it Cool Workshop, July 15, 2021 (Invited Panelist)

76. "Pumped Two-Phase Refrigerant Cooling for Power Electronics," Ortega, A., Sammakia, B. and Rangarajan, S., SEMITHERM Thermal Management for Power Electronics and Storage (TMPES) Workshop, July 20, 2021.

77. "Identifying Performance Limits for Single Phase Liquid Cooled Cold Plates using an Improved Effectiveness-NTU Model," 38th Semiconductor Thermal Measurement, Modeling & Management Symposium (SEMI-THERM), San Jose, CA, March 21-25, 2022 (Invited presentation).

78. "Thoughts on a Career from an Academic," 38th Semiconductor Thermal Measurement, Modeling & Management Symposium (SEMI-THERM), Career Trajectory Panel: Wilson, J. – Panel Moderator, San Jose, CA, March 21-25, 2022 (Invited panelist)

79. "Limiting Trends and Opportunities for Indirect On-Chip Liquid Cooling," IEEE ITHERM 2022: The Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems, Panel on Thermal Challenges in Next-Generation Semiconductor, Consumer Electronics, and Data Center Cooling: Ebrahim, M. and Shahriari, A.--Panel Moderators, San Diego, CA, May 31-June 3, 2022 (Invited panelist)

80. "Thoughts on Performance, Efficiency, and Sustainability of Emerging Liquid Cooling Systems from Chip to Cooling Tower," IEEE ITHERM 2023: The Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems, Panel on Electronics Cooling at Scale—Toward a Future of Efficient Computing, Orlando, FL, May 31-2023 (Invited panelist)

81. "Environmental and Climate Impact of Thermal Management Sytems: Designing for Sustainability," IEEE ITHERM 2023: The Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems, Tech Talk on Sustainability of Thermal Management Systems, Orlando, FL, May 31-2023 (Invited speaker)

Seminar, Colloquia and Other Presentations

82. "Forced Convection Heat Transfer in Electronics Cooling," Invited Colloquium, Ruhr-Universtat Bochum, Institut für Thermo-und Fluiddynamic, Bochum, Germany, June 18, 1993

83. "Thermal Mechanisms in Electronic Packaging: Convective and Conductive," Department of Civil Engineering and Engineering Mechanics Colloquia, The University of Arizona, Tucson, Arizona, October 27, 1994

84. "Conjugate Forced Convection Heat Transfer in Air Cooling of Electronics," Battelle Pacific Northwest Laboratories, Richland, Washington, December 6, 1994

85. "Conjugate Heat Transfer in Air Cooling of Electronics," Department of Mechanical Engineering Colloquia, Washington State University, Pullman, Washington, December 7, 1994

86. "Convective Heat Transfer in the Forced Laminar Wall Jet," Department of Mechanical Engineering and Materials Science Lecture Series, Duke University, February 1, 1996

87. "Convective Heat Transfer in the Forced Laminar Wall Jet," Mechanical Engineering Department Lecture Series, University of Pittsburgh, February 22, 1996

88. "Convective Heat Transfer in the Forced Laminar Wall Jet," Department of Mechanical Engineering Lecture Series, Carnegie-Mellon University, February 23, 1996

89. "Convective Heat Transfer in the Forced Laminar Wall Jet," Department of Mechanical Engineering Fluid Mechanics Lecture Series, University of Maryland, February 28, 1996

90. "Convective Heat Transfer in the Forced Laminar Wall Jet," Mechanical Engineering Department Seminar Series, Tufts University, April 4, 1996

91. "Convective Heat Transfer in the Forced Laminar Wall Jet," Department of Aeronautics and Astronautics Fluid Dynamics Lecture Series, MIT, April 5, 1996

92. "Convective Heat Transfer in the Forced Laminar Wall Jet," Department of Mechanical Engineering Lecture Series, Johns Hopkins University, April 18, 1996

93. "Conjugate Heat Transfer in Air Cooling of Electronics," IBM Thermal Forum, IBM, Poughkeepsie, New York, May 3, 1996

94. "Center for Electronics Packaging Research," Panel on University Research Centers in Electronics Packaging, 1996 ASME-IEEE InterSociety Conference on Thermal Phenomena in Electronic Systems—ITHERM '96, Orlando, Florida, May 30, 1996 (Panelist).

95. 'Thermal Phenomena in Microdevices," Panel of Thermal Phenomena in Microdevices, 1996 ASME International Mechanical Engineering Conference and Exhibition, Atlanta, Georgia, November 19, 1996 (Panelist).

96. "Conjugate Heat Transfer in Forced Air Cooling of Electronic Components," 1997 Nortel Thermal Technology Forum, Kanata, Ontario, Canada, February 17-18, 1997 [Keynote Lecturer]

97. "Conjugate Heat Transfer in Forced Air Cooling of Electronic Components," Department of Aerospace and Mechanical Engineering, University of Oklahoma, March 31, 1997 [Southwest Mechanics Lecture Series Distinguished Lecturer]

98. "Convective Heat Transfer in the Forced Laminar Wall Jet," Shell Research Laboratories, Houston Texas, April 1, 1997 [Southwest Mechanics Lecture Series Distinguished Lecturer]

99. "Convective Heat Transfer in the Forced Laminar Wall Jet," Department of Mechanical Engineering, Texas A&M University, April 2, 1997 [Southwest Mechanics Lecture Series Distinguished Lecturer]

100. "Conjugate Heat Transfer in Forced Air Cooling of Electronic Components," Department of Mechanical Engineering, University of Houston, April 3, 1997 [Southwest Mechanics Lecture Series Distinguished Lecturer]

101. "Thermal Management in Air-Cooled Electronics," NOKIA Research Center Thermal Forum, Helsinki, Finland, June 8, 1998

102. "Compact Thermal Models of Conduction Cooled Electronic Components," Philips Research Center, Eindhoven, The Netherlands, November 4, 1998

103. "Convective Heat Transfer in Unsteady Wakes and Jets," Invited Department Seminar, The University of Arizona, Department of Atmospheric Sciences, March 26, 1999

104. "Control of Convective Heat Transfer in Unsteady Jets," Invited Mechanical and Chemical Engineering Seminar, The University of Nevada-Reno, Reno, Nevada, November 5, 1999

105. "Control of Convective Heat Transfer in Unsteady Jets," Department Seminar, Department of Aerospace and Mechanical Engineering, The University of Arizona, Tucson, Arizona, March 23, 2000

106. "Heat Transfer in Air-Cooling of Electronics," Royal Institute of Technology, Stockholm, Sweden, April 26, 2001

107. "Heat Transfer in Unsteady Jets and Wakes," Gävle University, Gävle, Sweden, April 24, 2001

108. "Control of Heat Transfer in Unsteady Jets," Department Seminar, Department of Aerospace and Mechanical Engineering, Arizona State University, Tempe, Arizona, March 30, 2001

109. "Augmentation of Convective Heat Transfer in Impinging Jets by Introduction of Controlled Disturbances," Department Seminar, Department of Mechanical and Industrial Engineering, The University of Texas at El Paso, El Paso, Texas, October 2001

110. "Air Cooling of Electronic Components: Research Developments in the Period 1981-2001 and Their Impact on Our Understanding of Cooling Limits," Department Colloquium, Department of Mechanical and Aerospace Engineering, University of Virginia, February 5, 2004

111. "The Evolution of Air Cooling in Electronic Systems and Observations about its Limits,"Universidad de Santiago de Chile (USACH), Santiago, Chile, June 13-14, 2007

112. "Recent Investigations of Liquid Cooled Small-Scale Heat Sinks for High Flux Heat Removal: A Critical Summary of Experimental Data and Modeling Approaches," ICTAS Institute for Critical Technology and Applied Science, Virginia Tech, September 25, 2009.

113. "Recent Investigations of Liquid Cooled Small-Scale Heat Sinks for High Flux Heat Removal: A Critical Summary of Experimental Data and Modeling Approaches," MIME Fall 2009 Graduate Seminar Series, The University of Toledo, Toledo, Ohio, October 2, 2009.

114. "Recent Investigations of Liquid Cooled Small Scale Heat Sinks for High Flux Heat Removal," Binghamton University--The Small Scale Systems Integration and Packaging Center (S^3IP), Binghamton, New York, October 12, 2009.

115. "Research at Villanova University in Thermal Management for High Heat Flux Removal and Energy Storage," Indian Institute of Technology—Delhi, New Delhi, India, January 13, 2010.

116. “Research at Villanova University in Thermal Management for High Heat Flux Removal and Energy Storage,” Indian Institute of Technology—Bombay, Mumbai, India, January 15, 2010.

117. “Research in Thermal Management for High Heat Flux Removal and Energy Storage,” University of Texas-Arlington, Mechanical and Aerospace Engineering Seminar, March 12, 2010.

118. “Research in Thermal Management for High Heat Flux Heat Removal and Energy Storage,” Invited Colloquium, Mechanical Engineering Department, Lehigh University, December 3, 2010.

119. “Research in Thermal Management for High Heat Flux Heat Removal and Energy Storage,” Invited Colloquium, Mechanical Engineering Department, Tufts University, March 31, 2011.

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Education

B.S., Accounting New York University

Certifications

Certified Public Accountant
Accredited in Business Valuation
Certified Financial Forensics
Certified Patent Valuation Analyst

Associations

American Institute of Certified Public Accountants

New York State Society of Certified Public Accountants

American Bar Association

Copyright Society

New York International Arbitration Center

Licensing Executives Society

Lexology Recommended Expert

Expertise

Expert Testimony
Royalties
Valuation
International Arbitration
Forensic Accounting & Investigations
Accounting
Intellectual Property
Post-Acquisition Disputes
Commercial Damages

Juli Saitz is a Senior Managing Director in the New York office of FTI's Forensic & Litigation Consulting segment. She has more than 25 years of experience in providing forensic accounting and financial and economic analysis to attorneys in litigation/arbitration as well as private general ledger accounting experience. Her experience includes working with outside counsel and clients throughout all phases of the litigation life cycle. Ms. Saitz has provided testimony in federal and state court matters, as well as domestic and international arbitrations.

Ms. Saitz began her career in Big Four Accounting firms. She has helped to resolve commercial disputes and provided financial consulting services related to, investigations, and damage analysis in various industries, including luxury goods, retail, apparel, technology, entertainment, real estate, hospitality, food and beverage, consumer products, financial services, chemicals and manufacturing.

Ms. Saitz' expertise includes strategic review, financial analysis, profit calculations, cost claims, asset tracing, licensing and royalty determinations, manufacturing and marketing capacity, fixed and variable cost analysis, allocation of costs, evaluation of forecasts and projects, and fiduciary oversight. She has served as a damages and accounting expert in matters involving breach of contract, fraud, valuation, accounting, representations and warranties, business dissolution, derivative shareholder actions and patent, trademark, and copyright infringement.

Ms. Saitz holds a B.S. from New York University's Stern School of Business. She is a Certified Public Accountant in New York and Accredited in Business Valuation and is Certified in Financial Forensics by the American Institute of Certified Public Accountants. Ms. Saitz is a member of the American Institute of Certified Public Accountants, the New York State Society of Certified Public Accountants, the American Bar Association and the New York International Arbitration Center where she also served an advisory council member for a quantum and expert related educational series in 2022 and 2023.

REPRESENTATIVE EXPERIENCE

INTELLECTUAL PROPERTY

- Ms. Saitz issued expert report and prepared rebuttal analysis in a false advertising and unfair trade practice matter against the world's largest online retailer.

- On behalf of the defendant, Ms. Saitz prepared an estimate of economic damages due the plaintiff arising from patent infringement related to wireless internet technology.

- Ms. Saitz worked on behalf of several motion picture companies in a patent infringement matter in preparing rebuttal to plaintiff's damages analysis. Technology related to search and skip functions in Blue ray and DVD devices. Analysis included an overview of the home entertainment industry and alternative royalty analysis.

- Ms. Saitz assisted the defendant in patent infringement litigation by calculating damages resulting from the use of LCD technology. Her work included in-depth analysis of several complex licensing agreements.

- Ms. Saitz assisted the defendant in litigation and prepared an estimate of economic damages due the plaintiff arising from patent infringement regarding thermal transfer printers. Her work included a critique of the market analysis applied by the opposing expert to determine appropriateness of lost profits and analysis of Georgia-Pacific factors to determine a reasonable royalty.

- Ms. Saitz developed estimate of economic damages for a designer, manufacturer, and marketer of a broad range of products including personal and tablet computers, portable digital music players, mobile communications devices, arising from alleged infringement of Position Determination, DC Offset compensation, Dock Connector, Bluetooth Pairing, Amplifier / Modulator, and Antennae patents.

- For the manufacturer of avionics display products, Ms. Saitz developed an estimate of economic damages arising from infringement of LCD IC Saturating Column Driver patented technology. Her analysis focused on the definition of relevant markets, manufacturing efficiencies, and customer acceptance. Ms. Saitz also developed an estimate of reasonable royalty damages.

- Ms. Saitz calculated damages on behalf of a jewelry designer in a design patent infringement and unfair competition matter against a competitor. Her analysis included calculation of profits, analysis of relevant market, and determination of a reasonable royalty.

- Ms. Saitz performed a preliminary damages assessment on behalf of the defendant in a patent infringement involving automated queue management devices and software used in amusement parks.

- Ms. Saitz developed an estimate of economic damages arising from alleged infringement of VCSEL technology on behalf of an optical/laser equipment manufacturer. Her analysis focused on the definition of relevant markets, customer acceptance and profits margins, and the entitlement to various forms of damages. Ms. Saitz also developed an estimate of reasonable royalty damages.

- Ms. Saitz constructed an estimate of lost profits damages incurred by the plaintiff in a patent infringement action involving specialty carpet fibers. Damage issues included incremental profit determination, alternative non-infringing substitute products, past and future price, and relevant licenses.

- For a consumer products manufacturer, Ms. Saitz evaluated damages in a patent infringement, false advertising/unfair competition, and theft of trade secrets matter dealing with kitchen and household appliance (home air purifiers and slow cookers) design patents and trade secrets.

- For two separate major financial services institutions, Ms. Saitz developed estimates of economic damages arising from the alleged infringement of business method patents for a remote image capture system with centralized processing and storage. Her analysis focused on understanding the technology resources, including check processing, imaging and archiving methods, and application software employed throughout the banks, to process checks and other bank documents and the associated economics of such systems. Ms. Saitz determined an appropriate royalty base, which included an analysis of "micro-transactions," and a reasonable royalty rate.

- Ms. Saitz developed an estimate of economic damages for diversified manufacturer of aerospace/avionics products and services, arising from alleged infringement of Traffic Alert and Collision Avoidance System (TCAS) patented technology.

- Ms. Saitz developed an estimate of economic damages for diversified manufacturer of aerospace/avionics products and services, arising from alleged infringement of Enhanced Ground Proximity Warning Systems (EGPWS) patented technology.

- Ms. Saitz consulted with the copyright owners of a children's poem that was alleged to have been infringed by the producers of a successful television show and turned into a song. Analysis involved an assessment of potential revenue streams attributable to the use of the song in the television series, including merchandise developed including the work at issue.

- Ms. Saitz developed estimate of economic harm in a software copyright and theft of trade secrets matter for a pharmaceutical industry data provider. The matter involved lost sales, issues of computer valuation and apportionment of the value derived from various types of intellectual property used in multiple products.

- Ms. Saitz testified on behalf of a designer and calculated damages related to copyright infringement and breach of contract of a make-and-hold agreement for high-end wall coverings. Issues included lost profits, business valuation, and trademark infringement damages.

- Ms. Saitz issued an expert report and calculated accused sales in a copyright matter on behalf of several luxury jewelry designers.

- Ms. Saitz prepared a copyright damages claim on behalf of a renowned photographer after unauthorized use of certain photographs by a hotel for advertising and marketing purposes.

- Ms. Saitz issued an expert report and calculated damages in a copyright infringement matter against a manufacturer of novelty glassware.

- Ms. Saitz prepared a damages analysis on behalf of the defendant in a trademark infringement matter related to the use of series names in highly successful young adult fiction.

- Ms. Saitz prepared a damages analysis for the owner of two high-end denim brands in a trademark infringement matter resulting from the sale of goods through multiple unauthorized channels.

- Ms. Saitz prepared a damages claim on behalf of the plaintiff, a premier luxury brand, in a trademark infringement matter related to several key brand marks. She assessed a reasonable royalty and accounting of profits for several different manufacturers and the defendant's retail operations.

- Ms. Saitz prepared a damages analysis and issued an expert report for a jewelry designer defendant in a trademark matter. She developed financial statements from various internal work papers and calculated profits available for disgorgement and rebuttal of opposing expert's report and analysis.

- Ms. Saitz implemented a global royalty compliance program for a Fortune 100 company to monitor and protect its trademark and patent royalty streams. She served as the lead on more than 15 concurrent royalty audits in various business units within the company.

- Ms. Saitz served as an expert in dispute related to the alleged trade dress infringement regarding specific sales of storage units created through injection-mold plastics. Her role involved rebutting the plaintiff's calculations and providing an affirmative calculation.

- Ms. Saitz performed a royalty audit on behalf of a licensor of wafer carrier technology in a dispute with a licensee. Her audit resulted in identifying significant areas of weakness in the royalty reporting process.

- Ms. Saitz analyzed royalty audit findings and performed substantial analysis, including the reperformance of royalty calculations for several years in a dispute related to royalty payments for technology embodied in flash drives.

- Ms. Saitz advised a pharmaceutical patent holder regarding the interpretation of royalty calculations pursuant to a royalty agreement with a German drug manufacturer. Her calculations were complicated by a change in the licensee's accounting treatment under International Financial Reporting Standards (IFRS).

- Ms. Saitz uncovered significant underreporting of royalties on behalf of an accounting textbook author based on a detailed review of the publisher's inventory records.

- Ms. Saitz recovered significant royalties on behalf of an English textbook author after determining that several of the author's ISBNs were not coded as "royalty bearing" within the publisher's accounting and reporting systems.

- Ms. Saitz recovered substantial royalties on behalf of a science textbook author after analyzing a flawed and inconsistent methodology for allocating royalty-bearing revenue among component elements within packaged sales.

- Ms. Saitz performed multiple audits on behalf of various textbook authors in connection with Cengage's restructuring efforts.

- Ms. Saitz testified on behalf of a higher education textbook author and calculated damages related to alleged diverted textbook sales into foreign markets.

- Ms. Saitz qualified as an accounting expert, issued an expert report, and delivered expert testimony in arbitration for a royalty dispute matter on behalf of a publishing company. The dispute arose from a royalty audit report and involved a reperformance of audit procedures.

- Ms. Saitz conducted extensive market research and prepared an analysis in connection with a dispute between two U.S. major retailers over the use of a particular celebrity's trademarks and designs.

- Ms. Saitz drafted a rebuttal report and market analysis related to claims that the client did not exercise a "best efforts" clause in marketing classic fragrance under the terms of a 30-year-old license agreement. In addition, she prepared an analysis and exhibits and assisted the expert and counsel through arbitration hearings.

- Ms. Saitz calculated damages and prepared a report on behalf of a claimant related to the alleged breach of a distribution agreement for well-known cosmetics brands for the Korean territory. Damages calculated were in excess of $50 million based on the terms of a valuation formula set forth in the distribution agreement.

- Ms. Saitz evaluated damages on behalf of a well-known American designer for alleged wrongful termination of several fragrance license agreements attached to celebrities and popular clothing brands in France. Claimed damages were in excess of $20 million.

COMMERCIAL LITIGATION AND INVESTIGATIONS

- Ms. Saitz calculated damages on behalf of a high-end brand owner against its exclusive manufacturer and distributor of footwear in the United States for breach of contract claims related to alleged failure to use best efforts in marketing and promoting the brand.

- Ms. Saitz analyzed and assessed breach of contract and trademark infringement damage claims on behalf of a real estate developer against its exclusive rental agent for a luxury condominium property.

- On behalf of the defendant, Ms. Saitz evaluated damage claims asserted by the general partner in a hotel development project for breach of contract and breach of fiduciary duty. She analyzed underlying assumptions contained in appraisal reports and planned operating budgets given various renovation scenarios, as well as evaluated and selected market comparables.

- On behalf of the defendant, Ms. Saitz served as an expert in a Delaware case where the client was a wine and spirits supplier that decided to cease operations. As a result, one of their distributors sued for breach of contract and claimed significant damages. Ms. Saitz evaluated the market and rebutted the claimed damages proffered by the plaintiff's expert.

- Ms. Saitz served as damages expert in a dispute related to the alleged breach of a distribution agreement related to an iconic spirits brand. Her role involved rebutting the plaintiff's calculations and providing an affirmative calculation.

- Ms. Saitz was retained in a matter on behalf of a distributor faced wrongful termination claim by a champagne supplier/brand. Initial consulting on the matter was completed but a report was not ultimately issued.

- On behalf of the claimant, Ms. Saitz served as an expert in international arbitration case where the client was a premier champagne supplier that decided change U.S. importers. As a result, one of the current importer claimed significant lost profits damages. Ms. Saitz evaluated and rebutted the claimed damages proffered by the plaintiff's expert.

- Ms. Saitz Issued an expert report in a dispute related to the alleged breach of contract by an exclusive regional sales representative. Her role included calculating plaintiff's lost profits and additional costs incurred due to the alleged breach of contract.

- On behalf of defendants involved in a partnership dispute, Ms. Saitz investigated allegations related to the accounting claims of misappropriation of assets. In addition, Ms. Saitz provided certain analyses to assist the court-appointed Special Referee with analyses to assist in the equitable dissolution of the business relationship.

- On behalf of the plaintiffs, Ms. Saitz calculated and summarized certain asset and liability balances of multiple real estate properties in a breach of fiduciary duty claim related to the formation of a real estate investment trust.

- On behalf of a plaintiff involved in a partnership dispute, Ms. Saitz served as an accounting expert and investigated claims related to a misleading offering memorandum seeking funds to pay off a mezzanine loan put into default by the self-dealing activities of the defendants. She analyzed complex partnership business interests and accounting records for a skilled nursing facility and ancillary businesses. Ms. Saitz also reviewed real estate valuations and amounts attributable to operations versus real estate assets.

- On behalf of Ford Motor Company, Ms. Saitz reviewed historical books and records at the company's archives to assist in the determination of possible use of forced labor during World War II.
- Ms. Saitz directed a large-scale email review (approximately 400,000 documents) as part of an audit committee investigation resulting from whistleblower allegations by a client in the construction equipment industry.

- Ms. Saitz directed a large-scale email review as part of an engagement involving an investigation by the Securities and Exchange Commission (SEC) into alleged improper financial reporting by a client in the staffing industry.

- Ms. Saitz investigated, for limited partners, the books/records and operations of a residential and commercial real estate complex to identify and quantify all related party arrangements structured by the general partner and to comment on overall operational issues.

- Ms. Saitz consulted with a number of banks in assisting with flow of funds analyses in response to claims brought by the Madoff Trustee for recovery of assets.

- Ms. Saitz performed and directed multiple forensic financial analyses using a foreign subsidiary's accounting system to support the client's fidelity insurance claim resulting from the fraud of a former employee.

- Ms. Saitz is served as the damages expert on behalf of two insurance carriers with respect to their damage claims in New York State resulting from alleged fraudulent inducement by an accounting firm to sell its block of long-term care business to a reinsurer that was backed by a Ponzi scheme.

- Ms. Saitz worked with the Federal Bureau of Investigation (FBI), Securities and Exchange Commission (SEC), and Internal Revenue Service (IRS) while performing fraud investigations involving several related entities in the financial services industry in conjunction with receivership and liquidation proceedings.

- Ms. Saitz led a financial investigation on behalf of an audit committee for one of America's fastest-growing fast-food franchises. The investigation stemmed from whistleblower claims of a new set of financial statements used for a debt restructure offering and required reconciling the two sets of books.

Expert Retentions (underlined indicates retaining party)

- Sherry Argov v. Adams Media, a division of F&W Publications Inc., Adams Media Corporation – American Arbitration Association. Breach of Contract Matter. Expert Report. Arbitration Testimony. 2008

- M&J Savitt Inc., et al v. Janis Savitt, et al - United States District Court for the Southern District of New York. Trademark and Copyright Infringement Matter. Expert Report Issued. Deposition Testimony. 2009

- Yurman, Cartier, Van Cleef & Arpels, Gucci and Bulgari v. Elena Castaneda and Ejeweler - United States District Court for the Southern District of New York. Copyright Infringement, Trade Dress Infringement, Design Patent Infringement and Trademark Infringement. Expert Report Issued. 2009

- Moore or Lesh, LLC v. Macy's Inc. – United States District Court for the District of Maryland Greenbelt Division. Trademark Infringement. Expert Report Issued. Deposition Testimony. 2009

- Young America Corporation v. Ohana Companies – United States District Court of Illinois. Patent Infringement. Expert Report Issued. Deposition Testimony. 2010

- Billco International, Inc. v. Charles Products, Inc. United States District Court for the District of Maryland – Copyright Infringement. Expert Report Issued. 2010

- Sellify LLC v. Amazon.com - United States District Court for the Southern District of New York. False Advertising and Unfair Trade Practices. Expert Report Issued. Deposition Testimony. 2010

- Larson Texts v. Houghton Mifflin Publishing - American Arbitration Association. Breach of Contract Matter. Expert Report Issued. Arbitration Testimony. 2013

- Luxe Surfaces v. Omnova Inc. - CPR International Institute for Conflict Prevention & Resolution Breach of Contract Matter. Expert Report Issued. Arbitration Testimony. 2013

- Prestige Jewelry International, Inc. v. BK Jewellery HK (sic) et al – United States District Court for the Southern District of New York. Patent Infringement and Unfair Competition. Expert Report Issued. 2014

- Boulan South Beach Master Associate, Inc., et al v. Think Properties, LLC et al. – United States District Court for the Southern District of Florida. Trademark Infringement. Expert Report Issued. 2015

- Charles B. Blalack, et al v. Alexander Paluch, Anthony Zullo, et al. – Connecticut Superior Court. Shareholder Dispute. Affidavit Issued. Judicial Hearing Testimony. 2016

- Sweet People Apparel, Inc. & RCRV, Inc. v. Phoenix Fibers, Inc. et. al. – United States District Court for the Central District of California. Breach of Contract, Trademark Infringement and Unfair Competition. Expert Report. Deposition Testimony. 2017

- Sherrilyn Kenyon v. Cassandra Clare, et al – United States District Court for the Middle District of Tennessee. Copyright Infringement. Expert Report. 2018

- Global Brand Holdings, LLC v. Church & Dwight Co., Inc. - United States District Court for the Southern District of New York. Trademark Infringement, False Designation of Origin and Unfair Competition. Expert Report. Deposition Testimony. 2018

- Mark Horowitz and Montauk USA, LLC v. 148 South Emerson Associates, LLC and Michael Meyer - United States District Court for the Eastern District of New York. Trademark Infringement. Expert Report. Deposition Testimony. 2019

- Nottingham-Spirk Partners, LLC v. Huffy Bicycle Company – Ohio Cuyahoga County Common Pleas Court. Breach of Contract. Expert Report. 2018

- Gazelles Florida Inc. and Verne Harnish v. Keith Cupp and Servant Ventures Inc. – United States District Court for the Middle District of Florida. Breach of Contract, Unfair Competition, Cybersquatting, Conversion and Deceptive and Unfair Trade Practices. Expert Report. 2019

- World Class Wholesale LLC v. Star Industries, Inc. – Superior Court State of Delaware. Breach of Contract. Expert Report. 2019

- Omer Grgurev and Ferdo Grgurev v. Milan Licul and Branko Turcinovic et al – Supreme Court State of New York. Shareholder Dispute. Expert Report. Judicial Hearing Testimony. 2020 & 2022. Deposition 2022

- Major Brands, Inc. vs. Mast Jagermeister US, Inc. et al – United States District Court for the Eastern District of Missouri. Breach of Contract. Expert Report. Deposition Testimony. 2020

- The Dream Engineer, LLC vs. Matthew Kelly - Ohio Hamilton County Common Pleas Court. Breach of Contract. Affidavit. 2021

- Compagnie Champenoise PH-CH. Piper-Heidsieck v. Paterno Imports, Ltd, D/B/A Terlato Wines International – International Court of Arbitration. Breach of Contract. Expert Report. Hearing Testimony. 2022

- Louis Vuitton Malletier, S.A.S. v. Sandra Ling Designs, Inc. and Sandra Ling – United States District Court for the Southern District of Texas. Trademark Infringement. Expert Report. 2022

- Bankers Conseco Life Insurance and Washington National Life Insurance Company vs. KPMG - Supreme Court State of New York. Fraudulent Inducement. Expert Report. Deposition Testimony. 2022

- Sean Hall & Nathan Butler v. Taylor Swift, Karl Martin Sandberg, Karl Johan Schuster, Sony/ATV Music Publishing, LLC, Kobalt Music Publishing America Inc., Big Machine Label Group, LLC, Universal Music Group, Inc. - United States District Court for the Central District of California. Expert Report. Copyright Infringement. Deposition Testimony. 2022

- Trent P. Enterprises LLC and The Fisher Family Dynasty Trust v. SAS Automation, LLC; Piab USA, Inc.; and Piab AB – United States District Court for the Southern District of Ohio. Breach of Contract, Trade Secret Misappropriation. Expert Report. Deposition Testimony. 2023

- Golden Unicorn Enterprises, Inc. and Big Dog Books, LLC v. Audible, Inc. - United States District Court for the Southern District of New York. Breach of Contract (class action). Expert Report. Deposition Testimony. 2023

- Noble Security Inc. and Meir Avganim v. Acco Brands Corporation - United States District Court for the Southern District of New York. Patent Infringement. Expert Report. Deposition. 2023

- E. Hanlin Bavely, Chapter 7 Trustee of AAA Sports, Inc. v. Panini America Inc. – United States District Court for the Eastern District of Texas. Copyright Infringement, Violations of Digital Millennium Copyright Act. Expert Report. Deposition Testimony. 2023

- Lynne Freeman v. Tracy Deebs-Elkenaney P/K/A Tracy Wolff, Emily Sylvan Kim, Prospect Agency LLC, Entangled Publishing, LLC, Holzbrinck Publishers, LLC D/B/A MacMillan Publishers, LLC, Universal City Studios. - United States District Court for the Southern District of New York. Expert Report. 2023

- HLI Solutions, Inc. and Litecontrol Corporation v. Lighting Associates, Inc. - United States District Court for the District of South Carolina, Greenville Division. Breach of Contract. Expert Report. Deposition Testimony. 2023

- Sterilite Corporation v. Olivet International, Inc. - United States District Court, District of Massachusetts. Trade Dress Infringement. Expert Report. Deposition Testimony. 2023

- Golden Rule Financial Corporation v. Shareholder Representative Services, LLP – United States Chancery Court Delaware. Breach of Representations and Warranties. Expert Report. Deposition. 2023

- HFC Prestige International Operations Switzerland SARL v. Helier Fashion FZE, Roberto Cavalli S.p.A., and DAMAC Properties Company LLC - International Court of Arbitration. Breach of Contract. Expert Reports. 2023, 2024 and 2025

- Midas Green Technologies, LLC v. Rhodium Enterprises, Inc., Rhodium Technologies LLC, Rhodium 10MW LLC, Rhodium 2.0 LLC, Rhodium 30MW LLC, Rhodium Encore LLC, Rhodium Renewables LLC, Rhodium Renewables Sub LLC, and Rhodium Ready Ventures LLC – United States District Court for the Western District of Texas. Patent Infringement. Expert Report. Deposition. 2024

- Hayward Industries Inc. v. Blueworks Corporation and Blueworks Innovation Corporation, and Ningbo C.F. Electronic Tech Co. Ltd. and Ningbo Yishang Import and Export Company Ltd. – United States District Court for the Western District of North Carolina. Trademark Infringement. False Advertising. Expert Report. Deposition. 2023 Trial Testimony. 2024

- Tribe of Two LLC v. Tod's S.p.A, Ltd. And Tod's Deva, Inc. - United States District Court for the Southern District of New York. Expert Report. 2024

- La Canada Ventures, Inc., v. MDalgorithms, Inc. – United States District Court for the Northern District of California. Trademark Infringement. False Advertising. Unfair Competition. Expert Report. Deposition. 2024

- Proximo Spirits, Inc. v. Green Lake Brewing Co., LLC, dba Fremont Brewing Company and Does 1-10 inclusive – United States District Court for the Central District of California. Trademark Infringement. False Advertising. Expert Report. 2024

- Toppers Pizza LLC v. Jonathan Taylor - American Arbitration Association. Breach of Contract. Expert Report. 2024

- Sacks Holdings, Inc. v. Grin Natural USA Limited, Grin Natural US Limited, Grin Holdings Limited, Grin Natural Products Limited, and Grin Natural Products Australia Pty - United States District Court for the Middle District of North Carolina. Trademark Infringement. False Advertising. Expert Report. Deposition. 2024

- Slick Slide LLC v. and Edwin L. Reed, Chad L. Reeves, TryJax Construction, LLC, Trampoline Park Gurus, LLC, and Adventure Park Contractors, LLC – United States District Court of Colorado. Patent Infringement. Copyright Infringement. Expert Report. 2024

- SLLF Investments LLC, SLLAF Investments Limited Partnership, LLP, and SLLAF Liquid Holdings, LLC v. Walgreen Co. - American Arbitration Association. Breach of Contract. Expert Report. Deposition. 2024. Hearing Testimony 2025.

- R.L. Mlazgar Associates, Inc. v. HLI Solutions, Inc., Litecontrol Corporation and Progress Lighting Inc. - United States District Court for the District of South Carolina, Greenville Division. Breach of Contract. Breach of Contract. Misappropriation of Trade Secrets. Expert Report. 2025

- Slick Slide LLC v. Zachary Wittman, and V2 Adventure Products USA, LLC – United States District Court Eastern District of Wisconsin. Patent Infringement. Expert Report. 2025

- Louis Vuitton Malletier, S.A.S. v. Keep it Gypsy, Inc. and Carmen Geoates – United States District Court for the Northern District of Texas. Trademark Infringement. Expert Report. 2025

- Woo Signatures, LLC, Prime Signatures, LLC and Quest Signatures, LLC v. Farshid Karamzad, Treasurewise, LLC and Afsoun Rahemi – Florida State Court. Shareholder Dispute. Expert Report. 2025

- Mooney Farms v. Alhatoglu Zeytincilik Gida Zirai İlac Ve Tarim Makinalari Sanayi Ve Ticaret Limited Şirketi, a Turkey corporation DBA Alhatoglu Olive Oil Co., also DBA Alhatoglu Gida Ltd Sti; Bestolio Gida Limited Şirketi, and Does 1-25 – JAMS Arbitration. Breach of Contract. Expert Report. Deposition Testimony. Hearing Testimony. 2025

- WellcomeMat, LLC v. Aylo Holdings S.à r.l. f/k/a MindGeek S.à r.l., Aylo Freesites, Ltd. f/k/a MG Freesites Ltd., Aylo Premium Ltd. f/k/a MG Premium, Ltd., 9219-1568 Quebec, Inc. and Jarrod Beltran – United States District Court for the Eastern District of Texas. Patent Infringement. Expert Report 2025.

EXHIBIT 43 – TO BE SUPPLIED LATER

IN THE UNITED STATES DISTRICT COURT

FOR THE WESTERN DISTRICT OF TEXAS

WACO DIVISION

MIDAS GREEN TECHNOLOGIES, LLC,	)	
Plaintiff,	)	No. 6:22-cv-00050-ADA
VS.	)	
RHODIUM ENTERPRISES, INC., et al.,	)	Pages 1-290
Defendants.	)	

VIDEOTAPED DEPOSITION OF:

HIMANSHU POKHARNA, Ph.D.

TUESDAY, FEBRUARY 6, 2024

9:59 A.M.

Reported by: LINDA NICKERSON

CSR No. 8746

Videotaped Deposition of HIMANSHU POKHARNA, Ph.D., the witness, taken on behalf of the Defendants, on TUESDAY, FEBRUARY 6, 2024, 9:59 a.m., at 18101 Von Karman Avenue, Suite 230, Irvine, California, before LINDA NICKERSON, CSR No. 8746, pursuant to NOTICE.

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ALSO PRESENT:

ZAVEN BAGHDANIAN (Videographer)
ALFONSO ORTEGA (Via Zoom)
ANDREA AKINOLA (Paralegal)

I N D E X

WITNESS	EXAMINATION	PAGE
HIMANSHU POKHARNA, Ph.D.		
	By Mr. Halpern	7

E X H I B I T S

NUMBER	PAGE	DESCRIPTION
Exhibit 1	13	Expert Witness Report in Accordance with Rule 26, 12-22-23
Exhibit 2	47	Defendants' Third Supplemental Responses and Objections to Plaintiff's First Set of Interrogatories
Exhibit 3	45	Plaintiff's Supplemental Response to Interrogatory No. 10
Exhibit 4	57	Final Infringement Contentions
Exhibit 5	101	Collins Dictionary Definition of Slot
Exhibit 6	102	American Heritage Dictionary Definition of Slot

E X H I B I T S (Continued)

NUMBER	PAGE	DESCRIPTION
Exhibit 7	108	Cambridge Dictionary Definition of Slot
Exhibit 8	113	Oxford Dictionary Definition of Slot
Exhibit 9	213	Deposition Excerpts of Christopher Boyd's Deposition taken on 12-7-23
Exhibit 10	284	Deposition Excerpts of the Corporate Representative of Midas Green Technologies, taken on 9-21-23

IRVINE, CALIFORNIA

TUESDAY, FEBRUARY 6, 2024, 9:59 A.M.

THE VIDEOGRAPHER: Good morning. We are going on the record at approximately 9:59 a.m. on February 6th, 2024. 09:33:24 09:59:20 09:59:27

This begins Video One of the video-recorded deposition of Dr. Himanshu Pokharna in the matter of Midas Green Technologies, LLC, versus Rhodium Enterprises, Inc., et al., Case Number 6:22-cv-00050-ADA. 09:59:29 09:59:32 09:59:40 09:59:44 09:59:53

This deposition is taking place at 18101 Von Karman Avenue, Suite 230, Irvine, California 92612. My name is Zaven Baghdanian from the firm Veritext, and I'm the videographer. The court reporter is Linda Nickerson. 09:59:56 10:00:03 10:00:07 10:00:12 10:00:14

Counsel will now state their appearances and affiliations for the record. 10:00:16 10:00:19

MR. THOMAS: Joseph Thomas on behalf of Plaintiff Midas Green Technologies along with William Kolegraff and for the witness as well. 10:00:23 10:00:25 10:00:27

MR. HALPERN: Ken Halpern on behalf of the Rhodium defendants. With me is my paralegal. 10:00:32 10:00:36

MR. THOMAS: This is Mr. Kolegraff. I mentioned him already. 10:00:46 10:00:47

THE VIDEOGRAPHER: Would the court reporter please swear in the witness. 10:00:48 10:00:49

HIMANSHU POKHARNA, Ph.D.,
having been first duly sworn, was
examined and testified as follows:

10:01:00

THE VIDEOGRAPHER: Please proceed, Counsel. 10:01:00

EXAMINATION

BY MR. HALPERN:

Q Okay. Good morning, Dr. Pokharna. Am I pronouncing your name correctly? 10:01:02 10:01:05

A Yes, you are. Good morning. 10:01:06

Q I'm sorry? 10:01:08

A Good morning. 10:01:08

Q Good morning. Have you testified in a deposition before? 10:01:09 10:01:13

A Yes, I have. 10:01:14

Q How many times? 10:01:15

A I'm going to guess more than 15 times, but probably less than 25 times. 10:01:20 10:01:24

Q Okay. And were those all patent cases? 10:01:25

A Yes, they were all IP-related matters. 10:01:30

Q Okay. And in all of those cases, were you 10:01:32

an expert? 10:01:36

A Yes, I was an expert. 10:01:39

Q Okay. Have you been the expert for the plaintiff in all of those cases or were you an expert working with the defendant in some of them? 10:01:41 10:01:47 10:01:50

A I have been both on the plaintiff's side and defendant's side, and in some of the cases, they were countersuing. So I was on both sides in the same case also. 10:01:53 10:01:57 10:02:02 10:02:05

Q Okay. Have you testified at trial? 10:02:06

A Not in district court, but I have testified in trial. 10:02:08 10:02:13

Q Where -- in what court have you testified at trial? 10:02:13 10:02:16

A ITC, ITC. 10:02:17

Q I see. How many times? 10:02:19

A Just for one case. 10:02:20

Q Do you recall what case that was? 10:02:21

A It was Samsung versus MRI. 10:02:24

Q And what technology did that relate to? 10:02:33

A Cooling off outdoor displays. 10:02:36

Q And what sort of cooling technology was used in that case? 10:02:39 10:02:44

A They were using air cooling. 10:02:45

Q Okay. And when you say "outdoor displays," 10:02:48

you're referring to electronic billboards? 10:02:50
A Yes. 10:02:53
Q I see. And how did the air cooling 10:02:53
systems, just very generally, how did they work in 10:03:00
that case? 10:03:02
A So in that case, the core technology 10:03:02
involved cooling the displays without bringing 10:03:09
external air which may have water and dust inside 10:03:16
them, without bringing that air, how would you cool 10:03:21
the displays, the LEDs as well as the electronics 10:03:27
inside the display. 10:03:32
Q Have any of the other cases in which you 10:03:33
have served as an expert witness involved immersion 10:03:42
cooling? 10:03:47
A Not immersion cooling, but liquid cooling, 10:03:48
yes. 10:03:51
Q I see. And what sort of liquid cooling? 10:03:52
A It's called direct-to-chip liquid cooling. 10:03:54
Q So that was technology where liquid was 10:03:58
sprayed on chips to cool them? 10:04:04
A It's mostly liquid in a cold plate that is 10:04:07
going around a cooling loop of some sort. 10:04:14
Q Okay. So let me just quickly speak to the 10:04:20
ground rules. 10:04:33
I'll take a break approximately every hour. 10:04:35

If you need a break, let me know and you can take a break any time. 10:04:38 10:04:45

The only thing is that if there's a question pending, I'll ask you to do your best to answer before we take the break. 10:04:46 10:04:48 10:04:50

I need verbal answers rather than gestures, nods, because those don't show up in the transcript. I will try not to speak over you. Please try not to speak over me so, again, we get a clear record. 10:04:53 10:04:57 10:05:03 10:05:05

If you can't hear me, let me know, and I'll speak more clearly or more loudly. If you don't understand a question I ask, please ask for a clarification. Otherwise, I'll presume you understood my question. 10:05:08 10:05:12 10:05:16 10:05:18 10:05:21

From time to time, your attorney may object. Even if your attorney objects, you're still required to answer the question unless you're specifically instructed by your attorney not to answer. 10:05:23 10:05:24 10:05:28 10:05:31 10:05:34

Do you understand everything I just said? 10:05:34

A Yes. 10:05:36

Q Okay. And is that -- can we proceed that way? 10:05:37 10:05:47

A Yes. 10:05:47

Q Okay. So you understand that this is a 10:05:47

patent infringement action? 10:05:51

A Yes. 10:05:54

Q And that you're under oath? 10:05:54

A Yes. 10:05:56

Q And you understand that the oath that you took is the same oath you would take if you testified in federal court? 10:05:57 10:06:00 10:06:02

A Yes, I understand. 10:06:03

Q Okay. Are you taking any medication that would impair your testimony? 10:06:06 10:06:09

A No. 10:06:11

Q Okay. Is there any other reason you can't give your best and most honest testimony today? 10:06:12 10:06:15

A No. 10:06:17

Q Okay. Now, do you have a computer screen on in front of you? 10:06:18 10:06:24

A Yes, I do. 10:06:25

Q What's displayed on that screen? 10:06:26

A It's my own picture which is very distracting. 10:06:29 10:06:31

MR. THOMAS: Yeah, we can actually -- I don't know why that is set there to be honest with you. If that is distracting to the witness, is that going to interfere with anything we're doing if we close this, just turn it? 10:06:32 10:06:33 10:06:36 10:06:38 10:06:42

THE WITNESS: Thank you. 10:06:47
MR. HALPERN: Oh, I see. That's the -- 10:06:48
MR. THOMAS: It's a Zoom is what it is. 10:06:50
MR. HALPERN: Yeah, yeah, yeah, I don't 10:06:52
particularly want to be on the Zoom either. The 10:06:55
only person who's being filmed is the witness. 10:06:57
Yeah, just like that is fine. 10:07:00
MR. THOMAS: Okay.
MR. HALPERN: Okay. 10:07:02
THE WITNESS: Thank you. 10:07:02
BY MR. HALPERN: 10:07:03
Q All right. Do you have your cell phone 10:07:03
with you? 10:07:12
A No, I do not. 10:07:12
Q Okay. All right. And do you agree that 10:07:13
you won't -- I'm not referring to breaks now, but 10:07:22
you won't communicate with anyone during your 10:07:24
testimony other than incidentally as your lawyer may 10:07:30
need to instruct you? 10:07:33
MR. THOMAS: Yeah, I have to -- other than 10:07:34
necessary attorney-client communications, he won't 10:07:37
communicate with any third party. 10:07:40
BY MR. HALPERN:
Q Okay. Did you do anything to prepare for 10:07:41
today's deposition? 10:07:44

A Yes, I went over my report primarily, the claims of the patent. I -- I looked a little bit at the report from Dr. Ortega, and I spoke to the attorneys yesterday evening when I got here, and just this morning again we were in the same room for an hour or so. 10:07:47 10:07:56 10:08:06 10:08:20 10:08:23 10:08:28

MR. HALPERN: Okay. So I'm going to hand you a copy of your report so that should be marked as Pokharna Exhibit 1. 10:08:29 10:08:40 10:08:44

THE WITNESS: Can I write on this Exhibit 1? 10:08:58 10:08:59

MR. HALPERN: Yes. 10:08:59

THE WITNESS: Okay. Thank you. 10:09:00

MR. THOMAS: Do you have extra copies? 10:09:04

MR. HALPERN: Yes. Thanks. Okay. 10:09:05

MR. THOMAS: Thank you. 10:09:14

(The document referred to was marked by the Reporter as Pokharna Exhibit 1 for identification and is attached hereto.)

BY MR. HALPERN:

Q Do you recognize the document I put in front of you? 10:09:22 10:09:25

A Yes, I do. 10:09:27

Q Okay. And is this your expert witness report on infringement? 10:09:27 10:09:31

A Yes, it is. 10:09:32

Q Okay. So I'm just going to ask you a little bit about your background. 10:09:35 10:10:06

Where did you go to college? 10:10:16

A I did my undergraduate in India, in Indian Institute of Technology Bombay, called Mumbai now. After that, I came to U.S. to pursue my graduate studies. I came to Purdue University and got my master's and Ph.D. in nuclear engineering there. I also have gone to University of Pennsylvania, the Wharton School of Business. 10:10:19 10:10:25 10:10:34 10:10:37 10:10:41 10:10:47 10:10:52

Q And I notice that your -- you have a bachelor of science and a master of science from the Indian Institute of Technology -- 10:10:53 10:10:58 10:11:01

A That's right. 10:11:02

Q -- correct? 10:11:03

A That's right. 10:11:03

Q And both of those degrees are in mechanical engineering? 10:11:04 10:11:07

A That's right. 10:11:08

Q Okay. Did you have any particular focus for your bachelor's degree in mechanical engineering? 10:11:08 10:11:11 10:11:14

A Bachelor's degree is not -- is a broad degree, and the only focus that comes in is through 10:11:15 10:11:21

the project, as we used to call it, which used to have a thesis. For that, I had looked at fluid flows to -- I'm sorry. I take that back. 10:11:25 10:11:30 10:11:39

For my bachelor's degree, it was 40 years ago almost, I looked at actually some robotic systems -- design of some robotic systems for my bachelor's degree. 10:11:43 10:11:46 10:11:51 10:11:56

Q I see. What sort of robotic systems? 10:11:58

A It was -- it was just looking at kinematics of some closed-chain robots. Yeah, I really couldn't go too much in detail simply because it was a bachelor's project, and it was around 40 years ago. 10:12:02 10:12:04 10:12:12 10:12:14 10:12:17

Q Understood. And what about for your master's degree, did you -- did you have a focus for your master's degree? 10:12:17 10:12:20 10:12:23

A Yes. For my master's degree, my focus was thermal and fluid flow, thermal meaning cooling of things heat transfer as well as fluid flow, and specifically there for my master's thesis, I worked on flow instabilities through nuclear reactors. 10:12:24 10:12:29 10:12:32 10:12:36 10:12:39

Q What fluid is flowing through a nuclear reactor? 10:12:45 10:12:49

A The kind of reactors that I was looking at were just water-cooled, maybe heavily water-cooled 10:12:50 10:12:54

so -- 10:12:58

Q And then your Ph.D. is not in mechanical engineering, but in nuclear engineering, correct? 10:13:05 10:13:09

A That's correct. 10:13:11

Q And the Ph.D. is from Purdue University? 10:13:12

A That's right. 10:13:16

Q Why did you switch from mechanical engineering to nuclear engineering? 10:13:16 10:13:20

A Actually it's the same field of study. You know, my advisor was a professor of mechanical engineering that became head of nuclear engineering -- 10:13:21 10:13:24 10:13:32 10:13:34

Q I see. 10:13:35

A -- and I was studying heat transfer and fluid flow which is -- you know, in some schools, it could be -- in most schools, it is certainly taught in mechanical engineering department. 10:13:35 10:13:38 10:13:43 10:13:47

Some schools have a separate nuclear engineering department where they focus more on the flow and heat transfer specifically encountered in a nuclear reactor, and then there are also other fields of study, nuclear fusion, nuclear fission, and the design of the reactor and, you know, the nuclear fuel rod design, etcetera, those are also then part of the nuclear engineering department. 10:13:50 10:13:53 10:13:56 10:14:00 10:14:03 10:14:07 10:14:12 10:14:14

Q And did you write a thesis? 10:14:17

A Yes, of course. For a Ph.D., it's a 10:14:20

requirement. 10:14:23

Q And what was the subject of your thesis? 10:14:23

A Again, it was developing some computation 10:14:25

of fluid dynamics code for multiphase flows through 10:14:32

nuclear reactors. 10:14:37

So essentially you have water that is 10:14:39

coming into the reactor. It becomes steam. So you 10:14:42

have a phase change happening as the liquid is 10:14:47

flowing through the reactor, and my thesis was 10:14:53

developing a specific kind of modeling technique for 10:14:56

that volume water flows through channels. 10:14:59

Q Okay. And then it looks like your first 10:15:03

job after grad school was as a senior mechanical 10:15:40

engineer at Applied Materials, correct? 10:15:46

A That's right. 10:15:47

Q Okay. And what was the product you were 10:15:48

developing there? 10:15:52

A We were developing -- I was working on 10:15:52

chemical vapor deposition, CVD chambers. So Applied 10:15:57

Materials makes refurbed processing tools, and there 10:16:03

are a lot of different techniques that are used in 10:16:07

refurbed processing in a fab. 10:16:09

The team that I was with was developing 10:16:11

sub-atmospheric chemical vapor deposition tools. 10:16:16

THE REPORTER: I'm sorry. Re-deposition?

THE WITNESS: Sub-atmospheric chemical vapor deposition. 10:16:23 10:16:26

THE REPORTER: Deposition? 10:16:29

THE WITNESS: Deposition, yeah. 10:16:30

BY MR. HALPERN: 10:16:30

Q And did that involve any analysis of fluid flows? 10:16:30 10:16:38

A Yes, it was fairly complex physics as well as chemistry that happens in chemical vapor deposition chamber, and you need to make sure that the temperatures, the reactions, the flows of reactants are all uniform or a wafer so that you can deposit uniform thickness films on those. 10:16:38 10:16:44 10:16:48 10:16:51 10:16:56 10:17:02

So really I was looking at using analytical techniques as well as experimental techniques to ensure uniformity of chemical reaction on the wafer. 10:17:07 10:17:10 10:17:13

THE REPORTER: Vapor?

THE WITNESS: On the wafer, w-a-f-e-r, wafer. 10:17:28

THE REPORTER: I'm sorry?

THE WITNESS: Wafer, w-a-f-e-r.

MR. HALPERN: Wafer.

THE REPORTER: Oh, wafer.

BY MR. HALPERN: 10:17:37

Q So I understand from what you just said that you were trying to deposit -- you were trying to ensure uniformity of the chemical reaction across the wafer which involved thermal uniformity, is that what you're testifying? 10:17:37 10:17:40 10:17:49 10:17:54 10:17:58

A There are a lot of different things that need to be uniform. Yes, it used to be at high temperatures. I couldn't tell you exactly, but it's more than 200 degrees celsius. 10:17:59 10:18:00 10:18:03 10:18:07

So you need to ensure that the temperature is within like half a degree or more -- even more uniform than that across the wafer, and you also have to ensure that the reactants that are flowing from outside the chamber are uniformly distributed so they react such that the film that you are depositing is of uniform thickness in hundreds of nanometer kind of uniformity. 10:18:13 10:18:16 10:18:21 10:18:25 10:18:28 10:18:33 10:18:37 10:18:43

Q I see. And are the reactants fluids? 10:18:44

A The reactants are fluids, yes. 10:18:47

Q Okay. So in other words, principles of fluid flow were involved in that work? 10:18:49 10:18:53

A Yes, there were principles of fluid flow, and there were things beyond that as it is in any kind of job. It's a complex system. There were 10:18:55 10:18:59 10:19:02

mechanical designs involved. There were, you know, fluid flows involved and other systems including microwave and electronic systems were involved in those chambers. 10:19:05 10:19:08 10:19:14 10:19:17

Q Okay. And then your next job was at the Intel Corporation, correct? 10:19:18 10:19:24

A That's correct. 10:19:27

Q Okay. And it says you had overall responsibility -- I'm reading your resume that's in your report -- it says you had overall responsibility for thermal, mechanical technology development and deployment for Intel's mobile products group; is that correct? 10:19:28 10:19:33 10:19:36 10:19:40 10:19:43 10:19:47

A That's correct. I joined as an engineer there and ended up managing a fairly large team, I think over 25 engineers, which were involved in developing essentially cooling technologies for laptop computers primarily, but was also involved broadly in the company in helping people with cooling of other kind of computer systems that Intel was involved in. 10:19:49 10:19:53 10:20:00 10:20:05 10:20:10 10:20:14 10:20:20 10:20:23

Q I see. And what kinds of cooling technologies did that involve? 10:20:24 10:20:26

A So there were quite a few different components. In a computer that is used for cooling 10:20:29 10:20:31

today, they include things like thermal interface materials, heat pipe or vapor chamber-based technologies which have, you know, phase change happening inside of them, and just heat exchanges as well as air movement technologies like fans, but, you know, those are the technologies that made it. 10:20:34 10:20:41 10:20:46 10:20:50 10:20:55 10:21:01

I was also involved in doing development or sponsoring USD research on a variety of other different technologies from liquid cooling to even using liquid metals in -- in closed loop cooling system as a coolant to various kinds of refrigeration technologies. 10:21:05 10:21:14 10:21:19 10:21:24 10:21:30 10:21:36

It was over seven years leading -- you know, quite a few of them, leading a team of 25 people, maybe with more than ten people with Ph.D.s. There was a whole lot of things that we were engaged in at that time. 10:21:38 10:21:44 10:21:48 10:21:51 10:21:55

Q And the liquid cooling that you were working on or your group was working on there at Intel, can you just elaborate a little bit on what sort of liquid cooling that was? 10:21:56 10:21:59 10:22:04 10:22:07

A Yes. So this was something that I actually was personally involved in in the beginning as an engineer before I had my management responsibilities, and we were looking at 10:22:09 10:22:12 10:22:15 10:22:19

single-phase and two-phase liquid cooling where we would have a pump liquid loop that will go over a CPU and then reject heat through a heat exchanger through air. 10:22:22 10:22:28 10:22:33 10:22:42

Q So the liquid loop would go over the CPU, in other words, you would just have like a closed pipe that would pass next to the CPU to withdraw heat from it? 10:22:43 10:22:49 10:22:54 10:22:59

A Yes, I would describe it as cold plate, microchannel cold plate specifically -- 10:22:59 10:23:05

Q Okay. 10:23:08

A -- and we were looking at both single phase and two phase, meaning water or the coolant might change its phase while it is being heated, that would be called two phase, or single phase is something where the water does not or the coolant does not change its phase. It just remains liquid throughout. 10:23:09 10:23:11 10:23:17 10:23:21 10:23:23 10:23:26 10:23:30

Q When it was two-phase cooling, what were the two phases of coolant? 10:23:31 10:23:33

A The liquid and the vapor phase. 10:23:35

Q Okay. And then your next position was at k-Technology Corp. where you were vice president of product development, correct? 10:23:38 10:23:44 10:23:47

A That's right. 10:23:48

Q And it says -- your resume says you led many SBIR projects for new product applications based upon the core materials technology; is that correct? 10:23:49 10:23:53 10:23:57 10:24:00

A That's right. 10:24:00

Q So what are SBIR projects? 10:24:01

A SBIR stands for small business innovation research. So by, I guess, a congressional act, any federal agency that spends more than a certain amount -- I forget the exact number -- maybe it's like $50 million in R&D, they need to spend part of that sponsoring work at small businesses as classified by SBC, Small Business Corporation. 10:24:03 10:24:08 10:24:14 10:24:19 10:24:22 10:24:27 10:24:32

So it's a request for proposal from like Department of Defense, Department of Energy, National Science Foundation, Office of Naval Research, Omni Research Lab, etcetera, you write proposals and it's through a competitive process that they would choose to fund certain projects. 10:24:39 10:24:41 10:24:43 10:24:46 10:24:51 10:24:54

Q And what were the new product applications that you worked on at k-Technology? 10:24:57 10:25:08

A They were a variety of things ranging from cooling of really high-powered electric motors in like electrification of the ships, like these will be sort of megawatt power motors with some coolant 10:25:11 10:25:16 10:25:25 10:25:31

inside of that to, you know, cooling of motor drivers, IGBT -- 10:25:35 10:25:47

THE REPORTER: I'm sorry. Modal?

THE WITNESS: Motor drivers, like IGBT and diodes, also some channeling wave -- TWTA, I forget what it stands for. It's essentially a microwave kind of thing that is very high powered, used in satellites. So there were -- most of them were essentially either industrial or defense or aerospace-related applications. 10:25:50 10:25:51 10:26:02 10:26:06 10:26:09 10:26:12 10:26:16

BY MR. HALPERN: 10:26:18

Q And what was the materials technology that these were based on, the core materials that you're referring to? 10:26:18 10:26:23 10:26:26

A So k Corp., our main material technology was something called graphite. Graphite is a form of carbon and it can have extremely high thermal conductivity in two directions. 10:26:26 10:26:32 10:26:35 10:26:42

Q When you say "two directions," I'm confused. What do you mean? 10:26:44 10:26:53

A So typically if you take water, right, it has the same -- like a block of a steam, it has the same properties in all three dimensions, like X, Y, and Z direction. 10:26:54 10:27:00 10:27:04 10:27:08

Graphite is an interesting material where 10:27:10

because of its crystalline structure, it has properties in, let's call it, X and Y plane that are the same. But two plane in the Z direction, its properties are very different, orders of magnitude different. 10:27:15 10:27:19 10:27:22 10:27:26 10:27:29

Q Okay. And then your next position was as a VP of applications engineering at Ventiva, correct? 10:27:29 10:27:36

A That's right. 10:27:39

Q Okay. And you -- your CV describes that as a startup developing air moving technology, no moving parts fan, with a licensing business model. 10:27:40 10:27:44 10:27:48

So -- and then there's some more detail there, but can you just explain what that air moving technology is -- was? 10:27:55 10:27:59 10:28:02

A So that air moving technology is a new moving part, a mover where the air is moved not by blades like you would have in a rotating fan, but ionizing the air under very strong electric field, and then moving the ions under an electric field to create an airflow. 10:28:04 10:28:10 10:28:15 10:28:20 10:28:23 10:28:28

Q And this is used in what kinds of products? 10:28:29

A This technology is still under development primarily for use in mobile computing products including laptops as well as variable devices like your -- like your VR, virtual reality headphones -- 10:28:35 10:28:39 10:28:47 10:28:54

or sorry -- virtual reality systems, anything where the noise from the fan is annoying to a user. 10:28:59 10:29:04

Q Now, are some of -- I know you have a number of patents, correct? 10:29:08 10:29:13

A That's right. 10:29:14

Q Do some of your patents relate to this technology? 10:29:15 10:29:17

A I may have some filed patents -- 10:29:17

THE REPORTER: I'm sorry. Five?

THE WITNESS: Filed patents, like patents that were filed. I don't know if they issued or not. Probably -- I have no recollection if I have issued patents on that technology or not. 10:29:33 10:29:34 10:29:37 10:29:43

BY MR. HALPERN: 10:29:44

Q Okay. In other words, you may have filed patent applications on that technology, but you're not sure if any patents issued from those applications? 10:29:44 10:29:47 10:29:49 10:29:51

A Yes, I was not the core developer of that technology. 10:29:51 10:29:55

Q And it mentions a licensing -- licensing business model. 10:29:56 10:29:59

Was -- would you say that Ventiva was successful in licensing that technology? 10:30:00 10:30:03

A As I mentioned, the product is still 10:30:05

undergoing development. So they are not fully done with the product development phase still. 10:30:09 10:30:14

Q Okay. Then your next position was at Sheetak, if I'm pronouncing that correctly, where you were cofounder, board member, and vice president of business development? 10:30:16 10:30:22 10:30:25 10:30:29

A That's right. 10:30:29

Q And you describe this as a startup applying an innovative Peltier technology for power generation and cooling, correct? 10:30:30 10:30:36 10:30:39

A That's right. 10:30:40

Q Were you the developer of the Peltier technology? 10:30:41 10:30:49

A So there were two parts to our technology. One was the core Peltier material -- 10:30:49 10:30:54

THE REPORTER: I'm sorry. Peltier?

THE WITNESS: Peltier, P-e-l-t-i-e-r, material technology, and then the second part was the system technology utilizing the Peltier devices. 10:30:59 10:31:02 10:31:05

So my focus was mostly on the system side of things more than the materials side of things, and, yes, I was one of the core developers on the system side of our technology. 10:31:11 10:31:17 10:31:21 10:31:25

BY MR. HALPERN: 10:31:29

Q And what -- what is the Peltier technology? 10:31:29

A So it's -- you can think of Peltier as a no moving part compressor. It essentially pumps heat from cool side to hot side of a system which is opposite to the natural heat transfer flow, which heat typically flows from hot to cold side. 10:31:31 10:31:41 10:31:48 10:31:54 10:31:58

But if you look at your refrigeration system or air-conditioning systems, they are taking heat from a cold environment and pumping it out to a warmer or a hotter environment, and Peltier -- Peltier systems do that with no moving parts, just by utilizing physical phenomenon called Seebeck effect. 10:32:01 10:32:04 10:32:08 10:32:14 10:32:19 10:32:23 10:32:29

Q I just want to clarify something you just said about refrigeration systems. You said they are taking heat from a cold environment and pumping it out to a warmer or hotter environment, but wouldn't it be accurate to say that they are making the environment cold by removing heat and pumping it out? 10:32:30 10:32:42 10:32:45 10:32:48 10:32:52 10:32:54 10:32:57

A Same thing technically speaking. 10:32:58

Q Okay. And -- 10:33:01

MR. THOMAS: Excuse me for one minute. They asked -- the court reporter and the videographer asked for us to enhance the temperature in the room. So the building maintenance guy is 10:33:06 10:33:08 10:33:09 10:33:12

going to come in and we can continue. I just want everybody to be aware of it. 10:33:16 10:33:19

Go ahead. You can do what you've got to do. 10:33:21 10:33:25

MR. HALPERN: Okay. 10:33:25

Q So the system side of the technology that you and your colleagues were developing at Sheetak that you said you worked on, what was -- what did the system side involve? 10:33:42 10:33:48 10:33:51 10:33:53

A So to make an efficient Peltier system, you -- if it is used for refrigeration, you need to reject the heat from the hot side of the Peltier system very efficiently, and in that sense, it is very similar to cooling of computers or cooling of electronics. 10:33:54 10:34:01 10:34:05 10:34:08 10:34:11 10:34:15

With my vast background and experience in computer system cooling, I applied some of those advanced concepts in removing the heat from the hot side of the Peltier system. The examples included using liquid cooling, using heat pipe-based heat sinks in rejecting the heat from the hot side of the -- of the Peltier devices. 10:34:16 10:34:21 10:34:25 10:34:29 10:34:34 10:34:44 10:34:48

Q Okay. And I see that you had -- you had some licensing deals that you made at Sheetak that the company made; is that correct? 10:34:51 10:35:08 10:35:12

A That's right. 10:35:14
Q Does that company still exist? 10:35:15
A Sheetak still exists, yes. 10:35:20
Q Has it been profitable? 10:35:24
A No. 10:35:31
Q Okay. And why do you think it hasn't been profitable? 10:35:31
MR. THOMAS: I'm just going to object on relevance. My other concern is I don't want the witness to be compromised if he's under some obligation of confidentiality about this -- what's going on in this company. So either I'm going to have to take a break and ask him or he can -- 10:35:33
MR. HALPERN: Just don't say anything -- don't reveal anything confidential. 10:35:54
THE WITNESS: Okay. Could you repeat your question again? I'm sorry. 10:35:59
BY MR. HALPERN: 10:36:00
Q Sure. I was just asking -- you said it hasn't been profitable and I was just asking why it hasn't been profitable. 10:36:00
A Yeah, we are trying to fundamentally develop a new material technology and that takes a significant amount of efforts. 10:36:12
On the Peltier systems, the thermal 10:36:20

electric systems, they probably have been -- I'm just going to have a vague wild guess -- about a billion dollars spent on developing those kinds of systems over the last 50 years, but most of them still remain relatively low-efficiency systems. 10:36:25 10:36:27 10:36:30 10:36:34 10:36:37

Q I see. 10:36:43

A So it's not an easy problem to solve. 10:36:43

Q So it's fair to say that that's still an experimental technology? 10:36:45 10:36:47

A That's a very broad statement. The system-level technology using existing Peltiers that we developed was implemented in products. In fact, I created the cheapest refrigeration products in India. It has had mentions in Wall Street Journal, has a, you know, book written on it with a significant focus on that technology, has won numerous awards and so forth and still continues to be sold in developing world. 10:36:49 10:36:53 10:36:56 10:37:01 10:37:05 10:37:09 10:37:13 10:37:17 10:37:19

So I would say it was very successful in that sense, but a lot of the efforts were still to try to develop fundamentally more better materials that could, you know, obviate the need for compressors in an air-conditioner and so forth. 10:37:21 10:37:25 10:37:28 10:37:31 10:37:35

THE REPORTER: I'm sorry. The need for compressors? 10:37:41 10:37:42

THE WITNESS: Obviate the need for compressors. 10:37:43

BY MR. HALPERN: 10:37:43

Q Do you know how many of the ultra cheap refrigerators have been distributed? 10:37:43 10:37:50

A No idea. 10:37:53

Q I mean is it hundreds, thousands, tens of thousands, millions? 10:37:54 10:37:56

A I don't believe it is millions, but it's certainly more than tens of thousands, maybe even more than that. I am not privy to that information. I left the company now almost seven years ago. 10:38:00 10:38:05 10:38:08 10:38:11

Q And do you have -- do any of your patents relate to this technology, your issued patents? 10:38:14 10:38:28

A Again, I was certainly a named inventor on some of the applications there. I have not kept track if those have issued or not. 10:38:31 10:38:38 10:38:41

Q Okay. And then your next position, which is where you still are, is that Inficold India; is that correct? 10:38:47 10:38:49 10:38:55

A That's right. 10:38:55

Q Okay. And what does Inficold do? 10:38:56

A So Inficold is in the business of using thermal energy storage systems. So it's a thermal battery where you are storing energy in the form of 10:39:01 10:39:09 10:39:15

cooling to use it later when there is no power source available. 10:39:19 10:39:25

So, for example, if you only use solar energy and provide cooling, let's say, air-conditioning in this room in the night, you have two options. Either you store them in an electric battery or you store it in a thermal battery. 10:39:26 10:39:29 10:39:32 10:39:35 10:39:38

What we do is we do the cooling when power is available, use that cooling to cool a certain media inside of a thermal battery, and then utilize that cold media to provide cooling during the nighttime. 10:39:42 10:39:44 10:39:50 10:39:55 10:39:58

For example, we -- our cold products there are systems that are configured for chilling milk and systems that are configured for chilling fruits and vegetables or fish, meat, etcetera, kept in sort of a warehouse. 10:40:00 10:40:04 10:40:07 10:40:11 10:40:16

We have done systems that were used for air-conditioning, but that's not the current focus of the company. 10:40:19 10:40:21 10:40:25

Q And how is the cooling achieved in that product? What sort of cooling is it? 10:40:26 10:40:31

A So the cooling is done using a compressor, but in the thermal battery, we, you know, have to freeze a media and efficiently bring heat in or 10:40:32 10:40:38 10:40:42

remove heat from that media. 10:40:48

So that requires a lot of fluid flow 10:40:50

principles in terms of efficiently distributing the 10:40:54

heating or efficiently distributing the coolant 10:40:57

through that thermal storage system. 10:41:01

Q And how has -- how has that company done? 10:41:12

A It's doing reasonably okay. You know, we 10:41:23

have installed systems in almost every state in 10:41:28

India and, you know, in many countries in Africa, 10:41:32

also in Southeast Asia. There is a very good demand 10:41:39

for the products. 10:41:44

We are engaged with, you know, the Royal 10:41:45

Bank and many of the international agencies in 10:41:49

trying to improve the post-harvest management of, 10:41:52

you know, fruits, vegetables, fish, etcetera. 10:41:55

Q Has that company been profitable yet? 10:42:05

A So I believe last year we did have a small 10:42:09

profit, and this year, the financial year in India 10:42:13

will get over in March 31st, and I believe that we 10:42:17

will have a small profit again this year also. 10:42:21

Q You know, I missed one of your positions 10:42:25

which appears you still hold which is Deeia? 10:42:36

A Right. 10:42:38

Q Okay. Where you were a principal? 10:42:39

A Uh-huh. 10:42:42

Q And it says you do thermal consulting there? 10:42:43 10:42:48

A That's right. 10:42:48

Q Okay. With several companies. 10:42:49

And what does the thermal consulting, what sort of technologies are you consulting on? 10:42:51 10:42:54

A Not limiting on anything, anything that, you know, people are interested in, right. 10:42:56 10:43:02

So I have consulted there with people on, you know, design of some laptops in the beginning because that's where a lot of my background was, right, but I've done things like LED lights. I have done, you know, consulting for people who are designing some new consumer electronic devices. 10:43:05 10:43:13 10:43:18 10:43:21 10:43:24 10:43:29

I have done consulting for people, you know, who are interested in even immersion cooling systems. I have done consulting for people who are doing liquid cooling systems, you know, almost all kinds of things, material technologies, quite a bit of that is in material technologies, also heat-sinked designs. It's a very broad variety of things that I have done there. 10:43:33 10:43:36 10:43:40 10:43:43 10:43:47 10:43:50 10:43:53 10:43:58

Q And in your consulting on immersion cooling systems, what aspects of immersion cooling systems did that involve? 10:44:01 10:44:06 10:44:10

A Just people trying to understand how much additional benefit they may have if they were to use immersion systems. 10:44:11 10:44:16 10:44:20

Q As compared to what? 10:44:22

A As compared to air-cooled. 10:44:23

Q I see. And what did you -- what have you found to be the benefit of immersion cooling as compared to air cooling? 10:44:25 10:44:28 10:44:32

A Yeah. I mean that -- specifically for that client, I couldn't get into that. In general, you know, immersion cooling systems simply because of higher thermal conductivity as well as higher heat capacity, your specific heat capacity like mass flow times heat capacity being larger, it can help in keeping the temperatures of some of the heat sources to be within specification. 10:44:32 10:44:35 10:44:40 10:44:45 10:44:49 10:44:54 10:44:59 10:45:05

So it's another cooling technology for, you know, cooling off chips. There are a variety of them, and each of them has their pluses and minuses. 10:45:08 10:45:13 10:45:17

Q I see. Have you found that when you are talking to people -- well, is it fair to say that since you're consulting on immersion cooling versus air cooling, that the people who are considering immersion cooling also regard air cooling as an option that they may use? 10:45:21 10:45:39 10:45:42 10:45:46 10:45:50 10:45:53

A Of course, right. It depends on what performance you want to operate your systems at and, you know, what reliability you want it at, right. Everybody in a system has a different design objective. 10:45:58 10:46:00 10:46:03 10:46:07 10:46:09

You know, you can achieve a design objective by using a lot of different options. Again, the cost may be different. The reliability may be different. The size may be different. The acoustics of the noise may be different from those, right, but given no constraints like that, right, it is possible to achieve cooling a lot of different ways. 10:46:15 10:46:17 10:46:20 10:46:22 10:46:24 10:46:28 10:46:33 10:46:36

Q I see. I mean are there any applications for which you have advised people that air cooling is not suitable, and they should use immersion cooling or some other form of cooling? 10:46:36 10:46:39 10:46:42 10:46:47

A That wasn't the part of my objective in this, you know, concerting project that I had with this company. The focus was slightly different. It was more about feasibility and things like that. 10:46:49 10:46:54 10:47:01 10:47:06

Q Now, you mention a Loop Thermosyphon technology that you developed or that was -- let me first ask, your resume says that a new Loop Thermosyphon technology was developed at Deeia. 10:47:14 10:47:17 10:47:21 10:47:29

Did you personally develop that or was that a group? Was it other folks at Deeia? 10:47:31 10:47:33

A No, it was mostly by myself. I certainly used some external places to get things made. 10:47:36 10:47:40

Q Right. 10:47:45

A I believe I just got issued patent on -- on that technology in the last six months or so. 10:47:46 10:47:51

Q Okay. Can you describe the Loop Thermosyphon technology that you developed? 10:47:53 10:47:58

A So it's a closed loop system, hermetically sealed, where you have some phase change happening at the heat source, and you essentially -- by "phase change," I mean the liquid turning into vapor. 10:48:03 10:48:08 10:48:12 10:48:16

The vapor flows over to some other section that has a heat exchanger there to reject the heat to the environment. So that removes the heat from the vapor. It turns back into liquid, and then there is a small height difference between where evaporation is happening versus where the condensation is happening. 10:48:19 10:48:25 10:48:29 10:48:31 10:48:34 10:48:38 10:48:40

So the condensed liquid comes back through a separate line back to where the evaporation is happening. So in this way, you can move heat from heat source, like your CPU or an ASIC to a heat sink where you may have a fan and a heat exchanger to 10:48:42 10:48:45 10:48:49 10:48:52 10:48:57

reject the heat. 10:49:01

Q So this would be used within a laptop or a desktop computer? 10:49:02 10:49:05

A The primary focus of that technology was data centers -- 10:49:06 10:49:10

Q Okay. 10:49:11

A -- in a server. 10:49:13

Q So it's used in a server within a data center? 10:49:14 10:49:17

A That's right. 10:49:17

Q Okay. It's not a technology that is spanning the length of a data center, correct? 10:49:17 10:49:21

A No, no, it's within the server to reject the heat from the CPU and the server. 10:49:24 10:49:27

Q And you're also at Deep-Materials where you were the founder and CEO, correct? 10:49:36 10:49:39

A That's right. 10:49:40

Q That company develops -- how many other people are at Deep-Materials besides you? 10:49:51 10:49:53

A In the United States, I'm the only person. As an employee, I have some consultants and contractors here in the U.S., but I have a few different entities in China depending on the location. In China, each location, I need to have a separate entity. 10:49:56 10:49:59 10:50:04 10:50:10 10:50:12 10:50:15

So I have two entities that are joint ventures with other companies where I may have like 30 or 40 employees total in those joint ventures, and then I have another joint venture company which, you know, is in the hiding phase right now, bringing up the factory right now. 10:50:16 10:50:20 10:50:24 10:50:28 10:50:34 10:50:38

So that right now has only two employees, but we are going to hire maybe about 15 employees then there. Then I also have an R&D team that is in a separate entity based out of India. 10:50:40 10:50:42 10:50:45 10:50:49

Q And that company Deep-Materials develops you say high thermal conductivity dispensed silicone TIMs, correct? 10:50:51 10:50:57 10:51:01

A That's right. And there are some more things also that we do, not just silicone based now, we also do non-silicone-based thermal interface materials or TIMs. 10:51:02 10:51:06 10:51:10 10:51:14

Q Okay. And what are the non-silicone-based TIMs based on? 10:51:15 10:51:20

A The ones that we are developing are for -- they are metallic thermal interface materials, and they are being tested both in immersion cooling and in air cooling. 10:51:21 10:51:26 10:51:30 10:51:33

Q And are these -- you mention that they're used in consumer electronics, computing, and 10:51:35 10:51:41

automotive parts, correct? 10:51:45

A The silicone-based products right now are 10:51:46

being used in quite a few different consumer 10:51:49

electronic systems, also automotive systems, also 10:51:52

now computer systems, high-performance liquid 10:51:57

cooling systems. 10:52:01

So maybe my resume is a little bit outdated 10:52:03

right now as I realize. Like, you know, we have 10:52:06

expanded in the last few months quite a few 10:52:08

different markets and new customers. 10:52:11

Also they are being used in data centers 10:52:20

and some of the components that go in data center, 10:52:22

this is a material that is used inside of some other 10:52:26

component, other module of some sort, right, 10:52:29

especially memory modules, RSJ drive modules, these 10:52:32

materials have been used. 10:52:37

Q So it would be used inside the servers, for 10:52:38

example, inside a data center? 10:52:42

A That's right. 10:52:43

Q So is it fair to say that all of the 10:52:44

different applications of these thermally conductive 10:52:54

gels are in, you know, things that are the size of a 10:52:57

server or smaller? 10:53:00

A They also have been tested in automotive 10:53:04

systems, in immersion cooling systems. In fact, 10:53:10

Intel did a -- a conference presentation where they shared results from our metallic thermal interface materials in immersion-cooled system and found them to be the highest performance thermal interface material for immersion cooling that they have tested. 10:53:18 10:53:29 10:53:33 10:53:36 10:53:40 10:53:41

Q How are they used in immersion cooling? 10:53:42

A They are used between the chip and the heat sink, the heat source, like, you know, an ASIC or a CPU in Intel's case or an AI processor or a GPU, between that and the heat sink that goes on top of that, in between those two things, you need a thermally conductive media to efficiently conduct heat away from the heat source, the CPU or the GPU to the heat sink. 10:53:45 10:53:49 10:53:52 10:53:58 10:54:01 10:54:04 10:54:08 10:54:12

Q Okay. So this is a broad question, but in the course of your career, what are some of the fluids you've worked with for cooling? 10:54:13 10:54:30 10:54:32

A First one, air, most common, okay. 99.999 percent of things are cooled by air, okay, looked at water, glycol, nanofluids, electrically conducting fluids, like liquid metal electrically insulating fluids like, you know, mineral oils or PAO -- 10:54:40 10:54:47 10:54:53 10:55:00 10:55:06

THE REPORTER: I'm sorry. Like what?

THE WITNESS: Electrically insulating

liquids like PAO or mineral oils. Then let's see. Some of the more zany things might be some gases, like helium that we were using in semiconductor equipment. There's a whole variety of things over the last 30 years that, you know, I have looked at. 10:55:12 10:55:19 10:55:25 10:55:33 10:55:37

BY MR. HALPERN: 10:55:44

Q Okay. Turning back to your report Exhibit 1, does this report contain all of your opinions that you intend to offer at trial in this case? 10:55:44 10:55:58 10:56:02 10:56:07

A It contains all of my opinions based on where we are in the process. If there is some new report that comes out or, you know, always there is some clarification that will come out in these proceedings through deposition and so forth, right, where I may look to further explain my positions. 10:56:07 10:56:15 10:56:19 10:56:24 10:56:30 10:56:33

Q But you don't know -- other than -- I mean you're not planning to offer opinions in this testimony that are not in your report, right, new opinions? 10:56:44 10:56:51 10:56:53 10:56:55

A No, I am not planning on that. 10:56:56

Q Okay. And are there -- do you know of any opinions that you plan to present at trial that are not in this report? 10:56:58 10:57:00 10:57:03

A Frankly, I have not thought about that yet 10:57:07

but I believe that this report is -- forms the basis of my analysis on infringement. 10:57:13 10:57:18

Q Is there anything in the report that you would -- having reviewed the report in preparation for this deposition, is there anything in the report that you would like to correct? 10:57:26 10:57:29 10:57:31 10:57:33

A There are a few small typos. Like, in some places lip is spelled as l-o-p. You know, maybe there are a couple of different locations. 10:57:38 10:57:42 10:57:47

But -- and then in one place, I noticed that, you know, M70 and M30, the two of the tanks that are used by Rhodium, I think in one location, it was misstated as one of the -- or the other, but that was very clear based on like, you know, all the discussion is happening about M70 and then suddenly there is -- no, sorry -- all the discussion was about M30 and there is suddenly an M70 that shows up there, but those are just minor typos that are pretty evident from the context that they are typos. 10:57:49 10:57:52 10:57:59 10:58:04 10:58:10 10:58:12 10:58:15 10:58:17 10:58:21 10:58:24

Q And is your list of materials reviewed complete, meaning you listed everything -- in your materials reviewed, you listed everything that you reviewed? 10:58:34 10:58:37 10:58:40 10:58:43

A Yes. 10:58:43

Q So there's nothing that you reviewed and 10:58:43

considered in forming your opinions, but did not include on your list of materials reviewed, correct? 10:58:49 10:58:52

A That's correct. 10:58:54

Q Your list of materials reviewed -- and we can refer to it if you would like to refresh your recollection, but I believe it includes Midas's infringement contentions. I believe it's Exhibit 3. 10:58:57 10:59:02 10:59:05 10:59:09

MR. THOMAS: Do you have a page number that you can refer us to? 10:59:28 10:59:30

MR. HALPERN: Well, no, because the exhibits have their own pagination. 10:59:32 10:59:32

MR. THOMAS: Okay. 10:59:35

MR. HALPERN: Yeah, but I believe it's Exhibit 3. 10:59:36 10:59:38

(The document referred to was marked by the Reporter as Pokharna Exhibit 3 for identification and is attached hereto.)

BY MR. HALPERN: 10:59:55

Q Okay. I've got it. Do you have it? 10:59:55

A Yes, I do. 10:59:58

Q Okay. So it does mention Midas's infringement contentions. They're just listed as final infringement contentions. 10:59:59 11:00:19 11:00:28

Do you see that? 11:00:30

A I see that. 11:00:30

Q So you did review Midas's infringement contentions and consider them in preparing this report? 11:00:30 11:00:34 11:00:37

A Yes. In preparation of the report as well as forming my opinions, over time I had looked at a lot of the materials and all of the things that I have reviewed are listed here in this case. 11:00:37 11:00:39 11:00:43 11:00:45

Q Now, your list of materials reviewed does not mention a document called "Plaintiff's Supplemental Response to Interrogatory No. 10" -- so that would be from Midas -- "Plaintiff's Supplemental Response to Interrogatory No. 10," dated March 15, 2023. 11:00:50 11:00:53 11:00:56 11:01:00 11:01:04 11:01:07

Okay. I don't see that on the list, and so I infer from that that you did not consider that material? 11:01:11 11:01:14 11:01:17

MR. THOMAS: Yeah. The report is dated December 22. So I'm sorry. You said March 15, 2023? 11:01:17 11:01:19 11:01:24

MR. HALPERN: Yeah. 11:01:24

MR. THOMAS: Okay. Okay. 11:01:25

MR. HALPERN: March of this year hasn't happened, right. 11:01:25 11:01:29

Q So is that correct, that that item -- and I can show it to you. 11:01:30 11:01:34

A Perhaps it might help me, yeah. 11:01:37

MR. HALPERN: Yeah, not those -- okay. 11:01:41

Great, thank you. So this will be Pokharna 11:01:50

Exhibit 2. I need another copy for counsel and one 11:01:53

for me. 11:02:20

(The document referred to was marked by the

Reporter as Pokharna Exhibit 2 for identification

and is attached hereto.)

BY MR. HALPERN: 11:02:23

Q Okay. I realize you're reviewing, but I'll 11:02:23

just pose a question. 11:02:59

Do you recall seeing this document before? 11:03:00

A It doesn't jump up as something that I have 11:03:02

studied in detail. 11:03:07

Q Do you know if you've seen it at all -- or 11:03:09

let me -- I mean not a trick question. 11:03:14

It's not listed as something you've 11:03:15

considered so -- 11:03:17

A Right. Yeah, it does not -- it does not 11:03:18

ring a bell, certainly not in the detail. It may 11:03:25

be -- I have not listed it here and it certainly is 11:03:30

not something that I have studied in detail, so most 11:03:36

likely I have not looked at it. 11:03:40

Q Okay. Now, you also list various Rhodium 11:03:42

interrogatory responses as items that you 11:03:57

considered. For example, on -- it's not numbered, but I mean it's on the first page of your materials considered, you list Rhodium's supplemental responses and objections to rogs, and then on the next page, there's Rhodium's further supplemental responses to rogs 1, 3 to 6, 10, 13, 15. 11:04:04 11:04:07 11:04:10 11:04:16 11:04:27 11:04:30

A Yep. 11:04:35

Q Okay. So do you recall looking at Rhodium's interrogatory responses? 11:04:36 11:04:38

A I've looked at a lot of different rogs and, you know, sitting here right now, I just can't tell you if I looked at that particular one and what that says on 1, 3 to 6, 10, 13, 15, etcetera. 11:04:41 11:04:49 11:04:52 11:04:56

Q Okay. Well, I may put it in front of you, but I just want to ask generally, when you reviewed the Rhodium interrogatory responses that described their systems at Temple, at Rockdale, how they were hooked up, what parts they contained and so on, how they operate, did you conclude that any of Rhodium's answers describing those things, what was present, how it was connected, how it operates, did you conclude that any of Rhodium's answers were inaccurate? 11:05:04 11:05:07 11:05:12 11:05:18 11:05:23 11:05:27 11:05:32 11:05:36 11:05:39 11:05:41

MR. THOMAS: I'm just going to object on no foundation. 11:05:50 11:05:52

THE WITNESS: So I think I would differ in my opinion on some of the way they would describe their systems. 11:05:58 11:06:02 11:06:04

They use different language, you know, and also this is a pretty broad question about like tens of thousands of pages probably. So to say that, you know, was it anything that I thought is factually inaccurate, I'm sure there were things that I felt that I would not describe it that way. 11:06:06 11:06:09 11:06:13 11:06:16 11:06:21 11:06:24

But, in general, they are trying to describe broadly how things are hooked up, where the tanks are, and the liquid is going and so forth. I think that is fundamentally correct, but, you know, the details on each of those as to, you know, how things are distributed, where the coolant may end up, and how it may end up, some of those things I might differ. 11:06:28 11:06:30 11:06:34 11:06:38 11:06:44 11:06:49 11:06:55 11:06:59

BY MR. HALPERN: 11:06:59

Q Do you recall any specific points where you differed with one of the interrogatory responses? 11:06:59 11:07:03

MR. THOMAS: Objection; vague and ambiguous. 11:07:06 11:07:11

THE WITNESS: Sitting here right now, I could not, you know, recall my study of thousands of pages and specify -- and specifically remembering 11:07:11 11:07:13 11:07:17

something. 11:07:21

BY MR. HALPERN: 11:07:22

Q I don't think the rog responses were 11:07:22

thousands of pages, but I -- I -- the entirety of 11:07:24

the materials were lengthy, I -- that you reviewed, 11:07:28

I understand. 11:07:31

Okay. So I'd like the supplemental rog 11:07:32

response -- yes -- no, no, no, this is -- I'm 11:07:47

wondering if I handed you the wrong exhibit. 11:08:09

MR. THOMAS: You're talking about 11:08:12

Exhibit 2, Counsel? 11:08:13

MR. HALPERN: Yeah. 11:08:14

MR. THOMAS: Exhibit 2 is marked as 11:08:14

"Defendants' Third Supplemental Responses to 11:08:16

Plaintiff's First Set of Interrogatories." 11:08:18

MR. HALPERN: Okay. So I asked you a 11:08:21

question about that exhibit. What's that? 11:08:23

Can we go off the record? We've been going 11:08:32

about an hour. 11:08:34

THE VIDEOGRAPHER: Going off the record, 11:08:35

the time is approximately 11:08 a.m. 11:08:36

(Recess taken.) 11:20:30

THE VIDEOGRAPHER: Going back on the 11:20:31

record, the time is approximately 11:21 a.m. 11:21:39

MR. HALPERN: Okay. So I am going to 11:21:46

clarify something with reference to Exhibit 2. 11:21:48

So Exhibit 2 is "Defendants' Third 11:21:56

Supplemental Responses and Objections to Plaintiff's 11:21:59

First Set of Interrogatories," and I am about to ask 11:22:02

the witness some questions about Exhibit 2. 11:22:07

I earlier asked the witness questions about 11:22:09

Exhibit 2 in reference actually to a different but 11:22:11

similarly titled document, which are "Plaintiff's 11:22:17

Supplemental Responses to Interrogatory No. 10," and 11:22:20

so that document is -- is on its way here. 11:22:24

So I will reask those questions in a few 11:22:32

minutes when we have that document, but for the 11:22:36

moment, I'll proceed with questions about Exhibit 2. 11:22:39

So if you -- in Exhibit 2 which is 11:22:50

"Defendants' Third Supplemental Responses and 11:22:53

Objections to Plaintiff's First Set of 11:22:56

Interrogatories," if we can look at pages 9, 10, 11, 11:22:59

and 12, and let me know when you've had a chance to 11:23:16

review those, and I will proceed. 11:23:22

A 9, 10, 11, and 12, did you say? 11:24:24

Q Yeah, pages 9, 10, 11, and 12. 11:24:27

MR. THOMAS: And to clarify the record 11:24:32

further, this document is identified on his index of 11:24:33

documents that he reviewed when he prepared the 11:24:37

report. 11:24:40

MR. HALPERN: Yes, correct. Yes, I don't think this document is identified by title, but I believe it just says defendants' responses to interrogatories. 11:24:40 11:24:41 11:24:45 11:24:47

MR. THOMAS: I don't have it in front of me. I'm not sure how it is identified. 11:24:49 11:24:50

It says, "Rhodium's Third Supplemental Responses to Interrogatories." 11:24:56 11:24:58

MR. HALPERN: So then, yes, this is identified. 11:25:00 11:25:01

MR. THOMAS: Okay. 11:25:01

THE WITNESS: I have quickly perused it and then depending on the questions, I might take some more time and review it in depth. 11:25:05 11:25:08 11:25:11

BY MR. HALPERN: 11:25:13

Q That's absolutely fine. Do you see anything in these responses that I just directed you to that you concluded was inaccurate when you were preparing your report? 11:25:13 11:25:15 11:25:21 11:25:26

A Again, there is a lot of detail here and it references a lot of other things, and without having to recreate all of that, it's -- I'm not aware of anything right now that I think is incorrect. 11:25:37 11:25:42 11:25:44 11:25:54

Q Okay. And, you know, again, there's no hidden agenda. 11:25:56 11:25:59

When you -- in your report, you characterized, for example, the Prime Controls system as an installation that was not completed, and this document describes in more detail how that installation was incomplete. 11:26:00 11:26:02 11:26:05 11:26:11 11:26:16

And so it appeared to me from your report that you were adopting the information here that it was not a complete installation, but you just didn't provide all the details of that. 11:26:17 11:26:20 11:26:24 11:26:27

And so I just was trying to confirm that, you know, you looked at this, and you relied on it in describing the incomplete Prime Controls installation? 11:26:29 11:26:33 11:26:37 11:26:42

A That's correct. 11:26:43

Q Okay. All right. Now, if we have plaintiff's -- okay. 11:26:44 11:26:58

So now we have Exhibit -- what I'm going to give the witness as Exhibit 3. Please put aside Exhibit 2 for the moment. I may come back to it. 11:26:59 11:27:01 11:27:05

And do you see that Exhibit 3 is "Plaintiff's Supplemental Response to Interrogatory No. 10"? 11:27:30 11:27:32 11:27:37

A Yes. 11:27:38

Q Okay. So this is the document I was referencing earlier, even though I handed you the 11:27:38 11:27:42

wrong document, and I represented to you that this document is not identified as a document that you considered in preparing your report. 11:27:46 11:27:55 11:27:59

And so if you don't mind having a look at pages -- I mean the whole thing was not -- you know, not listed but particularly pages 3 to 5 contain some material in response to defendants' interrogatory number 10, and I just want to have you look at it and confirm that you did not consider this in the preparation of your report. 11:28:03 11:28:13 11:28:17 11:28:24 11:28:30 11:28:35 11:28:37

A While I might not have considered this report, I am certainly aware of Temple having the Grundfos pumps and some of this -- 11:28:39 11:29:05

THE REPORTER: I'm sorry. What pumps?

THE WITNESS: The Grundfos, G-r-u-n-d-f-o-s, pumps to pump the dielectric liquid in the tanks. 11:29:18 11:29:20 11:29:29

So, again, I may not know all the details of what is written here. Some of the information I'm familiar with simply because I have personally inspected some of these facilities. 11:29:33 11:29:39 11:29:40 11:29:45

And did you want me to read page 10 as well? 11:29:48 11:29:51

BY MR. HALPERN: 11:29:51

Q No, there's nothing on page 10 in this 11:29:51

document. 11:29:57

A I'm sorry. Page 4, I'm sorry. I don't 11:29:58

know where page 10 came from. 11:30:00

Q That's okay. Yes, pages 3 through 5. 11:30:02

A 3 to 5.

Q I'm just trying to confirm since you did 11:30:07

not list it that you did not consider this material 11:30:09

in preparing for your report. 11:30:12

A Again, just like I said earlier, I have 11:30:42

personally been to Rockdale facility as well and I 11:30:45

have seen the VFD controllers by Eaton and so forth. 11:30:49

So while, again, I may not have relied on all the 11:30:56

details that are there in this rog, I certainly have 11:30:59

been familiar with some of the information that is 11:31:05

here. 11:31:07

Q Is it fair to say since this is not listed 11:31:07

as a document that you considered, that you may be 11:31:10

aware of some information that is in here from other 11:31:15

sources, but that you did not rely on this document? 11:31:19

A Right, not specifically on this document. 11:31:23

The other sources, some of them have been personal 11:31:27

observation that I made while I was visiting the 11:31:31

site. 11:31:34

Q And to the extent that you made personal 11:31:34

observations of equipment while visiting the site, 11:31:36

that is reflected in your report? Those facts that you collected by observation of the site, you've put those in your report; is that correct? 11:31:41 11:31:43 11:31:47

A The report is a subset of what all I know, right. I mean in -- in the context, whatever was required, I have provided that in the report. 11:31:51 11:31:57 11:32:01

There may be other things that I obviously observed. I cannot recollect every single detail that I saw there. Here it's just in the context of what we are talking about, and the report is what I have provided. 11:32:06 11:32:08 11:32:11 11:32:15 11:32:18

Q So is it fair to say that your report provides the facts -- the relevant facts that you observed or learned that support your opinions? 11:32:18 11:32:21 11:32:27

A That's in general correct. 11:32:34

Q Okay. And given that you did not list it in your report, is it a fair inference that you did not look at this particular document prior to today? 11:32:36 11:32:52 11:32:57

A I don't believe I have seen this document prior to today. 11:33:01 11:33:04

MR. HALPERN: Okay. All right. Okay. I'd like to give you another exhibit which will be Midas's infringement contentions. 11:33:05 11:33:15 11:33:20

Okay. Great. So we at least have staples attached. So this will be Exhibit 4. That one

staple didn't go all the way through here. We'll give you this one.

MR. THOMAS: Thank you.

MR. HALPERN: Sure.

(The document referred to was marked by the Reporter as Pokharna Exhibit 4 for identification and is attached hereto.)

BY MR. HALPERN: 11:33:51

Q And do you see the document I put in front of you which will be Pokharna Exhibit 4 is titled "Final Infringement Contentions"? 11:33:51 11:33:54 11:34:00

A Yes. 11:34:03

Q And do you recognize these as the Plaintiff Midas Green Technologies final infringement contentions? 11:34:04 11:34:14 11:34:17

A Yes. 11:34:18

Q Have you seen this document before? 11:34:20

A Yes, I have. 11:34:22

Q Okay. And I'd like to direct you to pages 13 to 14 of this document. Let me know when you've had a chance to review those. 11:34:22 11:34:43 11:35:10

A I have reviewed 13 and 14. 11:35:47

Q Okay. Do -- now page -- pages 13 and 14 address the limitation "a secondary fluid circulation facility adapted to extract heat from 11:35:52 11:36:03 11:36:09

the dielectric fluid circulating in the primary circulation facility and to dissipate to the environment the heat so extracted." 11:36:11 11:36:14 11:36:17

Do you see that? 11:36:19

A Yes, I do. 11:36:20

Q And then on the right side is some material that Midas provided to show infringement of that limitation. 11:36:20 11:36:26 11:36:34

Do you see that? 11:36:35

A I do. 11:36:35

Q Do these pages, pages 13 and 14, mention the Kelvion cooler? 11:36:36 11:36:43

A I don't believe they mention the Kelvion cooler. 11:36:46 11:37:08

Q Okay. Do they mention any of the specific components of the Kelvion coolers that you discuss in your report? 11:37:08 11:37:10 11:37:12

A They discuss the dry cooler or adiabatic fluid cooler or similar cooling devices or device, and that is referring to the Kelvion cooler or the cooler. 11:37:48 11:37:56 11:38:04 11:38:16

There is a separate cooler that is used on Temple facility -- or I'm sorry. I may be mixing up my facilities. The cooler that is used in the other facility is not by Kelvion. 11:38:17 11:38:25 11:38:27 11:38:30

Q I believe you're referring to the Guntner? 11:38:34
A The Guntner cooler, Guntner cooler, yeah. 11:38:36
Q Do these pages mention the Guntner cooler? 11:38:38
A No, these pages are referring to -- when 11:38:41
they talk about the dry cooler, adiabatic fluid 11:38:44
cooler, or similar cooling device. 11:38:49
Q Okay. So that is the only reference to the 11:38:52
Kelvion -- well, I don't want to agree that it's a 11:38:55
reference to them, but the only thing that you're 11:38:59
identifying as a reference to the Kelvion coolers or 11:39:01
the Guntner coolers is this -- the following 11:39:04
language: The secondary fluid circulation facility 11:39:06
includes a dry cooler, adiabatic fluid cooler, or 11:39:10
similar cooling device; is that correct? 11:39:13
A That, along with the schematics that I 11:39:16
provided on page 14 top, are also showing those dry 11:39:21
coolers on the left-hand side of both of those 11:39:28
pictures. 11:39:31
Q And are those depictions of dry coolers on 11:39:32
the left-hand side of the Kelvion cooler 11:39:35
specifically? 11:39:38
A They are schematic, not really an actual 11:39:45
drawing of the product. They are referring to the 11:39:52
function that is provided by the Kelvion cooler or 11:39:57
the Guntner cooler. 11:40:00

Q Right. So in other words, I think it's fair to say -- tell me if you disagree -- that when you say a dry cooler, adiabatic fluid cooler, or similar cooling device, you're saying there's some sort of dry cooler, correct, that's describing a category of dry cooler? 11:40:01 11:40:03 11:40:05 11:40:10 11:40:13 11:40:16

A Yes, as a -- as a way to reject the heat to the environment. 11:40:20 11:40:27

Q And then on the left side of the drawings of the R30 and R70 system on page 14, there's a -- essentially a schematic representation of a dry cooler, but it's not one of the specific dry cooler products that you talk about in your report; is that correct? 11:40:27 11:40:30 11:40:35 11:40:38 11:40:41 11:40:43

A Yes, these are schematics and not the actual detailed pictures or the drawings of the specific coolers that are used in these two facilities. 11:40:44 11:40:49 11:40:53 11:40:55

Q Okay. And then the various components of the dry cooler that you discuss, specific components of the Kelvion and Guntner coolers, those are also not discussed in the infringement contentions, correct? 11:40:56 11:41:00 11:41:02 11:41:06 11:41:12

A I'm sorry. Could you just repeat the question, please? 11:41:12 11:41:15

Q Yes. The various specific components of the Kelvion and Guntner dry coolers that you discuss in your report, those are not discussed in the infringement contentions, correct? 11:41:16 11:41:19 11:41:23 11:41:26

A My expert report goes deeper in describing that than what is there on this page 13 and 14. 11:41:31 11:41:34

Q Well, does page 13 -- does page 13 or 14 mention any specific components of the dry cooler other than dry cooler, adiabatic fluid cooler, or similar cooling device? 11:41:39 11:41:44 11:41:49 11:41:54

A They go on to explain that they are adapted to extract heat from the dielectric fluid and dissipate the extracted heat to the environment, right, and then, you know, it also refers to some other documents. 11:41:56 11:42:02 11:42:05 11:42:08 11:42:16

And obviously sitting here, I do not recall exactly what detail was there in those documents, but those documents are, I believe, incorporated here by, you know, just referencing to them, and I do not know sitting here if those documents describe any components of those dry coolers. 11:42:16 11:42:19 11:42:21 11:42:24 11:42:30 11:42:34

Q That's fair, but in terms of what is in front of you on pages 13 and 14, there's no mention of other components of the Kelvion or Guntner dry coolers apart from the description that the 11:42:38 11:42:40 11:42:45 11:42:50

secondary fluid circulation facility includes a dry cooler, adiabatic cooler, or similar cooling device; is that correct? 11:42:57 11:43:01 11:43:05

MR. THOMAS: I'll just object. The document speaks for itself. 11:43:07 11:43:08

THE WITNESS: If I look at the schematic for the R70 system, you know, I would conclude that there are some fans there, but they are not specifically mentioned in this document. 11:43:10 11:43:13 11:43:18 11:43:23

BY MR. HALPERN: 11:43:31

Q Does it show the fans? 11:43:31

A Yes, so the round things on top in a dry cooler would represent a fan. 11:43:32 11:43:38

Q Oh, I'm sorry, yes, the lower drawing. 11:43:41

A The R70, yes. The upper drawing is for R30 system. 11:43:43 11:43:49

Q Yes. Does the R30 system also have fans? 11:43:49

A Yes. 11:43:56

Q But they're not shown in the R30 schematic here? 11:43:57 11:44:00

A Like I mentioned, this is just a schematic to describe the overall piping diagram if I recall correctly, you know, and it does not go into detail about the design of the dry coolers itself. 11:44:02 11:44:05 11:44:08 11:44:12

But as a person of ordinary skill in the 11:44:16

art would know that, in a dry cooler, you would need a heat exchanger. You would need air mover to move air. You may also need some water if it is a wet cooler. 11:44:20 11:44:23 11:44:28 11:44:37

THE REPORTER: A direct cooler?

THE WITNESS: If it is a wet cooler.

THE REPORTER: Wet? 11:44:41

THE WITNESS: Yeah. 11:44:41

BY MR. HALPERN: 11:44:41

Q Okay. Now, I'd like to direct you to pages 14 to 15. So this is the same document, Exhibit 4, Midas's infringement contentions, and this is -- now I'm directing you to the material provided for the limitation, "a control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the temperature of the dielectric fluid in the tank." 11:44:41 11:45:06 11:45:12 11:45:18 11:45:21 11:45:24 11:45:26 11:45:29 11:45:33

Do you see that? 11:45:34

A I see that. 11:45:35

Q Do these pages mention the Prime Controls system or any of the particular components of the Prime Controls system? 11:45:36 11:45:44 11:45:47

Let's start -- I asked two questions. 11:45:51

Do these pages mention the Prime Controls 11:45:54

system, 14 to 15? 11:45:56

A I think that's just to -- as a matter of 11:46:02

fact, they are not really stating Prime Control 11:46:04

unless I have missed it in my quick perusal of this 11:46:07

document. 11:46:13

Q And do they mention the Kelvion coolers, 11:46:13

pages 14 to 15, the limitation, do they mention the 11:46:18

Kelvion coolers? 11:46:22

A I mean I do not see that mentioned here 11:46:25

specifically. 11:46:27

Q Do they mention the Guntner coolers, pages 11:46:30

14 to 15? 11:46:32

A Again, they do not mention that explicitly. 11:46:35

Q Do they mention any particular components 11:46:38

of the Prime Controls system on pages 14 to 15? 11:46:49

A I believe the Prime Controls system was 11:47:10

installed for measuring various things like 11:47:15

temperatures, may even measure pressures in the 11:47:18

system, and those things are mentioned in -- on top 11:47:23

of page 15. 11:47:30

Q Yeah. You're referring to the reference to 11:47:49

microsensors. 11:47:51

Do they mention where -- do they mention 11:47:56

any particular microsensors by location? 11:47:58

A No. In this document, it's talking about, 11:48:09

in general, they are monitoring things like temperature, pressure, flow rate. 11:48:12 11:48:14

Q So it mentions the functionality of -- or it mentions the parameters that are being measured, but it doesn't -- it doesn't describe any particular devices that are used to measure those quantities; is that fair? 11:48:21 11:48:31 11:48:34 11:48:38 11:48:43

A I guess devices to measure a particular quantity is sort of obvious to a person of ordinary skill in the art. 11:48:43 11:48:51 11:48:57

If you're measuring temperatures, there are just a few different available options that could be used and same goes for pressure and flow rate. So while it does not explicitly mention the kind of sensor that is being used, you know, there is a finite and limited set of sensors that are available to make these measurements. 11:48:58 11:49:01 11:49:04 11:49:09 11:49:12 11:49:16 11:49:20

Q Well, let me ask it this way. I mean does it explain how the Kelvion cooler in particular meets this limitation? 11:49:22 11:49:25 11:49:32

A I think what we are saying is the Kelvion cooler is making measurements of the fluid, and based on that, it is adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of that 11:49:45 11:49:49 11:49:58 11:50:05 11:50:09

temperature. 11:50:11

Q But does this document say the Kelvion 11:50:11

cooler is making measurements of the fluid? 11:50:14

A As we discussed, this document is talking 11:50:17

about the concept broadly and is not talking 11:50:21

specifically about Kelvion cooler. 11:50:28

MR. THOMAS: I want to just add an 11:50:30

objection that there are a series of Bates-labeled 11:50:32

documents referred to inside of page -- the pages 11:50:35

that you're asking about. You're not showing the 11:50:38

witness those documents. 11:50:40

MR. HALPERN: Right. I'm asking him about 11:50:41

the document in front of him. 11:50:43

MR. THOMAS: I know, but the document in 11:50:44

front of him incorporates other documents by 11:50:46

references, as he's already said, and you're not 11:50:48

showing those documents to the witness is the 11:50:52

objection. 11:50:54

MR. HALPERN: Okay. You can make your 11:50:54

objection. I mean I'm just asking him about, yeah, 11:50:55

what he's looking at. Okay. 11:50:58

MR. THOMAS: But your question -- I guess 11:50:59

to put a finer point on the objection, your question 11:51:01

is assuming facts not in evidence. You're assuming 11:51:04

this document doesn't reference Kelvion or Guntner 11:51:06

or some of the other coolers when there are documents referred to that possibly do do that. 11:51:10 11:51:13

MR. HALPERN: Okay. Well, now you're coaching the witness. 11:51:16 11:51:18

MR. THOMAS: No, I'm not. I'm making an objection because you're trying to lead him to believe that there is -- 11:51:18 11:51:20 11:51:22

MR. HALPERN: I'm asking about what his -- 11:51:22

MR. THOMAS: I -- I won't argue. My objection stands. It's fine. Go ahead. 11:51:24 11:51:26

BY MR. HALPERN:

Q So I'm asking you about the document you're looking at. 11:51:28 11:51:31

Does this document, frankly either on pages 13 to 14 or 14 to 15, discuss how the Guntner coolers meet either of these limitations that are being discussed on these two pages -- three pages, 13 to 15? 11:51:39 11:51:42 11:51:52 11:51:54 11:51:59

MR. THOMAS: Just for the record, are you including the Bates reference -- 11:52:00 11:52:03

MR. HALPERN: No, I'm -- I'm not -- I guess you could say I'm excluding. Again, this is a speaking objection. You've explained your objection. I'm asking him about the document he's looking at. 11:52:04 11:52:04 11:52:06 11:52:08 11:52:11

MR. THOMAS: The document he's looking at includes other documents that he's not looking at. 11:52:12 11:52:14

MR. HALPERN: Okay. But I'm asking him about the part that he is looking at, right, we can separately talk about other documents, but in this document, I'm asking -- 11:52:16 11:52:18 11:52:20 11:52:23

MR. THOMAS: I'm just going to object that you've asked the witness about a document that has information, you need to show him the whole document, not just a piece of it. 11:52:23 11:52:25 11:52:28 11:52:30

MR. HALPERN: Well, I'm showing him the whole document. Documents cite things all the time. I don't agree with the view that if a document cites something, that, you know, the document is somehow incomplete if you don't show all of the things that are cited. 11:52:32 11:52:33 11:52:37 11:52:39 11:52:42 11:52:45

You know, there are things that are cited there. As you say, the document speaks for itself. I'm asking about what's here on the page in front of you. 11:52:46 11:52:49 11:52:52 11:52:54

Q So does the document that you're reviewing show how the Guntner coolers meet the limitations discussed on page 13 to 15? 11:52:57 11:53:02 11:53:07

MR. THOMAS: Same objections. 11:53:09

THE WITNESS: Page 13 to 15, again, 11:53:10

notwithstanding the incorporated by reference things, do not explicitly mention the Guntner, but they do describe the functionality of that cooler and the control system in here. 11:53:15 11:53:17 11:53:22 11:53:27

BY MR. HALPERN: 11:53:30

Q Do they describe the functionality of that particular cooler or do they just describe the functionality of a dry cooler and a control facility in general? 11:53:30 11:53:33 11:53:35 11:53:40

A So when we look at a system, there are hundreds of things about that system, and not all of them are relevant for the list here, right. 11:53:42 11:53:45 11:53:47

So as it relates to these claim elements, I believe it describes it sufficiently that they have a dry cooler, that they are measuring the temperatures and pressures in various locations to coordinate the function -- that coordinate the functioning of the primary and secondary cooling facility -- circulation facility, I should say. 11:53:51 11:53:55 11:54:00 11:54:03 11:54:06 11:54:09 11:54:13

Q But they don't discuss any of the particulars of the Kelvion and Guntner dry coolers, correct? 11:54:17 11:54:19 11:54:22

MR. THOMAS: Same objection. There's Bates-labeled documents not shown to the witness. 11:54:22 11:54:25

THE WITNESS: Yeah, they -- in the writing 11:54:27

that is there in these paragraphs, they do not explicitly mention the Kelvion or the Guntner dry coolers. 11:54:30 11:54:33 11:54:41

BY MR. HALPERN: 11:54:45

Q Do these pages 13 to 15 mention the direct control of power to the miners? 11:54:45 11:54:49

A I think they do when they say -- I'm going to read from -- sort of not absolute top, but maybe the second line from top using -- 11:54:51 11:55:16 11:55:22

Q Which page are you on? 11:55:24

A Page 15. 11:55:25

Q Page 15. 11:55:26

A "Using machine-learning technology and data points collected by these sensors, through robotic process automation (RPA) triggers a tuning response to the power intake as needed to either remediate or optimize miner performance," and then it also refers to other documents. 11:55:27 11:55:30 11:55:33 11:55:40 11:55:43 11:55:49

So to a person of ordinary skill in the art, when we say that response to power intake as needed to either remediate or optimize miner performances -- performance means that it is modulating the power input. I forget the exact phrase that you used in your question. 11:55:54 11:55:56 11:56:01 11:56:06 11:56:12 11:56:15

Q Do these pages mention the Restful API, 11:56:26

pages 14 and 15 of the infringement contentions? 11:56:29

A Again, notwithstanding the incorporation by reference, as a matter of fact, the Restful API, I do not believe appears on page 13 to 15. 11:56:34 11:56:37 11:56:43

Q Now, turning to pages 15 to 16 of the infringement contentions, do they mention the Temple network layout? 11:56:59 11:57:01 11:57:15

A Again, notwithstanding the Bates-referenced numbers here, I do not believe that they are explicitly stating the Temple network. 11:57:32 11:57:37 11:57:40

Q Do they mention the Prime Controls system, pages 15 to 16? 11:57:47 11:57:51

A Same answer as the previous question. 11:57:53

Q I appreciate the efficiency of that, but I would rather, if you don't mind, that you just answer the question in its own right. 11:58:00 11:58:02 11:58:04

A Okay. 11:58:05

Q So do pages 15 to 16 mention the Prime Control -- Prime Controls system? 11:58:06 11:58:09

A Again, notwithstanding the incorporation of these Bates documents, I do not believe that the language here states control system that you just mentioned. Sorry. 11:58:16 11:58:19 11:58:24 11:58:34

Q Okay. 11:58:35

A I'm sorry. Which -- this was not -- what 11:58:40

was the control system? I'm sorry. I don't have -- 11:58:43
Q The Prime Controls system. 11:58:45
A The Prime Control, right. 11:58:46
Q Do pages 15 to 16 of the infringement 11:58:47
contentions which relate to claim 5 mention the 11:58:50
Prime Controls system? 11:58:53
A Yeah, again, notwithstanding the 11:58:55
incorporation by reference, they do not expressly 11:58:58
mention the Prime Controls, though they talk about 11:59:03
the functionality that is provided by the Prime 11:59:05
Controls. 11:59:17
Q Where do they talk about the functionality 11:59:17
that is provided by the Prime Controls system? 11:59:19
A So "Through a series of microsensors, 11:59:21
machine-learning, and application programming 11:59:28
interfaces our proprietary mining software provides 11:59:29
real-time data that enable increased miner uptime, 11:59:33
hash rate, and scalability."
"In order for it to provide data from the 11:59:38
sensors, it has to get that information from the 11:59:41
control system." 11:59:47
Q I see. You note in your report that 11:59:51
installation of the Prime Controls system was never 11:59:52
completed. 11:59:55
Do you recall that? 11:59:55

A I do. 11:59:56

Q So -- and you are aware that it is not a functioning system? 12:00:01 12:00:03

MR. THOMAS: I'm going to object as mischaracterizes the evidence. 12:00:04 12:00:06

THE WITNESS: Sorry. Could you ask your question again? 12:00:12 12:00:12

BY MR. HALPERN: 12:00:13

Q Yeah. Are you aware that the Prime Controls system is not a functioning system? 12:00:13 12:00:14

A I believe it was installed, but not hooked on. So in that sense, it was. 12:00:17 12:00:19

Q Actually you -- go ahead. I'm sorry. 12:00:27

A In that sense, it was -- if your characterization was it was not functioning -- 12:00:31 12:00:37

THE REPORTER: I'm sorry. In that sense?

THE WITNESS: If your characterization is it was not functioning, then that would be true because it was not hooked on, but -- 12:00:42 12:00:46

BY MR. HALPERN: 12:01:07

Q Yeah. So if you look at Exhibit 1, paragraph 93 -- 12:01:07 12:01:09

MR. THOMAS: Exhibit 1, you said, Counsel? 12:01:12

MR. HALPERN: Yeah, paragraph 93 which is your report. 12:01:14 12:01:16

MR. THOMAS: Do you have that?

BY MR. HALPERN: 12:01:36

Q And you say that "It is my understanding 12:01:36
that Prime Controls had substantially completed 12:01:42
installation of the control facility, but Rhodium 12:01:44
had to stop paying Prime Controls, so installation 12:01:47
of the control system was put on hold. It is my 12:01:50
understanding that Rhodium planned to have Prime 12:01:54
Controls complete the installation after it fully 12:01:56
paid Prime Controls." 12:01:59

Do you see that? 12:02:01

A I do. 12:02:01

Q So is it fair to say that in your report 12:02:02
you characterize the Prime Controls system as an 12:02:04
installation that was not completed? 12:02:09

A Yes, as the report says, it was put on hold 12:02:14
because of underpayment to the contractor. 12:02:16

Q Okay. And so now if I can direct you to 12:02:20
Exhibit 2, I believe, where I had you look 12:02:28
previously was on page 11 at the top, do you see 12:02:37
where it says "Prime Controls and Industrial 12:03:03
Builders never completed the work described in 12:03:07
Plaintiff's Supplemental Response to Interrogatory 12:03:09
No. 10, and as a result, the system described in 12:03:12
Plaintiff's Supplemental Response to Interrogatory 12:03:15

No. 10," etcetera, "is not installed, let alone in operation." 12:03:17 12:03:22

And I asked you if you had any reason to doubt the factual -- that that was factually accurate earlier, and you testified that you did not doubt that it was accurate. 12:03:26 12:03:31 12:03:35 12:03:38

So do you recall that? 12:03:46

A I do. 12:03:46

Q Okay. So if the system is not installed and not in operation, then returning to the infringement contentions, is it -- isn't it the case that the following description does not apply to an uninstalled system? 12:03:48 12:03:52 12:03:56 12:04:02 12:04:08

MR. THOMAS: Where are you reading from, Counsel? 12:04:09 12:04:10

MR. HALPERN: Yeah. Now I'm back to the infringement contentions, which are Exhibit 4, at page 15. 12:04:10 12:04:12 12:04:15

Q And you testified a few minutes ago, "Through a series of microsensors, machine-learning, and application, programming interfaces, our proprietary mining software provides real-time data that enable increased miner uptime, hash rate, and scalability." 12:04:17 12:04:21 12:04:23 12:04:27 12:04:30 12:04:34

So is it fair to say that the sentence I 12:04:35

just read does not describe a system that isn't operating and isn't installed? 12:04:40 12:04:44

A So while Prime Controls system may not be fully completed and installed, that's not the only -- only place that has sensors. Your entire line of questioning was about Prime Controls. 12:04:52 12:04:57 12:05:01 12:05:06

Q Yes. 12:05:08

A It is true that Prime Controls is not providing that microsensor input data in this control program. 12:05:09 12:05:11 12:05:16

Q Okay. So this description on page 15, 16 of the infringement contentions does not characterize Prime Controls in your view -- doesn't apply to Prime Controls; is that fair? 12:05:17 12:05:22 12:05:24 12:05:27

A That depends on how you construe the phrase "adapted to." You know, it's -- 12:05:32 12:05:36

Q I will get to that, but I -- 12:05:42

A Okay. 12:05:45

Q This -- the language I asked you about doesn't contain the words "adapted to." So I'm asking if that language applies -- 12:05:45 12:05:47 12:05:50

A For claim element 5, claim 5, you're asking? 12:05:51 12:05:54

Q Yes, but I was asking about the language on the right -- or you know what, I'm sorry. 12:05:54 12:05:58

So you're saying -- is it fair to say you would agree that this does not describe what Prime Controls is doing, but that in light of the "adapted to" language, you would say that it may be adapted to do those things? 12:06:00 12:06:03 12:06:06 12:06:12 12:06:15

A Yes, I believe that adapted to means that it is provisioned for, and it was -- from the design point of view was provisioned for it. It's merely because of an economic dispute that they have not turned it on right now. So while the system was there, they have not turned it on for maybe economic reason, maybe some other motive. 12:06:20 12:06:22 12:06:25 12:06:28 12:06:31 12:06:37 12:06:43

Q But do you agree that there's a difference between something that is installed but not turned on and something that is not completely installed? 12:06:45 12:06:48 12:06:51

A So when we say "it's not completely installed," it still means that there are certain portions that are -- that are installed. There are various elements to a control system, like sensor system, like temperatures, pressures, and so many things. Just because it is not completed doesn't mean certain things are not completed. 12:07:01 12:07:03 12:07:04 12:07:07 12:07:14 12:07:16 12:07:20

Q Did you see -- did you observe when you visited the site that the sensors of the Prime Controls system were not connected? 12:07:22 12:07:26 12:07:28

A While I cannot claim that I saw every single sensor that they would have, I did see some sensors that were not connected. I believe that there is some pictures that we might have taken of that and might have made it into my report, if I recall correctly. 12:07:30 12:07:38 12:07:41 12:07:45 12:07:50 12:07:52

Q Okay. Did you see anything that were connected on the Prime Controls system? 12:07:53 12:07:55

A Like, temperature sensor was installed in the temperature mode. Merely the act of connecting two different connectors was not completed. 12:08:01 12:08:04 12:08:08

So I can say temperature sensor was installed and it was, like, I would say, again, I'm going to guess like in 90 percent of the job was done or 99 percent of the job was done, just the connector had to be hooked up which was not done. 12:08:11 12:08:16 12:08:20 12:08:25 12:08:27

So that's the kind of extent to which things were not completed at least for temperature sensor, I would say. 12:08:30 12:08:33 12:08:37

Q Is it fair to say, though, that if you turn on a system where the temperature sensors are not connected, that the system cannot sense temperature? 12:08:39 12:08:42 12:08:46

MR. THOMAS: Well, I'm going to object; vague by what you refer to as "system." 12:08:51 12:08:52

THE WITNESS: So I would say it is 12:08:58

provisioned for measuring temperature, but it is not measuring temperature. 12:09:02 12:09:06

BY MR. HALPERN: 12:09:07

Q And it is not -- until the installation is completed by, among other things, connecting the sensors, it is not capable of sensing temperature, correct? 12:09:07 12:09:09 12:09:11 12:09:16

A Yeah, it's provisioned for, but it is not capable of right now. 12:09:16 12:09:18

Q Okay. When you say that it was 90 to 95 percent installed, how did you determine that? 12:09:19 12:09:25

A To install thermocouple or thermistor in a fluid line, you need to put some special piece of hardware there through which the sensor can go through it without having any fluid leaks. You know, so that's a complex process that needs to be completed, which I believe was completed there. 12:09:32 12:09:38 12:09:45 12:09:51 12:09:54 12:09:57

I believe providing of -- taking that signal from the thermistor to the controller was completed, though I sitting here do not recall with a hundred percent certainly, but I believe it was done. 12:10:02 12:10:05 12:10:10 12:10:18

And now all you need to do is connect the connectors together, and it will go live as long as your software and rest of the computer system is 12:10:20 12:10:22 12:10:28

there to monitor that temperature. 12:10:32

So the physical part of putting the 12:10:35

thermocouple in the fluid stream was completed, and 12:10:40

that's most of the work. 12:10:43

Q And you concluded that that work was 12:10:50

completed based on your visual inspection? 12:10:53

A Yes, based on the visual inspection where 12:10:56

we could see what I would think is a thermocouple 12:10:58

going inside or a thermistor going inside a fluid 12:11:02

line. 12:11:07

Q But all you could see was the thermocouple 12:11:08

or thermistor sitting on the pipe, correct? 12:11:12

A That's right. 12:11:14

Q You weren't able to actually see that it 12:11:18

was in the fluid stream, for example? 12:11:25

A Yeah. I mean I did not open their 12:11:31

functioning system to see where that thing was 12:11:34

exposed, but if something is going through the pipe, 12:11:38

I think it's a reasonable assumption that it was 12:11:39

measuring the fluid stream. 12:11:42

Q Okay. Except it wasn't measuring it 12:11:44

because it wasn't connected? 12:11:47

A Yes, it's capable of measuring it, yeah. 12:11:48

Q You testified a few minutes ago that it's 12:11:50

provisioned for, but not capable of because it's not 12:11:53

connected? 12:11:56

MR. THOMAS: I'm going to object. It 12:11:56

mischaracterizes his prior testimony. 12:11:57

MR. HALPERN: That is -- I'll read it back. 12:12:00

Q Yeah, so I'm reading your testimony. 12:12:13

"Until the installation is completed by, among other 12:12:17

things, connecting the sensors, it is not capable of 12:12:19

sensing temperature, correct?" 12:12:22

And your answer was, "Yeah, it's 12:12:24

provisioned for, but it is not capable of right 12:12:25

now." 12:12:29

Are you changing that answer? 12:12:29

A For it to be measuring the temperature, you 12:12:30

need to connect it. So it's provisioned for. It's 12:12:37

capable if you connect the sensor connectors 12:12:42

together. 12:12:45

Q But in its present state, it is not capable 12:12:47

of sensing temperature, correct? 12:12:50

A In the present state, it cannot measure 12:12:52

temperature. 12:12:55

Q Okay. And pages -- returning to pages 15 12:12:55

to 16 of the infringement contentions, do they 12:13:49

mention the software -- specifically any software 12:13:59

used in connection with the Kelvion coolers or the 12:14:04

Guntner coolers? 12:14:08

A It only mentions their software as a generic term or a platform includes -- 12:14:22 12:14:29

THE REPORTER: I'm sorry?

THE WITNESS: As generic terms -- in generic terms, "Our platform includes our flagship liquid-cooling system and efficiency optimization software." 12:14:31 12:14:32 12:14:35 12:14:39

BY MR. HALPERN: 12:14:40

Q And do pages 15 to 16 mention Restful API or the software used with Restful API? 12:14:40 12:14:43

A Again, notwithstanding the incorporation of Bates documents by reference, just the language of this paragraph does not mention Restful API. 12:14:46 12:14:50 12:14:55

Q Okay. Did you make an effort to ensure that all of the infringement theories you presented in your report were identified in Midas's infringement contentions? 12:14:59 12:15:11 12:15:14 12:15:18

A So first of all, my report is, you know, dated, I believe, after the contention -- infringement contentions -- 12:15:29 12:15:37 12:15:43

Q Correct. 12:15:45

A -- and also my responsibility is for my report. This is more of an attorney responsibility. This I'm referring to is the infringement contentions, but I did discuss some of these 12:15:46 12:15:51 12:15:55 12:15:57

infringement duties with the counsel and made sure that I had my input as these -- you know, in terms of my agreement to the contention -- infringement contentions. 12:16:06 12:16:11 12:16:17 12:16:24

But, you know, my report goes more in depth and lays out with more detail about why I think there is infringement. 12:16:27 12:16:30 12:16:33

Q So when you say you discussed some of these infringement theories with counsel, in other words, are you saying you had discussions with counsel before preparing your report, but did you -- I'm asking if you took this document, the infringement contentions document, and tried to make sure that what was in your report was -- that all of the theories were in some form, even if in less detail, in the infringement contentions document? 12:16:44 12:16:46 12:16:49 12:16:51 12:16:56 12:17:00 12:17:03 12:17:06 12:17:10

A I believe we tried to keep things consistent between the infringement contentions and my expert report on infringement. 12:17:21 12:17:23 12:17:32

Q I think you're -- I appreciate the answer. I think you're answering at sort of a high level to try to be consistent, but I'm asking, did you look at this document and attempt to make sure that the theories in here -- that the theories in your report were in here in some form? 12:17:34 12:17:35 12:17:39 12:17:41 12:17:46 12:17:49

A Yeah, I believe the keyword there is in some form, right. You know, I have, like I mentioned earlier, tried to keep things consistent between the infringement contentions and my expert report on infringement. 12:17:53 12:17:55 12:18:01 12:18:04 12:18:10

Q Did you review the infringement contentions in order to do that? 12:18:11 12:18:14

A I have reviewed the infringement contentions. Did I, you know, spend like hours discussing every line with the counsel like we are doing right now on certain things, no, but tried to make sure that things are consistent. 12:18:15 12:18:18 12:18:24 12:18:27 12:18:32

Q Okay. So another item that I don't see mentioned on your list of materials reviewed in Exhibit 1 -- I really ought to put a bookmark for Exhibit 3 -- is Dr. Ortega's expert report on invalidity, so okay. 12:18:37 12:18:42 12:18:46 12:18:59 12:19:16

You can reference Exhibit 3 or if you know the answer to this question without looking at it, you can tell me. 12:19:22 12:19:24 12:19:26

Did you review Dr. Ortega's expert report on invalidity? I know you testified earlier that you reviewed Dr. Ortega's expert report on -- in rebuttal to your report, and I'm asking about a different report that he prepared. Did you review 12:19:27 12:19:31 12:19:33 12:19:37 12:19:41

his expert report on invalidity? 12:19:44

MR. THOMAS: Vague as to time. What time? 12:19:46

MR. HALPERN: At any point. 12:19:47

THE WITNESS: I -- I saw that report, but I have not reviewed it in detail, and, in fact, I saw it after submitting my expert report on infringement. 12:19:55 12:19:57 12:20:02 12:20:11

BY MR. HALPERN: 12:20:13

Q Okay. So it did not -- it did not have any impact on any of your opinions in this expert report on infringement because you had not reviewed it at that point? 12:20:13 12:20:16 12:20:20 12:20:22

A Yeah, I did not review Ortega's report. 12:20:23

Q Okay. And did you review Dr. Lee's rebuttal expert report on invalidity? 12:20:31 12:20:37

MR. THOMAS: Same objection; vague as to time. 12:20:40 12:20:43

MR. HALPERN: At any point. 12:20:43

THE WITNESS: Okay. I have spoken to Dr. Lee, and I have had a copy of his report, but that's not something that I have gone into details in, and also that was probably, I don't remember this exactly, after my report. 12:20:44 12:20:47 12:20:51 12:20:54 12:21:00

BY MR. HALPERN: 12:21:08

Q Do you offer in your report any opinions on 12:21:08

the invalidity or the validity of the '457 patent? 12:21:11

A No, I do not. I'm merely focused on 12:21:17

infringement. 12:21:20

Q And did you attempt to -- did you have 12:21:21

either a conversation with Dr. Lee or in some other 12:21:25

way attempt to ensure that your opinions on 12:21:30

infringement were consistent with his opinions on 12:21:34

validity of the '457 patent? 12:21:37

A We did have some discussions. I didn't 12:21:39

speak to Dr. Lee, but, you know, I couldn't talk 12:21:46

about all the specifics of that conversation we had. 12:21:52

Q I understand. Yeah, I don't want you to 12:21:57

share privileged communications, but I'm just asking 12:21:59

if you tried to make sure in preparing your report 12:22:01

that your opinions on infringement were consistent 12:22:05

with his opinions on validity. 12:22:08

MR. THOMAS: Objection. It's vague and 12:22:11

ambiguous. I'll just leave it at that. 12:22:17

THE WITNESS: We did not go through a 12:22:19

detailed analysis on -- on that subject on keeping 12:22:23

the consistency between the invalidity and 12:22:29

infringement. 12:22:35

BY MR. HALPERN: 12:22:37

Q Did you have a general discussion about the 12:22:37

consistency of the infringement and validity 12:22:41

arguments that you were presenting or opinions, I should say? 12:22:44 12:22:47

A We did not have a significant discussion on this topic. 12:22:47 12:22:53

Q Okay. Another thing I do not see in your report -- by the way, I'm getting close to a natural stopping point, if we want to stop for lunch. 12:22:54 12:23:03 12:23:05

MR. THOMAS: Our lunch is here so -- 12:23:08

MR. HALPERN: Yeah, okay. 12:23:10

Q So another thing I did not see in your report is any discussion of the advantages of the patented technology over the prior art or other immersion cooling systems. 12:23:10 12:23:13 12:23:17 12:23:24

Well, let's still -- sorry. 12:23:26

I did not see in your report any discussion of the advantages of the patented technology over the prior art, is that correct, that you did not offer any opinions about the advantages of the '457 patent over the prior art? 12:23:28 12:23:29 12:23:31 12:23:34 12:23:37

A So I believe there my document speaks for itself. You know, there is no section on that. I was focused primarily on infringement and alternatives that, I believe, are also infringing. 12:23:39 12:23:42 12:23:46 12:23:54

Q Okay. I'm asking about a different thing, though, which is the advantage -- I mean you have 12:23:57 12:24:00

many patents. 12:24:02

So when I say the advantages of the 12:24:03

invention over the prior art, you understand what I 12:24:05

mean by that? 12:24:08

A I do. 12:24:08

Q Okay. What's your understanding of that 12:24:10

concept, the advantages of the invention over the 12:24:13

prior art? 12:24:15

A Sorry. So are you asking me if I included 12:24:16

that in my report or are you asking me what are 12:24:19

they? What is it? 12:24:22

Q I'm just asking if you included it in your 12:24:23

report. 12:24:26

A Yeah. Like I said, the document speaks for 12:24:26

itself. There is no section for that where I have 12:24:28

discussed the advantages of the invention as such. 12:24:31

Q Okay. And I -- I am not -- again, I'm not 12:24:37

trying to be cute. I'm sure these two will agree 12:24:40

I'm not cute in any way. 12:24:43

In other words, I searched for it. I 12:24:45

didn't see anything on that subject. You know, I've 12:24:47

read the report, and I just am trying to be thorough 12:24:50

and make sure I didn't miss something. 12:24:54

And your understanding is you did not 12:24:55

address that issue of the advantages of the 12:24:57

patent -- patented invention over the prior art? 12:24:59

A I did not. 12:25:02

Q Okay. And I, again, just, you know, 12:25:03

lawyers, we have to be -- try to be thorough. So 12:25:06

because you are someone who has a lot of patents, 12:25:10

you are -- you know, you have a lot of experience in 12:25:13

patent litigation. You're obviously a sophisticated 12:25:16

expert on the subject. 12:25:20

I just want to make sure we're talking 12:25:20

about the same thing. So when I say advantages of 12:25:23

the patent invention over the prior art, what's -- 12:25:25

what's your understanding of what that means? 12:25:28

A Advantages over the prior art? 12:25:29

Q Yeah, just that -- I don't mean four or 12:25:36

five sentences. I mean in general the idea of 12:25:40

advantages of the invention over the prior art, what 12:25:42

is that? 12:25:45

A Between, you know, what was some of the 12:25:45

unsolved problems or the improvements that the 12:25:48

practitioners in the field were looking for were not 12:25:53

being achieved by the existing products or existing 12:25:58

art. You know, the description of that is what I 12:26:05

would say is the advantages of the patented 12:26:09

technology over preexisting. 12:26:13

Q Okay. Another subject that I don't see 12:26:14

anything addressing it in your report, and I just want to confirm that you have not offered any opinions on it is any opinions about whether Midas's own products practice the patent -- the '457 patent. 12:26:18 12:26:22 12:26:25 12:26:29

A Yes, I have not provided any opinions in my report on that. 12:26:33 12:26:38

Q And I also see that you did not offer any opinions about infringement of the '446 patent which was asserted earlier in this case and then withdrawn. 12:26:39 12:26:45 12:26:49 12:26:51

Is that correct that you have offered no opinions about infringement of the '446 patent? 12:26:52 12:26:54

A That's correct. 12:26:57

MR. HALPERN: Okay. Okay. I'm ready to break for lunch. 12:26:58 12:27:01

THE VIDEOGRAPHER: Going off the record, the time is approximately 12:27 p.m. 12:27:02 12:27:03

(Luncheon recess taken.) 01:19:14

THE VIDEOGRAPHER: Going back on the record, the time is 1:28 p.m. 01:28:22 01:28:28

BY MR. HALPERN: 01:28:30

Q Dr. Pokharna, as a person experienced with electronic systems and their thermal management, you must be familiar with standard data center racks. 01:28:30 01:28:51 01:28:57

Is that -- is that so? 01:28:59

A I have some familiarity with data center racks. 01:29:00 01:29:09

Q Okay. The racks that hold the servers? 01:29:10

A Yeah. Like I said, I have some familiarity with data center racks. 01:29:13 01:29:18

Q Okay. So in those racks, how are the servers mounted in the rack in general? 01:29:19 01:29:22

A So there are different kinds of rack systems, right, and then there are different standards that exist for servers. There are like, you know, 1U, 2U, 4U. These refer to specific height of the server and depending on the components and especially limited by the cooling systems, right, you may have 4U rack if you have really high-power process server that you need to cool. 01:29:24 01:29:31 01:29:33 01:29:37 01:29:44 01:29:49 01:29:52 01:29:58

So, yeah, like I said, there are a lot of different kinds of racks. They're also limited by total power that goes in there, and the physical dimension of those racks. 01:30:02 01:30:06 01:30:09 01:30:13

Q That is very informative and I appreciate that answer, but I want to ask a slightly -- or I was asking a slightly different question which is when I say how are the servers mounted in the rack, like, literally how are they mounted? 01:30:14 01:30:16 01:30:20 01:30:22 01:30:26

A They may have some guide rails within which 01:30:29

1U, 2U servers are mounted. 01:30:37

Q Okay. How -- and then how is the -- okay. 01:30:39

Yeah, so the servers are typically attached 01:30:51

to the guide rails? 01:30:53

A I don't know. 01:30:55

Q Okay. I mean my understanding -- and tell 01:30:56

me if you agree with this, disagree, or just are not 01:31:05

sure -- is that you typically have rails. There's 01:31:09

like a rail guide that's mounted on the rack -- on 01:31:13

server rack, right. So there's a rail guide and 01:31:17

then you put rails across that slide into the rail 01:31:20

guide and then the servers are mounted on the rails. 01:31:28

A I don't know if every rack is that way. 01:31:33

You know, you don't need all of those, you know, 01:31:37

complicated contraptions that you are talking about. 01:31:41

While they would work with that, I think they are 01:31:46

unnecessary. A lot of times you may just have racks 01:31:48

where you just have the overall dimensions where you 01:31:51

slide in the 1U or 2U server. 01:31:57

Q What do you slide -- and I'm not -- I know 01:32:02

you said it doesn't have to be that way, and I 01:32:10

understand. I'm just asking, you know, kind of 01:32:13

typically. 01:32:15

So when you have a rack where you, as you 01:32:16

said, slide in the 1U server, can you describe what 01:32:19

that would typically be like? 01:32:23

A Yeah. I think, first of all, I'm not 01:32:24

familiar with the mechanical designs. That's not 01:32:28

something that I have worked on or opined on in 01:32:30

this. Mostly concerned with removal of heat from 01:32:34

the processer and other components on the server. 01:32:39

The exact mechanical design of the server system is 01:32:43

something is that I'm not familiar with. 01:32:49

Q Okay. Well, is it common to stack the 01:32:50

servers one on top of the other? 01:32:56

A I don't know. Could you define stack? 01:33:01

What does stack mean? Like -- 01:33:03

Q In other words, you have server line on the 01:33:09

bottom, say, or at the bottom, and then you have one 01:33:12

on top of it and one on top of that and one on top 01:33:14

of that. 01:33:17

A I mean if you look at a rack of servers, 01:33:19

that's how they appear that they are right on top of 01:33:24

each other. There may be some intervening 01:33:27

structures, but I just don't know enough to -- you 01:33:31

know, to give you testimony about it. 01:33:34

Q Okay. I see. In the -- where they're 01:33:35

piled on top of each other, though, or stacked on 01:33:43

top of each other, are there rails in that kind of 01:33:46

installation? 01:33:49

A Like I mentioned before, they may have, may not have. I just simply don't know enough details about it to answer that explicitly. 01:33:52 01:33:55 01:33:57

Q Okay. And do you know when the servers are on rails, if they are typically bolted to the rail? 01:34:01 01:34:03

A Again, I just don't know enough about it. If I were to take a guess, I would think they should be, but I just don't know. 01:34:10 01:34:12 01:34:15

Q Okay. Now, you did refer to a volume unit that you called U, right? 01:34:17 01:34:29

A Yes. 01:34:32

Q And servers can be 1U or 2U or 4U in height, correct? 01:34:32 01:34:36

A That's right. 01:34:37

Q Okay. And the -- so the U refers to the -- does it refer to the height of the server or the height of the slot that the server goes in? 01:34:37 01:34:42 01:34:45

A So they certainly sell 1U servers. So there is 1U server which is nothing to do with slot. If you go on the web page of Dell, you can buy a 1U server. So I think the 1U refers to the height of the server. 01:34:58 01:35:02 01:35:05 01:35:11 01:35:14

Q Okay. Now, if you were mounting a server on rails in this example I'm asking you about, would the -- how would you define -- how would you 01:35:15 01:35:31 01:35:35

understand the slot in that case? Is the slot defined by the rails? 01:35:38 01:35:41

MR. THOMAS: Are you asking about data center servers still? 01:35:44 01:35:46

MR. HALPERN: Yeah, just servers in general in like a typical -- 01:35:47 01:35:49

MR. THOMAS: I just want to -- 01:35:50

MR. HALPERN: -- data center. 01:35:52

MR. THOMAS: -- object. This exceeds the scope of his expert report. 01:35:53 01:35:54

MR. HALPERN: He's an expert. 01:35:56

MR. THOMAS: I'm saying it exceeds the scope of his expert report. 01:35:57 01:35:59

MR. HALPERN: He's an expert. He offered -- 01:36:00 01:36:02

MR. THOMAS: I'm not going to argue. It exceeds the scope. He wasn't offered as an expert on data servers. 01:36:02 01:36:03 01:36:07

MR. HALPERN: Okay. He offers expert opinions that very much relate to the subject matter I'm asking. So about -- anyway, please -- please continue. 01:36:08 01:36:10 01:36:13 01:36:16

Q So I was asking you, in a typical data center server where you have rack-mounted server units, what would you understand the slot to be? 01:36:17 01:36:22 01:36:28

A Okay. So, again, not to confuse that with the slots, the way they are used in the existing patent, removing that, the slots -- if at all, there is something called slot there, as you are saying that there is a slot, what would that mean, if there is a slot, what that would mean, that would mean a place where you will insert the server. 01:36:34 01:36:36 01:36:39 01:36:46 01:36:50 01:36:53 01:36:56

Q Okay. And so if the server is mounted on rails, then the slot would be defined by where the rails are? 01:37:03 01:37:06 01:37:09

A Again, in that hypothetical not to do with this patent, if you have a structure that has rails and slots and you placed something in it, it will be placed in the slot. 01:37:09 01:37:15 01:37:21 01:37:26

Q Okay. Right, but okay -- but you didn't tell me what is the slot there. 01:37:32 01:37:36

Is the slot the rails and the space that they -- that they define? 01:37:37 01:37:42

A I think, again, in your hypothetical, the slot would be the volume that is defined by those. You mentioned, I believe, guide rails. A volume that will be defined in between that will be called the slot. 01:37:43 01:37:49 01:37:58 01:38:02 01:38:05

Q Okay. Now, as you alluded to and I alluded to, the '457 patent talks about an appliance slot in 01:38:05 01:38:12

the claims and in the rest of the patent. 01:38:17

Does the patent identify -- does the patent 01:38:20
provide an explicit definition of slot or appliance 01:38:24
slot? 01:38:27

Okay. You have it. I was going to offer 01:38:37
to give you the patent as an exhibit, but you're 01:38:39
looking at the one in your report. 01:38:42

A The patent does not provide an explicit 01:38:53
definition of the slot, but it describes slot in 01:38:56
Figure 10 shown by the dotted lines as the 01:39:07
hypothetical volume where an appliance would go in. 01:39:18

Q Do you understand an embodiment in general 01:39:32
in the context of patents, if a patent shows an 01:39:34
embodiment, does showing an embodiment define a 01:39:38
term? 01:39:42

A That may not be the only definition. We 01:39:50
need to read the whole specification, and we will 01:39:55
need to look at a particular term in the concept of 01:39:59
both specifications as well as the claims that 01:40:02
mention that phrase. 01:40:07

Q Are you familiar with the term 01:40:09
"lexicography," you know, the patentee being his own 01:40:15
lexicographer? 01:40:20

A I'm somewhat familiar with that, but you 01:40:20
might remind me again, if it's a legal concept. 01:40:22

Q Sure. It's just where the patentee -- right, the patent gives an explicit definition of a term. 01:40:25 01:40:28 01:40:31

A Yep. 01:40:32

Q Okay. 01:40:32

A Right. 01:40:33

Q Is there an explicit -- I think you've already testified there's no explicit definition of slot in the '457 patent, right? 01:40:34 01:40:38 01:40:40

MR. THOMAS: Objection. The document speaks for itself and calls for a legal conclusion. 01:40:42 01:40:44

THE WITNESS: I believe I said that it does not explicitly define, but it shows what the patentee means by slot, as I referred to Figure 10, which is where they describe the slots. They're just shown by these dotted lines, which is showing a volume where the appliance might be -- might be placed. 01:40:46 01:40:55 01:40:59 01:41:06 01:41:13 01:41:15 01:41:23

BY MR. HALPERN: 01:41:24

Q Okay. But -- and I appreciate your testimony, but I want to ask you, so if you look at your report, this is now Exhibit 1 at paragraph 31, it says -- you refer to a couple of claim constructions right above that, weir and plenum, and then you say, "It is further my understanding that 01:41:24 01:41:31 01:41:40 01:42:02 01:42:06 01:42:08

the remaining claim terms are to be given their plain and ordinary meaning to a person of ordinary skill in the art." 01:42:10 01:42:13 01:42:16

Do you see that? 01:42:17

A Yes, I do. 01:42:18

Q Okay. And so -- and then you say, "That is the meaning that I have applied to all remaining claim limitations in my analysis." 01:42:18 01:42:25 01:42:27

Do you see that in paragraph 31? 01:42:29

A Yes, sir. 01:42:31

Q Okay. So since you say that in your report, is it correct that you have an understanding of what plain and -- plain and ordinary meaning refers to? 01:42:31 01:42:37 01:42:39 01:42:42

A Yes. 01:42:43

Q Okay. And do you have an understanding that where the patent -- where you don't have a claim construction and you don't have an explicit definition in the patent, that you apply the plain and ordinary meaning of a term? 01:42:45 01:42:49 01:42:52 01:42:55 01:42:57

A Sorry. What's the question? 01:43:01

Q Do you have an understanding that where you don't have a claim construction and you don't have an explicit definition in the patent, then you apply the plain and ordinary meaning of a term? 01:43:03 01:43:05 01:43:08 01:43:12

A Yes, I understand that. 01:43:14

Q Okay. Now, is it your view that slot has a specialized meaning in the field of immersion cooling? 01:43:15 01:43:31 01:43:34

A I don't believe so. 01:43:34

Q Okay. So it has the same meaning that it has in general in data centers or in computing? 01:43:38 01:43:41

A No. What has -- immersion cooling is not limited to data centers, right. So I would offer it broader than that, like, you know, there's no reason to limit it to data centers so -- 01:43:44 01:43:55 01:44:01 01:44:05

Q So it has -- is it fair to say slot has a well-understood, general physical meaning? 01:44:08 01:44:11

A Slot has a specific meaning, yeah. 01:44:12

Q Okay. So in this case, you would give slot its ordinary meaning for a physical system; is that fair? 01:44:16 01:44:26 01:44:30

A Ordinary meaning also informed by the way it is depicted in the specifications of this patent because a word has many different meanings, right. You know, obviously you do not apply every single meaning to a word when you are interpreting in the context of a patent. 01:44:31 01:44:36 01:44:41 01:44:47 01:44:50 01:44:54

And, you know, I have to inform my decision by looking at the specifications, the claims, the 01:44:55 01:44:58

figures, and also the dictionary definition to inform my -- my understanding of that phrase in that claim element. 01:45:01 01:45:07 01:45:11

MR. HALPERN: Okay. Well, since you mentioned dictionary definitions, why don't we go there. 01:45:13 01:45:18 01:45:21

Do you have the Collins? 01:45:22

MR. THOMAS: Are you marking another exhibit, Counsel? 01:45:30 01:45:32

MR. HALPERN: Yes. This will be Exhibit 5, I believe, is what we're up to. 01:45:33 01:45:34

MR. THOMAS: Yeah. 01:45:37

MR. HALPERN: This is only one page. So I have been handing them to you, and then I really should have gone around that way, but you're closer. 01:45:38 01:45:40 01:45:42

Are all of yours already marked -- 01:45:46

THE WITNESS: Yes. 01:45:47

MR. HALPERN: -- with the numbers? 01:45:48

I just want to make sure so that when you give them to the court reporter, at the end, we have them correctly numbered. 01:45:48 01:45:51 01:45:59

(The document referred to was marked by the Reporter as Pokharna Exhibit 5 for identification and is attached hereto.)

BY MR. HALPERN: 01:46:09

Q Okay. Can you read the definition? 01:46:09
There's a -- this is the -- what I've just given you 01:46:12
is a printout from the Collins Dictionary. 01:46:15
Do you see that? 01:46:20
A Yes, I do. 01:46:20
Q Okay. And it's the Collins Dictionary 01:46:21
definition of slot? 01:46:23
A I see that. 01:46:24
Q Okay. And there's a noun definition and a 01:46:25
verb definition. 01:46:29
Do you see that? 01:46:29
A Yes. 01:46:30
Q Okay. Can you read the noun definition 01:46:30
into the record? 01:46:33
A "A slot is a narrow opening in a machine or 01:46:34
container, for example, a hole that you put coins in 01:46:37
to make a machine work." 01:46:41
MR. HALPERN: Now, I'm going to give you 01:46:44
another one. This will be Exhibit 6, sorry, 01:46:46
American Heritage. 01:47:02
(The document referred to was marked by the
Reporter as Pokharna Exhibit 6 for identification
and is attached hereto.)
BY MR. HALPERN: 01:47:27
Q And do you see that what I've just given 01:47:27

you is the American Heritage Dictionary of the English language definition of slot? 01:47:30 01:47:34

A Uh-huh. 01:47:37

Q And this has more definitions for the noun slot than the Collins Dictionary that I previously gave you. 01:47:38 01:47:49 01:47:51

So can you read the first definition for the record? 01:47:55 01:47:59

A "A narrow opening; a groove or slit; a slot for coins in a vending machine, a mail slot." 01:47:59 01:48:03

Q Okay. Now, I haven't asked you a question yet. I'm just giving you these definitions. I realize that, but other than the request to read them, it looks like to me like the other definitions here, you know, slot is a word that's used in a lot of different contexts. They don't appear to me to be relevant, but I invite you to disagree. 01:48:06 01:48:12 01:48:14 01:48:17 01:48:22 01:48:24 01:48:29

If you want to look this over, I mean there is a computer's definition which says, "An expansion slot." That seems somewhat relevant to me in describing a physical slot, even though it's narrower and more specific in terms of its use, but would you agree that, you know, in terms of just defining a physical slot, generally that it is 1 and 4 that are applicable here or do you see it 01:48:33 01:48:35 01:48:38 01:48:48 01:48:50 01:48:53 01:48:56 01:49:01

differently? 01:49:04

MR. THOMAS: Objection; vague and -- 01:49:04

THE WITNESS: I can attempt -- 01:49:08

MR. THOMAS: It's -- 01:49:09

MR. HALPERN: He's an expert. I'm asking his -- 01:49:12

MR. THOMAS: I -- I understand, but let me just make my objection. 01:49:14

MR. HALPERN: Okay. 01:49:15

MR. THOMAS: And you can go on with your questions. There's a series of different definitions 1 through 6a and b on this particular page which are different than those on the prior Exhibit 5 you showed the witness. So I guess the question -- I just -- your question is, is it -- 01:49:16

MR. HALPERN: This is a speaking objection, right. You're just expressing -- you're analyzing my question -- 01:49:39

MR. THOMAS: No, I'm trying to understand your question. Is this -- you're asking is this relevant and my question is vague as to relevant to what. 01:49:42

BY MR. HALPERN:

Q Okay. So I've been asking you about the definition -- the definition -- the ordinary meaning 01:49:48

of slot in the context of a physical device, and you testified that it's, you know, broader than even talking about, let's say, data centers, just a general concept. 01:49:54 01:49:57 01:50:00 01:50:03

And I'm giving you some definitions to -- I'm going to ask you about them once I've given you a couple more, but as we -- as I've given you the American Heritage one, I'm pausing to ask, seems to me the first definition, which is similar to the previous one I gave you, feel free to disagree, is pertinent. 01:50:04 01:50:08 01:50:10 01:50:14 01:50:18 01:50:20 01:50:24

And I'm asking you if you think any of the other ones are pertinent to a physical slot -- to understanding what a physical -- the ordinary meaning of a physical slot is. 01:50:25 01:50:27 01:50:32 01:50:34

MR. THOMAS: I just want to object to your term of "physical slot." It's vague and ambiguous. There's no reference to the word "physical" in any of these definitions. 01:50:36 01:50:37 01:50:39 01:50:42

MR. HALPERN: Okay. I'm -- well, some of these have abstractions like, you know, a place in a sequence. 01:50:44 01:50:46 01:50:49

MR. THOMAS: I know, but you're -- you're creating a term that's not present in the definitions that you're handing to the witness. 01:50:49 01:50:50 01:50:52

BY MR. HALPERN:

Q Okay. I'm asking you about the term "slot." 01:50:55 01:50:57

A Yeah. 01:50:58

Q So -- and I'm asking about in the context of a system like the one in the patent, but not specifically necessarily that one, you know, in data centers generally. 01:50:59 01:51:04 01:51:08 01:51:14

And do any of the definitions on this page seem relevant to you in understanding what the ordinary meaning of slot is? 01:51:16 01:51:19 01:51:21

A Look, you've given me definitions that serve your point. If you look at -- maybe while you are at it, you're on your computer, you could pull up the Cambridge Dictionary definition for me. 01:51:25 01:51:32 01:51:34 01:51:38

Q I think I have that one next. 01:51:40

MR. THOMAS: Okay. Why don't you show it to him then. 01:51:41 01:51:43

BY MR. HALPERN:

Q But -- so I'm posing a question. Do these seem relevant to you as definitions of what the ordinary meaning of slot? 01:51:44 01:51:46 01:51:49

A The slot can also mean a gap, like just I parked my car between an empty slot between the Mercedes and the Range Rover. That's a language 01:51:50 01:52:01 01:52:04

that is applicable. 01:52:10

You can -- people use it, right, and there 01:52:13
is no narrow slit or a groove that is formed there. 01:52:15
So obviously the use of the phrase "slot" is broader 01:52:20
than just like the Collins Dictionary which just 01:52:27
defines it only as a narrow slit or something like 01:52:30
that. 01:52:34

Q But in your example of parking, you said I 01:52:35
parked in a slot between the Range Rover and the 01:52:39
Mercedes. 01:52:43

So if neither the Range Rover nor the 01:52:45
Mercedes were there and there were no markings, 01:52:49
would you say you had parked in a slot? 01:52:53

MR. THOMAS: Objection; vague as to 01:52:57
"markings." What do you mean by "markings"? 01:52:58
BY MR. HALPERN: 01:53:00

Q Okay. I'll leave out the markings. You 01:53:00
gave an example that you would say you parked in a 01:53:02
slot between a Mercedes and a Range Rover. 01:53:06

So assume there's no Mercedes and no Range 01:53:08
Rover and you just parked somewhere. Would you call 01:53:11
that a slot? 01:53:13

A If it is out in an open field, probably 01:53:23
that would not be a slot, but, again, as it relates 01:53:28
to things, the way the slot is being used here, 01:53:34

there are a lot of other things that we need to look at in the specifications to understand what that slot is, and I will leave it at that. 01:53:38 01:53:41 01:53:44

MR. HALPERN: I promise you, I will come back to the specification, but I'm trying to ask you about the ordinary meaning of slot. So this is going to be Exhibit 7. 01:53:47 01:53:49 01:53:51 01:53:58

(The document referred to was marked by the Reporter as Pokharna Exhibit 7 for identification and is attached hereto.)

BY MR. HALPERN: 01:54:15

Q And do you see that I've given you the Cambridge Dictionary definition of slot? 01:54:15 01:54:19

A I see that. 01:54:21

Q Okay. Can you read the -- there's actually two noun definitions. 01:54:22 01:54:32

Can you read them both into the record? 01:54:33

A "Long, narrow hole, especially one for putting coins into or for fitting a separate piece into," and the second definition is "a small, narrow opening for something to be put in." 01:54:37 01:54:40 01:54:44 01:54:47

Q Could you -- I would just note that that one has IT above it, that that is the definition in the context, I believe, of information technology. 01:54:48 01:54:52 01:54:57

Do you agree that that's what that means? 01:54:59

A Yes. 01:55:01

Q And can you read the examples of the IT 01:55:01

definition of slot? 01:55:05

A "The memory card slot in your computer, 01:55:06

into a slot, you can insert a smart card into a slot 01:55:11

on the keyboard to verify digital signatures." 01:55:16

Q Okay. Now, you mentioned the Cambridge 01:55:18

Dictionary. 01:55:28

Is that because you regard the Cambridge 01:55:29

Dictionary as authoritative? 01:55:31

A This is -- I think the Cambridge Dictionary 01:55:34

that I looked at, if I recall correctly, and I'm 01:55:36

going back in my memory, had more information in it 01:55:38

than what you've just provided here. 01:55:42

Q I don't know what you might be referring 01:55:43

to. I just downloaded the Cambridge Dictionary 01:55:50

definition. 01:55:53

Do you recall what else you saw? 01:55:54

A I think -- okay. I'm going to have to rely 01:55:55

on my memory, but it described space for putting 01:56:01

some -- something -- or just give me one second. 01:56:11

Like, it talked both about time slots also, 01:56:30

like putting -- I believe, right, because slot can 01:56:34

be used in terms of timing that is not mentioned in 01:56:38

any of these definitions, and also it talked about 01:56:41

like, you know, space where you could place something. 01:56:46 01:56:52

Q I see. Did you cite that definition in your report or -- 01:56:52 01:56:54

A I did not think that was needed because, when I look at my general understanding of the phrase in context with what is described in the patent itself, in specifications, in the figures, I did not think it was necessary because I didn't think it was a -- something that there was going to be a dispute about. 01:56:57 01:57:02 01:57:06 01:57:11 01:57:16 01:57:19 01:57:24

Q Now, you mentioned the use of slot in the context of, for example, a time slot, like a space in a schedule. 01:57:33 01:57:35 01:57:39

Do you think that use of slot is relevant to the ordinary meaning of the term to a person of skill in the art, this field? 01:57:41 01:57:43 01:57:47

A No. I was referring to that definition to say that the definitions that you are providing are not complete, just as an example of that. 01:57:51 01:57:55 01:57:59

Q Okay. I'll just represent to you I have not edited these in any way. I just simply downloaded the definitions. 01:58:03 01:58:05 01:58:07

A Yes, I do not believe you have edited them. 01:58:09

Q Okay. 01:58:12

A I'm not saying that. All I'm saying is that wouldn't you agree that it is common use of the phrase, but none of your definitions talk about slot in the context of time. So all I'm saying is these are probably incomplete definitions. There are more complete definitions that one could look at. 01:58:12 01:58:14 01:58:18 01:58:22 01:58:26 01:58:29

Q Actually if you look back at the American Heritage Dictionary, which is Exhibit 6, definition 3a says, "An assigned place in a sequence or schedule: A new time slot for a TV program." 01:58:30 01:58:33 01:58:39 01:58:41

There's six definitions here. 01:58:45

A Sure. 01:58:47

Q Yeah, so I mean -- but I -- you know, tell me if you disagree. My understanding is -- I'm trying to get at the understanding of a person of ordinary skill in the art of this term. 01:58:48 01:58:52 01:58:56 01:58:58

You said it's broad. It's not limited to data centers, that makes sense to me, but it does seem to refer to a physical slot of some kind, not a time sequence slot, for example, and so I'm trying to get to the ordinary meaning of a physical slot. 01:59:01 01:59:03 01:59:06 01:59:12 01:59:15

MR. THOMAS: Well, I'm going to object to your use of the term "physical slot." It's not used in any of these definitions or exhibits that you -- 01:59:18 01:59:20 01:59:22

MR. HALPERN: Well, I'm asking the 01:59:24

question, right. The patent uses slot or applied slot. 01:59:25 01:59:28

Q Does the patent describe a physical system? 01:59:29

A If we were to go by any of these definitions, then you could read out the word "slot" on this patent because there is no narrow grooves or narrow openings or a slit or, you know -- I mean narrow openings based on Collins Dictionary or narrow hole, long, narrow hole, that is present in the patent as it describes this system. 01:59:36 01:59:39 01:59:43 01:59:46 01:59:52 01:59:56 02:00:02

MR. HALPERN: I will -- I promise you, I'm not withholding discussion of the patent in any way. I'm going to get to that, but I'm just trying to first, right, like put before you some evidence -- Oxford -- of the -- not mechanical, yep, that one, okay, all right -- of just what does this word mean, what is its ordinary meaning. 02:00:07 02:00:10 02:00:13 02:00:16 02:00:21 02:00:33 02:00:35

So this will be Exhibit -- I think we're up to 8, right? 02:00:37 02:00:38

THE WITNESS: Yes. I did not mark these Exhibit 5. 02:00:39

MR. HALPERN: Okay. Let's -- let's do that. 02:00:44 02:00:44

THE WITNESS: Okay. So that was 6 and this is 7. 02:00:44 02:00:46

MR. HALPERN: I have -- 5 is Collins. 6 is American Heritage. 7 is Cambridge, and 8 is Oxford. 02:00:46 02:00:54

THE WITNESS: Got it.

MR. HALPERN: And did I not give it to you? 02:01:00

MR. THOMAS: Nope. 02:01:02

MR. HALPERN: Sorry. 02:01:02

(The document referred to was marked by the Reporter as Pokharna Exhibit 8 for identification and is attached hereto.)

BY MR. HALPERN: 02:01:07

Q Okay. And I can read this one. I'll just spare you reading more, and I'll read it into the record and then ask you if I've read it accurately. 02:01:07 02:01:17 02:01:19

So the Oxford definition of the noun slot is, one, "a long, narrow aperture or slit in a machine for something to be inserted," example, "he slid a coin into the slot of the jukebox." 02:01:23 02:01:26 02:01:30 02:01:34

"A groove or channel into which something fits or in which something works, such as one in the head of a screw: A screwdriver fitted into the slot." 02:01:36 02:01:38 02:01:41 02:01:44

Two, "an allotted place in an arrangement or scheme such as a broadcasting schedule: A late-night television slot, landing slots at Heathrow airport." 02:01:45 02:01:48 02:01:52 02:01:58

Would you agree that these definitions are generally consistent of the general meaning of slot? 02:01:58 02:02:01

A Yeah, I mean you're reading -- that's what Oxford Dictionary defines it as. 02:02:08 02:02:10

Q But of the four definitions, would you say the four definitions I've given you from Collins, American Heritage, Cambridge, and Oxford are consistent with each other with minor variations? 02:02:12 02:02:16 02:02:20 02:02:23

A Largely. 02:02:27

Q Okay. Do you have any reason to disagree with those as a definition of slot? 02:02:27 02:02:30

A No, I don't have any reason to disagree with the dictionary definition of slot that you are reading from dictionaries. 02:02:37 02:02:40 02:02:44

Q Okay. And would you understand an appliance slot to be a slot for an appliance? This is the patent -- 02:02:45 02:02:50 02:02:58

A Now you're referring to the patent -- sorry -- okay. 02:02:59 02:03:00

Q Yes, I'm referencing the patent. So let me ask the question again because I did that in a bad order that will make it not look clean. 02:03:01 02:03:05 02:03:08

Would you understand an appliance slot to mean a slot for an appliance? 02:03:12 02:03:15

A I would think of an appliance slot to be 02:03:22

something where you will place an appliance. 02:03:25

Q A slot where you will place an appliance, 02:03:27

right? 02:03:34

A I would say a space where you would place 02:03:34

an appliance. 02:03:39

Q So what's the basis for your view that a 02:03:42

slot is not limited to a slot, but can be a space? 02:03:45

MR. THOMAS: I'm going to object as 02:03:49

argumentative and mischaracterizes his testimony. 02:03:52

THE WITNESS: Because when I looked at the 02:03:54

figures and the specifications, they show what they 02:03:59

define -- what they -- they show as the slot in 02:04:06

Figure 10 is a volume and there is no apertures or, 02:04:13

you know, all those definitions of slot that you 02:04:23

just gave. 02:04:26

BY MR. HALPERN: 02:04:28

Q Okay. So let me direct you to the patent 02:04:28

then, and you referenced Figure 10 in the patent. 02:04:31

This is Figure 10 of the '457 patent and right below 02:04:39

it is Figure 11, right? 02:04:45

A Yes. 02:04:46

Q Okay. And I'm going to review the patent's 02:04:47

description -- or actually probably better to have 02:04:55

you read it. Figure 11 which is at -- sorry. 02:04:57

Oh, I went down too far. Column 3 of the 02:05:37

patent, and you can see there is a single very long sentence that I want to direct your attention to at column 3, line 39. 02:05:40 02:06:00 02:06:04

A Okay. 02:06:09

Q Okay. "For convenience of reference, we have illustrated in Figure 1 the tank facility 12" -- I'm sorry. You know what, I'm -- I started too early. I can read less. 02:06:10 02:06:12 02:06:14 02:06:18

Okay. So this is starting at column 3, line 43. "In general, the tank facility 12 comprises: A tank 14 adapted to immerse in dielectric fluid, a plurality of electrical appliances 16, for example, contemporary computer servers (see e.g., Figure 11) each in a respective appliance slot 18a distributed vertically along and extending transverse to, a long axis of the tank (see generally Figure 10); an appliance rack facility 20 of convention design adapted to suspend the appliances 16 (see e.g., Figure 11) in respective appliance slots 18 (see Figure 10)." 02:06:20 02:06:23 02:06:28 02:06:34 02:06:34 02:06:38 02:06:44 02:06:47 02:06:50 02:06:55 02:06:59 02:07:05

Did I read that correctly? 02:07:09

A Yes, you did. 02:07:11

Q So the last part of what I read says, "An appliance rack facility 20 of convention design adapted to suspend the appliances 16 (see e.g., 02:07:12 02:07:18 02:07:22

Figure 11) in respective appliance slots 18 (see Figure 10)." 02:07:26 02:07:29

Would you agree that the patent is describing the servers as suspended in the appliance slots 18 as illustrated in Figure 11? 02:07:29 02:07:32 02:07:38

MR. THOMAS: I'm just going to object. The document speaks for itself and calls for a legal conclusion. 02:07:49 02:07:51 02:07:53

THE WITNESS: Yes, it talks about suspending the appliances, line 50. 02:08:02 02:08:03

BY MR. HALPERN: 02:08:06

Q In the respective appliance slots? 02:08:06

A In respective appliance slot. 02:08:14

Q Right, okay. So in this embodiment, which is the same embodiment that you cited, the only embodiment that shows the appliance slots, the servers are suspended in their respective appliance slots, correct? 02:08:19 02:08:21 02:08:25 02:08:29 02:08:32

A Yes, and, again, all of those slots are shown with a dotted line as hypothetical volume where these appliances are placed. 02:08:33 02:08:53 02:09:00

Q Well, I will come to that, but let me just direct you to Figure 11 which is showing the suspended appliances, and I believe the appliances are 16, and feel free to look back at the portion of 02:09:02 02:09:10 02:09:15 02:09:18

the specification we were just looking at, which says "a plurality of electrical appliances 16," that's at column 3, line 45. 02:09:22 02:09:27 02:09:31

So if you look at Figure 11, you can see the servers are labeled 16 there, the black things hanging down. 02:09:33 02:09:35 02:09:40

Figure 11 is a side view, right? 02:09:40

A Yes. 02:09:42

Q Yeah, okay. And then you've got 18, that's labeling both Figures 10 and 11? 02:09:43 02:09:48

A I see that. 02:09:54

Q Okay. So in order for the appliances to be suspended, they have to be hanging suspended, they're hanging down from something, right? 02:09:55 02:09:57 02:10:01

A In this particular embodiment, they are hanging from, I believe, number 16. Also, they are suspended, yes, they just call it they are suspended. They haven't really named what they are suspending from. 02:10:05 02:10:09 02:10:19 02:10:24 02:10:27

Q Right. So I'm asking, what do you infer they are suspended from? 02:10:28 02:10:32

A Some sort of rail. 02:10:33

Q So -- yeah, so they would be sitting on a ledge or rail, and then the appliances would be -- would like have a flange that sits on the rail so 02:10:34 02:10:41 02:10:44

that they can hang there? 02:10:48

A That's possible. 02:10:50

Q For what are -- I mean they're suspended from a physical -- they're in physical slots defined by rail -- these rails that they're hanging from, right? 02:10:51 02:10:59 02:11:02 02:11:04

A No. So it says that "integrated horizontally into one long wall of tank 14, adjacent to all appliance slots 18 and adapted to facilitate." Sorry. 02:11:05 02:11:17 02:11:22 02:11:23

Q No, I don't mind you having a read, but it says they are suspended -- 02:11:24 02:11:31

A Yes, yes. 02:11:33

Q -- right? 02:11:34

A Rack facility is 20. You're calling the rack facility as the slot, right, that's purely different than the slots. The slots is what he's showing by the dotted line, both in the top view and the side view, as that hypothetical volume where the appliance is going to be placed inside. 02:11:35 02:11:38 02:11:43 02:11:47 02:11:51 02:11:56

What you are referring as slot is marked as 20, which are the rails, the rack facility 20 different than the slots 18. 02:12:04 02:12:09 02:12:17

Q Do Figures 10 and 11 refer to the same embodiment? 02:12:18 02:12:21

A Yes. 02:12:24

Q Yeah, okay. You're saying in Figure 10, 02:12:24

Figure 10 is an overhead view and Figure 11 is a 02:12:28

side view, correct? 02:12:32

A That's correct. 02:12:33

Q Okay. So where do you find a hypothetical 02:12:33

volume described in the patent? 02:12:41

A So the darker lines here are showing 02:12:45

something that is physically not present, but is 02:12:47

defined as the appliance slot, because when they 02:12:52

have a physical thing present, they have shown it 02:12:57

with a solid line. 02:13:00

For example, there is a partition 68 where 02:13:02

they say that there is a -- they have placed what 02:13:05

you would call something that would create a slot, 02:13:06

right. 02:13:09

Number 68 on Figure 11 is a physical wall 02:13:09

that they have provided and they have clearly shown 02:13:13

that as a solid thing. But both in the top view and 02:13:16

the side view, they are showing dotted lines in 02:13:20

which they are saying defines a space, a volume 02:13:25

where the appliance would go in. 02:13:29

Q Okay. But you just -- so your premise is 02:13:32

that they must be showing everything in Figure 10, 02:13:34

and if they're not showing, if they're identifying 02:13:41

those dotted lines as slots and they're not showing anything else, they must mean that the slots require only the dotted lines, the holes, is that -- 02:13:44 02:13:46 02:13:49

A I didn't say that. 02:13:52

Q Okay. 02:13:53

A I think you are mischaracterizing what I said. 02:13:54 02:13:57

What I'm saying is that there is -- they have figures -- many figures in this patent, right. Nowhere can I see any physical structures that you are trying to read into all of these specifications that are going from top to bottom, shown as slots. 02:13:58 02:14:04 02:14:08 02:14:13 02:14:16

Only place where they show something that you may think of as what you are defining as slots are Figure 10 and 11, and they are -- they are describing a hypothetical volume with these darker lines. 02:14:22 02:14:24 02:14:27 02:14:33 02:14:39

Q Okay. Figure 10 -- and you have agreed that Figure 10 and Figure 11 are showing the same embodiment, right? 02:14:39 02:14:42 02:14:44

A They are showing -- 02:14:48

Q That was your testimony. 02:14:49

MR. THOMAS: I would object as argumentative and mischaracterizing. 02:14:50 02:14:54

Go ahead. You can answer the question. 02:14:55

THE WITNESS: They are showing the same figure, but the Figure 10 is not complete in the sense that when you look at something from the top, you would also be able to see, depending on where you are seeing, maybe this is right at the bottom, right. 02:14:56 02:14:58 02:15:04 02:15:08 02:15:11 02:15:14

They didn't say where they are showing this cross-section view in Figure 10. Maybe it's right at -- all the way to the bottom where none of the other structures would be visible, for example, right, you know. So in that sense, they haven't really fully described it, but they are in general showing the same embodiment. 02:15:14 02:15:16 02:15:19 02:15:22 02:15:25 02:15:29 02:15:33

BY MR. HALPERN: 02:15:35

Q So you just said that there may be stuff they're not showing you in Figure 10 but in Figure 11? 02:15:35 02:15:38 02:15:42

A That's because where you take the cut, right, I mean when you're looking at something that's a three-dimensional structure and two dimensions, by definition, you're not going to see all the things that are presented in the third dimension. 02:15:42 02:15:44 02:15:47 02:15:50 02:15:52 02:15:54

Q Right. So that means that Figure 10 is showing -- could be just showing the bottom, you've 02:15:55 02:16:00

said it's incomplete, and Figure 11 is showing you what's above it on that same embodiment? 02:16:02 02:16:05

A Possible, possible. 02:16:08

Q Because that's a side view, right, in Figure 11, you have the side view, and you're seeing the appliances hanging down suspended from a rack? 02:16:09 02:16:12 02:16:14

A Yes, Figure 11 shows the appliances hanging from the rack. 02:16:20 02:16:23

Q Okay. So -- and if you look at the sentence I had you read -- or I read actually from column 3, it makes clear that Figure 11 and Figure 10 are describing a single embodiment because it says -- this is column 3, line 49 -- "an appliance rack facility 20 of convention design adapted to suspend the appliances 16 (see e.g., Figure 11) in respective appliance slot 18 (see Figure 10)." 02:16:26 02:16:29 02:16:32 02:16:40 02:16:43 02:16:47 02:16:53 02:16:58

So Figure 11 and Figure 10 are describing the same embodiment as indicated there, correct? 02:17:01 02:17:02

MR. THOMAS: I'm going to -- I'm going to object as mischaracterizing the claim and calls for a legal conclusion. 02:17:04 02:17:05 02:17:09

THE WITNESS: Yes, they are describing the same embodiment. 02:17:10 02:17:14

BY MR. HALPERN: 02:17:15

Q Okay. And Figure 10, as you said, is 02:17:15

showing a cut of the bottom, and Figure 11 is showing the appliances hanging down suspended from the rack, correct? 02:17:18 02:17:22 02:17:24

A I mean, again, Figure 10 and 11, both of these are schematic. They are not in any drawings that are showing a cut. 02:17:25 02:17:29 02:17:32

I'm saying it could be showing the cut is what I said. I'm not saying it is showing the cut, right. It is a representation of -- all they are trying to do in Figure 10 is to show the volume that the patent means by the slot. 02:17:34 02:17:36 02:17:39 02:17:43 02:17:48

Q Does it say volume? 02:17:52

A They show dotted lines in Figure 10. They show dotted lines in Figure 11 for something that they are describing as 18A as the slot and in the same cross-section on Figure 11 where they have a physical thing present like 68, that's a wall, 68, they have shown it as a solid thing. 02:17:54 02:18:00 02:18:04 02:18:12 02:18:16 02:18:21

So that makes me believe that when they are showing a dotted line, that means there is no physical structure that is presented there, and, of course, when you look at other figures on this, like namely Figure 5, which is showing a three-dimensional view of the tank, you know, there is no structure that you can see that is extending 02:18:23 02:18:26 02:18:29 02:18:32 02:18:35 02:18:40 02:18:43

vertically down. Even Figure 1, you don't see any structure that is extending vertically down on any of these figures. 02:18:47 02:18:51 02:18:56

Q On which figures? 02:18:57

A Figure 1, Figure -- this is 2, Figure 5. 02:18:58

Q But are any of those figures showing the slots? 02:19:09 02:19:11

A That's exactly the point. Thank you for making my point that there is no physical structures there. 02:19:13 02:19:15 02:19:18

Q Are they showing the slots at all? Are they even talking about the slots in those figures? 02:19:21 02:19:23

A Figure 1 is showing most of the physical structure that is present in that tank. They have removed the wall of the tank, and they are showing what is there inside -- inside there. It shows the rack facility, I believe, right -- 02:19:25 02:19:32 02:19:38 02:19:40 02:19:49

Q Right. 02:19:51

A And it shows -- 02:19:51

Q So the rack that it shows is what the appliances would hang from, right? That's what you testified is they're suspended? 02:19:55 02:19:57 02:20:01

A Right, right, that's what the rack facility 20. 02:20:03 02:20:06

Q Yep. So that's in -- so physical structure 02:20:07

that the appliances hang from is shown there? 02:20:10

A Yeah, and that's different than the slots 02:20:15

because slots are 18, not 20. You're somehow 02:20:18

conflating 18 with 20. 02:20:24

Q Well, in Figure 11, okay, do you see that 02:20:26

the dotted lines that you are saying are the slots 02:20:31

are defining the location of the slots, that those 02:20:35

line up precisely where the appliances are suspended 02:20:43

from the rack? 02:20:48

A I'm sorry. Could you ask the question 02:20:49

again? 02:20:51

Q Yeah. In Figure 11, the dotted lines that 02:20:51

in your view define the slots, they line up -- each 02:20:54

of them -- each pair of them lines up precisely with 02:20:57

where an appliance is physically suspended from the 02:21:02

rail so that the appliance fits right into that 02:21:05

slot, correct? 02:21:08

A That's how -- they're defining the slot to 02:21:09

be the volume where the appliance is going to be 02:21:18

present. So, by definition, the slot is where the 02:21:27

appliance is. 02:21:29

Q Right. I'm simply asking you, as a matter 02:21:30

of fact, in what they show in this embodiment, all 02:21:33

of the volumes that you are identifying as the slots 02:21:36

line up precisely with where the physical guides 02:21:39

cause the appliances to be suspended. 02:21:44

A Could you show me which physical guides 02:21:49

you're talking about here, I mean in the patent? 02:21:52

Q Yeah. There's a rack from which the 02:21:54

appliances are suspended, right? 02:21:56

A Okay. 02:21:57

Q You testified to that? 02:21:58

A I agree with that. 02:22:00

Q Yeah. And each -- each appliance has to 02:22:01

sit on that rack with some sort of guide? 02:22:03

A Where is that guide mentioned? I am having 02:22:06

trouble finding it. 02:22:09

Q Well, I asked you and you testified as a 02:22:10

person of ordinary skill you understand that the 02:22:12

rack would -- that they would sit on some sort of 02:22:14

guides? 02:22:19

A In a server, yes. In a vertically oriented 02:22:19

server that is air-cooled, you were asking about 02:22:23

that. 02:22:24

Q I was asking about it in this context as 02:22:25

well. 02:22:28

A No, no, no, no. We clarified that, right. 02:22:28

I was saying that you're talking about a server rack 02:22:29

that is in an air-cooling facility. All the 02:22:32

questions that you were asking, you were saying this 02:22:38

has nothing to do with the patent. 02:22:40

Q I know, but I asked you again about the patent. 02:22:41 02:22:44

MR. THOMAS: Let's not argue, Counsel. 02:22:44

MR. HALPERN: Well, I'm just going to be -- I'm testing him. 02:22:46

THE WITNESS: I mean if you tricked me somewhere, it's possible. 02:22:46 02:22:48

BY MR. HALPERN:

Q I'm not trying to trick you. I'm -- I asked you if these are suspended from this rack, right? 02:22:49 02:22:51 02:22:54

A Yes. 02:22:55

Q If there's -- if there's some sort of guides that are holding them up, and I believe you testified that there would be? 02:22:55 02:22:58 02:23:00

A There could be, but there is none mentioned in the patent, right. So that's an extra limitation that we are reading into this. 02:23:03 02:23:06 02:23:09

Q I'm not -- we're not talking about the claims. I'm just asking what the patent describes here. 02:23:11 02:23:14 02:23:15

A Okay. 02:23:16

Q I mean it says "an appliance rack facility of convention design adapted to suspend the 02:23:17 02:23:38

appliances in respective appliance slots." 02:23:41

A Right. 02:23:45

Q So that tells you that the rack is conventional, which is what you were talking about, that a rack would typically have guides, and that it's designed to suspend them in the respective appliance slots. 02:23:45 02:23:47 02:23:50 02:23:53 02:23:56

So doesn't that tell you that there's something about that rack that is ensuring that the suspended appliances are each in the appliance slot? 02:23:56 02:23:59 02:24:02

A Maybe they could make -- the slots here are simply defined as volumes where you would place the appliance. Anything beyond that is a conjecture where there is -- whether there is some on the -- on the mounting -- on the appliance rack facility, if there is a slot on that which is I think what you're referring to, but the slot is actually forming inside the tank where the appliances are located. 02:24:15 02:24:24 02:24:29 02:24:34 02:24:40 02:24:45 02:24:50 02:24:52

Q Is there anything in here about a volume? Does it say that a slot is a volume anywhere in this patent? 02:25:01 02:25:04 02:25:07

A No, but when I see what they are -- obviously if there is -- it has to be volume because otherwise you couldn't place something in it. If it didn't have any volume in it, you could not place 02:25:10 02:25:12 02:25:17 02:25:19

anything in it. 02:25:21

Q I'm not -- I wouldn't dispute that, but I'm asking not if it has to have volume, but if it is itself a volume and nothing more, and you're saying the patent defines it as a volume. You just conceded it doesn't say that. 02:25:22 02:25:25 02:25:29 02:25:34 02:25:36

It shows dotted lines, but that you're willing to read into the patent, but when I say -- when I read to you that it says an appliance rack facility adapted of conventional design -- I'm adding the a-l -- of convention design adapted to suspend the appliances in respective appliance slots, right, which is all but an explicit definition -- or description, excuse me, of appliance rack facility as facilitating putting the things that are hanging from it, the appliances, in each slot. You're saying it's speculative to read that -- 02:25:38 02:25:42 02:25:44 02:25:47 02:25:51 02:25:54 02:25:57 02:25:59 02:26:02 02:26:08 02:26:11 02:26:13

MR. THOMAS: Objection to -- 02:26:13

BY MR. HALPERN:

Q -- as describing the physical rack defining where the slots are or -- right, constraining where the appliances go, but it's not speculative to look at dotted lines and say, oh, it's defining -- 02:26:14 02:26:17 02:26:20 02:26:23

MR. THOMAS: Objection -- 02:26:26

BY MR. HALPERN:

Q -- as a volume? 02:26:27

MR. THOMAS: -- argumentative, compound. 02:26:27

It misstates the witness's testimony. I mean this 02:26:29

is just giving a speech and arguing with the 02:26:32

witness. 02:26:35

MR. HALPERN: Well, I'm -- the witness is 02:26:35

an expert. The witness is an expert, 02:26:36

extraordinarily qualified -- 02:26:40

MR. THOMAS: It doesn't mean that you -- 02:26:40

THE REPORTER: One at a time.

MR. HALPERN: And I'm describing back to 02:26:40

him what he's saying and asking him. 02:26:42

MR. THOMAS: No, you're arguing -- what 02:26:44

you're doing is arguing with the witness -- 02:26:45

MR. HALPERN: I'm asking him what he

thinks --

MR. THOMAS: You are arguing with the

witness which you are not allowed to do. 02:26:49

MR. HALPERN: You are certainly allowed to 02:26:49

make your objections. I'm asking you if you think 02:26:51

this makes sense. 02:26:52

MR. THOMAS: Why don't we do this. It's -- 02:26:52

we've been going for an hour. Let's take a break. 02:26:54

MR. HALPERN: I just posed a question. 02:26:56

MR. THOMAS: You did, and that was a ridiculous question. He can't answer that. 02:26:58 02:26:59

MR. HALPERN: I just asked him, does he -- 02:27:01

THE WITNESS: I may have to have you reread, that's an honest thing because I just don't remember exactly the question that you have. If you can reread the question and I'll answer that. 02:27:01 02:27:02 02:27:06 02:27:08

MR. HALPERN: Okay. Sure. 02:27:10

Q So the patent describes an appliance rack facility -- this is at 3 -- column 3, line 49 -- an appliance rack facility of convention design adapted to suspend the appliances 16 shown in Figure 11 in respective appliance slots 18 (see Figure 10). 02:27:17 02:27:20 02:27:23 02:27:28 02:27:32

And I'm asking if you read that, in light of the drawing, which shows each appliance hanging down exactly in the slot as suggesting that the rack has guides or rails which you've said is conventional to tell you where to place each appliance. 02:27:35 02:27:39 02:27:46 02:27:51 02:27:55 02:27:58

MR. THOMAS: Well, I just want to object, again, to the form of the question. It's argumentative, and it misstates -- you're making assumptions that these spaces -- 02:27:59 02:28:01 02:28:03 02:28:06

MR. HALPERN: Okay. Now this is a speaking objection. 02:28:08 02:28:11

MR. THOMAS: No, no, you've given us -- 02:28:11
MR. HALPERN: I know, but I'm asking the 02:28:12
questions. We're under different rules. I won't -- 02:28:13
MR. THOMAS: I know, but you can't -- 02:28:16
THE REPORTER: One at a time. One at a
time. Jesus.
MR. HALPERN: I can ask him a question like 02:28:17
that. You are not allowed to make a speaking 02:28:19
objection to suggest a critique of my question. 02:28:22
MR. THOMAS: You're making argumentative 02:28:22
statements to the witness. You're asking him -- 02:28:23
MR. HALPERN: No, I just read a section and 02:28:23
asked does it mean this. 02:28:25
MR. THOMAS: I object as misstating the -- 02:28:25
the figures in the patent and the claims in the 02:28:35
patent. It's compound and argumentative. 02:28:36
THE WITNESS: Yeah, I mean also -- okay. 02:28:38
So before I answer that question, I actually want to 02:28:41
say that -- like, I want to read a sentence from 02:28:44
column 9 -- 02:28:47
BY MR. HALPERN: 02:28:48
Q Sure. 02:28:48
A -- line 11 onwards because I have to 02:28:48
interpret the claims in the broadest possible sense, 02:28:59
right. 02:29:02

"By way of example, it will take but little effort to adapt our invention for use with electronic appliances other than contemporary servers; and to adjust the dimensions of the appliance accommodation slots accordingly," right. 02:29:03 02:29:06 02:29:09 02:29:13 02:29:16

So when I read this, along with Figure 10 and 11 as I interpret it, that tells me that I shouldn't be reading the claim to be limited to the embodiment that you have been talking about all this time, right, because it expressly states that, that it could be used for other things, right. 02:29:22 02:29:26 02:29:30 02:29:34 02:29:37 02:29:41

When I read that along with the fact that there is no particular, you know, slot -- physical slot as you are describing that is shown in any of the figures, there are plenty of figures here in this patent, isometric, two dimensional, top view, side view, none of them show a narrow opening or aperture like you are trying to prove. 02:29:47 02:29:49 02:29:53 02:29:57 02:30:01 02:30:05 02:30:11

When I read especially this column 9, line 11 through 15, that tells me that the slot is not limited to just a conventional appliance like it describes on column 3, line 49, 50, etcetera. 02:30:14 02:30:20 02:30:26 02:30:32

Q Okay. But I appreciate that. So you're saying that it -- that language suggests that slot is defined -- can be defined broadly, it's not 02:30:39 02:30:43 02:30:47

specially defined by the patent, correct? 02:30:50

A That means that the slot, the way it is 02:30:52

defined in the patent, is describing a volume. 02:31:08

Q Did what you read say anything about a 02:31:13

volume? 02:31:15

MR. THOMAS: Let me just object as asked 02:31:18

and answered and argumentative. 02:31:20

MR. HALPERN: He just read a new thing no 02:31:20

one had discussed before. 02:31:24

THE WITNESS: So just the dimensions of the 02:31:27

appliance accommodation slot accordingly, I guess 02:31:30

you can say dimensions is for the volume. 02:31:33

BY MR. HALPERN: 02:31:36

Q Couldn't you adjust the dimensions of a 02:31:36

slot by moving the rack guides to a different 02:31:39

position? 02:31:45

A Rack guide? 02:31:47

Q Yeah, if you had rack guides -- 02:31:48

A Okay. So I need to -- 02:31:50

Q -- then you can adjust the size of the slot 02:31:52

by moving the rack guides, couldn't you? 02:31:54

A You're not adjusting the size, maybe the 02:31:56

location if there were rack guides, which I'm not 02:32:01

conceding there are a description of that in this 02:32:05

patent, but that would be changing not the volume or 02:32:09

the dimensions but the location. 02:32:12

Q So if you could adjust the location of the slot by moving the rack guide, wouldn't it also be true that you can adjust the dimension of the slot by moving the rack guide? 02:32:29 02:32:32 02:32:37 02:32:39

A I mean that's a hypothetical. The patent talks about adjusting the dimensions, and that's all I'm interpreting, right. I'm not going to put some hypotheticals here. 02:32:41 02:32:47 02:32:50 02:32:54

Q But you're saying to the fact that the slots are adjustable tells you that it's a volume, is that what you're -- is that your testimony? 02:32:54 02:32:57 02:33:02

A No, no, I mean it refers to adjust the dimensions of the appliance accommodation slot. The dimensions means X, Y, and Z, right, the length, width, the height, which to me means a volume. 02:33:04 02:33:07 02:33:12 02:33:17

Q Does dimensions -- I mean isn't that another word for size? 02:33:23 02:33:25

MR. THOMAS: Objection; argumentative -- 02:33:27

THE WITNESS: Yeah -- 02:33:30

MR. THOMAS: -- asked and answered. 02:33:31

THE WITNESS: -- I mean volume is also a descriptor of the size. 02:33:31 02:33:35

BY MR. HALPERN: 02:33:36

Q Okay. I mean -- do you understand the 02:33:36

statement that you could adjust -- I mean let me read the sentence you just testified about. 02:33:44 02:33:53

"By way of example, it will take but a little effort to adapt our" -- 02:33:56

THE REPORTER: Slow down. It will take a little?

BY MR. HALPERN:

Q "It will take but little effort to adapt our invention for use with electronic appliances other than contemporary servers; and to adjust the dimensions of the appliance accommodation slots accordingly." 02:34:01 02:34:02 02:34:05 02:34:09 02:34:11

Doesn't that just mean that you could use this invention with servers of different sizes and shapes? 02:34:12 02:34:15 02:34:18

A No, but this specifically states other than contemporary servers, right. So it's saying it could be any electronic appliance. 02:34:20 02:34:24 02:34:30

Q And then it could be -- you could adjust it to fit any appliance, any electronic appliance, right? 02:34:34 02:34:36 02:34:39

MR. THOMAS: Objection; argumentative. 02:34:40

THE WITNESS: Sorry. I didn't understand your use of a pronoun there. "It" meaning what in your question? 02:34:41 02:34:44 02:34:52

BY MR. HALPERN: 02:34:52

Q The invention, that's the -- right -- "it will take but little effort to adapt our invention for use with electronic appliances other than contemporary servers." 02:34:52 02:34:56 02:34:59 02:35:03

So that's saying the invention can be used with other kinds of appliances other than contemporary servers, correct? 02:35:04 02:35:06 02:35:09

A Yes. 02:35:11

Q Okay. And then other appliances presumably would have different dimensions, right? They would have a different height, weight -- I mean height, width, and depth? 02:35:12 02:35:15 02:35:17 02:35:20

A Different dimensions, different way of presumably mounting them or placing them, different ways of, you know, what kind of design they have or the size they have. 02:35:21 02:35:27 02:35:32 02:35:39

Q Yeah. So this is saying you could accommodate all those different types of device appliances; yes? 02:35:42 02:35:44 02:35:47

A Yes. 02:35:48

Q And you said there's different ways of mounting them. 02:35:49 02:35:50

So this is not -- this would encompass, would it not, something with a rack? 02:35:51 02:35:53

A I mean it may or may not. 02:35:56
Q Yeah. I'm asking if it could. It doesn't 02:36:03
exclude a rack, right? 02:36:05
A But I mean when I'm reading the claim, I 02:36:07
should be giving it its broadest possible meaning 02:36:11
and not confining it to something that is, you know, 02:36:14
the preferred embodiment, especially when the patent 02:36:17
itself talks about, while it could be other ways 02:36:21
of -- you know, it could be other than conventional 02:36:24
server that might be there. 02:36:28
Q Okay. So you're saying it's not limited -- 02:36:30
the preferred embodiment appears to include this 02:36:32
rack, it's not limited to the preferred embodiment, 02:36:36
correct? 02:36:39
A Yes. 02:36:39
Q And therefore there's no special definition 02:36:39
of slot here. There's no lexicography, which is a 02:36:43
concept I asked you before, where the patent is 02:36:49
defining slot. 02:36:52
A I mean it's showing it as that volume where 02:36:53
the appliance is placed. In the preferred 02:36:57
embodiment, the appliance is placed on a rack. In 02:37:03
some other embodiments, it may not be placed on that 02:37:07
rack. 02:37:10
Q Okay. Are there any embodiments where -- 02:37:11

in the patent where the appliances are not on a rack other than -- I know you just read that sentence in column 10 as this could be applied to many things, but does it actually show an embodiment that the appliances are not on a rack anywhere in this patent? 02:37:20 02:37:29 02:37:32 02:37:35 02:37:38 02:37:39

A That was column 9, but, no, there's only one preferred embodiment as it relates to the interior of the tank -- 02:37:39 02:37:48 02:38:01

THE REPORTER: I'm sorry. The what of the tank?

THE WITNESS: The interior of the tank that the patent shows. 02:38:02 02:38:03

MR. HALPERN: Okay. Do you want to take a break? 02:38:23 02:38:25

MR. THOMAS: Yeah. 02:38:25

THE VIDEOGRAPHER: Going off the record, the time is 2:38 p.m. 02:38:26 02:38:27

(Recess taken.) 02:47:33

THE VIDEOGRAPHER: Going back on the record, the time is 2:49 p.m. 02:49:19 02:49:21

BY MR. HALPERN: 02:49:24

Q Okay. So, Dr. Pokharna, I'd like to direct you to your expert report which is Exhibit 1 at 18. 02:49:24 02:49:30

Do you have that in front of you? 02:49:50

A Page 18? 02:49:51

Q Page 18, yes. So it looks like paragraph 55. 02:49:52 02:49:56

A I wasn't -- I had 18, okay. 02:49:56

Q Okay. And in this paragraph 55, you drew the appliance slots in red and black outline, right -- I'm sorry -- in red outline in this drawing -- 02:50:02 02:50:09 02:50:13 02:50:18

A Yes. 02:50:18

Q -- and black outline -- this is kind of the same questions apply to both. Page 24, which is paragraph 71, these are both R70. Maybe I didn't find one where you drew the R30 slots. Both are R70. 02:50:18 02:50:22 02:50:27 02:50:42 02:50:46

But anyway, do you see that you have in paragraphs 55 and 71 of your report where you've drawn in the appliance slots in red and black respectively? 02:50:46 02:50:49 02:50:53 02:50:57

A Uh-huh. I see that. 02:50:57

Q Okay. Now, those outlines were drawn in -- that show the slots in your opinion were drawn in by you, those are not in the actual CAD drawings or in the tanks, correct? 02:51:00 02:51:04 02:51:10 02:51:13

A That's correct. 02:51:14

Q Do you know why in one of them -- in the 02:51:16

first one, you have the red outline, and it encloses a circular pattern of holes, and then above it a square pattern of four -- or diamond pattern of four holes, and then in the drawing that's in paragraph 55, then in the drawing in paragraph 71, your black outline of the slot is just the circular set of holes, but not the diamond pattern? 02:51:21 02:51:27 02:51:31 02:51:35 02:51:38 02:51:42 02:51:46

A I do see that. 02:51:50

Q If you see in paragraph 71, the slots here are smaller and do not include the set of four holes in a diamond configuration that's at the top of page 25. 02:51:56 02:52:00 02:52:02 02:52:05

Do you see that? 02:52:06

A I see that. 02:52:06

Q Okay. And do you know why you excluded the diamonds in one identification of the slot and included it in the other? 02:52:16 02:52:19 02:52:23

A I believe those four holes is where the -- dielectric coolant is going through the power supply of these miners, and we are mainly concerned about the coolant that is flowing through the section where the miners are which is described by that big bunch of different holes. 02:52:54 02:53:03 02:53:11 02:53:21 02:53:25 02:53:31

THE REPORTER: Bunch of different?

THE WITNESS: Bunch of different holes. 02:53:43

That's where the -- most of the flow -- that's where the focus of the cooling is. 02:53:43 02:53:46

BY MR. HALPERN: 02:53:53

Q But why would that be different from one drawing of the R70 versus the other? 02:53:53 02:53:56

A I don't think I have the picture here for R30. I believe for R30, those small diamond holes are not present and I'm kind of speaking from memory so I may not be hundred percent correct about that. 02:53:59 02:55:21 02:55:27 02:55:43

So, again, the main focus is where the those bigger holes where the appliance -- where the miner holes are, that's really the slot where the appliance is going, what is described as the full diamond-shaped holes is for power supply. It could be -- it could be excluded from the definition of the appliance itself as such here. 02:56:03 02:56:11 02:56:17 02:56:23 02:56:29 02:56:35 02:56:39

THE REPORTER: I'm sorry. The appliances?

THE WITNESS: The definition of the appliance here as such.

BY MR. HALPERN: 02:56:47

Q But it is part of the miner, right, the power supply? 02:56:47 02:56:51

A The power supply is a part of the miner. 02:56:51

Q Okay. So how are you determining -- well, let me ask you this. 02:56:57 02:56:59

Is one of these a mistake? Do you want to correct one of them and say it should be drawn the same way for both? 02:57:00 02:57:02 02:57:06

A I think it should probably be drawn the same way for both. The appliance slot should include the power supply for the appliance as well. 02:57:21 02:57:24 02:57:36

Q Okay. So it's the drawing on -- in 55 that is correct in your view showing where the slot is and the one in 71 should -- the black outline should extend a little bit to include that diamond set of holes there as well? 02:57:40 02:57:43 02:57:46 02:57:52 02:57:55

A I believe so. 02:58:01

Q Okay. So how -- I think you just sort of well, let me just ask it. 02:58:02 02:58:09

How do you determine -- how did you determine when you looked at this where the slots are? Is it based on the shape of the miner? 02:58:11 02:58:13 02:58:15

A It's based on the shape of the holes in the base plate. The base plate here, the one that has all of these hole patterns, that is matched with getting the coolant to each of the -- to a particular location, and that is really what is defining the volume within which you can place your appliance. 02:58:19 02:58:28 02:58:38 02:58:41 02:58:47 02:58:49 02:58:55

Q Okay. But if you were wavering about 02:58:56

whether to include the power supply, I mean is it fair to say that if you had this same base plate but you put the miners in without the power supply, then the slot would be -- then you would draw the slot to exclude that diamond set of holes? The slot would only be where the power supply is going to go -- I mean I'm sorry -- where the miner is going to go without the power supply? 02:59:01 02:59:05 02:59:08 02:59:12 02:59:18 02:59:22 02:59:24 02:59:26

A I'm sorry. Could you reask the question? 02:59:28

Q Yes. If you were to have miners - the same miners but without the power supply to go on this same base plate, would you then draw the slots differently and not include the diamond set of holes? 02:59:30 02:59:46 02:59:50 02:59:54 02:59:58

A I think the roles of orifices on the base plate here would define where the slot is. 02:59:59 03:00:13

Q Okay. Regardless of the shape of the appliances? 03:00:22 03:00:23

A Typically I believe in all the accused products, M70 and M30, these holes are matched with the intake for -- what was meant for air, on M30, you remove the fans and where the intake manifold, if you will, for the miner heat sinks is, these holes are matched with that. 03:00:26 03:00:31 03:00:37 03:00:43 03:00:46 03:00:53

So one set of holes is matched with where 03:00:54

all the boards and the big heat sinks are and another set of small holes, those diamond shape things, are matched with where the power supply is. 03:00:56 03:00:59 03:01:02

Q Okay. So if I bought -- if Rhodium bought miners of a completely different shape that, say, you know, didn't fit into these outlines, right, and, you know, I don't know, say it's one and three-quarters the size -- the width, and you put them on this same base plate, would the slots be the same or would the slots then be different because the miners are a different size? 03:01:05 03:01:10 03:01:15 03:01:19 03:01:23 03:01:26 03:01:31 03:01:35

A I think in that hypothetical, we'll need to define a lot of things and see if -- you know, if there is sufficient flow to each of those miners, right. 03:01:36 03:01:40 03:01:45 03:01:50

What really you're trying to do is to cool all the miners to similar degree, right. That's why there is the provision of the face plate in the M70s which is matched with the location of the holes on the miners itself. If you have a different miner, we'll have to analyze it closely to see if the holes are defining the slots or not. 03:01:51 03:01:53 03:02:00 03:02:05 03:02:10 03:02:13 03:02:18

Q But I'm positing a miner that doesn't fit into these spaces that's, you know, sort of irregular with respect to these spaces, and you put 03:02:23 03:02:26 03:02:28

those in the tank, you know, does the tank have appliance slots adapted to -- or is the tank adapted to immerse these appliances each in a respective slot? 03:02:31 03:02:37 03:02:43 03:02:48

MR. THOMAS: Objection; improper hypothetical. 03:02:49 03:02:51

You can answer the question. 03:02:51

THE WITNESS: Again, it depends if those appliances are such that it still takes the same amount of coolant from each of these hole patterns, then we'll need to analyze that to define the slot. 03:02:53 03:02:58 03:03:05 03:03:12

But if you are talking about a hypothetical where like, you know, there is no holes below the intake for the miner, right, that miner is just sitting onto the base plate where there are no holes, then that's clearly not sitting in the slot as defined in this patent. 03:03:15 03:03:17 03:03:26 03:03:30 03:03:33 03:03:39

BY MR. HALPERN: 03:03:40

Q Okay. What if you -- I mean what if you took the miners that you have, that the Rhodium actually uses, and we moved each of them halfway so that it's sitting exactly the center of what you've drawn here as a slot is at the edge of each one, and each one is in two slots, each one is not in one slot, right? 03:03:40 03:03:48 03:03:53 03:03:56 03:03:59 03:04:04 03:04:09

A Yeah. I think, again, a lot of these hypotheticals, right, I just -- there may be a disconnect between the way I understand it and the way you are describing it. 03:04:17 03:04:20 03:04:24 03:04:28

But if you were to do -- like place them such that your holes on the miner is not aligned or not -- you know, there along with the holes from the base plate where the coolant is coming in, then they will not be in the slot, right. 03:04:29 03:04:34 03:04:38 03:04:43 03:04:48

There has to be a way from -- the coolant from these holes to make their way into the appliance, right. I mean the hole patterns along with the miner when you put it in need to analyze both of them to see what the volume is, the slot is. 03:04:49 03:04:53 03:04:58 03:05:03 03:05:08

Q You need to analyze the hole patterns to see where the slot is, is that what you said? 03:05:18 03:05:21

A Analyze the hole patterns and how the inlet on the miner is. 03:05:23 03:05:27

Q Okay. So I'm asking you, though, that if I took -- you defined where the slots are in your drawing. 03:05:31 03:05:33 03:05:37

If I took the very same miners and I just moved each one halfway over so that it's half in two slots, would -- I just placed them that way, would each miner be in a respective appliance slot or 03:05:37 03:05:40 03:05:44 03:05:50

would each miner be in two slots? 03:05:54
MR. THOMAS: Objection; improper 03:05:56
hypothetical. 03:05:58
You can answer the question. 03:05:58
THE WITNESS: So I think that the 03:06:05
hypothetical, based on the way I am looking at it, 03:06:16
there will not be any coolant going into the power 03:06:21
supply. 03:06:25
I think the main boards will still get some 03:06:25
coolant from the hole patterns, and, therefore, it 03:06:27
might not really function if the power supply needs 03:06:33
the cooling guide, but the rest of the holes, there 03:06:39
are so numerous that they will still be supplying 03:06:43
coolant to the miner and in that case, the volume -- 03:06:47
the slot may be formed, you know, sort of halfway to 03:06:54
each of these hole patterns. 03:06:59
BY MR. HALPERN: 03:07:00
Q Okay. So it sounds like you're saying the 03:07:00
slot is defined by where I put the miner? 03:07:03
MR. THOMAS: Objection; argumentative and 03:07:06
misstates his testimony. 03:07:08
THE WITNESS: I wouldn't say that 03:07:10
necessarily, right. You know, I think it all 03:07:12
depends on, you know, what you're trying to do is -- 03:07:15
is you have these hole patterns from where you're 03:07:18

bringing in the coolant and you want this coolant to go in the miner. So the slots are, you know, essentially defined by the hole patterns, but the miners need to line up with the hole patterns. 03:07:23 03:07:26 03:07:32 03:07:36

So in your hypothetical, if the miners can line up with the hole patterns, then that's how the appliance -- the slot volume will be defined. 03:07:39 03:07:41 03:07:45

BY MR. HALPERN: 03:07:48

Q Okay. So in other words, anywhere that you put the miner, if it works, if the -- whatever the hole pattern may be, like if there's enough flow that the invention works or the system works, then the miner is in a slot and the slot is defined by where the miner is? 03:07:48 03:07:51 03:07:55 03:07:58 03:08:01 03:08:07

A Yeah, I think in that hypothetical, I would say that that is the case. 03:08:16 03:08:19

Q Okay. So you probably already answered my next question, but let's say I had just like a completely homogenous pattern of holes. 03:08:21 03:08:28 03:08:32

A Yes. 03:08:35

Q There's no like -- here, the way you've drawn it, you have separate -- there's a shape, the circle, and the diamond and it recurs the same in every -- everything that you've drawn as a slot but, you know, you could imagine just you have a grid of 03:08:36 03:08:39 03:08:44 03:08:47 03:08:52

holes covering the whole plate so that you can't -- 03:08:58
there isn't an obvious way to divide them up or you 03:09:02
can divide them any way. 03:09:05
So in that case, would you say the same 03:09:06
thing you just said, wherever you put the miner, 03:09:10
you'd define a slot? 03:09:12
MR. THOMAS: I'm going to object as 03:09:14
improper hypothetical. The witness may answer. 03:09:15
THE WITNESS: Yes, I mean in that case, the 03:09:30
slot will get formed where you are placing your 03:09:32
appliance. 03:09:36
BY MR. HALPERN: 03:09:39
Q Okay. Now, in that case, if you had this 03:09:39
completely -- this grid that I just described where 03:09:49
you have a grid of holes, that doesn't guide you one 03:09:53
way or the other, what about that -- like, what -- 03:09:55
what tells you where the slot is? Is there anything 03:10:14
that tells you on that even grid where to put the 03:10:16
miner? 03:10:21
MR. THOMAS: Objection; improper 03:10:24
hypothetical. 03:10:25
THE WITNESS: You're saying if you have a 03:10:31
totally -- a grid of holes on the entire base -- 03:10:36
BY MR. HALPERN: 03:10:38
Q Just have an even grid, yeah. 03:10:38

A Yeah. You would place them to maximize the volume of miners if there is sufficient flow through the system, and if you have sufficient flow, then you would, you know, use the width such that -- you know, you're designing these things specifically for a system, and you would design it such that, like, let's say the width is six inches, you want to have it, like roughly speaking, a multiple of those six inches. 03:10:42 03:10:56 03:11:00 03:11:03 03:11:09 03:11:11 03:11:17 03:11:20 03:11:23

So you could place -- you know, maximize the volume in -- in that time to place all of your miners, such that you can get sufficient flow through each of those, and then the -- you have slots that will be defined just at that equal interval, right; in this case, six inches apart, the volume extending upward from the base of the tank. 03:11:23 03:11:25 03:11:29 03:11:32 03:11:36 03:11:41 03:11:48

Q But if you place the miners irregularly, right, let's say you happened to do that, again, I think you've already testified to this, but then however you placed them, even if you placed them irregularly, the slots are going to be defined by the miners in that case, where the miners are? 03:11:48 03:11:51 03:11:55 03:11:58 03:12:00 03:12:03

A Yeah. I mean that hypothetical is like sort of not something that a person of ordinary skill would do. 03:12:08 03:12:11 03:12:14

I mean, you know, from a patent point of view, if you were trying to prove things one way or another, you can place things haphazardly, but that doesn't really maximize the volume, maximize the performance, you know, in -- in any sense. 03:12:15 03:12:17 03:12:20 03:12:24 03:12:26

You want to design things to work well, with minimum cost, maybe dollar cost, energy cost, fluid cost, etcetera, so, you know, the hypothetical have a finite in that case -- you know, it's -- I have not really analyzed that -- that hypothetical that if you have something totally hypothetical, where the slots are from. 03:12:31 03:12:34 03:12:39 03:12:43 03:12:49 03:12:52 03:12:54

But in the case of when you place things regularly in an engineered product, you know, the slots are formed where, you know, the holes are, lined up with the holes for the miners. 03:12:57 03:12:59 03:13:03 03:13:06

Q Okay. But I mean the patent gives the example where it talks about that barrier that you could use if you didn't have enough appliances to fill a whole tank? 03:13:08 03:13:11 03:13:14 03:13:16

A That's right. 03:13:17

Q Okay. So I'm, I think, saying maybe you don't fill the whole tank because, for whatever reason, you don't have enough miners for a particular tank, and you have a regular grid of 03:13:17 03:13:21 03:13:24 03:13:27

holes so you can put them anywhere -- 03:13:29
A Right. 03:13:32
Q -- in that case, would the slots be 03:13:32
whatever the miners are? 03:13:35
MR. THOMAS: Objection; improper 03:13:36
hypothetical. 03:13:38
You can answer. 03:13:38
THE WITNESS: I mean since you mentioned 03:13:39
the patent says that the volume where there is no 03:13:41
appliances present, the pattern still calls those 03:13:46
individual volumes as slots. 03:13:54
BY MR. HALPERN: 03:13:56
Q Yeah, I'm not talking about this patent 03:13:56
now. I was asking about where you have the even 03:13:59
grid of holes so it all looks the same, right, a 03:14:01
homogenous grid? 03:14:04
A Right. 03:14:05
Q You have fewer appliances than needed to 03:14:05
fill the tank, right? 03:14:08
A Right. 03:14:09
Q And so you don't have to tightly place them 03:14:09
all in a row, and you place them a bit 03:14:13
irregularly -- 03:14:15
A Right. 03:14:16
Q -- is each one still an appliance slot? 03:14:17

MR. THOMAS: Objection; improper hypothetical. 03:14:20 03:14:21

THE WITNESS: Yeah, I would need to study that a little bit more to really understand and answer that question. While sitting here, it's hard for me to really understand the question exactly and pinpoint where the slots are on that. 03:14:22 03:14:23 03:14:25 03:14:29 03:14:33

BY MR. HALPERN: 03:14:36

Q Okay. Well, I mean you said earlier the slots would be where the miners are, assuming there was adequate flow through the miners; is that correct? 03:14:36 03:14:43 03:14:46 03:14:49

I thought that's what you said. So I'm just asking if that applies where you have -- you know, in this hypothetical where you just have an even grid of holes that all look the same all the way across and you place the miners whichever way? 03:14:52 03:14:54 03:14:58 03:15:00 03:15:04

MR. THOMAS: I just want to object as mischaracterizing his testimony. 03:15:07 03:15:08

You can answer. 03:15:10

THE WITNESS: I think I'm not sure where the slots are. If you are going to place those miners haphazardly, you know, like reassign those and, you know, something might be lying on its -- 03:15:26 03:15:31 03:15:35 03:15:39

BY MR. HALPERN: 03:15:42

Q Not lying on its side. Let's say they're all upright. You have an even grid of holes. There's holes everywhere across the whole thing, but, you know, you just don't place them evenly spaced, let's say. Maybe some were turned a little bit. Some are -- one is at six inches and then the next one is at seven inches from that one. 03:15:42 03:15:44 03:15:46 03:15:49 03:15:51 03:15:54 03:15:57

A Right, yeah. 03:15:59

Q But all vertical, all on an even grid of holes. 03:16:00 03:16:04

A Right. 03:16:06

Q And let's assume, you know, that, as I think you've said, that if you had kind of holes everywhere, you're going to have adequate flow? 03:16:07 03:16:09 03:16:11

MR. THOMAS: Again, improper -- objection; improper hypothetical. 03:16:14 03:16:16

THE WITNESS: Yeah, yeah, I'm not sure if we have the slots in -- in that kind of hypothetical because what I have really analyzed are the accused instrumentalities here, M30 and M70, which have a hole pattern that corresponds to the inlet of the miners. 03:16:21 03:16:25 03:16:34 03:16:43 03:16:48 03:16:51

And, you know, as I think the patent also says is that you have these holes that are lined with, you know, each appliance for each slot, you 03:16:52 03:16:55 03:16:59

know, I think that is clearly the slot. 03:17:06
BY MR. HALPERN: 03:17:10
Q Uh-huh. So would it be then if you 03:17:10
replaced -- if you got rid of this plate and you had 03:17:15
an even grid of holes, the hypothetical we've been 03:17:20
talking about, you just had a square grid of holes 03:17:24
where they're everywhere on the base plate and you 03:17:27
arrange the tanks irregularly, they're all upright, 03:17:32
but they're not spaced evenly, would that be a 03:17:35
noninfringing substitute because they're not each in 03:17:39
a respective appliance slot? 03:17:42
MR. THOMAS: Objection; improper 03:17:46
hypothetical. 03:17:47
BY MR. HALPERN:
Q Or would that still infringe because you 03:17:47
put them -- 03:17:49
A I need to -- I've not performed that 03:17:49
analysis. I'll need to look at it carefully and 03:17:51
consider all the things. 03:17:54
The truth is I've been looking at -- at 03:17:57
implementations in M30 and M70 where these holes are 03:18:01
all aligned, right, and it's clear that at least in 03:18:06
that case, it is defining these holes. Together the 03:18:09
holes and where the appliance is going is the slot. 03:18:14
Q But in this then, could I avoid 03:18:20

infringement by just moving the miners so they don't fit into the red outlines so that each one is in multiple slots? 03:18:22 03:18:25 03:18:28

MR. THOMAS: Objection; improper hypothetical, exceeds the scope of his expert opinion. 03:18:29 03:18:30 03:18:32

BY MR. HALPERN:

Q Or would that still infringe in your view? 03:18:33

A Yeah, like, again, I've said, I've really not performed that analysis and would need to carefully consider all the things to make the determination. 03:18:35 03:18:39 03:18:41 03:18:45

Q So you're unable to say if moving the miners so that each one is in more than one of these red outlines is no longer each in a respective appliance slot? 03:18:45 03:18:51 03:18:53 03:18:59

MR. THOMAS: Objection; mischaracterizes prior testimony, asked and answered. 03:19:00 03:19:01

THE WITNESS: Yeah, I would need to look at quite a few different things and weigh them against each other. 03:19:03 03:19:05 03:19:10

BY MR. HALPERN: 03:19:10

Q What would you need to look at? 03:19:10

A See if there is sufficient flow going through the miners, is the system working, is the 03:19:12 03:19:15

flow getting all bypassed around the miners so that it's, like, not going to function well. 03:19:17 03:19:20

I need to also, again, look at all the evidence in the patent on the -- on the slot, like, you know, there are other places where the patent mentions lining up the holes with the particular appliance slots, right. So we need to consider all of that to make that determination. 03:19:23 03:19:29 03:19:35 03:19:38 03:19:50 03:19:55

Q I see. Where does the patent mention that? 03:19:56

A I believe column 4, line 24, 5 onwards. 03:20:01

Q Oh, I see, uh-huh. 03:20:07

A "Preferably, each appliance slot 18a is supplied via several rows of orifices, this generally tending to reduce the volume of the dielectric fluid exiting each orifice and to make the flow of dielectric fluid more uniform" -- 03:20:13 03:20:14 03:20:17 03:20:20 03:20:26

THE REPORTER: I'm sorry. To -- exiting each orifice to?

THE WITNESS: "To make the flow of dielectric fluid more uniform upwardly through the appliance slots 18." 03:20:32 03:20:32

BY MR. HALPERN: 03:20:34

Q But assuming this slot -- assuming the holes provided adequate flow with your placement of the appliances outside the red lines so that each 03:20:34 03:20:38 03:20:42

appliance was in more than one slot with adequate flow -- 03:20:46 03:20:51

A Right. 03:20:51

Q -- would that -- would each appliance still be in a respective slot or would each appliance be in more than one slot? 03:20:51 03:20:54 03:20:57

MR. THOMAS: Objection; argumentative, asked and answered. 03:20:59 03:21:00

THE WITNESS: So I mean, again, these red marks that are drawn here are specific to the configuration that exists today in R70 tanks. I might have been speaking all this time M70. I don't know why, but it's R70. 03:21:00 03:21:05 03:21:08 03:21:14 03:21:17

BY MR. HALPERN: 03:21:19

Q That's fine. 03:21:19

A The -- if you are changing the design -- 03:21:22

Q I'm not changing the design. I'm asking you -- sorry to interrupt -- this exact design, but I just move the miner so that each one is in multiple slots as you've drawn them. 03:21:27 03:21:29 03:21:33 03:21:36

A Yeah. 03:21:40

Q Is that, you know, no longer each appliance in a respective appliance slot because they're in more than one slot, assuming adequate flow, or would you say if there's adequate flow, then they're each 03:21:40 03:21:43 03:21:46 03:21:49

still in respective appliance slots because the slot is where the miner is? 03:21:53 03:21:56

MR. THOMAS: I'm going to object as improper hypothetical. 03:21:57 03:21:59

You can answer the question. 03:21:59

THE WITNESS: Again, like I mentioned earlier, I would need to analyze that situation more closely and weigh all the things before I make my judgment of that. 03:22:00 03:22:03 03:22:09 03:22:13

BY MR. HALPERN: 03:22:14

Q What would you need to weigh? You said you needed to weigh the flow, and I said, okay, there's adequate flow, assume that. You've got the pattern of holes. What else would you have to know? 03:22:14 03:22:15 03:22:18 03:22:20

A Yeah, I think I'll, again, need to read in detail all the specifications of the patent and, you know, how it goes about defining the slots and the flow through the slots and the metes and bounds of that because it's a little bit more involved than doing it here under the gun. 03:22:22 03:22:26 03:22:32 03:22:38 03:22:48 03:22:52

Q Okay. Are the holes -- I know that you have defined the slots as a volume, and you say in your report that the slots are -- I'm just using the words of the claim because you use the words of the claim or something close to it, but the slots are 03:22:56 03:23:00 03:23:03 03:23:12 03:23:14

distributed vertically -- I don't want to characterize what you said in your report, but you're familiar with the distributed vertically along the long wall of the tank aspect of the claims? 03:23:23 03:23:27 03:23:30 03:23:32 03:23:35

A Yes, I am familiar with it. 03:23:35

Q So with reference to not the volumes but just the holes themselves at the bottom, are the holes distributed vertically along the long wall of the tank, the holes in the plate or the plate for that matter? 03:23:37 03:23:39 03:23:44 03:23:47 03:23:50

A I don't believe holes are -- or the plate is distributed along the -- vertically along the long wall. Plate is a horizontal plate. 03:23:57 03:24:00 03:24:04

Q Okay. Now, you mentioned wanting -- among the factors that you would consider, wanting to determine if there's adequate flow through the miners, right. 03:24:07 03:24:19 03:24:21 03:24:24

How would you determine whether there's adequate fluid flow through the miners? 03:24:26 03:24:28

A Are you able to cool them to the desired temperature of the various miners that exist within the system or are they at a uniform enough temperature, are your flow rates excessive for the kind of cooling that you are getting. I mean in 03:24:33 03:24:40 03:24:45 03:24:48 03:24:54

some -- is your system kind of close to being optimal and not underdesigned or overdesigned for the job that it is supposed to do. 03:24:58 03:25:05 03:25:11

Q And you said one of the things is -- you'd look at is are the flow rates excessive. 03:25:14 03:25:17

How would you determine whether the flow rates are excessive? 03:25:20 03:25:24

A Again, it will take doing an analysis. You know, there is -- you could estimate things like heat transfer coefficients, the thermal resistances of heat sinks based on the flow rate of the liquid around it, and if that is sufficient to cool the miner, then you would think that is adequate. 03:25:27 03:25:36 03:25:40 03:25:45 03:25:51 03:25:56

You know, when you have -- when the hypothetical that you were describing with the -- where the entire base plate has a bunch of holes and you have a few miners here and there, maybe the coolant would bypass the miner. 03:26:00 03:26:04 03:26:07 03:26:09 03:26:14

It may because the pressure drop through the miner itself is much higher than just the system in which case you are essentially wasting your energy that you are putting in in pumping. 03:26:18 03:26:20 03:26:24 03:26:28

So there are a lot of different things that will go in an engineering analysis to see if the system is designed properly or not. 03:26:31 03:26:33 03:26:36

Q And you mentioned the variable of the thermal resistance of the heat sinks based on the flow rate of the liquid around it. 03:26:38 03:26:40 03:26:43

So how would you determine the thermal resistance of the heat sinks based on the flow rate? Would you measure the thermal resistance and the flow rate? 03:26:46 03:26:49 03:26:54 03:26:56

A That would be one way of doing it. You could also use some correlations, like calculations, to -- you know, the physical properties of the liquid, and you could use them along with some heat transfer correlations to estimate the resistance. That's kind of the second way. 03:26:57 03:26:59 03:27:05 03:27:10 03:27:14 03:27:20

So there's an experimental way. There is a typical way where you can use some correlations and calculations like a spreadsheet analysis. You could also do more detailed computer code-based modeling. 03:27:22 03:27:25 03:27:28 03:27:31

Q And the -- so the -- what would the computer code-based modeling be? 03:27:37 03:27:46

A So there are -- you know, there are existing computer codes, like flow term that do a reasonable job. 03:27:48 03:27:54 03:28:02

Of course, you need to know what you are modeling and describe all the conditions for the model accurately and, you know, use the right inputs 03:28:02 03:28:04 03:28:10

in those models, in those computer codes to create a model for the heat sink in this case, along with the fluid flow including its -- you know, things like velocity, other physical parameters, and those computer codes solve the heat transfer equations and the flow dynamic situations, right, especially convection radiation, also continuity to estimate the thermal resistance. 03:28:18 03:28:23 03:28:30 03:28:35 03:28:40 03:28:43 03:28:46 03:28:52

Q For the first two methods that you mentioned, you said correlations like calculations, you know, the physical properties of the liquid, you could use them along with some heat transfer correlation to estimate the resistance, that would involve using some equations, right? 03:28:56 03:28:59 03:29:02 03:29:04 03:29:07 03:29:10

A That's right. 03:29:12

Q Okay. And then the next one was the experimental way, and that would be like you would conduct an experiment to actually examine the flow? 03:29:12 03:29:15 03:29:18

A Yes. 03:29:21

Q And what -- what would that entail? 03:29:21

A So that may entail, you know, having a known amount of flow leak through the system, through the miner in this case, of the heat sink of the miner, and reading that flow rate and measuring temperature of the chip which will then allow you to 03:29:25 03:29:29 03:29:35 03:29:38 03:29:41

calculate the thermal resistance. 03:29:43

Q Okay. Okay. So now I want to ask you 03:29:46

about a different subject, which is a term -- some 03:29:59

terms that the patent uses. 03:30:03

Circulation facility, does the patent 03:30:05

define that term? 03:30:08

A I know the patent uses that term. I do not 03:30:17

recall right now if it explicitly defines the 03:30:21

circulation facility. 03:30:25

Q You should look through it as much as you 03:30:44

feel is appropriate. I'm not going to rush you at 03:30:47

all, but I will just say, if it's helpful, I looked 03:30:49

for this, and I did not find a definition of 03:30:53

circulation facility in the patent. 03:30:55

A I mean I think it's essentially -- you 03:30:57

know, it describes at some points like circulation 03:31:04

facility 28 as fluid circulation facility something 03:31:07

that is going to have -- circulate the fluid through 03:31:14

the primary circuit. 03:31:18

Like, for example, for 28 is flowing the 03:31:20

dielectric coolant through the tank -- through its 03:31:29

plenum, then through the tank, and through the rear 03:31:34

recovery section and so forth. So that's like 03:31:36

column 4, line 50 I mean, but that may not be the 03:31:41

first place where it mentions that. The circulation 03:31:46

facility 28, I think it's just like column 3, line 64. 03:31:55 03:31:58

Q Well, let me ask you then, what's your understanding if you had -- just explain, what is a circulation facility? What is a circulation facility? 03:32:03 03:32:06 03:32:08 03:32:12

A Yes, circulation facility means something that, you know, facilitates the movement of coolant. 03:32:14 03:32:17

Q And the patent also uses both fluid circulation facility and simply circulation facility. 03:32:36 03:32:41 03:32:44

So is the difference between those two things simply that, in a fluid circulation facility, it's a fluid that's circulated whereas in a circulation facility, it can be any coolant that's circulated? 03:32:45 03:32:47 03:32:51 03:32:54 03:32:58

A I don't think that we're trying to differentiate between the fluid circulation facility and circulation facility in the patent. 03:33:07 03:33:09 03:33:12

Q I mean, you know, it's a patent. It uses slightly different terms. So I'm just trying to understand if there's a difference there. 03:33:15 03:33:17 03:33:20

A Yeah, I mean I think -- 03:33:22

Q So your view is the circulation facility and the fluid circulation facility, those are 03:33:22 03:33:25

referring to the same kind of thing? 03:33:28

A I believe so in general, but if you could point me to a specific location that you're asking me about, this is slightly -- 03:33:29 03:33:33 03:33:35

Q Well, in the claim, it refers to the primary circulation facility and the secondary fluid circulation facility and so -- 03:33:37 03:33:38 03:33:42

A I believe that -- you know, I think like the primary circulation facility adapted to circulate the dielectric fluid. So I would posit that the primary circulation facility is also the primary fluid circulation facility because it uses the phrase later on to say it moves dielectric fluid through the tank. 03:33:45 03:33:55 03:33:58 03:34:02 03:34:06 03:34:12 03:34:16

Q Understood. Okay. So then -- and what is the purpose of the secondary fluid circulation facility in your understanding? 03:34:24 03:34:40 03:34:43

A Yes. Secondary fluid circulation facility has two things it does. It extracts the heat from the primary circulation facility, and then it dissipates it to the environment. 03:34:45 03:34:48 03:34:59 03:35:00

Q Okay. Now, what is a closed loop circulation facility? 03:35:08 03:35:10

A Sorry. You're talking about where here right now? 03:35:15 03:35:17

Q Let's see. I'm really asking generally. I think the patent uses that term, but let's see. Oh, it refers to circulation loops. 03:35:18 03:35:24 03:35:30

But I mean do you recognize closed loop circulation facility as a term you know -- as a person of more than ordinary skill in the art, do you have an understanding of what a closed loop circulation facility is? 03:35:34 03:35:36 03:35:41 03:35:44 03:35:46

A Yeah. A closed loop circulation facility, if it uses the modifier closed loop in front of it, you know, would mean that you end up where you started. There is, you know, sort of 360-degree turn, right, as against just a simple circulation facility which may define just flow going through something. 03:35:47 03:35:50 03:35:53 03:35:58 03:36:03 03:36:06 03:36:10

Q So the loop means that what is circulating comes back to where it began? 03:36:16 03:36:18

MR. THOMAS: I'm going to object. He said closed loop. 03:36:20 03:36:22

BY MR. HALPERN: 03:36:22

Q I'm sorry. Closed loop means the thing that's circulating comes back to where it began? 03:36:22 03:36:26

A That's right. 03:36:28

Q Okay. And an open loop facility would be -- is that a simple circulation facility which 03:36:29 03:36:38

just may refer to flow going through something? 03:36:41
A Again, if there is some particular 03:36:43
reference in the patent, if you could point me to 03:36:45
that. 03:36:49
Q Well, I'm just asking you again as a person 03:36:49
of ordinary skill in the art. 03:36:51
A Okay. Not concerning this patent, right, 03:36:54
if you're asking questions like -- you know, because 03:36:56
the claim language here uses circulation facility 03:37:01
and some claims closed loop, I believe, right, 03:37:03
that's why I just want to -- 03:37:08
Q Actually I didn't realize that. I thought 03:37:10
this was a term that was not in the claims. You 03:37:12
know, the only claims asserted here are one and five 03:37:15
and I don't think either of those uses these terms. 03:37:17
Yeah, so I'm just asking your understanding 03:37:21
as a person of ordinary skill in the art of -- yeah, 03:37:23
the other -- or let's say not open loop -- I think 03:37:30
you already said this, right. 03:37:34
There's a closed loop which you defined and 03:37:35
then you said otherwise there are -- there are 03:37:37
facilities that simply have flow of some kind, but 03:37:40
without a return of the fluid to its margin point; 03:37:45
is that fair? 03:37:49
A I think that's a reasonable 03:37:50

characterization. 03:37:52

Q Okay. So what's the -- what's the 03:37:52

advantage of a closed loop circulation facility 03:37:55

over -- 03:37:58

MR. THOMAS: In what context? Vague. 03:37:59

BY MR. HALPERN:

Q I'm asking -- you know, it's something that 03:38:02

people use. 03:38:04

Why do people use a closed loop circulation 03:38:05

facility when they do in general? 03:38:08

A I mean if you -- if you do not want to lose 03:38:11

your coolant, like, for example, in many water 03:38:18

cooling kind of implementations like, you know, if 03:38:22

you have on, like, direct-to-die liquid cooling, 03:38:26

those kind of systems that I was describing I have 03:38:33

worked on, those are closed loop cooling facilities 03:38:35

because they are -- you know, you use the water or 03:38:38

the water glycol mixture and that goes over a cold 03:38:43

plate and then it goes through the heat exchanger. 03:38:48

It gets its heat from the heat exchanger and then 03:38:51

comes back. 03:38:53

The open loop circulation facilities are 03:38:54

like, you know, using -- like in a data center, 03:38:56

using the city water to remove the heat from a data 03:39:00

center level, right, that's like an open loop water 03:39:03

because you just bring in this water from the city or in a reactor, right, or a thermal power plant, you may just bring in water from a river or a lake and, you know, use that to cool the -- whatever you need to cool in terms of the excess heat that didn't get converted into electricity and then rejected back in the river, that's sort of an example of open loop cooling facility. 03:39:06 03:39:10 03:39:16 03:39:19 03:39:22 03:39:28 03:39:31 03:39:34

Q Okay. And so you mentioned that one reason to prefer the cold loop -- I'm sorry -- the -- 03:39:35 03:39:39

A Closed.

Q Scratch, closed, yes. 03:39:43

One reason to prefer the closed loop is to preserve the coolant, to not lose the coolant? 03:39:45 03:39:50

A Yeah, to use the same coolant to keep going back. 03:39:53 03:39:57

Q Is there any other reason that you would want to use the -- prefer the closed loop to the open system? 03:39:57 03:40:00 03:40:03

A I suppose there are -- there could be any idea of other reasons. 03:40:04 03:40:11

MR. THOMAS: Just object as vague, ambiguous, improper hypothetical. 03:40:15 03:40:17

THE WITNESS: Primarily if you want to just attach the first goal, right, to -- you know, you 03:40:24 03:40:29

don't want to have just -- you don't have a source of water to cool your desktop computer, if it is using liquid coolant, right, you don't want to connect it with your tap and have a line going back to the drain in your home, right. So you just want to remove the heat from the CPU, reject it, and bring the same coolant back. 03:40:30 03:40:33 03:40:38 03:40:41 03:40:43 03:40:50 03:40:53

BY MR. HALPERN: 03:41:06

Q I mean is it often true that, you know, the closed loop will be more expensive to build, but then you get a long-term savings because once you've built it, then you're preserving your coolant by circulating it as opposed to an open loop which might be cheaper, but you need something that you're not retaining to do the cooling? 03:41:06 03:41:08 03:41:12 03:41:15 03:41:20 03:41:24 03:41:26

MR. THOMAS: Well, I'm just going to object as relevancy. It exceeds the scope of his opinions in the case. 03:41:28 03:41:31 03:41:34

THE WITNESS: Again, it's an engineering problem and you could look at -- - 03:41:36

THE REPORTER: I'm sorry. It's a what problem?

THE WITNESS: It's an engineering issue. You need to, you know, consider quite a few different things, right. So I wish there was a very 03:41:43 03:41:43 03:41:47

simple answer that, you know, A, use open, B, use closed. 03:41:49 03:41:55

The reality is more nuanced. If you use a closed loop, you need in the end additional heat exchanger to reject the heat eventually. If you use open loop, you take the heat in coolant, and then you just reject that coolant itself or you take the heat in the fluid and reject that fluid itself out somewhere. So, again, it's situational. 03:41:55 03:42:02 03:42:06 03:42:13 03:42:18 03:42:22 03:42:25

BY MR. HALPERN: 03:42:33

Q Okay. You said you need additional heat -- I'm just seeing the transcription here -- you need additional heat exchangers to reject the heat in a closed loop because you wouldn't necessarily need it in an open loop -- in an open circulation facility, correct? 03:42:33 03:42:43 03:42:46 03:42:48 03:42:51 03:42:54

MR. THOMAS: Yeah. Objection; relevancy and exceeds the scope of his expert report. 03:42:54 03:42:57

THE WITNESS: Yeah, yes, I mean in a closed loop, all you're doing is bringing the heat into the fluid. You still need to reject it through some other means, heat exchangers, adiabatic coolers, etcetera. 03:43:01 03:43:04 03:43:09 03:43:15 03:43:23

BY MR. HALPERN: 03:43:23

Q Right. And with an open system, you don't 03:43:23

necessarily need to do that or you don't need to do that? 03:43:25 03:43:28

A Open system, you are rejecting the heat into something that, you know, eventually like in the case of a power plant getting cooled by water from the river. The water is going to go back to the downstream after. 03:43:28 03:43:31 03:43:33 03:43:36 03:43:39

Q Okay. Now, I want to ask you about another claim element which is coordinating the operation or to coordinate the operation of the primary and secondary fluid circulation facilities. 03:43:41 03:43:45 03:43:48 03:43:51

I don't think the patent defines this either and I -- just to -- you know, again, you should absolutely feel free to look at anything you want to look at in the patent, but I would direct you to column 5, lines 16 to 56. This is sort of the first full paragraph in column 5. 03:43:56 03:43:58 03:44:02 03:44:04 03:44:08 03:44:15

A 15 through where? 03:44:29

Q 15 through 56. So it's like the first full column -- paragraph of column 5 -- 03:44:30 03:44:35

A Got it. 03:44:36

Q -- that I think -- that's the place in the patent where the coordination of the primary and secondary circulation facilities is described. 03:44:40 03:44:42 03:44:44

A Okay. I've read it. 03:45:27

Q Okay. And so that discussion talks about some of the details, I believe, of how each of the facility -- what each of the facilities does. And then it concludes -- this is starting at column 5, line 53 -- "In general, the goal is to maintain the temperature of the dielectric fluid in the tank between a predetermined minimum temperature and a predetermined maximum temperature." 03:45:29 03:45:42 03:45:45 03:45:47 03:45:52 03:45:56 03:45:59 03:46:03

A Yes. 03:46:05

Q So is it fair to say that that is -- I mean it says "the goal," that is the purpose of the control facility that coordinates the operation of the primary and secondary fluid circulation facilities? 03:46:05 03:46:07 03:46:14 03:46:16 03:46:19

A I believe that's what the claim states. "The control facility adapted to coordinate the operation of the primary and secondary fluid circulation facilities as a function of the dielectric fluid in the tank." 03:46:26 03:46:39 03:46:42 03:46:43 03:46:46

Q Right. But I was asking something different that the claim doesn't explain, which is why you're coordinating the operation of the two circulation facilities and then there's this description that concludes with, "In general, the goal is to maintain the temperature of the 03:46:48 03:46:50 03:46:54 03:46:58 03:47:01 03:47:04

dielectric fluid in the tank between a predetermined minimum temperature and a predetermined maximum temperature." 03:47:07 03:47:09 03:47:12

And I'm basically just asking if you agree that that is the goal of coordinating the operation of the primary and secondary circulation facilities. 03:47:13 03:47:15 03:47:17

A That's not limiting. You also want to make sure that your miners are operating below their specified temperatures, right, or whatever is your objective for cooling, even that is being cooled to spec or, you know, that the -- the heat sources are within their spec for temperature. 03:47:20 03:47:26 03:47:32 03:47:35 03:47:43 03:47:47

Q Now, does the patent ever talk about the server temperature itself? 03:48:16 03:48:24

MR. THOMAS: I'll just object. The document speaks for itself. 03:48:37 03:48:38

THE WITNESS: I think it's kind of obvious that this entire patent is to try to cool a heat source or a computer appliance rack below -- keep it below its spec temperature, right. That's the whole point of the entire application -- the entire patent. 03:48:58 03:49:02 03:49:12 03:49:19 03:49:24 03:49:35

It's, you know, maybe mentioned in one of the provisionals or, you know, which are incorporated here or, you know, in the background of 03:49:35 03:49:38 03:49:41

the invention where it talks about the related arts, 03:49:45
you know, I think, but to a person of ordinary skill 03:49:49
in the art, right, the whole point of all of these 03:49:52
immersion cooling facility that it describes is to 03:49:58
keep the computer, specifically the chips, the CPUs 03:50:02
and some other chips below its spec temperatures. 03:50:07
BY MR. HALPERN: 03:50:11
Q Assuming you're right that that is the 03:50:11
ultimate goal of the whole thing is to keep the 03:50:14
chips operating below spec temperatures, is it fair 03:50:16
to say that the patent's way of achieving that that 03:50:24
it describes is maintaining the -- monitoring and 03:50:27
controlling the temperature of the dielectric fluid 03:50:33
between a minimum and a maximum or even leave out 03:50:37
the between minimum and the maximum, it's focused on 03:50:41
controlling the temperature of the dielectric fluid? 03:50:43
MR. THOMAS: Objection. You're asking his 03:50:47
interpretation of the patent? 03:50:48
MR. HALPERN: Yeah. 03:50:49
MR. THOMAS: Okay. The document speaks for 03:50:51
itself. 03:50:53
Subject to that, you can give your 03:50:54
understanding. 03:50:55
THE WITNESS: So what it presupposes is 03:51:01
that it's fixed load -- fixed thermal power from the 03:51:03

components in the computing system in this case, and, therefore, there is -- if you know the fluid temperature that tells you the temperature of the CPU or some other component, so that's kind of in the background based on the knowledge of a person with ordinary skill, that's why it says that if you just know the temperature of the fluid, as long as it is between certain range, your chips are going to be within their specified temperature limits. 03:51:07 03:51:11 03:51:18 03:51:23 03:51:27 03:51:30 03:51:34 03:51:38 03:51:46

BY MR. HALPERN: 03:51:48

Q Where does the patent say that? 03:51:48

A As I mentioned, that's knowledge of person of ordinary skill in the art. 03:51:50 03:51:53

Q Okay. So the patent doesn't talk directly about the chip temperature. It talks about a fluid temperature, but a person of ordinary skill would understand the chip temperature -- that the fluid temperature is related to the chip temperature? 03:51:55 03:52:00 03:52:03 03:52:05 03:52:08

A Yeah, only thing I would add along with that is the -- all the background and provisionals, I do not have that in front of me, and I do not remember them exactly if they talk about this particular topic or not. It's frankly so fundamental and rudimentary that you kind of just know it as background. 03:52:12 03:52:14 03:52:20 03:52:23 03:52:25 03:52:30 03:52:34

Q Okay. Now, I wanted to ask you one other thing about -- because I'm trying to get this coordination of the primary and secondary circulation facilities, and so back to that section that I asked you about five -- column 5, that big paragraph which you read. 03:52:35 03:52:40 03:52:43 03:52:45 03:52:50 03:52:53

A Yes. 03:52:55

Q That really describes, as I understand it and I am just a lawyer, not an expert, the coordination as something that involves controlling flow, right, that that's what they mean by coordinating the two facilities is -- 03:52:56 03:53:05 03:53:11 03:53:22 03:53:37

A That would be one interpretation, right, but I think the claim itself is not kind of limiting it to. 03:53:45 03:53:49 03:53:53

Q Yep, yeah, I'm not -- I'm not suggesting this is definitional. I'm just asking you, you know, kind of -- this seems to be the description to me and how you understand what it's talking about. 03:53:55 03:53:58 03:54:03 03:54:05

MR. THOMAS: I'm just going to object as vague and ambiguous. 03:54:09 03:54:11

THE WITNESS: I'm sorry. Your question is? 03:54:17

BY MR. HALPERN: 03:54:19

Q This is a description of -- as I understand it, of column 5, but in column 5, there's a 03:54:19 03:54:22

description of coordinating the function of the primary and secondary fluid circulation facilities, and I guess -- well, I actually am asking, if not for a definition, at least for an understanding -- your understanding of what that means, like what is going on when the patent talks about coordinating the function of the primary and secondary fluid circulation facilities? 03:54:25 03:54:30 03:54:35 03:54:39 03:54:41 03:54:43 03:54:46 03:54:50

MR. THOMAS: Objection. The document speaks for itself and the question is vague and ambiguous. 03:54:52 03:54:53 03:54:57

THE WITNESS: Yeah, so it could mean like for them to switch something on or off or change certain quantity of flow, like maybe that is overheating and you need to shut down the system, right. That could be another example, I believe, of coordinating. 03:54:57 03:55:08 03:55:11 03:55:17 03:55:19 03:55:23

BY MR. HALPERN: 03:55:27

Q Are you coordinating the flow when you just change one thing in one of the facilities, right? So let's say -- 03:55:27 03:55:29 03:55:32

A Yeah, yeah. 03:55:33

Q -- you know, like you receive -- you see that the miner is too hot and you turn off the miner. 03:55:35 03:55:43 03:55:45

Is that action coordinating the flow -- coordinating the function of the primary and secondary fluid circulation facilities? 03:55:47 03:55:52 03:55:54

MR. THOMAS: Objection; vague and ambiguous. 03:55:57

You can answer. 03:55:59

THE WITNESS: I -- I believe so, right. If you switch something off, right, that's coordinating the operation of that facility, if you have to switch it off or if you have to change the flow rates or -- 03:56:00 03:56:03 03:56:07 03:56:13 03:56:16

BY MR. HALPERN: 03:56:17

Q But I'm asking just switching something off in one facility, is that coordinating the operation of that facility with the other facility? And specifically I asked about the tank, right. So if you're switching off a miner, the miner is in the primary circulation facility, just that step, are you coordinating the operation? 03:56:17 03:56:20 03:56:23 03:56:27 03:56:30 03:56:33 03:56:36

A I want to make sure I understand your hypothetical correctly. 03:56:39 03:56:41

Q Sure.

A So in the tank, it has a bunch of miners in it and you switch off the flow to this entire tank? 03:56:45 03:56:45

Q No. 03:56:48

A No.

Q No, you don't do anything with flow. Okay? 03:56:48

A Okay. 03:56:51

Q Okay. You just see a heat map, one of the 03:56:51

miners is too hot, and you just switch off that 03:56:54

miner? 03:56:57

A Right. 03:56:57

Q You don't do anything -- 03:56:57

A Right, yeah, yeah. 03:56:59

Q -- else. 03:56:59

A Right. 03:57:00

Q Is that switching off of the miner in the 03:57:00

tank coordinating the function of the primary and 03:57:06

secondary fluid circulation facilities? 03:57:09

A I believe the answer is yes. 03:57:12

Q And how -- how are you coordinating the 03:57:14

operation of the two facilities when you switch off 03:57:17

a miner? 03:57:19

A Right. So when you're switching off a 03:57:20

miner, it's going to change the primary circulation 03:57:22

facility flow characteristics because now you, for 03:57:27

one, you know, you're essentially relying on the 03:57:36

heat from the miner that changes -- that the density 03:57:42

of the -- of your dielectric coolant which means 03:57:47

there is buoyancy force which means -- 03:57:58

THE REPORTER: Which means what?
THE WITNESS: The buoyancy force.
THE REPORTER: Buoyancy?
THE WITNESS: Buoyancy force, yeah, thank you. And the buoyancy, you know, accelerates the hot coolant to go up. So you are essentially changing the primary coolant characteristics. 03:58:00 03:58:01 03:58:09 03:58:14
And then depending on how many miners are shut off and so forth, you may be changing something on the secondary side also. But you're saying if, in your hypothetical, there was nothing that was changing on the secondary side, you still are changing based on certain signal. If you switch off one of the miners, you are changing the primary coolant -- primary circulation facility, I should say. 03:58:17 03:58:21 03:58:23 03:58:28 03:58:30 03:58:32 03:58:39 03:58:45 03:58:49
BY MR. HALPERN: 03:59:05
Q Okay. Now, I want to direct you to column 8, 47 to 54 in the patent. I'll read this. It says, "It will be recognized that, in all of the embodiments described herein, emphasis was placed on minimizing the total volume of the dielectric fluid circulating throughout each immersion module" -- excuse me -- "10. We submit that the key concept here is to move the secondary fluid to the point of 03:59:05 03:59:09 03:59:17 03:59:20 03:59:23 03:59:29 03:59:32 03:59:35

heat exchange with the primary fluid, rather than to move the primary fluid to the point of heat exchange with the secondary fluid." 03:59:37 03:59:40 03:59:44

And then it goes on to explain "all of the essential components of the primary circulation facility are tightly colocated to form a highly-integrated module." 03:59:47 03:59:49 03:59:52 03:59:54

And then it concludes, "Further, our placement of the reservoir 42 outside of (but immediately adjacent to) the tank 14 tends to reduce the total volume of the dielectric fluid." 03:59:57 03:59:59 04:00:02 04:00:05

Did I read that accurately? I know part of it I paraphrased but -- 04:00:13 04:00:16

A Yes. 04:00:17

Q Okay. So do you infer from that discussion that the reason for having the secondary fluid circulation facility is to reduce the volume of dielectric fluid you need to use? 04:00:18 04:00:21 04:00:25 04:00:28

MR. THOMAS: Objection; vague and ambiguous and the document speaks for itself. 04:00:31 04:00:35

THE WITNESS: So your question is that do I -- could you repeat the question for me? 04:00:41 04:00:43

BY MR. HALPERN: 04:00:47

Q Sure. I read the passage which is 47 to 54, and then I asked if you glean from that passage 04:00:47 04:00:50

that I read that the reason for having the secondary fluid circulation facility is to reduce the amount of dielectric fluid that you need to use? 04:00:54 04:00:58 04:01:01

MR. THOMAS: Objection; also calls for speculation. 04:01:04 04:01:06

THE WITNESS: I mean that is one of the things they mentioned here, right, is in the embodiments that are described, right, there is -- as the document kind of states, it's one of the results of that is to minimize the total volume of the dielectric fluid. 04:01:09 04:01:11 04:01:15 04:01:18 04:01:26 04:01:30

BY MR. HALPERN: 04:01:30

Q Right. And is that because dielectric fluid is expensive and water is cheap in your understanding? I'm asking for, you know, as a person of skill, if that's what you think is the motivation there. 04:01:30 04:01:34 04:01:41 04:01:43 04:01:45

A Sure, I mean but also there are some other -- if you have to use this water to exchange heat with the dielectric fluid, then you also need a heat exchanger, and there is a cost of the heat exchanger. 04:01:45 04:01:49 04:02:00 04:02:05 04:02:07

Again, in entering a new system, you have to weigh the cost and complexity of integrating one more piece of hardware in the system and the 04:02:08 04:02:10 04:02:14

maintenance it might take and, you know -- - 04:02:19

THE REPORTER: I'm sorry. The what?

THE WITNESS: The maintenance and what kind 04:02:22
of failures it might have. You might have fouling 04:02:22
of that heat exchanger and, you know, leaks in that 04:02:25
heat exchanger. So you need to weigh that against 04:02:28
the cost of the dielectric coolant in this case. 04:02:34

BY MR. HALPERN: 04:02:55

Q Are you familiar with both single loop and 04:02:55
dual loop cooling systems? 04:02:57

A I mean that's a very broad, broad question. 04:02:59
You may have to constrain it a little bit, but like, 04:03:06
you know, I mean I think you may have two loops in 04:03:08
parallel to cool a CPU, that's a dual loop system to 04:03:14
me. I don't know if that's what you're describing. 04:03:19

Q You have an understanding of single loop 04:03:20
system and dual loop system as a person of more than 04:03:23
ordinary skill, correct? 04:03:28

A Yes. I mean all I'm saying is that dual 04:03:28
loops may define a lot of different things, and to 04:03:31
really accurately answer whatever question you might 04:03:33
have, I would just reserve my right to kind of 04:03:35
define the dual loops more later. 04:03:40

Q Okay. Fair enough. What is -- what is a 04:03:44
single loop embodiment -- sorry. 04:03:48

What is a single loop cooling system? 04:03:50
MR. THOMAS: Vague as to what context. 04:03:53
MR. HALPERN: Again, he's a person of 04:03:57
ordinary skill in the art. 04:03:58
MR. THOMAS: Are you talking about 04:03:59
air-cooled system? You started to talk about those. 04:04:00
MR. HALPERN: Well, no. 04:04:03
Q Obviously if I'm asking at that level of 04:04:04
generality, I'm asking what are single loop systems. 04:04:06
They may have different fluids in the loop, but, 04:04:08
yeah, what's a single loop cooling system. 04:04:10
A I mean not talking about the patent in 04:04:13
question here, right. I mean, you know, this one 04:04:15
has a -- specifically defines, you know, circulation 04:04:18
facility in all of that, right. 04:04:22
So a single loop to a person of ordinary 04:04:24
skill in the art would mean like if it has a closed 04:04:29
loop system, first of all, on that, it will have a 04:04:33
liquid flowing through a pumped loop that forces 04:04:36
coolant to go over a processor or a GPU or memory, 04:04:42
some heat source, pick up the heat from there, go to 04:04:47
a heat exchanger, reject the heat there, and come 04:04:50
back. That would be an example of a closed loop 04:04:53
single loop cooling system. 04:04:58
BY MR. HALPERN: 04:05:00

Q Okay. And I wasn't specifying closed loop, but just single loop in my question, but right -- 04:05:00 04:05:05

A Loop to me means closed loop in general. 04:05:08

Q Okay. 04:05:11

A And I'll -- 04:05:12

Q Okay. I appreciate that clarification. Thank you. All right. 04:05:13 04:05:16

Does the '457 patent describe a single loop embodiment? 04:05:19 04:05:23

MR. THOMAS: Vague and ambiguous. 04:05:30

You can answer the question if you understand it. 04:05:32 04:05:33

THE WITNESS: One of the embodiments it describes is the -- on -- in Figure 12 has -- has more than one -- one cooling loop, at least the way it is described on Figure 12. 04:05:37 04:05:42 04:05:56 04:06:00

BY MR. HALPERN: 04:06:03

Q Right. So that's a dual loop. So I'm asking, is there a single loop embodiment that the patent contains or describes? 04:06:03 04:06:05 04:06:08

A This -- again, this is not describing the circulation facility. Okay. Circulation facility is likely different than a closed loop. Okay. So the patent itself in its main embodiment is describing a two closed loop system. 04:06:10 04:06:30 04:06:34 04:06:40 04:06:43

Q Yeah, I'm simply asking, does it have anywhere a one loop -- a single loop system as an embodiment in this patent? 04:06:49 04:06:53 04:06:57

A Yes. 04:06:58

Q Okay. And where is that? 04:06:59

A Point you to column 9, lines 15 through 17. 04:07:00

Q Okay. So column 9, lines 15 through 17, says "Similarly, practitioners in the art will readily recognize that other, known secondary circulation facilities may be employed effectively, including," and then, you know, forced air, vapor compression systems, earth-water sink loops, waste heat recovery, and recycling systems and the like. 04:07:19 04:07:24 04:07:27 04:07:29 04:07:32 04:07:37 04:07:39

Is that what you're referring to? 04:07:42

A Right. 04:07:43

Q And that would -- how does that describe a single loop? 04:07:44 04:07:46

A So what -- okay. So let's take the case of earth-water sink loops. What that might mean is that you take the dielectric coolant, you pump it in the earth through some sort of serpentine tube that is going in. 04:07:49 04:07:53 04:07:58 04:08:04 04:08:08

If you go a few feet under the earth, the temperatures there are literally constant, okay, and they are much -- you know, typically, you know, on a 04:08:11 04:08:14 04:08:18

hot day outside temperature might be like, let's say, 75, but under -- you go -- or even a hundred degrees Fahrenheit. 04:08:20 04:08:23 04:08:27

But if you go maybe six to ten feet under, I don't remember the exact numbers, the temperatures are much lower. So you can sink the heat from all of these miners in a geothermal heat sink, right. That's an example that it is talking about right here which is -- in your definition, will be a single loop. 04:08:29 04:08:32 04:08:34 04:08:38 04:08:43 04:08:46 04:08:48

Second thing it mentions is -- 04:08:50

Q Let me interject a question, though. Could an earth-water sink loop be a dual loop system? 04:08:51 04:08:54

A It could be dual loop. It could be ten loops also, but it could be single loop. That's the question that you asked. 04:09:00 04:09:02 04:09:04

Q No, I asked if it has an embodiment and you're saying it refers to a type of system that could be implemented as a single loop, but it doesn't describe a single loop embodiment, right? 04:09:04 04:09:07 04:09:10 04:09:13

A It describes a single loop embodiment because it's saying the secondary circulation facility may imply, you know, the secondary circulation facility -- sorry -- "In the art will readily recognize that other, known secondary 04:09:16 04:09:18 04:09:20 04:09:26 04:09:32

circulation facilities may be employed effectively, including forced air" -- I'm coming to that in a moment -- "vapor compression systems, earth-water sink loops," right, and it goes on to describe other things also, "waste heat recovery and recycling" -- 04:09:34 04:09:38 04:09:41 04:09:44 04:09:47

THE REPORTER: I'm sorry. With what?

THE WITNESS: "Waste heat recovery and recycling systems." So the waste heat recovery, I will come to that also in a moment. 04:09:59 04:10:00

So -- but in the case of a water sink loop, the most efficient thing would be to just take the coolant, pump it underground, and reject the heat to the cooler temperatures that subsist under the earth, right. So I mean that's an example of that. 04:10:01 04:10:04 04:10:07 04:10:13 04:10:18

The second example, let's talk about the waste heat recovery. So in the waste heat recovery, what you're trying to do is take all the heat from these miners and use it effectively for district heating or some other hot water needs. 04:10:19 04:10:22 04:10:25 04:10:28 04:10:31

So what you would use is an open loop on this other side, so you have the primary loop, and you exchange heat from there with some water that you are going to use for hot water need. 04:10:34 04:10:37 04:10:42 04:10:44

Let's say your miners are close to this building and it's a cold day like today, you can 04:10:49 04:10:52

take that hot -- that heat from all the miners and use it in an effective manner to heat the building. 04:10:55 04:10:58

That's an example of an -- what you would call an open loop or this is the secondary circulation facility which is not a closed loop in that case, right. 04:11:02 04:11:05 04:11:07 04:11:11

BY MR. HALPERN: 04:11:11

Q Okay. So you would call that you're -- I'm not calling anything anything, but you would call that a single loop system? 04:11:11 04:11:18 04:11:20

A That would be a single closed loop system. 04:11:22

Q But none of those things are described in the patent? Those are things that you -- 04:11:27 04:11:38

MR. THOMAS: Objection -- 04:11:40

BY MR. HALPERN:

Q -- as a person of ordinary skill in the art recognize are possible implementations of what the patent lists, correct? 04:11:41 04:11:43 04:11:46

MR. THOMAS: Objection; asked and answered, argumentative, and misstates his prior testimony. 04:11:47 04:11:48

THE WITNESS: It explicitly describes the other ways, and they are explicitly saying that it's not limited to what is described in the -- in the embodiment. 04:11:51 04:11:54 04:11:57 04:12:00

There are other embodiments that are 04:12:01

equally possible. The claims contemplate that the way they are written. So I don't know what else is needed to describe that. 04:12:03 04:12:08 04:12:11

BY MR. HALPERN:

Q In your career, you have seen many primary to secondary flow facilities, right? 04:12:16 04:12:18

A Some. 04:12:21

Q Would you agree that the secondary loop normally transports heat to the rejection device? 04:12:27 04:12:29

MR. THOMAS: Objection; improper hypothetical and it -- 04:12:35 04:12:36

MR. HALPERN: It's not a hypothetical. 04:12:38

MR. THOMAS: Okay. Objection -- objection; vague and ambiguous. 04:12:39 04:12:42

THE WITNESS: I mean there may not be a secondary loop like I'm -- 04:12:44 04:12:48

BY MR. HALPERN: 04:12:49

Q No, I'm asking if there is one, what the secondary loop does to transport heat to the rejection device. 04:12:49 04:12:51 04:12:54

MR. THOMAS: In other -- you're talking about -- 04:12:57 04:13:00

MR. HALPERN: In general. 04:13:00

THE WITNESS: So I didn't follow the question at all so -- 04:13:01 04:13:02

BY MR. HALPERN: 04:13:03

Q Okay. A secondary loop in a dual loop 04:13:03

system, is the function of the secondary loop to 04:13:07

transport heat to the rejection device? 04:13:10

A I mean if there is, if that is the system, 04:13:13

right, I mean the secondary loop may be used to 04:13:16

reject the heat, right. 04:13:21

I mean the primary loop is rejecting heat 04:13:22

through the secondary loop. The secondary loop can 04:13:25

have a third loop if that's what your system is, 04:13:28

right. You know, it's not limiting -- the patent 04:13:31

itself is not limiting to having those loops, 04:13:37

certainly not the claim 1. 04:13:40

Q I'm not asking you about the claim. I'm 04:13:41

just asking you about -- okay. 04:13:43

Have you ever heard that the fans in a 04:13:45

cooling tower are referred to as a secondary 04:13:51

circulation loop? 04:13:54

A It's immaterial. I mean I don't -- you 04:13:56

know, I don't work on designing of these systems day 04:14:00

in and day out, and I don't know what different 04:14:05

people call it and certainly sitting here, I cannot 04:14:07

represent what the entire world like different 04:14:10

people call different things, right. 04:14:13

So I -- I just don't know. All I can do is 04:14:15

read the specifications and the claims and interpret the claims in light of the specifications. 04:14:21 04:14:24

Q Okay. Well, do you know if a person of ordinary skill in the art would recognize, you know, the air side of a cooling tower as a secondary circulation loop? 04:14:27 04:14:29 04:14:33 04:14:37

A I mean the patent expressly -- expressly states that in column 9, line 16, 17 so that question is, you know, moot and I cannot represent what different people would call different things. 04:14:38 04:14:41 04:14:50 04:14:54

Q Okay. So you don't know if a person of ordinary skill in the art would refer to the air side of a cooling tower as a secondary circulation loop? 04:14:59 04:15:03 04:15:05 04:15:10

MR. THOMAS: Objection; asked and answered. 04:15:10

THE WITNESS: Personally, you know, to me, it's like the primary is the first. Anything after that is secondary. So if there is, as the patent claims here, like not claims, states here that the secondary circulation facility may be forced air. 04:15:13 04:15:15 04:15:18 04:15:23 04:15:25

BY MR. HALPERN: 04:15:33

Q Wouldn't forced air refer to a closed air loop? 04:15:33 04:15:36

A No, it will not be closed air loop. Then you will need to remove the heat from that area 04:15:38 04:15:40

again. So that would be, you know, an unnecessary step that would just add cost and complexity as well as energy cost to the system without having any benefit. 04:15:43 04:15:46 04:15:50 04:15:53

So when it says that the other -- the second circulation facility may be forced air, that means that you take the heat from the dielectric liquid and reject it to the ambient air, exactly the way the accused devices are operating. 04:15:54 04:15:58 04:16:01 04:16:06 04:16:14

Q In an air-cooled data center, air is normally circulated in a closed loop, right? 04:16:17 04:16:20

MR. THOMAS: Objection; no foundation. 04:16:25

Go ahead. 04:16:26

THE WITNESS: It may be -- you know, you -- depends, like if it is working in a warm environment, then -- and a dirty environment, then you would do that. 04:16:29 04:16:31 04:16:35 04:16:40

There are many data centers where you bring in air from outside and use that to cool the data center. There are many data centers going in in Iceland and many cold places for that reason. So there's no one size that fits all. 04:16:42 04:16:43 04:16:48 04:16:50 04:16:53

BY MR. HALPERN: 04:17:07

Q Do you want to take a break or keep going? 04:17:07

A I was -- want to ask for a break. 04:17:10

Q Okay. Gotcha. 04:17:12

MR. THOMAS: Okay. 04:17:13

THE VIDEOGRAPHER: Going off the record, 04:17:14
the time is 4:17 p.m. 04:17:15

(Recess taken.) 04:29:49

THE VIDEOGRAPHER: Going back on the 04:29:50
record, the time is 4:29 p.m. 04:29:51

BY MR. HALPERN:

Q Dr. Pokharna, do you recall that the claim 04:29:55
requires the plenum to be, quote, adapted to 04:29:58
dispense the fluid substantially uniformly upwardly 04:30:02
through each appliance slot? 04:30:06

A Yes. 04:30:09

Q Okay. Does the patent define dispense the 04:30:09
fluid substantially uniformly upwardly through each 04:30:15
appliance slot? 04:30:18

Again, I'll give you my view which is it 04:30:19
does not, but obviously you're going to give me your 04:30:31
independent opinion. 04:30:35

A On 4, line 24 through 28, it mentions 04:30:43
"Preferably each appliance slot 18a is supplied via 04:30:50
several rows of orifices, thus generally tending to 04:30:55
reduce the volume of dielectric fluid exiting" -- 04:31:01

THE REPORTER: The volume of what fluid?

THE WITNESS: "Of the dielectric fluid

exiting each orifice and to make the flow of dielectric fluid more uniform upwardly through the appliance slots 18." 04:31:09 04:31:14 04:31:17

I believe that is one of the locations where it talks about the fact that the flow might be coming through some orifices in the appliance slot such that it's going upwardly at all locations in the appliance slot. 04:31:20 04:31:24 04:31:28 04:31:32 04:31:44

BY MR. HALPERN: 04:31:45

Q Okay. Well, I -- you just answered a question that really is what I wanted to understand is what your understanding -- I mean you formed an understanding of the limitation in preparing your report, right? 04:31:45 04:31:48 04:31:50 04:31:56 04:31:59

A Yes, I did. 04:32:00

Q Okay. And something must be uniform, right, dispensing the fluid must be uniformly upwardly. 04:32:01 04:32:09 04:32:13

So what variable is it that must be uniform? 04:32:14 04:32:17

A If it is upwardly at a relocation, it is moving upwardly as against going down, going left to right. 04:32:23 04:32:27 04:32:33

Q So it's uniform upward velocity, like the velocity is -- 04:32:35 04:32:39

A No, no, no, no, no, no, it's not the uniform velocity because if you have the flow coming from some holes, obviously right next to the hole, the flow is stagnant, right. So then it would just read out the entire claim just based on the specification of that. 04:32:40 04:32:44 04:32:46 04:32:49 04:32:53 04:32:56

Q So what is it that must be substantially uniform? 04:32:57 04:33:00

A Upward. It's the fact that it is moving upwards, right. That's -- 04:33:01 04:33:03

Q I see. So your reading is as long as there's upward flow through the appliance slots? 04:33:06 04:33:09

A It's uniformly upwardly, meaning it's not like some locations it is not going down, right. It's not going sideways. And that is in contrast with some of the earlier art. 04:33:12 04:33:18 04:33:20 04:33:29

Q And you agree that this uniform upward flow must be through each appliance slot? In other words, each slot has to have uniform flow? 04:33:53 04:33:58 04:33:59

A It's uniformly upwardly, that's the claim language. 04:34:00 04:34:03

Q Yes.

A So it's flowing -- 04:34:04

Q But it's through each appliance slot. I'm just asking if it has to be uniform in each slot. 04:34:06 04:34:09

This is in the claim. 04:34:13

A Yes. 04:34:14

Q Okay. And so your view, though, is that if it were moving upward very, very slowly in half of the slot and it was moving upward at ten times that speed in the other half of the slot, it would be still substantially uniform -- the fluid would be dispensed substantially uniformly upwardly? 04:34:24 04:34:28 04:34:33 04:34:35 04:34:40 04:34:43

A Sorry. In your hypothetical again, say that in some location, it is moving at speed X upwardly -- 04:34:48 04:34:50 04:34:53

Q Yep. 04:34:54

A -- and some other location it is moving at 10X speed? 04:34:54 04:34:57

Q Yes. 04:34:58

A So I think for that, you need to really understand the substantially, right, the meaning of the phrase "substantially," right, because it's not just saying that it's uniformly upwardly. It says substantially uniformly upwardly as well, right. 04:34:59 04:35:03 04:35:05 04:35:08 04:35:13

So substantially, to understand that, would mean that, you know, such -- such that it's -- the function that it is doing is achieved, right. Whatever is the function of the fluid movement upward is achieved, right, that's really what the 04:35:20 04:35:24 04:35:39 04:35:45 04:35:48

substantially would mean. 04:35:54

I mean it's really clear from the 04:35:56

specification that nowhere they are saying that the 04:35:58

flow velocity has to be precisely the same 04:36:01

everywhere in the tank, right. That's just not 04:36:04

possible. They talk about having -- 04:36:06

Q Well, it says "substantially." 04:36:08

A -- perforation holes, right, I mean, you 04:36:10

know, just like there are in the accused devices, 04:36:14

you know, and as long as the flow is moving upwardly 04:36:20

and substantially uniformly upwardly, I think that 04:36:29

would satisfy this claim limitation. 04:36:35

Q So in other words, if in half of the slot 04:36:39

it were moving upwardly at speed X and the other 04:36:44

half of the slot, it were moving upwardly at speed 04:36:48

10X, you would consider that to be substantially 04:36:52

uniformly upwardly? 04:36:55

A Yeah. 04:36:57

MR. THOMAS: I'm going to object -- 04:36:58

objection. It's an improper hypothetical, lacks 04:36:59

foundation. 04:37:01

THE WITNESS: Yeah. I mean I would say 04:37:01

that it would -- I mean it is happening in -- even 04:37:03

in the -- in whatever they are describing in this 04:37:07

patent when you put the appliance in the appliance 04:37:12

slot. There are going to be places where the velocities are going to be different because there are -- because there are different structures. 04:37:16 04:37:20 04:37:24

The pressure drop along the heat exchange is different than something else and, you know, there are holes in the -- at the bottom that they have contemplated, you know, the orifices as they describe it on -- for column 4, line, you know, 24, 25, etcetera. 04:37:27 04:37:30 04:37:32 04:37:38 04:37:40 04:37:48

So all of that means that, yes, the velocity may be changing from place to place and yet the flow could be uniformly upwardly -- substantially uniformly upwardly through each of the appliance slots. 04:37:49 04:37:51 04:38:00 04:38:05 04:38:10

BY MR. HALPERN: 04:38:10

Q Okay. Because uniform just -- in your view, substantially uniform upward flow means it's just substantially that it's flowing upward almost everywhere, even if it's flowing upward at very different velocities? 04:38:10 04:38:15 04:38:20 04:38:24 04:38:28

A Yeah. I wouldn't say very, right. I mean very is a -- I don't know. I mean you are talking about like what kind of differences, but as long as -- I mean there is no doubt to a person of ordinary skill in the art that the flow velocities 04:38:29 04:38:31 04:38:34 04:38:38 04:38:40

are going to be different, you know, depending on the local pressure drop characteristics, right. 04:38:43 04:38:46

I mean I don't think anybody is claiming that it is exactly precisely the same velocity at every point. I mean that would be absurd, right. 04:38:50 04:38:52 04:38:54

Q Right. Well, it says "substantially." 04:38:57

A Substantially uniformly upwardly, right, in each appliance slot, right. 04:38:59 04:39:03

Q Yes, yes. 04:39:05

A So that means if an appliance slot, one, you are getting some flow through that, right, average velocity something. In another appliance slot, you are getting sort of similar velocity moving upwardly -- 04:39:06 04:39:11 04:39:16 04:39:20 04:39:25

Q But I -- okay. I appreciate that, but I'm asking a different question which I asked and you gave an answer, but you didn't answer the question I asked. 04:39:28 04:39:30 04:39:34 04:39:37

In an appliance slot, in half of the slot you have upward flow of velocity X and the other half of the slot, you have upward flow of velocity 10X, so it's all upward flow, but half of the slot the flow is ten times faster than in the other half of the slot, is that substantially uniformly upwardly in that slot? 04:39:38 04:39:41 04:39:45 04:39:48 04:39:52 04:39:55 04:39:59

A So you mean could you define this half being one on top of another? 04:40:01 04:40:03

Q No, horizontally. 04:40:04

A Side by side. 04:40:08

Q Yes, side by side. So you're at the base plate, right, and at that point, the upward flow is X in half of the slot and the other half of the slot from the base plate it's upwardly 10X. 04:40:08 04:40:11 04:40:14 04:40:17

A Yeah, I think locally, the velocities will change as the fluid goes through some nooks and crevices. It may accelerate or decelerate depending on the local pressure drops. 04:40:20 04:40:24 04:40:29 04:40:33

So the idea is not to match velocities everywhere in this entire volume. Okay. As long as it is upwardly, going upward in all of those, and at a system level, you have, you know, similar flows happening through each appliance slot, it would satisfy this claim limitation. 04:40:35 04:40:37 04:40:41 04:40:45 04:40:49 04:40:52

Q Okay. So your answer is, yes, if it's flowing upwardly everywhere in the slot ten times faster in half the slot than in the other half of the slot, that satisfies the limitation of substantially uniformly upwardly through each slot? 04:40:53 04:40:55 04:40:59 04:41:02 04:41:05

MR. THOMAS: Objection; asked and answered, mischaracterizes his testimony. 04:41:09 04:41:10

THE WITNESS: In a three-dimensional sense, right. I mean an appliance in an actual computer system, the actual computer system is a lot more complicated than a square rectangular block that is represented in Figure 11, right. 04:41:12 04:41:17 04:41:20 04:41:23 04:41:26

It has local details, and obviously there is going to be locations in this tank where the fluid is going to come through a stagnant point, right. Anyplace there is a solid in the system -- excuse me -- there is a solid in the system, the fluid will come to a complete rest. 04:41:28 04:41:32 04:41:35 04:41:37 04:41:40 04:41:43

So you could say that the fluid velocity there is zero, right, and that will exist -- that way the entire patent will be meaningless then, right. 04:41:46 04:41:48 04:41:52 04:41:55

BY MR. HALPERN: 04:41:55

Q Okay. So you're saying you -- yes is your answer to my question because you believe that if you -- if by substantially uniform upward flow one meant velocity, then the patent would have no scope because you would not have uniform velocity? 04:41:55 04:41:57 04:42:00 04:42:06 04:42:10

A I'm saying velocity at each and every point in that volume, in that slot, right. There is significant volume in the slot. 04:42:13 04:42:17 04:42:21

All I'm saying is that this claim 04:42:23

substantially uniformly upwardly in no sense can mean that at every point in that volume, the velocities are exactly the same going upward. 04:42:25 04:42:30 04:42:31

Q Must the velocities be the substantially the same going upward? 04:42:34 04:42:38

A No, they could be different because there will be velocities that will be zero at any point there is a solid. 04:42:39 04:42:42 04:42:45

Q So there's no limitation on how different they may be? In other words, as long as it's upwardly everywhere, even if the velocities are very different, very heterogenous, it still satisfies substantially uniformly upwardly? 04:42:45 04:42:48 04:42:50 04:42:53 04:42:57

A Look, nobody can argue with one very simple fluid dynamics fact. If a fluid or a liquid in this case is in contact with a solid, it will by definition be at zero velocity at that point. 04:42:59 04:43:02 04:43:07 04:43:10

Q Okay. You're not -- I don't know why, but you're not answering my question? 04:43:12 04:43:16

MR. THOMAS: Objection; argumentative. Let him finish his answer, Counsel. 04:43:17 04:43:18

THE WITNESS: All I'm saying is that if -- since that's one of the most fundamental fluid dynamics concept, that a fluid in contact with solid will be -- 04:43:20 04:43:23 04:43:27 04:43:33

BY MR. HALPERN: 04:43:35

Q Yeah. 04:43:35

A -- will be at zero velocity at that point. 04:43:36

It's called no-slip boundary condition. Okay. So 04:43:38

if I were to interpret the screen as the fluid has 04:43:42

to be seeing velocity everywhere, you know, then -- 04:43:47

then nothing can ever satisfy that, even if you 04:43:52

place the smallest object in its spot and it will 04:43:59

have zero velocity. 04:44:02

Q But you also don't require that it be 04:44:04

substantially the same velocity, right? 04:44:06

MR. THOMAS: Objection. 04:44:08

BY MR. HALPERN:

Q You require only that it all be upward flow 04:44:09

regardless of the differentials in velocity that 04:44:12

there may be? 04:44:14

MR. THOMAS: Objection; improper 04:44:15

hypothetical. 04:44:16

MR. HALPERN: I'm not asking a 04:44:17

hypothetical. 04:44:18

MR. THOMAS: Let me make my objection. You 04:44:18

don't have to argue with my objection. Let me 04:44:20

finish my objection on the record, Counsel. 04:44:22

It's an improper hypothetical, lacks facts, 04:44:24

and foundation. 04:44:31

BY MR. HALPERN:

Q I'm just asking for your understanding of that term. 04:44:32 04:44:34

A Okay.

Q Okay. And your understanding of substantially uniformly upwardly is that there must be upward flow throughout the slot or substantially throughout the slot, but not of any particular velocity distribution. The velocity may be very heterogenous. 04:44:35 04:44:36 04:44:41 04:44:44 04:44:48

As long as it's substantially upward flow everywhere, then that is within the limitation? 04:44:52 04:44:55

A Local velocities will always be heterogenous. If somebody is trying to prove that the local velocities have to be constant everywhere, that's absurd because -- 04:45:01 04:45:05 04:45:07 04:45:12

Q So you're not answering my question. 04:45:13

MR. THOMAS: Objection. Let him finish his answer, Counsel. You can't interrupt him every time. 04:45:15 04:45:16 04:45:19

THE WITNESS: So -- so looking at the local velocities in the context of this patent as meaningless, you've got to look at global -- globally. 04:45:19 04:45:23 04:45:26 04:45:32

That is the first thing I would look at, 04:45:33

first interpretation that I have for uniformly upwardly -- substantially uniformly upwardly is that it should be moving up in -- in -- everywhere in the system. 04:45:37 04:45:40 04:45:44 04:45:50

Again, that is in contrast with some of the preexisting systems that had, you know, fluid loops that were forming where fluid was coming from top to bottom or side to side. 04:45:51 04:45:54 04:45:59 04:46:03

In contrast to that, this patent describes substantially uniformly upwardly movement of the dielectric liquids to move the heat from the appliances and locally in some sections, the velocity can be varying within close proximity of each other. 04:46:05 04:46:08 04:46:13 04:46:19 04:46:25 04:46:30

Q Okay. So the velocity has to be varying within close proximity to each other, but if the velocity is very, very different, is that not substantially uniform upward flow? 04:46:31 04:46:34 04:46:38 04:46:40

A Sorry. Yeah, I could not comprehend that question. 04:46:44 04:46:48

Q Okay. You said -- and the last words of your last answer were "and locally in some sections, the velocity can be varying within close proximity of each other." 04:46:48 04:46:49 04:46:52 04:46:57

And so now I'm asking are you saying the 04:46:58

velocity has to be in close proximity or some degree of proximity in all the different parts of the slot to constitute substantially uniform upward flow or can the velocity vary by any amount as long as all of the flow is upward or substantially all of the flow is upward? 04:47:02 04:47:06 04:47:09 04:47:15 04:47:19 04:47:22

MR. THOMAS: Objection; improper hypothetical, vague and ambiguous. 04:47:22 04:47:23

THE WITNESS: Yeah, like I have mentioned before, right, locally the velocity can be varying simply because of the -- 04:47:25 04:47:28

THE REPORTER: Can be waiting?

THE WITNESS: Can be varying and still it could satisfy this claim limitation. 04:47:42 04:47:44

BY MR. HALPERN: 04:47:45

Q By how much can the velocity vary locally and still satisfy the claim limitation in your view? 04:47:45 04:47:49

A Like I said, anyplace where it is solid, the velocity would be zero, right. So I mean I don't think that's a fact that anybody can deny, that the fluid that comes in contact with the solid will be at zero velocity at that location, so, you know -- so, you know, in that sense, there is large variation, zero versus long zero. 04:47:51 04:47:54 04:47:57 04:48:01 04:48:04 04:48:10 04:48:17

Q So if you had zero in some places and a 04:48:19

very fast velocity in other places, would that still meet substantially upward flow? 04:48:23 04:48:25

A That's what the patent describes, right, I mean by definition -- 04:48:27 04:48:29

Q Is your answer yes? 04:48:29

MR. THOMAS: Counsel, let him finish his answer. I know you're trying browbeat the witness, but let him finish his answers before you start with something else. 04:48:30 04:48:32 04:48:37 04:48:39

THE WITNESS: By definition, there is solid structures that are described in this patent, and it describes the flow to be uniformly upwardly, right. 04:48:40 04:48:42 04:48:46

So in that sense, the patent is already describing to a person of ordinary skill that there may be fluid that will be at rest, and there will be fluid in motion through the appliance slot. 04:48:50 04:48:54 04:48:59 04:49:02

So, therefore, yes, the velocity can be varying within the slot by some magnitude right now, whether 1X, 10X, infinite X, right, because it's zero versus 0.01 like centimeters per second, like really, really slow versus zero is infinite time difference, and it's still described in the patent as uniformly upwardly because the local velocities is not what this thing is concerned about. 04:49:06 04:49:11 04:49:14 04:49:18 04:49:24 04:49:28 04:49:30 04:49:34

MR. HALPERN: Okay. Exhibit -- I believe 04:49:37

this is 9. Wrong one. 04:49:39

MR. THOMAS: This is not 9? 04:49:56

MR. HALPERN: No, it's not. I'm sorry. 04:49:57

MR. THOMAS: Already wrote 9 on mine. 04:49:58

MR. HALPERN: Sorry. I hope my curse word 04:50:01
is not recorded there. 04:50:07

THE REPORTER: I didn't hear anything. 04:50:10

MR. HALPERN: Thank you. That's 9. 04:50:20

(The document referred to was marked by the Reporter as Pokharna Exhibit 9 for identification and is attached hereto.)

BY MR. HALPERN:

Q So I've given you a portion of the 04:50:38
transcript of Christopher Boyd. 04:50:43

Now, did you -- have you spoken with 04:50:46
Mr. Boyd? 04:50:50

A He's one of the inventors, right, on this. 04:50:56

Q Yes, I believe he is -- Midas is in the 04:50:59
process of amending the inventorship so that he will 04:51:02
be the sole inventor. 04:51:05

Is that still true? 04:51:06

MR. KOLEGRAFF: Yes. 04:51:08

THE WITNESS: Yes, I have spoken to 04:51:09
Mr. Boyd. 04:51:10

BY MR. HALPERN: 04:51:13

Q Okay. In preparation of your report? 04:51:13
A No. 04:51:19
Q Oh, okay, I see. Have you reviewed 04:51:19
Mr. Boyd's testimony? 04:51:21
A I have reviewed some of his testimony. I 04:51:25
don't remember without reading this that this is 04:51:28
something I have reviewed or not. 04:51:30
Q Okay. So please review page 254, 14 to 04:51:45
256, 13. 04:52:13
MR. THOMAS: You said 256, 13? 04:52:23
MR. HALPERN: Yes. 04:52:25
THE WITNESS: So where should I end 04:53:25
reading? 04:53:27
BY MR. HALPERN: 04:53:27
Q 256, 13. 04:53:27
A Okay. 04:53:29
Q I believe, yes. 04:53:35
A Okay. 04:53:49
Q Okay. In this testimony, Mr. Boyd 04:53:50
testified that the design in his patent which shows 04:53:53
equal-sized holes everywhere which you can see in 04:53:59
Figure 8 -- 04:54:03
A Uh-huh, right. 04:54:04
Q -- would not produce substantially uniform 04:54:07
upward flow because, in his view, the holes had to 04:54:11

be larger and farther from the fluid entry point. 04:54:13

A Sorry. The figure that you showed me when 04:54:16

you pointed -- 04:54:24

Q Yeah, that's -- 04:54:25

A 7, 8, 9? 04:54:26

Q Yes, or 7, 8 that shows the holes. 04:54:28

A Yeah, 7, 8. 04:54:31

Q Yeah. And he believed in this, as he 04:54:36

testified, that to get evenly or uniformly 04:54:38

distributed flow, that the hole should get longer 04:54:41

toward the center of the plenum plate, and 04:54:44

particularly at 255, he testified -- at 255, 16, "As 04:55:29

I said earlier, you have to have smaller holes near 04:55:34

where you're injecting the coolant from the pipe and 04:55:37

the larger holes as you progress to the center or 04:55:39

the other side, depending on how many pipes you have 04:55:42

injecting coolant into the system, into the plenum." 04:55:45

And I asked him, "If you had all the holes 04:55:49

the same size, would you then not get the uniform 04:55:51

flow that you are trying to achieve with the 04:55:54

plenum?" 04:55:56

And he said, "I believed that we would 04:55:56

not."

And then I asked if he still believes that, 04:55:58

and he says, "Yes, at the time I believed that we 04:56:00

would not and I still believe that today." 04:56:03

And then I confirmed with him, "You still 04:56:04

believe that if all the holes are the same size, you 04:56:08

would not get uniform upward flow of coolant through 04:56:11

plenum and through the servers?" 04:56:14

Answer, "Yes." 04:56:15

A Okay. 04:56:16

Q Do you disagree with the inventor of the 04:56:16

'457 patent, Mr. Boyd, on this point? 04:56:20

A I think what he's saying is that it's not 04:56:24

going to be uniform in the sense, it's not going to 04:56:27

be exactly the same everywhere, you know, which is a 04:56:30

fact. It's not going to be exactly the same 04:56:36

everywhere, but that in itself is true and he has 04:56:38

testified to it. 04:56:44

But I don't understand the relevance to the 04:56:45

patent in question here because we are talking about 04:56:48

substantially uniform flow and not uniform flow. 04:56:52

Q But I asked if he believed that the uniform 04:56:55

flow that he sought to achieve in the patent would 04:56:58

be achieved with uniform holes and he said, no, they 04:57:01

would have to vary in size. 04:57:03

It is -- is it not clear from that that he 04:57:06

is understanding uniform flow to refer to a 04:57:10

substantial uniform velocity? 04:57:18

MR. THOMAS: Objection; argumentative, calls for speculation on what's in the mind of this witness at the time. 04:57:20 04:57:22 04:57:25

MR. HALPERN: I'm asking him to interpret the testimony. 04:57:25 04:57:27

MR. THOMAS: You're asking -- you asked him to say what's in the mind of the witness, and you can't do that. 04:57:28 04:57:29 04:57:31

MR. HALPERN: I'm asking about the words on the page. 04:57:34 04:57:36

THE WITNESS: Sorry. So I mean, first of all, you're saying that the patent is not correct because it describes the uniform holes to have a substantially uniform flow upwards. You're saying that they're amending the patents. I'm sorry. I'm confused really. 04:57:39 04:57:41 04:57:43 04:57:48 04:57:52 04:57:54

BY MR. HALPERN: 04:57:55

Q No. Actually, Mr. Boyd testified elsewhere in that deposition that he believed that the patent elsewhere taught how to achieve uniform upward flow. 04:57:55 04:57:58 04:58:00

A Okay. 04:58:04

Q But what I'm asking you to focus on is he said this pattern of holes would not achieve uniform upward flow because you would need smaller holes near where the inlet is and larger holes farther 04:58:05 04:58:09 04:58:11 04:58:14

away. 04:58:18

MR. THOMAS: I'm going to object that you mischaracterized his testimony. He gave testimony about uniformity. He did not give testimony -- testimony, at least in the segment you had the witness read, about uniform upward flow. 04:58:18 04:58:19 04:58:21 04:58:23 04:58:25

MR. HALPERN: Yes, he did. I just read it. "You still believe that if all the holes are the same size, you would not get uniform upward flow of coolant through the plenum and through the servers?" 04:58:29 04:58:31 04:58:33 04:58:36

Yeah, and so I'm simply asking based on this testimony if it is apparent to you that he understood uniform upward flow to refer to uniformity of velocity. 04:58:39 04:58:42 04:58:46 04:58:50

MR. THOMAS: Objection; calls for speculation, mischaracterizes the testimony. 04:58:53 04:58:54

THE WITNESS: There are a lot of claims in this patent. He -- if you -- I mean if this testimony was, you know -- I don't know, again, the context of this, if you're asking him about this specific claim and this specific language, then it will be a different matter. 04:58:56 04:58:58 04:59:02 04:59:04 04:59:08 04:59:12

I think he's talking in general, and also I think this happened -- this seems to be like different than the patent that Mr. -- Mr. Boyd 04:59:13 04:59:19 04:59:22

himself has filed where these holes are in uniform size, right. 04:59:27 04:59:33

I mean in a real system that he was designing, I don't know the specific of what kind of pressure drops he had, where and what kind of design he had, and why he had to change his whole sizes to get it uniform flow. 04:59:34 04:59:37 04:59:44 04:59:47 04:59:51

First of all, that is moot because this is talking about substantially uniformly upwardly, and the testimony you are reading is about uniform flow, two different things. 04:59:54 04:59:57 05:00:00 05:00:04

BY MR. HALPERN: 05:00:11

Q Do you agree, though, that with respect to the uniform upward flow that he was describing, he was describing uniformly a velocity? 05:00:11 05:00:14 05:00:16

MR. THOMAS: Objection; calls for speculation. 05:00:19 05:00:20

MR. HALPERN: I'm asking what he was describing in the text here. 05:00:21 05:00:23

MR. THOMAS: I still have my objection. 05:00:24

THE WITNESS: Yeah, he might have been talking about velocity of the overall flow rates, you know, to an appliance slot. 05:00:26 05:00:41 05:00:46

I would think that he would be talking about overall flow rate through an appliance slot 05:00:49 05:00:51

rather than velocity. Velocity is a very tricky thing because it changes from place to place. It has different vector component. It has, you know, X, Y, Z dimensions to it. It's not that straightforward with velocity. 05:00:56 05:01:02 05:01:09 05:01:12 05:01:18

BY MR. HALPERN: 05:01:19

Q Well, if you were to measure overall flow rate, how would you do that? 05:01:19 05:01:22

A I would use a flow meter. 05:01:23

Q Okay. Did you use a flow meter to determine whether any of the accused Rhodium products had uniform upward flow or substantial uniform upward flow? 05:01:28 05:01:31 05:01:34 05:01:38

A No, I did not -- I did not have in my possession a functioning system where I could instrument it with things like flow meters. 05:01:42 05:01:45 05:01:50

Q Okay. Did you indicate to your lawyers that you wanted to measure the upward flow using a flow meter in the Rhodium systems? 05:01:53 05:01:57 05:02:00

A Well, I did not have a need for that because the claim is talking about uniformly upwardly flow. That's why we did not, I guess, assert some other claims which might have required, you know, what you are saying. 05:02:02 05:02:06 05:02:11 05:02:16 05:02:20

Q If you wanted to determine the direction of 05:02:21

the flow at each point in the tank, how would you -- how would you do that? If you wanted to show what the direction of the flow is at each point in the tank, how would you do that? 05:02:34 05:02:38 05:02:42 05:02:45

A I mean there are many techniques for flow visualization. There are particle image velocimetry. There are, you know, Slurren techniques. You could -- the simplest techniques may be just injecting some dye in someplace, colored dye, and see the movement of that, but I don't understand the relevance of the question. 05:02:49 05:02:53 05:02:57 05:03:03 05:03:06 05:03:10 05:03:14

Q Did you apply any of those techniques for showing upward flow to the Rhodium tanks to show that there was upward flow everywhere? 05:03:16 05:03:18 05:03:24

A I think even a child would know that if you put something at the bottom and it comes out on top, it's flowing from bottom to top which is called upwardly. I didn't think I needed to do some -- you know, use million-dollar equipment to try to prove something that a child can see. 05:03:26 05:03:29 05:03:33 05:03:36 05:03:39 05:03:42

Q But you did say, I believe earlier, that it has to be substantially uniformly upwardly? In other words, that you wouldn't have some downward flow in some parts of the tank, correct? 05:03:43 05:03:46 05:03:50 05:03:53

A Substantially downward flow, by 05:03:55

"substantial," I mean that the flow is coming in from the bottom and then again some flow is going out from the bottom because it went up and then it came down in some loop in that, right. 05:04:01 05:04:04 05:04:07 05:04:09

If all the fluid is entering the bottom and all the fluid is exiting the top, that's the very definition of it's flowing upwardly. 05:04:13 05:04:15 05:04:19

Q Okay. And I'm asking how would you demonstrate that you don't have any substantial downward flows and you only have -- or substantially only have upward flows? 05:04:22 05:04:25 05:04:28 05:04:31

A Yeah, because if you had substantially downward flow, the law of continuity unless you are destroying matter, right, which is just simply not possible, if the flow is some flow that is going down, where does it go? 05:04:33 05:04:35 05:04:40 05:04:43 05:04:46

It basically has nowhere to go. So it's all of the -- because all the fluid is entering at the bottom and all the fluid is exiting the top, right, it has to be moving upward. 05:04:49 05:04:53 05:04:55 05:04:59

Q How -- did you demonstrate that all of the fluid is exiting the top as opposed to some fluid stagnating in the tank? 05:05:04 05:05:07 05:05:11

A Well, if you have -- 05:05:12

Q Or how would you demonstrate that? 05:05:19

A Yeah, I mean it's called law of continuity. 05:05:20
If you have steady flow, then whatever is coming 05:05:24
from the bottom, all of that is coming out on top. 05:05:27
Q How would you -- when you say "steady 05:05:31
flow," what do you mean? 05:05:34
A Steady flow meaning it's not varying with 05:05:35
time. 05:05:40
THE REPORTER: It's not waiting?
THE WITNESS: It's not varying, changing with time.
BY MR. HALPERN: 05:05:41
Q And how would you demonstrate that you have 05:05:41
steady flow? 05:05:44
A So the unsteady flow happens right at the 05:05:46
beginning when you just switched on your system, for 05:05:49
example, you have some liquid coming at the bottom, 05:05:54
but it hasn't quite made it all the way to the top. 05:05:57
That's an example of flow that is transient, right, 05:05:59
because things are changing. 05:06:03
Once the system starts, by definition, all 05:06:04
the fluid that is coming from the bottom has to find 05:06:07
its way to the top. Like I mentioned, that's, you 05:06:10
know, law of conservation of mass or continuity 05:06:14
creation. That's one of the first fundamental laws 05:06:18
of fluid dynamics. 05:06:21

Q I see, but if I were looking at a tank that had some stagnation in it, how would I -- would I be able to tell just by looking at the tank that there is stagnation of some flow or you'd, like, have to use an equation or some sort of test to show that there is upward flow everywhere? 05:06:22 05:06:25 05:06:29 05:06:32 05:06:36 05:06:41

A Again, it's substantially upward flow, right. There could be -- there, in fact, will be a point where the fluid is not moving at all, and I've mentioned this many times. 05:06:44 05:06:49 05:06:53 05:06:55

Anytime fluid comes in contact with a solid, it will be stagnant at that very point. So that is true about any fluid dynamics. Even if I pulled water out of this cup or this coffee out of this cup, the coffee that is in contact with the cup boundary is stagnant. It is not moving. 05:06:57 05:07:00 05:07:04 05:07:08 05:07:11 05:07:14

It's called no-slip boundary condition in fluid dynamics -- 05:07:18 05:07:23

THE REPORTER: I'm sorry. Slip boundary?

THE WITNESS: No-slip boundary condition in fluid dynamics, right, so -- but that's not what the patent is talking about. It's substantially uniformly upwardly. 05:07:25 05:07:28 05:07:30

It's not saying that it has to be uniformly upwardly at every single point. As long as it is 05:07:32 05:07:36

substantially uniformly upwardly, as we know, it is coming in from the bottom, going out from the top, that -- 05:07:41 05:07:44 05:07:48

BY MR. HALPERN: 05:07:49

Q You could have a tank design where fluid comes in at the bottom and you could see that fluid is injected at the bottom and fluid comes out the top, but there are some tank designs where that could be true, but you would also have substantial downward flow because of something about the design of the tank, right? 05:07:49 05:07:52 05:07:56 05:07:59 05:08:02 05:08:05 05:08:08

MR. THOMAS: Objection; improper hypothetical, lacks foundation. 05:08:08 05:08:11

THE WITNESS: I mean in that hypothetical, if you have fluid coming in and doing like loops, like S kind of turns, serpentine turns through the tank, that is quite possible that you would have -- in that particular design, you would not have substantially upward movement of the -- substantially upwardly movement of the -- of the coolant right. 05:08:12 05:08:13 05:08:16 05:08:20 05:08:22 05:08:25 05:08:31 05:08:35

But in -- in the accused systems, it is not going through some serpentine path, that it's going in one appliance slot and coming down in another slot which is possible. It's possible to have those 05:08:36 05:08:41 05:08:44 05:08:48

designs, but that's not the case -- that's not what is claimed in these patents, and that's not what is there in these patents. 05:08:50 05:08:54 05:08:57

BY MR. HALPERN: 05:09:01

Q Okay. But -- so if you removed the plenum plate, the plate with the holes, would you still have substantially uniform upward flow? 05:09:01 05:09:03 05:09:06

A Again, in that hypothetical, we'll need to look at that, like, where the fluid is coming and how is it going up. 05:09:09 05:09:13 05:09:17

Q Assuming -- yes, assuming the Rhodium tank is exactly as they are, but you take out the plenum plate, so you have the fluid coming in where it is, there's no plate -- there's no orifice -- right, orifice plate, you know, base plate and otherwise it's the same. 05:09:18 05:09:20 05:09:23 05:09:26 05:09:28 05:09:34

A So in the Rhodium systems, you have, you know -- okay, again, in that hypothetical, I would need to understand where the plenum is, right. I would still claim plenum is still all the way to where that plate with the orifice is because below that, you have a tube that has flow coming out from the sides. 05:09:35 05:09:45 05:09:48 05:09:54 05:09:58 05:10:04 05:10:06

Q Yes. 05:10:08

A The flow will come out through the sides, 05:10:08

but then within a short distance, it will have to start moving up because then that's the movement direction that it can go in, right. It has no way to go on the sides, on bottom. So by the time, it hits the -- the volume with -- sorry -- the slots -- not slots -- like where the appliances are, it will be moving in substantially upward direction. 05:10:11 05:10:16 05:10:20 05:10:22 05:10:28 05:10:38 05:10:43

Q And would that -- is this computer still on? 05:10:51 05:10:53

THE VIDEOGRAPHER: No, that's off. 05:10:56

MR. HALPERN: Okay. But they're still connected? 05:10:57 05:10:58

THE VIDEOGRAPHER: Yes. 05:11:00

MR. HALPERN: Okay. 05:11:00

Q And so in your view, it would still -- there would still be substantially uniform upward flow through the appliance slots? 05:11:04 05:11:06 05:11:09

A Again, I would need to study that a little bit more in detail for that hypothetical, but the way I understand it, right, all you have done is removed that plate, and the appliance slots are where they are because I mean, you know, right now those -- that plate is where the appliance slots are sitting, right. 05:11:11 05:11:13 05:11:16 05:11:19 05:11:21 05:11:25 05:11:28

So if you move the plates and the appliance 05:11:29

slots are all the way to the bottom, you know, below the tube where the coolant is coming in, in that case, you know, I don't think I would say that it's substantially -- flowing substantially upwardly. 05:11:32 05:11:34 05:11:39 05:11:42

Q And how would you show -- how would you show whether it is or isn't, if someone asked you show me whether this tank has substantially uniform upward -- 05:11:45 05:11:48

THE REPORTER: I'm sorry. If somebody said? 05:11:53 05:11:53

BY MR. HALPERN:

Q I said how would you show whether it is or it isn't if someone said tell me whether this tank has substantial uniform upward flow. 05:11:55 05:11:59 05:12:02

A Right. So in that case, if your fluid is coming in above where the appliance -- appliances are located, if the appliances are located below the entrance for the liquid in the tank, then it may not be flowing substantially upwardly, at least in that part of the -- of the appliance that is submerged below the height of the -- 05:12:05 05:12:10 05:12:14 05:12:18 05:12:22 05:12:25 05:12:30

Q And how would you -- how would you determine, though, whether it is? 05:12:33 05:12:35

A By looking at it. You can see very easily what is on top and what is on bottom, what is at 05:12:36 05:12:39

which level. 05:12:42

Q And if the miners were at the same height 05:12:43
that they're at, there was no plate, but there was 05:12:46
just, like, bars that they were sitting on, so the 05:12:48
tank is identical, including the height of the 05:12:51
miners above the inflow pipe, but there's no plenum 05:12:53
plate -- 05:12:57

A Uh-huh. 05:12:57

Q -- would that have substantial uniform 05:12:58
upward flow? 05:13:00

A Again, I would need to look at it a little 05:13:01
bit more, but in that hypothetical, the way I 05:13:04
understand it, you know, the liquid is coming in, 05:13:07
you know, significantly below that level, and by the 05:13:10
time it, you know, rises through the pool of liquid, 05:13:13
it will be moving substantially upwardly. 05:13:17

Q So regarding the term "weir," you applied 05:13:21
the court's construction, correct? And that's at -- 05:14:17

A Paragraph 39. 05:14:40

THE REPORTER: I'm sorry?

BY MR. HALPERN: 05:14:43

Q Paragraph 39? 05:14:43

A 29, 29. 05:14:44

Q Thank you. Yep, okay. "Overflow structure 05:14:45
or barrier that determines the level of liquid," 05:14:50

correct? 05:14:53

A Yes. 05:14:53

Q Okay. So in your understanding of that 05:14:53

phrase, does the structure have to determine the 05:15:10

level of fluid using gravity to qualify as a weir or 05:15:12

may it use suction in addition to gravity? In other 05:15:18

words, if you have an overflow structure or barrier 05:15:23

that determines the level of liquid and it 05:15:26

determines the level of liquid with a combination -- 05:15:30

I'm asking that badly. 05:15:34

You have a structure that determines the 05:15:35

level of liquid, okay, through a combination of 05:15:38

gravity and suction, does that in your understanding 05:15:42

come within an overflow structure or barrier that 05:15:47

determines the level of liquid? 05:15:50

MR. THOMAS: Objection; improper 05:15:52

hypothetical, lacks foundation. 05:15:53

THE WITNESS: I mean I just -- I think that 05:15:55

question is so vague that I just don't know -- I 05:16:00

don't know how will you have an overflow if you have 05:16:03

suction. I just do not understand that. 05:16:06

If you have suction, then you are not 05:16:11

really overflowing. You are just like sucking by -- 05:16:13

overflow by definition means that it's gravity 05:16:17

driven. It's flowing over a barrier and that's what 05:16:22

is determining the level of liquid. 05:16:27

BY MR. HALPERN: 05:16:30

Q Okay. So if there's some contribution of suction, even if it's mostly gravity, for example, then, in your view, it's not an overflow structure or barrier that determines the level of liquid? 05:16:30 05:16:33 05:16:37 05:16:40

MR. THOMAS: Objection; vague and ambiguous, improper hypothetical. 05:16:43 05:16:44

THE WITNESS: I mean could you define some suction or like -- I'm not able to see a system where you have a combination of suction and gravity. 05:16:46 05:16:49 05:16:53

I mean you would need to have a totally closed system which is not exposed to any air in the system, and that would then not be a weir. So I just -- to me, it's -- this hypothetical is kind of an impossible hypothetical. 05:16:58 05:17:01 05:17:07 05:17:12 05:17:15

BY MR. HALPERN: 05:17:19

Q Well, let's say you have, you know, an overflow structure, and you also have a pipe that's performing some suction, both of those things are determining the level of fluid in the tank, do you then have an overflow of structure or barrier that determines the level of liquid? 05:17:19 05:17:22 05:17:26 05:17:33 05:17:35 05:17:41

MR. THOMAS: Again, vague and ambiguous, improper hypothetical, lacks sufficient facts. 05:17:42 05:17:43

THE WITNESS: So you're saying that in addition to weir, you have one more system, one more contraption, another kind of some piping system, etcetera, that is sucking liquid through the tank, is that your question? 05:17:46 05:17:47 05:17:56 05:18:00 05:18:12

BY MR. HALPERN: 05:18:14

Q Sure, or if you -- if you constructed your overflow barrier, your weir, in a way that it also had some suction holes, for example. 05:18:14 05:18:17 05:18:20

A Well, that's what I'm not really able to understand, like how can a weir that could be exposed to air and is an overflow structure also has a suction or within the same weir. That's the part that I'm having a really hard time in understanding in your hypothetical. 05:18:22 05:18:25 05:18:28 05:18:31 05:18:35 05:18:38

Perhaps there was a schematic or something like that you could provide, I could understand that. Otherwise, I think you're going to be asking me about apples and I'm going to be talking about oranges. 05:18:41 05:18:44 05:18:45 05:18:48 05:18:51

Q I'm just asking this at the simplest level, whatever the structure may look like, if the level of liquid is determined both by gravity and by suction because both are being exerted, is this limitation present? 05:18:51 05:19:02 05:19:04 05:19:07 05:19:11

MR. THOMAS: Objection. 05:19:12

BY MR. HALPERN:

Q For your understanding, does the weir have to determine the level of liquid by overflow and if it's not solely the weir by overflow determining the level of liquid, then there is no structure or barrier that determines the level of liquid? 05:19:14 05:19:17 05:19:21 05:19:25 05:19:28

A Well, I mean -- 05:19:33

MR. THOMAS: Objection; confusing, compound. Can you break that into one question? I mean that's -- 05:19:34 05:19:37 05:19:40

MR. HALPERN: Yes. 05:19:40

Q Weir is -- you've said a weir is an overflow structure or barrier that determines the level of liquid? 05:19:42 05:19:44 05:19:45

A I didn't say that. The court has considered that. 05:19:47 05:19:49

Q Yes, yes. That's the -- you testified that's the construction you're applying? 05:19:49 05:19:50

A Right, and that's what I have to apply. 05:19:51

Q Okay. I'm just asking if, in your understanding, if there is also present in a system like the Rhodium system, okay, which you believe has a weir, some element of suction by whatever means that is contributing to the removal of fluid from 05:19:53 05:19:56 05:20:02 05:20:06 05:20:09

the tank, is there still an overflow structure or barrier that determines the level of liquid? Is that still met? 05:20:12 05:20:17 05:20:19

A I think -- again, I may not having done this analysis completely, the first thing I would say is I will, you know, point you to the first line of the claim, an appliance immersion cooling system comprising, right, so a weir is comprising. 05:20:20 05:20:24 05:20:27 05:20:32 05:20:36

That means there could be something else also there that you could have present there. That doesn't really negate the function of the weir, right. If you're saying you closed all the holes on the weir and you have a suction only that's determining the level, then I could say, yes, that does not have a weir. 05:20:43 05:20:45 05:20:49 05:20:53 05:20:55 05:20:58 05:21:01

But as long as there is a weir, it will define the level of the liquid in that -- in that tank. You can have a lot of other things, you know, the inlet flow rate, you know, the suction from it, that could also change the level of the weir, but the weir, because of the phrase "comprising," right, is allowed to have something else which could, you know, on the margins change your actual level of the -- of fluid there. 05:21:02 05:21:05 05:21:11 05:21:13 05:21:18 05:21:22 05:21:24 05:21:29 05:21:35

Q Okay. I want to direct you to your report 05:21:38

to page 21, paragraph 61. It would be this image, 05:21:41
page 21, paragraph 61. There you are. 05:21:58
A Yep. 05:22:00
Q Okay. This is a photo of the R70 tank 05:22:00
showing the weir, correct, what you consider to be 05:22:07
the weir? 05:22:10
A Yes, it is the weir. 05:22:10
Q Okay. And then on page 46, paragraph 134, 05:22:14
there's another photo and that is an R30 tank? 05:22:22
A Yes. 05:22:31
Q And you've got the weir labeled in both of 05:22:31
them -- or actually you agree that the drawing in 05:22:35
paragraph 61 shows the weir, it isn't labeled and 05:22:40
then in paragraph 134, you've actually labeled it. 05:22:44
Do you see that? 05:22:47
A Yes, I do. 05:22:47
Q Okay. So in the -- in both of these weirs, 05:22:48
you actually said that your analysis is the same in 05:22:58
paragraph 134 for both of the weir limitation. 05:23:01
Is each -- is there any individual hole in 05:23:11
the weir, any one hole that is adjacent to all of 05:23:14
the appliance slots? 05:23:19
A Sorry. Could you ask the question again? 05:23:23
Q Sure. Is there any one hole in the weir 05:23:25
that is adjacent to all of the appliance slots? 05:23:31

A So in this, the -- all the holes together are constituting a weir, and their -- while the hole that is on the individual hole that is on the left of the tank maybe, you know, farther removed from an appliance that is on the right of the tank, right, collectively all those holes is what constitutes a weir, and since it's extending across the entire length, it is adjacent to each of the appliance slots. 05:24:03 05:24:10 05:24:25 05:24:30 05:24:36 05:24:41 05:24:48 05:24:51 05:25:00

Q Right. So I understand your testimony that the weir as a whole, the whole weir, is adjacent to all of the appliance slots, correct? 05:25:00 05:25:02 05:25:06

MR. THOMAS: I just want to object that this is vague by what is meant by "adjacent." 05:25:07 05:25:09

MR. HALPERN: Well, it's in the claim. 05:25:12

MR. THOMAS: I understand. 05:25:13

MR. HALPERN: So I'm asking what he understands. 05:25:13 05:25:15

Q So is that correct, that your testimony is that the entire weir is adjacent to all the appliance slots? 05:25:15 05:25:17 05:25:20

A I wouldn't say entire. The weir is adjacent to the appliance slots, yeah. 05:25:23 05:25:26

Q Okay. I appreciate your answer. I'm asking a different question, a physical question. 05:25:28 05:25:30

A Uh-huh, right. 05:25:34

Q Just pick any hole in the weir, is there any one hole that's adjacent to all of the appliance slots? 05:25:35 05:25:40 05:25:43

A Okay. So in this case, we have not had any interpretation of the phrase "adjacent," but one way for me to interpret adjacent is without having any solid intervening structures in between. 05:25:44 05:25:51 05:25:58 05:26:03

And if I were to apply that definition of adjacency in fluid dynamics, then I would say, again, in that definition of adjacency, I can -- I have no intervening structures from the right side of the slots to the left side of the hole. So in that sense, they could be adjacent because they are all in fluid communication. 05:26:10 05:26:14 05:26:19 05:26:22 05:26:26 05:26:34 05:26:36

Q I see. So is the short end of the tank adjacent to the opposite short end of the tank because they have only fluid between them? 05:26:37 05:26:42 05:26:46

A No, I'm talking about the fluid being adjacent to the weir, not -- 05:26:48 05:26:50

Q No, I just asked the hole. 05:26:51

A I'm not -- yeah, so the hole being adjacent to the fluid that is coming out of the appliance slot, right, so that's the question that you're asking. 05:26:53 05:26:56 05:27:01 05:27:03

Q No, that is not the question that I asked. 05:27:03
I asked if the hole is adjacent to all of the -- if 05:27:05
there's any hole, any one hole, in the weir that is 05:27:10
adjacent to all of the appliance slots? 05:27:14
MR. THOMAS: Objection; improper 05:27:28
hypothetical, lacks foundation. 05:27:35
THE WITNESS: Again, if I look at it from 05:27:36
the point of view of fluid flow, I would say that 05:27:40
they are adjacent because there is no other 05:27:45
intervening structure in between. 05:27:47
BY MR. HALPERN: 05:27:49
Q Okay. So by that standard of adjacent, one 05:27:49
wall at the end of the tank is adjacent to the wall 05:27:54
at the other end of the tank because there's no 05:27:57
structure between them? 05:28:00
A Well, there is -- 05:28:02
Q I'm sorry. In an empty tank? You 05:28:02
haven't -- 05:28:05
MR. THOMAS: Well, you didn't give that as 05:28:05
part of your last hypothetical. 05:28:07
MR. HALPERN: Withdrawn. I'll restate it. 05:28:08
Q So you have an empty tank. Okay. Is 05:28:10
one -- is the wall at one end of the tank adjacent 05:28:12
to the wall at the other end of the tank because 05:28:15
there's only fluid between them? 05:28:18

A I think it depends on context, right. I mean, again, this is still an incomplete hypothetical. If you're talking about fluid flow from one wall to the other wall, I would say that in that -- if you were talking in that context, from fluid flow context, these two walls could be adjacent to each other. 05:28:20 05:28:22 05:28:24 05:28:26 05:28:29 05:28:32 05:28:34

Q Okay. Now, the claim -- by the way, where do you get that definition of adjacent? 05:28:43 05:28:50

A From a judge, from a judge in one of the other cases. 05:28:52 05:28:56

Q Do you recall the case? 05:28:56

A I do not recall the case right now, but I can remember the parties involved. 05:28:59 05:29:02

Q Oh, well, what were -- what were the parties? 05:29:03 05:29:05

A It was liquid cooling case between Asetek, A-s-e-t-e-k, versus CoolIT. 05:29:07 05:29:12

Q Okay. That was a claim construction of adjacent? 05:29:19 05:29:27

A I mean it's -- now I'm going back like 20- -- it was either in 2014 or 2019. There were two instances of that lawsuit. I don't quite remember exactly at what point in time the, you know, claim construction term had come up, but it 05:29:28 05:29:31 05:29:34 05:29:38 05:29:41

was one of those hearings where the judge had defined -- given the construction of edges and fluid dynamics to mean without having intervening solid structures in between. 05:29:44 05:29:48 05:29:54 05:29:57

Q Each hole has a lip, right, in your view, an overflow lip? 05:30:03 05:30:06

A That's right. The way -- in the accused instrumentalities, each hole has a lip. 05:30:10 05:30:14

Q Does the entire structure have a lip in your view? 05:30:18 05:30:22

MR. THOMAS: Objection; vague as to what structure. 05:30:23 05:30:24

MR. HALPERN: I'm asking about the Rhodium accused -- the structure he accuses of being a weir with an overflow lip. 05:30:24 05:30:26 05:30:31

Q So does each -- I'm sorry. 05:30:34

Does the entire structure have an overflow lip in your view? 05:30:36 05:30:39

A So I would consider the bottom half of the weir where the fluid is coming in contact with those circular structures in -- in the 70 and 30 tanks, I would consider all of that length put together is constituting the lip of the weir. 05:30:44 05:30:51 05:30:55 05:31:02 05:31:07

Q So does that include the portions between the holes as part of the overflow lip? 05:31:13 05:31:18

A No, I do not believe so. 05:31:24

Q Okay. So then it's -- it is not a 05:31:26

contiguous lip. There's a separate lip in each 05:31:30

hole, but you consider them, even though they're 05:31:34

discontinuous, to be one overflow lip structure of 05:31:36

the weir? 05:31:41

MR. THOMAS: Objection; improper 05:31:41

hypothetical, lacks foundation. 05:31:43

THE WITNESS: I would -- there are, I 05:31:46

think, two ways I have done the analysis, and the 05:31:50

literal, as well as doctrine of equivalents, if I 05:31:58

recall correctly, yes, and I think my conclusion is 05:32:04

that in both of those cases, the lip is what I just 05:32:11

described earlier. 05:32:20

BY MR. HALPERN: 05:32:21

Q Okay. By the way, you're aware that 05:32:21

Rhodium designed and built its own tank and did not 05:32:32

buy the tanks from a company that sells immersion 05:32:36

cooling tanks, correct? 05:32:40

A I've been made aware of that. 05:32:41

Q Okay. And so did you consider in your 05:32:44

opinions about noninfringing substitutes whether 05:32:58

Rhodium -- designs that Rhodium could adopt that 05:33:01

would be different by simply changing its own tanks 05:33:06

as opposed to buying from some vendor, for example, 05:33:11

putting the weir at the short end of the tank instead of the long wall of the tank? 05:33:14 05:33:17

A Sorry. So your question is that they could have done it? 05:33:19 05:33:21

Q Well, I'm asking did you consider modifications that Rhodium could make as a possible category of noninfringing substitutes instead of buying tanks from a third party. 05:33:22 05:33:24 05:33:28 05:33:32

MR. THOMAS: Objection; improper hypothetical, lacks foundation. 05:33:37 05:33:38

THE WITNESS: Did I look at every single possible way that they could skirt this patent and, you know, probably no, right. There are multiple ways of solving a problem. Not all of them may be equally efficient. 05:33:43 05:33:46 05:33:48 05:33:54 05:33:57

I think the system that this patent describes is a particularly efficient way of ensuring uniform cooling to all the miners, and that's the reason that they opted the design they adopted. 05:33:58 05:34:02 05:34:04 05:34:10 05:34:13

BY MR. HALPERN: 05:34:14

Q Did you look at any -- did you consider any alternatives that Rhodium could have pursued by modifying its own tanks? 05:34:14 05:34:17 05:34:20

A I mean they could have used air cooling 05:34:24

maybe. I don't know, right. It's not as efficient, but, you know, there are options that exist. But in my opinion, this was the most optimum solution that Rhodium could have used so, you know, while it is possible to design around, it will not be as efficient as the system that this patent describes. 05:34:30 05:34:32 05:34:34 05:34:44 05:34:49 05:34:51

Q Did you consider any particular design-arounds that Rhodium might attempt? 05:34:55 05:34:58

A I mean I thought of them, but I kind concluded that they are not as efficient, and I think that it does not make sense to use less optimal ways of solving a problem when you already have an optimal way of solving a problem. 05:35:00 05:35:03 05:35:06 05:35:11 05:35:14

Q So did you consider -- I mean the claims require the weir to be integrated into the long wall of the tank, correct? 05:35:17 05:35:20 05:35:23

A Yes. 05:35:24

Q Okay. Did you consider whether Rhodium could avoid the design by integrating -- having the same weir -- what you consider to be a weir in the short wall of the tank? 05:35:24 05:35:27 05:35:30 05:35:33

A I think it will not be particularly -- it will not be as efficient simply because these tanks that I saw were fairly long. 05:35:36 05:35:42 05:35:46

So their, you know, aspect ratio was high. 05:35:49

They had, you know -- while there were only two in one dimension, there were like 14 in the other dimension in one of the tanks, which had 28 miners. 05:35:53 05:35:58 05:36:01

So if you have to take the coolant and, you know, take it with all the heat that is coming from one side and bring it to the other side, it will by definition have overheating of the miners that are on the far end. 05:36:06 05:36:09 05:36:12 05:36:15 05:36:19

Q Well, you could have it on both short walls, but not on a long wall, right? 05:36:21 05:36:23

A You could make a really -- you know, immersion tank where you only have one miner each and have a square wall, right, that's possible, but it's not really efficient because you want to, you know, use the space in an optimal manner. 05:36:26 05:36:31 05:36:34 05:36:36 05:36:38

So, yeah, I think -- like I said, right, there are design-arounds that are always possible, but the question is: Are they as efficient as the design that they currently have, right, and there is no motivation in -- typically in existence to go to, say, a less efficient system when a more efficient system exists. 05:36:41 05:36:44 05:36:48 05:36:51 05:36:53 05:37:00 05:37:02

Q Did you perform an analysis of whether such a substitute would be acceptable, even if it was less efficient in your view? 05:37:02 05:37:04 05:37:10

A Acceptable in what sense? 05:37:10

Q An acceptable substitute that would be, you know, even if somewhat less efficient, far less expensive than licensing the patent, did you perform that analysis? 05:37:12 05:37:15 05:37:18 05:37:21

A I did not perform any economic analysis here -- 05:37:22 05:37:25

Q Or even a technological analysis of what would be the -- you know, the performance of that tank compared to the tank they're using? 05:37:25 05:37:28 05:37:33

A Well, I -- you know, it -- like I said, there are -- there are other solutions like, you know, they are actually taking air-cooled miners and putting them in immersion. 05:37:37 05:37:41 05:37:46 05:37:49

They could just use the air cooling and, you know, vast majority of miners are using air cooling, but certainly, you know, Rhodium saw a benefit of, you know, taking a system that was designed for air cooling and removing things from it and then placing it in the tanks to -- to cool it using immersion cooling. 05:37:51 05:37:53 05:37:56 05:37:59 05:38:04 05:38:07 05:38:12

There clearly is a benefit associated with that, and that's where higher hash rate and so forth. So they determined that the cost of building these systems is still outweighing the additional, 05:38:13 05:38:16 05:38:19 05:38:23

you know, the Bitcoins, they could mine. So, you know, I just believe this is an optimal solution and there is no technical reason to go to less optimal solution. 05:38:27 05:38:32 05:38:36 05:38:42

Q Well, could they have applied this exact tank with no appliance slots where you just have holes everywhere and you arrange the -- you can -- there's no guide, there's no indication of where to put the miners, and you can put the miners in any way you like? 05:38:42 05:38:47 05:38:49 05:38:53 05:38:56 05:38:59

A Yeah, so -- 05:39:00

MR. THOMAS: Objection; improper hypothetical, lacks foundation. 05:39:01 05:39:02

You can answer. 05:39:04

THE WITNESS: First of all, I think I have said that I am not providing an analysis sitting here whether there are -- there will still be reading on the claim or not of this patent, right. Maybe there is -- you know, in that hypothetical, maybe there is some other claim that becomes relevant. I haven't performed that analysis, right. 05:39:05 05:39:09 05:39:12 05:39:16 05:39:20 05:39:24 05:39:26

BY MR. HALPERN: 05:39:29

Q Well, but I'm asking about the claims that are asserted? 05:39:29 05:39:30

A Right.

Q We're only in the world of the asserted claims. The other claims are not part of anybody's analysis. 05:39:32 05:39:34 05:39:37

A Okay. Yeah, so I mean, again, I have not performed that analysis, but if you're saying that that was an acceptable substitute, right, still then you are reducing the number of miners that you can place in the tank because you're not placing them uniformly and you're placing them haphazardly and randomly. So it will reduce the efficacy of the system and the output from the system so -- 05:39:37 05:39:41 05:39:43 05:39:49 05:39:55 05:39:58 05:40:02 05:40:07

Q So in your view, if you have a continuous grid on the plenum plate of holes with no guide to where to put miners, okay, and you fit as many miners onto that plate as possible, okay, there are slots simply because you have put the miners into maximum capacity? 05:40:09 05:40:12 05:40:16 05:40:21 05:40:28 05:40:31

A Again, in that hypothetical, based on if I understood you correctly, my analysis would be, yes, there are slots in there. 05:40:34 05:40:37 05:40:43

Q So does a bookshelf have slots? 05:40:52

MR. THOMAS: Objection; vague, ambiguous, improper hypothetical. 05:40:56 05:40:58

BY MR. HALPERN: 05:40:59

Q In your understanding of slots, does a 05:40:59

bookshelf -- bookcase, bookshelf have slots? 05:41:01

A Right. You can certainly slot books in a 05:41:10
bookshelf, right, whether it has predetermined slot 05:41:13
to place only one book at a time, you know, that 05:41:16
would be sort of a unique bookcase. 05:41:23

Q Right. I'm asking if you have a typical 05:41:25
bookcase, right, where there's no markings, there's 05:41:27
no dividers, there's just an open shelf, and you 05:41:29
could fit, you know, ten books of a certain size or 05:41:32
if you had a smaller book, you could maybe fit 20. 05:41:35

With that bookshelf, you're looking at that 05:41:39
open bookshelf, you have all different kinds of 05:41:41
books, does that bookshelf have slots for books in 05:41:44
your understanding -- 05:41:46

MR. THOMAS: Objection; improper 05:41:46
hypothetical, lacks foundation. 05:41:48

THE WITNESS: I mean, again, not talking 05:41:50
about the patents in question here, right, I would 05:41:53
say that that bookshelf has -- does not have slots. 05:41:55
You just have location to place the books in. 05:42:00

BY MR. HALPERN: 05:42:11

Q Okay. All right. But in any case that -- 05:42:11
that alternative that I just described, which I know 05:42:12
you're not agreeing necessarily that it's an 05:42:15
alternative of having just the grid, right, the 05:42:17

homogenous grid of holes where you could -- there's no indication of where you should put tanks -- I'm sorry -- where you should put miners, that is not an alternative that you considered as a possibility not infringing the substitute or you performed an analysis of? 05:42:22 05:42:25 05:42:27 05:42:30 05:42:34 05:42:37

A Yes, I have not performed an analysis of, you know, whatever hypothetical that you are talking about because I don't even understand the hypothetical. So I, by definition, could not have done it. 05:42:38 05:42:41 05:42:43 05:42:45 05:42:49

Q But you didn't perform an analysis of any modifications -- 05:42:49 05:42:51

A Right. 05:42:53

Q -- that Rhodium could make to its tank to make them noninfringing? You only considered commercially available systems, correct? 05:42:53 05:42:57 05:43:01

A That is right. 05:43:03

Q Okay. All right. I don't know if we're ready for another break -- 05:43:03 05:43:09

MR. THOMAS: Just keep going. 05:43:10

MR. HALPERN: Let's take a five-minute break because I want to see where I am. 05:43:13 05:43:14

THE VIDEOGRAPHER: Going off the record, the time is approximately 5:43 p.m. 05:43:16 05:43:18

(Recess taken.) 05:43:20

THE VIDEOGRAPHER: Going back on the record, the time is 5:52 p.m. 05:52:51 05:52:53

BY MR. HALPERN: 05:53:04

Q All right. Do you know what kinds of sensors are used to measure the temperature of a liquid? 05:53:04 05:53:08 05:53:11

MR. THOMAS: Objection; vague as to what kind of liquid you're -- 05:53:18 05:53:20

THE WITNESS: You could use thermocouples. You could use thermistors, also use diodes. That's, you know, the most typical ones. 05:53:23 05:53:25 05:53:36

BY MR. HALPERN: 05:53:37

Q What about RTDs? 05:53:37

A You could use RTDs, yes. 05:53:39

Q Do those types of sensors, thermocouples, thermistors, diodes, and RTDs require that the sensor be immersed in the fluid in order to measure the temperature? 05:53:42 05:53:47 05:53:51 05:53:57

A Depends, not necessarily. You can place it on the wall sometimes to measure the temperature of the fluid. Depends on what kind of temperature exists between what you're trying to measure and where you have the sensor. 05:53:59 05:54:02 05:54:09 05:54:13 05:54:16

Q I am confused. How could you measure the 05:54:19

temperature in a fluid by putting one of those sensors on the wall? 05:54:32 05:54:37

A The fluid is in contact with the wall presumably. 05:54:39 05:54:43

Q Okay. So you're saying like you have the temperature -- the fluid is in the tank, and you are putting the sensor on the outside wall of the tank and measuring the fluid temperature that way? 05:54:44 05:54:45 05:54:55 05:54:58

A Yeah. 05:55:01

Q And why would you do that? In what sort of system would you want to do that? 05:55:03 05:55:10

A You know, it depends, right. I mean maybe I have fluid that is a reacting fluid that is reacting with -- you know, it's an acid that reacts with most of the things, right. 05:55:11 05:55:14 05:55:17 05:55:20

So maybe if you try to get the sensor in the fluid stream, you will need a contraption that's an additional cost. I mean you also have some leakage points, right. 05:55:24 05:55:27 05:55:32 05:55:35

So if in the system, I'm not expecting significant or substantial difference between the wall versus the fluid, right, which will be the case if the wall conductivity is reasonable, it's made out of metal, for example, I could measure within the accuracy of some of these sensors the 05:55:37 05:55:40 05:55:46 05:55:50 05:55:54 05:56:02

temperature of the fluid. 05:56:04

Q Yeah. So I -- you sort of alluded to what 05:56:05

I was going to next ask you, which is you'd be 05:56:09

measuring the temperature of the wall, right, if you 05:56:13

put the sensor on the wall? 05:56:15

A Uh-huh. 05:56:17

Q Is that correct? 05:56:18

A Yeah. I mean it will be the wall 05:56:18

temperature and that would -- wall would be at the 05:56:20

same temperature as the fluid. If there is no -- I 05:56:25

mean the temperature difference in thermal 05:56:28

conduction exists because of the conductivity and 05:56:31

the thickness and the heat that is being transferred 05:56:35

through that. 05:56:39

Q Right. 05:56:39

A If the heat transfer is low, the wall 05:56:41

temperature will be very close to the fluid 05:56:44

temperature. 05:56:48

If the conductivity is high, the wall 05:56:48

temperature will be very close to fluid temperature. 05:56:51

If the thickness is very low, the fluid temperature 05:56:55

will be very close to -- the wall temperature will 05:56:59

be very close to fluid temperature. 05:57:00

So, again, it's dependent on a few 05:57:03

different things. You know, in this particular 05:57:06

case, I think the wall is made out of metal -- thin metal and there is no heat being transferred there. So all the conditions are met for it to pretty accurately assess the temperature of the fluid. 05:57:07 05:57:12 05:57:16 05:57:20

Q So you're describing a hypothetical where you have a thin wall, high conductivity, and low heat transfer because of the particular material that the wall is made of, if all of those conditions are met, you could put the sensor on the wall and know that it was very close to the fluid temperature? 05:57:24 05:57:26 05:57:36 05:57:39 05:57:41 05:57:44 05:57:46

A That's not hypothetical. That's pretty, you know, similar to the conditions that we have in our systems also where we have no heat being transferred to the outside of the wall other than natural circulation and radiation which is extremely small. You have very thin wall like -- 05:57:47 05:57:49 05:57:53 05:57:56 05:57:59 05:58:03

Q Who's the "we"? 05:58:06

A The tanks in this case, for example. The tanks are made out of metal which are reasonably high in thermal conductivity. So it's not a hypothetical situation like you characterized it, right. 05:58:07 05:58:14 05:58:17 05:58:20 05:58:23

All I'm saying is that your question was a general question, right, you know, how would you 05:58:24 05:58:26

measure the temperature of the fluid, and there are multiple ways. It just depends and, you know, unfortunately in engineering, it doesn't work like law where it is -- 05:58:28 05:58:31 05:58:34 05:58:40

THE REPORTER: I'm sorry. Unfortunately?

THE WITNESS: In engineering, it doesn't work like law that it is this or it is not this. It's dependent on the situation that you are trying to do, and you've got to weigh the accuracy against the cost and complexity of doing certain things. 05:58:41 05:58:43 05:58:45 05:58:49

BY MR. HALPERN: 05:58:51

Q But in order to know what the temperature of the fluid is using the sensor outside on the wall of the tank, you would have to know several variables, right? You'd have to know how thick the wall is. You'd have to know it's heat transfer properties, and so on. 05:58:51 05:58:53 05:58:57 05:59:02 05:59:05 05:59:08

So you'd have to have some sort of equation that you would apply to convert the wall temperature to the temperature in the tank? 05:59:10 05:59:13 05:59:15

A Not necessarily, right. A lot of these sensors have errors that are much more than the errors that you will get because of not placing the sensor in the fluid, right. 05:59:16 05:59:18 05:59:22 05:59:25

If your error on a thermocouple is 05:59:28

plus/minus one degree and the temperature difference between the liquid inside temperature and the wall temperature is .1 degree, there is no point in trying to calculate it out and then lose all of that and then some in the measurement accuracy or inaccuracy of your sensor itself. 05:59:31 05:59:35 05:59:38 05:59:39 05:59:44 05:59:48

Q Does Rhodium have any sensors that you observed attached to the outside wall of its tank, heat sensors? 05:59:50 05:59:52 05:59:55

A No, I did not observe anything like that. 05:59:56

Q Okay. And does Rhodium have any heat sensors immersed of the -- you know, you mentioned the kinds that you could use to measure the temperature of a liquid, thermocouples, thermistors, diodes, and RTDs, does Rhodium have any sensors of those types immersed -- any of those types immersed in the fluids in its tank? 05:59:58 06:00:00 06:00:04 06:00:06 06:00:10 06:00:13 06:00:14

A In its fluids, yes, not inside the tank. 06:00:16

Q Okay. But, right, yeah, okay. I understand your answer. 06:00:20 06:00:24

All right. Now, have you heard of chip junction temperature? 06:00:27 06:00:30

A Yes. 06:00:31

Q Okay. And how is that measured? 06:00:31

A Mostly using thermal diodes that might 06:00:33

exist on the chip. 06:00:39

Q And they tend to be built into the chip, 06:00:40

right? 06:00:43

A That's right. 06:00:43

Q Okay. Is a forward bias diode another name 06:00:44

for that kind of diode? 06:00:54

A Yeah, those are -- thermal diodes are 06:00:57

typically forward bias. 06:01:01

Q Okay. And that measures the temperature of 06:01:01

the silicone? 06:01:04

A That -- you know, even within silicone 06:01:04

there is a huge temperature variation. I, you know, 06:01:07

spent seven years in Intel where we were, you know, 06:01:10

I would say blazing the trail in terms of adopting 06:01:15

the diodes on the -- on the CPUs and you need to put 06:01:19

it in exactly where the hotspot is because even 06:01:25

within the chip, the temperature might be reading by 06:01:28

20 degrees, 30 degrees celsius, right. 06:01:32

So there is, you know -- so if you just say 06:01:34

chip temperature, right, it's the hotspot of the 06:01:36

chip where those diodes should be located. 06:01:40

Q So if there is 20 to 30 degrees celsius 06:01:42

variation within the chip, then obviously there is a 06:01:48

large variation between the hotspot in the chip and 06:01:51

the temperature of the fluid outside? 06:01:54

A There could be, yes. 06:01:55

Q And so can thermocouples or thermistors 06:02:03
or -- not diodes because that's a broad category, 06:02:09
but the kinds of sensors that are used to measure 06:02:12
fluid temperature, can those be used to measure chip 06:02:16
temperature? 06:02:20

A You can place a thermocouple on the chip to 06:02:21
measure the, you know, chip case temperature. It's 06:02:27
called -- you know, for the chip, there are, you 06:02:34
know, practitioners who use a lot of different terms 06:02:37
for chip temperature. There is junction 06:02:40
temperature. There is case temperature. You know, 06:02:42
for measuring the case temperature, typically we use 06:02:44
thermocouples. 06:02:48

Q But you can't measure the junction 06:02:49
temperature with those kind of sensors that are used 06:02:51
for fluid temperature measurements, correct? 06:02:54

A Yeah, that's -- I'm not aware of a 06:02:57
technique for -- 06:02:59

Q Because they're too big? 06:03:00

A You know, the hotspot for that is, you 06:03:01
know, in silicone and micron sized and like you 06:03:06
said, there are -- some of these sensors are -- you 06:03:11
cannot reach there, and if you reach there, then you 06:03:13
cannot have interconnection on the chip towards -- 06:03:15

THE REPORTER: I'm sorry. You cannot have?

THE WITNESS: Interconnection on the chip function. So, you know, in trying to measure the temperature, you will render the chip unoperational. 06:03:21 06:03:21 06:03:24

BY MR. HALPERN: 06:03:28

Q Okay. And obviously the silicone in the chip junction is not in contact with the dielectric fluid? 06:03:28 06:03:35 06:03:39

A Yeah, it is not. 06:03:40

Q Okay. So in the Rhodium systems where you observed sensors, they're on certain pipes, correct? 06:03:42 06:04:08

A That's right. 06:04:10

Q Okay. And those pipes are, if I recall, the only places where the sensors are and we've already -- I've asked you about sensors that are not connected or whatever, but leaving that issue aside, the sensors are on pipes that are inflows to -- and outflows from the dry cooler, correct? 06:04:13 06:04:17 06:04:20 06:04:23 06:04:27 06:04:34

A That's correct. 06:04:36

Q Okay. Are there any -- I don't recall there being any other temperature sensors on any pipes but -- 06:04:39 06:04:42 06:04:45

A I think in terms of pipes, those are correct and other temperature sensors are on the board in the miners themselves that are measuring -- 06:04:45 06:04:48 06:04:54

also measuring temperatures. 06:04:56

Q On the? 06:04:58

A Board. 06:04:59

Q Board, okay. But those are also chip junction temperatures? 06:05:01 06:05:05

A No, no, no, no, it's the board -- it's environmental temperature that exists on M30s. So M30s have an environmental temperature, you know, sensor that measures -- it's on the board, and it measures the temperature of what it is immersed in. 06:05:06 06:05:07 06:05:11 06:05:16 06:05:20

Q And where do you speak about that in your report? 06:05:25 06:05:27

A I think I say that it's PCB. If you look at my report, it talks about PCBs. 06:05:29 06:05:32

Q Okay. 06:05:35

A You know, the PCB temperature sensor is measuring the fluid temperature. 06:05:35 06:05:40

Q Okay. But you describe the PCB temperature as correlated to the temperature of the dielectric fluid in the tank, correct? 06:06:02 06:06:07 06:06:10

A Yeah, it's like very, very -- like, that's how the miners measure the temperature of the environment that they are in, by measuring the temperature of the PCB. 06:06:12 06:06:16 06:06:20 06:06:23

So, like, you know -- I mean, again, like, 06:06:26

you know, in academic sense, you can say, well, everything is down by like .0001 degrees celsius -- 06:06:28 06:06:33

THE REPORTER: I'm sorry. Everything is down by what?

THE WITNESS: Everything like is different, things might be different by like 0.0001 degrees celsius, but that's immaterial. It's immeasurable, right. It's correlated, meaning it's actually there to measure the temperature of the environment that it is in. 06:06:36 06:06:37 06:06:42 06:06:45 06:06:48 06:06:50

BY MR. HALPERN: 06:06:54

Q Do you know how much heat is dissipated by a miner chip in watts? 06:06:54 06:07:00

A Which miner chip, the chip you are talking about? Now, there are a lot of different chips. Like, I personally worked on a lot of miners that are at 3 volts. There are miner chips that are at 13 volts, and people are trying to go up all the time. 06:07:02 06:07:05 06:07:07 06:07:10 06:07:10 06:07:13

Q I see. 06:07:13

A So there is a range. 06:07:15

Q Okay. So if you knew the wattage and the coolant temperature, would you be able to figure out the chip temperature? 06:07:20 06:07:26 06:07:30

A Sorry. Wattage and the coolant temperature? 06:07:31 06:07:35

Q Yes. 06:07:36

A Along with that, you will need quantity called thermal resistance. If you have that value, then you can calculate out the chip temperature. 06:07:36 06:07:39 06:07:44

Q Okay. Now, is it your understanding that the temperature readings that are taken -- well, first of all, let me ask -- well, is it your understanding that temperature readings taken from the chip are used to determine when to reboot the chip or -- reboot and restart the chip and run it at a lower wattage? 06:08:05 06:08:07 06:08:20 06:08:22 06:08:24 06:08:36 06:08:39

A I would -- I would think so. As a person of ordinary skill in the art, I would think that if the chip is overheating in a given situation, you would want to put lesser power in there so that it stops overheating. 06:08:40 06:08:51 06:08:54 06:08:57 06:09:02

Q But I'm asking, is it your understanding that that is actually how Rhodium's system operates? 06:09:05 06:09:07

A At least based on their public disclosures in their S-1, it seems like they are monitoring the temperatures of the chips and ensuring that it doesn't overheat. 06:09:17 06:09:21 06:09:26 06:09:30

Q Okay. And are they using the chip junction 06:09:31

temperature to do -- perform that function? 06:09:37

A Yeah. I mean in the end, really the most 06:09:42

critical thing is chip junction temperature, but 06:09:44

they are also measuring the temperature of the 06:09:47

environment that it is in, and they may have a more 06:09:51

complex regard where they take into account the chip 06:09:55

as well as, you know, some other things. 06:09:59

Also, the chip -- the ASIC is not the only 06:10:02

electronic component on the board. There are other 06:10:05

things also that might fail. So they do not have a 06:10:08

thermal diode or a thermal sensor on every single 06:10:12

component that exists on the board. That's why they 06:10:16

also measure the board temperature, the T -- the 06:10:19

ENV_temp and environmental temperature as they call 06:10:24

it -- as you know, M30 calls it. 06:10:30

So they measure that also. They might be 06:10:33

using that also internal to the miner to ensure 06:10:36

field safe operation. 06:10:41

Q Is it your understanding that they use the 06:10:42

PCB temperature to determine whether to turn off a 06:10:44

miner? 06:10:49

A So there is a specified temperature range 06:10:49

for the miner. Each miner enters these specs and 06:10:55

says that it should be within the -- I forget the 06:10:59

exact numbers, but low temperature to high 06:11:02

temperature. This is the range in which you can operate them. 06:11:04 06:11:07

So I suppose that it's rated to work only in that environmental temperature and the fact that they are measuring the temperature of the environment that it is in, they might be using that information to shut it down, but I don't know it for a fact. 06:11:07 06:11:12 06:11:14 06:11:16 06:11:20 06:11:22

Q Okay. So you -- you -- just so I clearly understand what you're testifying to, it is your understanding that they use the chip junction temperature to determine whether to shut off a miner; you don't know whether they use the PCB temperature to shut off a miner -- 06:11:23 06:11:29 06:11:33 06:11:35 06:11:39 06:11:42

A The chip temperature, right, I have never really worked inside the company that makes M30. So I have no access to their strategies on managing their products, right. 06:11:44 06:11:48 06:11:51 06:11:56

So all I'm saying is from the point of view of a person of ordinary skill in the art, if I have specified the limits of components on my system, and I have taken the efforts to put sensors, to measure temperature of the chip and temperature of the environment and both of them have some limitations, I would be providing some field safe mechanism to 06:11:58 06:12:01 06:12:05 06:12:10 06:12:14 06:12:17 06:12:21

make sure that if that chip temperature goes over its junction temperature, it shuts down and if the environmental temperature goes over its specified temperature, you reduce the performance or shut it down, depending on whatever controls that you might want to follow. 06:12:25 06:12:28 06:12:32 06:12:34 06:12:38 06:12:41

Q What evidence would you need to know whether either of those temperatures is being used? Would you need to look at the source code or -- 06:12:42 06:12:45 06:12:56

A You may need to look at the source code, right. There could be other ways of looking at it. I have currently not thought about that. 06:12:57 06:13:00 06:13:02

Q Okay. Now, with regard to the pipes that are -- the other sensors, I asked you about that are on the pipes, either just before the entrance to or just outside the exit from the dry cooler, there are sensors like that in both the Rock -- in your view, in both the Rockdale and Temple facilities, correct? 06:13:04 06:13:25 06:13:30 06:13:34 06:13:44 06:13:47

A That's right. 06:13:53

Q Okay. I think for Rockdale, it might only be at the exit from the dry cooler, and for Temple, they were -- but regardless, okay -- well, first of all, is the dielectric fluid temperature the same throughout an R70 or an R30 immersion tank or do you have a complex temperature field? 06:13:56 06:13:58 06:14:01 06:14:09 06:14:13 06:14:19

A You're adding heat in the system. So the dielectric liquid warms up as it goes towards -- from the plenum towards the rear. 06:14:21 06:14:27 06:14:31

Q And do you have any idea what the temperature difference is? 06:14:32 06:14:35

A I think it probably -- I don't remember this number exactly. I did, I believe, ask them, but I did not note it down, but it might be like 20 or 30 degrees at most over ambient. The dielectric liquid was warming up maybe 20 degrees C over ambient. 06:14:39 06:14:42 06:14:47 06:14:52 06:14:59 06:15:03

Q Okay. So the range is -- in other words, some of it is at ambient temperature like the -- where would it be at ambient temperature, the temperature of the room? 06:15:03 06:15:04 06:15:08 06:15:12

A Close to ambient temperature so the -- 06:15:13

Q At the bottom? 06:15:14

A Yes. 06:15:15

Q Okay. Okay. And then at the top, it's something like 20 degrees higher? 06:15:16 06:15:20

A Yeah, again, this is just going back in memory and, you know, it's of that order, I would say. 06:15:22 06:15:26 06:15:30

Q So when the claims refer to using the temperature of the dielectric fluid in the tank, 06:15:30 06:15:34

what part of the tank -- 06:15:37

A Yeah, I mean -- 06:15:38

Q -- does that refer to? 06:15:39

A I don't think they are limiting themselves, 06:15:40

right. It just depends on what your control 06:15:44

strategy is, right. You could -- you know, it's all 06:15:47

about like, you know, if the hot fluid gets to a 06:15:51

certain temperature, you might want to do certain 06:15:54

things. 06:15:56

I mean you can always relate the 06:15:56

temperatures of the fluid to something that you are 06:16:00

interested in controlling which is, you know, 06:16:05

Bitcoin mining activity in this case. 06:16:08

Q Okay. Now, that point in the pipes that's 06:16:12

just before or just after -- just outside the dry 06:16:17

cooler is -- in both facilities is quite far away, 06:16:20

right, because the dry coolers are in another 06:16:25

building? 06:16:27

A Uh-huh, yes. 06:16:28

Q Do you recall how far -- I walked it, too, 06:16:28

and it seemed like it's a hundred yards at least? 06:16:32

A Okay. 06:16:36

Q I'm asking if your -- 06:16:37

A It could be, right. I mean I don't know 06:16:38

what relevance it has. 06:16:41

Q Okay. But you watched and you saw where the tanks were and then the long pipes into the other room and they go up to the ceiling -- 06:16:42 06:16:45 06:16:48

A That's right. 06:16:49

Q -- and there's also a chiller that they pass through on the way out, at least in Rockdale, to the dry coolers, like all the pipes feed into a chiller and then go outside. 06:16:50 06:16:54 06:16:58 06:17:01

Do you recall that? 06:17:03

A I don't recall it exactly but might be. 06:17:06

Q Okay. So obviously the temperature of the fluid at that point where those sensors are is going to be quite different from the temperature in the tank, correct? 06:17:12 06:17:27 06:17:30 06:17:33

A No. 06:17:34

Q The fluid has traveled a hundred yards or whatever, it's gone through piping, it's gone through another device? 06:17:36 06:17:40 06:17:43

A So? 06:17:44

Q Your testimony is the temperature will be identical at that point a hundred yards away through all that piping and intervening machinery to the temperature in the tank? 06:17:45 06:17:48 06:17:51 06:17:54

A I don't understand what distance has to do with temperature, right. You're talking about two 06:17:55 06:17:57

physical quantities here. 06:17:59

Q Okay. Well, I mean as the fluid flows through the pipes, it's going to lose heat to the pipes, right, based on the heat transfer properties, the heat coefficient of the substance that the pipe is made of, the length that it is traveling, right, it's passing through a chiller, and then it's going into and out of the dry cooler whose entire purpose is to reject heat? 06:18:00 06:18:05 06:18:10 06:18:15 06:18:17 06:18:21 06:18:24 06:18:28

A Okay. 06:18:31

Q So, therefore, wouldn't the temperature at the sensors that are far away from the tank be different from the temperature in the tank? 06:18:32 06:18:37 06:18:39

A Okay. Let's -- 06:18:42

Q I'm not asking -- I'm not saying that there's no relationship. I'm just asking about the absolute temperatures are two different numbers, correct? 06:18:43 06:18:45 06:18:48 06:18:50

A It may be immeasurably different. They may be different, but they'll be immeasurably different, not using like a standard thermocouple unless you're using some, you know, very fancy equipment or try to do like third decimal digit, I do not believe that the temperatures are going to be substantially different. 06:18:50 06:18:56 06:19:00 06:19:04 06:19:07 06:19:10 06:19:12

Q And so how is it that the temperature, you know, of a fluid that's gone through all of the different stages, I mean, you know, for example, in the winter, right, there's heat loss from the pipes because it's cold outside? 06:19:13 06:19:20 06:19:23 06:19:27 06:19:30

A Okay. Right. 06:19:32

Q So there's going to be some difference in the temperature at a minimum because of that, right? 06:19:33 06:19:36

A Well, you know, wrong analogy. Here, you should look at how much -- let's look at how many watts you are cooling, right. You are cooling in one of those coolers two megawatt, for example, in Kelvion and in Guntner, you are cooling maybe around 1.5 megawatt of thermal power. Okay. Megawatt is million watts. 06:19:38 06:19:42 06:19:48 06:19:51 06:19:57 06:20:01 06:20:08

Okay. So in the pipe that you have going up to it, that's how much energy is going in. What you are losing from the pipes, in my estimate, is at most in kilowatt range. Kilowatt is also very generous just based on the heat transfer coefficient, the area, as well as the PVC, not highly conductive pipe that I saw there, that heat leakage is on the order of -- 06:20:12 06:20:14 06:20:20 06:20:24 06:20:33 06:20:35 06:20:37 06:20:44

THE REPORTER: I'm sorry. That what?

THE WITNESS: The heat leakage is on the

order of kilowatt. So you have something that is megawatt scale and you remove the kilowatt from it, the difference it makes is .001 in terms of cooling. 06:20:50 06:20:51 06:20:54

I mean in the end, if it was so easy to cool this -- this dielectric liquid, you could just have some pipe and let it come back into the system. Why did they install that big huge dry cooler -- or dielectric cooler which is consuming a lot of energy? That's what it makes to remove heat from this dielectric liquid because there is so much heat there. 06:21:03 06:21:06 06:21:12 06:21:14 06:21:20 06:21:24 06:21:29 06:21:32

So a small amount of heat leakage is not going to amount to anything, at least in terms of engineering sense. I mean in terms of a critical academic -- 06:21:32 06:21:34 06:21:38

THE REPORTER: Sorry. What?

THE WITNESS: Critical academic number, I mean, yeah, it could be -- it would be slightly different, but it will not be measurably different. 06:21:47 06:21:51

BY MR. HALPERN: 06:21:54

Q And there's an equation that you could use, right, to determine from the heat of the fluid in the tank what the heat would be at that point, for example? 06:21:54 06:21:58 06:22:01 06:22:04

A I already told you that equation. It's 06:22:04

kilowatts of loss on megawatts of energy that is transferring there. The temperature differences are going to be the second or third decimal digit of Fahrenheit, which is not measurable using any of the standard measuring techniques that we talked about. The headers on those will be more than the cooling you will have going in the pipes. 06:22:07 06:22:13 06:22:15 06:22:20 06:22:23 06:22:27 06:22:30

Q Well, you told me what you thought the difference would be, but I'm just asking, what was -- if you wanted to calculate that difference, there is an equation that you could use, correct? 06:22:32 06:22:34 06:22:37 06:22:39

A Yeah, you could use -- 06:22:41

Q The coefficient, the length of the pipe? 06:22:43

A You could make an estimate on the area. You could transfer coefficient -- 06:22:44 06:22:46

Q Okay. Yes. 06:22:48

A -- and the temperature difference between the pipe and the air around it. 06:22:48 06:22:50

Q All right. Did you perform that calculation in your report? 06:22:54 06:22:57

A Yeah, I estimated -- not in my report because it's, again -- it's kind of -- the order of magnitude, right, so I mean, you know, I'm not -- I'm a practicing engineer, and I believe in using the, you know, order of magnitude analysis rather 06:23:00 06:23:01 06:23:08 06:23:13 06:23:21

than trying to do some critical meaningless calculations. 06:23:25 06:23:28

Q Do you talk about this order of magnitude analysis in your report? 06:23:30 06:23:33

A I think it's -- you know, I think I have said that this temperature is same. I'm saying that, look, I mean the tank temperature is -- the temperature of the fluid in the tank is being measured is what I'm saying by measuring it at the point of the dry cooler, right. 06:23:34 06:23:38 06:23:43 06:23:48 06:23:51 06:23:56

So I mean contained I think therein is my tacit kind of agreement that this is -- there is an insubstantial difference in those two temperatures. 06:23:59 06:24:05 06:24:16

Q But you're not saying that about the temperature after the dry cooler, right, that would be applied -- what you've just said would apply to the temperature entering the dry cooler, but not the temperature exiting the dry cooler? 06:24:18 06:24:20 06:24:24 06:24:26 06:24:29

A Temperature exiting the dry cooler is going to be very close to ambient, okay, and that's going to have even less temperature difference between that and air temperature. 06:24:32 06:24:34 06:24:37 06:24:41

So it will reject even less heat. So even -- it will be even more closely associated with temperature of the liquid that is entering the tank. 06:24:43 06:24:46 06:24:50

Q I see. 06:24:56

A Everything is very close to ambient. So 06:25:02

there is like, you know, no way for it to lose much 06:25:04

heat, and if you're not removing much heat, then you 06:25:07

are, you know, going to have the same temperature 06:25:12

that is coming out of the adiabatic cooler into the 06:25:14

tank.

THE REPORTER: What kind of cooler?

THE WITNESS: Adiabatic, a-d-i-a-b-a-t-i-c. 06:25:22

BY MR. HALPERN: 06:25:25

Q Now, you say at -- in your report that the 06:25:25

fan speed at the dry coolers is adjusted in response 06:25:51

to the temperature of the input and output fluid? 06:25:57

A Yes. 06:26:02

Q That's in -- I can direct you to the 06:26:02

paragraphs, you recall it's in 96 and 121? 06:26:04

A Uh-huh. 06:26:16

Q And you don't cite any evidence for that, 06:26:16

and I am wondering what your basis is. 06:26:21

A I recall we -- when I visited the facility, 06:26:26

I forget the names of the people that we met and 06:26:31

spoke to, one of the things I learned there was that 06:26:34

the adiabatic coolers were -- the fan speed was 06:26:39

being changed based on, you know, whether it's -- 06:26:43

you know, they were saying in summer versus winter 06:26:47

or so forth, again, because those fans take a lot of energy and, you know, in Bitcoin mining, everything is about energy consumption. So if you don't use -- need to use so much energy, you will reduce the fan. 06:26:51 06:26:54 06:26:57 06:27:00

The other thing that I saw was they were driven by variable frequency drives, VFDs, and VFDs typically are configured for changing the speed of the -- of the fans or the motors, right, and that I have personal experience with, I use it in my systems. 06:27:03 06:27:07 06:27:13 06:27:15 06:27:17 06:27:19

Q Did you cite the people that you say said this to you? 06:27:22 06:27:25

A I don't even remember the names, right. We have a bunch of different people that we were talking. It might also be there in some of their documentations that I, again, don't remember it. 06:27:25 06:27:29 06:27:31 06:27:35

Q Part of the reason I'm asking you this question is that the testimony was that the -- of Chase Blackmon was that the coolers are running at maximum all the time except that when it gets cold, they manually turn them off, but there isn't variable control -- 06:27:37 06:27:40 06:27:43 06:27:46 06:27:49 06:27:52

A Okay. 06:27:53

Q -- or automated control, and you didn't cite to anything, and now you're saying you spoke to 06:27:53 06:27:56

people? 06:27:58

A Yeah, I mean that's what my recollection is that, you know, seeing the VFDs and talking to people, what I walked away from there was that they are modulating the speed of the motors. 06:27:59 06:28:00 06:28:04 06:28:07

Q Okay. 06:28:10

A I mean that's kind of what my recollection is. 06:28:12 06:28:14

Q I see. And you saw -- your recollection -- well, did you mention these VFDs? I'm not even sure you mentioned those in your report controlling the dry coolers. 06:28:16 06:28:21 06:28:24 06:28:27

A Yeah, I don't believe I have mentioned it. 06:28:28

Q Okay. All right. Yeah, I just did a quick search. I didn't see it. 06:28:30 06:28:35

A I guess that's the point of these sessions, right, to kind of get out things that I might have missed. 06:28:39 06:28:43 06:28:46

Q So do you have a basis to -- well, I guess you've just testified to it. In other words, you know, I mentioned to you that Mr. Blackmon testified to what he testified to, and do you have a basis to doubt his testimony? 06:28:46 06:28:53 06:28:55 06:29:03 06:29:07

A No, I don't have any basis to doubt his testimony. More than that, I would doubt my memory 06:29:08 06:29:10

okay -- 06:29:13

Q Okay. 06:29:13

A -- because he knows this better than I do. 06:29:14

Q Okay. Now, in your report, you say at section 101 that the dielectric fluid's purpose is to cool the miners to ensure the miners are running at optimal efficiency. 06:29:17 06:29:56 06:30:15 06:30:18

So is it fair to say that the temperature of the miners is the temperature we really care about in the system in light of that statement? 06:30:27 06:30:30 06:30:34

A Again, the M30s that are being used here also specify the environmental temperature. So, you know, I think they do care for the chip temperature, but they also care for PCB temperature because that's why they have, you know, specification around it, and that's why they have the sensors around it. 06:30:37 06:30:42 06:30:48 06:30:51 06:30:55 06:30:57

Q But the -- I'm just -- I mean I -- I am simply quoting you to yourself, right, the dielectric fluid has this purpose of cooling the miners to make assure they're running at optimal efficiency. 06:31:00 06:31:13 06:31:16 06:31:20 06:31:24

Is turning off the miners to -- and then rebooting them and running them at a lower wattage a different method of controlling the level of heat in the system than cooling the miners with dielectric 06:31:25 06:31:36 06:31:43 06:31:47

fluid? 06:31:51

MR. THOMAS: Objection; vague -- vague and 06:31:51

ambiguous as to "different method." 06:31:56

THE WITNESS: Sorry. Your question is? 06:32:07

BY MR. HALPERN: 06:32:08

Q Simply, you know, cooling the miners with 06:32:08

dielectric fluid is one way of lowering their 06:32:15

temperature and improving their efficiency, right? 06:32:18

A Yeah.

Q Okay. Turning the miners off and rebooting 06:32:24

them is a different way of cooling the miners? 06:32:27

A That's not cooling. That's providing less 06:32:30

heat input. You're not changing the cooling with 06:32:32

that. You are actually -- you know, you are -- you 06:32:34

know, you are providing less heat in there, right. 06:32:41

The cooling might be a second order effect, 06:32:43

you know, because of the natural circulation being 06:32:47

different and all of that because of that, but 06:32:50

primarily you are changing the heat input and 06:32:52

secondarily you are changing the cooling. 06:32:55

Q Okay. So in other words, it's even more 06:32:57

different than I was suggesting, it's a totally 06:32:59

different function? 06:33:02

A Function in what sense? 06:33:06

Q In other words, you're trying -- you're 06:33:08

trying to get heat out of the system, right, so that the miners will run efficiently. One way to do that is to use dielectric fluid and to increase the flow of the dielectric fluid, right? 06:33:11 06:33:13 06:33:17 06:33:22

A Uh-huh, uh-huh. 06:33:26

Q And another way is to turn off the miners and restart them, run at a lower wattage? 06:33:27 06:33:30

A If you turn them off and don't start them at all, they will be the coolest. 06:33:33 06:33:36

Q Right.

A That's true, right, nothing to laugh about. It's true. It's true. 06:33:38 06:33:40

Q I mean are you saying that changing the power of the miners is not a method of controlling the cooling system? 06:33:41 06:33:44 06:33:48

A No, I did not say that. I did say that, in fact, the heat from the miner also impact on a second order the natural circulation or the heat driven flow through the miners itself. 06:33:49 06:33:56 06:34:01 06:34:07

So it does impact the cooling a little bit, but fundamentally you are changing the power in the miner. That will help them -- help you keep it cool. 06:34:11 06:34:17 06:34:19 06:34:23

Q Okay. And that is a different method of keeping it cool than increasing the flow of the 06:34:24 06:34:26

dielectric fluid? 06:34:35

A Yeah, or reducing the temperature of the dielectric fluid coming in, it could be any idea of things. So I don't understand on this hypothetical where we are going, if you could help me with your question. 06:34:35 06:34:37 06:34:41 06:34:43 06:34:45

Q I mean it's just -- ultimately the goal of the system is to -- as you said, the dielectric fluid's purpose is to cool the miners to ensure the miners are running at optimal efficiency. 06:34:48 06:35:09 06:35:12 06:35:16

So if you're doing that, for example, by turning off the miners and rebooting them at lower power when they overheat and that works for you, then you don't care about the temperature of the dielectric fluid because that temperature is -- its purpose -- the purpose of using it is to cool the miners. 06:35:18 06:35:20 06:35:23 06:35:26 06:35:29 06:35:35 06:35:38

So in the instance where you are directly managing the miners, you're not -- you don't care about the indirect method of management which is the cooling? 06:35:39 06:35:44 06:35:48 06:35:51

MR. THOMAS: Objection; improper hypothetical, insufficient facts. 06:35:51 06:35:52

THE WITNESS: Look, at the end of the day here, the purpose is to run the miners at full 06:35:57 06:35:59

capacity to mine as many Bitcoins as possible, right. 06:36:03 06:36:06

In your hypothetical, at the extreme, you can switch them off, and everybody will be -- will be fine from cooling perspective, but you have spent all of this money to have no output, right, everything is cooled. 06:36:06 06:36:08 06:36:12 06:36:14 06:36:19

BY MR. HALPERN: 06:36:19

Q You're changing my hypothetical. I was asking about turning them off and restarting them -- 06:36:19 06:36:22

A I'm saying that -- 06:36:24

MR. THOMAS: Let him answer the question. 06:36:25

THE WITNESS: I'm saying that maybe the low is so low that it is really not doing any meaningful work, right. I mean the lower could mean anything -- 06:36:26 06:36:28 06:36:33 06:36:38

THE REPORTER: I'm sorry. The law?

THE WITNESS: Lower could mean anything, you know. So like in the limit, it is switching them off and, you know, everything is cool. 06:36:40 06:36:44

BY MR. HALPERN: 06:36:46

Q But are you aware that the Restful API turns off the miners, right, when they hit a certain temperature and restarts them at a lower power? 06:36:46 06:36:54 06:36:59

A Yes, but the lower power also means lower 06:37:10

output from those miners -- 06:37:14

Q Right, but as a matter of actual fact, that 06:37:15

is what the Restful API is doing, correct? 06:37:18

A I don't recall exactly all the 06:37:22

functionalities. I mean if you are representing to 06:37:26

me, I would have no reason not to believe that it is 06:37:28

doing that as one of the things it does. 06:37:30

Q In paragraph 100 of your report, you say, 06:37:32

"Rhodium developed a software 'Restful' to directly 06:37:35

communicate with each individual miner and globally 06:37:38

report that data to a dashboard." 06:37:42

"The Restful API gives Rhodium the 06:37:44

capability" --

THE REPORTER: Restful API gives Rhodium?

BY MR. HALPERN:

Q -- "to observe and directly control the 06:37:49

miners by commanding the miner to reboot and consume 06:37:49

less wattage when the miners become too hot." 06:37:53

A Yeah, thank you for pointing that out, 06:37:56

please. 06:37:58

Q So I'm just asking that is a different -- 06:37:58

A Right. 06:38:00

Q -- method of managing the miner's heat than 06:38:01

is using dielectric fluid to cool them, correct? 06:38:05

A Yeah, I mean you are directly changing the 06:38:12

heat that you are putting in. So if you're reducing the heat that you're putting in, then you're managing the heat. 06:38:13 06:38:16 06:38:19

Q And have you seen any evidence that the -- the accused Rhodium systems are controlling the flow rate of the coolant in order to manage the heat put out by the miners? 06:38:20 06:38:35 06:38:41 06:38:47

A I mean I don't believe that is required from the claim 1 perspective, but I -- to the best of my knowledge, their pumps are single-speed pumps and it's not changing the speed for the primary circulation facility. 06:38:51 06:38:54 06:39:01 06:39:06 06:39:09

Q Okay. And then I already asked you about the secondary circulation facility -- 06:39:10 06:39:17

A Okay. 06:39:19

Q -- right? The -- the -- yeah, okay. 06:39:21

By the way, does the patent anywhere teach varying the power to the servers or talk about that as part of the invention or, you know, part of the system of temperature management? 06:39:45 06:39:49 06:39:53 06:39:58

MR. THOMAS: As it relates to the control system? 06:40:08 06:40:10

MR. HALPERN: Yeah. 06:40:15

THE WITNESS: I think the patent mostly is talking about server CPUs, and server CPUs typically 06:40:15 06:40:18

have a self-toggling mechanism. You don't need an external kind of thing to tell it based on my knowledge of, you know, the processors. If it starts to get too hot, that's true about your laptop processor, it will start toggling it down. It will start reducing its heat output. 06:40:23 06:40:27 06:40:29 06:40:33 06:40:37 06:40:39

So it might already be, you know, implicit in the way, you know, this patent is talking about the server that are doing it implicitly built in. 06:40:42 06:40:44 06:40:48

BY MR. HALPERN: 06:40:55

Q Okay. So is it -- is it true that that is a long-standing feature? In other words, that's been known for a long time since before the patent that processors will reduce their heat output when they overheat? 06:40:55 06:41:04 06:41:07 06:41:10 06:41:15

A Yeah, that's a known method of controlling the temperature of the processors because they have to account for things like, you know, you have a processor running full tilt and certainly the cooling system, your fan goes bad, you want to make sure the processor doesn't start smoking. 06:41:17 06:41:23 06:41:26 06:41:29 06:41:32 06:41:35

Q Now, there's some more Boyd testimony. All right. Why don't I just give it to you. 06:41:38 06:41:47

How much time is left on the record? 06:41:50

A What time is it? 06:41:56

MR. THOMAS: 6:41. 06:41:57

THE VIDEOGRAPHER: About five minutes. 06:41:59

MR. HALPERN: Oh, okay. 06:42:00

MR. THOMAS: I had four, but it's -- sorry. 06:42:02

I'm counting. 06:42:06

MR. HALPERN: Not that anyone's counting. 06:42:07

Okay. 06:42:09

So this is Exhibit 10. Is that what we're 06:42:10

up to? 06:42:18

THE REPORTER: Uh-huh. 06:42:19

THE WITNESS: Yeah. 06:42:20

MR. HALPERN: Okay. I marked that one for 06:42:20

you. 06:42:21

THE WITNESS: Okay. Thank you. 06:42:22

MR. HALPERN: Just because my brain is

fried, and I wasn't -- my routine was disrupted.

(The document referred to was marked by the

Reporter as Pokharna Exhibit 10 for identification

and is attached hereto.)

BY MR. HALPERN: 06:42:24

Q So this is -- once again, I've given you 06:42:24

the transcript of -- part of the transcript of Chris 06:42:38

Boyd. It's a massive transcript. So that's why 06:42:42

I've just pulled these excerpts to keep it 06:42:45

manageable. 06:42:47

And we want 126 so -- actually -- sorry -- 125, starting at 18, I asked, "Would it have been better to have a system that would turn the cooling system on and off based on the temperature of the servers themselves rather than of the dielectric fluid in the tank?" 06:42:50 06:43:16 06:43:26 06:43:28 06:43:31 06:43:33

And then Mr. Boyd explained that it was cheaper and easier to put the sensors in the coolant and directly measuring the server temperature would have been more expensive and would have required software that was beyond his ability to write. 06:43:35 06:43:38 06:43:42 06:43:45 06:43:46

So I -- just to save you time, I'm telling you that's the gist, but please examine it for yourself. 06:43:49 06:43:53 06:43:56

A Uh-huh. 06:43:58

Q And do you have any reason not to credit that testimony? 06:43:58 06:44:02

A Again, I'm missing the context and, you know, where you are going with it, but I'm -- you're reading from a witness's testimony, and I have no reason to believe that he was lying, right. So he was telling the truth, I would believe it. 06:44:03 06:44:09 06:44:11 06:44:13 06:44:17

Q In other words, the inventor -- the point is simply that the inventor said it was a cheaper and easier method to put the sensors in the fluid. 06:44:19 06:44:21 06:44:25

It would have been expensive and difficult and required additional software to measure the temperature of the servers, and that was a different way of doing it that he did not undertake for those reasons. 06:44:28 06:44:30 06:44:32 06:44:36 06:44:40

Does that seem sound? 06:44:41

A That's what he said, yeah. 06:44:43

Q Okay. But I'm asking if that seems reasonable. Do you find that believable? Do you have reason to doubt it? 06:44:44 06:44:46 06:44:49

A No, I have no reason -- 06:44:50

MR. THOMAS: I just want to object. I believe you're mischaracterizing what he said. I know you're trying to go fast and summarize, but I don't believe you accurately summarized it. 06:44:51 06:44:54 06:44:56 06:44:59

MR. HALPERN: Okay. Do you want to just give it a quick read, this is probably the end, and just tell me if you -- 06:45:01 06:45:02 06:45:05

MR. THOMAS: I'm going to just object. You're only -- this is a several-hundred page transcript. You're giving him out of context a couple sheets here. I don't know that he can -- and I think we're out of time. 06:45:06 06:45:09 06:45:11 06:45:14 06:45:20

THE WITNESS: No, sorry. So your question is simply that you are asking for my opinion or 06:45:22 06:45:25

you're asking for -- 06:45:29

BY MR. HALPERN: 06:45:30

Q Yeah. In other words, as a person of skill reading this description of why he chose one method over the other, do you find that believable, does it make sense, or do you have reason to doubt that it would have been, for example, so much harder to use the temperature of the servers instead of the temperature of the fluid? 06:45:30 06:45:33 06:45:35 06:45:38 06:45:40 06:45:43 06:45:45

A Different people have different skills. You know, the -- for somebody, they are aware of the way the software interface works with the server. They could have reached in there and measured temperatures that way. That might be easier for some people. 06:45:47 06:45:50 06:45:58 06:46:03 06:46:06 06:46:10

I mean for Mr. Boyd, he said it was easier for him to measure fluid temperature and somehow correlate with that the temperature of the servers, then he chose that method. Like I mentioned many times in this testimony, there are different ways of solving a problem, and different people can come up with slightly different solutions. 06:46:11 06:46:15 06:46:20 06:46:23 06:46:25 06:46:28 06:46:30

MR. HALPERN: Okay. Are we -- 06:46:31

THE VIDEOGRAPHER: This concludes today's testimony given by Dr. Himanshu Pokharna on 06:46:36 06:46:38

February 6, 2024. The original video media will be retained by Veritext, and we are going off the record at approximately 6:46 p.m. 06:46:42 06:46:47 06:46:49

(Discussion held off the videographic record.)

THE REPORTER: Do you want a copy of the transcript? 06:48:10 06:48:11

MR. THOMAS: Yes, we do. 06:48:12

(Whereupon, at the hour of 6:46 p.m., the deposition was concluded.)

STATE OF CALIFORNIA)
) ss
COUNTY OF ORANGE)

I, HIMANSHU POKHARNA, Ph.D., declare under the penalties of perjury of the laws of the United States that the foregoing is true and correct.

Executed this _____ day of _____, 2024, at _____, California.

_____

HIMANSHU POKHARNA, Ph.D.

STATE OF CALIFORNIA)
) ss
COUNTY OF ORANGE)

I, LINDA NICKERSON, CSR #8746, in and for the State of California do hereby certify:

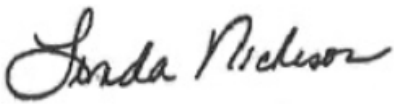
That, prior to being examined, the witness named in the foregoing deposition was by me duly sworn to testify the truth, the whole truth, and nothing but the truth;

That said deposition was taken down by me in shorthand at the time and place therein named, and thereafter reduced to typewritten form at my direction, and the same is a true, correct, and complete transcript of the testimony at said proceedings.

Before completion of the deposition, review of transcript [X] was [ ] was not requested. If requested, any changes made by the deponent (and provided to the reporter) during the period allowed are appended hereto.

I further certify that I am not interested in the event of the action.

WITNESS MY HAND this 9th day of February, 2024.



LINDA NICKERSON, CSR No. 8746

JOSEPH E. THOMAS, ESQ.

jthomas@twtlaw.com

FEBRUARY 8, 2024

RE: MIDAS GREEN TECHNOLOGIES V. RHODIUM ENTERPRISES

FEBRUARY 6, 2024, HIMANSHU POKHARNA, Ph.D., JOB NO. 6442786

The above-referenced transcript has been completed by Veritext Legal Solutions and review of the transcript is being handled as follows:

__ Per CA State Code (CCP 2025.520 (a)-(e)) – Contact Veritext to schedule a time to review the original transcript at a Veritext office.

__ Per CA State Code (CCP 2025.520 (a)-(e)) – Locked .PDF Transcript - The witness should review the transcript and make any necessary corrections on the errata pages included below, notating the page and line number of the corrections. The witness should then sign and date the errata and penalty of perjury pages and return the completed pages to all appearing counsel within the period of time determined at the deposition or provided by the Code of Civil Procedure.

__ Waiving the CA Code of Civil Procedure per Stipulation of Counsel - Original transcript to be released for signature as determined at the deposition.

__ Signature Waived – Reading & Signature was waived at the time of the deposition.

_X_ Federal R&S Requested (FRCP 30(e)(1)(B)) – Locked .PDF Transcript - The witness should review the transcript and make any necessary corrections on the errata pages included below, notating the page and line number of the corrections. The witness should then sign and date the errata and penalty of perjury pages and return the completed pages to all appearing counsel within the period of time determined at the deposition or provided by the Federal Rules.

__ Federal R&S Not Requested - Reading & Signature was not requested before the completion of the deposition.

MIDAS GREEN TECHNOLOGIES V. RHODIUM ENTERPRISES

HIMANSHU POKHARNA, Ph.D. (#6442786)

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

MIDAS GREEN TECHNOLOGIES, LLC,

Plaintiff,

vs.

RHODIUM ENTERPRISES, INC.; RHODIUM TECHNOLOGIES LLC; RHODIUM 10MW LLC; RHODIUM 2.0 LLC; RHODIUM ENCORE LLC; RHODIUM RENEWABLES LLC; Rhodium Renewables Sub LLC; and RHODIUM READY VENTURES LLC,

Defendants.

No. 6:22-cv-00050-ADA

VIDEOTAPED DEPOSITION OF J. DUROSS O'BRYAN
Irvine, California
Thursday, February 8, 2024

Reported by:
LAURIE HELD-BIEHL
TX CSR No. 8555
CA CSR No. 6781
IL CSR No. 084002860
NJ CCR No. 30XI00239100
WA CCR No. 21020748
RPR/CRR/RMR No. 32836
JOB No. 6442726

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

MIDAS GREEN TECHNOLOGIES, LLC,	)	
Plaintiff,	)	
vs.	)	No. 6:22-cv-00050-ADA
RHODIUM ENTERPRISES, INC.; RHODIUM TECHNOLOGIES LLC; RHODIUM 10MW LLC; RHODIUM 2.0 LLC; RHODIUM ENCORE LLC; RHODIUM RENEWABLES LLC; Rhodium Renewables Sub LLC; and RHODIUM READY VENTURES LLC,	)	
Defendants.	)	

Videotaped Deposition of
J. DUROSS O'BRYAN, pages 1 through 376, taken on behalf of Defendants, at 18101 Von Karman Avenue, Suite 230, Irvine, California, beginning at 9:34 a.m. and ending at 5:47 p.m. on Thursday, February 8, 2024, before LAURIE HELD-BIEHL, Texas Certified Shorthand Reporter No. 8555,

California Certified Shorthand Reporter No. 6781, Illinois Certified Shorthand Reporter No. 084002860, New Jersey Certified Court Reporter No. 30XI00239100, Washington Certified Court Reporter No. 21020748 and Registered Professional Reporter, Certified Realtime Reporter, Registered Merit Reporter No. 32836, pursuant to the Texas Rules of Civil Procedure.

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IAN TRESSER
(Via Zoom Videoconference.)

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Exhibit 3	Photocopy of Expert Report of Juli Saitz, CPA, CFF, ABV, Dated 1-26-24, 72 pages CONFIDENTIAL - ATTORNEYS EYES ONLY	36
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Exhibit 9	Photocopy of email to Lyle and Steve from Mario Conti, dated 3-4-21, 2 pages Bates Numbers MIDAS 0250953 and 0250954 ATTORNEYS EYES ONLY	279
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Irvine, California

Thursday, February 8, 2022

9:34 a.m. - 3:49 p.m.

(Defendants' 1 was marked for identification and is attached hereto.)

THE VIDEOGRAPHER: Good morning. We are going on the record at 9:34 a.m. on Thursday, February 8, 2024.

Please note that the microphones are sensitive and may pick up whispering and private conversations.

Please mute your phones at this time.

This is media unit 1 of the video-recorded deposition of J. Duross O'Bryan taken by counsel for plaintiff (sic) in the matter of Midas Green Technologies, LLC, versus Rhodium Enterprises Inc., et al., filed in the United States District Court for Western District of Texas, Waco Division, case number 6:22-cv-00050-ADA.

The location of this deposition is Thomas Whitelaw & Kolegraff, LLP, located at 18101 Von Karman Avenue, Suite 230, Irvine,

California, 92612. 09:35

My name is Berkley Joe Kielhack representing Veritext and I am the videographer. 09:35

The court reporter today is Laurie Held-Biehl from the firm Veritext. 09:35

I'm not related to any party in this action, nor am I financially interested in the outcome. 09:35

If there are any objections to proceeding, please state them at the time of your appearance. 09:35

Counsel and all present, including remotely, will now state their appearances and affiliations for the record, beginning with the noticing attorney. 09:35

MR. BRODY: Good morning. I'm Peter Brody of the law firm Stris & Maher on behalf of all defendants. 09:35

And I just want to clarify that the defendants are the ones that noticed this deposition and I'll be taking it. 09:35

MR. THOMAS: Yes, correct. 09:35

Joseph Thomas on behalf of the plaintiff Midas Green Technologies and the witness. 09:35

THE VIDEOGRAPHER: Will the court reporter please swear in the witness and then counsel may proceed. 09:36

(Witness sworn.) 09:36

THE WITNESS: I do. 09:36

THE REPORTER: Thank you very much. You can put your hand down. 09:36

J. DUROSS O'BRYAN,

having been first duly sworn

and administered an oath

pursuant to California CCP 2094,

was examined and testified as follows:

EXAMINATION

BY MR. BRODY:

Q Good morning, Mr. O'Bryan. 09:36

A Good morning. 09:36

Q I want to show you what we've marked as Exhibit 1. 09:36

A I'm there. 09:36

Q Have you seen this before? 09:36

A I have. 09:36

Q Okay. And this is a notice for your deposition testimony today? 09:36

A That's correct. 09:36

Q All right. Do you understand you're -- you're testifying pursuant to the notice? 09:36

A I do, yes. 09:36

Q Okay. Have you testified in a deposition before? 09:36
A I have, yes. 09:36
Q How many times? 09:36
A In excess of 300. 09:36
Q Okay. 09:36
MR. THOMAS: More than you've been in a deposition. 09:36
MR. BRODY: More than I've been in a deposition, that's for sure. 09:36
Q So I'm going to do the ground rules but I doubt you need it. 09:36
A Yeah, you probably don't need to. 09:36
Q We'll try to take a break about every hour; if you need one, let me know. You know, if there's a question pending I'm entitled to an answer before the break. 09:36 09:37 09:37
I need your verbal answers. We'll try not to speak over each other. Speak up if you can't hear me. 09:37 09:37
If you don't understand my question, please ask for clarification; if you don't, I'm going to presume that you understand the question. 09:37 09:37
From time to time, Mr. Thomas may object; you understand you're still required to answer my 09:37

question unless he instructs you not to, right? 09:37

A I do. 09:37

Q Great. 09:37

Are you taking any medication that would impair your testimony today? 09:37

A No. 09:37

Q Is there any reason -- other reason you can't give your best and most truthful testimony today? 09:37

A No. 09:37

Q Okay. Great. 09:37

Did you do anything to prepare for today's deposition? 09:37

A Not other than normal, which was really kind of be involved with this case since the minute we got it and directing my staff with respect to how the work is being done; working with the staff as it relates to the analyses being performed and the different calculations being made. 09:37

I met with counsel a couple of times. 09:38

I've had multiple conversations with the client, with Midas, regarding a number of different things. And that about sums it up. 09:38

Q Okay. When did you get the case? 09:38

A I think it was February of 2023. 09:38

Q Okay. And you say you've met with counsel. I want to distinguish meeting with counsel, meeting with the witness in the course of preparing your report, put that aside.

Just, you know, in the run-up to -- to this deposition, did you -- you met with counsel for the plaintiff?

A I'm sorry.

I've met with counsel and the Midas people several times.

Q Okay. And when did you have those meetings?

A Well, we've had -- I've never had a face-to-face with them, mostly Zoom or conference calls. And they really started back in February of 2023 --

Q Okay.

A -- right at the beginning of this matter; in fact, I think they spoke with me before I was even engaged about my experiences. They talked to me about the case.

And then since that time there have been at least 20 additional calls with just the client, Midas, with respect to different questions we had about their business, about how their business works, the patenting, etcetera.

Q Okay. I'll have more questions about those -- those calls coming up. 09:39

But when was the most recent -- 09:39

A Yesterday. 09:39

Q "Yesterday." 09:39

And was Mr. Thomas or someone from his firm on the call? 09:39

A Yes. 09:39

Q Okay. Did you review any documents to prepare for your deposition testimony today? 09:39

A Uh-huh, I did. All of the documents you see referenced in my report, which I think you have, don't think you've marked as yet, but my report which was dated -- 09:39

MR. THOMAS: December 22 -- 09:40

BY MR. BRODY: 09:40

Q Yes. 09:40

A -- December 22, 2023. I've reviewed all those documents, including the references to different reference materials we used. And the documents reviewed and relied on list, it's a part of Appendix B, I think, to my report, I've also reviewed. 09:40

Q Okay. Did you review anything that's not cited in -- 09:40

Let's just for ease, let's just mark Exhibit 2 now. 09:40

(Defendants' Exhibit 2 was marked for identification and is attached hereto.) 09:40

MR. THOMAS: Yes. 09:40

And I believe the witness has a copy, or he can access the exhibit copy if you prefer. 09:40

MR. BRODY: Yes. 09:40

THE WITNESS: Yes. I'm just going to use mine but I see it. 09:40

MR. THOMAS: Yes. 09:40

MR. BRODY: Okay. 09:40

Q So Exhibit 2 is the report that you prepared in connection with this case? 09:40

A That's correct, dated December 22, 2023. 09:40

Q Right. 09:40

This is the only report that you've prepared? 09:40

A That's correct. 09:41

Q All right. And you referenced the list of materials reviewed and relied upon, which I think is Appendix C to your report. 09:41

A Okay. 09:41

Q B is your testimony -- 09:41

A Yes. 09:41
Q -- your testimony list. 09:41
A So Appendix C. Yeah. 09:41
That would be the documents I reviewed and relied on, as well as I believe all of the footnotes that are in the report, all 122 footnotes are part of that document list. But if they're not, they have been reviewed and referenced in my report. 09:41
Q Okay. Did you review -- 09:41
In preparation for your testimony today, did you review anything that is not cited in either the footnotes or this Appendix C? 09:41
A No. 09:41
Q Okay. You were retained in this case by Thomas Whitelaw & Kolegraff, right? 09:41
A Well, I really -- 09:41
We consider our engagement letter with probably Thomas Whitelaw & Kolegraff as well as Midas Technologies. 09:41 09:42 09:42
Q Okay. And you're being paid $600 an hour for your time? 09:42 09:42
A That is correct. 09:42
Q Okay. Are you paid a different rate for testifying? 09:42 09:42
A No. 09:42

Q Okay. Some experts are.
And you said you had staff that worked on the case?
A Yes.
Q Okay. Can you just give me sort of a -- a ballpark of what their hourly rates are?
A I don't know their hourly rates.
Trevor Sturges is a director in the office. My -- my guesstimate is probably somewhere in the area of 450- to $500 an hour. He was really, though, the senior person, other than me, on this engagement.
Danell Raab, R-A-A-B, is a senior manager. He's probably in the 350 to 400 range.
Those were really the two main people that assisted me on this matter --
Q Okay.
A -- and their range.
Q And your --
It's all --
Your pay is entirely hourly?
A Pay is entirely hourly.
Q Okay. It's not contingent on any of the -- the substance of your opinions?
A No. It's illegal in the State of California for a CPA to have contingent fees.

Q Of course. 09:43
A And I'm a CPA. 09:43
Q I've got to ask. 09:43
And so I think the answer is going to be a high number, but how many times have you been retained to testify as an expert? Ballpark it, if you don't know. 09:43
A Yeah. It's in excess of 300. 09:43
Q Okay. And in looking at Appendix B of your report, is this a list of -- 09:43
This is a list of all your testimony at deposition, trial or arbitration from December 2019 to the present? 09:43
A Yeah. 09:43
Q Or to the date of your report, I guess? 09:43
A Correct. 09:43
Q Okay. 09:43
A That's -- 09:43
Just the last four years, I believe, is required by Rule 26. 09:43
Q Right. 09:43
So this lists that you've testified 24 times at a deposition in the last four years? 09:43
A Yeah. I don't know deposition on that but combination of deposition or trial or arbitration, 09:44

yeah, that sounds about right. 09:44

Q Okay. 09:44

THE REPORTER: Can we go off the record for a second? 09:44

MR. BRODY: Yes. 09:44

THE VIDEOGRAPHER: We're off the record at 9:44 a.m. 09:44

(Off the record.) 09:44

THE VIDEOGRAPHER: We are back on the record at 9:47 a.m. 09:46

BY MR. BRODY: 09:47

Q Welcome back. 09:47

I'm going to ask, have you ever had your -- in all of your experience testifying as an expert, have you ever had your analysis excluded by a court? 09:47

A No. 09:47

Q Okay. Have you ever had a jury disagree with your analysis? 09:47

MR. THOMAS: Objection. Vague. 09:47

THE WITNESS: I don't -- I don't know. I don't -- I wasn't -- I'm not them. I have no idea if they agreed or disagreed. 09:47

I mean, I've had cases where the jury came back and didn't pick my number on a damages case, if that's what you're referring to. 09:47

BY MR. BRODY: 09:47

Q Uh-huh. 09:47

A Whether or not they agreed with me, I don't know. 09:47

Q That's fair. 09:47

Have you ever had a judge disagree with your analysis, for example, in a, you know, written opinion after a bench trial or arbitration? 09:47

A There was only two. There was one in Arizona in the 1980s where I used the discount rate of, like, 12 percent and the judge thought I should use like a discount rate of 13 percent or something; so I wouldn't say "disagreed," I just think he wanted to use a different discount rate. 09:47 09:48 09:48

And then in another case in the '80s or '90s, bankruptcy -- I said it would be impossible to trace funds from point A to point B and the judge said he disagreed; he didn't think it was impossible, he thought it was just very difficult. 09:48 09:48 09:48

I think those are the only two times a judge has ever commented on my -- 09:48 09:48

There was another one on a -- a legal malpractice case where I valued the assets as of a date and the Court wanted a different date of valuation; so I guess the judge disagreed with the 09:48 09:48 09:48

date we valued the assets. 09:48

Q Okay. 09:48

A Those are the only three I'm aware of. 09:48

Q And the -- 09:48

That last one, do you remember when it was? 09:48

A It was, like, in the '90s. 09:48

Q Okay. None of these were patent cases? 09:48

A No. 09:49

Q Okay. 09:49

A No. 09:49

Q Have you ever performed a damage analysis in a patent case before? 09:49

A Dozens of times, yes. 09:49

Q "Dozens of times." Okay. 09:49

Lost profits analysis? 09:49

A Both lost profits and reasonable royalty. 09:49

Q Okay. Have you ever worked on a matter related to Bitcoin before? 09:49

A No, not in a patent case. 09:49

Q In what context, then? 09:49

A There was a couple of cases we dealt with the damages on Bitcoin cases having to do with breaches of contracts and I don't remember if it was a lease, but there were other Bitcoin cases we've worked on. 09:49

Q Okay. Do you remember the names of those cases? 09:49

A I don't, no. 09:49

Q Okay. They must have been pretty recent though, right? 09:49

A In the last three years. 09:49

Q Okay. The last three years? 09:49

A Yeah. 09:49

Q Do you remember the name of your client in those cases? 09:49

A No. I just remember we were involved in a Bitcoin -- a couple of Bitcoin cases, I don't even think they went to -- they certainly didn't go to depo or trial. But it was -- 09:49 09:50 09:50

Some of those were disagreements between landlords and tenants, something to that effect. 09:50 09:50

Q Okay. Was your client -- it wasn't Riot Platforms was it? 09:50 09:50

A No. 09:50

Q And wasn't Whinstone? 09:50

A No. 09:50

Q Okay. Going in your report -- I'm just going to give away the game here but basically we're just going to walk through your report today and talk about it so let's go to the beginning, I think it 09:50 09:50 09:50 09:50

would be helpful. 09:50

MR. THOMAS: Do you have a page number? 09:50

(Discussion off the record.) 09:51

THE WITNESS: Just go by paragraphs. 09:51

BY MR. BRODY: 09:51

Q We'll go by paragraphs; I'm going to 09:51
literally paragraph 1. 09:51

A You're going to start there, really? 09:51

Q Yeah. 09:51

A Wow. I thought you'd get to, like, 4 or 09:51
something. 09:51

Q No. 09:51

I'm just asking, so you've been retained to 09:51
provide an expert opinion in this case? 09:51

A That is correct. 09:51

Q Okay. And the opinion you've been retained 09:51
to provide is you've been retained to compute the 09:51
economic damage incurred by Midas as a result of the 09:51
alleged patent infringement by Rhodium Enterprises 09:51
and the other defendants, right? 09:51

A That's correct. 09:51

Q Okay. You don't have any opinions on 09:51
anything else, right? 09:51

A Well, I don't -- 09:51

MR. THOMAS: Well, I would say other than what's 09:51

in his report.
MR. BRODY: That's --
Let me rephrase that.
THE WITNESS: Thank you.
BY MR. BRODY:
Q Your opinions on the economic damage suffered by Midas are the opinions contained in this report, right?
A That's correct.
Q Okay. And you don't have any other expert opinions on any other matter in this case, do you?
A Well, I don't have any opinions about, you know, whether or not the patent was -- or the patent validity issues, the patent in suit issues.
I don't have any opinions about the infringement, I've assumed there was infringements.
Q Right.
A I don't have any opinions about whether or not there was an acceptable non-infringing alternative, other than the things we've talked about with -- with Midas. But those are not my areas of expertise, nor do I really have an opinion on those.
Q Right.
So just to clarify, if it's not in this report you don't have an opinion about it, an expert

opinion about it? 09:52

A Well, I mean, that's right. But, I mean, my experience, I might have -- 09:52

If you ask me a question about something that's not in this report, I might have an opinion about it; for example, my experience in patents, but generally no. My opinions are about the damages and the damages as a result of the alleged patent infringement. 09:52 09:53

Q Okay. This may be a basic question but similar, but -- well, high level. So in your understanding -- you're offering -- strike that. 09:53

You're offering an opinion about the damages from patent infringement. 09:53

When, in your understanding, does a defendant become liable for -- for a patent infringement? 09:53

A At the point of infringement. 09:53

Q Okay. And what's your understanding of the "point of infringement"? 09:53

A At the point where they either design or build or use a piece of an intellectual property or a patent. 09:53

Q Okay. What does it mean to design -- 09:54

When you say "design," can you say a little 09:54

bit more about what you mean? 09:54

A Well, I think if you -- 09:54

Kind of in conversations with Midas, you know, if Rhodium, hypothetically, was out there designing when they began to design their immersion tanks for their own Bitcoin mine, if they were designing tanks that were infringing on the patent, Midas's patent, that, to me, would be the beginning of an infringement claim. 09:54

Q Okay. Just the drawing of a -- 09:54

A Yeah. Drawing, designing. 09:54

Q Okay. They don't have to build anything in your opinion? 09:54

A Well, that's just one of the components. 09:54

Q Right. 09:54

So I think we've discussed it but your opinions are encapsulated in this report, right? 09:55

A Yes. 09:55

Q Do you stand by the contents of your report? 09:55

A I do. 09:55

Q Is there anything you'd change about the opinions that are set out in your report? 09:55

A No. 09:55

Q Okay. And then let's go back to Appendix C just for a second, which is your list of materials 09:55

reviewed and relied upon. 09:55

A Yes. 09:55

Q And so Appendix C, together with the materials cited in the footnotes, is the full list of everything you've reviewed and relied upon? 09:55

A Yeah. I mean, I've also relied on my own experience with patent cases and with damages but that's really part of -- it's on my CV, I guess, you could say; so, yeah, that's true. Yeah. 09:55

Q Okay. I want to ask you about the -- the depositions that you considered. 09:55

So you reviewed, it looks like, the depositions of Nick Cerasuolo, Nathan Nichols and Scott Sickmiller? 09:55

A That's correct. 09:56

Q Okay. Did you review the deposition testimony of any other witnesses in this case? 09:56

A No. 09:56

Q Okay. Jim Koen? 09:56

A No, I've not seen that. 09:56

Q Okay. Francisco Conti? 09:56

A I don't believe so, no. 09:56

Q Chase Blackmon? 09:56

A I don't believe so. 09:56

Q Okay. Why did you determine that these 09:56

three depositions were the appropriate depositions to review? 09:56

A Well, as we progressed through our work, we might have had questions about certain things and we were then given, you know, either, A, access to Midas individuals, Scott and the like. Or we would be given depositions that would also address that question that we might have; for example, about the -- the -- the pricing of the units -- 09:56

Q Right. 09:56

A -- the cost of the units, the timing of when they believed infringement occurred. All of those things we would ask for information about and we would potentially be given depositions that would deal with that. 09:56

So to the extent that we had questions that were answered in depositions, we were given those. If we didn't ask a question about something in a deposition that was necessarily out there and had information, we wouldn't have been given that because it wasn't relevant to our calculation. 09:57

Q Okay. So you were relying on -- on Midas to identify the testimony that would be relevant for your review? 09:57

A No. 09:57

If we, in the course of reviewing a deposition, saw comments made about other people or other issues, we would certainly ask if -- 09:57

We'd ask all the information that we needed to do the calculation; so we didn't rely on anybody to give us documents other than the fact they did, we asked what we needed for and we got what we needed for. 09:57

Q Okay. But you didn't -- 09:57

If Midas told you "Here's the deposition that I think is going to be helpful," did you do anything to verify that was the only testimony that -- that was related to the subject that you were asking about? 09:57

A No. No. No, we wouldn't know that because we wouldn't have seen the deposition. 09:58

Q Okay. Did you ask them for all the depositions in the case? 09:58

A We asked for the information that might give us the topics that we were inquiring about. 09:58

Q Okay. 09:58

A So to the extent that we got those, we used them, we saw the testimony, but -- sometimes it was relevant, sometimes it wasn't. Some of the depositions, 90 percent of them weren't even relevant 09:58

to us anyway -- 09:58

Q Right. 09:58

A -- so we wouldn't, in fact, rely on that. 09:58

But the depositions we got, we looked at, 09:58

and to the extent they were relevant to us, we used. 09:58

Q Right. 09:58

But if there was other relevant information 09:58

in -- in another deposition, you wouldn't have known 09:58

that, right? 09:58

A Correct. 09:58

Q Okay. You didn't think it was important to 09:58

check? 09:58

A No. I mean, as we're doing damage analyses 09:58

we need to get sufficient information to put a 09:58

reliable and reasonable calculation together. To the 09:59

extent we had information to do that, we -- that's 09:59

what we used. 09:59

If there's other contradictory information 09:59

out there, for example, your expert Ms. Sanz -- 09:59

Q "Saitz." 09:59

A "Saitz"? 09:59

Q Yes. 09:59

A "Saitz"? 09:59

Q "Saitz." Juli Saitz. 09:59

A -- we certainly looked at that, I read her 09:59

deposition -- or I mean her report. 09:59

So, no, we've seen information kind of going 09:59

both ways. We've read through Cerasuolo's deposition 09:59

who obviously has some differing opinions; so we read 09:59

through that to the extent we thought it appropriate 09:59

to do our calculation. 09:59

Q Okay. You spoke with Dr. Himanshu Pokharna? 09:59

Did I say that right? 10:00

MR. THOMAS: Yes. 10:00

THE WITNESS: That's the way you pronounce it. 10:00

Yes. Yes, I did. 10:00

BY MR. BRODY: 10:00

Q Okay. How many times, approximately? 10:00

A I think we spoke to him a couple of times. 10:00

I spoke with him once. 10:00

Q Okay. And the "we," you're referring to 10:00

members of your team? 10:00

A Yeah. I refer to "we" as our team -- 10:00

Q Right. 10:00

A -- which is basically myself, Mr. Sturges or 10:00

Mr. Raab. 10:00

That's S-T-U-R-G-E-S. 10:00

THE REPORTER: Thank you. 10:00

BY MR. BRODY: 10:00

Q Okay. Approximately when did those 10:00

conversations take place? 10:00

A I don't know when the second -- 10:00

My assumption -- I think there was a second 10:00

gentleman that Trevor spoke of, I don't know when 10:00

that was. 10:00

My conversation with Mr. Pokharna was about 10:00

a month ago, maybe. No, no, no. It was -- it was in 10:00

December, it was before I issued the report; so I 10:00

would say it was like the beginning of December 2023. 10:00

Q Okay. 10:00

A A few weeks before we issued our report. 10:00

Q And have you spoken to him since you issued 10:01

your report? 10:01

A I have not, no. I believe Mr. Sturges has. 10:01

Q Okay. And have you spoken to Mr. Sturges 10:01

about what Dr. Pokharna said? 10:01

A No. I think I just heard him say he had a 10:01

conversation with him. 10:01

Q Okay. And then you spoke with the 10:01

individuals at Midas, right? 10:01

A Yeah. Multiple times. 10:01

Q Okay. First I'll ask who did you speak 10:01

with? I could guess but -- 10:01

A Go ahead. 10:01

Scott Sickmiller. 10:01

Q Okay. 10:01
A Multiple times. 10:01
Q Uh-huh. 10:01
A Jim Koen, who was the former CEO. 10:01
Michael Conti, who's the head -- 10:01
MR. THOMAS: Mario. It's Mario. 10:01
THE WITNESS: Mario, I'm sorry. I always call him Marco. 10:01
Mario Conti. 10:01
John Shepherd, who was in accounting. 10:01
Those are the ones we spoke with. 10:01
BY MR. BRODY: 10:01
Q Okay. You're aware that both Jim Koen and Mario Conti gave deposition testimony in this case? 10:01
A I believe so. 10:02
Q Okay. But you -- 10:02
You spoke with them but you didn't review their depositions? 10:02
A No need to. 10:02
Q Because you got everything you needed from speaking with them? 10:02
A Correct. 10:02
Q Okay. 10:02
A And other sources. 10:02
Q Okay. Let's start with Scott, 10:02

Scott Sickmiller. 10:02

What did you speak with Mr. Sickmiller about? 10:02

A What what? 10:02

Q What subject matter? 10:02

A I mean, almost everything in this report we've talked about. 10:02

Q Okay. 10:02

A You know, we started at what the allegations were. We went into Midas as a company. We went into Midas's technology. We went into Midas's, you know, financial operations. 10:02

We went into, you know, his thoughts, their thoughts, on any type of reasonable licensing process as we went through the reasonable royalty calculations. 10:02

We spoke to him about his knowledge of margins on the units at different points in time. 10:03

There's not much in this report that we didn't have some conversation with him about, quite frankly. 10:03

Q That makes sense. 10:03

What about Jim Koen, what did you speak with him about? 10:03

A Jim Koen was mostly on the financial aspects 10:03

or the -- just operational pieces that were going on in the company; so it was mostly operational stuff in the company itself. Similar topics that we had with Mr. Sickmiller, actually. 10:03

Q Okay. What about Mario Conti? 10:03

A Mario Conti was about mostly the engineering. I really wanted to get an understanding of how the tanks worked and how the technology worked; he helped us with respect to that. 10:03

Q Okay. It's fascinating stuff, isn't it? 10:03

A Very fascinating. I had no idea you could drop electronics into liquid and it wouldn't explode. 10:04

Q That was my first reaction when I got this case, too. 10:04

And then John Shepherd, I assume technical accounting stuff? 10:04

A Yeah, it was the finance stuff. 10:04

Q Okay. Have you ever visited the Rockdale site where Midas's systems are installed? 10:04

A I don't like heat. 10:04

Q Okay. And so you haven't visited Rhodium buildings on that site either? 10:04

A Yeah. No. I didn't -- I didn't do any of the site visits. 10:04

Q Okay. You haven't been -- haven't been to 10:04

the Temple site? 10:04

A I have not, no. 10:04

Q Okay. And I think we covered this but you understand Rhodium has retained its own experts to respond -- 10:04

Strike that. 10:04

When I say "Rhodium," you understand I'm just referring collectively to the defendants, right? 10:04

A I do, yes. 10:04

Q Okay. I don't need to separate out "Rhodium 10 megawatt" and "30 megawatt" and -- 10:04

A Yeah, please don't. 10:04

Q Joe is looking at me. 10:04

So you understand Rhodium has retained an expert to respond to your reports? 10:04

A I do, yes. 10:05

Q Juli Saitz? 10:05

A Yes, I do. 10:05

Q Have you reviewed her report? 10:05

A I have, yes. 10:05

MR. BRODY: Okay. I'm going to mark that report as Exhibit 3. 10:05

(Defendants' Exhibit 3 was marked for identification and is attached hereto.) 10:05

THE REPORTER: It's before the witness. 10:05

BY MR. BRODY: 10:05

Q I'm not going to ask you any questions about it right now, I just wanted to get it into the record. 10:05

A Okay. 10:05

Q Have you reviewed any other expert reports? 10:05

A I reviewed Dr. Pokharna's. I think those are the two I personally looked at in detail. 10:05

Q Okay. Do you know if any members of your team reviewed any other expert reports? 10:05

A I don't know that. 10:05

Q Okay. Do you know how many patents Midas holds related to immersion cooling? 10:06

A I do not. I know there's been two discussed, I think it's the 456 and the 457. 10:06

Q That's exactly where I was going. 10:06

So the first one is 10405457; you'll understand if I call that the "'457 patent"? 10:06

A Correct. 10:06

Q And then there's 10820446. 10:06

You'll understand if I call that the "'446 patent"? 10:06

A Yes. 10:06

Q And you understand that Midas originally 10:06

sued Rhodium for infringing on both of those patents? 10:06
A I don't -- I don't know the legal 10:06
implications of that, no, or whether they did or not. 10:06
I know in January of 2022 I think there was a suit 10:06
filed. 10:06
Q Okay. 10:06
A I don't know what they were alleging. 10:06
Q You don't know which patents were asserted 10:06
as infringed in the lawsuit? 10:06
A No. 10:06
Q Okay. Are you aware that Midas has agreed 10:06
to drop one of the patents in suit from the case? 10:07
A I am not. 10:07
Q Okay. Would Midas's agreement to -- to drop 10:07
one of the patents in suit from the case, would that 10:07
cause you to -- to reconsider any of the opinions 10:07
expressed in your report? 10:07
A No. 10:07
Q Okay. Why not? 10:07
A Because I'm not the technical expert. My 10:07
assumption is there's been an infringement of patent; 10:07
which patent it doesn't matter to me, there was just 10:07
infringement. That's my assumption in the report and 10:07
that's the way we did the calculation. 10:07
Q Okay. Are you aware that Midas has asserted 10:08

that Rhodium has infringed more than one claim set out in the '457 patent? 10:08

A I don't know that. I'm not a legal expert. 10:08

Q Okay. And so your report doesn't -- doesn't differentiate between the infringement of various claims, it's infringement or no damages if there's no infringement? 10:08

A Well, yeah. That -- well, that's a legal issue. But I assume if there's no infringement in any of the issues here, there's probably no damages, but that's a legal issue. 10:08

Q Of course. No, I understand. 10:08

A But it says right in my report I've assumed that there's infringement. 10:08

Q Right. 10:08

I guess what I'm asking is this: Say we go to trial and Midas prevails and -- well, and -- and the jury finds that Rhodium has infringed claim 1 of the '457 patent but does not find that Midas -- that Rhodium has infringed claim 5 of the '457 patent, would that -- do you accommodate for that possibility in your report? 10:08 10:09 10:09 10:09 10:09

A No. We've assumed infringement. 10:09

Q Okay. So -- 10:09

And so you've assumed that Midas prevails on 10:09

its entire infringement case? 10:09

A We've assumed infringement. That's -- 10:09

that's the best I can put it. 10:09

We've assumed there was infringement and 10:09

that infringement was on the tank unit and the 10:09

convoyed sales. And so based on that, we make our 10:09

calculation of lost profits. And then based on the 10:09

tank only we make a calculation of the reasonable 10:09

royalty; so our assumption is there was infringement 10:09

on those units and that's where the calculation comes 10:09

from. If there is no infringement found, that's a 10:09

legal issue as to how then you begin to apportion 10:09

things or how that might work. 10:10

Q Okay. But you don't offer an opinion on 10:10

apportionment, do you? 10:10

A The only thing we apportion is we apportion 10:10

the damages between the five different entities, 10:10

Rhodium entities. 10:10

Q Right. 10:10

But what I mean is if Rhodium is found to 10:10

infringe some portion of the patent but not every 10:10

claim in the patent, you don't offer an opinion on 10:10

how damages would be apportioned in a -- 10:10

A That's correct. 10:10

Q -- in a -- 10:10

A We've assumed -- we've assumed infringement of the entire unit. 10:10

Q Of the entirety. Right. 10:10

A Yes. 10:10

Q And so if there's a finding of anything less than infringement of the entire patent, you couldn't offer an opinion? 10:10

MR. THOMAS: I'm going to object. 10:10

You're calling for a matter outside of his expertise and his designation. 10:10

He's assuming a patent infringement and it says so in his report. He's not here to give expert opinion about apportionment or anything like that on the claims. 10:11

MR. BRODY: That's fine. That's -- that's what I'm trying to understand. 10:11

MR. THOMAS: Yes. 10:11

BY MR. BRODY: 10:11

Q Okay. Let's look at paragraph 8 of your report. 10:11

A "8"? 10:11

Q "8." 10:11

Okay. The second sentence, great. 10:11

"Midas' patent is embodied in its flagship product, the Midas XCI system." 10:11

Do you see that? 10:11
A I do. 10:11
Q Okay. And which "patent" are you referring to there? 10:11
A I don't know. It's in footnote 5 which basically is in the XCI system but I don't know that that document ties which patent it is. I -- I don't have an opinion about that. 10:11
Q Okay. So you don't know -- you don't know which one of the two, the '457 or the '466 patent, you're referring to here? 10:12
A I do not. 10:12
MR. BRODY: Okay. I'm going to mark Exhibit 4. 10:12
(Defendants' Exhibit 4 was marked for identification and is attached hereto.) 10:12
THE WITNESS: Thank you. 10:12
BY MR. BRODY: 10:12
Q Take a look at this and let me know when you've looked through it. 10:12
A I'm there. 10:12
Q Okay. Is this a printout of the web page that you referred to in footnote 5? 10:12
A I believe so. 10:12
Q Okay. I guess I'll ask this. 10:12

So you say "Midas' patent is embodied in its flagship product, the Midas XCI system," how do you know that Midas's patent is embodied in the XCI system? 10:13

A It would have been conversations with the -- with Midas. 10:13

Q Okay. You don't refer to those conversations in footnote 5 though, do you? 10:13

A No. I -- I mean, I -- 10:13

As I said, I've had multiple conversations with them which are embodied throughout this entire report but that likely would have been in conversations with Midas with respect to that. 10:13

I don't -- I don't have an opinion on how the patents tie back to the product. 10:13

Q You just -- 10:13

Your opinion is just that they do? 10:13

A Correct. 10:13

Q Okay. Or your understanding, I guess, that's a better way to put it. 10:13

A Correct. 10:13

I have been told that -- that there is an expert, I think it's Mr. Lee, that talks about the patent validity and the patent in suit but that's not my area of expertise. 10:13 10:14 10:14

Q Okay. Did you do anything to -- to verify what Midas told you about its patent being embodied in the XCI system? 10:14

A No. 10:14

Q Okay. You know, I'm not going to ask you any questions about the document. I marked it and I'm not go to ask about it. 10:14

MR. THOMAS: So you can set that aside. 10:15

MR. BRODY: You can set that aside, I'm done with that. 10:15

THE WITNESS: Did you mark that? 10:15

Oh, you have it. 10:15

MR. BRODY: She's marked it, yeah. 10:15

Q I know you're not the technical expert and, candidly, neither am I, but I just -- I was wondering, can you give me just sort of an overview of your understanding of how the Midas immersion cooling system works? 10:15

A Sure. 10:15

These are tanks, different in size, length, etcetera. The -- what we've referred to as the tank and the -- the unit is made up of a tank, a stand, a plenum, a weir and all of the different components that go in the rack. And then attached to that is a pump and a heat exchanger -- 10:15

Q Uh-huh. 10:16

A -- which are below that tank typically. And 10:16
then as you continue past that, past the heat 10:16
exchanger is a then -- piping that goes to a pump 10:16
skid that pumps that heated dielectric oil from the 10:16
heat exchanger out to air cooling systems, typically 10:16
outside towers, or however else they want to disperse 10:16
the heated liquids in the environment. 10:16

The pumps and the -- in the tank pump the 10:16
dielectric oil up through the tank, through the 10:16
plenum, across the units, the computing units, the 10:16
computers or whatever you want to call them, and then 10:16
goes up to the weir. The weir -- it runs past the 10:16
weir back down to the tank, gets down to the heat 10:17
exchanger, it's a big circular process. 10:17

There are electronics surrounded in the tank 10:17
to not only plug in the units but also for the 10:17
different dispersion of the dielectric fluids. 10:17
That's my CPA's understanding of it. 10:17

MR. THOMAS: Well done. 10:17

BY MR. BRODY: 10:17

Q That's pretty good. 10:17

A 20 years of experience building it, I got 10:17
it. 10:17

Q Okay. Then let's go to paragraph 12. 10:17

A We skipped a few ahead because of that, I guess. 10:17

Q Yes, we did. We skipped a few ahead because of that. 10:17

So you say that -- at the top of the -- the second page embodying paragraph 12, "The tanks, cooler, and pump skid are integral to the function of the cooling system as a single cohesive unit," and "i.e., 'a complete system,' and the components that do not have a patent associated with them are therefore considered convoyed sales," right? 10:18

A Correct. 10:18

Q Okay. So we'll get to convoyed sales later. 10:18

But it's your understanding that some -- 10:18

There's the entire Midas XCI system, right, the tanks, the skids, whatever, including the dry cooler; there's -- there's a whole system and then there's -- 10:19

A You mean including the pump skids to get out to the environment with the air coolers? 10:19

Q Right. 10:19

A The exterior air coolers. 10:19

Q The exterior air coolers. 10:19

A That's the -- 10:19

MR. THOMAS: He's calling -- he's calling those 10:19

"dry coolers," it's the same thing. 10:19
BY MR. BRODY: 10:19
Q Yes. "Dry coolers," "air coolers," same 10:19
thing. 10:19
A Okay. 10:19
Q Only some portion of that, those -- the 10:19
items that make up that entire system are covered by 10:19
the scope of Midas's '457 and '446 patents, right? 10:19
A That's what I understand. 10:19
Q Okay. What portion of the system -- 10:19
Do you have an understanding what portion 10:19
of the system is the portion that's covered by the -- 10:20
the patent? 10:20
A Yeah. It's the tank and all of the tank 10:20
components; the weir, the plenum, the tank, all the 10:20
way down to the heat exchanger and the pump. That is 10:20
what we consider a tank unit. 10:20
Q Okay. The pump skid is not within the scope 10:20
of the -- 10:20
A Well, there's a pump skid potentially part 10:20
of the heat exchanger to pump the fluids back up into 10:20
the tank for even disbursement amongst the electronic 10:20
components. There's a separate pump skid that pumps 10:20
the heated oil from the heat exchanger out to the air 10:20
coolers or, as you call it, the dry coolers. 10:20

Q Right. 10:20

A So the first pump skid, yes, some people refer that to a "pump skid." I typically refer that to the "heat exchanger" and the "pump." That is part of the tank unit that we consider part of the patented product. Anything past the heat exchanger, taking the heated dielectric fluid out to the coolers is convoyed sales. 10:20 10:20 10:20 10:20 10:21 10:21

Q Okay. Okay. And I guess -- you know, I will say -- you know, going through the report, I sort of struggled to identify where you're drawing the lines here; so I'm hoping you can help me sort of draw the lines. 10:21 10:21 10:21 10:21 10:21

The "tank unit," that's what you're saying is the -- the -- the patented -- that's -- 10:21

The patent covers everything that you're including in the "tank unit"? 10:21 10:21

A That's correct. 10:21

MR. THOMAS: As he's defined it. 10:21

MR. BRODY: As he's defined the "tank unit," right -- 10:21 10:21

THE WITNESS: Which is tank, the entire tank sitting on a stand with the plenum, with the weir, with all the different components in there -- 10:21 10:21 10:21

BY MR. BRODY: 10:21

Q Right. 10:21
A -- down to the heat exchanger and the pump for that dielectric fluid to go back up into the tank; so everything from the heat exchanger up through the tank is what we call the "tank units" -- 10:21
Q Okay. 10:21
A -- covered by the patent. 10:22
Q Okay. 10:22
MR. THOMAS: And this is laid out in the report, too, just so you know. I mean, it's not -- 10:22
MR. BRODY: Right. No. I understand. I'm just -- 10:22
The -- the use of the word "unit" kind of moves around a little bit; so I'm trying to understand it. 10:22
Q So if you go back to paragraph 11, maybe this is an easier way to do it. 10:22
You have 11? 10:22
A I'm there, yes. 10:22
Q Okay. I think it's the prior page, the bullet points right here -- 10:22
A Yeah. 10:23
Q -- that's 11. 10:23
A Yeah. Okay. I'm sorry. 10:23
Q No, no. You're fine. 10:23

A Yeah, I'm on 12, so -- 10:23
Q So you say "At a high level, the key 10:23
components of one unit include," and then there are 10:23
three bullet points? 10:23
A Correct. 10:23
Q The items listed in this first bullet point, 10:23
you're including those in the -- in the tank unit as 10:23
your -- as you've defined the term? 10:23
A Well, only -- only with respect to the first 10:23
two bullet points. 10:23
Q Yes. That's what I was going to say. 10:23
A Yeah. 10:23
Q The first bullet point and the second bullet 10:23
point, that's the "tank unit"? 10:23
A Yes. 10:23
Q And then the matters in the third bullet 10:23
point are part of the holistic -- the whole XCI 10:23
system; it's your opinion that they're convoyed -- 10:23
those items would be convoyed sales? 10:23
A That is correct. 10:23
Q And I'm being a little loose, we'll get to 10:23
that later. 10:23
A That's fine. 10:23
Q But the -- the -- 10:23
If I'm looking for a definition of "tank 10:23

unit" and what you're saying is covered by the patent, it's the items in these first two -- 10:23 10:24

A That is correct. 10:24

Q -- bullet points? 10:24

Okay. We've been going for about an hour and I'm about to -- 10:24 10:24

MR. THOMAS: Change subjects? 10:24

MR. BRODY: This has been the background so then we'll get into the -- the meat of the opinions and so I think this is pretty good time for a break. 10:24 10:24

MR. THOMAS: Yeah. How long do you -- 10:24

THE WITNESS: Can we do this pretty quick? 10:24

THE VIDEOGRAPHER: We're off the record at 10:24 10:24

10:24 14 a.m.

(Off the record.) 10:24

THE VIDEOGRAPHER: We are back on the record at 10:35

10:35 17 a.m.

10:35

BY MR. BRODY: 10:35

Q Okay. Let's go to paragraph -- welcome back, Mr. O'Bryan. 10:35 10:35

Let's go to paragraph 20 of your report. 10:35

A I'm there. 10:35

Q Okay. This is a summary of the opinions that you intend to offer in this matter? 10:35 10:35

A That is correct. 10:35

Q Okay. So you've got three opinions, right? 10:35
A That is correct. 10:36
Q Okay. Your first opinion relates to -- is an opinion about lost profits, right? 10:36
A That's correct. 10:36
Q Okay. And that includes kind of your first -- 10:36
Your first opinion includes convoyed sales? 10:36
A Correct. 10:36
Q Okay. The second opinion is an opinion about lost profits if convoyed sales are not an appropriate measure of damages? 10:36
A That's correct. 10:36
Q And that's -- 10:36
The damages in that second opinion are based solely on the lost profits associated with the tank unit that we discussed? 10:36
A Correct. 10:36
Q Okay. 10:36
A No convoyed sales. 10:36
Q Okay. "No convoyed sales." 10:36
And you used the term "tank" in this bullet point there, that's the same meaning as the "tank unit" that we discussed earlier today? 10:36
A Yeah. It's the -- it's the tank -- the 10:36

entire tank plus the heat exchanger plus the pump, the attached pump. 10:36 10:36

Q And you include the "control logic" here as well? 10:37 10:37

A Correct. 10:37

Q Okay. What's your understanding of the "control logic"? 10:37 10:37

A My understanding is that's the different components that make it all work together, the pump, the volume that they -- of the dielectric fluid that gets pumped up into the tank, how it gets pumped up and the rate at which it gets pumped up, it's apparently kind of the brains of the entire system as to how to make the entire process work. 10:37 10:37 10:37 10:37 10:37 10:37 10:37 10:37

Q Okay. And then third, and there's an alternative, you offer a reasonable royalty opinion? 10:37 10:37

A Correct. 10:37

Q Okay. Is it your opinion that lost profits are the actual appropriate measure of damages in this case? 10:37 10:37

A Well, as I said in the report, I do think that the -- the best measure of the damages here are the lost profits because I think they do comply with the -- you know, kind of the rules that we set for ourselves in calculating damages, i.e., a Panduit 10:37 10:37 10:37 10:37 10:37

test that we use, I do think it complies to the letter on that and therefore I think that's the -- the best measure, because, in fact, Midas, under this allegation of infringement, did, in fact, lose sales and lost profits. 10:37 10:37 10:37 10:38 10:38

As an alternative, if the Court or the trier of fact decides that that is not an appropriate measure, maybe because of one of the factors of Panduit are not appropriately addressed and -- throughout the testimony or however it might come out in trial, then a reasonable royalty would at least be the bare minimum that would be required to compensate Midas -- 10:38 10:38 10:38 10:38 10:38 10:38 10:38 10:38 10:38

Bless you. 10:38

THE REPORTER: Excuse me. 10:38

THE WITNESS: -- for their loss assuming there's infringement. 10:38 10:38

BY MR. BRODY: 10:38

Q Those are -- 10:38

Reasonable royalty and lost profits, those are, as you understand it, different measures of damages, right? 10:38 10:38 10:38

A Yeah. They're different calculations, yes. One looks at a calculation of the actual lost sales and what the profits on those sales might have been. 10:38 10:38 10:38

Q Okay. 10:38

A That's lost profits. 10:38

The other looks at a measure of -- of what type of a reasonable royalty would be paid by someone to Midas to license that technology, build the units themselves, and -- and pay them some type of a royalty on that technology; so there are certainly two different methods but they both measure a type of damage that would have been incurred by Midas. 10:38 10:38 10:38 10:38 10:39 10:39 10:39

Q The same type of damage? 10:39

A No. One is lost profits and one is a royalty. 10:39 10:39

Q Okay. You said "they both measure a type of damage," I'm trying to understand. 10:39 10:39

In paragraph 21 in the second sentence you say "Lost profits are 'intended to make the party whole'," and the sentence continues. 10:39 10:39 10:39

A Yes. 10:39

Q That's your understanding of the purpose of lost profits? 10:39 10:39

A Yes. 10:39

Q Do you have any understanding other than what's set out here? 10:39 10:39

A No. That's really what's in the literature and it's also what I've experienced from my 10:39 10:39

calculations of the lost profits in my patent cases that I've dealt with in the past. 10:39

Q Okay. I have meant to ask, in opinions 1 and 2, your lost profits opinions, you offer two sort of "scenarios," I think, is the term you use for -- 10:39 10:40 10:40 10:40

Scenario 1 is damages through the end of 2023? 10:40 10:40

A Correct. 10:40

Q And Scenario 2 is damages through 2026? 10:40

A Correct. 10:40

Q Okay. Trial is going to be in April, at least theoretically. 10:40 10:40

Does the fact that trial is in April have an effect on your -- your calculation of damages in Scenario 1? If trial is extended -- 10:40 10:40 10:40

If trial is continued, will the amount of damages that you calculate in your first scenario change? 10:41 10:41 10:41

A So each one of the opinions for Opinion 1 and Opinion 2, I have two scenarios. 10:41 10:41

Q Right. 10:41

A The first one cuts off at 12-31-23; so by definition if the trial were to move whenever, that would not change, it cuts off at 12-31-23 -- 10:41 10:41 10:41

Q Right. 10:41
A -- for both Scenario 1 and Scenario 2 for 10:41
Opinion 1 and Opinion 2. 10:41
Q Right. 10:41
A And, no, it would not affect -- 10:41
The only thing it might affect is if -- in 10:41
2024 if this gets extended, if there's additional 10:41
information that becomes available to us to talk 10:41
about what type of expansion, if at all, Rhodium has 10:41
had in their mining facilities in Texas, that would 10:41
certainly affect our opinion. 10:41
Q Okay. So if Rhodium expanded its -- its 10:41
facilities, it's your view that any infringement 10:41
would be -- could be included in the damages in -- in 10:42
this case? 10:42
A Well, yeah, because you have to go back to 10:42
the beginning. We're assuming infringement. And if 10:42
there was infringement, then there should be a 10:42
measure of damage. And under either one of those 10:42
scenarios, whether they add -- as you know, we're 10:42
only assuming they're adding 125 megawatts of 10:42
power -- of units between 2024 and 2026 -- 10:42
Q Right. 10:42
A -- which we got based on the documents that 10:42
they have submitted throughout. 10:42

Q Yeah. We'll talk about that. We'll get there. 10:42

A I'm just telling you the calculation. 10:42

Q Yeah. No, I understand that. I'm just -- 10:42

A So if somehow in 2024, this gets extended, let's say, to the end of 2024 and Rhodium doesn't do any expansion in 2024, we would adjust accordingly, potentially, depending on what the circumstances were of that non-expansion. 10:42

If they generate 200 additional megawatts, we would make that adjustment as well, if those are still infringing units. 10:42

Q Okay. The construction of those -- those new units would be part of the -- the infringement that is covered by this lawsuit, Midas wouldn't have to file a new one? 10:43

A I don't know. I'm not a legal expert, I don't know. 10:43

Q Okay. 10:43

A I mean, from a -- from an expansion and use of a unit that is -- I assume would be -- I assume would be infringing, I would make that same assumption, that that would affect the damages. Whether or not there is a separate lawsuit, I have no idea. 10:43

Q Right, I understand. 10:44
Are you familiar with the term the "but-for 10:44
market"? 10:44
A "But-for"? 10:44
Q Uh-huh. 10:44
A Yes. 10:44
Q Okay. What's your understanding of the 10:44
term? 10:44
A But for the alleged wrongdoing, here's what 10:44
that market might have done. 10:44
Q Okay. Okay. So here but for the alleged 10:44
infringement -- 10:44
A (No audible response.) 10:44
Q -- here's what the market might have been 10:44
for Midas's products? 10:44
A Correct. 10:44
Q To reach a conclusion on lost profits, is it 10:44
your understanding that you're required to construct 10:44
a but-for market? 10:44
A Yeah, because otherwise how would you 10:44
quantify it. 10:44
Q Yes. 10:44
And that's what you've tried to reconstruct 10:44
here? 10:44
A That's what we did reconstruct. 10:44

Q Right. What is the market, the but-for market that you're required to reconstruct? 10:44

A That's the easiest part of this case actually because we didn't make any assumptions about how Midas might have sold other products that could have been attached. 10:44

Let's take hypothetically that Rhodium, in fact, bought 200 megawatts of units from Midas and maybe because of that success, some other -- a bunch of other people decided to buy Midas Technology and they lost those potential sales. We don't take any of that into account. We are being completely conservative on this and we said all we're going to assume they bought was that which they put into place at their facilities in the two facilities in Texas. 10:44 10:45 10:45 10:45 10:45 10:45 10:45 10:45

Q Right. 10:45

A That's all they bought, just what they -- they put into their facilities there an alleged infringing product. 10:45 10:45

Q Okay. 10:45

A So the but-for world for us is quite simple, it's simply what they put in. We're not making any assumptions that Midas would have sold another 20 units or 50 units because, you know, Rhodium went and told the world how great these products were. 10:45 10:45 10:45 10:45

We didn't do any of that. We kept it quite conservative, quite simple. We just put in what Rhodium installed in their two Texas facilities. 10:45

Q Right. I understand that but I guess maybe I didn't -- didn't ask the right question. I want to back up. 10:45

So the first step in creating a but-for market is you've got to figure out what the market is, right? Is it the market for -- 10:46

It can't be the market for every piece of equipment related to Bitcoin mining for any purpose, right, that would be too broad; so what did you do for -- how did you -- 10:46

MR. THOMAS: I'm going to just object as asked and answered. 10:46

He just explained exactly what the but-for market was was the actual installations by Rhodium. 10:46

MR. BRODY: Right. 10:46

And I'm asking -- what I'm -- what I'm trying to ask him is how did you determine, what -- what was -- 10:46

Q How did you determine that the actual installations by Rhodium were the appropriate but-for market? 10:46

A Well, generally, let's talk generally, in a 10:46

lost profits calculation for a patent infringement, you would have to go out and understand that market. You would have to go out and figure out how many units could have been sold by Midas, what kind of capacity they had, all different things in Panduit that you need to consider. 10:46 10:46 10:46 10:46 10:47

But -- but here we didn't have to do that because we didn't go out and evaluate the market, we didn't make it that complicated. We simply took the units that Rhodium put in their two Texas facilities and called that "the market"; so the market is already proven. 10:47 10:47 10:47 10:47 10:47

They put in 200 megawatts, 80 different units, in the two Texas facilities, all the way through 2023. That's all we used. We didn't make any other assumptions about how much more they -- Midas would have sold and likely they could have. 10:47 10:47 10:47 10:47 10:47

I mean, if you think about it, if Rhodium is that successful in what they're doing and that information gets known to other miners, that they're having this great success, if I was a miner I'd go use Midas immersion coolers too; maybe I'd go buy from them. We didn't do any of that. 10:47 10:47 10:47 10:47 10:47

We simply said whatever Rhodium put in, which they actually put in, that's the but-for 10:47 10:47

market. It's super simple. 10:47

Q Okay. Okay. I think I understand. 10:48

So here it sounds like you just kind of -- 10:48

there was like a shortcut to -- the market is Rhodium 10:48

and Midas, right? 10:48

A It wasn't a shortcut at all. 10:48

Q Okay. But -- 10:48

A It was the most conservative approach we 10:48

could have possibly taken. 10:48

Q Okay. 10:48

A It's, like, if you're infringing with 10:48

that -- with that pen and you bought 10 of them and I 10:48

sell the pen, all I'm saying is I just would have 10:48

gotten those 10. It's not shortcutting it, it's 10:48

factual. 10:48

You bought 10. I'm simply saying you would 10:48

have had to buy those 10 from me because the patent 10:48

was infringed; so I'm not -- 10:48

I don't have to go out and do this giant 10:48

market study and make this complicated and make this 10:48

speculative, this completely eliminates 10:48

speculation -- 10:49

Q Okay. 10:49

A -- because you bought those 200 and that's 10:49

all we're assuming you would have had to buy from us. 10:49

"Us" being Midas. 10:49

Q Right. That's -- that's fair, "us," Midas. 10:49

A Right. I wasn't talking about the pens. 10:49

Q No, no, no. I gotcha. Well, if Midas is selling this pen, then we've got different problems. 10:49

But I guess what I'm trying to understand is sort of more theoretical. When you -- 10:49

Normally when you come to constructing a but-for market when you're trying to determine what the but-for market is, how do you go about determining what's in the but-for market and what's out of the but-for market to the contours of the market? What -- what's the theoretical approach that you'd take -- 10:49

A Well -- 10:49

Q -- the analytical approach? 10:49

MR. THOMAS: You -- 10:49

THE WITNESS: I want to answer this. 10:49

Sorry. 10:49

MR. THOMAS: I'm just going to -- 10:49

You're asking him not what he -- because he's already given you testimony what the but-for market is as it relates to this report and this particular case. You're asking beyond that, just -- 10:49

MR. BRODY: I'm just asking as a -- as an -- as 10:49

an analytical matter, right, you know, there's a way to construct a but-for market and then you apply it in this case, and he's told me how he's applied the way of constructing a but-for market in this case, he said it's Midas and Rhodium. 10:49 10:49 10:50 10:50 10:50

Q And what I'm wondering is just from a theoretical and analytical matter, what are the steps that you take to construct the but-for market? 10:50 10:50 10:50

A Outside of this case? 10:50

Q Yes. 10:50

Just as a general matter you're coming into a new patent infringement case, what are the steps that you take? 10:50 10:50 10:50

A Well, any damage case you really look at -- you look at the historical sales of the individual -- of the plaintiff possibly. You look at the overall size of the market. You look at -- at -- you can look at, you know, the demand by (sic) that product, you can look at the pricing of the product, you can look at a number of different things. But all of that was not necessary here because of the reasons we've stated. 10:50 10:50 10:50 10:50 10:50 10:50 10:50 10:50 10:50 10:50 10:50

Q Right. 10:50

A "But for" simply means but for the alleged wrongdoing, what would have happened. 10:50 10:50

Q Right. 10:51
A And all we're doing here is saying but for the alleged wrongdoing, Rhodium would have bought those 200 megawatts from Midas. 10:51
Q Right. 10:51
And you use -- 10:51
A That's it. 10:51
Q -- the four -- the Panduit factors to get you to that -- to get to that conclusion? 10:51
A No. We used the four Panduit factors to get to whether or not lost profits calculations is appropriate. Once we get past those four, then we go to a lost profits calculation; if we can't get through those four, then we would immediately go to a reasonable royalty calculation. 10:51
Q Right. 10:51
So just so I'm understanding you, first you've got to determine but for the infringement Rhodium would have bought from Midas, right? 10:51
Can you -- 10:51
A You're talking about -- 10:51
Q I think I'm confused because -- 10:51
A Are you talking about -- are you talking about how the calculation goes or how the Panduit factors go? 10:51

Q Well, I'm talking about the steps of your analysis, right? I said you used the Panduit factors to construct the -- the but-for market and you're telling me something that's a little bit different. 10:51 10:51 10:51 10:52

So I guess is there any analysis that you need to perform before you get to the application of the Panduit factors? 10:52 10:52 10:52

A You have to make an assumption that there's been an infringement. 10:52 10:52

Q Right. 10:52

And then you say -- you say in this but-for market, Midas -- you determined, it's your opinion that Midas would have purchased -- sorry, Rhodium would have purchased from Midas; that's the -- the second step in your analysis? 10:52 10:52 10:52 10:52

A No. At that point you need to go through the four Panduit. The first factor of Panduit, and this is coming right out of my report -- 10:52 10:52 10:52

Q Right. 10:52

A -- is related to demand. 10:52

Q Right. 10:52

A Okay. That's the first one, is there a demand for the product. Okay? The answer to that is yes, there's a demand, because Rhodium put in 200 megawatts in their Texas facilities; so there's 10:52 10:52 10:52 10:52 10:52

clearly a demand. That's the only demand we're looking at. 10:53

Q Right. 10:53

A We don't have to go look at X, Y and Z as demanding the Midas product, we're just taking Rhodium. 10:53

The second is relating to non-involved -- acceptable non-infringement substitutes. 10:53

Q Okay. 10:53

A That's the second factor. 10:53

Q Right. 10:53

A We have been told to assume that there are no acceptable non-infringing alternatives. 10:53

Q Right. 10:53

A That's the second factor. 10:53

The third factor is related to capacity; could, in fact, Midas have completed the 200 megawatt capacity that was being required in that but-for sale, could they have built 200 megawatts of units. 10:53

Q Correct. 10:53

A That's the third factor. 10:53

And the fourth factor is can you make an accurate lost profits calculation. 10:53

Q Right. 10:53

A Well, if you have the sales price and you 10:53

have the costs, you can do an accurate lost profits calculation; so the answer to that is yes. 10:53
10:53

That's the first step you do. That's exactly what we did here. That then gets you to I can calculate these damages using a lost profits calculation. And that's exactly what we did. 10:53
10:53
10:53
10:53
10:53

Then you go into the lost profits calculation, which is exactly what we explain in the report as to how then we go to the different bullet points which is in -- 10:53
10:54
10:54
10:54

Q Right. 10:54

You're doing the math of -- 10:54

A It's not math at all, actually. It's a -- it's a damage model, which is a lot more than math. And we go to the different steps that we take as it relates to it, which is quantifying it, sales price, costs, and then running it through the model looking at discount rates, interest rates, etcetera. 10:54
10:54
10:54
10:54
10:54
10:54

Q Okay. So -- 10:54

A That's the whole analysis. 10:54

Q That makes sense to me. 10:54

A Are we done? 10:54

Q Not quite. That makes sense to me. 10:54

What -- what I'm con- -- I'm just -- and maybe this is just me but I'm -- I'm asking the 10:54
10:54

questions so I'm going to ask it. 10:54

I'm confused, then, about -- you told me the 10:54
market has already proven that there are -- that -- 10:54
that Rhodium would buy for -- buy from -- from Midas 10:54
if it hadn't infringed Midas's patents. 10:55

MR. THOMAS: I'm going to object. You're 10:55
misstating his prior testimony. 10:55

I mean, if you're just -- if you're using 10:55
that as -- to propound a question, I have to object 10:55
to it. If you're just trying to summarize what you 10:55
think has been testified to for your own edification, 10:55
I'm okay with that. 10:55

MR. BRODY: I gotcha. 10:55

Q I'm just -- what I'm trying to do is 10:55
understand the -- you know what, I'm just going to 10:55
move on. I'll try and ask it again. 10:55

MR. THOMAS: Let me just -- and I'm not being 10:55
critical, Peter. 10:55

All of this is in the report; if you 10:55
carefully read the report all of these steps are laid 10:55
out in the report. 10:55

MR. BRODY: I understand that. 10:55

MR. THOMAS: I just -- I mean -- 10:55

MR. BRODY: I don't think it's as clear as you 10:55
necessarily think it is but that's fine. And so I'm 10:55

just going to -- I'm going to ask my questions and we'll keep going. 10:55 10:56

I appreciate it, Joe, I really do. 10:56

Q So we've got the four Panduit factors, right, and you described them to me? 10:56 10:56

I guess what I'd like to do is get your understanding of what the purpose of each of the -- the Panduit factors is, what role it plays in the analysis. 10:56 10:56 10:56

So you walk through the -- the three -- the first three Panduit factors in paragraphs 24 to 26 but you lay them out in paragraph 23. 10:56 10:56 10:56

And in paragraph 23 that first factor is "demand for the patented product," right? 10:56 10:56

A (No audible response.) 10:57

Q What's the purpose of establishing "demand for the patented product"? What does that tell you in your analysis? 10:57 10:57 10:57

A Because you have a -- we have a patent, we have a patent infringement case or a patent case and you hire a -- the damages expert like myself to calculate it, the first thing I'm going to ask is, well, is that patent -- is it even in demand. 10:57 10:57 10:57 10:57 10:57

You could have a patent for a widget that nobody wants to buy and nobody has bought and nobody 10:57 10:57

is going to buy; that's a huge issue. 10:57

Q Right. 10:57

A That's because, you know, you're not going to sell it; so you couldn't have had a lost profit because you weren't going to sell it. 10:57

Q Correct. 10:57

So if there's no demand for the patented product, infringement might lead to no damages or minimal damages? 10:57

A Well, you can't do lost profits, you could potentially go to reasonable royalty. And that only gets, you know, triggered if, in fact, there are sales of that product. 10:57

Q That's fair. That's a -- that's a helpful clarification. Thank you. 10:57

The second factor you list is the "absence of acceptable non-infringing substitute." 10:57

What's the purpose of analyzing that factor? 10:57

A Well, it's -- it's back to the demand. 10:57

You have may have a -- a high-demand product but you could go and buy that widget, you could go and buy it from anybody else because there's other widgets exactly like that that aren't infringing the patent; so you're not necessarily going to come to me, the plaintiff, you're going to potentially go to 10:58

me or five other people that have acceptable non-infringing patents. 10:58

So I can't -- I can't assume that all of the demand that you're going to provide is going to come necessarily from me, the plaintiff. 10:58

Q Right. 10:58

A I have to assume you're going to go to potentially other people because there are acceptable alternatives in the market that don't infringe. 10:58

Q Right. Okay. So we've got the first step, setting the demand. 10:58

The second step -- 10:58

A Well, is there demand. 10:58

Q "Is there a demand," I'm sorry. 10:58

And the second step is, is there a demand for what I'm selling? 10:58

A No. No. We've established there's demand. Now we know there's six people you can buy from that don't infringe -- 10:58

Q Right. 10:58

A -- so now you have to divide that demand up between six people potentially. 10:58

Q Right. 10:59

Then the third factor is the "manufacturing and marketing capacity to exploit the demand," what's 10:59

the purpose of this factor? 10:59

A Well, if you get through 1 and 2 and you say that -- 10:59

Really, if you get to 2 and you do have acceptable non-infringing patents, you're going to go to reasonable royalty; so you're out of the lost profits calculation immediately. 10:59

Q Right. 10:59

A So now you're saying, okay, there is demand, there are no acceptable non-infringing alternatives, but you're going to make me 10,000 widgets but you don't have the capacity to make me 10,000 widgets. 10:59

Q Right. 10:59

A You don't have the capital, you don't have the manpower, you don't have the person power, you don't have the manufacturing facilities, you just don't -- you can't do it; so, therefore, I couldn't have sold you 10,000 widgets, I could have maybe only sold you 5,000 widgets. 10:59

Q Right. 10:59

And that might place perhaps a cap on the amount of damages that would be recoverable as lost profit, just as a theoretical matter? 10:59

A Correct. 10:59

Q And then the fourth factor is "the amount of 10:59

profit that would have been"; so the purchases factor is --

A Well, yeah. Can --

That means then can you make that widget, whatever the number of widgets within demand of the lost widgets were, and can you calculate a profit, a lost profit on that? Do you know what the sales price was? Can you allocate that sales price? You know, was there a stable sales price? But then it's not just sales price, it's costs because you have to take costs. Do you --

Your system has enabled you to allocate the costs for that widget and to that widget to then basically take sales price less the cost and come up within a lost profit; so you do have the capabilities of actually calculating a lost profit. Just because you know you lost it but you have no idea what you're going to sell it for and no idea what it costs, you can't calculate a lost profit.

Q Correct.

And you walk through these factors, the first three and then the fourth, in great detail in your report, which we'll talk about shortly.

A I look forward to it.

Q But first I want to ask, are you familiar

with the two-supplier market test? 11:00

A Yes. 11:00

Q Okay. What's your understanding of the term? 11:00

A That there are just that, there are two suppliers; there's the -- the -- the -- the patent holder and then the infringer. 11:00 11:01 11:01

Q Okay. And the two-supplier market test is a way of establishing the -- 11:01 11:01

A Well, it's really establishing that there's no acceptable alternative -- non-infringing alternatives. It's you and it's the -- it's the -- it's the infringer selling the product. 11:01 11:01 11:01 11:01 11:01

Q Okay. Do you apply the two-supplier market test in your report? 11:01 11:01

A We do. It's not necessarily all that relevant here because, you know, Rhodium is not selling immersion cooling systems, Rhodium is using them. 11:01 11:01 11:01 11:01 11:01

So, yes, they are competitors in the sense that they're both using and selling those to be used, but there is a two -- if there's no acceptable non-infringing alternatives, it's just Rhodium and it's just Midas, that's a two-supplier market. 11:01 11:01 11:01 11:01 11:01

Q Right. 11:01

Can you show me where in your report you apply the two-supplier market test? Can you point me to -- to where you do it? 11:01

A I don't know that we specifically say that but we simply say that there's no acceptable non-infringing alternates which, by definition, then means that it's a two-supplier market. 11:01 11:02

Q Okay. Let's start with the -- let's go to paragraph 24 -- 11:02

A I'm there. 11:03

Q -- which I think is on the page that you were already on. 11:03

You analyze the first Panduit factor in paragraph 24? 11:03

A That's correct. 11:03

Q This is the only place in your report where you analyze the first Panduit factor, right? 11:03

A I believe so. I don't -- 11:03

I think we talk about it under the -- in the second option -- opinion, but just about the tank. 11:03

Q Right. Right. I guess -- 11:03

How about this: We'll -- let's -- let's focus now -- I'm going to say this. 11:03

I want to focus on Opinion 1, your analysis for Opinion 1, the convoyed sales opinion, we'll go 11:03

through that and then we can talk about the analysis for Opinion 2. I think in a lot of places in Opinion 2 you incorporate by reference your analysis in Opinion 1 but we can get there when we get there. 11:03

A Well, you just said the only place in my report I say that is -- 11:03

Q Yeah. Right. 11:03

So I just want to strike that question and just say in Opinion 1, paragraph 24 is the only place where you analyze the -- the first Panduit factor, right? 11:03 11:04

A Yeah. I mean -- I mean, it gets -- it gets put into practice, it gets put into a calculation throughout the exhibits. But, yes, that's the only place we have a narrative about it. 11:04

Q Right. 11:04

And the first -- we talked about this a little bit but the first factor is whether there's demand for the patented product. 11:04

What steps do you take to analyze whether there's demand for the patented product? 11:04

A I think I've mentioned that. But all we did here was simply say that we know Rhodium -- we assume Rhodium has infringed the patent. 11:04

Q Right. 11:04

A And we know that Rhodium installed 200 megawatts of immersion coolers into their Texas -- two Texas facilities. And we simply took that assumption -- we simply took that number. 11:04 11:04 11:04 11:05

We didn't try and expand the market, we didn't try and figure out if there were additional sales, we simply took that number. 11:05 11:05 11:05

Q Okay. Rhodium built 200 so the demand must be 200? 11:05 11:05

A For -- that's all the calculation. The demand could have been much greater than that. 11:05 11:05

I'm simply saying is there demand for the 200 units that we're alleging were sold under an infringement and the answer is yes because Rhodium put them in in their two Texas facilities. 11:05 11:05 11:05

Q Okay. When you're analyzing demand for the patented product are you looking at any particular point in time? 11:05 11:05 11:05

A Well, in this case we looked at the beginning of the infringement up and to 12-31-23 in Opinion 1. And then in Opinion 2 we -- well, the first scenario of Opinion 1. And then the second scenario of Opinion 1 we looked at the demand out through 12-31-26. 11:05 11:05 11:05 11:05 11:05

Q Right. 11:06

So it's your opinion that it's -- for the purposes of this first Panduit factor you don't have to look at whether there's demand at the beginning of infringement, it's appropriate to look at demand through the entire damages period? 11:06

A Well, we -- I mean, in a -- in a hypothetical world, yes, you would. But, again, here we simply used when Rhodium put those units into place, that's when we put the lost sales; so if in 2020 -- for example, they had 50 megawatts being used in 2020, then that's when we assume that demand occurred to purchase the Midas products. 11:06

Q Right. 11:06

But this is not -- this is not -- in the reasonable royalty context, I'm skipping ahead, look at a hypothetical -- the hypothetical negotiation date, right? There's one date, that's when the hypothetical negotiation would occur. 11:06

In this context you're saying it's appropriate to look at demand over time; it's not just demand on the first day of -- of infringement, it's demand throughout the damage period? 11:07

A But -- but reasonable royalty does the same thing; it looks at demand through the entire damage period. 11:07

Q Okay. So I think you just told me -- you say that demand for the patented product is established by Rhodium's infringement -- construction of infringing systems. Is that -- 11:07

Did I understand you correctly? 11:07

A I've testified about three times. If that's your summary, that's fine. I think that's correct. 11:07

Q Okay. Do you say, in this paragraph 24, that it's Rhodium's -- Rhodium's construction of infringing systems is what establishes demand for the patented products? 11:07

A Do I say it in -- 11:08

Q Yes, in your report. 11:08

A I say it in my report, absolutely; it's throughout my report. That's the -- that's the basis of the damage analysis. 11:08

Is it in exactly in 24 where we're talking about the Panduit factor? 11:08

Yeah, it says it right here. I mean, it's the -- the second-to-last sentence. "But for Defendants' alleged infringement of Patent's (sic) patented immersion cooling system, Defendants would have purchased those systems from Plaintiff as Plaintiff was one of the few immersion systems providers in the marketplace at the time Defendants 11:08

began designing and building the infringing system." 11:08
It says it right there. 11:08
Q Okay. And -- 11:08
All right. In the first sentence you say 11:08
that "Plaintiff has a history of sales of the 11:09
patented products to other parties, indicating demand 11:09
from the market," right? 11:09
A Yes. 11:09
Q Okay. The "history of sales" you're relying 11:09
on -- 11:09
What sales are you relying on for that -- 11:09
A Well -- 11:09
Q -- for the "history of sales"? 11:09
A Well -- well, we -- there's -- further in 11:09
the report -- back further in the report it actually 11:09
mentions some of the systems that were sold. 11:09
I'd have to look at that exact footnote. I 11:09
don't know exactly where it is. But it talks 11:09
about -- it's paragraph -- it's footnote 81, 11:09
"two...smaller sales occurred at Plaintiff" to 11:09
Edge Data and to Galaxy Qualified Opportunity Zone 11:09
Business; so that's the other. Plus, we know they 11:09
sold it to Riot. 11:09
Q Right. 11:09
So the four sales? 11:09

A There's two Riot sales and there was a few other sales that we mention in footnote 81. 11:09

Q I think -- 11:09

Yeah. In footnote 81 you mention two other sales, there's the Opportunity Zone Sale and then there's one more, right? 11:09 11:10 11:10

A Yeah, I just read it. 11:10

Q Yeah; so that's four. 11:10

And it's your opinion that these four sales establish that there's demand in the market for Midas's patented products? 11:10 11:10 11:10

A Well, yeah. It does show that there's a demand for the products. But the biggest demonstration in demand for the product is Rhodium put in 200 megawatts of immersion cooling systems that infringed, allegedly, on Midas's technology; so that's -- that's the demand that we -- 11:10 11:10 11:10 11:10 11:10 11:10 11:10

That's all demand we need to look at in this case. We don't need to go and say that they've sold 10,000 of these and therefore they can sell 80. We're simply taking Rhodium's use of these systems, this -- those infringed use (sic) and assuming they would have purchased from Midas. 11:10 11:10 11:10 11:10 11:10 11:10 11:10

Q Okay. I guess I'm just confused because in the -- in the sentence that you read earlier, "But 11:10 11:10

for Defendants' alleged infringement," when you say Rhodium would have bought from Midas, you don't actually say that -- that that establishes demand, you just say that but for the -- the infringement they would have bought from Midas, but -- 11:11

A I mean, of course that's -- of course that talks about demand. That's exactly what demand is. That's exactly what demand is. 11:11

If -- if other people are buying it, number one, the four we talked about; and then Rhodium is actually putting it in their miners' mining facilities, that's of course demand. 11:11

Q Okay. 11:11

A They've used it, it's in place, they're generating hundreds of millions of dollars in revenues with it. That's demand. There's no better definition of demand. 11:11

Q Okay. Then if Rhodium is all that's necessary, why did you include these other -- the Riot sales in your report? 11:11

A "The Riot sales"? 11:11

Q Yes. 11:11

A Because that demonstrates all of the different things we need to demonstrate here with respect to costs, sales prices, ability to -- ability 11:11

to -- they had the capacity to build these things. 11:11

That generates, really, all of that which 11:11

you need to do a lost profits calculation because we 11:11

know exactly what they sold them for in that exact 11:12

period of time, 2021 and 2023. 11:12

Q Okay. 11:12

A It's a perfect correlation, it's a perfect 11:12

example of exactly what it would have cost us and 11:12

charged to Rhodium for those 200 megawatts. 11:12

Q So you say "But for Defendants' alleged 11:12

infringement of Plaintiff's patented immersion 11:12

cooling systems, Defendants would have purchased 11:12

those systems from Plaintiff as Plaintiff was one of 11:12

the few immersion system providers in the marketplace 11:12

at the time"? 11:12

A Correct. 11:12

Q "One of the few," I want to focus on that. 11:12

A Yep. 11:12

Q Who are the others? 11:12

A There was a list that was done by 11:12

Dr. Pokharna that -- that really looked at -- 11:13

There's eight different companies that were 11:13

alleged to have been in this immersion cooling 11:13

marketplace which he looked at individually and some 11:13

of them were nowhere near the size that was required 11:13

by Rhodium. Some of them, I know, were not -- you know, one -- a couple -- they weren't in business. There was all kinds -- 11:13

He analyzed, like, eight of them. 11:13

Q Right. 11:13

A So there were other immersion cooling providers out there but none of which, in my understanding and looking at Dr. Pokharna's report as well as talking to Dr. Pokharna about it, none of them were an acceptable non-infringing alternative because of either capacity or technology or even being in business at the time or even being in business now. There were a number of different analyses he performed in his report which I'm sure you've seen. 11:13

Q Right. 11:13

So it's -- 11:13

Are you saying that Rhodium would have purchased from Midas because there were no other non-infringing substitutes? 11:14

A Correct. 11:14

Q So -- 11:14

A Acceptable non-infringing substitutes. 11:14

Q No acceptable non-infringing -- 11:14

A Someone can be out there making a little 11:14

tank for their backyard practice, someone can be making a couple of thanks but there apparently was no one out there making, you know, 200 megawatts of -- of cooling capacity that Rhodium would have possibly purchased from. 11:14

Q Okay. 11:14

A Or could have possibly purchased from. 11:14

Q Could have purchased from. 11:14

And you're saying that Rhodium could not have possibly purchased from one of these other suppliers? 11:14

A That's correct. 11:14

Q Because -- 11:14

A They weren't acceptable. 11:14

Q -- they weren't acceptable? 11:14

So if they were, if -- if they were an acceptable, just hypothetically, an acceptable non-infringing substitute, Rhodium could have purchased from one of those suppliers and not Midas, right? 11:14

A That's correct. 11:14

Q Okay. So if that's true -- 11:14

MR. THOMAS: Assuming they weren't infringing. 11:15

MR. BRODY: Right. Sorry. 11:15

I thought I said if they were an acceptable 11:15

non-infringing substitute. 11:15

Q If there was an acceptable non-infringing substitute out there, Rhodium could have gone with that option as an alternative to Midas, right? 11:15

A In your hypothetical? 11:15

Q Yes. 11:15

A That's correct. 11:15

Q Okay. And if my hypothetical is accurate, if there -- if there is an acceptable non-infringing substitute, then we can't -- could you still -- would you still say that Rhodium would have purchased -- would it still be your opinion that Rhodium necessarily would have purchased from Midas? 11:15

A Well, no, because you can't say that completely because you have to figure out then how much of that they might have purchased from Rhodium; so -- 11:15

Q From Midas. 11:15

A -- at that point -- 11:15

From Midas, excuse me. 11:15

Q Yes. 11:15

A From -- 11:15

At that point you move out of a lost profits calculation and you move into a reasonable royalty calculation. 11:15

Q Right. 11:16

Did you consider in determining -- in 11:16

reaching the conclusion that "But for Defendants' 11:16

alleged infringement of Plaintiff's patented 11:16

immersion systems, Defendants would have purchased 11:16

these systems from Plaintiff," did you consider the 11:16

possibility that Rhodium could have constructed 11:16

different non-infringing systems? 11:17

A You mean a design-around? 11:17

Q Yes. 11:17

A I did consider that. 11:17

Q You did? 11:17

Where is that analysis in your report? 11:17

A It would be part of probably one of the 11:17

reasonable royalty calculations factors. 11:17

Q Okay. But it's not in your analysis of the 11:17

Panduit factors, is it? 11:17

A Well, it wouldn't be there. It's just a 11:17

matter of is there a demand; was there an acceptable 11:17

non-infringing substitute; is there, in fact, the 11:17

capacity -- 11:17

Q Right. 11:17

A -- and therefore is there a calculation of 11:17

lost profits. So a design-around is certainly 11:17

something that we did consider but typically you 11:17

consider that more on the reasonable royalty side. 11:17
Q Right. 11:17
But -- 11:17
A Typically. 11:17
Q Right. 11:17
I guess what I'm trying to understand is 11:17
this: You say in this sentence that we've been 11:17
focused on "But for...infringement...Defendant would 11:17
have purchased from Plaintiff." 11:17
A Correct. 11:18
Q All right. And I'm asking you whether you 11:18
consider the possibility that instead of infringing, 11:18
but for infringement, Rhodium might have, instead of 11:18
purchasing from Midas, constructed its own 11:18
non-infringing systems? 11:18
MR. THOMAS: I'm going to just object to the 11:18
form of the question. There's no foundation that 11:18
Rhodium ever considered a design-around. 11:18
THE WITNESS: Yeah. 11:18
No. We absolutely considered that and the 11:18
fact they didn't design around it. 11:18
BY MR. BRODY: 11:18
Q Right. 11:18
And I'm asking you, you con- -- 11:18
You say you considered that in the context 11:18

of the reasonable royalty analysis, right? 11:18

A That's a piece of that, yes. 11:18

Q Okay. Did you consider that in the context 11:18
of the Panduit analysis? 11:18

A Certainly. 11:18

Q Where in your report is that consideration? 11:18

A It's just part of the consideration. I 11:18
don't know that it was written down in the exact 11:18
report, I'd have to look through each line by line. 11:18
I don't recall -- 11:18

Q Well -- 11:18

A -- because it never happened. 11:18

Q I'd like you to -- 11:18

A It didn't happen because they were -- they 11:18
were put on notice back in -- in January of '22 -- in 11:18
'20, excuse me, under Immersion Systems, and then 11:18
they used the same apparent technology, at least 11:18
that's what I've assumed, and they've continued to do 11:19
it ever since then even though they've been put on 11:19
notice and sued, so -- 11:19

And there's -- plus there's testimony from 11:19
Mr. Blackmon that they did not design around it -- 11:19

Q I thought you said -- 11:19

A -- or consider designing around it. 11:19

Q How do you know that there's testimony from 11:19

Mr. Blackmon? 11:19

You haven't read Mr. Blackmon's deposition. 11:19

A I read a piece of his testimony. I 11:19

didn't -- 11:19

You asked me if I read his deposition; I 11:19

didn't read his whole deposition. I read a piece of 11:19

it that talked about design-around. 11:19

Q Well, the piece of that is not set out in 11:19

the -- your appendix of materials considered, is it? 11:19

A If it isn't I don't know why not. But we 11:19

saw a page or two of Mr. Blackmon's deposition that 11:19

said specifically that they did not try and 11:19

design-around. 11:19

Q Okay. But I'm just asking you, in this -- 11:19

in this paragraph, can you point me to a sentence in 11:19

this paragraph where you consider and address the 11:19

possibility that Rhodium would not have done a de- -- 11:19

designed around Midas's? -- 11:19

A You mean written on the page? 11:19

Q Yes. 11:19

A No. 11:19

Q Okay. But -- 11:19

And your -- your entire opinions about it 11:19

are in this report, right? 11:19

A I didn't say that. I said the entire 11:19

report, number one. I said also my experience over 40 years of calculating damages including those damages in patent infringement. I talked about my CV. 11:20

Q Okay. So it is -- it is your opinion that but for defendants' alleged infringement, defendants would have purchased systems from plaintiff because of the non-infringing -- there's no adequate non-infringing substitutes and it is your opinion that Rhodium would not have constructed its own non-infringing -- 11:20

A Well, I mean, that's not really something that needs to be written down, it's what happened. They -- they -- 11:20

The system that's there that they decided to build is allegedly infringing, which I have assumed is correct in my report; so they've chosen not to design-around, obviously. 11:20

Q Right. 11:20

But if we're constructing a hypothetical but-for world, isn't it -- 11:20

A But we're not. The but -- the hypothetical but-for world in here is what the demand was in the lost profits piece. 11:20

Q But isn't it important to consider whether 11:21

Rhodium -- that -- that Rhodium might have designed around -- 11:21

A We do consider that in the reasonable royalty piece. 11:21

Q Okay. But not in the lost profits piece? 11:21

A Well, it's -- it's -- it's -- it's really not a component of it because they didn't do it. 11:21

You asked if it's in that paragraph. No, I wouldn't have put it in that paragraph because it never happened -- 11:21

Q Okay. 11:21

A -- so it wouldn't be something you'd consider because they didn't do it. 11:21

Part of the reasonable royalty is if it is easily designed around, then that potentially influences whether or not that's a plus or minus to your range of reasonable royalties. 11:21

Q Correct. 11:21

And -- 11:21

A That's different. 11:21

Q Right. 11:21

A That's in the report. But with respect to lost profits, it has nothing to do with it. 11:21

Q Okay. In the last sentence of the paragraph you say that "research indicates the global immersion 11:21

market is expected to grow at 22.6 percent compound annual growth rate" over the next six, seven years, "due to increasing demand for cost and energy efficient cooling solutions," right? 11:21 11:21 11:22 11:22

A Correct. 11:22

Q Why is it that growth in the overall immersion cooling market establishes increasing demand for -- or demand for Midas's immersion -- Bitcoin immersion cooling systems? 11:22 11:22 11:22 11:22

A Well, if -- if Midas has an immersion cooling system at the level that we're talking about, where we're talking about multiple amounts of megawatts being used -- 11:22 11:22 11:22 11:22

Q Right. 11:22

A -- and that market is going to continue to grow potentially, then that's important for us to know with respect to the lost sales from '24 to '26. 11:22 11:22 11:22

And, obviously, if the market is going to grow and Midas is providing one of these that are apparently one of the only ones out there that's an alternative acceptable immersion system at this level and at this capacity, obviously then their sales would increase. 11:22 11:23 11:23 11:23 11:23

Q So backing up to the -- the first sentence of the paragraph -- 11:23 11:23

A Paragraph what are we at again? 11:23
Q 24. 11:23
A 24, yep. 11:23
Q We're still on 24. It's almost 11:30. 11:23
"Plaintiff has a history of sales of 11:24
patented products," and then in the second sentence 11:24
you say "These sales include two 200 megawatt cooling 11:24
capacity orders from a competitor of Rhodium," right? 11:24
And you're referring to the sales to 11:24
Riot/Whinstone there, right? 11:24
A Yeah. That's what it says in the footnote. 11:24
Q Yes. 11:24
And it's your understanding that the 11:24
products that Midas sold to -- 11:24
If I refer to it as "Riot," will you 11:24
understand what I'm talking about? 11:24
A I do, yes. 11:24
Q Yes. I know the corporate change throughout 11:24
the period. 11:24
But it's your understanding that the 11:24
products that Midas sold to Riot practice the '457 11:24
patent, right? 11:24
A The -- the sales that Midas made to Riot? 11:24
Q Right. 11:24
A That's my understanding. 11:24

Q Okay. And what's that understanding based on? 11:24

A Based on conversations with counsel. 11:24

Q "Conversations with counsel"? 11:24

A Yes. 11:24

Q Okay. When did those conversations occur? 11:24

A I think that conversation occurred back in December 2023. 11:25

Q Okay. And were you told to assume that the -- the products practiced the patent or did they -- were you -- was it explained to you why these products practiced the patent? 11:25

A Well, I think Dr. Lee, I believe, actually has a report about that; so I was told that Dr. Lee had an opinion that there were, in fact, patents in suit and patents -- the patent validity. 11:25

Q Well, what were you told about -- I'm sorry, I'm a little confused about what you were told about Dr. Lee's opinion. 11:25

Could you just explain to me what you're -- 11:25

A That the -- that the products that Midas is actually producing use the patents. 11:25

Q Okay. Elsewhere in your report you talk about Midas constructing custom systems, right? 11:25

A Yes. 11:25

Q Okay. So that means every system that Midas makes is different? 11:25

A Yes. 11:25

Q Does that mean that every -- 11:25

Would every system that Midas sells need to be analyzed separately to determine whether it's practicing the patent? 11:26

A No. 11:26

Well, first of all, I'm not a patent expert with respect to design. But my understanding with respect to that is that the customization has to do with the length, the size, the megawatts, etcetera, not necessarily with the absolute components which all have a plenum, a weir and a heat exchanger; so to the extent that those all -- those are part to the patent, they're in every one. Whether it's an 8-foot tank or a 12-foot tank or a 14-foot tank, that's the customization we're talking about. 11:26

Q Sure. 11:26

A And the size of the megawatts required. 11:26

Q Right. And that makes sense. 11:26

So it's -- but it's -- 11:26

It's your understanding that these products embody -- the products that are -- sorry, the systems that were sold to Riot embody Midas's patents is 11:26

based on conversations with counsel and in the conversations with counsel you were told that Dr. Lee was going to -- was going to put that in his report; am I summarizing that correctly? 11:26 11:27 11:27 11:27

A I don't remember what -- where it was with respect to his report date. But my understanding was that it was his opinion that those patents were being used in their systems and they were valid. 11:27 11:27 11:27 11:27

Q Okay. Let's say, hypothetically, that Dr. Lee is wrong and that Midas's patents are not being used in those systems that Midas sold to Riot, would that affect your conclusion about demand for the patented products? 11:27 11:27 11:27 11:27 11:27

MR. THOMAS: I'm going to object as an improper hypothetical. There's no foundation at all for that hypothetical question. 11:27 11:27 11:27

Subject to the objection, you may answer. 11:27

THE WITNESS: Well, again, in the very first part of my report I say I've assumed infringement; so if there was infringement on a patent, then that's the assumption I've made. 11:27 11:27 11:27 11:28

If -- if there's some technical discussion that the patents weren't valid or the patents weren't used in the tank, that's not my assumption. My assumption is that there was a -- there was a tank, 11:28 11:28 11:28 11:28

the technology was infringed upon, the patent was infringed upon and, therefore, I've calculated damages. 11:28

I'm not a patent engineer expert, I'm -- I'm a damages expert. And so I -- that's not -- that -- 11:28

I don't know. I have no idea with respect to -- 11:28

If it somehow is determined that the patents weren't used in there, I don't know. That's not my expertise. 11:28

BY MR. BRODY: 11:28

Q Okay. Well, that's -- that's -- I think that's not quite the question that I asked; so maybe I asked it in manner that wasn't clear. 11:28

My question is this: You say that the sales, the 200 megawatt cooling capacity orders, you cite those orders as support for the fact that there is demand for the patented products, correct? 11:28

A That is correct. 11:28

Q And I'm asking you if the products sold in these 200 megawatt orders did not incorporate Midas's patented -- patented technology, those sales would not establish demand for the patented product; isn't that right? 11:28

A Well, no, that's not true because we know 11:29

the demand for the patented product is being done by Rhodium. They have 200 megawatts of -- of systems in their facilities and that's the demand we're talking about. 11:29

This is just additional demand and additional components, additional sales that help us understand all of the different quantifications and calculations with respect to lost profits. But, I mean, the demand, as I've said now several times, is not driven by Rhodium -- by Riot, it's driven by Rhodium and their use of the 200 megawatts of infringing product. 11:29

MR. BRODY: Okay. I don't have anything else on this one; I can change topics, we can take a break or we can keep going. 11:29 11:30

MR. THOMAS: Well, it's up to you. I mean, what time is it now? 11:30 11:30 . Why don't we just go for a little while longer and then we'll take our lunch break. 11:30

MR. BRODY: Sure. That works for me. 11:30

Q All right. Let's go to paragraph 25. 11:31

This is your analysis of the second Panduit factor? 11:31

A Yes. 11:31

Q Okay. And in the second Panduit factor 11:31

you're trying to determine whether there are acceptable non-infringing substitutes; is that right? 11:31

A Well, I wouldn't say "determine." We really assumed that there were none based on our conversations with Dr. Pokharna. 11:31

Q Okay. Did you do anything to -- to test that assumption? 11:32

A No. I mean, we -- I saw the different analyses that he performed. There was a document that we referred to with respect to the market demand that talked about other suppliers that we compared back to Dr. Pokharna's analysis; so it seemed complete to us. 11:32

But, no, I'm not -- I'm not an expert on the technology; so I wouldn't have an opinion about that other than what's informed to me by Dr. Pokharna, etcetera. 11:32

Q "Etcetera"? 11:32

A The document I just referred to, which was the global demand for immersion cooling systems and that being considered by Dr. Pokharna. 11:32

Q Okay. And in connection with your first opinion, your entire analysis of the second Panduit factor is set out in this paragraph 25, right? 11:33

A I believe that's true. 11:33

Q Okay. And it's your opinion that -- that there aren't any acceptable non-infringing substitutes? 11:33
A That is correct. 11:33
Q And that there weren't any acceptable non-infringing substitutes at the time Rhodium began infringing Midas's patent? 11:33
A And throughout the period 12-31-23. That's correct. 11:33
Q And all -- 11:33
Do you assume that there will not be a non-infringing substitute when you calculate damages out to 2026? 11:33
A Yes. 11:33
Q Okay. What's that assumption based on? 11:33
A Well, Midas has a patent. Rhodium is using, allegedly, that patent in their systems. We're only assuming they're going to grow by 125 megawatts over a two-year period of time; why wouldn't they continue using the same technology that they're comfortable with and is generating so many hundreds of millions of dollars for them. 11:33 11:34 11:34 11:34 11:34
Q Okay. You haven't analyzed whether somebody might be developing -- 11:34 11:34
A No. 11:34

Q -- another non-infringing -- 11:34
A Correct. 11:34
Q -- alternative cooling method or something? 11:34
A That's correct. 11:34
MR. THOMAS: I'm going to object. No foundation 11:34
for that. 11:34
Go ahead. 11:34
THE WITNESS: Yeah. 11:34
No, I don't know that. 11:34
BY MR. BRODY: 11:34
Q Okay. What's your understanding -- so we've 11:34
used this term "acceptable non-infringing 11:34
substitutes." 11:34
I guess I should ask you, what's your 11:34
understanding of what that -- that term means? 11:34
A Exactly what it says. 11:34
Q What does "acceptable" mean? 11:34
A It's acceptable to the infringer. 11:34
Q "Acceptable to the infringer"? 11:34
A Or to the marketplace. 11:34
Q "Or to the marketplace." 11:34
Well, is there a difference between 11:35
"acceptable to the infringer" and "acceptable to the 11:35
marketplace"? 11:35
A Well, the first one would be really the 11:35

infringer because that's the one we're assuming would have purchased from Midas. 11:35

Q Okay. So -- 11:35

And what does it mean for something to be "acceptable"? Does it have to be exactly as good as the infringed product? 11:35

A No, but in this case it's kind of a moot point because there's nothing out there apparently that gets anywhere near what Midas is doing with respect to the capacity, the size, the scale and the ability to generate that much in the way of megawatt cooling; so that's the product that Rhodium has put into their mining facilities, that is apparently allegedly infringing. 11:35

That product is available to Midas and that's where they would have purchased it from because apparently there's nothing else out there that uses that technology that doesn't infringe. 11:36

Q Right. I -- I appreciate that it's -- that there's nothing else out there that uses the -- that it's your view that there's nothing else out there that uses the immersion cooling technology that doesn't infringe. 11:36

My question is I think more basic, which is the theme of today, but it is what does it mean for a 11:36

non-infringing substitute to be "acceptable"? When does something become "acceptable"? 11:36

A Well, that's up to the -- to the purchaser of the product. I mean, that's -- that's -- that's their decision, really. 11:36

But to the extent that there is -- they're using a product, we know they're using that product, that's the product they've decided to manufacture themselves and allegedly infringe on, that's what's acceptable to them, that's what they're using. 11:36

We assume that that is infringement and where could they go and buy a product like that in the marketplace. And the answer is nowhere; so that means they have to come to Midas to buy it, or they don't get into the business they want to get into with that technology, i.e., the immersion cooling system. 11:37

Q Right. 11:37

But there are other ways of -- of cooling a Bitcoin mine, right? 11:37

A Well, there's air cooling. 11:37

Q Right. 11:37

And air cooling is not infringing, I think we can all agree? 11:37

A Correct. 11:37

Q So when you were determining whether -- 11:37
It's a substitute cooling method, right? 11:37
A Are you suggesting it's effective in Texas? 11:37
Q We'll get to that but what I'm saying -- 11:37
A No, I'm just asking you are you? 11:37
Q What I'm asking you is this: How -- 11:37
If you were going to go about determining 11:37
whether air cooling was acceptable or not, how would 11:37
you make that determination? 11:37
A I would, number one, ask the client, ask 11:37
Midas. 11:38
Number two, I think Dr. Pokharna talked 11:38
about that. 11:38
And then lastly I would look at the actual 11:38
actions of the alleged infringer, which was Rhodium, 11:38
who put in a 25-megawatt air cooled system, now has 11:38
200, none of those are air cooled; the remaining 11:38
175 megawatts are all immersion cooling. 11:38
My understanding is you cannot use air 11:38
cooling in Texas, it's too hot. 11:38
Q Okay. We'll talk more about air cooling in 11:38
a second but what I'm -- 11:38
A You just asked me about air cooling. 11:38
Q I know. And we will keep talking about it 11:38
in a second but what I want -- 11:38

MR. THOMAS: You've got to let him answer the question. If you ask, he gets to answer. That's the rule. 11:38

MR. BRODY: I know he gets to answer. 11:38

MR. THOMAS: That's the rule. 11:38

No interrupting, just let him finish and then you start a new question. 11:38

BY MR. BRODY: 11:38

Q What I'm looking for, which I don't think I've gotten an answer to yet, is what does it mean for something to be -- 11:38

You take all these facts in, right? You've told me what you would look at to determine whether something was acceptable, right? 11:38

Now, how would you decide whether, based on those -- the factors that you've considered, whether something is "acceptable"? 11:39

I'm just looking for a definition of "acceptable" and I don't think I've gotten it yet. 11:39

A Well, you're talking hypothetically which I don't have to do a hypothetical because I'm going to the real reality and that is that -- that Rhodium is using -- the product Rhodium is using and has put to 200 -- or 175 megawatts, 200 megawatts, excuse me, of product into, is infringing on Midas. And, 11:39

therefore, if they're going to replace that, they want that product. And there is nothing out there that -- that does that; so I didn't even have to get to "acceptable" because there's nothing there that does it to the level that Rhodium would require it. 11:39

If it was a tank that was 18 inches high versus 20 inches high, maybe Rhodium would consider that acceptable. There's none of that out there, apparently; so I kind of don't even have to get to the "acceptable" component of it so I really didn't spend any time looking at "acceptable," per se, because there's nothing out there that does it per my discussions with the client and most importantly Dr. Pokharna. 11:39

MR. BRODY: Okay. I'm going to mark the next exhibit. 11:40

THE REPORTER: Exhibit 5. 11:40

MR. BRODY: This is Exhibit 5. 11:40

(Defendants' Exhibit 5 was marked for identification and is attached hereto.) 11:40

MR. BRODY: This is Dr. Pokharna's report. 11:40

And just for the -- in the interest of transparency, I've omitted the 75-page addendum of claim construction charts because I'm not going to 11:40

ask about them. 11:40

Q So you've reviewed Dr. Pokharna's report, 11:41

right? 11:41

A I have, yes, in its entirety. 11:41

Q Okay. And I'd ask you to -- to turn to 11:41

paragraph 150. 11:41

A Paragraph? 11:41

Q Yes. 11:41

A 1- -- 11:41

Q On page 51? 11:41

A I'm there. 11:41

Q Okay. And this is where Dr. Pokharna begins 11:41

his analysis of potential acceptable non-infringing 11:41

alternatives, right? 11:41

A Yes. 11:41

Q Okay. And Dr. Pokharna lists eight 11:41

potential alternatives here in this paragraph, right? 11:41

A Yes. 11:41

Q Okay. And ultimately he concludes that each 11:41

of these use infringing; is that right? 11:42

A Correct. 11:42

Q All right. 11:42

A Yes. 11:42

Q Then in paragraph 151 Dr. Pokharna lists 11:42

one, two, three, four, five -- eight more 11:42

substitutes, right? 11:42

A That's correct. 11:42

Q Okay. 11:42

A Well, these -- he says he's been "advised of the following potential alternatives but have not been asked to do an infringement analysis." 11:42

Q Right. 11:42

So these are potential alternatives but Dr. Pokharna hasn't analyzed whether they're infringing or not, right? 11:42

A That's correct. 11:42

Q Okay. And you're relying on Dr. Pokharna for the assertion that there are no acceptable non-infringing substitutes, right? 11:42

A And also conversations with Midas. 11:42

Q That's fair. 11:42

But Dr. Pokharna hasn't ruled out any of these eight items listed in paragraph 151 as non-infringing, right? As infringing, I'm sorry. 11:43

A I believe back in Exhibit 4 he does talk about some of this. 11:43

Q He analyzes the items listed in paragraph 150. But in paragraph 151 he says "I have been advised of the following potential alternatives but have not been asked to do an infringement 11:43

analysis"? 11:43

A Well, an "infringement analysis." 11:43

Q Right. 11:43

A But I -- I don't remember his exact 11:43

Exhibit 4 but I think some of these are actually 11:43

discussed. 11:43

Q If he has not been asked to do a 11:43

non-infringing analysis, is that -- 11:43

A That's a non-infringing. But are they 11:43

still -- 11:43

Like, for example, I think in conversations 11:43

with him, I think a couple of them -- one of them, 11:43

they weren't even sure they did business in the US; 11:43

it might have been Fujitsu. 11:43

I think one of them they didn't even think 11:44

was still in business. 11:44

One of them, Green Revolution Cooling Gen 1, 11:44

that's the same one that's back on -- well, let's 11:44

see, Green Revolution Cooling on page 51; so my 11:44

understanding is that -- that he went through a 11:44

discussion and/or analysis of the fact whether or not 11:44

there was any alternative non-infringing or 11:44

acceptable non-infringing and his conclusion was no; 11:44

so that's what we based ours on. 11:44

Q Okay. But you didn't consider -- 11:44

A It says "I also understand that, while non-infringing alternatives must have been 'available', that does not mean that the alternative must have actually been on the market. I understand that the availability of non-infringing is assessed at the time of first infringement"; so there's a whole discussion on that afterwards that we should probably read through. 11:44

And Exhibit 4 as well. 11:44

Q My question is -- is this, though, is -- there are 16 alternatives -- alternatives listed in paragraphs 150 and 151 of Dr. Pokharna's report, right? 11:44

A I believe that math is correct, yes. 11:45

Q Okay. And in paragraph, 150 Dr. Pokharna concludes that eight of them are infringing? 11:45

A That's correct. 11:45

Q But in paragraph -- 11:45

A But I -- 11:45

Again, I'd have to read his entire report again in detail and also look at Exhibit 4, which I thought he actually talked about some of these back in 4 -- Exhibit 4. 11:45

Q Okay. I guess I'll ask you this way. 11:45

So paragraph 151, Dr. Pokharna says "It is 11:46

my understanding based on discussions with the Plaintiff that the products listed below are not acceptable market substitutes," right? 11:46

A I'm sorry, what paragraph again? 11:46

Q 151 in Dr. Pokharna's report. 11:46

A That's -- that's what it says, yes. 11:46

Q Right. 11:46

But he says he's been asked not to do an infringement analysis about these products, right? 11:46

A That's correct. 11:46

Q So Dr. Pokharna is relying on the -- the -- somebody at the plaintiff who told him that these are not acceptable market substitutes? 11:46 11:47 11:47

A I have no idea where he got his information. 11:47

Q Okay. And -- 11:47

But you are relying on Dr. Pokharna for your assertion that there are no acceptable non-infringing substitutes, right? 11:47 11:47 11:47

A That's correct, as well as the client. 11:47

Q Right. 11:47

A Midas. 11:47

Q Okay. If Dr. Pokharna is wrong in paragraphs 150 and 100- -- or 151 and one of these substitutes is not infringing, would that -- 11:47 11:47 11:47

A Well, and it's acceptable. In other words, 11:47

does it have the capacity, does it have the ability to -- to -- to replace that which Rhodium is using or that which Midas could sell to Rhodium; so it's not just about non-infringing. It's also about is it also acceptable, is it -- you know, was it around at the time they were buying these? You know, did they sell in the US, are they still in business, was it a product that could have been used in the industrial application that Rhodium used at the two Texas facilities between 2020 and 2023. 11:47 11:47 11:47 11:47 11:47 11:47 11:48 11:48 11:48 11:48

Q That's fair. 11:48

A You can have a non-infringing -- 11:48

I mean, you can have one that literally you put in your backyard that might be a non-infringing immersion technology but you can't scale it up to 200 megawatts. 11:48 11:48 11:48

Q That's fine. That's right. 11:48

But you haven't analyzed whether -- 11:48

A I told you from the minute we started this deposition I am not an expert on the design and/or patent law piece of this. And I relied, with respect to the infringement, on Dr. Pokharna. I relied on the validity in the in suit with respect to Dr. Lee. And I also relied on the fact that there is -- there is no acceptable non-infringing substitutes in the 11:48 11:48 11:48 11:48 11:48 11:48 11:48 11:48 11:48 11:48

marketplace from Dr. Pokharna. 11:48

I mentioned that minute ten of this 11:48

deposition -- 11:48

Q You did. 11:48

A -- and I still stand by that same thing. 11:48

Q Right. 11:48

A I'm not an expert on alternative -- on 11:48

acceptable non-infringing alternatives; I'm simply 11:48

saying that all the information that I've seen, 11:49

nothing tells me otherwise. 11:49

Q Okay. We'll leave that there then, you can 11:49

put that to the side. 11:49

I think we discussed whether you reviewed 11:49

the deposition testimony of Jim Koen in preparing 11:49

this report? 11:49

A Yeah, I don't recall seeing his entire 11:49

deposition. 11:49

Q Okay. I'm going to introduce the next 11:49

exhibit and after this exhibit, why don't we take 11:49

lunch? 11:49

A Sure. 11:49

Q But the next exhibit is the deposition 11:49

testimony of Jim Koen. 11:49

A Okay. 11:49

THE REPORTER: Exhibit 6. 11:49

(Defendants' Exhibit 6 was marked for identification and is attached hereto.) 11:49

MR. BRODY: Exhibit 6. 11:49

MR. THOMAS: Is that the entire transcript you're marking? 11:49

MR. BRODY: It is the entire transcript. 11:49

Q And I'll direct you to page 305 -- 11:50

A 305? 11:50

Q 305-307 in the little pages, it is -- 11:50

A Yeah, I got it. 11:50

Q You got it? 11:50

A Yep. 11:50

Q You're faster than me. 11:50

And I'll ask you to review from line 25 on page 305 through line 22 on page 307. 11:50

A Yeah, I see that. 11:50

Q Okay. So Mr. Koen lists a number of competitors. 11:50

A Yes. 11:50

Q It's your opinion that since there -- since it's your opinion that there are -- I'm sorry. 11:50

Is it your opinion that the companies listed here are not acceptable non-infringing substitutes? 11:51

A I'm -- I've made the assumption -- same 11:51

answer multiple times, that I've made -- I've made an assumption based on my conversations with Midas and also Pokharna, there is -- 11:51

Dr. Pokharna -- 11:51

"Pokharna" -- "Pokharna" -- 11:51

Q "Pokharna." 11:51

MR. THOMAS: "Pokharna." 11:51

THE WITNESS: "Pokharna." 11:51

BY MR. BRODY: 11:51

Q I know it's -- I get turned around on it too. 11:51

A -- that there are no acceptable non-infringing substitutes. This doesn't change that opinion whatsoever. 11:51

I mean, it's, you know, Phase 1 versus Phase 2. Some of these he says are wannabees. They're not a blip on anybody's radar. 11:51

It's not just about having the technology and being able to immerse a piece of electronics into a dielectric fluid, it's being able to provide Rhodium with 200 megawatts in 2020, 2021, 2022 and 2023. 11:51

Q Correct. 11:51

A And nothing I read here tells me that these people were anywhere near doing that. It seems like 11:52

a blip on the radar screen.

But, again, that was my comment earlier about nothing I've read in the -- in the entire context, including this right now, causes me to believe otherwise. But I've simply made the assumption.

I'm not -- that's not my -- I'm not going to be asked about -- well, you might ask, but I'm not going to be asked by Mr. Thomas if I believe there is an acceptable non-infringing substitute. Damages experts don't do that.

Q Okay.

A We have to make assumptions with respect to that because this is a very technical area of patent cases and we don't make that determination. At least in this case we wouldn't because of the technical nature of it.

MR. BRODY: Okay. Let's take a break.

MR. THOMAS: Yes. Go off the record.

THE VIDEOGRAPHER: We are off the record at 11:53 a.m.

(Lunch recess.)

THE VIDEOGRAPHER: We are back on the record at 12:34 p.m.

BY MR. BRODY:

Q Welcome back. 12:34
A Thank you. 12:34
Q I said I was going to move on but then I thought of a clarifying question that I want to ask you -- 12:34
A Sure. 12:34
Q -- and then we'll move on. 12:34
So -- 12:34
A This is -- 12:34
Sorry, go ahead. 12:34
Q No. I was going to go back to Dr. Pokharna's report -- 12:35
A Yeah. 12:35
Q -- which was the exhibit previously. 12:35
So in your report I think, and please correct me if I'm misunderstanding you, you're relying on the plaintiff and Dr. Pokharna for the -- who -- and I'm quoting from your report now, who "assert there is an absence of acceptable, non-infringing substitutes," right? 12:35
A That's correct. 12:35
Q Okay. In his report at paragraph 150 Dr. Pokharna analyzes and -- analyzes a number of substitutes and concludes that they are infringing, right? 12:35

A Yes. 12:35
Q Okay. Dr. Pokharna doesn't analyze whether those alternative options are acceptable, does he? 12:35
MR. THOMAS: Objection. 12:35
THE WITNESS: Well -- 12:35
MR. THOMAS: In paragraph 150 he's analyzing infringing. 12:35
MR. BRODY: Right. 12:36
So I was just asking -- 12:36
MR. THOMAS: So what's your question? 12:36
MR. BRODY: My question is he's analyzed whether he's infringing, he hasn't analyzed whether they're acceptable. 12:36
THE WITNESS: Well, they can't be acceptable if it's infringing. 12:36
BY MR. BRODY: 12:36
Q Okay. If -- if Dr. Pokharna is wrong about any one of these substitutes, have you done an independent analysis of whether any of these eight listed options would be acceptable if it was found to be non-infringing? 12:36
A No. 12:36
Q Okay. That's all I wanted to ask about that. 12:36
A Okay. 12:36

MR. BRODY: Let's go off the record for one second. 12:36

THE VIDEOGRAPHER: We're off the record at 12:36 p.m. 12:36

(Off the record.) 12:36

THE VIDEOGRAPHER: We are back on the record at 12:37 p.m. 12:37

BY MR. BRODY:

Q Okay. We talked a little bit earlier about whether Rhodium could have designed a non-infringing product but I had a couple more questions about it.

In that context of this second Panduit factor --

A Uh-huh.

Q -- did you consider whether Rhodium could have designed a non-infringing system?

A Well, design-around is -- is a consideration in damage analyses.

Q Right.

A I mean, it -- it's not that big of a design-around and it's really kind of used more, I think, in the reasonable royalties, but we -- I've used it in Panduit before.

But, yeah, I -- I thought about that.

Q Okay. Where is that consideration reflected

in your report? 12:38

A Yeah, we've already talked about that. I didn't put anything in there about that. 12:38

Q Okay. Is it your opinion that Rhodium couldn't have designed around or just that it didn't? 12:38

A It didn't. 12:39

Q Okay. Have you analyzed whether Rhodium could have designed around? 12:39

A No. 12:39

Q Okay. Why not? 12:39

A Well, because they didn't. I mean, my feeling on this was kind of -- 12:39

My thought process was that they were -- "they" being a different entity but kind of the same players in immersion, were notified in January or February of 2020 that there was an alleged infringement. That entity stopped, it then became Rhodium. Those Rhodium entities began then using the alleged infringing immersion cooling systems, didn't apparently change them, then they continued for three years, 2021 -- well, they, about three years, yeah, '21, '22 and '23, to continue use those infringing cooling systems. And so they never did work around it; so where you conclude with -- 12:39 12:39 12:39 12:39 12:39 12:40 12:40 12:40

And then there was also that testimony I 12:40

think I talked to you about from Blackmon that said they didn't try and design around it; so the conclusion I reached from that is that it must not have been that easy to do because if they -- it was that easy, why wouldn't they have done it? Just alleviate all of this pain and suffering and potential damage if it was that easy to work around it; so I didn't analyze how hard it is, I don't -- again, I'm not a patent expert with respect to that, I don't --

I would -- I would think that trying to design around that would probably be pretty difficult and probably pretty, you know, lengthy, given you've got to redesign it, you've got to have it tested, you've got to beta test it, you've got to get it patented. All of those things would lead me to believe that it must not have been that easy or otherwise they would have done it.

Q Okay. Did you talk to Dr. Pokharna about how difficult it would have been --

A No.

Q -- to design around?

A No.

Q Okay.

A I mean, I didn't really need to because I

know they didn't design around; so it couldn't have been that easy because, otherwise, why wouldn't they do it. 12:41

Q Okay. Okay. I'd like to ask you a few questions about air cooling. 12:41

In looking at acceptable non-infringing substitutes, do you consider whether air cooling might be an acceptable -- might -- might qualify? 12:42

A I considered it, yes. 12:42

Q Okay. And what was your conclusion? 12:42

A That it was not. 12:42

Q Okay. And what was the basis for your conclusion? 12:42

A Well, I think I mentioned before, twofold. 12:42

One, I think -- I read somewhere or -- about something -- heard from someone saying that Texas is too hot for an air cooling system, it doesn't work. 12:42

And then secondly, the fact that Rhodium has developed over 200 megawatts, 25 was cooling and the other -- air cooling and the other 175 was all immersion cooling; so I think it's a combination of if it was, you know, an acceptable non-infringing substitute, they certainly chose not to do that with the remaining 175 megawatts of capacity that they had at those two facilities over a three-year period of 12:42 12:42 12:42 12:42 12:42 12:43 12:43

time. 12:43

And then my understanding is just in talking 12:43
to -- I think it was actually Pokharna I had a 12:43
conversation with, that it's just not a -- it's not 12:43
an alternative in the Texas environment with the 12:43
heat. 12:43

Q Okay. So let's break that down. 12:43

You're saying the fact that Rhodium built -- 12:43
you know, installed an air mine and then proceeded to 12:43
install liquid immersion cooling indicates to you 12:43
that -- tells you that air is not an acceptable 12:43
non-infringing substitute? 12:43

A Well, it's certainly an indicator. I mean, 12:43
if it was an acceptable alternative, non-infringing 12:43
substitute, why didn't they do that? 12:43

And then more importantly, even forgetting 12:43
about the infringement, because maybe in their mind 12:44
they weren't even infringing, they've chosen to go 12:44
away from, move away from air cooled and their latest 12:44
175 megawatts of power have all been immersion 12:44
cooling. 12:44

Q And that indicates -- so that -- 12:44

Why does the fact that -- why does Rhodium's 12:44
deployment of liquid cooling mean that air wouldn't 12:44
have been acceptable? 12:44

A Well, I'm just suggesting that it's a factor I considered.

Once again, with respect to acceptable non-infringing alternatives, I'm not -- that's coming from an opinion from Dr. Pokharna and the -- and Midas. That's where that testimony is going to come from, not me. I'm just going to say I assumed, based on my conversations with the client and also my conversations and the reading of it Mr. Pokharna's report; so you keep going back to that and I'm not going to be testifying about that.

Now, whether or not we considered it, the answer is yes, we did consider it, and all I've seen and/or heard and/or read is that air cooled is not a viable alternative out there with the heat, with the cost, with the potential repairs of maintenance, with the potential downtime and with also the potential that these servers cannot overclock as frequently or even at all with air cooled versus immersion cooling.

Q All right. So you've listed the benefits of air cooling that you -- or, sorry, of liquid cooling in your report and you just told them to me now.

And I guess what I'm trying to understand -- what I'd like to understand is whether you're telling me that air cooling is not an acceptable alternative

because it can't achieve all of these benefits? People --

You know, obviously Bitcoin miners do use air cooling, including in Texas; so I'm wondering why it's -- what it is about air cooling that makes it not acceptable.

A All the things I just mentioned.

Q Okay.

A Apparently there's an issue with respect to repairs and maintenance. Fans going down, the heat, the fact that they can't keep the technology and the machines cool enough to be able to overclock, which creates a substantial issue with respect to efficiency even calculated by your own expert.

Q Okay. So --

Sorry.

A So it's a number of different things. But once again I -- sorry to keep going back to, those are just observations I have.

I'm -- I'm not going to be the one that has this opinion. I have the opinion based on what I've been asked to assume is there is no acceptable non-infringing alternatives. We've talked about that add nauseam.

But, you know, if you're asking me

have I looked at it and have I considered it, yes, I have, and all of -- what I believe about it and my opinions about it are in my report, which you're looking at right now. 12:47

Q Yes. All right. Let's go to -- 12:47

In paragraph 25 you list a number of benefits of immersion cooling that allows them "to run at or above their stock graded capacity," that's the first one. 12:47

Do you know whether anyone using Midas's -- Midas XCI system has ever actually run their miners at or above their stock graded capacity for longer than alternative cooling systems? 12:48

A No, I don't know that. 12:48

Q Okay. Then you say "Plaintiff's system also requires less maintenance as immersion results in a thermally stable environment and there is no risk of fans (as used in air cooling) failing," right? 12:48

A Correct. 12:48

Q Have you performed any -- any -- 12:48

What's your basis for that statement? 12:48

A It's right in the footnote. It's sitting right in the report. 12:48

Q Right. 12:48

A "Deposition testimony of Scott Sickmiller... 12:48

his capacity as 30(b)(6)." 12:48

Q Okay. Do you know whether anyone has 12:48

actually -- well, let's look at Mr. Sickmiller's 12:48

testimony. 12:48

THE REPORTER: Exhibit 7. 12:49

(Defendants' Exhibit 7 was marked 12:49

for identification and is attached 12:49

hereto.) 12:49

MR. BRODY: Uh-huh. There you go. 12:49

MR. THOMAS: What number is this, exhibit what? 12:49

MR. BRODY: 7. 12:49

MR. THOMAS: 7. 12:49

Is there a particular page you want him to 12:49

look at? 12:49

MR. BRODY: 85. 12:49

Q So I'd like you to read from 85 at line 3 12:49

to 17, it's the passage that you cite in this 12:49

footnote 50 and the preceding question. 12:49

A No. 12:49

Are you talking about -- we quote -- we 12:49

quote line 12 through 17. 12:49

Q Right. And I'm asking you to start at 12:50

line 3, which is the question. 12:50

A You just said -- you just said I quoted 12:50

that. 12:50

Q No. 12:50
I said does the passage that you quote and 12:50
the preceding question so just -- 12:50
A Do you want me to read it out loud? 12:50
Q No, just read it and let me know when you've 12:50
done it; I just want to ask you some questions about 12:50
it. 12:50
A 3. 12:50
Okay. I'm there. 12:50
Q Okay. Is Mr. Sickmiller here testifying 12:50
specifically about Midas's immersion cooling system? 12:50
MR. THOMAS: Object. Calls for speculation. I 12:50
mean, the testimony speaks for itself. 12:50
He can't answer what was in the mind of the 12:50
witness giving the testimony. 12:50
MR. BRODY: I mean, he's relying on it as the 12:50
basis of the statement in his -- 12:50
MR. THOMAS: Yes. He relies on the statements 12:50
but you're asking what was in the mind of the person 12:50
who gave the testimony. 12:50
MR. BRODY: Well, I -- 12:50
MR. THOMAS: That's speculation, sheer. 12:50
MR. BRODY: It's not -- 12:50
MR. THOMAS: It's sheer speculation. 12:50
MR. BRODY: It's not speculation and here's why. 12:50

He's telling me that page -- lines 12 through 17 say "In addition, there is a great deal less maintenance in a thermally stable environment of immersion," right?

THE WITNESS: It says "In addition, there is a great deal less maintenance in a thermally stable environment of immersion."

MR. BRODY: Right.

THE WITNESS: That's exactly what it says.

MR. BRODY: And he says that that is attributable to plaintiff's system. And I'm wondering whether that -- if a different cooling immersion system might also offer that benefit.

MR. THOMAS: Calls for speculation --

THE WITNESS: How do I know?

MR. THOMAS: -- no foundation.

THE WITNESS: You're talking about --

You're now saying you're talking about acceptable alternatives solutions -- alternatives again?

BY MR. BRODY:

Q I'm asking --

You made a statement about the benefits of plaintiff's system and I'm trying to understand your basis for it.

A It's right -- 12:51
I just read it to you and you're reading it, 12:51
too. 12:51
Q Okay. Let's go to the next sentence. 12:51
"As for other competitors who offer 12:51
immersion cooling, I understand many of these 12:51
competitors have not deployed any significant volume 12:52
of immersion cooling," and at least -- "and certainly 12:52
not when" Defendants allegedly began infringing, 12:52
right? 12:52
A Yes. 12:52
Q When did defendants begin infringing again? 12:52
A 2020. 12:52
Q Okay. How much immersion cooling had Midas 12:52
deployed at that time? 12:52
A 50 megawatts. 12:52
Q Midas had deployed 50 megawatts of -- 12:52
A Oh, I thought you said "Rhodium." 12:52
Q "Midas." 12:52
A How much had they had deployed? 12:52
Q Yes. 12:52
How much -- how many -- or how many 12:52
systems -- 12:52
How many megawatts of immersion cooling 12:52
systems had Midas sold as of 2020? 12:52

A None. Zero. 12:52

Q Okay. So you're distinguishing saying these other competitors haven't offered or deployed significant volumes, but it's true that Midas hadn't deployed any volume of immersion cooling at -- at the time when the Defendants began infringing? 12:52

A I don't understand your question. 12:52

Q Okay. Let me strike it. I think -- 12:52

You talk in this sentence about the volume of immersion cooling that Midas -- or sorry, that Midas's competitors have deployed, right? Or -- 12:53

Yeah. 12:53

A I'm sorry, I'm what? 12:53

Q In this sentence you say -- you're discussing the volume of immersion cooling that Midas's competitors have -- have deployed, right? 12:53

A Yes. 12:53

Q Okay. Does that -- does the deployment of -- competitors' deployment of immersion cooling systems, does that support your conclusion that there are no acceptable non-infringing substitutes? 12:54

A Well, it's -- it's a component but, I mean, no. I mean, just because they haven't deployed it, doesn't mean they're not -- they couldn't be an acceptable non-infringing substitute, no. That's not 12:54

mutually exclusive that just because you haven't deployed means you can't be acceptable and non-infringing, that has nothing to do with that; I'm just talking about being deployed. 12:54

Q Okay. And then the last sentence you say "Plaintiff's own customers have expressed to Plaintiff that their system has improved functionality compared to other immersion cooling systems"? 12:54

A Correct. 12:54

Q Did you talk to any of Midas's customers? 12:54

A I did not, no. 12:54

Q Okay. Did you think you -- 12:54

Why didn't you -- 12:54

A That would be completely inappropriate with respect to this assignment. 12:54

Q Why is that? 12:54

A Because why would I go out and talk to one of their clients about a pending litigation about patent infringement on their system? I'm building a damage model and my damage model has to go through the components that we're talking about. 12:55

And with respect to what you're still talking about, which is an acceptable non-infringing substitute, I -- my opinion is going to be based on 12:55

other people. Why would I then go talk to Midas climate and ask them that question? 12:55

Q Okay. 12:55

A Mr. Sickmiller said it and that's what I quoted in my report. It really has nothing to do with the damage calculation, which you haven't even gotten too yet. It's just background information and information about what we thought with respect to acceptable non-infringing substitutes. 12:55

Q Okay. I think we diverged a little bit. I want to ask you about a couple more things that Mr. Sickmiller said and then we'll move on. 12:55

I'd like you to go to paragraph -- page 142 of Mr. Sickmiller's deposition. 12:55

A "142"? 12:56

Q Uh-huh. 12:56

A I'm there. 12:56

Q Beginning at line 12. 12:56

A I'm sorry, "beginning at line 12"? 12:56

Q Uh-huh. 12:56

A Yes. 12:56

Q Okay. Mr. Sickmiller testifies here "I do not see air cooling as a competitor," right? 12:56

A There you go. 12:56

Q Okay. And you rely on this for your -- 12:56

You cite this for your statement that you understand that air cooling is not considered a market acceptable substitute, footnote 51 of your report, right? 12:56

A It is one of the considerations, yes. 12:56

Q Okay. Going down the page, can you read from line 16 to line 1 of the next page and I'll ask you a question about that? 12:56 12:57 12:57

A I'm there. 12:57

Q Okay. Mr. Sickmiller testifies that people can air cool to -- for purposes of "getting by," right? 12:57 12:57 12:57

A Yes. 12:57

Q Okay. Does that indicate to you that air cooling might be an alternative to acceptable -- an acceptable non-infringing alternative to immersion cooling? 12:57 12:57 12:57 12:57

A No. 12:57

Q Okay. Why not? 12:57

A Because it -- it says exactly that, air cooled cannot perform at the same level as immersion. 12:57 12:57

Q So -- 12:57

A And if you look -- if you look at Rhodium's documents, all of Rhodium's documents talk about the wonderful proprietary, you know, custom immersion 12:57 12:57 12:57

technology. They all tout the fact they're using immersion technology for -- for efficiency and everything in their documents, it's all throughout their documents. And this says exactly that, it cannot perform at the level of immersion, which is exactly what Rhodium says is so unique about them and how great they are. 12:57 12:58 12:58 12:58 12:58 12:58 12:58

Q Okay. Well, I'm focused on what you cited in your report and what I -- 12:58 12:58

So if I understand -- 12:58

A That's exactly what I said in my report. 12:58

Q So "getting by" -- 12:58

So there's no different between -- 12:58

A Getting by -- 12:58

Q -- "getting by" and being an acceptable alternative, right? 12:58 12:58

A I don't think getting by -- 12:58

I mean, if you're trying to have an immersion system that has the efficiency that Rhodium is using and looking for and touting as their technology, then air cooled getting by is not acceptable. 12:58 12:58 12:58 12:58

Q So if an alternative can't deliver all of the benefits of the immersion cooling system that you recite here, it's not acceptable? 12:58 12:58 12:58

A I never said that. 12:58
Q I'm asking that. 12:58
A You keep going into this whole thing about what's acceptable and what's not. And I've told you that ten times, I'm not carrying water with respect to an acceptable non-infringing substitute. 12:58
Q Okay. 12:58
A However, I have considered it and I have looked at the different testimony. And all of the documents I've seen, which are very clear to me as a nontechnical person in regards to this, that immersion technology is far superior to air cooling, especially in Texas, and air cooling is not a substitute for immersion cooling. 12:58 12:59
Q Okay. We'll leave it there. Let's move to the third Panduit factor, it's the next paragraph in your report. 12:59
What's your understanding of the third Panduit factor? 12:59
A Capacities. 12:59
Q Okay. Can you say more? 12:59
A It's whether or not the patentee, or the plaintiff, has the capacity to supply the demand that is being suggested in the damage analysis. 12:59
Q Okay. And it's your opinion that Midas, in 12:59

the hypothetical but-for world, would have had that capacity? 12:59

A Yes. 12:59

Q Okay. Is it your opinion that Midas would have had that capacity -- the capacity in place to begin supplying to Rhodium at the -- on the very first day that Rhodium infringed Midas's patent? 12:59 01:00 01:00

A Yes. 01:00

Q Okay. What's your basis for that statement? 01:00

A Conversation with Mr. Sickmiller. 01:00

Q Okay. What did Mr. Sickmiller tell you? 01:00

A That they had all the capacity to get that done. 01:00 01:00

I talk about it here. "Plaintiff's third-party manufacturing business model allows them to maintain its pipeline and fulfill additional demand for its product through the use of additional vendors/contract manufacturers," with specific -- "With a sufficient number of contract manufacturers available to them, Plaintiff has the ability to quickly expand or retract their capacity as demand warrants." 01:00 01:00 01:00 01:00 01:00 01:00 01:00 01:00 01:00

Q Okay. That's -- that's -- I appreciate that. 01:00 01:00

Did -- 01:00

A Well, that's exactly what it says. 01:00
Q Did Mr. Sickmiller tell you that Midas -- 01:00
Did Midas have that -- the contract 01:00
manufacturing capacity in place as of April 1, 2020? 01:00
A Yes. For 50 megawatts, yes. And the 01:00
50 megawatts was not employed, or at least started up 01:00
by Rhodium until, I think, September or December of 01:00
2020. 01:00
Q Okay. What's the basis for your statement 01:00
that Midas had that capacity in place as of April 1, 01:01
2020? 01:01
A Conversations with Mr. Sickmiller. 01:01
Q Okay. Can you tell me what Mr. Sickmiller 01:01
told you? 01:01
A Exactly that. 01:01
Q "We have the capacity in place"? 01:01
A If you read the whole paragraph, you'll see 01:01
what I said. 01:01
Q Okay. So Mr. Sickmiller -- 01:01
And you just -- 01:01
You're relying on entirely on 01:01
Mr. Sickmiller? 01:01
A I know that in 2021 they delivered 01:01
100 megawatts -- 200 megawatts to Rhodium -- 01:01
Q Right. 01:01

A -- a year later, not even maybe a year later. And I know that a year and a half after that they delivered another 200 megawatts; so they have the capacity to do it. 01:01

The question is during 2020 through 2023 could they have produced an additional 200 megawatts to Riot in the system and the style and the timing that Rhodium rolled it out in their different facilities, the two facilities, and the answer to that is yes, based on my conversations with Mr. Sickmiller, plus me seeing the fact that they did, in fact, deliver on two 200 unit megawatt systems. They can clearly do it, they did it. 01:01 01:02

Q Okay. 01:02

A So could they do 200 more in those three years? The answer is yes. 01:02

Q Why is that -- why is that necessarily true? 01:02

A Because we saw -- we saw all the invoices that have the vendors. They said -- they have vendors, they have multiple more vendors to be able to do that; so you can't test it in the sense that -- because they didn't do it, because you can test and ask the question which is "Do you have the capacity?" "Do you have the" -- "the money to do it?" The answer is yes, they had plenty of money to do it. 01:02

The answer (sic) is do they have the vendors to be able to supply it? Yes, we saw the vendors that they had to supply it. 01:02

The answer (sic) is, you know, "Do you have the technical knowledge to do it? Is it changed because of an increased volume?" The answer is "No, it's the same system, we're just making more of them." 01:02

Q Okay. 01:02

A So there's nothing that came to my attention that caused me to believe that they would not be able to produce another 200 megawatts between 2020 and 2023 specifically to Rhodium, in addition to what they did for Riot. 01:02

Q Right. 01:03

But you're just -- 01:03

There's nothing that came to your attention; you're just relying on Mr. Sickmiller? 01:03

A And what I just told you about what they did with Riot. 01:03

Q Okay. What vendors did Midas have in place in 2020 to fulfill the capacity that Rhodium would have -- 01:03

A If you go back into the cost analysis, which is Exhibit, I believe, 4. 01:03

Q Uh-huh. 01:03
A On Exhibit 4 -- 01:03
You see all these sources down here on 01:03
Exhibit 4? 01:03
Q Uh-huh. 01:03
A Those are all vendor invoices. 01:03
Q And those vendor invoices are from 2021, 01:03
right? 01:03
A And 2023. 01:03
Q Right. And I'm asking you about 2020. 01:03
A They had the same vendors. 01:03
Q How do you know that? 01:03
A Because I talked to Mr. Sickmiller about it. 01:03
Q Okay. You said -- 01:03
I think I heard you that say that Midas had 01:03
plenty of money to fund -- 01:03
A Well, there was no -- I mean, they -- they 01:04
require an upfront payment -- 01:04
Q Right. 01:04
A -- on some of these systems; so there was no 01:04
ex- -- no extraordinary capital outlay that was 01:04
required. 01:04
The technology was already there; the 01:04
vendors, they were there. They would take a deposit 01:04
on these things to pay for these costs; so there was 01:04

no extraordinary amount of capital required to get an additional 200 megawatts over those three year periods of time. 01:04

Q Right. 01:04

But I'm talking about -- I want to -- I'm talking about 2020 specifically. 01:04

A Yes. 01:04

Q It's your opinion that Midas had the capital in 2020 to make whatever payments were required to make the sales that it would have made to Rhodium? 01:04

A Yeah, because the capital required would simply be cash to pay the vendors and they would be getting down payments on these systems to be able to pay those vendors. 01:04

Q Okay. Where is that analysis reflected in your report? 01:04

A I don't have to do an analysis. And my report doesn't include every single conversation I had with every single person. 01:04

I had a conversation with Mr. Sickmiller about their capacity and would they have the money to do that and the comment was "Yeah, we get deposits on these to be able to pay for some of those upfront costs." 01:04

Q All right. And I'm wondering -- 01:05

A Where it is in my report? 01:05
Q -- where it is in your report? 01:05
A It's not stated in my report specifically. 01:05
Q Okay. Thank you. 01:05
A But it does talk about capacity and capacity would also require money to be able to build it. 01:05
Q Where would Midas have gotten the money? 01:05
It's your opinion that they would have gotten it from down payments from Riot? 01:05
A They could have just gotten down payments. They got -- 01:05
They required down payments on all their systems. 01:05
Q Okay. And so it's your opinion that they would have required the same from Rhodium? 01:05
A Yes. Yes. 01:05
Q Okay. 01:05
A Why would they change their contract terms with anybody else? 01:05
Q Well, had Midas entered into contracts as of 2020? 01:05
A No. 01:05
Q So how did it have any contract terms established at that time? 01:05
A Well, because that's what they did in 2021, 01:05

less than nine months later. 01:05

Q Okay. It just feels to me like you're 01:05

reasoning backwards from 2020 -- from 2021 into 2020, 01:05

but let's -- 01:05

A Well, businesses -- 01:05

If you have the technology in place and 01:05

you're simply waiting for the order to come in, you 01:05

have the technology, you have the vendors, you're 01:05

simply waiting to build the widget. What does it 01:05

take to build a widget? Part of it takes some 01:06

capital, cash; if you get a deposit from these people 01:06

to start the process, it's there. 01:06

It's not unusual to assume that something in 01:06

place in 2021 wasn't in place in 2020. This 01:06

technology had been around for quite a -- at least -- 01:06

this company started in 2010. 01:06

Q Okay. Did you review any communications, 01:06

for example, between Midas and Guntner in 2020 01:06

regarding potential purchases of air coolers? 01:06

A No. 01:06

Q Okay. But you assumed they must exist? 01:06

A Well, there's -- 01:06

MR. THOMAS: Objection. Calls for -- no 01:06

foundation, calls for speculation. 01:06

THE WITNESS: You mean were there -- were there 01:06

air coolers available in 2020? 01:06
BY MR. BRODY: 01:06
Q Did Midas have the relationship to obtain 01:06
them? 01:06
A Well, apparently they did. 01:06
I spoke with Mr. Sickmiller and he was -- 01:06
informed me that they had vendors in place in 2020, 01:06
all the way through 2023, to be able to build these 01:06
units exactly like the ones that they built for Riot 01:06
in 2021 and 2022. 01:06
Q Okay. Isn't it true that Midas had to take 01:07
loans from Francisco Conti in 2019 and 2020? 01:07
A I don't know how they exactly capitalized, 01:07
but what difference does that make? 01:07
Q Okay. Well, do you consider whether the 01:07
capital that Midas -- Midas had sufficient capital in 01:07
2020 to meet Rhodium's hypothetical demand, or are 01:07
you relying on the hypothetical down payments? 01:07
MR. THOMAS: I'm going to object. Hypothetical 01:07
and speculation. 01:07
THE WITNESS: Well, I didn't -- I didn't need to 01:07
get to that level. 01:07
All they needed to do in 2020 would be to 01:07
build 50 units. 50 units. So all they needed to do 01:07
is get down payments, or potentially have, you know, 01:07

a loan from their -- their financial source. 01:07
But I was informed by Mr. Sickmiller that 01:07
whatever required from a capital perspective they 01:07
could get, either by down payments or whatever else 01:07
they needed to do. 01:07
BY MR. BRODY: 01:08
Q Okay. 01:08
A And there's no indication that they couldn't 01:08
do that. 01:08
Q Okay. At least in the materials that you've 01:08
reviewed? 01:08
A Well, in any of the conversations I've had, 01:08
too. 01:08
Q Okay. Did you consider in 2020 how long 01:08
it would have taken Midas to deliver on an order to 01:08
Rhodium? 01:08
A Did I consider how long it -- 01:08
No. I mean, I -- I didn't know that it 01:08
would -- 01:08
I mean, I didn't consider it being any 01:08
different than that which it could supply it to Riot. 01:08
Q Do you know how long it took Midas to -- 01:08
to -- to fulfill the order that Riot made in 2021? 01:08
A I don't recall. You could look at the 01:08
invoices and -- 01:08

I think it was maybe like six months or something like that. I don't actually remember the exact -- I don't remember the exact amount of time. I didn't look at that. 01:08

Q Okay. 01:08

A I don't think it's relevant. 01:08

Q You don't think it's -- the ability to meet demand, the timeliness of meeting the demand is relevant to whether it could have made it? 01:08 01:09

A Well, yeah. But, I mean, I never was -- 01:09

I was told by Sickmiller that they could meet that demand -- 01:09

Q Right. 01:09

A -- so I didn't go back and analyze his flow chart and his actually (sic) CRM to see if he could -- you know, what the timing was. 01:09

Q Right. 01:09

A I was told that they could have met that demand and everything I saw from the documents moving forward showed that they could. 01:09

Q Okay. 01:09

A So, I mean, I -- 01:09

No, I didn't go back and analyze how long it takes to make a tank. 01:09

Q Okay. And did you analyze what a customer 01:09

would have found to be an acceptable timeline between placing an order and receiving delivery? 01:09

A No. 01:09

Q All right. Are you aware that Rhodium's CEO stated that Rhodium wouldn't have accepted a lead time longer than three months? 01:09

A No. 01:09

Q Okay. Does knowing that bear on your -- affect your analysis of whether Midas would have been able to meet Rhodium's hypothetical demand? 01:09

A No, because Rhodium had no choice to buy it in an acceptable non-infringing alternate -- substitute than Midas; so maybe Rhodium wanted a three-month lead time but if the only place they could buy it that was acceptable and meeting their needs was Midas, they would have to basically live to those terms. But I'm not -- live to Midas's terms with respect to that. 01:10

Q Right. 01:10

A But I'm not aware that Midas had some significant long delays in delivering these tanks. 01:10

Q Right. 01:10

So there's no -- 01:10

Rhodium wouldn't have been able to say "We won't accept your six-month lead time, we'll do 01:10

air cooling"? 01:10

A Well -- 01:10

MR. THOMAS: Object as argumentative, 01:10

mischaracterizes the record. 01:10

THE WITNESS: Yeah. 01:10

If you -- if you've looked at Rhodium's 01:10

documents you'll see throughout, at least the three 01:10

presentations I've seen, all talk about liquid 01:10

cooling. They all talk about it. It's right front 01:10

and center on their -- their presentations to the 01:10

SEC, to, apparently, investors. It's all there. 01:10

So to suggest that they were going to pivot 01:11

and go air cooled, which we've talked about why I 01:11

don't think that is an acceptable non-infringing 01:11

substitute, I don't think is even relevant. 01:11

BY MR. BRODY: 01:12

Q Okay. Those -- those presentations that 01:12

Rhodium -- the Rhodium presentations that you're 01:12

relying on, those are generated -- this may be a 01:12

silly question. 01:12

Those are generated in the real world, 01:12

right? 01:12

MR. THOMAS: Objection. Vague, ambiguous -- 01:12

THE WITNESS: As opposed to the fake world? 01:12

MR. BRODY: As opposed to a but-for world where 01:12

Rhodium knew that it was infringing. 01:12

MR. THOMAS: Objection. 01:12

THE WITNESS: I don't understand your question. 01:12

MR. THOMAS: Vague, ambiguous. 01:12

MR. BRODY: What I'm -- what I'm getting at is this: Let me just explain it because you're right, Joe, that was a vague and ambiguous question. 01:12

Q We'll keep going. All right. Let's go to the fourth Panduit factor, the one we've all been waiting for. 01:13

What's your understanding of the fourth Panduit factor? Can you give me a high-level sort of overview of what you did here? 01:13

A Other than what the report says? 01:13

Q I'm asking for you to tell me. I've read the report, I'm asking for you to tell me. 01:13

A It would be what the report tells you. 01:13

It's basically a factor, it has to do with if, in fact, you can compute lost profits; if the information is there to compute it. And the analogy I gave you a while back was, you know, you could have demand for a widget. You could, you know, have a two-supplier market where there was infringement and there was only one other place to get it but it was an infringer, and you had the capacity of making it 01:13 01:13 01:13 01:14 01:14 01:14

but you don't have the accounting systems and you don't have the financial systems to be able to really identify the costs associated with that widget or the sales price associated with that widget to be able to then calculate what your lost profits might have been. It might have been such a small component that you couldn't allocate the costs, you don't have the financial records, etcetera. 01:14

Q All right. But here it's your opinion you can appropriately calculate the amount of lost profits? 01:14

A Yeah, you can. Yes. 01:14

Q Okay. That was a softball. 01:14

My -- all right. Let's -- let's -- let's -- 01:14

We discussed earlier you have two opinions on lost profits analysis, one that includes convoyed sales and the second opinion that doesn't, right? 01:14 01:15

A (No audible response.) 01:15

Q Let's stick with Opinion 1 for now, the convoyed sales opinion, that's what we've been going through. 01:15 01:15

What's your understanding of the term "convoyed sales"? 01:15 01:15

A It's best defined, actually, in my report where we use specific language. But just as a kind 01:15

of paraphrase, it's effectively where the patented items are sold in conjunction with other products that make them basically one complete system. They are -- they use one another. The technologies use one another. They're really considered kind of almost as a complete system. And, therefore, if you buy one, you would typically buy the other. 01:15

But they're not patented, they're not part of the patent; so that would be my definition. It's said better in the report but -- 01:15

Q Yeah. 01:15

A I'll find that if you'd like me to. 01:15

Q I think it's paragraph 12, the sentence on -- on this page that begins "Convoyed sales are," quote, "'related unpatented items'." 01:15

Is that what you're referring to? 01:16

A Let me just get to it. 01:16

Q Yes. 01:16

A We're back to page -- paragraph 12 now? 01:16

Q Paragraph 12. 01:16

A My God, we're going backwards. 01:16

Q Just for the definition, I promise. 01:16

A "Convoyed sales are 'related unpatented items' that 'are separate from the patented item but sold with...' and are fun-" -- "functionally related 01:16

to the patented product and constitute a single assembly or system and operate as a functional unit." 01:16

That is the best definition I can give you of convoyed sales. 01:16

Q Okay. 01:16

A And then my paraphrase was fairly accurate, I think. 01:16

Q And what is it -- 01:16

What does the term "functionally related to" mean? 01:16

A It's part of the same function. It's -- 01:16

The function here is cooling machines and getting that cooling material, i.e., here dielectric fluid, out to be cooled and then back into the system in the continuous loop. That's the function of the system. 01:16 01:17 01:17

Q Okay. 01:17

A So you're selling these products as a part of the function of the overall patented product. 01:17

Q Okay. 01:17

A And that function is, effectively, to cool the machines. 01:17

Q Right. 01:17

A Well, you can have the tank. If the tanks just have the heat exchanger and that was it, the 01:17

system is not going to work. 01:17

Q Right. 01:17

A The system has to have the pump skid to get it out to the cooling towers. 01:17

Q Right. 01:17

A So the function is only complete when you include those convoyed sales. 01:17

Q Okay. Is it appropriate to include, in your understanding, an item as a -- in convoyed sales if that -- that item has a -- strike that. 01:17

Is it appropriate to include an item that's a -- in convoyed sales if the item has a function that's independent of the patented product? 01:18

A Well, if it's sold as part of the package. Yeah, I mean, it -- it certainly could be. 01:18

It's -- it's typically functionality but it could also be just something that, you know, hey, if I order -- if I order, you know, a bunch of product -- if I order a product that typically is sold with something else that I sell that's not necessarily patented, that could be convoyed sales. And I lost the ability to create the -- to have the loss on those. 01:18

Q Right. 01:18

Did you consider whether the items that 01:19

you're including as convoyed sales -- and just for simplicity, let's take, for example, the air cooler. 01:19

You're including the air cooler in convoyed sales, right? 01:19

A Yes. 01:19

Q Not part of the patented unit? 01:19

A Correct. 01:19

Q Let's use the air cooler as an example. 01:19

Did you consider whether Rhodium might have sourced the air cooler, the air coolers that it used, directly from the manufacturers rather than purchasing them from Midas? 01:19

A Well, we did consider that in Scenario 2, yes. 01:19

Q Okay. 01:19

A Excuse me, in Opinion 2. 01:19

Q Opinion 2. 01:19

A Scenario 1 and 2 of Opinion 2. 01:19

Q Yes, you're right. 01:19

But it's appropriate to include them because they're -- Midas typically sells them? 01:20

A Well, I mean, I think of it as -- it's not, like, buying -- you know, it's not like buying a -- a radio and a battery, right? 01:20

Q What's a radio? 01:20

A Oh, yeah. Something that uses a battery. 01:20
Q No, I gotcha. I'm sorry, I'm being flip. 01:20
A A pair of Oculus VR goggles -- 01:20
Q And a battery. 01:20
A -- and an Eveready battery. 01:20
Q Right. 01:20
A Do they still make Eveready batteries? 01:20
Q I don't know. Radio and a battery, let's go with that. 01:20
A Yeah. Okay. Well, you know, a convoyed sale? I'm not sure about that with respect to that VR sales. 01:20
Q Right. 01:20
A I guess someone could buy a battery wherever they want. 01:20
Q Right. 01:20
A But -- but when it's part of a system, right, this is a very technical system, it has an incredible amount of functionality and an incredible amount of technology in it, with the heat exchanger and -- and the distance from the tanks to the outside and how big the pumps have to be and -- you know, and how big the line has to be, depending on how much fluid is coming through and what the temperature outside is, to figure out how much of a cooling tower 01:20 01:20 01:20 01:20 01:20 01:20 01:21 01:21

they need, how many fans they need; so typically in a system like that I would think, and we've assumed, that you would like to buy the whole system as a complete system. I bought it from you, I get it, it works, you're going to warranty all of it, whatever they do, if there is a warranty. But -- but you're going to -- you're going to stand behind your product. 01:21

If -- if -- if, in fact, you go and buy the tank unit with the heater changer and the pump there and then go design your own pump skid to get it out of the heat exchanger and outside, yeah, you could -- you might be able to do that because it's not patented. But is it likely you're going to do that, because you've spent so much money on this system to get it perfect and to get it right with all of that technology and all of those costs? I think it's more likely that you'd use convoyed sales -- 01:21

Q Okay. 01:21

A -- personally. 01:21

Q And in the real world, Rhodium did design its own pump skids, didn't they? 01:21

A Yes, but it -- but that's pump skids for the systems that they had. 01:21

Had they been buying the Midas tank unit, it 01:22

would be potentially a different -- I think it was a different cooling system. I think it was a completed different cooling system the way it worked. I think I've heard that. 01:22

Q Well, that -- that doesn't quite track to me because if Rhodium is infringing Midas's system, then it ought to be, at least in important ways, the same, right? 01:22

A Well, only with respect to the tank unit and the heat exchanger. But how you get that heated liquid out to a cooling tower is the convoyed sales with respect to Midas. 01:22

Rhodium designed their own but they designed their own to match up with their infringing tank. 01:22

Q Right. 01:22

A So those can't use that same system conceptually with the Midas tank, conceptually. 01:22

Q Right. 01:22

A So they have to get it -- 01:22

They don't have to get a Midas, they can go do whatever they want. But we sell the entire -- "we," Midas, sell the entire package, including the pump skid and the cooling tower. When you're spending that much money, it seems to me you'd want the whole product. 01:22

You don't buy a Ferrari and then go get a Maserati motor; you want the whole thing together. It works together, it fits together, it functions together, it's a product. 01:23

Q Okay. You don't, in your report, rule out that Rhodium could have done this, designed the other components of the system, right? 01:23

A I actually do. 01:23

Q Can you show me where? 01:23

A Yeah. It's Opinion 2. It's not including convoyed sales. 01:23

Q No, no, no. No. I -- I think I'm asking a different question. 01:23

What I'm saying is in Opinion 1 in your analysis here do you say -- do you say somewhere "I don't think Rhodium would have done this, I don't think Rhodium would have designed its own pump skid"? 01:23

A Do I say those exact words? 01:24

Q Where is the closest that you get to saying that? 01:24

A Opinion 2, where they don't -- you don't include convoyed sales, where they can do whatever they want to get the heated liquid out to the environment. 01:24

Q Right. 01:24

But it's your opinion that Opinion 1 is the -- is the appropriate opinion, right? 01:24

A Well, I think so for the reasons I just mentioned. 01:24

But if a trier of fact decides that convoyed sales are not appropriate for whatever reason, then, you know, that's also a damage analysis and certainly one that would be, you know, appropriate, if you don't think convoyed sales should be included. 01:24

Q Okay. In paragraph 12, and this will be my last definitional question, you say "In this case, to maximize the benefits achieved by the patents, all components of Midas' cooling system are necessary to operate as part of the (sic) cooling system and are sold together as a package by Midas," right? 01:24

A Correct. 01:25

Q Okay. What's your -- your basis for that statement? 01:25

A Just exactly what we talked about; conversations with -- with counsel. My understanding of kind of the overall system, as I've described to you. The fact that in prior years, or subsequent years, they sold those entire packages to Riot, which we quote in the next sentence. And just a general belief that if you're going to be spending that much 01:25

money on that technical of a system, it seems like you'd go the whole way, you wouldn't stop and try and design your own system around one that has very technical issues. 01:25

Q Right. 01:25

You say "all the components...are necessary," right? 01:25

A Yes. 01:25

Q What's -- why -- 01:25

What's the basis for your understanding that each and every component is a necessary -- 01:25

A Well, again, I'm no technical expert but being the CPA that has seen the system and -- and understand it, you have to get the heated liquid cooled, correct? Well, you do. 01:25

And you have to get it off that heat exchanger, you have to cool it somehow; so you have to pump it to a cooling station somewhere, and whatever that cooling station might be. 01:26

So you pump it outside into a cooling tower; so they are necessary. You have to get the liquid out and cool it get it put back into the system when it's cooled; so the components are necessary. 01:26

Whether or not I want to use Midas's pump skid and Midas's cooling towers that they purchased 01:26

from other vendors, apparently that's up to you. But it's their -- they are necessary components. 01:26

Q And it's your -- it's your opinion that they're necessary because that's the way Midas has built the system; Midas couldn't build the system in a -- in a different way that had, for example, one fewer dry cooler or something? 01:26

A No, I didn't say -- I said they're necessary components. 01:26

Pumping the liquid is a necessary component out to be cooled in the environment. That's necessary. I'm not saying it's -- you have to use Midas's; that's Opinion 2, you don't use Midas's. 01:26 01:27

You have to cool it once you pump it somewhere; that's a cooling tower. Okay? You don't have to use the vendor that Midas is suggesting, you can use your own; that's Opinion 2 again. But they are, no matter what, necessary components to complete the functionality of the product and the use for the product. 01:27

Q Okay. Did you consider whether the -- the items that you're including as convoyed sales could be used with a different non-infringing cooling system? 01:27

MR. THOMAS: I'm going to object. Asked and 01:27

answered. 01:27

THE WITNESS: Could the convoyed sales be used 01:27
in an acceptable non-infringing hypothetical? 01:28

MR. BRODY: Yes. 01:28

MR. THOMAS: Objection. Lacks foundation, 01:28
improper hypothetical. 01:28

THE WITNESS: I don't -- 01:28

I haven't thought about that. 01:28

BY MR. BRODY: 01:28

Q Okay. So setting aside -- 01:28

Let's assume that convoyed sales are 01:28
appropriate, which is what it says in the report, 01:28
let's walk through the steps -- 01:28

A Were you about to agree with that or 01:28
something? 01:28

Q I was not, unfortunately. 01:28

Let's walk through your analysis. In 01:28
paragraph 29 you've got one, two, three, four -- five 01:28
steps for calculating the economic damage? 01:28

A Correct. 01:28

Q All right. I'm not going to ask you about 01:28
the last one because I'm -- you're a math person and 01:28
I'm not, but let's talk about the other four. 01:28

The first step is to -- 01:28

These are all the steps that you -- you 01:29

undertook to calculate the cost reference, right? 01:29
A Correct. 01:29
Q These are set out in paragraphs 31 through -- 01:29
In the next section of your report? 01:29
A Correct. 01:29
Q All right. 01:29
A And on Exhibit 5. 01:29
Q Yes. 01:29
So what was the first step, establish the damage period? 01:29
A Yeah. You always, in any kind of a damage analysis, establish what that damage period is, when does it begin and when does it end. 01:29
Q Okay. And anything within that damage period, that's what ultimately goes into your lost profits opinion, right? 01:29
A Yes, but-for versus actual; so but for the alleged wrongdoing what would you have made and -- versus the actual, which would be zero in this case. 01:29
Q Right. 01:29
How did you determine what the damage period is? 01:29
A When the impact occurred to the company, to the -- to the aggrieved party. 01:29

Q Okay. In paragraph 32 you say that you've "determined the damage period begins when Defendants first began designing and building the infringing products on Rhodium's formation of April 1, 2020 and extends through December 31, 2023," right? 01:29 01:30 01:30 01:30 01:30

A Correct. 01:30

Q You picked -- 01:30

Why did you pick April 1, 2020, for the beginning of the damages period? 01:30 01:30

A I think that's when Rhodium first started up their operations or their -- their entity. I think it was incorporated on, like, April 1, 2020. 01:30 01:30 01:30

Q Okay. And it's your opinion that Rhodium began infringing immediately upon its incorporation? 01:30 01:30

A Yeah. It doesn't -- it doesn't really impact the analysis. 01:30 01:30

I think I remember Ms. Saints -- Sans -- 01:30

Q "Saitz." 01:30

A "Saitz." 01:30

Q Uh-huh. "Saitz." 01:30

A -- criticizes us for using April versus December or September when the operations first started occurring. It doesn't really matter, frankly, because all we're assuming is that they got 50 megawatts of power up by 12-31-20; so we assumed 01:30 01:30 01:30 01:30 01:31

it was just starting right when they started the entity. 01:31

They already knew there was infringing technology. They set this entity up to begin the process of setting up miners to then mine in April of 2020. And by 12-31-20 they had 50 megawatts of power up and running; so whether or not you started in April or December doesn't really matter. 01:31

Q Okay. I think you said "50." 01:31

Was it -- was it 30 in 2020 and 50 in 2021? It doesn't really matter but -- 01:31

A I'm happy to look for it. I love going back to all my calculations. 01:31

It was 30 in 2020. 01:31

Q Okay. So the damage period, whether it's April 1st or December 7, 2020, the damage period begins when, on the -- on the first infringement? 01:31

A Well, I think -- 01:32

As I defined earlier, I think you asked me how -- earlier what I -- what I kind of thought of infringement. I think if it was "designed" or "built" or "used." 01:32

My assumption has been that once they brought that technology over from Immersion and began using those same tanks that's when, you know, really 01:32

infringement began; so that's my opinion as relates to the beginning of the damage period. 01:32

But as I said, we can debate that all you want but it doesn't really matter. We're really -- you know, we're going year by year. And by the end of 12-31-20 they had 30 megawatts up and running and that's where the calculation basically takes place. It's simply by 2020 that's where the lost profit was. 01:32

Q All right. You say in paragraph 31 -- 01:33

So you offer two options, it's damage period begins after the -- 01:33

When the -- when the product is not marked, the damage period begins after the alleged infringer receives actual notice of infringement. 01:33

A Where are you? 01:33

Q Paragraph 31. Sorry. 01:33

A Yeah. Okay. I'm there. 01:33

Yes, uh-huh. 01:33

Q Okay. And so you say -- I'm summarizing, but if the product is marked the damages period begins after the -- on the first act of infringement, right? 01:33

A Correct. 01:33

Q And if the product isn't marked, the damage period begins after the alleged infringer receives 01:33

actual notice of infringement, right? 01:33
A Okay. Yes. 01:33
Q Okay. Are you -- 01:33
You're relying on the actual notice of 01:33
infringement for the April 1, 2020 date, right? 01:34
A Yes. 01:34
Q Okay. You also say "As of the commencement 01:34
of the damage period, I understand...Plaintiff has 01:34
been marking all of its products"? 01:34
A Correct. 01:34
Q What's your basis for that statement? 01:34
A Conversations with Midas. 01:34
Q Okay. What's your understanding of what it 01:34
means for a product to be marked? 01:34
A You actually put a stamp on it -- one of the 01:34
metal stamps, you see "US patent pending" or 01:34
something like that. You actually put a label on it. 01:34
Q Had Midas produced an immersion cooling tank 01:34
to be marked as of April 1, 2020? 01:34
A No, but they're -- what we're saying is they 01:34
marked their products which, in a hypothetical world, 01:34
they would have marked their product in 2020 had 01:34
there been one. But in this situation, they -- they 01:34
were using that technology apparently in the 01:34
Immersion Systems' scenario. 01:34

Q Right. 01:34
A They were notified of an alleged 01:34
infringement. That entity shuts down, comes back as 01:35
Rhodium and begins mining using that same technology. 01:35
Q Okay. But in the hypothetical -- 01:35
What's your basis for saying that in a 01:35
hypothetical world Midas would have marked its 01:35
products? 01:35
A Because they marked them in 2021; why 01:35
wouldn't they mark them in 2020. 01:35
Q Okay. That's fine. 01:35
You're just sort of inferring that because 01:35
they did it later they would do it -- they would have 01:35
done it in 2020? 01:35
A I don't know why they wouldn't. 01:35
Q Okay. 01:35
A If they did it in '21, why didn't they do it 01:35
in '20 if there was a product out there. 01:35
Q Okay. That opinion about the hypothetical 01:35
marking, that's not written down in here, is it? 01:35
In -- 01:35
It's not written down in your report, is it? 01:35
A I'm sorry, what hypothetical? 01:36
Q You told me that if Midas had produced a 01:36
product in 2020 they would have marked it. I'm 01:36

asking did you -- 01:36

A You asked me. You said to me they didn't 01:36

have any products in 2020. My comment here says -- 01:36

I don't know, what paragraph am I on? 01:36

Q It's the bottom of paragraph 31. 01:36

A "31"? 01:36

Q Yes. 01:36

A "As of the commencement of the damage 01:36

period, I understand the Plaintiff had been marking 01:36

all of its products." 01:36

So in 2020 Midas had products, they were 01:36

selling products, they'd sold a couple of products 01:36

out there in the real world and they were marking 01:36

here their products; why wouldn't they mark this 01:36

product? 01:36

Q Who had they sold products to 2020? 01:36

A They'd had -- they'd had small sales before, 01:36

apparently. 01:36

Q Which ones? 01:36

A I don't recall. 01:36

MR. BRODY: Okay. I'm going to mark the next 01:36

exhibit. 01:37

THE REPORTER: Exhibit 8. 01:37

(Defendants' Exhibit 8 was marked 01:37

for identification and is attached 01:37

hereto.) 01:37

MR. BRODY: This is for you. This is for you. 01:37

This is for you. 01:37

Q Are you familiar with this document? 01:37

A I am. 01:37

Q Okay. Did you review it in the course of 01:37

preparing your report? 01:37

A Yes. 01:37

Q Okay. I'd like to direct you to page 7. 01:37

A I'm there. 01:37

Q It states "it has been the policy and 01:37

practice of Midas to mark its immersion cooling 01:37

products in compliance with 35 U.S.C. Section 287 at 01:37

least as early as March 24, 2021," right? 01:37

A Correct. 01:37

Q If Midas had sold products earlier and 01:37

marked them, wouldn't it have been Midas's policy as 01:37

of that earlier date? 01:38

A Not necessarily. 01:38

Q You're just assuming that -- that it was? 01:38

A No. You're assuming that it was. You're 01:38

assuming that they didn't have that in place in 01:38

earlier possible sales. I'm assuming that because 01:38

they did mark them in 2021 there's no reason to 01:38

believe that, if there was sales in 2020, they 01:38

wouldn't have marked them. 01:38

Q Okay. I'd like to go back to the question 01:38

that -- that was asked. Interrogatory number 3 asks 01:38

Midas to do a number of things, including to identify 01:38

whether the product was marked -- "Identify and 01:38

describe each product that was made, offered for 01:38

sale," a number of other things, and identify whether 01:38

"the product was marked with the number of any of 01:38

these Patents-in-Suit," right? 01:39

A Yes. 01:39

Q So if Midas had sold a tank and marked it, 01:39

do you think they would have listed it in response to 01:39

this interrogatory? 01:39

A Well, do they -- do they list sales in here 01:39

for 2020 or whatever dates? 01:39

I'm not sure of your question. I don't 01:39

understand your question. 01:39

It says here "Midas presently understands 01:39

and interprets the phrase...consistent," which is 01:39

"advertised and promoted," which Midas has not ever 01:39

provided an actual offer for sale. 01:39

Q My question is just why -- why do you think 01:39

that if Midas had made sales in 2020 it didn't 01:39

identify them as -- in response -- and had marked 01:40

them, it wouldn't have identified them in response to 01:40

this interrogatory? 01:40

A I'm assuming that they marked in 2020. I don't know -- I never saw a product. 01:40

And all I'm saying is -- my only comment was they made sales in 2021 to Riot, they said they were marked; there was no reason to believe that they wouldn't have marked those products in 2020. 01:40

Q Okay. That's fine, I'll leave it there. 01:40

So you're not relying on marking, though; you're told me that you're relying on Rhodium having actual notice of infringement, right? 01:40

A Yes. 01:40

Q And your basis for that is? What's your basis for that statement? 01:40

A I've answered that like five times. You know the answer to that. It's that they -- 01:40

In February of 2020 they were put on notice -- 01:40

Why are you looking at me that way? 01:40

Q I'm listening to your answer. 01:40

A Oh. 01:40

They were put on notice that there was infringing technology being used by Immersion, they ceased, they then started Rhodium -- and "they" being the principal, same principals, and started then a 01:40 01:41

mining company called Rhodium, which began in April of 2020, and by 12-31-23 had employed 30 megawatts of computing technology to mine Bitcoin. 01:41

Q Okay. Has there ever been a -- a finding that Immersion Systems infringed any of Midas's patents? 01:41

A Not to my knowledge. 01:41

Q Okay. But it's your belief that Immersion Systems did, right? 01:41

MR. THOMAS: It's his assumption, Counsel. 01:41

THE WITNESS: I don't -- I don't -- I'm not -- Again, I'm not -- I did not make any determination of whether there was infringement. I simply assumed that. 01:41

BY MR. BRODY: 01:41

Q Okay. And what's your assumption based on? 01:41

A Based on my conversations with counsel and Midas. 01:41

Q And when you refer to "conversations with counsel," who you are referring to? 01:42

A Counsel. Thomas Whitelaw. 01:42

Q Okay. And what were you told in these conversations that led you to feel comfortable assuming that Immersion Systems was infringing? 01:42

A That there was a notice sent to Immersion 01:42

that there was alleged infringement; that Immersion then no longer was in play; and that Rhodium then came about in April of 2020. 01:42

Q Okay. And is it your assumption that Midas and -- or, sorry, that Rhodium and Immersion Systems used the same technology? 01:42

A Yes. 01:42

Q Okay. And what's the basis for that assumption? 01:42

A Conversations with Midas and counsel. 01:42

Q Okay. And what was said in those conversations that made you feel comfortable making the assumption? 01:43

A That they were still infringing. 01:43

Q They told you that -- that there was infringement and -- and that's the basis for your opinion? 01:43

A Well, plus Pokharna -- Dr. Pokharna has also said there was infringing in the Rhodium technology. 01:43

Q Okay. 01:43

A It's getting warmer in here. 01:43

MR. THOMAS: You warm enough, too warm? 01:43

THE WITNESS: No, no, no. I'm saying it got warmer. 01:43

MR. THOMAS: Okay. Yeah. 01:43

THE WITNESS: Thank you. 01:43

BY MR. BRODY: 01:43

Q Okay. If those assumptions are that -- the 01:43

assumption that Immersion Systems had notice of -- 01:44

that Immersion Systems was infringing or that Midas 01:44

and -- we'll do it one by one. 01:44

So you're assuming that Immersion Systems 01:44

was infringing Midas's patents. 01:44

If that assumption is wrong, does that 01:44

change your -- would that change your opinion as to 01:44

the April 1, 2020 start date for the damages period 01:44

in this case? 01:44

A Well, it would change the -- I mean, I -- 01:44

Again, I've assumed there was infringement 01:44

as of April '20 -- April 1, 2020. 01:44

Q Right. 01:44

A The date was selected by me because of the 01:44

date that Rhodium came online. 01:44

Q Right. 01:44

A So that's on -- that's the date. 01:44

With respect to the infringement, I'm 01:44

assuming that, I've been asked to assume that; so, 01:44

yes, I've been asked to assume that. I'm not the one 01:44

determining whether or not there was infringement, 01:44

that's to other people. 01:45

Q Okay. But you've also been asked to assume that Rhodium was on -- that Rhodium was on notice; that's what I'm understanding? 01:45

A Well, yeah. I mean, I guess I've assumed -- not "I guess." 01:45

I've been -- I've assumed that the players that were in Immersion were the same players that were in Rhodium for the most part. And, therefore, if they were on notice at Immersion of having, you know, infringed on the patent, that that continued on to the infringement in April; so, yes, I would assume they were put on notice in January or February of 2020 -- 01:45

Q Right. 01:45

A -- and continued that process all the way through, well, today. 01:45

Q Right. 01:45

A And "that process" being infringing on the patent. 01:45

Q Right. 01:45

And what I'm asking is if any one of those assumptions that you've made turns out to be incorrect as a matter of fact, would that change -- would that cause you to re-examine your opinion of when the start date of the damages period is? 01:46

A Well, tell me which assumptions you want me to assume is wrong. 01:46

Q Assume that Immersion Systems is not actually -- never actually infringed Midas's patent, how would that change your analysis of the -- 01:46

A It wouldn't? 01:46

Q -- damage period? 01:46

Why not? 01:46

A Because the damage period starts April 1st when Rhodium starts their process, their company, and are using a technology that I'm being told infringes; so if they're using that technology, by 12-31-23 where they have 30 megawatts in, they started in April, that's where a design or a use or a build occurred and that's when the damage period would start. 01:46

Q Right. 01:46

But if -- if -- if -- 01:46

You're telling me the damage period starts on -- the damage period starts on April 30 -- April 1, 2020 because Rhodium was on notice of infringement, right? 01:46

A Well, I mean, it could have been on notice. Or it also could have been the fact that that's when they began the infringement; they designed or built 01:47

or used infringing products at that point in time. 01:47

Q But if Rhodium wasn't on notice, you'd have to be relying on the fact that Midas's products had previously been marked, right? 01:47

A I don't understand that question. 01:47

If -- if -- if -- if Rhodium knows that they are infringing on a product, when they design it or build it or use it, that's when the damage period would start. And my assumption has been that's April 1, 2020. 01:47

Q Okay. In Scenario 1 you assume -- you set the end date for your damages period as December 31, 2023, right? 01:48

A Correct. 01:48

Q And that's -- 01:48

Why did you pick that date? 01:48

A Just the closest year-end to trial date. 01:48

Q Okay. Did it have anything to do with the -- the capacity of megawatts that Rhodium had built out by that point? 01:48

A No. 01:48

Q Okay. And then you say that in Scenario 2 -- 01:48

So let's go to paragraph 33. So you're "asked by TWK to calculate future lost profits by extending the damage period beyond December 31, 01:48

2023," right? 01:48

A Correct. 01:48

Q There's going to be a trial, it's currently scheduled for April of this year, right? 01:48

A Correct. 01:48

Q Have you ever, in your 300 cases as an expert, calculated patent infringement lost profit damages beyond the date of trial? 01:48

A I'd have to go back and look at that. I don't recall. I don't recall. 01:49

Q Why is it appropriate to calculate lost profit damages beyond the date of trial? 01:49

A Well, the issue becomes, you know, is it -- is it reasonable that that infringement that you can calculate or you could -- there would -- the reasonable possibility that there would be increased -- continued lost profits, that's kind of the measurement that we use in damages, is it reasonable that the -- the loss would continue -- 01:49

Q Right. 01:49

A -- to a certain point; so the fact that there's some arbitrary dates set for a trial doesn't necessarily mean the infringement is going to stop. 01:49

I mean, you could have a trial and -- and -- you know, it gets appealed. You could have a trial 01:49

and -- and the -- and -- that you could win with respect to infringement and it could be appealed. There could be -- 01:49

You know, all kinds of things could happen legally. But the question becomes is that infringement potentially still going to continue. 01:49 01:50

And what I saw was the behavior from this -- from Rhodium, with respect to Immersion then to Rhodium in April, and then this continued -- even after this whole lawsuit, etcetera, this continued behavior of continuing to allegedly infringe, which I've again assumed -- 01:50 01:50 01:50 01:50 01:50

Q Of course. 01:50

A -- why wouldn't it be reasonable that that wouldn't continue into some point in time? 01:50 01:50

Q You think it -- 01:50

It's reasonable, in your opinion, that Rhodium would go to trial, lose and nevertheless continue infringing Midas's parties? 01:50 01:50 01:50

A It's certainly possible. They've been -- they've apparently been put on notice back in -- in January of '20 to the fact that they were infringing and then continued to use that patent to generate over 2-, 3-, 400 million dollars' worth of revenue; so why would it -- would why would they stop now. 01:50 01:50 01:50 01:50 01:50 01:50

Q Do you see a difference between one party's assertion of patent infringement and a jury's finding of infringement?

A No. I mean, I do in a sense, yeah. That's why I asked counsel if they'd want me to continue it because I can see a possibility where this case comes to some fruition that was -- say there's a finding of -- of infringement, but then what about if there's an appeal? And what about if there's an appeal and they -- during that appeal process, they continue to use those infringed products?

That's a reasonable possibility.

Q And why is that "a reasonable possibility," just because of what happened with Immersion Systems?

A Well, I mean, yeah. They've been -- they've --

They were put on notice that there was an infringement, they've continued it up to April 1st. They basically then have been sued and they've continued the process. They haven't changed anything. Black- -- Blackmon says they haven't designed around at all; so if there's a finding of -- of infringement, that could delay -- that could be -- you know, the trial could be delayed. I don't know.

There could be a finding and it could be

appealed. There could be all kinds of things that could happen and that's why we've given you the two options; so you can stop it at 12-31-23 if you believe that's the time to stop it, but I think there's a reasonable possibility that that infringement could continue. And I only continued it up to what they said that the capacity might get to between those two plants. 01:51 01:51 01:51 01:51 01:52 01:52 01:52 01:52

Q Right. 01:52

A So, you know, a trier of fact can decide; I've given them two options to decide the date. I think there's certainly a reasonable possibility they could continue or I wouldn't have calculated it. 01:52 01:52 01:52 01:52

Q Okay. And you -- 01:52

So you calculate -- 01:52

You forecast in Scenario 2 that Rhodium would build out its capacity to a total of 325 megawatts, correct? 01:52 01:52 01:52

A Correct. 01:52

Q And you found that 325-megawatt figure in the SilverSun S-4, right? 01:52 01:52

A Well, it was also in a Rhodium document. It was in, like, three different documents. 01:52 01:52

Q Okay. In Exhibit -- in footnote 61 you only cite the one; so it's -- 01:52 01:53

Your report discloses that you're relying on the SilverSun S-4 here. 01:53

A Yes. 01:53

Q Okay. 01:53

A But I -- 01:53

There was also deposition testimony, as I recall, that talked about the capacities of the two different facilities, one of them was basically operating at 100 and they had 100 installed. And then the second -- 01:53

I don't remember which one it was. 01:53

-- had a 225 capacity and they were only operating at 125; so there was an additional -- at 100, so they had an additional 125-megawatt capacity, which is where we came up with the additional 125 megawatts in the future, '24, '25 and '26. 01:53

Q Okay. But those depositions, you don't refer to them here? 01:53

A I forget -- 01:53

Well, I thought there was depositions we did talk about with respect to that. I'd have to look at it. 01:53

Q Okay. What's your understanding of the -- the transaction that was contemplated between Rhodium and SilverSun? 01:54

A A merger. 01:54
Q "A merger"? 01:54
A Yes. 01:54
Q Okay. And the merger -- 01:54
What would have been the result of the 01:54
merger? 01:54
A It was a reverse merger. I think SilverSun 01:54
was the controlling entity or the -- the surviving 01:54
entity. 01:54
Q Okay. And after the merger, Rhodium -- 01:54
would Rhodium have been a publicly traded company? 01:54
A Yes. 01:54
Q Okay. And would that merger have resulted 01:54
in a capital infusion to Rhodium? 01:54
A I didn't read the terms of the merger. 01:54
Q You didn't read the terms of the merger? 01:54
A No. 01:54
Q Okay. As a publicly traded company, did 01:54
you consider whether it would have been easier for 01:54
Rhodium to access capital? 01:54
A No. 01:55
Q Okay. 01:55
A They seemed to do quite well in their prior 01:55
offerings to raise enough to build 200 megawatts. 01:55
Q That transaction -- 01:55

The SilverSun transaction wasn't completed, was it? 01:55

A No. 01:55

Q Okay. Why -- why is it appropriate to rely on projections made in the context of a proposed merger even after the merger didn't -- wasn't completed? 01:55

A Well, there were -- there were a number of documents that -- that talked -- I'm not sure 61 is the only document that talked about that. 01:55

When we were -- when we were talking about the quantities in Exhibit 1, there were other documents quoted. If you go to Exhibit 1 and -- Exhibit 1 talks about -- 01:55

So this is a SilverSun Technologies form S-4 -- 01:56

Q Right. 01:56

A -- of 325. 01:56

Q Right. 01:56

A I thought there was another document that talked about 325 that I've seen somewhere, I don't remember what it was. 01:56

Q Okay. 01:56

A But anyway it doesn't -- 01:56

The point is that there was a plan to 01:56

continue to develop up to 325 megawatts at the two sites in Texas that they're now at; so when the question becomes, on a go-forward basis in '24, '25 and '26 could there have -- was it reasonably possible they could have expanded, the answer is yes, and we simply used the numbers that they put in their projections as being possible expansions. 01:56

There was also another document that I saw that there was, like, 650 megawatts potentially going to be deployed; so we just used the lower of the numbers for a more conservative approach. 01:56

Q I'm just wondering why it's appropriate to -- to rely on the -- the SilverSun forecast at all. 01:56

If Rhodium is going to merge with a public company, and this is -- merging with a public -- 01:56

Going public is a big deal, right? Why is it appropriate to rely on -- 01:57

A What's your -- what's your basis for that? 01:57

Q That going public -- I'm comfortable with my statement. 01:57

That -- that -- 01:57

MR. THOMAS: Well, you're not testifying here. 01:57

Just ask -- 01:57

MR. BRODY: I'm not testifying. 01:57

MR. THOMAS: Just ask questions. 01:57

You don't -- you don't get to -- to make your own record here. 01:57

BY MR. BRODY: 01:57

Q My question is why is it appropriate to rely on projections made in the context of a transaction that was subsequently canceled? 01:57

A Well, you don't lie in your projections of a public company. 01:57

Q You don't "lie"? 01:57

A "Lie," L-I-E. 01:57

Q Right. 01:57

A So you're not putting it out there as being some pie in the sky, you're putting it out there as being a reasonable assumption as to how you might expand. And the expansion didn't necessarily rely on the merger taking place. 01:57

The discussion was talking about the two facilities in Texas that they're now in right now. And the 125 megawatts was only in addition to the second -- to one of the sites, I forget the name of it, Temple. It was the Temple site that now has 100 megawatts operating and it has capacity of 225. 01:57

So all we did was say, okay, you think you're going to get to 25 -- 125 -- you think you're 01:58

going to get to 225, that's a reasonable -- you've considered that to be a reasonable possibility of where you might go by -- in the future. And actually I think it was before -- the timeframe was like '22 or '23, as I recall. 01:58

And that's all we've said is that given the fact that there was a downturn in the market and you decided to pump the brakes or whatever they -- the term they used, we then said, okay, it's reasonable to assume that they could have additional megawatts added to Temple in '24, '25 and '26. 01:58

Q Do you consider whether the cancellation of the SilverSun transaction might have changed Rhodium's plans? 01:58

A No. 01:58

Q It wouldn't have? 01:58

A I -- I -- all I know is they have that projection. They have that -- that estimate of what they're going to do in the future. 01:58 01:59

Q Right. 01:59

A I assumed that continued. That was an assumption I made. And I think it's a reasonable assumption and I don't think 125 megawatts additional at Temple, it's certainly in the capacity, it's built for that; to include that in the future, I don't any 01:59 01:59 01:59

is speculative in any way, shape or form. 01:59
If a trier of fact decides that it is not 01:59
appropriate, that's why we have Option 1 -- 01:59
Q Okay. 01:59
A -- Option 2. 01:59
Q Let's take a break. 01:59
A Excuse me, Option -- 01:59
Q Option 2. 01:59
A -- 1 or 2, Scenario 2. 01:59
MR. BRODY: Yes. That's right. 01:59
Let's take a break. 01:59
THE VIDEOGRAPHER: We are off the record at 01:59
1:59 p.m. 01:59
(Off the record.) 01:59
THE VIDEOGRAPHER: We are back on the record at 02:15
2:15 p.m. 02:15
BY MR. BRODY: 02:15
Q Welcome back. 02:15
A Thank you. 02:15
Q So we discussed, it's -- it's in Scenario 2 02:15
you project that Rhodium will build out its immersion 02:15
cooling until it reaches 325 megawatts of capacity? 02:15
A Correct. 02:15
Q To build out to 325 megawatts of capacity, 02:15
Rhodium would have to have somewhere to put all that 02:15

immersion cooling equipment, right? 02:15

A Yes. 02:15

Q Okay. And do you offer an opinion about 02:15

where that would be? 02:15

A That would be at Temple. Temple can 02:15

certainly handle it; they have a 225-megawatt 02:15

capacity. They've purchased the power for that. And 02:15

it's -- they talk about that in their documents. And 02:16

they only have 100 there operating as we speak; so 02:16

they have an additional 125 capacity there. 02:16

Q Okay. Do you address that in -- 02:16

Do you say that in your report or -- 02:16

A Yeah. Yeah. I mean, you're -- you're 02:16

quoting -- you know, you're pulling out just 02:16

paragraph or footnote 61 but what you're forgetting 02:16

about is back in -- on page -- paragraph 90 -- 02:16

Q Uh-huh. 02:16

A -- where we talk about -- more about the 02:16

projections. And so all the things you've just asked 02:16

me about are kind of right here, including 02:16

footnote 111, which footnote 111 was a 2021 document 02:16

which talks about their build-out, talks about their 02:16

pro formas before the merger, before the merger 02:16

documents that we've looked at, that project 02:16

625 megawatts by the end of 2023; so that's -- 02:16

Before all this capital you're talking about, how great it is to go public, all those things, they're projecting these prior to that, they're projecting 625 megawatts at the Rhodium facilities in -- and by 2023, I believe. 02:17

Q Right. 02:17

I guess what I'm saying is that's -- that's just not what you cited in paragraph 33, but -- 02:17

A It is but -- 02:17

Yeah, but you're suggesting it's not in the report as you've said like seven times today and it is actually on page whatever it is, footnote 111. You're just not reading ahead and seeing the extent of what we're talking about with respect -- with respect to projections and with respect to future sales, etcetera; it's in paragraph 90. 02:17

Q Okay. 02:17

A It's right there -- 02:17

Q Okay. 02:17

A -- so I kind of object to the fact that you say it's not there when you just haven't read the whole report, or at least I don't think so. And it's sitting in there in footnote 111. 02:17

Q Okay. 02:17

A The exact document that projects 02:17

625 megawatts and we're only using 325 megawatts in our projected sales. 02:17

Q What I asked was a -- what I asked was a different question, I was -- 02:17

A Well, no. I was just trying it clarify your earlier allegation and we didn't talk about -- 02:17

MR. THOMAS: No, he's clarifying his testimony; so anyway -- 02:18

If you have a new question, go ahead. 02:18

MR. BRODY: That's fine. 02:18

Q What I'm asking him is do you talk about -- do you -- in your report, do you talk about the base constraints and where Rhodium would have put this new 325 megawatts capacity in -- do you say "It would have gone in Temple" anywhere in your report? 02:18

A I don't re- -- 02:18

As I sit here right now I don't know if I exactly say that, but it's in the documents that we've cited. It talks about the capacities of the different sites, Temple and Rockdale. It talks about the fact that Temple has an additional 150 -- 125, 150 megawatts as we sit here now and that's the 125 that we're suggesting that we add in '24, '25 and '26. 02:18

Q Okay. Do you know what the halving is? 02:18

A The what? 02:18
Q "The halving." 02:18
A "Halving"? 02:18
Q Uh-huh. 02:18
A I don't know what that is. 02:18
Q In connection with Bitcoin. 02:18
Are you aware that in approximately April of this year the amount of Bitcoin that will be generated as a reward for a particular mining transaction will be cut in half? 02:18 02:18 02:18 02:19
A No. I thought I read somewhere where the -- the last mined Bitcoin would be in 2140. 02:19 02:19
Q Yes. So it's -- there -- 02:19
It will take a while but are you aware that in -- 02:19 02:19
So you're not -- you don't know what the halving is? 02:19 02:19
A I do not use the term. I do now -- 02:19
Q Okay. 02:19
A -- or at least your representation of what it is. 02:19 02:19
Q Right. 02:19
Would it affect your opinion that what Rhodium is considering expanding to 325 megawatts to know that Rhodium's capacity would have been -- the 02:19 02:19 02:19

reward for Bitcoin mining transactions was about to be cut in half? 02:19

A No. No. It actually -- it would actually support a bigger spend because the return on these things is significant, the margins on these are significant. And if it's going to take that much more time to get these, you need more computing power; so you have to add megawatts to increase the -- the computing power to try and get to that halving point before somebody else does -- 02:19

Q Okay. 02:20

A -- because they've shown a significant return on their investment; so I -- if I were them I'd keep adding quickly to get to the halving point. 02:20

Q Okay. But you don't address that in here? 02:20

A No. No, I do not. You're the one that brought it up, actually. 02:20

Q Yes. That's right. 02:20

A Would you like to put an addendum to my report? 02:20

Q So let's talk next about sales quantity. 02:20

A "Sales quantity"? 02:20

Q But-for sales quantity. 02:20

It's your -- 02:20

Is it your opinion that -- 02:20

What are you trying to -- to determine when you're analyzing but-for sales quantity? 02:20

A But-for sales quantity. 02:20

Q And what does that mean? 02:20

A The sales that would have occurred but for the alleged infringement. 02:20

Q And how is that determined? 02:20

A As we've said before, it was simply in this case the amount of megawatts that Rhodium put in place by 2023. 02:20

Q Okay. So in -- 02:20

So it's your opinion that if Rhodium had purchased its tank, its immersion cooling systems from Midas rather than constructing them itself, Rhodium would have installed 200 megawatts by the end of 2023? 02:20

A Yes. 02:21

Q Okay. And 325 megawatts by the end of 2026? 02:21

A Correct. 02:21

Q Okay. And the basis for that opinion is just Rhodium's performance in the real world? 02:21

A What they actually did in '20 to '23. 02:21

Q Okay. Rhodium built its own immersion cooling tanks in the real world -- 02:21

A That's correct. 02:21

Q -- right? 02:21
A That's correct. 02:21
Q I'd like you look at paragraph 180 of 02:21
Juli Saitz's report which is Exhibit 3. 02:21
A Exhibit 3, 180? 02:21
Q Uh-huh. 02:21
A I'm there. 02:22
Q Okay. This paragraph -- 02:22
You've read this paragraph before today, 02:22
right? 02:22
A Yes. 02:22
Q Okay. And in it Ms. Saitz writes that 02:22
your analysis of lost profits is based on a 02:22
"sales price of $8,920 (discounted) or -- "to, 02:22
$11,150 (undiscounted) per tank," correct? 02:22
MR. THOMAS: You're asking if that's what it 02:22
says? 02:22
MR. BRODY: I'm asking if that's what it says. 02:22
THE WITNESS: I don't know where these numbers 02:22
come from -- 02:22
MR. THOMAS: The document speaks for itself. I 02:22
mean, it's -- 02:22
These are her statements, not his. 02:22
BY MR. BRODY: 02:22
Q Okay. Do you have any reason -- 02:22

A Hang on a second. Let me just look at hers. 02:22
Okay. 02:23
Q Okay. Do you have any reason to disagree 02:23
with Ms. Saitz' calculations? 02:23
A Well, I haven't reviewed Mrs. -- I mean, I 02:23
haven't reviewed Schedule 3-1. I see where she gets 02:23
the numbers. 02:23
Q Okay. 02:23
A But I don't -- I haven't checked these 02:23
numbers. They seem -- 02:23
I mean -- you know, I've heard that it costs 02:23
13 million dollars for Rhodium to build tanks. The 02:23
pricing that -- it looks like -- for the 1,400 tanks 02:24
looks accurate. 02:24
On the second section of her -- I'm on 02:24
Schedule 3.0, by the way. 02:24
Okay. So, yeah, I see that. 02:24
Q Okay. And then on the next sentence she 02:24
writes that -- she recites Rhodium's price to build 02:24
its own tanks which is $6,771 -- which she describes 02:24
as $6,771, right? 02:24
A Yes. 02:24
Q Okay. So did you consider, in forming 02:24
your opinion, that Rhodium would have purchased 02:24
200 megawatts of immersion cooling from Midas, that 02:24

Rhodium would have -- 02:24
A Can I steal your calculator for a second? 02:24
Q -- been required to pay more to purchase its tanks through Midas than it costs to build the systems itself? 02:24
A Well, let's just do the math here and I think we'll prove how silly Mrs. Saitz' comment is. 02:24
Q Okay. 02:25
A In paragraph 131 or -- or 180 she says -- she uses the comments to say that would they pay "30 to 65 percent more than it cost to build the Accused Tanks themselves"? That sounds like big numbers, right, 30 to 65 percent -- 02:25
Q So I'm going to just stop you -- 02:25
A -- it sounds like -- 02:25
MR. THOMAS: No, no, no. Let him -- 02:25
He's giving an answer, you can't interrupt the witness. 02:25
You've asked the question, he gets to finish the answer. 02:25
THE WITNESS: So she says -- 02:25
MR. BRODY: I asked -- 02:25
THE WITNESS: She actually -- 02:25
MR. THOMAS: You might not like it but he gets to finish the answer. 02:25

THE WITNESS: She says it costs -- 02:25
MR. THOMAS: Now, Counsel, let him finish and then ask another question. 02:25
THE WITNESS: She says it costs 30 to 60 percent more, which sounds like a lot of -- if you pay 65 percent more or a car that sounds like a lot; however, let's put that into perspective. 02:25
The difference in the price per tank is -- if I even go undiscounted is basically 11,150 less 6,771 equals -- times 1,400, is 6 million dollars. 02:25
BY MR. BRODY: 02:26
Q Right. 02:26
A Now, that's assuming I've done the math right which I'm not so sure I did, but 6 million dollars. 02:26
On sales of 230 million, number one, and the profit margin they're achieving, that's a blip in their gross profit. It is a blip. 02:26
We've already done this exact analysis on the reasonable royalty rate; when using the 10 million dollars for reasonable royalty rate took it from 3.89 percent to 3.87 percent. It is a blip. 02:26
So a -- a comment like this is silly, yes. 02:26
30 to 65 percent -- I took the high end, by the way, 02:26

the 65 percent; it's a 6-million-dollar impact. That's all it is. It's not 60 percent of 200 million, it's 60 percent of the cost of the tank. 02:26

Q Okay. So -- 02:26

A That's 6 million dollars. 02:26

Q -- with respect -- 02:26

A Over the entire life of that mining facility. 02:26

Q And I don't mean to interrupt you but that wasn't my question. 02:26

A Well, I thought it was. 02:26

Q My question is did you consider, in forming your opinion that Rhodium could have -- would have purchased 200 megawatts of tanks from Midas, that Rhodium -- the cost -- the difference in cost between the cost to Rhodium to construct the 200 megawatts of tanks for itself against the -- the cost to purchase 200 megawatts from Midas. 02:26 02:27 02:27 02:27

Did you consider that difference? 02:27

A I just did it. 02:27

Q Right. 02:27

A I just did it right in front of you, which you objected to. 02:27

Q You did it right now. 02:27

Did you consider it in forming your opinion 02:27

in your report? 02:27

A No because I don't -- I mean, I don't think 02:27
that a person should make a financial viability 02:27
analysis as to whether or not they should infringe 02:27
or not. I think if they're going to infringe, they 02:27
should basically have a reasonable royalty or not 02:27
infringe. I think if you make a decision based on an 02:27
ROI of how much more it's going to cost us to buy 02:27
a -- a non-infringing product, I don't think that's 02:27
appropriate. 02:27

Q Okay. Do you -- 02:27

A But 6 million dollars of additional costs of 02:27
these tanks over the life of these tanks and the life 02:27
of that operation is less than peanuts. It is tiny, 02:27
it's infinitesimal; so I did consider it just now and 02:27
it is a ridiculous comment that's made in her report. 02:28

Q Okay. Did you consider whether Rhodium had 02:28
the additional capital to -- to pay this additional 02:28
6 million dollars that you've now determined it would 02:28
have cost? 02:28

A Well, I -- they -- 02:28

It seemed to me they raised 225 million 02:28
dollars and they -- 02:28

Yeah. I think they more than had the 02:28
capital to do that. 02:28

Q Okay. Is that opinion in your report? 02:28
A No, it's not. You just asked me to do that 02:28
analysis. 02:28
Q Okay. Thank you. 02:28
A Yeah. I think they had more than the 02:28
capital to do that. 02:28
Q And it's your opinion that if Rhodium, in 02:28
the -- in Scenario 2 of the but-for world Rhodium 02:28
would have sufficient capital to -- I'm sorry, strike 02:28
that. 02:28
It's your opinion that in Scenario 2, going 02:28
out to 2026, Rhodium will have enough money to buy 02:28
Midas's tanks to reach 325 megawatts of capacity? 02:29
A Well, their own projections in footnote 111 02:29
show they can get to 625. 02:29
Q Okay. We'll talk about those projections 02:29
but that's -- 02:29
So it's -- 02:29
Your answer is yes because of those 02:29
projections? 02:29
A Well, my answer is yes because of the 02:29
capital raise that I saw that they had and the amount 02:29
of profits that they're making off of these tanks and 02:29
their financial statements on an annual basis, a 02:29
significant amount of money, number one; that would 02:29

create the capital itself. And then more importantly, number two, what we just talked about was their own projections until they get to 625. And that's all the way down to cash flow is their -- basically their projections. 02:29

Q Okay. 02:29

A Done in 2021, by the way. 02:29

Q Let's go to -- to but-for sales price. 02:29

What's your understanding of the but-for sales price factor? 02:29

A It would have been the price that they would have charged Rhodium for those tanks. 02:29

Q Okay. You say you "understand that Plaintiff strives to maintain a consistent margin on its unit sales of 30 to 40 percent despite fluctuations in cost," right? 02:29 02:30

A Correct. 02:30

Q And your basis for that is? 02:30

A Conversations with Mr. Sickmiller. 02:30

Q Okay. Has Midas ever achieved a 30 to 40 percent margin on its unit sales? 02:30

A I think I saw they had a 26 percent in 2022, I believe it was, or 2021. 02:30

Well, they certainly did on the -- on the Riot sales, achieve those; that's where the numbers 02:30

are coming from. The -- 02:30
If you go to Exhibit 5, the undiscounted 02:30
margins -- excuse me one second. 02:30
The margins on the undiscounted ones in 02:31
2021 are 34 percent, in 2023 are 37 percent. And in 02:31
2021 the discounted ones are 27 percent and 02:31
28 percent. 02:31
Q Okay. And Midas never made undiscounted 02:31
sales to Riot, right? 02:31
A They did not. 02:31
Q Okay. So in the real world, they had not 02:31
achieved a 30 to 40 percent margin on their unit 02:31
sales? 02:31
A Well, they -- 02:31
That was a conversation with Mr. Sickmiller, 02:31
what their anticipation was moving forward. 02:31
Q Right. 02:31
A Yes. 02:31
Q All right. So it's their anticipation 02:31
moving forward starting now, right? 02:31
A Yes, but the way we did the analysis is 02:31
we -- we only included the discounted sales price -- 02:31
Q Right. 02:31
A -- on -- 02:31
The only time we used the margin was going 02:31

from '24, '25 and '26 -- 02:31

Q Okay. 02:31

A -- where we were told there would not be discounts included in those sales prices. 02:31

Q Midas wouldn't have known in 2020 what its margin on sales in 2021 were going to be, right? 02:32

A Actually, they did. 02:32

Q What's your basis for saying that? 02:32

A Conversations with Mr. Sickmiller. 02:32

Q Okay. Where are those disclosed in your report? 02:32

A They're not disclosed in my report. 02:32

Q Okay. So you calculate the but-for sales price on the basis of the two purchase orders, the Riot purchase orders, right? 02:32

A Correct. 02:32

Q Okay. Why is it -- 02:32

Why are those the -- the -- the right pieces of evidence to rely on to calculate the -- to calculate sales price, why not the other two smaller sales that Midas made? 02:32

A Because they were nowhere near that kind of megawatt. 02:32

Q And why does -- why does that mean that they shouldn't be included? 02:32

A Because historical, what you're basically historically charging, and charging for somewhere right around that time period would be what's most indicative of what a sale would be. 02:33

Q But -- 02:33

A We're literally talking about a 2021 sale to Riot and a 2023 sale to Riot. 02:33

Q But those other sales are historical sales that are evidence of what Midas is charging -- 02:33

A But they're much -- they're much -- they're a completely -- 02:33

One is a -- one was a 25-megawatt system versus a 200 megawatt system. 02:33

Q Okay. Right. 02:33

A And the sales price was 385,000 per unit. 02:33

And the other one was basically 654,000; so it ranged -- the range was significant, given the size of the systems and certainly nowhere near the 200 megawatts we're talking about selling to Rhodium. 02:33

Q So I guess I don't understand why that means the smaller sales should be excluded from your analysis. 02:33 02:34

A I'm not saying they're excluded. We certainly took those into consideration. We literally disclosed them in our report but the best 02:34 02:34

indicator of what you would charge for a system that size, a 200 megawatt system over a period of time, which is exactly what Riot bought, they bought two of those, we used the prices that they charged for 2021 and the prices they charged in 2023. 02:34

Q Okay. Rhodium didn't buy a 200 megawatt system, did it -- 02:34

A No. 02:34

Q -- or didn't -- didn't -- didn't develop a 200 megawatt system, did it? 02:34

A No. They developed a multitude of systems over a period of time. 02:34

Q Right. 02:34

So why is the one large sale the best evidence of how transactions -- a series of smaller transactions might apply? 02:34

A Well, because they would all add up to the same number. 02:34

I mean, here you have the tanks in the -- in the -- in the Edge Data Solutions at 385,000 per unit and our sales price per -- what we're suggesting we were going to sell to Rhodium was for $385,000. 02:34

In 2023, in -- yeah, in 2023 we're suggesting it's 650,000, 745,000. And the system was sold to the Galaxy for $685,000; so the prices aren't 02:35

different. 02:35
Q Right. 02:35
A They're not materially different. 02:35
Q Okay. But they're not included in your 02:35
analysis here in -- for example, in Table 1? 02:35
A They don't need to be included. 02:35
Q I'm just confused about it. 02:35
A You're not confused about it, you just don't 02:35
like the answer. 02:35
Q I don't think you've given me an answer. 02:35
A My answer is sitting -- 02:35
MR. THOMAS: Counsel, quit arguing. 02:35
Come on now. 02:35
THE WITNESS: -- right there in this report. 02:35
Those were considered, they are not 02:35
inconsistent with the prices that were charged to 02:35
Riot. They are small similar systems. They were 02:35
likely smaller companies. And the fact is that the 02:35
prices are very consistent with what we charged to -- 02:35
in the hypothetical world to Rhodium; they're the 02:36
same prices we actually charged to Riot. 02:36
BY MR. BRODY: 02:36
Q Midas didn't make any sales in 2020 or 2022, 02:36
at least no sales that rate in your analysis, right? 02:36
A That is correct. 02:36

Q Okay. And so you estimated sales price for those years using compounded annual growth rate? 02:36
A Yes. 02:36
Q Okay. Why is it appropriate to use compounded annual growth rate to estimate sales price for those two years? 02:36
A Because you can see what the prices have been increasing over time; so if you're trying to discount it back, you would use a compounded annual growth rate. 02:36
Q Okay. Does the compounded annual growth rate consider external factors that might bear on supply? 02:36
A Well, of course it would because that's how the prices would be set. 02:36
You set your prices on all those economic considerations, the supply and demand, supply chain issues, whatever it might be, COVID issues in 2021; that's how you set your prices on all of those external factors. And, therefore, all we're doing is simply discounting them back to given timeframes where we do not have those exact numbers. 02:37
Q And, sir -- 02:37
And it's -- it's your opinion that it's appropriate to use a compounded annual growth rate to 02:37

discount back from 2020 -- from 2021 to 2020? 02:37
A 100 percent, yes. 02:37
Q Okay. Even notwithstanding the onset of the 02:37
COVID-19 pandemic? 02:37
A Well, that COVID-19 pandemic would be built 02:37
into the 2021 prices. 02:37
Q All right. But the -- the compounded annual 02:37
growth rate measures the change between 2021 and 02:37
2023, right? 02:37
A Correct. 02:37
Q So how does the -- the -- the onset of 02:37
COVID-19 in 2020 factor in to that -- that change? 02:37
A Because in 2021 we were still impacted, 02:37
probably more so, by the COVID factors with supply 02:37
chain issues. 02:37
Q Okay. Did you analyze these -- these 02:37
COVID-related factors in your report? 02:37
A Yes, they're right there. That's what 02:37
the -- that's what the compounded annual growth rate 02:37
does. The pricing would take all of that into 02:37
consideration. 02:38
Q Okay. Okay. So it -- 02:38
Okay. That's fine. 02:38
You determined in paragraph 41 Midas would 02:38
have offered a discount on 150 megawatts of sales 02:38

from 2020 through 2022? 02:38

A Yes. 02:38

Q Okay. Why did you pick that number? 02:38

A It's the same discount they gave to Riot. 02:38

Q Didn't they give Riot a discount on 200 megawatts of sales? 02:38

A Well, some -- but between 2020 and 2021 they'd only purchased 175 -- 125 units -- megawatts of -- Riot -- excuse me. 02:38

Rhodium had only purchased 125 megawatts, I think through 2022; so you can only discount it by the number of megawatts they're actually employing. 02:38

Q So you're saying that Midas would have given Rhodium -- the discount that Midas would have given Rhodium was all -- all purchases through 2022 get the discount? 02:38

A Yes. 02:39

Q Okay. And not your first 200 megawatts of purchases get the discount? 02:39

A Who said that? No. That's not right. 02:39

All of the purchases through 2023 get the discount. 02:39

Q You say, in your report, that you applied the discounted price to the "cumulative 150 megawatts of sales from the start of damage period through 02:39

2022." 02:39

A Right. 02:39

Q "I then applied the undiscounted price to each unit sold in the...beginning" -- "beginning in 2023"? 02:39

A "Beginning in 2024." That's a typo. 02:39

Q Okay. 02:39

A It's -- it's discounted through 12-31-23; undiscounted '24, '25, '26. 02:39

Q Okay. In considering these -- the negotiated -- the price that Midas would have charged, did you consider Rhodium's willingness to pay? 02:39

A Did I consider -- 02:39

I mean, yeah. I mean -- yeah. They -- yes. They -- they built their own for 13 million, they'd have to spend another 10 million to buy these or something like that; so, yeah, I mean, I -- we certainly considered it. 02:40

Q Can you point me to where in your report that's set out? 02:40

A It doesn't say in my report. 02:40

Q Okay. 02:40

A But it -- it does say in the sense that Rhodium had raised capital, Rhodium was going to need 02:40

to employ that capital to start Bitcoin mining. 02:40
Rhodium did employ 200 megawatts. And if there 02:40
wasn't a non- -- an acceptable non-infringing 02:40
substitute, I don't think they would have just walked 02:40
away. I think they would have paid what they had to 02:40
pay and make .2 percent less gross margin. 02:40
Q Okay. And do you set that analysis out in 02:40
your report? 02:41
A Yeah. It's right at paragraph -- 13. 02:41
Exhibit 13. 02:41
Q Okay. That's fine, I'll -- I'll review it 02:41
later. 02:41
Let's move to but-for incremental costs, 02:41
what's your understanding of this factor? 02:41
A That would be the costs associated with 02:41
sales of the units to Rhodium between 2020 and 2023. 02:41
Q Okay. And you calculated these but-for 02:41
incremental costs only by reference to the sales to 02:41
Riot, right? 02:41
A We used the sales at Riot as an indicator of 02:41
what the costs would have been back to Rhodium 02:41
whether they purchased them. 02:41
Q Right. 02:41
A And we discounted those back using, again, 02:41
the CAGR, compounded annual growth; so we discounted 02:41

the cost back as well. And then we grew the cost at inflation of 2.6 percent. 02:41

Q Right. 02:41

But you didn't use, as an indicator, the cost of Midas's other two sales? 02:41

A I don't think they're inconsistent, almost like their sales prices. I don't even know if we looked at the cost of those, actually; I'd have to go back and look at that. I don't know what that answer is right now as I sit here. 02:41 02:42 02:42

Q Okay. 02:42

A Yeah. I don't -- I don't think we have the costs with respect to those two, which is footnote 81. 02:42 02:42

Q And it's your contention that it is -- 02:42

Am I correct in understanding that compounded annual growth rate is an appropriate way to discount back to 2020 in spite of COVID for the same reasons we've discussed? 02:42 02:42 02:42

A Yeah. The costs that were being incurred in 2021 were probably maybe even a level bit more than they were in 2020, given the COVID impact to supply chain really kind of hit more in 2021 and 2020 as well; so, yeah, they certainly would have been built into those costs in 2021 and 2023. To extrapolate 02:42 02:42 02:42 02:42 02:42

those back one year is not a -- a leap of faith at all, quite frankly. 02:42

Q Okay. Midas -- 02:42

The products that Midas builds are custom, right? 02:43

A Yes. 02:43

Q Okay. And they're purpose-built for -- 02:43

They're built to -- to fit each site that they're installed at, right? 02:43

A That's correct. 02:43

Q Okay. So it follows that if Rhodium had purchased systems from Midas, the systems installed at the Rockdale site and the Temple site might have been different, right? 02:43

A Well, again -- yes, they could have been different, yes. 02:43

Q Okay. Pump skids might have had to be sized differently or something, I don't know, I'm not a technical person either. 02:43

But it -- it follows that there may have been design differences that bear on costs, right? 02:43

A Yes. 02:43

Q Okay. Did you consider these site-based design difference in forming your opinion about but-for costs? 02:43

A Yes. 02:43
Q Okay. Can you show me where? 02:43
A It's not going to be -- I mean, it's -- it's discussed in the sense that we talked about how the costs are accumulated by vendor. And based on discussions with different Midas individuals we learned, that, yeah, the tank size might be a little bit different but overall the costs would basically be at same on a per megawatt basis. 02:43 02:43 02:44 02:44 02:44
Q Okay. 02:44
A So the design can be a little bit different but you're not talking a material change with respect to that; so the indication of cost is best represented by that which was charged to Riot -- 02:44 02:44 02:44 02:44
Q And -- 02:44
A -- because those systems were very similar. 02:44
Q Sorry, I didn't mean to interrupt you. 02:44
Who at Midas did you talk to about that? 02:44
A I think we talked to Mr. Sickmiller. I think we also talked to the financial individual as well. I don't remember if I talked to -- 02:44 02:44 02:44
What's the gentleman's name? Not Mario -- 02:44
MR. THOMAS: Jim? 02:44
THE WITNESS: No. Anyway -- 02:44
I think the engineer. 02:44

MR. THOMAS: Mario is the engineer. 02:44

THE WITNESS: Mario, yeah. 02:44

BY MR. BRODY: 02:44

Q Okay. Did you do any analysis of the costs specific to the Temple site? 02:44

A No. They -- they were the same systems. They were -- 02:44

The systems that were being put in Riot were the same systems that were going to go into Rhodium. 02:45

Q Right. 02:45

But Rhodium's -- for Rhodium's Rockdale site I think I follow you, right, it's -- they're two buildings over, or whatever, but Rhodium's Temple site is a different site; so did you consider whether Rhodium's -- the -- the cost of installation at Rhodium's Temple site would be different from the cost of installation for a Midas system at the Rockdale site? 02:45

A Yeah. We asked if we -- 02:45

We basically asked if the cost would be different and the answer was no, the cost would be no different. 02:45

Q Okay. And you're relying on Midas for that? 02:45

A Yeah. I'm -- 02:45

Q Okay. 02:45

A Obviously, we have to. 02:45
Q But you didn't -- you didn't do anything to 02:45
check that -- that statement? 02:45
A Well, there -- there wouldn't be a way to 02:45
check it per se. I mean, you know, we saw -- 02:45
I saw video of the Rhodium site and I also 02:45
saw the other site, Temple. I didn't see the Riot 02:45
site but based on conversations, it's basically the 02:45
same systems -- 02:45
Q Could you -- 02:45
A -- and the costs would not have been 02:45
materially different. 02:45
Q Could you have considered Rhodium's 02:45
construction costs at the Temple site? 02:46
A Rhodium's -- 02:46
Q Uh-huh. 02:46
A -- cost? 02:46
You mean the 13 million? 02:46
Q Uh-huh. 02:46
At the cost to construct the systems at the 02:46
Temple site, could you have considered that? 02:46
A They were not materially different is my 02:46
understanding. 02:46
Q Okay. But your understanding is based on 02:46
the testimony from -- or on the statements from -- 02:46

A Yes. 02:46
Q Okay. 02:46
A Yeah. 02:46
And I don't know why they would be 02:46
different. I mean, they're the same tanks; they're 02:46
the same cooling system, the same immersion systems. 02:46
That's -- 02:46
It's the same tanks being used. 02:46
Q Do you know whether Rhodium uses the same 02:46
air coolers at the Rockdale site and the Temple site? 02:46
A You mean the -- the air coolers outside? 02:46
Q Yes. 02:46
A No. I think they're different coolers 02:46
actually. I think some of them use one that starts 02:46
with a "K" and maybe one that starts with a "G," as I 02:46
recall. 02:46
Q Okay. 02:46
MR. THOMAS: Kelvin and Guntner. 02:46
THE WITNESS: See I got it right, "K" and "G." 02:46
BY MR. BRODY: 02:46
Q So in paragraph 44 you talk about 02:47
incremental costs -- 02:47
A Yes. 02:47
Q -- that would be separate from direct costs? 02:47
A Yes. 02:47

Q And you determined -- 02:47
Well, what's your understanding of 02:47
incremental costs? 02:47
A So incremental costs are -- 02:47
One of the things we have to consider is we 02:47
know the costs associated with the Riot. 02:47
Q Right. 02:47
A And those were done in 2021 and '23, 02:47
200 megawatts each. 02:47
Q Right. 02:47
A The issue becomes if the additional 02:47
200 megawatts were in that timeframe, '20 to '23, 02:47
would there have been additional incremental costs 02:47
over and above the costs of sales that attributed to 02:48
the product itself? 02:48
Q To build the 400 instead of the 200? 02:48
A Exactly. 02:48
And the answer to that was no. 02:48
Q Okay. 02:48
A I mean, it was built into the cost of the 02:48
product. But the incremental piece was not 02:48
significant at all. 02:48
Q Okay. I'd like to go to paragraph 179 of 02:48
the Saitz report. 02:48
A "179"? 02:48

Q I've got it open if you want my copy. 02:48
A No. That's okay. Maybe would you mind 02:48
because I can't -- 02:48
I'm sorry, "179"? 02:48
Q "179." 02:48
A I got it. 02:48
Q It's page 46. 02:48
A That's okay. I got it. 02:48
"179." I'm there. 02:49
Q Okay. In the second sentence she writes 02:49
that Midas's "total operating expenses doubled" -- 02:49
"nearly doubled year-over-year from approximately 02:49
$587,000 in 2020 to 1 million in 2021 to 2 and a half 02:49
million in 2022," right? 02:49
A Correct. 02:49
Q Okay. Do you have any reason to doubt her 02:49
calculations as we're sitting here today? 02:49
A Well, I don't doubt the fact that the costs 02:49
went up. I -- I seriously have an issue with her 02:49
suggestion that I didn't analyze or detect at least 02:49
some portion of operating expenses in the lost 02:49
profits because we did. 02:49
Q Okay. Can you show me where you did that? 02:49
A Yes. It's actually in the report this time. 02:49
If you go to the "Cost" section -- 02:49

MR. THOMAS: Can you give a paragraph number? 02:50
THE WITNESS: I'm getting there. Sorry. 02:50
MR. BRODY: I'll get a glass of water -- a water bottle while you look. 02:50
THE WITNESS: Yeah. 02:50
BY MR. BRODY: 02:50
Q Go ahead. Did you want one? 02:50
A No, I'm good. 02:50
Q There you go anyway. 02:50
A Okay. So Ms. Saitz is correct, that during 2021 to 2022, I believe, the SG&A, I think she's referring to as the costs, did go up. But what she fails to mention was the two components that went up were legal expense and payroll. Legal went up almost a million dollars or something to that effect and payroll went up by about 700 grand, somewhere around there. 02:50
And we asked that question because that does look variable. But I think the problem is she didn't do the analysis you're suggesting I did which was discussions with the client. And also the data that we see here which is, if you go through your analysis and you look at the costs which are calculated in Exhibit 4 and then you tie that back to all the different sources we have here, you will see that the 02:51

costs by all the vendors that made these 40 tanks or these 1,400 tanks are less than the actual cost that's represented by Midas. 02:51

So we were able to tie back to vendors, to within a couple of million dollars, and we went and asked Midas about that. And that's footnote 85, which basically states that "Note the Excel spreadsheets in total contain higher costs than the aggregate sum of the vendor purchase orders. I understand this is due to additional building components like nuts and bolts as well as labor and overhead that may not be accounted for in the vendor purchase orders. Thus, I have conservatively elected to include the higher Excel spreadsheet cost information in my analysis." 02:51 02:52

So we were given an analysis cost -- 02:52

Q Right. 02:52

A -- by order. That's what you see in Exhibit 4 -- 02:52

Q Right. 02:52

A -- 20 million dollars and 37 million dollars. 02:52

We asked for support for that. 02:52

Q Right. 02:52

A We got all this support and that support is 02:52

all a bunch of vendor invoices. 02:52

Q Right. 02:52

A When you tie those all up in 2021 they're within about $500,000. 02:52

Q Right. 02:52

A In 2022 they're about 4 million dollars off. 02:52

And the reason is because they have other overhead costs that they allocate up into the cost of sales; so her analysis, with all due respect, is wrong. They actually push those costs up into the cost of sales number which made that number higher. And that's the number we used, the higher number, to then show it's a lower lost profit and a lower gross margin, i.e., being more conservative. 02:52 02:52 02:52 02:52 02:52 02:53

Q Well, we appreciate that. And I will say -- the -- 02:53 02:53

You mentioned two categories, there was legal and I didn't catch the other one? 02:53 02:53

A I think it was labor. 02:53

Q "Labor"? 02:53

A Those are the only two that really went up materially, as I recall. 02:53 02:53

Q Okay. Why wouldn't labor go up if -- in the -- in the but-for world where Midas is building twice -- you know -- 02:53 02:53 02:53

A It did go up, I said it went up by like 700 grand. 02:53
Q Right. 02:53
But why wouldn't -- 02:53
Why isn't that an appropriate cost to factor in to your analysis? 02:53
A It is. It's in there. 02:53
Q You think it's factored into -- 02:53
A It is in there. Yeah. I just read that to you. 02:53
MR. THOMAS: He just read it. 02:53
BY MR. BRODY: 02:53
Q Okay. 02:53
A The cost that was debt -- was -- was told to us was a cost for the entire 2023 order was 30- -- was -- 02:53
Shoot. 02:53
-- $37,535,000. 02:53
If you were to go and tie back all of these sources, which is all the vendors and the invoices that we have, it only totals up to about 27 -- about 32, 33 million -- 02:53
Q Right. 02:54
A -- so you're short; in other words, the costs are higher. And the reason it's higher is they 02:54

took some of those SG&A expenses, what Ms. Saitz calls "operating," and they pushed that up into the sales -- to the cost of goods sold. 02:54

Q Okay. 02:54

A So it does include it and with all due respect she's wrong. 02:54

Q I gotcha. You explained it a second time and it really did help, I get it. Thank you. 02:54

A Good. 02:54

And that is in the report. 02:54

Q Let's -- 02:54

So ultimately you conclude -- actually, I have one more question and then I'll -- 02:54

Paragraph 44 you say -- in the very last sentence Midas -- that Midas "would not have incurred any new or incremental manufacturing costs to handle the but-for sales volume to Defendants"? 02:54

A Correct. 02:54

Q And you're basing that -- the footnote doesn't -- doesn't explain what the basis is. 02:54

What's the basis for that statement? 02:55

A Well, no. That's just the reality is that -- the amount of lost sales -- 02:55

What are -- what are you saying? 02:55

Q So you say that Midas "would not have 02:55

any" -- "incurred any new or incremental manufacturing costs to handle the" -- "handle the but-for sales volume to Defendants," right? 02:55

A Yeah. In other words, they're -- they're -- they're sourcing most of this out to vendors; so that which they sourced out to the 200 megawatts for Riot would be the same sourcing they would go out to to get the 200 megawatts for Rhodium. 02:55

Q In the but-for world we're sourcing out 400 megawatts, right? 02:55

A Yeah. But, I mean, that's what -- that was the earlier comment we talked about, which they had multiple vendors. The vendors they had in place they suggest had the capacity do it and if they didn't, the other vendors would have done the same thing for the same price. There was no incremental price increase whatsoever. 02:55

Q Okay. And what's your --

And the basis for that statement is? 02:55

A Conversations with Sickmiller. And also the invoices themselves that show those costs. 02:55

Q Okay. But the invoices only show costs for the real word, not for the but-for world, obviously? 02:55

A Well, no, they -- they show for the real world. And all you have to suggest is what would the 02:56

costs for the but-for world be and why would you assume the costs would be any different. 02:56

Q Did you talk to the -- any of the vendors to determine whether that was true? 02:56

A No. There would be no reason to do that. 02:56

Q Okay. Let's move on. 02:56

Ultimately your opinion is Midas would recover -- is entitled to lost profits of $11,899,300.76 (sic) in Scenario 1 -- in Opinion 1, Scenario 1? 02:56

A $11,899,377, not 77 cents. 02:56

Q That's probably a typo in my outline, then. 02:56

A Oh. It's not 377 cents. 02:56

Q And then $21,955,440 in Scenario 2? 02:56

A That's correct. 02:56

Q And that's still your opinion today? 02:56

A That is still my opinion today, yes. 02:56

Q Okay. Great. Let's talk about the -- the opinion -- analysis 2 briefly. 02:56

This is your analysis of how lost profits would be calculated if convoyed sales are not included, right? 02:56

A Correct. 02:57

Q Okay. And you base this analysis -- this opinion on an analysis of Panduit factors, right? 02:57

A Yeah. It's the same exact calculation, it's just not including convoyed sales.

Q Right. So I'm just going to ask a series of questions just to tic them off and I think I know the answer.

Your analysis of the first Panduit factor is exactly the same as in Opinion 1?

A Exactly. Same.

Q Analysis of the second Panduit factor is exactly the same as in Opinion 1?

A Sales quantity is exactly the same. Yes.

Q And the analysis of the third Panduit factor is exactly the same?

A With respect to capacity, yes.

Q Okay. And you based your -- the -- the but-for sales price, and going to the fourth factor, on tanks, which is a defined -- a term you defined, right?

A Well, it's the tank and the heat exchanger and pump.

Q That's the "tank unit" that we were discussing earlier?

A Yes.

Q Okay. And I forget if I asked you so pardon me if I did, but how did you determine that these

were the appropriate components to include as the -- the smallest saleable unit? 02:58

A Well, it was both -- it was a number of things, actually. 02:58

It was, number one, the conversations with Mr. Pokharna about where the patents sat and what the appropriate tank unit was within the patents themselves and that is, again, the tank, the weir, the plenum, the heat exchanger and the pump. 02:58

Q Right. 02:58

A That's one. 02:58

Two, a -- drawings and -- and the like within Pokharna and I think in others' reports that actually show the unit. And you can see the unit is just that with a tank underneath it. Or the -- the heat exchanger underneath it; so it's kind of a separate unit. 02:58

That was the -- that includes all the technology, all of the -- the -- the -- the -- the -- the requirements to get the pumps flowing properly up into the tank through the plenum, and the -- the -- the -- the coverage and it's uniform, etcetera. That is the tank unit and I got that from not only Pokharna, seeing pictures myself and understanding the system, and then conversations with the client. 02:58 02:59 02:59 02:59 02:59

Q Okay. So -- so it's based in part on your own technical understanding of the -- the way the system works? 02:59

A Well, I saw it. I mean, I -- you know, I asked to see it to understand it and I saw it and I get it; I mean, I get how it all fits together. 02:59

Now, whether or not that's where all the technology is and the patents are, I don't know, I'm not an expert on that; that's Dr. Lee and Dr. Pokharna. So I just -- I saw what it looks like and you can see it as a separate kind of stand-alone piece of equipment -- 02:59

Q Right. 02:59

A -- or two separate pieces of equipment. 02:59

Q And -- and is it your -- your opinion that everything you've -- you've defined is included in the tank -- 02:59

Actually let me ask. 03:00

You've referred to "Dr. Lee" a couple times. Did you have a conversation -- 03:00

You had a conversation with Dr. Lee before you prepared this report? 03:00

A I don't recall that I did. I don't remember that. 03:00

Q Okay. So you couldn't have been relying on 03:00

a conversation with Dr. Lee when you drafted this? 03:00
A No, it was conversations with -- 03:00
It was Dr. Lee's opinions that were 03:00
basically conveyed to me via counsel. 03:00
Q Okay. And when were those opinions conveyed 03:00
to you? 03:00
A In December. 03:00
Q "In December"? 03:00
A November, December. 03:00
Q Okay. "November, December," okay. 03:00
Okay. You don't ever refer to Dr. -- a 03:00
conversation with Dr. Lee in this report, do you? 03:00
A No. No. I told you -- I just told you I 03:00
didn't have a conversation with Dr. Lee, that I 03:00
recall. 03:00
Q I'm sorry. Or the -- or the opinions of 03:00
Dr. Lee in this report, do you? 03:00
A No, it's not my -- 03:00
I'm not -- I'm not issuing an opinion with 03:00
respect to the validity of the patents or the patents 03:00
in suit actually being used in the -- in the tech- -- 03:01
the product itself. 03:01
Q Okay. And is it -- is it your understanding 03:01
that everything that you've defined as being included 03:01
in the -- the tank unit that is -- the '457 patent is 03:01

embodied in those components? 03:01

A My understanding is that the -- that tank 03:01
and the heat exchanger and the -- the pumps and all 03:01
of that is all part of the '456, '547 (sic) patent -- 03:01
'457 patent. 03:01

Q Right. 03:01

So I think that's yes, right? 03:01

A Well, no. You only said the '446, you 03:01
didn't say the '457. 03:01

Q Okay. Do you have an -- an understanding of 03:01
whether what's included in the tank unit is covered 03:01
by one patent but not the other? 03:01

A You've asked me that before and the answer 03:01
is still no. 03:01

Q Okay. And then otherwise your -- your 03:01
calculations are the same, your calculations of the 03:02
but-for sales quantity are performed the same way, 03:02
you applied the same methodology as in Opinion 1? 03:02

A Yeah, it's the same quantity. We had to 03:02
split out the costs. We had to split out the sales 03:02
price. We had to extrapolate prices and costs back 03:02
using CAGR -- 03:02

C-A-G-R. 03:02

-- and inflation. We multiplied it, we used 03:02
the discount rate and we used a prejudgment interest 03:02

rate. 03:02

Q Okay. And you come to damage -- 03:02

And -- and your basis for calculating 03:02

damages out to 2026 is the same as we discussed 03:02

earlier? 03:02

A Same thing. It's just the 325 megawatts. 03:02

It basically adds, I think, 80 tanks. 03:02

Q Yeah. 03:02

A Or no. It adds -- 03:02

I think it adds 50 tanks. 03:02

Q I thought it was -- whatever. 45, something 03:02

like that. 03:02

Anyway -- 03:02

A It's 125 divided by 2.5. 03:02

Q Nobody knows. 03:02

And then you come to damage calculations of 03:03

$8,122,489 in Scenario 1, right? 03:03

A Hang on one second, let me just get to that 03:03

chart. 03:03

Q It's paragraph 58. 03:03

A Thank you. 03:03

I'm there. 03:03

Q I just asked if I read the -- the number 03:03

right, these -- 03:03

A Okay. 03:03

Q How about this: The numbers in Table 8 are -- are an accurate statement of what your opinion on damages is, right? 03:03

A That's correct. 03:03

Q And it's still your opinion today? 03:03

A That's correct. 03:03

Q All right. Let's move on to the reasonable royalty. 03:03

A There we go. 03:03

Q So what's your understanding -- 03:03

You're familiar with the concept of a reasonable royalty? 03:03

A I am, yes. 03:03

Q What's your understanding of what a reasonable royalty is? 03:03

A It is the least amount of damages in a patent case that should be paid to a plaintiff if there was found to be an infringement of the patent. 03:03

And it's based on effectively a -- either a negotiation or a hypothetical negotiation on what a license fee, a royalty fee would have been paid on some component; it could be a lump sum, it could be on a unit, it could be on a number of different things. 03:04

But it is effectively -- instead of profits 03:04

and sales less costs, it's simply how much was going to be paid by the alleged infringer in a hypothetical negotiation back to the patent holder to use that patent. 03:04

Q Okay. And how does -- 03:04

Maybe this is subsumed within your answer but how does a reasonable royalty differ from a lost profits analysis? 03:04

A Well, one looks at sales price less costs -- 03:04

Q Right. 03:04

A -- times the number of units that were lost, which we all know now. 03:04

The other simply takes a look at an amount that would be paid times a unit of measure to then calculate an amount being paid; in this case, it was one-time payments only -- 03:04

Q Right. 03:05

A -- for the use of that -- that patent. 03:05

And here, as you know, we -- we took the smallest unit down to a tank and then, you know, basically calculated that down to the megawatt. 03:05

Q Yes. 03:05

A And we could have left it at the tank but we put it in the megawatt and calculated a reasonable royalty based on that. 03:05

Q Okay. And when was the reasonable -- 03:05
Is it your understanding the reasonable 03:05
royalty is calculated on the basis of a hypothetical 03:05
negotiation? 03:05
A Correct. 03:05
Q When is the hypothetical negotiation 03:05
supposed to occur? 03:05
A The date of infringement. 03:05
Q "The date of infringement"? 03:05
A On or around the date of infringement, or 03:05
before that possibly it could have happened. 03:05
Q Right. 03:05
And so you used April 1, 2020, right? 03:05
A Correct. 03:05
Q Or March 31, 2020? 03:05
A Correct. 03:05
Q I don't know that that makes much of a 03:05
difference. 03:05
A Yeah. I don't know. 03:05
Q And you used April 1, 2020 because -- 03:06
Why did you pick April 1, 2020? 03:06
A The same reason we picked the infringement 03:06
date on the lost sales -- lost profits. 03:06
Q Okay. If Rhodium didn't infringe until a 03:06
date after April 1, 2020, would that change the 03:06

hypothetical negotiation -- negotiation date in your analysis? 03:06

A Yeah. I mean, if you said that, okay, the hypothetical negotiation has to happen at the date that the first units came online, the 30 units came online, which I think was in December of 2020, that just moves it to that point. It would not change our calculation at all. 03:06

Q It would not? 03:06

A No. The only thing it might change is the interest from April to December which would be a de minimis amount. 03:06

Q Okay. And why wouldn't it change your calculation or your assessment of the factors? 03:06

A Well, because if you understand our calculation it's simply based on a -- the -- the tank unit and the gross profit on that tank unit. 03:06

Q Right. 03:06

A "Gross margin," "gross profit" are synonymous. 03:06

And that 30 -- those 30 megawatts were in place by 12-31-20. 03:07

Q Okay. 03:07

A We know that. 03:07

Q Right. 03:07

A So if the negotiation happened in April or December it would not have made a difference with respect to the amount of the gross profit. The only thing it could possibly affect is potentially take out the prejudgment interest from April to December, which I said would be a de minimis amount. 03:07

Q So your -- your reasonable royalty calculation is basically -- it's just a calculation of Midas's gross -- the gross profits that Midas would have earned had it made the sales? 03:07

A Yeah. Average gross profits over the life -- over the 2020-to-2023 range. 03:07

Q Okay. How is that different from the lost profits analysis? 03:07

A Well, it's a -- it's just a gross margin. It's not -- it's not including all of the costs, potentially. It's just the gross margin on the tank itself. We went down to the smallest unit -- 03:07

Q Right. 03:07

A -- which was the tank. 03:07

Q Okay. 03:07

A So it doesn't include any of the convoyed sales. 03:07

Q Right. 03:08

A It's just the tank itself. 03:08

The calculation of the gross profit is basically the same, it's sales -- it's sales price less cost. 03:08

Q Okay. Did you start your analysis with the gross profit and then work backwards from that or -- how did you arrive at -- at gross profit as the -- the appropriate reasonable royalty? 03:08

A It was based on discussions with the client. I mean, you know, the hypothetical negotiation is going to be conceptually with them -- 03:08

Q Uh-huh. 03:08

A -- and -- and Rhodium; so it was really a conversation -- a long conversation with them about, you know, how would you look at this, how would you try and -- obviously, the negotiation didn't happen; so that's why it's called a "hypothetical." 03:08

But the reality is, is that you have to kind of say what -- what is it that Midas would have been willing to potentially license these units out for. And that was based on long conversations with Midas. 03:08

Q And Midas -- 03:09

And who participated in these conversations? 03:09

A I think that conversation was mostly with Sickmiller, Mr. Sickmiller. 03:09

Q Okay. And what exactly did he tell you, to 03:09

the best of your recollection? 03:09

A Well, the first -- their first comment was 03:09
they didn't -- they probably wouldn't have licensed 03:09
anything, they wouldn't have wanted to license 03:09
anything, it wouldn't have been their intent to 03:09
license anything because they didn't think they had 03:09
to and they weren't really thinking in that regard 03:09
when it came to sales. 03:09

They did have a couple of sales that there 03:09
was a royalty or a licensing fee discussed but we 03:09
explained why those really weren't that relevant at 03:09
all; so it was really, okay, well, but you kind of 03:09
have to put yourself in that hypothetical negotiation 03:09
and what would the lowest unit be? And the lowest 03:09
unit for them was the tank -- 03:09

Q Right. 03:09

A -- the smallest unit. And then so therefore 03:09
we then went about a process of figuring the gross 03:09
profit on just the tank which we already pretty much 03:09
had in the other analysis. 03:10

Q Okay. And the gross profit that you had 03:10
from the other analysis that you used as a basis for 03:10
your reasonable royalty, that was based on Midas's 03:10
sales from 2021 through 2023, right? 03:10

A 2021 and 2023. 03:10

Q Right. Fair. 03:10
How -- 03:10
But the negotiation took place, in your 03:10
hypothetical, on April 1, 2020? 03:10
A Correct. 03:10
Q How would Midas have known what its gross 03:10
profits were going to be in 2021 and 2023 at the time 03:10
of the hypothetical negotiation? 03:10
A So we thought about that and we basically 03:10
had -- we had one legal discussion and one discussion 03:10
with the client. 03:10
The discussion with the client was really 03:10
exactly that. And the conversation was effectively 03:10
that "Well, wait. We had all the technology, we knew 03:10
how who build these things, we were just waiting for 03:10
our first sale to take place. We knew how much these 03:10
things were going to cost and we knew how much we 03:10
were going to sell them for; so we had very much in 03:10
mind what we were going to make on a per megawatt 03:11
basis." And it was about the $50,000. 03:11
Q Okay. 03:11
A It pretty much -- it -- 03:11
Per the conversation with Sickmiller, it was 03:11
pretty much that number almost. 03:11
The second part of it was what we call the 03:11

book of wisdom which is used sometimes in damage calculations which allows you to -- and I'm -- I'm applying economic analysis to legal concepts -- 03:11

Q Of course. 03:11

A -- which allows you apparently to look forward and -- and prospectively and be able to look -- kind of apply that -- what you know back to a hypothetical negotiation period; so we used both of those. 03:11

Q Okay. 03:11

A We didn't want to rely on just the book of wisdom and we didn't want to also rely on just the conversation with Mr. Sickmiller about what his knowledge might have been a year before. 03:11

Q Okay. Did you see any document that supported what Mr. Sickmiller told you about the profits Midas would have understood that it would have earned? 03:11

A I thought I saw financial statements -- of Midas in 20- -- 2020, was it, or -- 03:12

No. I saw a financial statement that showed a gross margin of around 20- -- I think it was 29,000 or something like that in -- in '21, maybe 2021. That's all I can recall. 03:12

Q Okay. 03:12

A And if you look at -- you know, our analysis basically takes the average from 2020 to 2023 and comes up to 50,000. 03:12 03:13 03:13

Q Right. 03:13

A And I remember the numbers I looked at kind of matched the margins that were back in the -- that we were projecting in the 2020 timeframe; about 20-, $25,000. 03:13 03:13 03:13 03:13

Q Okay. And do you remember where -- where were these numbers that you were looking at? 03:13 03:13

A It was on a financial statement, a Midas financial statement somewhere, I don't remember. 03:13 03:13

Q Okay. Yeah. 03:13

Did you consider, in forming your opinion, that Midas's -- Midas's -- the fact that Midas hadn't made any sales as a factor that would push down any potential reasonable royalty? 03:13 03:13 03:13 03:13

A "Push down"? 03:13

No. No. I mean, it was -- I think it was a matter of just timing. I think -- I think Mr. Sickmiller put it best when he said they were just ahead of their time, they were just kind of waiting for the -- you know, the storm to kind of hit with the 2021 and 2023 sales; that they had the technology, they knew how to build this, they knew 03:13 03:13 03:13 03:13 03:13 03:14 03:14 03:14

what the costs were. And so, no, I don't -- I don't think it was unreasonable at all. 03:14

And the earlier numbers were only, I think, 29,000, $25,000. 03:14

Q Did you consider whether Midas had the -- the cash reserves in 2020 to continue to -- 03:14

As of the date of the hypothetical negotiation, April 1, 2020, did you consider whether Midas had the cash reserves to continue to wait for these eventual sales? 03:14

A Well, I did consider it because they did wait for the eventual sales. They did survive through 2020 to make sales in 2021. 03:14

Q Well, wouldn't Midas's cash position as of April 1, 2020 bear on the royalty rate it was willing to accept? 03:14

A Well, I don't think it -- I mean, I don't think so. I mean, I don't -- I don't understand your question. 03:14

I mean, they -- we know they survived from 2020 to 2021 and made significant profits. We know they'd been able to keep sales afloat, if you will, and there's no reason to believe that that would have changed; in fact, then they had sales in 2021 and 2023 that made them quite profitable. 03:15

So I don't think it would have changed the negotiation in 2020, knowing what they thought their margins would be. 03:15

Q Okay. If Midas had -- okay. 03:15

Well, wouldn't -- you know, just a -- you know, I know it's not what you said here. 03:15

But in a hypothetical negotiation between two, you know, a licensor and a licensee, if the licensor is about to run out of capital, wouldn't that mean that all other things being equal -- 03:15

MR. THOMAS: I'm going to object. There's no foundation, improper hypothetical, that -- 03:15

MR. BRODY: Okay. 03:15

MR. THOMAS: -- this licensor was running out of capital. 03:15

MR. BRODY: Okay. 03:15

Q Well, so the licensor -- 03:15

If a licensor was near -- was near running out of capital, wouldn't that affect the -- wouldn't that push down the reasonable royalty that they might be willing to accept? 03:16

A Well, I -- 03:16

MR. THOMAS: Objection. No foundation, improper hypothetical. 03:16

Go ahead. 03:16

THE WITNESS: Well, I mean, a royalty payment isn't going to save a company's capital structure.

I mean, in this situation, in 2020, that -- your hypothetical is 30 megawatts times 50,000; what's that, 1.5 million?

BY MR. BRODY:

Q I mean, you'd have to do the math.

A I think it's 1.5 million. Yeah, I'm pretty good at math; 1.5 million. That's not --

A company that's running out of capital isn't going to necessarily sell the ship, if you will, for 1.5 million dollars in cash, assuming that cash would have been paid by the end of the year; so, no, I don't think that's a viable consideration, I guess. Plus, there's no evidence whatsoever that they were -- they were short of capital in 2020.

Q Okay. As of April 1, 2020; there's no evidence they were short of capital as of April 1, 2020?

A Correct.

Q Okay. So the first step in your reasonable royalty analysis, as I understand it, is you have to define a market, right?

A Well, your first step is really

understanding what the smallest unit is to try and figure out what the -- the negotiation is going to be based on. 03:17

Q I was going to do that next but we'll do that now and then we can come back to defining the market. 03:17

So defining the smallest unit, what does that -- what does that mean? What's your understanding of what that analysis is? 03:17

A The tank. 03:17

Q Okay. No. 03:17

But how -- how -- how do you go about -- 03:17

You come into a new patent case, how do you go about defining the smallest unit? 03:17

A You talk to the -- the patentee -- 03:18

Q Okay. 03:18

A -- and say that which -- you know, what is it? Well, would you -- 03:18

If, in this hypothetical negotiation, what -- what financial concept, what financial, you know, amount would you consider reasonable to license that product. 03:18

Q Right. 03:18

A And that was basically discussed and it was, well, it would for us be the profit that we can make 03:18

on a tank. We'd want to at least make the gross profit we can make back on a tank to be able to license it for that for a one-time -- remember, it's one time; you pay it once and then they can use it for the next 20 years or whatever the estimated useful life of these devices are. 03:18

So they'd at least want to get back that smallest unit which was the tank. And "the tank" being the unit -- "tank unit" we've talked about with the heat exchanger and no convoyed sales. 03:18

Q Right. 03:18

And your understanding that that's the appropriate unit is based on conversations with Dr. Pokharna and the client, right? 03:19

A You mean what the tank unit was? 03:19

Q Yes. 03:19

A Well, and plus I talked to you about my own understanding of the technology -- 03:19

Q Right. 03:19

A -- and seeing the product. 03:19

Q In paragraph 67 you also say -- you say "Based on the opinion of Dr. Pokharna and conversations with TWK, it is my understanding that the Tank is the smallest unit"? 03:19

A Uh-huh. 03:19

Q Who at TWK did you talk about (sic)? 03:19
A We would have talked with -- 03:19
Mr. Kolegraff, Mr. Thomas and Mr. Thomas were probably the three that we had all of our conversations with. 03:19
Q Okay. And what did they tell you about why the tank was the smallest? 03:19
A Well, it would have been their -- based on their conversations with the client as well because they would have no knowledge about that themselves unless they talked to the client. 03:19
Q Okay. But I'm -- I'm asking they -- 03:19
Did they just instruct you or did they give you any explanation for why the tank was smallest? 03:19
A Instruct me to use the smallest unit? 03:19
Q No, instruct you to use -- 03:19
A They don't instruct me to do anything. 03:19
Q Instruct you to use the tank as the smallest unit. 03:19
A They don't instruct me to do anything. 03:19
Q Okay. 03:19
A They asked me to calculate the damages -- 03:19
Q So -- 03:19
A -- and we do so with proper, you know, standards and proper procedures. 03:19

Q Okay. 03:20

A So the -- the answer was that -- as we're talking through this, trying to figure out what the best unit of the denominator -- the denominator, if you will, on the -- the -- or the numerator, actually, if you will, on the reasonable royalty, it was considered to be the tank itself. It's where the -- it's where the patents were, it's where they were all being used, where they're all apparently valid, and that's the item that they would have wanted to get back in payment via royalty -- a reasonable royalty. 03:20

Q Okay. And that understanding is based on conversations with TWK where they relayed conversations with the client? 03:20

A Also I had conversations with the client about that. Mr. Sturges had conversations with the client about that. And also conversations with Mr. Pokharna. 03:20

Q Okay. Thank you. That's just -- that's different from what it says here; so that's helpful to know. 03:20

A Well, how is it different; that it simply doesn't say "Discussions with the client"? 03:21

Q Yes, it doesn't say that but -- 03:21

A Well, I -- let's just make sure that -- 03:21
You've done this before to me, where it 03:21
doesn't say it in that paragraph you're looking at it 03:21
but it may say it in other footnotes; so let's be 03:21
careful about that. 03:21
Q Okay. And then you -- you determined -- so 03:21
that the tank is the smallest unit. And then you 03:21
determined -- 03:21
Then you set a market, right; that's the 03:21
next step? Did I understand you correctly earlier? 03:21
A That you understand the demand and set the 03:21
market, yes. 03:21
Q Okay. So setting the market -- 03:21
How did you go about determining the market? 03:21
A Same way we did on the lost profits. 03:21
There's 200 units bought, made by Rhodium; had they 03:21
not been infringing, they would have purchased those 03:21
from Midas or they would have licensed those from 03:21
Midas. 03:21
Q Okay. 03:21
A Same exact concept. 03:21
Q Okay. Because in your report you say 03:21
"When identifying a reasonable royalty in this 03:21
matter," I'm in paragraph 66, "I looked for 03:21
transactions associated with large mining farms 03:21

that use 100 megawatts or more (the 'Immersion Cooling Market')." 03:22

A Well, that's -- that -- what you're talking about in this paragraph is different. 03:22

What we're trying to look at here is can we find other reasonable royalties in the marketplace, in -- that have been negotiated in other places; like, if you decided to license a tank from Joe and that's part of a database somewhere, we -- 03:22

There are public databases we use all the time -- 03:22

Q Right. 03:22

A -- that help us with understanding those documents; so that's what that's referring to. 03:22

Q Okay. And you determined that one -- specifically only transactions with large mining farms that used 100 megawatts or more are relevant to your -- 03:22

A Yeah. 03:22

Q -- to your analysis? 03:22

A We didn't find any so -- as the paragraph says. 03:22

Q Okay. I just have a clarifying question. 03:22

You say "transactions associated with large mining farms that use 100 megawatts or more." 03:22

Does that mean transactions of 100 megawatts or more, or does that mean any sale to a miner that has 100 megawatts or more or does it mean something different? I'm just a little confused. 03:22 03:22 03:23 03:23

A Well, it -- it doesn't really matter because we didn't find any -- in all the databases we use, we didn't find any licensing agreements between immersion cooling system companies and miners. We couldn't find any. There was none out there. 03:23 03:23 03:23 03:23

So how you're trying to slice that I don't even -- I hadn't thought about it but there was none out there. And to be expected because the fact is that, you know, Midas was the one making most of the these and they weren't licensing their product. 03:23 03:23 03:23 03:23 03:23

Q Right. 03:23

So instead the -- the -- you define this as the "('Immersion Cooling Market')." 03:23 03:23

A Yes. 03:23

Q So -- 03:23

A That's the market with respect to reasonable royalties. 03:23 03:23

Q Right. Right. 03:23

But so -- so what's -- what's -- but they are -- 03:23 03:23

And there are no royalty agreements in this 03:23

market that you found? 03:23
A That's correct. 03:24
Q Okay. But did you find any royalty 03:24
agreements related to -- 03:24
Other than the -- the two that are discussed 03:24
in your report, did you find any royalty agreements 03:24
related to smaller transactions? 03:24
A No. 03:24
Q Would you have included those in your 03:24
analysis if you had? 03:24
A I certainly would have looked at them. 03:24
Q Would you have included those in the -- 03:24
Would you have changed your -- 03:24
Might you have changed your definition of 03:24
the "('Immersion Cooling Market')"? 03:24
A Well, no, because we were really looking at 03:24
these larger systems but -- 03:24
I don't -- I don't know. It would depend on 03:24
what and where it was. We didn't find any -- 03:24
Q Right. 03:24
A -- so it's a moot point; so if you want to 03:24
talk about hypothetical, we would have looked at 03:24
anything we saw that had that. 03:24
Q That's fair. 03:24
At the time of the hypothetical negotiation, 03:24

right, was Rhodium -- would Rhodium would be in this "('Immersion Cooling Market')"? 03:24

A Yeah. They -- they were in it in 2020. 03:24

Q Why? 03:24

A Why were they in it? 03:25

Because they started -- they started designing and building their mining facility in April of 2020. 03:25

Q But I thought the -- the "('Immersion Cooling Market')" is -- 03:25

You say "Rhodium is in the business of installing and using immersion...systems for large Bitcoin mining farms consisting of 100 megawatts or more," right? 03:25

A Correct. 03:25

Q In 2020 was Rhodium in that -- that specific business, building 100 megawatts or more? 03:25

A Well, by 2020 they'd only done 30 -- 03:25

Q Right. 03:25

A -- but they were certainly moving towards 200; so they were in that market. 03:25

Q Okay. Do you cite anything to support the fact that Rhodium was in that market, or are you just basing that on the fact that Rhodium did eventually reach 200? 03:25

A Well, that they got to 200. They got to 200 by 2022, 2023. 03:25

Q Okay. So then from paragraph 67 to basically the end of your report you apply the Georgia-Pacific Factors? 03:25 03:26 03:26

A Correct. 03:26

Q What's your understanding of the Georgia-Pacific Factors? 03:26 03:26

A They're based on a Georgia Pacific case years ago, I don't even remember when it was; I think I was born by that time, I may not. I probably was. 03:26 03:26 03:26

THE REPORTER: I think we both were. 03:26

THE WITNESS: Yeah. 03:26

And it's just 15 factors that the Court laid out as being individual considerations that should be considered. Once you really kind of get that base, you've kind of looked at the marketplace, you've been able to, say, maybe find some licenses that kind of seem to apply to a situation like this, you've identified your smallest unit, you've identified what you'd be basing a -- a -- a -- a royalty on, that these are just 15 different categories and they're not meant to be all-inclusive and they're kind of -- as of today, they're kind of falling out of favor a little bit. 03:26 03:26 03:26 03:26 03:26 03:26 03:26 03:26 03:26 03:26 03:26 03:26 03:26 03:26 03:26

But there -- they're ones that the courts have laid out saying consider these 15 factors as it relates to whether it's neutral to your position, you'd be higher or you'd be lower. 03:26 03:27 03:27 03:27

BY MR. BRODY: 03:27

Q Right. 03:27

A And that's all we did. We went through the 15 factors and we said "If it was neutral, higher or lower." And that's -- 03:27 03:27 03:27

We can summarize this -- all those pages, I hope, within that exact example because we ended up with the $50,000 -- $50,000 per megawatt hour. 03:27 03:27 03:27

Q Right. 03:27

And I -- let's -- I have one question and then let's take a break and it's just to clarify -- just a clarifying question. 03:27 03:27 03:27

A Yeah. 03:27

Q You said that -- you talked about the marketplace; so can you just give me your most succinct definition of what the "market" is that you're analyzing for the purposes of this reasonable royalty analysis? 03:27 03:27 03:27 03:27

A Can I -- can I do what? 03:27

Q Can you just -- just tell me, because I -- just to make sure that I'm not confused, because I 03:27 03:27

often have been, what the market is that you're analyzing for the purposes of this reasonable royalty analysis and who's in it? 03:27

A Well, what -- what the market is? 03:27

It would be companies that are selling immersion technologies, immersion cooling technologies on a -- we tried to focus on a larger scale than the 100 megawatt because of the size of these farms, if you will. 03:27 03:28 03:28

Q Uh-huh. 03:28

A But, again -- so that's the best definition of it -- 03:28 03:28

Q Okay. 03:28

A -- the market. 03:28

Now, in the course of doing that, I didn't find any agreements. 03:28 03:28

Q Uh-huh. 03:28

A The only agreements I found were mostly the ones that -- that -- that Midas had had with three different people as kind of -- that weren't even considered applicable. 03:28 03:28 03:28 03:28

Q Right. 03:28

A That's all we found. 03:28

So the definition of the "market" is clearly immersion cooling systems. Whether or not you want 03:28 03:28

to make it the large ones, the small ones, we focused on large. But as we were going through the process in all of the different databases we go through, which is exhaustive as best I know -- 03:28

Q Yeah. 03:28

A -- we found nothing. 03:28

Q Okay. That's very helpful. Thank you. 03:28

Let's take a break. 03:29

THE VIDEOGRAPHER: We're off the record at 3:29 p.m. 03:29

(Off the record.) 03:29

THE VIDEOGRAPHER: We are back on the record at 3:40 p.m. 03:40

BY MR. BRODY: 03:40

Q Welcome back, Mr. O'Bryan. 03:40

A Thank you. 03:40

Q So I just wanted to clear up a point of -- from my understanding. 03:40

You said that you arrived at the conclusion in Midas -- that Midas would have negotiated for a reasonable royalty or the -- you arrived at the -- the amount of the reasonable royalty that Midas would have expected -- you know what, strike that. 03:40

You arrived at the amount of profits that might have -- Midas would have expected to earn on 03:41

the tanks that it would have sold, but for the -- the license, in a conversation with Scott Sickmiller, right? 03:41

A No, that's not what I said. 03:41

Q Okay. Can you clarify what you said? Because I -- I don't know that I understood. 03:41

A Well, yeah. I -- I said it. I mean, again you're just kind of truncating stuff which is kind of interesting, but whatever. 03:41

The -- the -- the decision for the smallest unit -- 03:41

Q Right. 03:41

A -- was initially, I think, discussed with counsel. 03:41

Q Right. 03:41

A And their conversations would have had to deal with the client because they would have talked to the client about that -- 03:41

Q Right. 03:41

A -- but it was initially with them. 03:41

Then in addition to that, I had several conversations with Mr. Sickmiller about that topic. 03:41

Q Right. 03:42

A And then lastly, conversation with Dr. Pokharna. 03:42

Q Okay. 03:42
A So it was three things, not just the one you 03:42
just mentioned. 03:42
Q Right. Okay. 03:42
You mentioned earlier that the Georgia -- 03:42
the list of Georgia-Pacific Factors is -- 03:42
There are 15 of them, right? 03:42
A Correct. 03:42
Q It's a non-exhaustive list? 03:42
A Correct. 03:42
Q Did you consider whether or not to include 03:42
any other factors? 03:42
A No. I mean, did I consider? No, I didn't 03:43
see any reason to include any other factors. I 03:43
think, you know, my decision was pretty clear as it 03:43
relates to -- 03:43
MR. THOMAS: Hold on one second. 03:43
(Discussion off the record.) 03:43
THE WITNESS: So my -- 03:43
Back to what I was saying, my decision or 03:43
my -- my conclusion was that the 50,000 was most 03:43
likely the best measurement and smallest unit to be 03:43
considering. But there are some Georgia-Pacific 03:43
Factors that, you know, are very relevant here. 03:43
Number one is the fact that -- have they 03:43

done it before and would that somehow, you know, kind of inform you a little differently with respect to some of your conclusions. And so -- that's why we went through them; so I didn't see the need to add anyone, none came to my attention from an economic perspective or a damage perspective. But I certainly wanted to go through them, obviously, because we're required to pretty much from a damage perspective and it's really kind of the most accepted methodology and kind of proven methodology. 03:43 03:43 03:43 03:44 03:44 03:44 03:44 03:44

But, no, I didn't see the need to add any additional ones. 03:44 03:44

BY MR. BRODY: 03:44

Q Okay. So you thought about it, you just determined that there was nothing that -- you thought "Should I add something; no, I don't need to add something"? 03:44 03:44 03:44 03:44

A Well, I think the answer is better that -- 03:44

You don't -- you don't -- you don't, at the end of the 15, go "Do I need to add any more? You literally, as you're going through everything and you go through the 15, at the end you say, you know, "Is this good, is there something I'm completely missing here?" 03:44 03:44 03:44 03:44 03:44

Q Right. 03:44

And you didn't think that in your analysis? 03:44
A I did not consider that to be necessary, no. 03:44
Q Great. 03:45
So the first Georgia-Pacific factor you 03:45
identify as "royalties received by the patentee for 03:45
licensing of the patent"? 03:45
A Correct. 03:45
Q Okay. What's your understanding of what 03:45
this factor is aimed at? 03:45
A It's just looking at whether or not they've 03:45
done licensing in the past and if that's somehow 03:45
indicative of what a license might be on this -- that 03:45
very product. 03:45
Q Okay. And you looked at two licenses? 03:45
A Correct. 03:45
Q Okay. These are the only two licenses that 03:45
you considered? 03:45
A Yes. 03:45
Q Okay. 03:45
A There was another one that Ms. Saints -- 03:45
"Saitz" -- 03:45
Q "Saitz." 03:45
A -- "Saitz." 03:45
-- included in her report, it was actually 03:45
a -- I think one with -- I forget who it was with, it 03:45

might have been Riot. I forget who it was with but there was one that she brought up in her report, as I recall --

Q Uh-huh.

A -- that she didn't even consider; so I think we didn't consider it because it was never even -- it was -- it was never executed or anything like that.

Q Okay.

A I don't remember the detail --

Q Okay.

A -- but -- but these are the two we saw.

Q These are the two you saw.

And so the first one --

You said earlier, just to level set, when you talk about reasonable royalty we're talking about reasonable royalty on a per megawatt basis, right?

A That's -- that's the unit we chose; the profit we chose was $50,000 at the end of the day --

Q Right.

A -- and the determining component to that or denominator of that was the megawatt.

Q Okay. So the first license you looked at was licensee EDSI?

A Yes.

Q Okay. Were any products sold pursuant to

this license? 03:47

A I don't -- I don't recall the detail. 03:47

Paragraph 71 basically says "In addition, since Midas was able to meet the demands of the customers that EDSI provided to Midas, Midas sold all the products to EDSI under the terms of the EDSI Reseller agreement"; so it looked like EDSI was a reseller. 03:47

And my understanding is that this was only in place to the extent that Midas could not have met the demands from EDSI in the reseller agreement, that they would allow them to have a royalty on the product, which apparently that never happened. 03:47

Q Right. 03:47

So the answer is that there were no -- that there were no -- 03:47

A No royalties ever paid. 03:47

Q No royalties were ever paid? 03:47

A Correct. 03:47

Q And is it your -- 03:47

It's your opinion that -- 03:48

Well, is it your opinion that this royalty agreement is nevertheless probative of what the reasonable royalty would be? 03:48

A It's something you should look at and 03:48

consider, certainly. I mean, it's -- somebody decided at some point in time to put that in an agreement; so you've got to be -- at least understand it. 03:48

Q How does the fact that no sales were -- Or does the fact that no sales were made pursuant to the reseller agreement bear on your analysis? 03:48

A It does bear. I mean, basically -- I mean, if you talk to Midas about this, they put that in there apparently, you know, because they had to have it in there per EDSI because they wanted to know if you can't meet our demand, we should be able to license the product. And Midas never had any intention of not meeting any demand they might have thrown their way and only had it there just to, I think, appease EDSI and had no intention of ever licensing any of their products. 03:48

Q Okay. And -- 03:48

A So it kind of -- if you look at it from a -- from a -- from a -- from Georgia Pacific, it really causes you to go to a lower end because it's -- it never happened. 03:48

Q Right. 03:48

You make some statements in paragraph 70 03:49

about the intent of the parties to the agreement. 03:49

A Yes. 03:49

Q Okay. What's the basis for your 03:49

understanding of the parties' intent into entering 03:49

into the agreement? 03:49

A Yeah, that's probably a wrong word to use in 03:49

the report. I don't know what people's intents were. 03:49

I just know that based on basically conversations 03:49

with -- with -- with Midas; so I think what we're 03:49

talking about there was based on conservations with 03:49

Midas that was their intent. What EDSI's intent is, 03:49

I have no idea. 03:49

Q Okay. Do you look at whether the terms of 03:49

the contracts were consistent with Midas's -- the 03:49

intent of -- Midas's intent that you've set out here? 03:49

A Do I what? 03:49

Q Do you -- did you -- 03:49

Did you look at the contract and determine 03:49

its terms actually reflected Midas's intent? 03:49

A I don't remember seeing the contract. 03:49

Actually, we have the contract in here. It's 03:49

actually referenced here at footnote 107; so I'm sure 03:50

I've seen the contract. 03:50

Q Okay. How do you translate that? And I 03:50

don't -- 03:50

You don't attempt to translate a 10 percent of net sales into a royalty per megawatt, do you? 03:50

A There's no way of doing that. 03:50

Q Yeah. I thought about it and I couldn't think of one and you're smarter than me. 03:50

And then you say in the last sentence "At the very least the royalty rate would need to be high enough to make up for the 40 to 50 percent margins that Midas was accustomed to generating from the sales of its immersion cooling systems"? 03:50

A Correct. 03:50

Q I thought earlier you referred to 30 to 40 percent gross margins? 03:51

A I think that might have been on the overall gross profit, not on just the tank. I don't recall. That might be a typo; I'd have to look at that. 03:51

Q Okay. And Midas hadn't sold any systems as of the date of our hypothetical negotiation, right? 03:51

A That's correct. 03:51

Q So how could they have been accustomed to generating profits? 03:51

A Because they -- that was a conversation with Sickmiller I mentioned about was that's what they were intending to do was basically have 40 to 50 percent. I thought it was 30 to 40. 03:51

Q Yeah. 03:51
A On the tank it might have been 40 to 50, 03:51
I -- I'd need to do that analysis. But, anyway, that 03:51
was based on a conversation with Mr. Sickmiller. 03:51
Q Okay. And in the conversation with 03:51
Mr. Sickmiller, did he tell you that that was his 03:51
intent in 2020? 03:51
A Well, I mean, yeah. He -- he said that they 03:51
had a knowledge of their costs and their anticipated 03:51
sales of these systems because they were out 03:51
marketing them in 2020. I mean, they were trying to 03:51
sell these things. They were just, as he said, kind 03:51
of ahead of their time. 03:52
Q Right. 03:52
A So they had an idea of what they were going 03:52
to sell for and what -- you know, what it was going 03:52
to cost to make them; so that's kind of how you back 03:52
yourself back into 2020 when there was no sales back 03:52
there. 03:52
Q Okay. Do you know whether Mr. Sickmiller 03:52
worked for Midas in 2020? 03:52
A I don't know. 03:52
Q Okay. But you took his -- take his word for 03:52
what Midas was thinking as of that date? 03:52
A I spoke with him specifically about it and 03:52

that's what he said they were thinking about. 03:52

Q Okay. And you didn't do anything to -- to 03:52
verify that his understanding was correct? 03:52

A Nope. 03:52

Q Okay. 03:52

A I mean, it could have been when he was 03:52
talking to me he was talking about conversations he 03:52
had with other people about that very thing. But he 03:52
spoke to me as if that was a -- a knowledge they had 03:52
and he had in 2020. 03:52

Q Okay. The second sale that you talk about 03:52
is the -- or license, I'm sorry, is the one to 03:52
Immersion Edge. 03:52

A Yes. 03:52

Q Okay. And that's at $100,000 (sic) per 03:52
megawatt? 03:53

A Correct. 03:53

Q That's a lot. 03:53

You say Immersion Edge "is a partially owned 03:53
subsidiary of Midas Green"? 03:53

A Yeah. 03:53

Q Okay. So this is a transaction between 03:53
related parties? 03:53

A Correct. 03:53

Q Okay. And you say that under the Tax Code, 03:53

"transfer prices between controlled parties are (sic) to reflect an arms-length price"? 03:53

A Correct. 03:53

Q Okay. Does that mean the transaction has to be done at an arm's length price or that it, for purposes of tax reporting, has to be reported at -- you know, the income has to be reported as though it was done at an arm's length price? 03:53

A You can't lie to the IRS. 03:53

Q Right. 03:53

But my question is this: If we're, you know, best friends and I give you something for -- I sell you something for -- that's worth $1,000 and I sell it to you for 10-, right, I can -- does -- does this provision of the Tax Code that you're relying on, does that mean that I'm not allowed to sell it to you for 10-? Or does that mean that when we tell the IRS about the transaction you have to say "It was worth $1,000 to me"? 03:53 03:54 03:54

MR. THOMAS: Objection. Improper hypothetical. 03:54

THE WITNESS: No. All it's saying is -- there's a Tax Code that exists, it says that when you transfer product back and forth amongst related parties that it has to be at an arm's length but fair value; so you can't transfer to me at $10 and pay tax 03:54 03:54

on the $10 dollars -- or I pay tax on the $10 when it was really worth 1,000. You have to transfer it at the fair value. 03:54

BY MR. BRODY: 03:54

Q Okay. You don't know whether that requirement was complied with here, though? 03:54

A What do you mean I "don't know"? 03:54

Well, it -- it's completely NA because it was a related-party transaction. 03:54

Q Right. 03:54

So you're not -- you -- 03:54

Why do you mean "It's completely NA"? 03:54

A Well, number one, the price was extremely high, it was double what we're looking at. 03:54

Q Right. 03:54

A Number two, it never happened. 03:54

Q No sale? 03:54

A And number three -- 03:54

Right. And number three, it wasn't arm's length. 03:54

Q Right. 03:55

A Now, there's a code that says you have to try and be arm's length but it never happened; so it's a moot point. So neither one of these things were applicable to us in looking at if that affects 03:55

the $50,000-price-per-megawatt that we came to the conclusion of. 03:55

Q Okay. In the last sentence of this paragraph, though, you say that the $100,000 price "provides support that the range I have calculated is reasonable, if not too low." 03:55

A Well, to me -- 03:55

Q That sounds like it is bearing on your analysis. 03:55

A No. I mean, it's just -- it -- 03:55

All of this stuff should be considered, all of it. All of this stuff in the 15 factors, which it sounds like, unfortunately, we're going to go through, they're certainly considered. 03:55

So did I consider it, did I look at it? Yeah. I looked at also -- 03:55

I looked at the $10,000 and the whatever it was per net -- 10 percent of net sales, I looked at that too to see if it somehow guided me in one way or the other. And $100,000 is certainly a hell of a lot higher than the 50-; so it guided me that, well, somebody put 100,000 in, it's half of what we think it should be. 03:55

Q Okay. So that's -- 03:56

A Twice what we think it should be. 03:56

Q Okay. So that support for your -- 03:56
A I wouldn't -- 03:56
I mean, again, I wouldn't -- we -- I 03:56
wouldn't call it "support," it's just something that 03:56
should be considered. 03:56
Q Okay. And then I'm going to ask you 03:56
about -- and I'm going to mark the next exhibit, 03:56
which is a document -- 03:56
The Bates Number got a little cut off in 03:56
printing but it's bearing the Bates Number MIDAS 03:56
0250- -- 03:56
MR. THOMAS: What exhibit number is this? 03:56
THE REPORTER: 9. 03:56
(Defendants' Exhibit 9 was marked 03:56
for identification and is attached 03:56
hereto.) 03:56
MR. BRODY: It's MIDAS 0250953. 03:56
THE WITNESS: Yes. 03:56
BY MR. BRODY: 03:56
Q Okay. Have you seen this document before? 03:56
A I have, yes. 03:57
Q Had you seen this document before you issued 03:57
your report in this matter? 03:57
A I don't recall. I don't think so. 03:57
Q Okay. What, in your understanding, is this 03:57

document? 03:57
A This was a document -- 03:57
So when -- when Midas was negotiating with 03:57
Whinstone, which -- Riot, basically, we call it 03:57
"Riot," back in 2021 -- 03:57
Q Right. 03:57
A -- this is early 2021, March, they basically 03:57
said that they were proposing three different 03:57
options. One was the purchase of all equipment; 03:57
second was the purchase of the tanks and the modules, 03:57
only i.e., the patented tank unit we've talked about; 03:57
and thirdly was licensing were the three options that 03:57
were laid out to Whinstone/Riot. 03:57
Q And Riot was -- this -- this -- 03:57
In looking at the cover email, this offer is 03:58
made on March 4, 2021, right? 03:58
A Correct. 03:58
Q Which is a year after our hypothetical 03:58
negotiation? 03:58
A Correct. 03:58
Q Give or take? 03:58
A Yes. Yeah. 03:58
Q Riot was an established company at this 03:58
point, right? 03:58
A Correct. 03:58

Q Large, would you say? 03:58
A Yes, very large. 03:58
Q Okay. 03:58
Q Okay. And Rhodium, as of -- as of the date of the hypothetical negotiation, was a startup -- 03:58
A Correct. 03:58
Q -- we described it as, right? 03:58
A Correct. 03:58
Q And Midas offers a license to Riot at a rate of $20,000 per megawatt, correct? 03:58
A Correct. 03:58
Q Did you consider this offer in -- 03:58
And that's below the -- the gross profit range that you set out in your report, right? 03:58
A No, not really; no, it's not at all, if you go to Exhibit 12. If you go to Exhibit 12, the profit per megawatt back in 2020 was 14 to 25; so that's kind of right in the middle -- dead in the middle. 03:58
Q Right. 03:58
But that's not the range that you say the -- the license would have actually been; you offer a range of 29,000 to 50,000, right? 03:58
A We used an average. 03:59
Q Right. 03:59

A Yeah. 03:59

So we used an average of all the years, 03:59
low end, discount and high end; so we're -- what 03:59
we're saying is back in 2020 that probably was a 03:59
number that could be considered. Okay? But, again, 03:59
using book of wisdom, where we effectively have 03:59
additional information in 2021 and 2023 of profits, 03:59
then that's a -- 03:59

My point is that the 20- back then was a 03:59
number that was not unlike what was kind of being 03:59
hypothetically made back then because 2020 we had to 03:59
extrapolate back to those numbers is my point. 03:59

Q But you don't offer an opinion that says 03:59
Midas -- the reasonable royalty would have been one 03:59
amount in 2020 and another amount in 2021 -- 03:59

A No, no. 03:59

Q -- and another amount in 2020? 03:59

A No, no. We don't. No, no, we don't; we 03:59
don't at all. 03:59

We basically say that the range, the average 03:59
between the -- the discounted and undiscounted 03:59
between 2020 and 2023 was 29- to $50,000. And we 03:59
decided on the high end of the range, given all the 03:59
information we have. 04:00

Q Right. 04:00

A My point is that the 20,000 was something that -- in 2020, if you extrapolate those numbers, was about what looks like their gross profit might have been in just that one year. 04:00

Q Right. Okay. 04:00

But 20,000 is not -- is below the -- the royalty that you have -- it is your opinion that Midas would -- would have accepted in this case, right? 04:00

A Yeah, because we then used the book of wisdom to say what -- what did the future look like with respect to the types of royalties or types of gross profits they were achieving in '21 and '23. 04:00

Q Okay. And -- and so it's your opinion that this -- this offer, then, does it not bear on your analysis at all? 04:00

A It does bear. Yeah, it does certainly. All of this. 04:00

Q Okay. Where is this offer considered in your report? 04:00

A I didn't -- I don't think I saw this offer until Ms. Saitz talked about it, I think in her report. 04:00

MR. BRODY: Okay. I'll mark the next document, which is Exhibit 10, a document bearing the Bates 04:00

Number MIDAS 251012. 04:01

(Defendants' Exhibit 10 was marked for identification and is attached hereto.) 04:01

THE WITNESS: I'm there. I'm there. 04:01

BY MR. BRODY: 04:01

Q Okay. And this is an email between various Midas personnel and Whinstone, right? 04:01

A Yes. 04:01

Q Okay. And in the bottom email in the first page, Lyle Theriot at Whinstone writes "The Licensing fee pricing was very much out of our range considering our scale." 04:01

A Correct. 04:02

Q Okay. So what do you understand -- what do you understand that to mean? 04:02

A I can't -- I can't say anything about this other than just exactly what the words say. It looks like the licensing fee pricing was very much out of our range. I mean, maybe they thought because they were going to have so many -- 04:02

You know, Whinstone/Riot is a very large company. Given the number of megawatts they were planning on scaling up to over the years, maybe they thought that was -- it looks like it says too much, 04:02

but I don't know if "out of our range" means high or low, it would seem to me it meant low. 04:02

Q Well, it wouldn't be; no one would turn down something that was too cheap, would they? 04:02

A Well, I mean, I don't -- 04:02

You know, my point is I don't know what they -- I don't know the context of this is my point. 04:02

Q Okay. 04:02

A But that's the way I'd read it as well. But I'm just reading the words on the paper just like you are. 04:02

Q Well, if you look at the second page the context is that this is a response to the email we just looked at, right? 04:02

A Well, no. It says it right there; thanks for your proposal. 04:02

Q So if -- 04:02

Riot is a large company, right; we've talked about that? 04:03

A Yes, it is. 04:03

Q If $20,000 was too high per megawatt and they deployed -- let me ask this question. 04:03

Riot deployed 200 megawatts in 2021, right? 04:03

A Correct. Well, they might have deployed in 2022, but it was sold in 2021. 04:03

Q It was sold in 2021. 04:03

And that sale was completed in the months -- 04:03

in the few months after this email exchange, right? 04:03

A Correct. 04:03

Q Okay. So if $20,000 per megawatt was too 04:03

high for a large company considering a 200 megawatt 04:03

deployment, why would a 29,000-to-$50,000 license fee 04:03

be something that a smaller startup company would 04:03

pay? 04:04

A Well, again, I don't know the context of 04:04

this. But this looks like it's saying "considering 04:04

our scale"; so this might be if we sign up with a 04:04

royalty agreement with you right now, today, and pay 04:04

20,000 and we decide to go to 1,000 megawatts, 04:04

2,000 megawatts, that's the scale I think they're 04:04

talking about here. 04:04

I mean, it couldn't have been just the 04:04

200 scale because if you take 50,000 times 200, 04:04

what's that number, 10 million dollars? 04:04

MR. THOMAS: Yes. 04:04

THE WITNESS: Is it 10 million or -- 04:04

MR. THOMAS: Yes. 50,000 times 200; 10 million. 04:04

THE WITNESS: Well, they actually paid 04:04

29 million for the first 200 megawatts; so it wasn't 04:04

about -- 04:04

They paid 29 million dollars for those first, they could have paid 10 million. 04:04

BY MR. BRODY: 04:04

Q Right. 04:04

A But the point is they're talking about a scale of we're going to do this another 200 in '21 and another 200 in '23 and keep going, where you could pay 29 million dollars to have an asset that might last 20 years, 30 years, versus having to pay 10- -- $20,000 every single time you had a megawatt. 04:04 04:04 04:04 04:04 04:04 04:05

Q Right. 04:05

A That's the scale I assume they're talking about because, otherwise, why wouldn't you pay 10 million dollars versus 29 million dollars? 04:05 04:05 04:05

Q Okay. And what is the -- 04:05

You don't -- you don't know the scale that Riot was planning to go to; you're assuming based on this paragraph? 04:05 04:05 04:05

A Well, but -- but, again, you're asking me to read into this what you want me to read into it which was 20,000 was too high. 04:05 04:05 04:05

I will tell you that, yes, I see that, I kind of interpret it that way, but you've also got to interpret the rest of it, which is "considering our scale" -- 04:05 04:05 04:05 04:05

Q Okay. 04:05
A -- which means -- otherwise, why would they pay 10,000 -- 10 million dollars? 04:05
Q Well -- 04:05
A They would have, because they were anticipating much higher usage, much higher megawatt adds over the years that would have made that a -- a potentially significant number. 04:05
Q Okay. In paragraph 90 of your report, I'm skipping ahead a little bit, you talk about Rhodium's projection that projected Rhodium going to 625 megawatts by the end of 2023, right? 04:05
A Correct. 04:06
Q That's about equivalent to the -- 04:06
Is that, you know, about equivalent to the scale that you've just discussed with Riot? 04:06
A I have no idea what Riot's scale was. 04:06
All I'm saying is they're saying "considering our scale"; so it must have been pretty considerable -- considerable scale to not think that $20,000 a megawatt was -- because basically it would be 400, you'd -- 04:06
Basically if it was 30,000; so if it's 10, it would be three times that, so basically 600 megawatts would be about the break -- the 04:06

break-even between paying a $50,000-scale versus buying those units -- 04:06

Q Right. 04:06

And -- 04:06

A -- so they were thinking obviously longer than that; plus they get the use of that asset over 20 to 30 years. 04:06

Q In paragraph 90 of -- so 600 megawatts is about the break-even point. 04:06

In paragraph 90 you say that Rhodium projected going to 625-, right? 04:06

A Correct. 04:06

Q So if 600 is the break-even point where it's too expensive, Rhodium is going above that, why wouldn't $20,000 also be too expensive for Rhodium? 04:06

A Well, mine is kind of a rounded calculation, it's 625. I mean, if it's -- 04:06

If 600 of it was -- you could do that exact math, you'd probably do the -- the purchase. If it's beyond -- way beyond 600, why would you do that? Because you're continuing to pay every single year for the additional megawatts. 04:07

Q Well, wouldn't you purchase if you were even 1 megawatt beyond the break-even point? 04:07

A I don't understand your point. 04:07

All I'm saying is -- you -- 04:07
625 is what their projection shows, that's 04:07
correct, Rhodium's. 04:07
Q Okay. And I think you just told me that -- 04:07
and I know this is -- we're asking -- I'm asking 04:07
you -- you know, you're doing -- you're doing rough 04:07
math; so I'm not going to -- 04:07
But I think what you just told me is 04:07
there's -- there's a point at which it -- it is 04:07
cheaper, you know, at -- 04:07
So at 200 megawatts you said it would cost 04:07
$10,000 -- or, sorry. At 50 megawatts it would -- 04:07
strike that. 04:08
Does the fact that -- that -- 04:08
Does this -- this statement, that Midas's 04:08
proposed licensing fee of $20,000 per megawatt 04:08
"was very much out of our range for (sic) our scale," 04:08
does that bear on your analysis of the appropriate 04:08
royalty at all? 04:08
A Well, at the time I wrote the report it 04:08
couldn't have because I don't recall seeing that. 04:08
Maybe I did but I don't recall seeing that. I think 04:08
I saw that based on something that Ms. Saitz wrote -- 04:08
Saitz wrote. 04:08
But as I sit here today and I look at that 04:08

and I look at the numbers, it does not change my opinion whatsoever. 04:08

Q Why not? 04:08

A Because of all the reasons I just told you. 04:08

MR. THOMAS: Yes. 04:08

You don't need to -- 04:08

MR. BRODY: Okay. 04:08

Q Do you know whether Midas has received any other -- or has made any other offers for royalties to any other potential customers? 04:08 04:09 04:09

A Not to my knowledge. I mean, I've asked and I wasn't told of any. 04:09 04:09

Q Okay. Who did you ask? 04:09

A I personally didn't ask, I shouldn't say that. 04:09 04:09

My team asked and nothing was brought to their attention. 04:09 04:09

Q Okay. Do you know who -- 04:09

A I don't know who they asked. 04:09

Q Okay. Do you know if anybody has made a request to Midas to license their patented products? 04:09 04:09

A I don't know that. 04:09

Q Okay. Did you consider that possibility? 04:09

A All I can tell you is that we've had multiple discussions with Midas and they said they 04:10 04:10

have no intention of licensing the product. 04:10

Q That doesn't mean that nobody asked them, 04:10
though, does it? 04:10

A I'm just saying if -- if I tell you "I don't 04:10
want a license," why would you give me a proposal of 04:10
licensing? 04:10

Q Okay. So I think the answer to my question 04:10
is no, but we'll move on. 04:10

The second factor, "rates paid by the 04:10
licensee for the use of other patents comparable to 04:10
the products (sic) in suit," there's insufficient -- 04:10
you say "there is insufficient" evidence to allow you 04:10
to evaluate this factor? 04:10

A Correct. 04:10

Q Because there's no transactions in the 04:10
immersion cooling market that would help establish a 04:10
reasonable royalty? 04:10

A Correct. 04:10

Q Okay. Why doesn't the Midas/Rhodium license 04:10
offer count as something in the immersion cooling 04:10
market that might help you establish a potential 04:10
reasonable royalty? 04:10

A Well, it was never accepted by Riot; so it 04:10
was never an accepted license amount. 04:11

Q Okay. And that doesn't -- that doesn't 04:11

affect -- 04:11
Well, you've already said it doesn't affect 04:11
your analysis -- 04:11
A Right. 04:11
Q -- but it doesn't affect your analysis on 04:11
this factor either? 04:11
A No. 04:11
Q Okay. The third factor, "the nature and the 04:11
scope of the license," it's your opinion -- 04:11
You -- you -- you opine that the license 04:11
would be non-exclusive and nontransferable, right? 04:11
A Correct. 04:11
Q Okay. What's your understanding of what 04:11
that means? 04:11
A Well, you could -- the -- that if -- if 04:11
Rhodium licensed with Midas for immersion cooling 04:12
systems they wouldn't go and then license with 04:12
someone else for immersion cooling systems, they were 04:12
exclusive to Midas. And Midas was exclusive to 04:12
Rhodium. 04:12
Q Okay. You say that it's your understanding 04:12
from -- that Rhodium would want an exclusive license? 04:12
A Yeah, of course they would because they 04:12
wouldn't want Midas going off and selling their 04:12
technology to their competitors. 04:12

Q Okay. And that -- 04:12
What's your basis for that, just it makes 04:12
sense? 04:12
A That's basic economics. 04:12
Q Okay. The fourth factor -- 04:12
What's your understanding of what the fourth 04:12
factor is? 04:12
A "License" -- "licensor's established policy 04:12
and marketing program to maintain his or her patent 04:13
monopoly by not licensing others to use the invention 04:13
or...granting licenses under special circumstances 04:13
designed to preserve that monopoly." 04:13
Midas -- the answer is basically in 04:13
paragraph 80. 04:13
Q Okay. So your -- your understanding is 04:13
what's set out here? 04:13
A Yeah. Exactly. 04:13
Q Okay. And you say "As of March 31, 2020 and 04:13
to this day, Midas' primary business model is to sell 04:13
its products that embody its patent invention and to 04:13
maintain its patent monopoly by not licensing to 04:13
others," right? 04:13
A Correct. 04:13
Q Okay. Again, Midas hadn't made any sales as 04:13
of March 31, 2020? 04:13

A Correct. 04:13
Q So what's your basis for saying that that 04:13
was "Midas' primary business model" at the time? 04:13
A Because that was described to me by Dr. -- 04:13
Mr. Sickmiller, that they -- they -- they -- they've 04:13
never had an intention to license this product. 04:13
Q So it's -- 04:14
You're -- you're saying it's their business 04:14
model because that's what they wanted to do, they 04:14
wanted to sell? 04:14
A Well, your business model is designed by 04:14
what you want to do. 04:14
Q Right. 04:14
A So they did not have any intention of 04:14
licensing the product. 04:14
Q Okay. 04:14
A So that would be their business model. 04:14
Q Right. 04:14
So let's go back to -- I just -- just a 04:14
couple pages just for the date that -- 04:14
The license agreement that you discussed 04:14
with EDSI -- with Immersion Edge was dated on May 1, 04:14
2019, right? 04:14
A Correct. 04:14
Q So Midas had entered into at least a license 04:14

agreement with a related party before the date of the hypothetical negotiation, right? 04:14

A Well, yeah. But, again, you have to talk to Midas about what would they ever intend -- did they ever have any belief that that licensing thing would kick in. 04:14

It might have been EDSI suggesting we have to have this in case you can't measure and meet our demands; so -- so Midas can say, yeah, go ahead, we're going to give you whatever the licensing agreement is, but they have absolutely no intention of ever getting there, which they never did get there. 04:14

Q Right. But -- 04:15

Well, sorry. I was talking about Immersion Edge. I said "EDSI" and then I said "Immersion Edge"; I meant to ask you about Immersion Edge. 04:15

So the Immersion Edge license was -- and then I'll talk about EDSI -- 04:15

A Well, the Immersion Edge license was a -- was a -- was a related entity -- 04:15

Q Right. 04:15

A -- that never went anywhere. 04:15

Q Right. 04:15

So -- 04:15

But Midas had one license and no sales as of this date, right? 04:15

A Correct. 04:15

Q But it's still your opinion that their primary business model was selling? 04:15

A Absolutely was, yes. 04:15

Q Okay. 04:15

A That was their intention, yes. 04:15

Q Okay. And as to EDSI, I think you just said that Midas's intention was to sell systems and they didn't want to -- didn't want to license them? 04:15

A No. It was basically -- 04:15

The reason it was there, based on my conversation with Midas, was only because EDSI wanted it there because they couldn't meet the demand in the reseller agreement by EDSI; if they couldn't meet that demand, i.e., Midas could not give EDSI what they needed to resell, then they would want the license to kick in. And -- and Midas had no intention of that ever happening. 04:15 04:16 04:16 04:16 04:16 04:16

Q Okay. And this is -- 04:16

Your understanding is based on conversations with Mr. Sickmiller? 04:16

A Uh-huh. 04:16

Q Okay. 04:16

A Yeah. Sorry. 04:16

Q Okay. In the next sentence you say "Midas had licensed...on a trial basis," I think it says "of" but it should say "to EDSI," right? 04:16 04:17 04:17

How do you know it was a trial basis? 04:17

A To EDSI? 04:17

Q Yes. 04:17

A That would have been based on conversations with -- with Midas. 04:17 04:17

Q Mr. Sickmiller? 04:17

A I assume so. I didn't have that conversation. 04:17 04:17

Q So you -- 04:17

Anybody else? 04:17

A If it's in the report, someone had the conversation with somebody at Midas. I don't know who on my team had it and I don't know who they spoke to. But I can assure you someone did speak to them about the fact that it was a trial basis. 04:17 04:17 04:17 04:17 04:17

Q Okay. 04:17

A That's why I put it in the report. 04:17

Q I understand that, it's just there's no reference here and I just -- I'm trying to understand. 04:17 04:17 04:17

In the next -- 04:18

On the next page you say "Mr. Sickmiller testified that Midas' core business model is to sell immersion cooling systems to third parties," and then you continue on. 04:18

Do you see that? 04:18

A What page are you on now? 04:18

Q Just the next page in the same paragraph. 04:18

A And what page -- 04:18

What paragraph is that? 04:18

Q It's paragraph 80, in the top -- the second page containing the paragraph at the top. 04:18

A So we're on the -- the GP-4? 04:18

Q Yes. 04:18

A Okay. 04:18

Q Okay. 04:18

A And I'm -- 04:18

What are you asking me to look at? 04:18

Q I'm asking to look at -- on the next page, the first full sentence. 04:18

A Yes. 04:18

Q You talk about Mr. Sickmiller's testimony. 04:18

A Yes. 04:18

Q Okay. Do you know where Mr. Sickmiller testified to this? 04:18

A It must have been in his deposition. 04:18

Q Okay. But you don't know anything more specific than that? 04:18

A No. Well, other than that's what he told me as well, or somebody on my staff. 04:18

I did have conversations with him about the licensing but I don't know that he said that specific thing to me. 04:19

Q Okay. And you refer to "incidental revenue that may be generated as a result of negotiations with a potential infringer," right? 04:19

A Yes. 04:19

Q There are no such -- no such negotiations -- well, strike that. 04:19

Has Midas obtained any revenue as a result of negotiations with a potential infringer? 04:19

A Not to my knowledge. 04:19

Q Okay. And so you said that this factor is -- tends towards the high side of your range? 04:19

A Correct. 04:19

Q Why is that? 04:19

A Because they're -- they basically don't license. They're not looking to license, it hasn't been part of their business model. They want to protect their monopoly or their -- their market share of where they're at and so that would tend you to 04:19

believe that they want to get the higher end of the gross profit on the tank. 04:19

Q Okay. The next factor is the "commercial relationship," the fifth factor? 04:20

A Yes. 04:20

Q Okay. Actually, let me ask you this; I have one more question on the fourth factor. 04:20

I think I -- you testified earlier that you're not aware that Midas has not -- has -- of any competitors or any Bitcoin miners coming to Midas and requesting a license, right? 04:20

A I'm not aware of that. 04:20

Q Okay. Does that indicate to you that there isn't demand for a license from Midas? 04:20

A No. 04:20

Q Why not? 04:20

A Because it may indicate that -- just that Midas has never said to anybody they want a royalty. Why -- why -- 04:20

I mean, why would that indicate that nobody wants a -- nobody wants that? What about Midas's -- Midas -- somebody calling and say "We're interested in, you know, licensing your product," and they say "No." 04:20

Q Right. 04:21

But what I'm asking is you're not aware that anyone has ever even called and said "Hey, we're interested in licensing your product"? 04:21

A I have no idea about that. 04:21

Q Okay. If no one had ever called, wouldn't that indicate that there was perhaps no demand for a license -- 04:21

MR. THOMAS: Objection. 04:21

BY MR. BRODY: 04:21

Q -- of the licensed technology? 04:21

MR. THOMAS: Improper hypothetical, no foundation of facts. 04:21

THE WITNESS: No. Maybe it just -- maybe it just means the market knows they don't want to license. 04:21

BY MR. BRODY: 04:21

Q Okay. Did you consider that possibility? 04:21

A No. 04:21

Q Okay. I think we can agree that the commercial relationship between the parties is strained but you say here that -- 04:21

You refer to Chase and Cameron Blackmon's "repeated infringement of the patented product as evidenced by the Midas Green Technologies, Inc., versus the Immersion Systems...lawsuit." 04:21

A Yes. 04:21
Q It's your understanding that the existence 04:21
of a lawsuit proves repeated infringement? 04:21
A Well, if you assume that the infringement -- 04:22
Well, we know this: We know that Immersion 04:22
Systems was -- had a system that was the same system 04:22
that was the system used in Rhodium. 04:22
Q Okay. And how do you know that? 04:22
A Conversations with attorneys and client. 04:22
Q Which attorneys? 04:22
A The attorneys -- 04:22
"Which attorneys"? Thomas Whitelaw & 04:22
Kolegraff. 04:22
Q Okay. 04:22
A So we know that. 04:22
We know that they were given notice that 04:22
they believed there to be an infringement. 04:22
Q Right. 04:22
A We know now or at least I have to assume, I 04:22
do assume that there is infringement in the Rhodium 04:22
side; so it was the same infringement that was 04:22
occurring in Immersion. And they are the same 04:22
people -- Immersion is the same owners as Rhodium; so 04:22
that would be repeated infringement. It was in the 04:22
Immersion side of it and it was on the Rhodium side; 04:22

that would be repeated infringement. 04:22

Q Okay. Okay. You say "in the absence of 04:22

acceptable non-infringing substitutes, Rhodium would 04:23

either need to license" -- "the license from 04:23

Midas...or would need to purchase Midas's products"? 04:23

A Yes. 04:23

Q Okay. And, again, it's your opinion that 04:23

Rhodium couldn't have used -- there was no acceptable 04:23

alternative method of operating a Bitcoin mine? 04:23

A Yes, we've been through that. 04:23

Q Air cooling is out? 04:23

A Yes. 04:23

Q Rhodium designing its own systems is out? 04:23

A Well, if it infringes with Midas, yes. 04:23

Q Could Rhodium have designed a non-infringing 04:23

system? 04:23

MR. THOMAS: Objection. No foundation, 04:23

compound. 04:23

THE WITNESS: We've already -- we've already had 04:23

this discussion that they did not design around it. 04:23

So could they have? I assume it's possible, 04:23

I don't know. But they didn't and they've never 04:23

tried to, as best I know. 04:23

BY MR. BRODY: 04:23

Q You don't address the possibility of Rhodium 04:24

designing around Midas's system here in your report, do you, in this paragraph? 04:24

A I don't know, you see what the paragraph says. I'm not -- I don't remember every word that was written in this paragraph but -- 04:24

Q Okay. So it's your opinion that Rhodium's choices were not operate or purchase from Midas or infringe, right? 04:24

A Well, their options were they had a facility in Texas. My understanding is air cooling doesn't work in Texas, or not effectively and efficiently, as Rhodium was presenting to its investors; so they needed the immersion cooling. If there's no market in -- non-substantive -- an acceptable non-infringing substitute, they would have had to go to Midas, yes. 04:24

Q Okay. And you've said a couple of times that air cooling doesn't work in Texas. 04:24

A Yes. 04:24

Q Did you consider the profitability of Rhodium's air mine in comparison to its immersion cooling mines? 04:24

A I saw -- 04:25

There was some information in Rhodium's financials that split out, actually, air cooled. I don't remember what the numbers were; so, yeah, we 04:25

saw it, I just don't remember what the numbers were. 04:25

Q Okay. If it turned out that Rhodium's air 04:25

cooled facility was as profitable on a per megawatt 04:25

basis as its immersion cooling mining facilities -- 04:25

A Yes. 04:25

Q -- would that change your opinion that air 04:25

cooling is not an acceptable alternative? 04:25

A No. 04:25

MR. THOMAS: Objection. No foundation, improper 04:25

hypothetical. 04:25

You can answer the question. 04:25

THE WITNESS: Well, no. 04:25

BY MR. BRODY: 04:25

Q Why not? 04:25

A Because I'd have to, number one, look at 04:25

the -- the numbers to see if that's, in fact, true. 04:25

Q Right. 04:26

And -- 04:26

A And if -- again, which, we've gone over now 04:26

I don't even know how many times, I'm not going to be 04:26

the one that gives an opinion that there's an 04:26

available non-infringing substitute. I'm not giving 04:26

that opinion. I'm relying on other experts for that 04:26

opinion. I'm making that assumption. And air cooled 04:26

was one of those assumptions. 04:26

So would I find it interesting? I'd certainly take a look at it. But would it change my opinion, no. Because I've been asked to assume that there was no acceptable non-infringing substitutes -- 04:26

Q Okay. 04:26

A -- as I've mentioned before. 04:26

Q Okay. You -- you mentioned that Rhodium was a -- "could be considered a startup company which greatly needed to immediately capitalize on a significant business opportunity," right? 04:26

A Certainly. 04:26

Q Did you consider -- 04:26

What's the basis for your saying that Rhodium "needed to immediately capitalize on the...business opportunity"? 04:26

A Well, I mean typically if you take money from investors, you have pro formas that effectively show what type of profitability you anticipate. And it would be best that you try and employ that capital and make that capital begin to have an ROI as soon as you possibly can; so just from an economic financial perspective, you want to try and accelerate any revenue production that you possibly can in a manufacturing or certainly in a bit mining facility. 04:27

Q What -- okay. Because that's certainly not 04:27

how a number -- many startups operate, right? Tech companies in Silicon Valley often lose money for years before they --

A You're certainly not comparing a tech company --

Q I'm not.

A -- to a Bit- -- a Bitcoin mining company, are you?

Q I'm asking a question, all right?

A Yes, but it's like a completely nonsensical question.

Q Okay. Well, how about this.

You said that in the manufacturing capacity there is a need to immediately show return on investment; is that --

Am I summarizing your testimony correctly?

A Yes. I think in -- in any type of a situation where you take investors' money and there's not some massive part of that that's R&D.

Q Right.

A "Massive part," i.e., tech company, I think that maybe has something that pops out at the end and is massively successful. But where you're simply doing something like mining Bitcoin, I would suggest, as would any other economic or financial person, that

you get that capital employed immediately. 04:28

Q Okay. And the basis for your statement is 04:28
what? 04:28

A Economics 101. Finance 101. 04:28

Q Okay. Are there any factors about the -- 04:28
the Bitcoin mining industry that might bear on that 04:28
conclusion? 04:28

A No. It's just -- I mean, it's -- it's not a 04:28
company that is massively pursuing some R&D, some 04:28
app, some tech thing that you're talking about where 04:28
you don't necessarily have profitability immediately, 04:28
it's somebody trying to generate a profit immediately 04:29
to get an ROI for their investors; so of course they 04:29
would try and get this employed as fast as they 04:29
possibly could. 04:29

Q Okay. Did you look at any Rhodium documents 04:29
that indicate to you that that was Rhodium's goal? 04:29

A Yeah. You look at their projections in, 04:29
basically, 111; in footnote 111 you see their 04:29
projections. 04:29

Q Okay. The projections in footnote 111 are 04:29
from 2021, right? 04:29

A Yeah, but they go out several years. 04:29

Q Right. 04:29

But this is -- we're talking about 2020 04:29

here, aren't we? 04:29

A What difference does it make? You still have the same -- 04:29

They didn't employ that until -- they started it in basically December of 2020, which is 2021 for the most part. 04:29

Q Okay. And so it's your opinion that those projections tell you how Rhodium would have behaved at this point of the hypothetical negotiation? 04:29

A I don't understand. 04:29

What are you talking about "hypothetical negotiation"? 04:29

Q Okay. Let's just move on. 04:29

A I don't understand your question. 04:29

Q We'll just move on. 04:29

Wasn't Midas -- I mean, Midas hadn't -- 04:30

Would it be fair to characterize -- I know it had existed for a number of years as of this point, right, as of -- as of April 1, 2020? 04:30

A Correct. 04:30

Q Would it be fair to characterize Midas as a "startup" at this time? 04:30

A I can see -- 04:30

I mean, you know, from a -- from a years in the market, no. 04:30

Q Sure. Of course. 04:30
A Ten years. But as a revenue-producing 04:30
entity, it was a startup, yeah. Sure. 04:30
Q Right. 04:30
And so wouldn't Midas also have a need to 04:30
immediately obtain revenue? 04:30
A They wouldn't necessarily have "a need." 04:30
That depends on, you know, what their capital 04:30
structure was, which I understand was plenty strong. 04:30
Q Wouldn't they also have the -- 04:30
I'm just confused about why Rhodium would 04:30
have a need to immediately capitalize on the 04:30
significant business opportunity but Midas, a company 04:30
that was also -- was in a similar financial position, 04:30
wouldn't have a similar need to capitalize on a 04:30
business opportunity? 04:30
A I didn't say they wouldn't have a similar 04:31
need to be motivated to maximize their profitability. 04:31
I didn't say that. 04:31
Q But -- 04:31
A I'm simply -- 04:31
I don't think you understand the 04:31
Georgia-Pacific factors, I really don't think you 04:31
understand them. 04:31
It's not that one changes the number. It's 04:31

simply looking at does the factor tend you to believe it's neutral or it's less or more. It's -- it's not a science, it's an art. And -- and it takes years of doing this. And so to suggest that -- that I say that Rhodium is a startup company and therefore somehow going to affect the price is only because it's a Georgia-Pacific factor we consider it. 04:31

Q Right. 04:31

A But just because you think that Midas is a startup company and that's going to somehow move us off the 50,000 to something else is wrong; it's just a factor you consider. It's one of 15 factors that you're going to take hours to get through, which is ridiculous. 04:31

Q And I'm wondering whether -- I'm wondering whether a change in the -- the components of this factor might bear on your conclusion other than -- 04:31

A The fact that you want to call Midas a startup company is not going to change my opinion one bit. 04:32

Q All right. And that's all I was looking for, let's move on. And I'll ask you in the future to refrain from personal statements about me, it's not appropriate. 04:32

A I'm sorry. If it was a personal statement, 04:32

my apologies. 04:32

Q Let's move on. Let's move on. 04:32

MR. THOMAS: Yes. Let's -- 04:32

BY MR. BRODY: 04:32

Q Factor number 6, promotional effect. This factor, you call it neutral? 04:32

A Which? I'm sorry. 04:32

Number 6? 04:32

Q Number 6. Uh-huh. 04:32

A "The effect of selling the patented" -- "patented specialty in promoting sales or other products." 04:32

Yeah. This is -- I mean, it's kind of like the convoyed sales piece which we don't include convoyed sales; it's a neutral. 04:32

Q Right. 04:32

Hypothetically it could have done some positive things for Midas, we don't know; it's neutral? 04:32

A Yeah. I mean, if it -- you know, it could conceptually help Midas sell a bunch of other stuff and therefore you might say, well, I'll take the lower end or the higher end. It's just something that should be considered. 04:32

Q Okay. The next factor that you considered 04:33

is "the duration of the patent and the term of the license"? 04:33

A Correct. 04:33

Q Okay. You say "the Patent had 13.5 years of remaining patent life with no available non-infringing substitutes," is that 13 and a half years of life with no available non-infringing substitutes as of the date of the negotiation, or 13 and a half years of life and there's never going to be a non-infringing substitute? 04:33

A I'm not sure I understand the question. It had -- 04:33

At the date of the negotiation, I think it had 13 and a half years left on its -- 04:33

Q That's right. That's absolutely right. 04:33

A Okay. 04:33

Q What I'm -- 04:33

My question is about the second part, is the "with no available non-infringing substitutes." I know it's your opinion that at the time there were none, are you -- 04:33

A Oh, I see what you're saying. 04:33

Q I just have a question about -- it's a grammar question, not a -- I'm not trying to trip you up. 04:33

Are you saying that there's -- 04:33
I think we agree it's your opinion that 04:33
there were no non-infringing substitutes at the time 04:33
of the negotiation, right? 04:33
A Yeah. I see what you're saying. 04:33
I think what we meant to say there is that 04:34
at that -- at this point in time there were no 04:34
available non-infringing substitutes. 04:34
Q Right. 04:34
A I'm not suggesting that 13 years into the 04:34
future there's never going to be an -- 04:34
Q Right. 04:34
A -- an acceptable non-infringing substitute. 04:34
Q That's -- thank you. That's -- I think 04:34
that's -- 04:34
A I understand. 04:34
Q I think that's what I was getting at. 04:34
A It's -- it's confusing. My apologies. 04:34
Q No. 04:34
You say "Rhodium would have wanted a license 04:34
for the entire patent life"? 04:34
A Certainly. 04:34
Q Okay. Well, why are you certain of that? 04:34
A Well, why wouldn't they? I mean, if they -- 04:34
you know, if they -- 04:34

They basically -- they want this technology, they use this technology now, allegedly. If they have an ability to license it for X number of years, why wouldn't you want to license it for as long as you possibly can? 04:34 04:34 04:34 04:35 04:35

Q You say "a longer license...duration leads to a lower royalty rate." 04:35 04:35

Is that a -- lower royalty rate, just the -- the raw number is lower, or the lower royalty rate per year is lower? 04:35 04:35 04:35

A No, it's just the raw number. You'd get -- you'd move more to the $29,000 range because you're going -- because at that point in time Midas would say "Well, we're getting it for 13 and a half years," and -- and Rhodium would say "We're having to pay it for 13 and a half years, I want to pay on the lower end." 04:35 04:35 04:35 04:35 04:35 04:35 04:35 04:35 04:35

Q Right. 04:35

Because it's $29,000 times potentially more megawatts that might -- 04:35

A That's your opinion of the future --

Q -- impact your --

THE REPORTER: Stop. Okay. Hold on.

I can't keep up with both of you talking at the same time at 400-plus words a minute, so -- 04:35

"Right.
"Because that's $29,000 times --"
BY MR. BRODY:
Q 13 and a half years of potential construction versus if it's only four years Midas is going to say "We've got to capture all the revenue now," am I basically understanding --
Is that a rough --
A Yeah. That is the concept, yes.
Q Okay. And you say that this is a factor that causes you to go down towards the "lower end"; so thanks for that.
A You're welcome.
Q The eighth factor is "established profitability," right?
A Yes.
Q And as of the date of the hypothetical negotiation there was no established profitability, right?
A Yes. That's correct.
Q Okay. So you're relying entirely on the book of wisdom for this factor?
A And also my conversation with Mr. Sickmiller.
Q Is that the conversation that you referred

to that in 2020 "We would have" -- "This is what we would have known that we would get"? 04:36

A Yes. 04:36

Q Okay. 04:37

A I mean, given the information that they had, they had -- they had the product, they had it patented, they had it designed, they had it all ready to go, they were basically out there trying to sell it; so if you're out trying to sell a product, you know what the price is, you know what the cost is. 04:37

Q Well, if you haven't sold it do you really know what the price is? 04:37

A Well, I mean -- 04:37

Q You know what you're asking. 04:37

A Yeah. But -- yes, that's true. That is true. 04:37

Q So in the next paragraph you -- you rely -- this is footnote 111, which we've talked about. 04:37

A Yes. 04:37

Q You rely on some -- a projection from 2021, right? 04:37

A Yes. 04:37

Q That's -- I think it -- 04:37

That's approximately a year after the hypothetical negotiation, right? 04:37

A Correct. 04:37
Q I didn't print the spreadsheet because it's 04:37
1,600 pages long but I think it was dated in -- it's 04:37
either June or July of 2021. 04:37
Would you agree with me there? 04:37
A I thought it was earlier in 2021 but that's 04:38
fine. 04:38
Q Whatever. 04:38
Would you -- would you say that if -- in 04:38
trying to reconstruct a hypothetical negotiation, a 04:38
projection made more closely in time to the 04:38
negotiation itself is more reliable evidence of what 04:38
the negotiating parties would have thought? 04:38
A Well, again, that's kind of where the book 04:38
of wisdom comes in is assuming they had the 04:38
information at that point in time, yes. I would 04:38
agree. 04:38
They didn't have the information; then 04:38
that's why you have to pull the book of wisdom 04:38
information back into it. 04:38
Q Okay. So I'm going to show you -- 04:38
Let's go to the next document, it's going to 04:38
be two documents; we'll mark them as two separate 04:38
exhibits. 04:38
The first one is a document bearing the 04:38

Bates Number RHOD0067305. 04:38

THE REPORTER: That's Exhibit 11. 04:38

MR. BRODY: All right. Here you go, Joe. 04:39

(Defendants' Exhibit 11 was marked 04:39

for identification and is attached 04:39

hereto.). 04:39

THE WITNESS: Thank you. 04:39

BY MR. BRODY: 04:39

Q Take a look at this, let me know when you're 04:39

ready. 04:39

A I'm there. 04:39

Q Okay. Have you seen this document before? 04:39

A I don't recall seeing this document. 04:39

Q Okay. It appears to be an email from 04:39

Nick Cerasuolo to Derek Boirun at realio.fund. 04:39

Do you agree with that statement? 04:39

A Yes. 04:39

Q Okay. And do you know who Nick Cerasuolo -- 04:39

It's dated May 18, 2020? 04:39

A Yeah. He was with Rhodium. 04:39

Q Okay. Do you know what his position was at 04:39

the time of this email? 04:39

A I don't remember. Former financial guy, I 04:39

don't remember what it was. 04:40

Q He's finance. 04:40

A Yeah. Former finance. 04:40
Q COO, CFO. 04:40
A Yeah. 04:40
Q But he -- 04:40
We can agree he's with -- he's involved in 04:40
Rhodium's finances, right? 04:40
A Yes. I agree with that. 04:40
Q You read his deposition and -- and cite it 04:40
in your report? 04:40
A Correct. 04:40
Q Okay. And this is an email to -- to 04:40
somebody at realio.fund. 04:40
Are you familiar with realio.fund? 04:40
A I'm not. 04:40
Q Does it appear from the context of this 04:40
email that Realio Fund is a potential investor in 04:40
Rhodium? 04:40
A It would look that way to me, yes. 04:40
Q Okay. And Nick attaches a number of 04:40
documents, right? If you look at the -- the top 04:40
of the -- the email there is a -- there are three 04:40
attachments listed, right? 04:40
A Yes. 04:40
Q Okay. And the -- the second attachment is 04:40
"Rhodium model March 2020_sent to Realio Fund 04:40

05.18.2020," right? 04:40

A Correct. 04:40

Q Okay. And then in the body of the email 04:40

Nick says "PPM teaser deck, and financial model 04:41

attached," right? 04:41

A Yes. 04:41

Q So does it appear to you that -- and I know 04:41

you haven't seen the attachment. 04:41

Does it appear to you that Nick is sending a 04:41

financial model to this potential investor? 04:41

A It looks that way, yes. 04:41

Q Okay. And in your experience, a financial 04:41

model that's sent to a potential investor, you'd want 04:41

that to be accurate, right? 04:41

A Yes. 04:41

MR. BRODY: Okay. Let's look at the next 04:41

exhibit. 04:41

THE REPORTER: Exhibit 12. 04:41

(Defendants' Exhibit 12 was marked 04:41

for identification and is attached 04:41

hereto.) 04:41

BY MR. BRODY: 04:41

Q Uh-huh. This is a -- let me know when 04:41

you're -- 04:42

A I'm here. 04:42

Q All right. Have you seen this document before? 04:42

A I don't recall seeing this document, no. 04:42

Q Okay. You didn't consider it in forming the opinions in your report? 04:42

A I didn't. I don't remember seeing it. If it's part of the documents that are on the doc list, then my team would have seen it and considered it in our opinions. 04:42

Q Okay. 04:42

A I don't remember seeing this document. 04:42

Q At the top it says "Draft as of March 2020," right? 04:42

A Correct. 04:42

Q Okay. Do you have any reason to believe this document wasn't created in March 2020? 04:42

A No. 04:42

Q Okay. So these are -- appear to be Rhodium financial projections for its performances of March 2020, right? 04:42

A That's correct. 04:42

Q Okay. And if you look at -- on the second page, there is a "Summary Returns Analysis" at the bottom. 04:42

Yeah. 04:43

A Yes, I'm there. 04:43
Q Okay. And in the -- 04:43
MR. THOMAS: Let me see. I don't know that I have this. 04:43
MR. BRODY: Oh, did I not -- 04:43
MR. THOMAS: I don't have this, Counsel. 04:43
Is this Exhibit 13 now? 04:43
MR. BRODY: I thought I gave it to you. 04:43
THE REPORTER: It's 12. 04:43
(Discussion off the record.) 04:43
MR. THOMAS: I have 12 is a two-page -- 04:43
MR. BRODY: Let's go off the record for a second. 04:43
THE VIDEOGRAPHER: We are off the record at 4:43 p.m. 04:43
(Off the record.) 04:44
THE VIDEOGRAPHER: Back on the record. 04:44
Counsel, one second, please stand by. 04:44
We're back on the record at 4:44 p.m. 04:44
MR. BRODY: Thanks. 04:44
And we've sorted out the exhibit mix up which I'll note for the record was entirely my fault. 04:44
Q So looking at these financial projections, in the "Summary Returns Analysis" there's a row titled "Implied BTC Price in USD," right? 04:44

A Yes. 04:45
Q "BTC," do you understand that to be 04:45
referring to "Bitcoin"? 04:45
A Yes. 04:45
Q And it lists 5,000, 6,000, 7,000, up through 04:45
30,000, right? 04:45
A Correct. 04:45
Q So is it your understanding that this 04:45
document is providing a series of financial models 04:45
based on hypothetical future prices for Bitcoin? 04:45
A Yeah. It's just -- it's a -- it's a 04:45
five-year projection given sensitivity to the Bitcoin 04:45
price. 04:45
Q Right. 04:45
And in the $30,000 row, column, the 04:45
right-most column -- 04:45
A Yes. 04:45
Q -- we see a projected five-year EBITDA at 04:45
that of 667 million dollars? 04:45
A Correct. 04:45
Q Okay. And a projected net income of 04:45
505 million dollars? 04:45
A Correct. 04:45
Q Okay. In your report, going back to 04:45
paragraph 90, you rely on the projections of -- I'm 04:46

sorry, one more thing. 04:46

And revenue is 689 million dollars over the entire five-year period in the projection? 04:46

A That's correct. 04:46

Q Okay. In your report you rely on projections that project estimated revenues of approximately 2 and a quarter billion dollars in 2023 alone, right? 04:46

A That's correct. 04:46

Q So that's a one-year projected revenue that is more than 3 times higher than the projected revenue in the document I've just handed you, right? 04:46

A Correct. 04:46

Q Okay. Why is it appropriate to rely on these later projections -- the higher later projections when these closer-in-time projections exist? 04:46

A Well, you -- I mean, you can use whichever -- whichever one you want. The -- the -- the Panduit factor is talking about a commercial success or not. That's what the Panduit factors talk about. 04:47

Remember, we've got to go back to the Panduit factor. And the Panduit factor suggests was there -- was this a commercial success for both the 04:47

licensee and the licensor. 04:47

Q Yes. And I -- 04:47

A And that's exactly -- this -- even using your document, which is the five-year, shows a 6X multiple. 04:47

Q I thought this factor was "establish profitability." 04:47

A Am I in the wrong -- 04:47

Yeah. Okay. "Establish profitability." Sorry. I thought we were back up at the -- well, at "commercial success," same thing. 04:47

Q Right. 04:47

But -- 04:47

A "Commercial success," "profitability," is the same thing basically but -- 04:47

Anyway, so I don't care which one of these you use. We used the projections based on this document, 111 -- 04:47

Q Right. 04:47

A -- which is that done in 2020; I think it's 2021 it starts. 04:47

Q Right. 04:48

A Okay. This one shows, in 2020, that it was still a massive success. 04:48

Q Okay. And -- 04:48

A So you can use this one and I still have the same opinion. 04:48
Q You still have the same opinion? 04:48
A Exactly. 04:48
Q That's what I was -- that's I'm wondering. 04:48
A Yes. 04:48
Q Okay. 04:48
The report you rely on was generated in July of 2021, right? 04:48
A You asked me that question already. 04:48
Q Yeah. Yeah. 04:48
Do you know the context in which that -- that projection was generated? 04:48
A I don't remember the addressee or what it was -- what -- the transmittal letter or what it was for, no. 04:48
Q Okay. Do you know whether Rhodium has ever considered an initial public offering? 04:48
A Yes. 04:48
Q Okay. It filed for one, right? 04:48
A Yes. 04:48
Q When did it file for one? 04:49
A I think it was 20- -- I don't remember if it was '22 or '23. I don't remember, I've seen the S-1. It's in the documents. 04:49

Q Okay. If these -- these -- these 2021 projections you rely on were generated in the context of an IPO, would that bear on your opinion at all about Rhodium's established profitability?

A Which projections?

Q The -- the ones you cite in footnote 111.

A Would they change my opinion?

Q If you knew that Rhodium --

If they -- if they were done in anticipation of an IPO, would it affect your opinion at all?

A No.

Q Okay. And in the last sentence you say "there were no non-infringing substitutes as of" -- as of this date, I won't go over it again.

Would your analysis of this Georgia-Pacific factor change --

A Yes.

Q -- if there were a non-infringing substitute?

A Yes.

Q Okay. In paragraph 92 you talk about Midas being "in the process of building its business and large data center companies had expressed interest in purchasing Midas' products," right?

A Yes.

Q You're just relying on the Whinstone there, right? 04:50

A Yes. 04:50

Q Okay. And -- okay. Let's move on. 04:50

We can take what I assume will be the last break at any time. 04:51

MR. THOMAS: Let's just finish. Let's go. 04:51

THE WITNESS: How about you -- 04:51

(Discussion off the record.) 04:51

MR. BRODY: Let's take five. 04:51

THE VIDEOGRAPHER: We're going off the record at 4:51 p.m. 04:51

(Off the record.) 04:51

THE VIDEOGRAPHER: We are back on the record at 5:03 p.m. 05:03

BY MR. BRODY: 05:03

Q Good afternoon -- evening, Mr. O'Bryan. Welcome back. 05:03

A Thank you. 05:03

Q I think we left off at number -- 05:03

A 12. 05:03

Q Nice try. 05:03

-- 8. 05:03

A No, it was 9, dude. 05:03

Q Let's go -- let's go with 9. Actually -- 05:03

So what's your understanding of the ninth Georgia-Pacific factor? 05:03 05:04

A "The utility and advantages of the patent property owner (sic) over the...modes or devices, if any, that have been used for working out similar results. 05:04 05:04 05:04 05:04

"Midas' product" -- it's basically just whether or not it's been used for other purposes. 05:04 05:04

So the -- "Midas' product has been in high demand and been copied by many others in the marketplace. For example" -- 05:04 05:04 05:04

I'm just reading so -- 05:04

Q No. Well, I'll ask you about that. 05:04

You said GRC copied Midas's product? 05:04

A Yes. 05:04

Q What's your basis for that statement? 05:04

A That's Dr. Pokharna. 05:04

Q Okay. Then you say in 2020 "Engineered Fluids...began selling product that infringes Midas (sic) patent"? 05:04 05:04 05:04

A Correct. 05:04

Q That's -- 05:04

What's your basis for that statement? 05:04

A That's -- 05:04

The reference is Midas; you see the Bates, 05:04

I don't know what that is. But I think I've also talked to Dr. Pokharna about that as well. 05:04

Q I actually don't -- 05:05

I thought that footnote went to the next sentence, not -- not -- 05:05

A Oh, sorry. Sorry. Sorry. 05:05

Q Yeah. 05:05

And these are -- 05:05

A Yeah. Yeah. 05:05

Q Is your basis here conversations with Dr. Pokharna? 05:05

A Yes. 05:05

Q Okay. Anything else? Just those conversations? 05:05

A That's correct. 05:05

Q Okay. And then you say "In 2020, several parties had contacted Midas interested in purchasing Midas' product, including Whinstone." 05:05

Other than Whinstone, who are the "parties" that you're talking about there? 05:05

A I don't recall as any others as I sit here right now. 05:05

Q Okay. And you reference one document and that's -- that document refers to Whinstone, right? 05:05

A I don't know that, it could be. It could 05:05

be -- 05:05

Q It's not a -- 05:05

MR. THOMAS: Excuse me one minute. 05:05

I just got an email from somebody who's on Zoom and said it's on mute. 05:05

Could you fix that? 05:05

THE VIDEOGRAPHER: Sorry. 05:05

MR. BRODY: They did that for me so that -- during the breaks. 05:05

MR. THOMAS: Okay. 05:05

MR. BRODY: Fair enough. 05:06

Q Okay. Let's move on to number 10, I guess. Actually, let me ask you this. 05:06

This factor relates to utility advantages over old devices, old methods of -- 05:06

A What factor are you -- 05:06

Q The ninth factor, I'm sorry. 05:06

A You're back on 9? 05:06

Q Yes. 05:06

It's advantages over the existing technology, right? 05:06

A Yes. 05:06

Q Okay. And you are basing that -- 05:07

And you say it must have advantages because other companies were infringing? 05:07

A Correct. 05:07
Q Okay. 05:07
A And there's been demand for their product. 05:07
Q Right. 05:07
Did you perform any analysis on -- any 05:07
independent analysis of how -- or whether or how 05:07
Midas's technology improves on the previously 05:07
existing products, or are you just assuming that 05:07
because of the infringement? 05:07
A Well, I'm not really sure there was any 05:07
previously -- previous technology out there about 05:07
immersion systems. 05:07
Q Right. 05:07
A So, you know, I'm -- 05:07
You know, the reality is we've talked about 05:07
air cooled; that was a prior type of a cooling 05:07
product. 05:07
Q Right. 05:08
A I do think it improves that mode or that 05:08
device. 05:08
Q Right. 05:08
A And all we're trying to say is that also 05:08
because of the fact that others have been copying it, 05:08
which we see two that Dr. Pokharna talks about, and 05:08
then the fact that there has been demand for the 05:08

product, I think that would be indicative with respect to the ninth Georgia-Pacific factor. 05:08

Q Right. Okay. 05:08

And your opinion that it's an improvement on air cooling is based on your conversations with -- 05:08

A Yeah. Those that you've talked about in the past, yeah. 05:08

Q Okay. Okay. Let's go on to number ten. 05:08

What's your understanding of the tenth factor -- or how about this. 05:09

Is your full understanding of the tenth factor set out in paragraph 98? 05:09

A And then discussed in 99. 05:09

Q Right. Right. 05:09

And we talked about earlier -- 05:09

And I won't go over it again. 05:09

-- the smallest unit embodied in this is the tank or the tank unit, as we've discussed. 05:09

A Yes. 05:09

Q Okay. And you say it's "my understanding that the patented invention provides for increased hash rates, which, along with other factors, results in higher potential revenue for Bitcoin miners," right? 05:09

A Correct. 05:09

Q And the basis for that understanding is what? 05:09

A "Improved hash rates"? 05:09

Q Yes. 05:09

A I think that's been all over-- was all over Rhodium's documents. Some of them are quoted down here in 115, footnote 115. And conversations with client -- Midas. 05:09 05:09 05:09 05:10

Q Okay. You don't refer to any specific Rhodium documents in connection with this sentence though, do you? 05:10 05:10 05:10

A Well, I guess I'd have to go look at -- 05:10

Q The SEC disclosure? 05:10

A Well, that was the S-1, where they specifically say that it's their "flagship liquid-cooling system...that affords...the ability to maintain low operating costs and manage energy consumption." But I believe I've seen somewhere else in Rhodium documents it talks about the increased hash rate, but I can't think of it as I sit here right now. 05:10 05:10 05:10 05:10 05:10 05:10 05:10 05:10 05:10

Q Okay. And it's not referred to here. 05:10

And you say that -- the next sentence you say "Consequently, Rhodium has benefited immensely from its use of Midas' patented invention," right? 05:10 05:10 05:11

A Correct. 05:11
Q And your basis for that -- 05:11
What's your basis for that? 05:11
A The financial statements. They've had 05:11
incredible financial success from the use of the 05:11
technology. 05:11
Q Okay. Do you compare the financial 05:11
performance -- performance of Rhodium's 05:11
immersion-cooled entities to the financial 05:11
performance of Rhodium's air cooled entity? 05:11
A I don't recall -- I've seen those numbers. 05:11
I don't recall the actual numbers. 05:11
Q Okay. But you -- 05:11
So you didn't -- you didn't compare them? 05:11
A I think I did at some point in time but I 05:11
don't recall as I sit here right now. 05:11
Q Okay. And -- and that comparison is not in 05:11
this report? 05:11
A No, but I -- it says that they have used the 05:11
technology, the immersion cooling systems, and they 05:11
have had immense successful results, which they have. 05:11
Q Okay. 05:11
A So I don't know that that's comparing it to 05:11
air cooled, it's just they've used the immersion 05:11
cooling systems and they've been incredibly 05:11

successful financially for Rhodium. 05:11

Q Okay. I'd like to ask you about -- 05:11

If you can go back to Exhibit 3, which is Juli Saitz' report. 05:12

A I'm there. 05:12

Q I'll ask you to go to paragraphs 104 to 111, which begin on page 25. 05:12

A I'm there. 05:12

Q Okay. You've reviewed this report, as we've discussed many times? 05:12

A I have. 05:12

Q Okay. And in these paragraphs you see Ms. Saitz cites a number of instances of testimony from Rhodium witnesses stating that, for example, in paragraph 106, Mr. Blackmon stated that he "had very high hopes for the Rockdale facility's efficiency in liquid cooling to be significantly greater than that of the air mine next door. Historically, unfortunately that has not been the case for Rockdale," right? 05:12

A Correct. 05:13

Q And there's a number -- a number of similar pieces of testimony from Rhodium witnesses? 05:13

A Yes. 05:13

Q Okay. Isn't this testimony -- 05:13

How do you square this testimony with your opinion that Rhodium has "benefited immensely" from the use of Midas's invention? 05:13

A Well, they -- they just have generally. They've been using the immersion cooling at 175 megawatts in their Bitcoin mining operation in Texas and they've made a considerable amount of money. 05:13

Q So -- 05:13

A And whether or not that compares to the air cooled and there's a benefit is not what I'm talking about here. I'm talking about the fact that they've been quite successful in using the infringed-upon -- allegedly infringed-upon product. 05:13

So this isn't necessarily saying, hey, it's better than the air cooled, this is saying you're using it and you're making -- and you have commercial success with it. 05:14

Q Okay. 05:14

A Well, actually this is 9. I'm sorry. We jumped back a factor. 05:14

Yeah. I'm sorry. You jumped back a factor on me. 05:14

So, yeah. My -- my understanding is that in conversations with Midas, and as I said, I think I 05:14

looked at the financial statements, which include the air cooled, I thought I saw a difference as well, but I don't recall, that -- you know, again, air cooled is not an option in Texas. 05:14 05:14 05:14 05:14

And also the fact, as I said before, there's 25 megawatts, another 175 megawatts of that has been immersion. And also all of the documents, which Rhodium talks about to the SEC, to their investors, is their unique liquid-cooling design; so they're touting it as being a big part of their operation. That does not square with what some of these people are saying, quite frankly. 05:14 05:14 05:14 05:14 05:15 05:15 05:15

Q Right. 05:15

And you didn't review the testimony of any of these witnesses other than I guess Mr. Nichols and Mr. Cerasuolo before putting it in your report, right? 05:15 05:15 05:15

A That's correct. 05:15

Q But you did review the testimony of Mr. Nichols and Mr. Cerasuolo, right? 05:15 05:15

A Correct. 05:15

Q And Mr. Cerasuolo testifies that "I do believe" -- "personally, I do believe that in the right conditions liquid cooling can be more efficient but I've yet to see it prove out in production," 05:15 05:15 05:15 05:15

right? 05:15

A Apparently he said that. 05:15

Q So you reviewed that testimony but you don't -- you don't -- you didn't think it was worth addressing as a -- potentially being inconsistent with your conclusion hear? 05:15

A No, because I -- everything I've heard has been completely different from that. 05:15

Q Okay. And why did you decide to credit the evidence that -- that you -- 05:15

A I didn't. 05:16

Q -- are relying on? 05:16

A It was a weight of evidence. I didn't -- I don't remember seeing that exact quote but everything else I've seen is that the air cooled does not work in Texas. And also the facts that -- I mean, that's just what I've been told with respect to some of my discussions from Midas. 05:16

But, more importantly, once again, you know, if air cooled is so good, why did they buy all of these immersions and why do they keep talking about immersion as being crazy successful all the way through 2023? And it's literally in -- in their documents, you can see it right here, their "flagship liquid-cooling system." If it's not working, then 05:16

why aren't they using more of the air cooled? 05:16

So it doesn't make any sense, I think 05:16

there's a bit of an inconsistency there. 05:16

Q Then you say in the next -- moving down a 05:17

couple sentences, "the commercial advantage to the 05:17

companies that used the patented invention, such as 05:17

Rhodium is captured by the increased return on 05:17

investment that is generated by reduced maintenance, 05:17

reducing equipment malfunctions (such as fan 05:17

failures), and increasing the hash rate throughout 05:17

the year." 05:17

A Correct. 05:17

Q Did you look at Rhodium's -- 05:17

You didn't look at Rhodium's costs in -- in 05:17

forming the -- as basis for this statement, did you? 05:17

A Well, as I said I saw -- I saw Rhodium's 05:17

financial statements and I think they had split out 05:17

"air cooled" and "immersion." I just don't remember 05:17

what they said. 05:17

Q All right. 05:17

A So I have looked at their costs with respect 05:17

to that. 05:17

And then in addition to that, it's been 05:17

based on my conversations with Midas and I think it 05:17

was also Dr. Pokharna -- Pokharna that talks about 05:17

air cooled not being an acceptable alternative. 05:17

Q Okay. But here you're -- you're offering as 05:18
an opinion that Rhodium has captured the benefit by 05:18
reducing maintenance, right? 05:18

A Well, they -- my understanding is that you 05:18
do get a benefit. If you don't -- 05:18

Liquid immersion does not have the repair 05:18
maintenance of the fans that break down and all those 05:18
costs that go along with that, they don't have that; 05:18
so you would have a benefit from a lack of -- or a 05:18
lesser amount of repair and maintenance. 05:18

Q Did you look at, in practice, whether 05:18
Rhodium has actually managed to -- to realize a 05:18
benefit? 05:18

A As I've said multiple times, I saw those 05:18
numbers, I don't recall what they said. 05:18

Q Okay. And you don't cite them here in the 05:18
report, do you? 05:18

A Well, no. It's -- 05:18

I think there's -- 05:18

Q Okay. 05:18

A -- a calculation for the -- the change in 05:18
profitability or in the -- in the gross profits. And 05:18
I believe it's within that document; so that is 05:18
quoted actually. 05:18

Q Okay. What's your understanding of the eleventh factor? 05:18

A "The extent to which the infringer has made use of the invention; and any probative" -- "probative value of that" -- "evidence probative of the value of that use." 05:18 05:19 05:19 05:19

We know they've used it -- 05:19

Q Yes, but -- 05:19

A -- and we know they've made a lot of money doing it. 05:19 05:19

Q So in -- and the -- the -- the year -- 05:19

It's your opinion that this factor supports on the whole a higher -- a reasonable royalty towards the higher end? 05:19 05:19 05:19

A Yes. 05:19

Q And the basis for that opinion is set out in paragraph 101 here? 05:19 05:19

A 102. 101 and 102. 05:19

Q "101 and 102." 05:19

And you said the basis for that was Rhodium's performance? 05:19 05:19

A Yes. 05:19

Q Okay. You don't actually -- 05:19

Do you cite Rhodium's actual financial performance here or do you just rely on projections? 05:19 05:19

A Again, I -- no. I saw Rhodium's financial performance when we calculated the -- the result on the change to the margins because of paying the royalty, which is the 15th factor -- or the 14th factor. We actually calculate that. 05:19 05:19 05:20 05:20 05:20

We saw the projections, yes. 05:20

Q Right. 05:20

But in this paragraph -- I'm talking about in this paragraph, in your analysis of this factor you don't actually refer to Rhodium's actual financial performance do you? 05:20 05:20 05:20 05:20

A No. We looked at their projections. 05:20

Q Okay. And are the projections a better source than Rhodium's actual financial performance? 05:20 05:20

A No, but it doesn't matter; we've seen both of them. 05:20 05:20

Q Right. 05:20

But -- 05:20

A Just because I don't reference it here doesn't mean I didn't see it, it's also in the documents and also an exhibit in this report. 05:20 05:20 05:20

Q Okay. And it's your opinion that that's sufficient to disclose it as a basis for your opinion in this paragraph? 05:20 05:20 05:20

A Yes. 05:20

Q Okay. The twelfth factor, "the portion of the profit or of the selling price that may be customary in a particular business or in comparable business to allow for the use of the invention," what's your understanding of this factor? 05:20 05:20 05:20 05:20 05:20

A "The portion of the profit or of the selling price that may be customizable" -- 05:21 05:21

Well, if you read down in paragraph 104, you get kind of our opinion about what it's kind of referring to here is basically that -- that -- that Rhodium is using it to generate revenue in Bitcoin mining. Although Midas sells products, Rhodium uses that product to actually mine Bitcoin and create revenue. 05:21 05:21 05:21 05:21 05:21 05:21 05:21

"Tank is the smallest unit." 05:21

It's really talking about the overall success, profitability and kind of use of the product, which is again getting down to using the tank and the gross profit on the tank. 05:21 05:22 05:22 05:22

Q Right. And it's -- 05:22

So it's your opinion that in negotiating for a license, Midas would capture the -- the same amount as an average license price as it made -- as it makes -- as it makes in profit from selling each megawatt of cooling capacity? 05:22 05:22 05:22 05:22 05:22

A No. It -- it would capture the gross profit it makes on a tank by megawatt, yes. 05:22

Q Right. 05:22

A Yes. 05:22

Q I think you said it more artfully than I did. 05:22

Have you ever, in your past experience as an expert, reached a conclusion that a reasonable -- a party's reasonable royalty and gross profit would be equivalent, that the reasonable royalty would equal gross profits on a sale? 05:22 05:23 05:23 05:23

A Well, again, each one is different. You know, you have to kind of consider how -- once you get down to the smallest unit and how best to measure what somebody would pay for that, that patented item; so I don't -- 05:23 05:23 05:23 05:23 05:23

I mean, I've never done a Bitcoin patent case before -- 05:23 05:23

Q Right. 05:23

A -- and so I -- I don't think I've ever -- 05:23

I mean, I've certainly used gross profit before. 05:23 05:23

Q Right. 05:23

A Gross profit is gross profit, but I've never done it on a Bitcoin facility before. But I have 05:23 05:23

used gross profit before as a basis for a reasonable royalty negotiation. 05:23

Q Okay. What case was that in, if you can say? 05:23

A I don't remember. 05:23

Q Don't remember? 05:23

A I was on the Honeywell/Litton case and I -- I think there was gross profit discussions in allocation of costs within that. It was years ago. 05:23 05:24 05:24

Q Okay. Okay. I guess what I'm -- what I'm wondering is so your -- 05:24 05:25

Reasonable royalty is based on gross profits, right? 05:25 05:25

A Well, it's -- that starts as the base damages, yes. 05:25 05:25

Q All right. And ultimately you conclude that -- that the high end of the gross profit range is the reasonable royalty? 05:25 05:25 05:25

A Correct, which is the average between 2020 and 2023. 05:25 05:25

Q Right. 05:25

I'm wondering, then, just how your Opinion 3 differs ultimately from your Opinion 2. 05:25 05:26

A Opinion 2 has to do with lost profits. 05:26

Q Right. 05:26

But if -- if the royalty is equivalent to gross profits, then am I being obtuse? 05:26

A Well, no. I understand -- 05:26

Q It's possible that I am, don't worry. 05:26

A No, I understand your -- I understand your point. 05:26

I mean, it -- it is similar in that it's looking at just the tank. 05:26

Q Right. 05:26

A Lost profits on just the tank sales. It does take it down to the -- the megawatt level -- 05:26

Q Right. 05:26

A -- versus the tank level. 05:26

Q Right. 05:26

But -- 05:26

A And it actually -- 05:26

You know, it's not -- it's a different calculation; one is lost profits and one is reasonable royalty. But -- you know, and that's why you probably have a very similar -- if you look at the numbers, I don't think they're materially different. Basically you should look at Option 2, Opinion 2, Scenario -- probably Scenario 1. 05:26 05:27

Q Right. 05:27

A The only difference really would be really 05:27

the damage period, whereas in a damage and lost profits you're taking out over a period of time. 05:27

Q Right. 05:27

A In a reasonable royalty you're simply paying a one-time amount. 05:27

Q Right. 05:27

So you're bringing -- 05:27

Okay. And that's the only difference between your -- your two opinions is the -- the damage period? 05:27

A Well, no. One is -- 05:27

You mean the damage period? 05:27

Q I thought you said that as -- 05:27

A No. I said I'm just trying to describe to you the difference of the two -- you know, the -- the actual mathematical calculation. 05:27

Q Right. 05:27

A But in a -- in a reasonable royalty you're simply paying this one-time payment over a period of time. 05:27

Q Right. 05:27

A And in lost profits you're looking at lost profits per tank and then per tank plus convoyed sales over a similar period of time; so it's -- 05:27

The numbers are probably pretty close. I 05:27

mean, I've looked at them and I really haven't thought about that, but they're probably pretty close -- 05:28

Q Right. 05:28

A -- which actually is a good thing. 05:28

Q Okay. Why -- 05:28

A Because if you're trying to replace your lost profits on your tanks, then your royalty should be close to your lost profit. 05:28

Q And that's the -- the purpose of the reasonable royalty is to replace the lost profits? 05:28

A Well. No. No. No, I didn't say that. 05:28

I said the royalty -- the reasonable royalty is calculated on the base of being a lost gross profit on a tank over an average period of time. 05:28

A lost profits calculation is a whole different calculation. It looks at costs, the sales and other allocated costs and the number of tanks that were sold is the actual lost profits. This is a lost gross profit and it's -- it comes up to a similar number. 05:28

Q Opinion 3 is a loss -- 05:29

When you said "this" there, what were you referring to? 05:29

A What do you mean "this"? I don't know what 05:29

you're saying. 05:29

Q You said "This is a lost gross profit," 05:29

you're -- 05:29

I just want to -- 05:29

A Reasonable royalty is a lost gross profit. 05:29

Q Right. Okay. 05:29

Can I ask you and this is, again, I think a 05:29

question that you will say didn't you go to 05:29

economics, but why didn't you use gross profits and 05:29

not net profits? 05:29

A Why did I use gross profit? 05:29

Q Uh-huh. 05:29

A Because the -- the net profits are really 05:29

something that, over a period of time, can be 05:29

affected by different, you know, economic issues 05:29

going on within the company; so if you look at it, 05:29

the company is losing the gross profits that then 05:29

contributes to all of the other costs in the company, 05:29

whether they be sales, etcetera. 05:29

Q Right. 05:29

A But as we know here, a lot of those SG&A 05:29

expenses we actually allocated up into the gross 05:29

profit calculation for the tank; so effectively it's 05:30

just taking the variable costs and allocating those 05:30

against the sales. 05:30

Q And that's the -- 05:30
When -- 05:30
That -- that allocating up, that's when we were talking earlier about why didn't you consider -- 05:30
A The increased -- 05:30
Q -- the two different cost measures that we were talking about this morning, right? 05:30
A Well, I think -- I think what you're referring to in that component was where Ms. Saitz -- "Saitz" -- 05:30
Q Yes. 05:30
A -- was critical that we didn't anticipate or I think analyze the increase in variable costs. 05:30
Q Right. 05:30
A Those got allocated up. 05:30
Q Right. 05:30
And that's the same "allocation up" that you're referring to now? 05:30
A Correct. 05:30
Q Okay. Thank you. This is very helpful to my understanding. 05:30
We're close. 05:30
The -- thirteenth factor is the portion of the profit attributable to the patented elements, right? 05:30 05:31

A Yes. 05:31
Q And that's -- 05:31
Your understanding of that is set out in 05:31
paragraph 105 and then applied in paragraph 106? 05:31
A Correct. 05:31
Q Okay. And "Tank," it's the same tank unit 05:31
that we've been talking about all day? 05:31
A Correct. 05:31
Q All right. And so it's -- it's your 05:31
opinion, if I'm understanding you correctly, that for 05:31
the purposes of this factor, the entire gross profit 05:31
that forms the basis of a reasonable royalty is 05:31
attributable to the patented elements of the -- the 05:31
tank unit? 05:31
A I think better said is the tank unit that 05:31
we've described, which is the tank, stand, plenum, 05:31
weir -- 05:32
Q Yes. 05:32
A -- heat exchanger, pump, embodies the 05:32
patents, the '446 and the '457. 05:32
Q Right. 05:32
So -- 05:32
A So that is the smallest unit that should be 05:32
used with respect to beginning to calculate a 05:32
reasonable royalty. 05:32

Q Right. 05:32

And there are no non-patented elements 05:32

embodied in the tank unit, as I understand it? 05:32

A Well, I'm not a patent expert with respect 05:32

to that. I'm simply a -- 05:32

You know, I've simply been informed that the 05:32

tank -- 05:32

Q Right. 05:32

A -- and all of its components embody the 05:32

'446 and the '456 elements, all of it together. 05:32

Q Right. 05:32

A The pump size, the core logic that decides 05:32

how much dielectric fluid to push it up, the rate at 05:32

which it pushes it up, how it all gets back, how it 05:32

gets to the heat exchanger and then sent out to the 05:32

environment. 05:32

Q Right. Okay. 05:32

Have you analyzed which of the portions of 05:32

the features of Midas's immersion cooling system 05:33

drive consumer demand, consumer demand for particular 05:33

features or elements? 05:33

A Have I analyzed it? 05:33

Q Yes. 05:33

A Well, I'm not a -- again, I'm not a patent 05:33

expert with respect to the design and allocation 05:33

piece to that. But my understanding is it is the entire tank. That's what is the -- drives the demand, which is a tank that does all the things we've talked about ad nauseam here today. 05:33

Q Right. 05:33

And -- 05:33

A And is that entire tank. 05:33

Q Okay. And your understanding is based on -- 05:34

A Well, I've seen the design. I've seen pictures of it. I've seen it work in videos I've seen and also discussions with client, Midas, and also discussions with Dr. Pokharna -- Pokharna. 05:34

Q Okay. And who at the client, Scott Sickmiller? 05:34

A Yeah. I think that was Scott Sickmiller at the time. It might have been also Mario. 05:34

Q But you're not sure? 05:34

A I don't remember. 05:34

Q Okay. The fourteenth factor, can you help me with this because I just -- I don't understand this one at all. It just -- it's -- 05:34

"The opinion testimony of qualified experts," it doesn't weigh in -- it's a neutral factor, right? 05:34

A Well, it is neutral but it's -- it's -- in 05:34

other words, talk to experts about, you know, what -- what -- what the belief is with respect to the -- the overall benefits, the overall, you know, smallest unit, any input they might give with respect to that, and you should consider that expert testimony; so we did. 05:34 05:34 05:35 05:35 05:35 05:35

Q Okay. But -- 05:35

A Are there infringing outcomes, are there -- 05:35

Q Yeah. So that's what I'm wondering. 05:35

How -- how does the existence of those opinions bear on your analysis? Just that -- that -- What we've talked about -- 05:35 05:35 05:35

A Yeah, that there are no -- 05:35

Q -- that there are no substitutes and -- 05:35

A That there are no acceptable non-infringing substitutes; that the tank unit is the lowest, you know, kind of unit out there that embodies the patents, the benefits of those patents, the infringing nature of the all- -- 05:35 05:35 05:35 05:35

Q Yeah. 05:35

A -- of the alleged infringing nature, etcetera. 05:35 05:35

Q Okay. And then the last factor is "the amount that the licensor and licensee would have agreed on" in the negotiation, which sort of feels to 05:35 05:36 05:36

me like it's a summary of the -- 05:36
A Well -- 05:36
Q -- entire analysis. 05:36
A Yeah. But this goes a little deeper. 05:36
This -- if you keep reading on here, you -- you -- 05:36
If you had a reasonable royalty that -- that 05:36
was -- basically made a product -- you know, for 05:36
Rhodium made it where it was a highly successful 05:36
Bitcoin mining operation and then turned it into a 05:36
loser -- 05:36
And by "loser" I mean financial -- 05:36
Q A money loser. Yes, I understand. 05:36
A -- That's something you should consider. 05:36
Q Right. 05:36
A And so we performed that analysis and you 05:36
can see it had no impact on the gross margins. 05:36
Q Right. 05:36
You say it did but I have -- 05:36
A So what we did is we basically plugged the 05:36
10 million dollars of royalty payments required 05:36
hypothetically in this hypothetical negotiation, you 05:36
plug that into their financial information, which is 05:36
why I've kept referring to "I've seen the financial 05:36
information." 05:36
Q Right. 05:36

A And the impact to that was -- you can see here, went from a reduction of 3.89 percent in their gross margin. 05:36 05:36 05:37

Q Right. 05:37

And you're relying on the book of wisdom here for that? 05:37 05:37

A No. 05:37

Q Well, what -- 05:37

A No. We have -- we have Rhodium's financial statements. 05:37 05:37

Q But Rhodium didn't know its -- its future performance at the time of the negotiation, right? 05:37 05:37

A But that's not the point here. 05:37

The point here is it's basically trying to say, look, are you going to suggest a royalty here that would effectively make this a nonviable business? So it's a whole different calculation which basically says, okay, now run the -- the royalty through their financials as a separate line item in their cost section and what does it do to their gross margins. And here it reduced it by 3.89 percent, which is a de minimis amount. 05:37 05:37 05:37 05:37 05:37 05:37 05:37 05:37 05:37

Q Okay. And then you -- paragraph 111, you summarize the conclusions. 05:37 05:37

I had one question and I think it's just 05:37

typographical. 05:37

I thought there was one factor in your 05:38
analysis, and now I can't find it in my outline, 05:38
where you said in the body it was neutral but in the 05:38
table it listed "Higher." 05:38

If there's a conflict between your analysis 05:38
and the body and the table -- the table -- 05:38

I can find it but that would take a couple 05:38
minutes. 05:38

A The body would be correct. 05:38

Q "The body would be correct." 05:38

Okay. And the body is what you 05:38
considered in forming your ultimate opinion in the 05:38
Georgia-Pacific Analysis? 05:38

A Correct. 05:38

Q Okay. How did you -- 05:38

You know, you list some factors are 05:38
"Neutral," some factors are "Lower," you referred to 05:38
it as an "art" earlier. 05:38

Can you walk me through what you did in 05:38
this -- this last step of the Georgia-Pacific 05:38
Analysis? 05:38

A Yeah. If you start with the -- the 05:38
assumption that -- that Midas, as a company, if they 05:38
did decide to license and they're forced to, in this 05:39

hypothetical negotiation, for this damage analysis, if they would want to return their gross margins on the tank --

Q Right.

A -- and they would use an average over the three-year period of time, which does use some book of wisdom --

Q Right.

A -- admittedly, then you'd say it's $50,000. Low end, 29,000; high end, $50,000, okay --

Q Okay.

A -- of the -- of the margin.

So you sit and you then -- you look at all these different factors and you say, okay, what -- what feels more right, is it the 29,000, is it the 50,000? You look at all these different factors and you say, okay, "Higher," "Higher," "Higher." It's not a numeric thing, it's just you -- it's -- it's -- it's an art.

And you just say, okay, is it the lower end, is it the higher end? And in this case we picked the higher end.

Q Okay. You used a 200 unit base for your reasonable royalty calculation in the first --

A 200 --

Q 200 megawatt, I'm sorry. 05:40
A 200 megawatt. 05:40
Q 200 megawatt base. 05:40
Is it your opinion that as of the time of the hypothetical negotiation, that's when Rhodium would have known it was ultimately going to build out? 05:40
A No. That doesn't -- that's not -- that's not part of the calculation at all. 05:41
Q Okay. Because you're basing your calculation on just every -- in losing 1 megawatt of -- 05:41
A Well, you really have to kind of do it 2 and half times the megawatt to look at what the margin might be on a tank, right, because each tank is 2 and a half megawatts. 05:41
Q Right. 05:41
A So if you have the desire to get your gross profit on a tank at 2 and a half times 50,000, you're basically at about $150,000 or $125,000 -- 05:41
Q Right. 05:41
A -- per tank. 05:41
Q And -- 05:41
A So whether or not it's applied to 30 or 50 or 70 is not an issue, it's just a matter of 05:41

the math to make the calculation for the damage analysis. But you don't have to know how many megawatts you're going to have at the date of the negotiation. 05:41 05:41 05:41 05:41

Q Okay. And if Midas had known how many megawatts for a new plant to build, would that have -- in your opinion, would that have borne on the reasonable royalty calculation at all? 05:41 05:41 05:42 05:42

A No. Again, you -- then you have to go back to the company's input with respect to what they would want to get as their base, kind of the lowest piece, with respect to the -- the -- the infringed product, in this case again the tank -- 05:42 05:42 05:42 05:42 05:42

Q Right. 05:42

A -- and they wanted to get the gross profit back. 05:42 05:42

So, you know, how much Rhodium was going to use over a period of time would not come into play on that piece. No. 05:42 05:42 05:42

Q Okay. You -- do you know hypothetically if Rhodium had said "We want to take a license, we're going to build 1,000 megawatts," do you think Midas still would have demanded 50 that you -- the royalty would have been the same amount as in here? 05:42 05:42 05:42 05:42 05:42

A Yeah. I think that, you know, they're -- 05:42

they're looking as a company, we can build these tanks and make X number of dollars only gross profit, that's what we're going to license them for. 05:42

Q Okay. There wouldn't have been an incentive to maybe give a discount to close the deal? 05:43

A I don't -- I don't know how you'd calculate that. 05:43

Q Okay. Did you -- 05:43

You didn't -- you didn't try, did you? 05:43

A We did not. 05:43

Q Okay. My last question is this -- 05:43

And then I want to look at my outline but that will take me two minutes and then I'll be done. 05:43

-- is Appendix B has the list of your testimony? 05:43

A For the past four years. 05:43

Q Have you testified -- given any testimony between the time you submitted this Appendix B and now? 05:43

A Yes. 05:43

Q Okay. In -- in what matter? 05:43

A I had a -- I got (sic) a deposition a couple of weeks ago. I don't recall the matter. 05:43

Q What kind of case was it? 05:44

A I think it was a damages case. 05:44

Q What does that mean? 05:44
A It was not patent case. 05:44
Q Yeah. What does it -- 05:44
What you mean "a damages case"? I just -- 05:44
A Just where you're asked to calculate the damages. 05:44
I think I had a depositions a couple weeks ago; it's been a long couple months. 05:44
Q Okay. 05:44
A But yeah, I -- I don't recall. 05:44
MR. BRODY: Okay. Thanks. 05:44
Let's go off the record. 05:44
THE VIDEOGRAPHER: Off the record at 5:44 p.m. 05:44
(Off the record.) 05:44
THE VIDEOGRAPHER: We are back on the record at 5:46 p.m. 05:46
MR. BRODY: Okay. Subject to any other -- any response to any questions your counsel might have, that -- that's it for me for today. 05:47
MR. THOMAS: I have no -- no questions of the witness. 05:47
MR. BRODY: We're going to -- 05:47
As we discussed on the break, we're going to designate this transcript as attorneys' eyes only on an -- 05:47

MR. THOMAS: On an interim basis. 05:47
MR. BRODY: -- as a provisional basis. 05:47
MR. THOMAS: We'll have to meet and confer before trial or before either party wants to submit any of these transcripts whether or not they're properly marked as AEO. I believe the vast majority of this testimony is not AEO. 05:47
MR. BRODY: Okay. I understand your position there. 05:47
Thank you for your time. 05:47
MR. THOMAS: Okay. 05:47
MR. BRODY: Thanks for driving down here, appreciate that. 05:47
MR. THOMAS: Thank you. 05:47
THE VIDEOGRAPHER: We are off the record at 5:47 p.m. 05:47
THE REPORTER: Counsel, a copy? 05:47
And he's going to read and review per the Federal Rules, Texas? 05:47
MR. THOMAS: Yes. Yeah. I want a copy. 05:47
Yeah, I'll need a copy. 05:47
MR. BRODY: I asked for it by Monday, so you should -- 05:47
MR. THOMAS: Okay. We'll get ours. 05:47
(Whereupon the deposition

concluded at 5:47 p.m.)

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REPORTER'S DEPOSITION TIME LOG:

REPORTER - LAURIE HELD-BIEHL

DATE - Thursday, February 8, 2024

WITNESS - J. DUROSS O'BRYAN

ATTORNEY	ON RECORD	OFF RECORD	TOTAL
BRODY	9:34 A.M.	9:44 A.M.	0:10
	9:47 A.M.	10:24 A.M.	0:37
	10:35 A.M.	11:53 A.M.	1:18
	12:34 P.M.	12:36 P.M.	0:02
	12:37 P.M.	1:59 P.M.	1:22
	2:15 P.M.	3:29 P.M.	1:14
	3:40 P.M.	4:43 P.M.	1:03
	4:44 P.M.	4:51 P.M.	0:07
	5:03 P.M.	5:44 P.M.	0:41
		TOTAL USED:	6:34

CHANGES AND SIGNATURE

WITNESS: J. DUROSS O'BRYAN

DATE OF DEPOSITION: Thursday, February 8, 2024

PAGE	LINE	CHANGE	REASON

I, the undersigned, say that I have read the foregoing deposition, and I declare, under penalty of perjury under the laws of the State of Texas, that the foregoing is a true and correct transcript of my testimony contained therein, incorporating any and all changes and/or corrections as noted by me.

EXECUTED this _____ day of _____, 2024, at _____.

_____
J. DUROSS O'BRYAN

Before me, _____, on this day personally appeared_____, known to me (or proved to me under oath or through_____) to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that they executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this _____ day of _____, 2024.

_____
NOTARY PUBLIC IN AND FOR THE STATE OF _____

COMMISSION EXPIRES: _____

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

MIDAS GREEN TECHNOLOGIES, LLC,

Plaintiff,

vs.

RHODIUM ENTERPRISES, INC.; RHODIUM TECHNOLOGIES LLC; RHODIUM 10MW LLC; RHODIUM 2.0 LLC; RHODIUM ENCORE LLC; RHODIUM RENEWABLES LLC; Rhodium Renewables Sub LLC; and RHODIUM READY VENTURES LLC,

Defendants.

No. 6:22-cv-00050-ADA

REPORTER'S CERTIFICATION
DEPOSITION OF J. DUROSS O'BRYAN
Thursday, February 8, 2024

I, the undersigned, a Certified Shorthand Reporter of the State of Texas, the State of California and the State of Illinois, Certified Court Reporter for the State of New Jersey and the State of

Washington, Registered Professional Reporter, Certified Realtime Reporter, Registered Merit Reporter, do hereby certify:

That the witness, J. DUROSS O'BRYAN, was duly sworn by the officer and that the transcript of the oral deposition is a true record of the testimony given by the witness;

That the deposition transcript was submitted on Monday, February 12, 2024, to the witness or to the attorney for the witness for examination, signature and return to Veritext Legal Solutions by March 13, 2024;

That the amount of time used by each party at the deposition is as follows:

PETER BRODY, ESQ. - 6 hours, 34 minutes

That pursuant to information given to the deposition officer at the time said testimony was taken, the following includes counsel for all parties of record:

JOSEPH E. THOMAS - Counsel for Plaintiff

PETER J. BRODY - Counsel for Defendants

I further certify that I am neither counsel for, related to, nor employed by any of the parties or attorneys in the action in which this proceedings was taken, and further that I am not financially or

otherwise interested in the outcome of the action.

Certified by me this 12th day of February, 2024.

LAURIE HELD-BIEHL, CSR, RPR, CRR, CLR
TX CSR No. 8555
CA CSR No. 6781
IL CSR No. 084002860
NJ CCR No. 30XI00239100
WA CCR No. 21020748
RPR/CRR/RMR No. 32836
MY COMMISSION EXPIRES 9-9-2026

JOSEPH E. THOMAS, ESQ.

jthomas@twtlaw.com

FEBRUARY 12, 2024

RE: MIDAS GREEN TECHNOLOGIES, LLC vs. RHODIUM ENTERPRISES, INC.
FEBRUARY 8, 2024, J. DUROSS O'BRYAN, JOB NO. 6442726

The above-referenced transcript has been completed by Veritext Legal Solutions and review of the transcript is being handled as follows:

__ Per CA State Code (CCP 2025.520 (a)-(e)) – Contact Veritext to schedule a time to review the original transcript at a Veritext office.

__ Per CA State Code (CCP 2025.520 (a)-(e)) – Locked .PDF Transcript - The witness should review the transcript and make any necessary corrections on the errata pages included below, notating the page and line number of the corrections. The witness should then sign and date the errata and penalty of perjury pages and return the completed pages to all appearing counsel within the period of time determined at the deposition or provided by the Code of Civil Procedure.

__ Waiving the CA Code of Civil Procedure per Stipulation of Counsel - Original transcript to be released for signature as determined at the deposition.

__ Signature Waived – Reading & Signature was waived at the time of the deposition.

XX Federal R&S Requested (FRCP 30(e)(1)(B)) – Locked .PDF Transcript - The witness should review the transcript and make any necessary corrections on the errata pages included below, notating the page and line number of the corrections. The witness should then sign and date the errata and penalty of perjury pages and return the completed pages to all appearing counsel within the period of time determined at the deposition or provided by the Federal Rules.

__ Federal R&S Not Requested - Reading & Signature was not requested before the completion of the deposition.

RE: MIDAS GREEN TECHNOLOGIES, LLC vs. RHODIUM ENTERPRISES, INC.

FEBRUARY 8, 2024, J. DUROSS O'BRYAN, JOB NO. 6442726

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

Veritext Legal Solutions is committed to maintaining the confidentiality of client and witness information, in accordance with the regulations promulgated under the Health Insurance Portability and Accountability Act (HIPAA), as amended with respect to protected health information and the Gramm-Leach-Bliley Act, as amended, with respect to Personally Identifiable Information (PII). Physical transcripts and exhibits are managed under strict facility and personnel access controls. Electronic files of documents are stored in encrypted form and are transmitted in an encrypted

fashion to authenticated parties who are permitted to access the material. Our data is hosted in a Tier 4 SSAE 16 certified facility.

Veritext Legal Solutions complies with all federal and State regulations with respect to the provision of court reporting services, and maintains its neutrality and independence regardless of relationship or the financial outcome of any litigation. Veritext requires adherence to the foregoing professional and ethical standards from all of its subcontractors in their independent contractor agreements.

Inquiries about Veritext Legal Solutions' confidentiality and security policies and practices should be directed to Veritext's Client Services Associates indicated on the cover of this document or at www.veritext.com.