IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO

Civil Action No.: 1:22-cv-02142-NYW

CRUSOE ENERGY SYSTEMS LLC, a Delaware limited liability company,

Plaintiff,

v.

ALKANE MIDSTREAM LLC, a Delaware limited liability company,

Defendant.

DEFENDANT ALKANE MIDSTREAM LLC'S ANSWER, DEFENSES, AND COUNTERCLAIMS TO PLAINTIFF'S FIRST AMENDED COMPLAINT

Defendant Alkane Midstream LLC ("Alkane"), for its Answer to the First Amended Complaint filed by Plaintiff Crusoe Energy Systems LLC ("Crusoe"), states as follows:

GENERAL DENIAL

Except as expressly admitted herein, Alkane denies each and every allegation contained in Crusoe's Amended Complaint.

ANSWER

1. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 1 and, therefore, denies the same.

2. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 2 and, therefore, denies the same.

3. Alkane admits the allegations in Paragraph 3.

4. Alkane admits that it markets, offers to sell, manufactures, distributes, and sells natural gas flaring solutions in Colorado, North Dakota, and Texas and that it is registered to do business in Colorado. Alkane denies that it infringed Crusoe's patents in Colorado (or anywhere) and that it has interfered with Crusoe's current and prospective business relations in Colorado (or anywhere).

5. Denied.

NATURE OF ACTION

6. Alkane admits this purports to be a civil action against it for patent infringement under 35 U.S.C. §§ 101 *et seq.* involving U.S. Patent No. 10,862,307 (the "'307 Patent"), U.S. Patent No. 10,862,309 (the "'309 Patent"), and U.S. Patent No. 11,437,821 (the "'821 Patent"). Alkane admits Crusoe collectively refers to the '307 Patent, '309 Patent, and '821 Patent as the "Asserted Patents" in the Amended Complaint. The remaining allegations contain legal conclusions to which no response is required. To the extent a response is required, Alkane denies the remaining allegations in Paragraph 6.

7. Alkane admits the '307 Patent, entitled "Systems and Methods for Generating and Consuming Power from Natural Gas," purports to have a filing date of August 1, 2019, was purportedly filed as U.S. Pat. Appl. No. 16/529,152, and purports to claim priority to an earlier application filed on August 1, 2018. Alkane admits the U.S. Patent and Trademark Office issued the '307 Patent on December 8, 2020. Alkane admits the '307 Patent purports its inventors to be Charles Cavness, Chase Lochmiller, and Kenneth Parker. Alkane is without knowledge or information sufficient to form a belief as to the truth of whether Crusoe is the "current lawful owner of the '307 Patent" and, therefore, denies the same. Crusoe denies all remaining allegations in Paragraph 7.

8. Alkane admits that the application for the '309 Patent purports to have a filing date of November 29, 2019 as U.S. Pat. Appl. No. 16/694,883 and purports to claim priority to an earlier application field on August 1, 2018. Alkane admits the U.S. Patent and Trademark Office issued the '309 Patent for "Systems and Methods for Generating and Consuming Power from Natural Gas." Alkane admits that the '309 Patent purports its inventors to be Charles Cavness, Chase Lochmiller, and Kenneth Parker. Alkane admits that the '309 Patent purports to be a continuation of the '307 Patent. Alkane is without knowledge or information sufficient to form a belief as to the truth of whether Crusoe is the "current lawful owner of the '309 Patent" and, therefore, denies the same. Alkane denies the '309 Patent was "duly and legally" issued. Alkane denies the remaining allegations in Paragraph 8.

9. Alkane admits that the '821 Patent purports to have a filing date of January 13, 2022 as U.S. Pat. Appl. No. 17/575,506 and, purports to claim priority to an earlier provisional application filed on August 1, 2018. Alkane admits the '821 Patent, entitled “Systems and Methods for Generating and Consuming Power from Natural Gas,” was issued by the U.S. Patent and Trademark Office on September 6, 2022. Alkane admits the '821 patent purports its inventors to be Charles Cavness, Chase Lochmiller, and Kenneth Parker. Alkane admits that the '821 Patent is purported to be in the same family as the '307 Patent and the '309 Patent Alkane is without knowledge or information sufficient to form a belief as to the truth of whether Crusoe is the "current lawful owner of the '821 Patent" and, therefore, denies the same. Alkane denies the '821 Patent was "duly and legally" issued. Alkane denies the remaining allegations in Paragraph 9.

10. Denied.

11. Denied.

12. Alkane admits that Crusoe seeks monetary and injunctive relief under the Patent Laws but denies that Crusoe is entitled to any such relief.

13. Alkane admits that this purports to be a civil action against it for tortious interference with contractual relations and prospective economic advantage under the common law but denies that Crusoe is entitled to relief under either of these theories.

JURISDICTION AND VENUE

14. Alkane admits this purports to be an action arising under the patent laws of the United States, 35 U.S.C. § 101 *et seq.* The remaining allegations contain legal conclusions to which no response is required. To the extent a response is required, Alkane denies the remaining allegations in Paragraph 14.

15. The allegations in Paragraph 15 contain legal conclusions to which no response is required. To the extent a response is required, Alkane denies the allegations in Paragraph 15.

16. Denied.

17. Denied.

18. Denied.

19. Denied.

BACKGROUND

I. The Technology

20. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 20 and, therefore, denies the same.

21. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 21 and, therefore, denies the same.

22. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 22 and, therefore, denies the same.

23. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 23 and, therefore, denies the same.

24. Alkane is without knowledge or information sufficient to form a belief as to the awareness or concerns of others, and therefore denies the allegations in Paragraph 24.

25. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 25 and, therefore, denies the same.

26. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 26 and, therefore, denies the same.

27. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 27 and, therefore, denies the same.

28. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 28 and, therefore, denies the same.

29. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 29 and, therefore, denies the same.

II. Crusoe

30. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 30 and, therefore, denies the same.

31. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 31 and, therefore, denies the same.

32. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 32 and, therefore, denies the same.

33. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 33 and, therefore, denies the same.

34. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 34 and, therefore, denies the same.

35. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 35 and, therefore, denies the same.

36. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 36 and, therefore, denies the same.

37. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 37 and, therefore, denies the same.

38. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 38 and, therefore, denies the same.

III. Crusoe's Agreement with Colorado Producers

39. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 39 and, therefore, denies the same.

40. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 40 and, therefore, denies the same.

41. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 41 and, therefore, denies the same.

42. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 42 and, therefore, denies the same.

43. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 43 and, therefore, denies the same.

44. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 44 and, therefore, denies the same.

45. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 45 and, therefore, denies the same.

46. Alkane is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 46 and, therefore, denies the same.

47. Alkane is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 47 and, therefore, denies the same

48. Alkane admits it agreed to minimize natural gas flaring at the Colorado Well Pad during the interim period. Alkane admits proposing for the gas to be used to generate electricity. Alkane is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 48 and, therefore, denies the same.

49. Alkane admits Mr. Woods, Alkane's Vice President, joined the end of the meeting between the Colorado Producers and Crusoe. Alkane is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 49 and, therefore, denies the same.

50. Alkane admits that On August 26, 2022, *BuisnessDen* published an article, which speaks for itself. Alkane denies that this means Alkane uses stranded natural gas to mine Bitcoin.

Alkane denies that it "does not dispute using stranded natural gas to Bitcoin mine – the heart of the Asserted Patents." Alkane denies all remaining allegations in Paragraph 50.

IV. Alkane's Actual Knowledge of the Crusoe's Innovative Technology and the Asserted Patents

51. Alkane admits to having learned that Crusoe was proposing to utilize stranded natural gas to power energy-intensive distributed computing functions in conjunction with Crusoe's presentation at the November 14, 2019 North Dakota Energy Development and Transmission Committee meeting. Alkane denies all remaining allegations in Paragraph 51.

52. Alkane admits that Charles presented before the North Dakota Energy Development and Transmission Committee. The presentation speaks for itself. Alkane is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 52 and, therefore, denies the same.

53. Alkane admits the allegations in Paragraph 53.

54. Alkane admits that Charles presented before the North Dakota Petroleum Council Technical Solutions meeting hosted by ConocoPhillips. Alkane is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 54 and, therefore, denies the same.

55. Alkane admits that on October 6, 2020, it gave a presentation to the North Dakota Energy Development and Transmission Committee that contained a diagram of a flare gas mitigation system that used electricity generated by natural gas to power computing equipment used for "Financial Transactions." Alkane denies all remaining allegations in Paragraph 55.

56. Alkane admits Mr. Woods gave a presentation on November 14, 2019 at the meeting of the North Dakota Energy Development and Transmission Committee, concerning

Alkane's flare gas mitigation system, which included systems that "utilize[] captured flare gas for . . . LNG production and NGL capture." Alkane denies the remaining allegations in Paragraph 56.

57. Denied.

58. The article speaks for itself. Alkane denies the remaining allegations in Paragraph 58.

59. Alkane admits that as of November 14, 2019 Alkane was aware that Crusoe was proposing to use energy harnessed from stranded natural gas to power data centers and mine cryptocurrency. Alkane denies the remaining allegations in Paragraph 59.

60. Denied.

61. Denied.

62. Denied.

63. Alkane admits to becoming aware of the existence of the '307 Patent shortly prior to Crusoe's filing of the its Complaint. Alkane denies the remaining allegations in Paragraph 63.

64. Alkane admits it received actual knowledge of the Asserted Patents by virtue of this litigation. Alkane denies the remaining allegations in Paragraph 64.

CAUSES OF ACTION

I. COUNT ONE: ALKANE'S INFRINGEMENT OF THE 10,862,307 PATENT

65. Alkane repeats the answers from paragraphs 1 through 64 above as if fully set forth herein.

66. The allegations in Paragraph 66 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

67. The allegations in Paragraph 67 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

68. The allegations in Paragraph 68 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

69. The allegations in Paragraph 69 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

70. The allegations in Paragraph 70 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

71. The allegations in Paragraph 71 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

72. The allegations in Paragraph 72 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

73. The allegations in Paragraph 73 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

74. The allegations in Paragraph 74 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

II. COUNT TWO: ALKANE'S INFRINGEMENT OF THE 10,862,309 PATENT

75. Alkane repeats the answers from paragraphs 1 through 74 above as if fully set forth herein.

76. The allegations in Paragraph 76 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

77. The allegations in Paragraph 77 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

78. The allegations in Paragraph 78 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

79. The allegations in Paragraph 79 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

80. The allegations in Paragraph 80 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

81. The allegations in Paragraph 81 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

82. The allegations in Paragraph 82 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

83. The allegations in Paragraph 83 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

84. The allegations in Paragraph 84 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

III. COUNT THREE: ALKANE'S INFRINGEMENT OF THE 11,437,821 PATENT

85. Alkane repeats the answers from paragraphs 1 through 84 above as if fully set forth herein.

86. The allegations in Paragraph 86 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

87. The allegations in Paragraph 87 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

88. The allegations in Paragraph 88 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

89. The allegations in Paragraph 89 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

90. The allegations in Paragraph 90 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

91. The allegations in Paragraph 91 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

92. The allegations in Paragraph 92 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

93. The allegations in Paragraph 93 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

94. The allegations in Paragraph 94 are subject to a Motion to Dismiss and, therefore, no response is required. To the extent a response is required, Alkane denies.

IV. COUNT FOUR: TORTIOUS INTERFERENCE WITH CONTRACT

95. Alkane repeats the answers from paragraphs 1 through 94 above as if fully set forth herein.

96. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 96, and, therefore, denies the same.

97. Denied.

98. Denied.

99. Denied.

100. Denied.

V. COUNT FIVE: TORTIOUS INTERFERENCE WITH PROSPECTIVE BUSINESS ADVANTAGE

101. Alkane repeats the answers from paragraphs 1 through 100 above as if fully set forth herein.

102. Alkane is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 102, and, therefore, denies the same.

103. Denied.

104. Denied.

105. Denied.

DEFENSES

Subject to the responses above, Alkane asserts the following defenses in response to the allegations, 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, Alkane specifically reserves all rights to assert additional defenses that become known to it through the course of discovery.

FIRST DEFENSE

Crusoe's complaint fails to state a claim against Alkane upon which relief may be granted.

SECOND DEFENSE

Crusoe is estopped by the prosecution history of the '307, the '309, and the '821 Patents and other related patents from asserting infringement of one or more claims of the '307, the '309, and the '821 Patents.

THIRD DEFENSE

Alkane does not infringe and has not infringed, directly or indirectly, any valid and enforceable claim of the '307, the '309, or the '821 Patent, literally or under the doctrine of equivalents. Further, Alkane is not willfully infringing and has not willfully infringed any claim of the '307, the '309, or the '821 Patent.

FOURTH DEFENSE

Each claim of the '307, the '309, and the '821 Patents is invalid for failure to comply with one or more requirements of the Patent Laws, including but not limited to 35 U.S.C. §§ 101, 102, 103, and/or 112.

FIFTH DEFENSE

The Amended Complaint and each claim for relief contained therein is barred because Alkane's actions were reasonable, privileged, and justified.

SIXTH DEFENSE

Crusoe's claims for damages, if any, are limited by 35 U.S.C. § 287.

SEVENTH DEFENSE

Crusoe's requested relief is barred, in whole or in part, under the doctrines of estoppel, waiver, acquiescence, and/or unclean hands.

EIGHTH DEFENSE

The Amended Complaint fails to state a claim that could support an award of attorneys' fees.

NINTH DEFENSE

The Amended Complaint fails to state a claim that could support an award of enhanced damages under 35 U.S.C. § 284.

COUNTERCLAIMS

Defendant/Counterclaimant Alkane Midstream LLC, ("Alkane"), for its counterclaim against Plaintiff/Counterclaim Defendant Crusoe Energy Systems LLC ("Crusoe") states as follows:

PARTIES

1. Alkane is a Delaware limited liability company with its principal place of business at 100 Washington Ave. South, Ste. 15, Minneapolis, MN 55401.

2. Upon information and belief, Crusoe is a Colorado limited liability company with a place of business at 1641 California Street, Floor 4, Denver, Colorado 80202.

PRELIMINARY STATEMENT

3. This is an action for a declaratory judgment of invalidity of U.S. Patent Nos. 10,862,307 (the "'307 Patent"), 10,862,309 (the "'309 Patent"), and 11,437,821 (the "'821 Patent") arising under the Declaratory Judgment Act, 28 U.S.C. §§ 2201-2202, and the patent laws of the United States, including Title 35 United States Code. This Declaratory Judgment Complaint relates to Crusoe's allegations that Alkane has infringed or is infringing the '307, '309, and '821 Patents, all of which are outlined in Alkane's Amended Complaint.

JURISDICTION

4. The Counterclaim arises in part under the Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202 and the patent laws of the United States, 35 U.S.C. § 1, *et seq.*

5. This court has original jurisdiction over the subject matter of the declaratory judgment action pursuant to 28 U.S.C. §§ 1331, 1338(a) and 2202.

6. The Court also has supplemental subject-matter jurisdiction over the Counterclaim under 28 U.S.C. § 1367(a) because the Counterclaim forms part of the same case or controversy as the federal law claims asserted by Crusoe in the Amended Complaint, over which the Court has original subject matter jurisdiction under 28 U.S.C. §§ 1331, 1338(a), 2201 and 2202.

7. Personal jurisdiction over Crusoe is proper in this District because Crusoe has availed itself of the rights and benefits of the laws of Colorado and has conducted business relating to the enforcement of the '307, '309, and '821 Patents in Denver. In particular, Crusoe has filed its Amended Complaint in this District against Alkane alleging that Alkane has infringed the '307, '309, and '821 Patents.

VENUE

8. Venue for these Counterclaims is proper in this Court because the Counterclaims are closely related to the claims set forth in the Amended Complaint. In particular, Crusoe has filed its Amended Complaint against Alkane in this District alleging that Alkane has infringed the '307, '309, and '821 Patents.

THE PATENTS AT ISSUE

9. The '307 Patent, entitled "Systems and Methods for Generating and Consuming Power from Natural Gas," names Charles Cavness, Chase Lochmiller, and Kenneth Parker as the

inventors and states an issue date of December 8, 2020. Attached as Exhibit A is a copy of the '307 Patent.

10. On information and belief, Crusoe is the owner and assignee of all right, title, and interest in the '307 Patent.

11. The '309 Patent, entitled "Systems and Methods for Generating and Consuming Power from Natural Gas," names Charles Cavness, Chase Lochmiller, and Kenneth Parker as inventors and states an issue date of December 8, 2020. Attached as Exhibit B is a copy of the '309 Patent.

12. On information and belief, Crusoe is the owner and assignee of all right, title, and interest in the '309 Patent.

13. The '821 Patent, "Systems and Methods for Generating and Consuming Power from Natural Gas," names Charles Cavness, Chase Lochmiller, and Kenneth Parker as inventors and states an issue date of September 6, 2022.

14. Upon information and belief, Crusoe is the owner and assignee of all right, title, and interest in the '821 Patent.

EXISTENCE OF AN ACTUAL CONTROVERSY

15. There is an actual controversy within the jurisdiction of this Court under 28 U.S.C. §§ 2201 and 2202.

16. Crusoe initiated the instant lawsuit by filing its Complaint and Amended Complaint against Alkane, alleging infringement of the '307, '309, and '821 Patents due to Alkane's manufacturing, selling, distributing, offering for sale, or otherwise making available energy from stranded natural gas.

17. Based on the foregoing, a justiciable controversy exists between Crusoe and Alkane as to whether Alkane's products infringe the '307, '309, and '821 Patents and whether the claims of the '307, '309, and '821 Patents are valid.

18. Absent a declaration of invalidity, Crusoe will continue to wrongfully allege that Alkane's products infringe the '307, '309, and '821 Patents, and thereby cause Alkane irreparable injury and damage.

VALIDITY OF THE '307, '309, AND '821 PATENTS

19. Each of the '307, '309, and '821 Patents are directed to the abstract idea of using a known and conventional energy source (electricity generated from natural gas) to power computers using standard conventional components.

20. Claim 1 of the '307 Patent is representative the claims of the ‘307 Patent.

21. Claim 1 of the '307 patent claims a flare mitigation system comprising a generic electrical power generation system and a generic distributed computing system powered by the electrical power generation system.

22. Claim 1 of the '309 Patent is representative the claims of the ‘309 Patent.

23. Claim 1 of the '309 Patent claims a flare mitigation system comprising a generic electrical power generation system, a generic distributed computing system powered by the electrical power generation system, and a generic monitoring and control system in communication with the electrical power generation system and the distributed computing system.

24. Claim 1 of the '821 Patent is representative the claims of the ‘821 Patent.

25. Claim 1 of the '821 Patent claims a flare mitigation system comprising a generic electrical power generation system and a generic distributed computing system powered by the electrical power generation system.

26. The specification of the '307 Patent describes the components in the claims that consume gas and generate electricity as being conventional and having existed prior to the invention claimed in the '307, '309, or '821 Patents. For example, the specification states that "nearly any generator may be employed in the power generation modules 331." '307 Patent, 16:24-25. The specification also notes that it was common prior practice for oil and gas operators to sell their natural gas for "low-cost power generation." 2:4-14.

27. The specification of the '307 Patent describes the distributed computing system as being conventional and having existed prior to the invention claimed in the '307, '309, or '821 Patents. For example, the specification describes the distributed computing units as conventional components that "are generally adapted to conduct any number of processing intensive tasks" and "may be employed to execute mathematical operations in relating to the mining of cryptocurrencies including . . . hashing algorithms." '307 Patent, 5:7-47. The specification also makes clear that using a distributed system of computers to mine cryptocurrencies was already well known. '307 Patent, 2:15-24.

28. Each of the claims of the '307, '309, or '821 Patents simply combine two mature sub-systems: (1) an electrical power generation sub-system and (2) a distributed computing sub-system.

29. Upstream Data Inc. filed a patent application (U.S. Pat. Pub. No. 2020/0051184A1) covering "methods and systems of operating a blockchain mining device using natural gas

produced at a hydrocarbon production, storage, or processing site/facility" months before the purported hiking trip.

30. A number of other companies were also already practicing or promoting the idea of using electricity generated from natural gas to power power-intensive distributed computing system prior to the earlies priority date of the '307, '309, and '821 Patents.

31. On information and belief, there were actual field applications as of the priority date that meet all of the claim limitations of the '307, '309, and '821 Patents.

32. During prosecution of the '307 Patent, original claim 1 was rejected as being anticipated by U.S. Pat. App. Pub. No. 2020/0051184 ("Barbour") and claims 2-16 were rejected as rendered obvious by Barbour in view of U.S. Pat. App. Pub. No. US 2020/0006938 ("Torvund").

33. Crusoe overcame this by revising the claims to recite the use of parallel panels in electrical communication with each of the one or more generators.

34. The use of multiple generators—as compared to a single generator—is simply a matter of configuring power generation resources to meet electrical demand.

35. It was further common practice to utilize multiple generators in parallel and then use a parallel panel to combine and synchronize high voltage electrical outputs of the plurality of generators.

36. The article WHEN AND HOW TO DESIGN PARALLEL GENERATORS by Richard Vedvik (dated June 21, 2018) discloses:

> "Generator sets can be paralleled through traditional switchgear with motor-operated breakers and paralleling logic housed inside the switchgear or in remote cabinets. Another option is to allow the unit-mounted generator controllers to provide paralleling control, which can reduce total system cost. Onboard paralleling

> allows the design team to plan for a modular generator system, which can allocate space for several additional generator packages that can be added as the load increases."

37. The original Claims 1-16 of the '309 Patent were similarly rejected as anticipated/or rendered obvious by Barbour or Barbour in view of Torvund.

38. Crusoe overcame the rejection by adding "the monitoring and control system in communication with the electrical power generation system . . . adapted to monitor the gas profile of the fuel gas . . . ."

39. Monitoring the gas profile of gas fueled generators was a well-established practice years before 2018 with several companies such as Woodward Inc., Cummins Inc., and ComAp AS selling off-the-shelf controllers.

40. Those of skill in the art would have recognized the claims of the '307, '309, and '821 Patents to be obvious.

COUNT ONE
(Declaratory Judgment of Invalidity of the U.S. Patent No. 10,862,307)

41. Alkane repeats and realleges paragraphs 1 through 40 hereof, as if fully set forth herein.

42. As a result of the acts described in the preceding paragraphs, there exists a controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment of invalidity of the '307 Patent.

43. A judicial declaration is necessary and appropriate so that Alkane may ascertain its rights regarding the validity of the '307 Patent.

44. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Alkane requests the Court declare that the claims of the '307 Patent are invalid for failure to meet the

requirements of one or more sections of Title 35, United States Code, including at least Sections 101, 102, 103, and/or 112.

COUNT TWO
(Declaratory Judgment of Invalidity of the U.S. Patent No. 10,862,309)

45. Alkane repeats and realleges paragraphs 1 through 44 hereof, as if fully set forth herein.

46. As a result of the acts described in the preceding paragraphs, there exists a controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment of invalidity of the '309 Patent.

47. A judicial declaration is necessary and appropriate so that Alkane may ascertain its rights regarding the validity of the '309 Patent.

48. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Alkane requests the Court declare that the claims of the '309 Patent are invalid for failure to meet the requirements of one or more sections of Title 35, United States Code, including at least Sections 101, 102, 103, and/or 112.

COUNT THREE
(Declaratory Judgment of Invalidity of the U.S. Patent No. 11,437,821)

49. Alkane repeats and realleges paragraphs 1 through 48 hereof, as if fully set forth herein.

50. As a result of the acts described in the preceding paragraphs, there exists a controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment of invalidity of the '821 Patent.

51. A judicial declaration is necessary and appropriate so that Alkane may ascertain its rights regarding the validity of the '821 Patent.

52. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Alkane requests the Court declare that the claims of the '821 Patent are invalid for failure to meet the requirements of one or more sections of Title 35, United States Code, including at least Sections 101, 102, 103, and/or 112.

WHEREFORE, Alkane requests judgment against Crusoe as follows:

1. Adjudging that each of the claims of the '307 Patent is invalid;

2. A judgment that Crusoe and each of its officers, directors, agents, counsel, servants, employees and all persons in active concert or participation with any of them, be restrained and enjoined from alleging, representing or otherwise stating that Alkane infringes any claims of the '307 Patent or from instituting or initiating any action or proceeding alleging infringement of any claims of the '307 Patent against Alkane or any customers or users of Alkane's products;

3. Adjudging that each of the claims of the '309 Patent is invalid;

4. A judgment that Crusoe and each of its officers, directors, agents, counsel, servants, employees and all persons in active concert or participation with any of them, be restrained and enjoined from alleging, representing or otherwise stating that Alkane infringes any claims of the '309 Patent or from instituting or initiating any action or proceeding alleging infringement of any claims of the '309 Patent against Alkane or any customers or users of Alkane's products;

5. Adjudging that each of the claims of the '821 Patent is invalid;

6. A judgment that Crusoe and each of its officers, directors, agents, counsel, servants, employees and all persons in active concert or participation with any of them, be restrained and

enjoined from alleging, representing or otherwise stating that Alkane infringes any claims of the '821 Patent or from instituting or initiating any action or proceeding alleging infringement of any claims of the '821 Patent against Alkane or any customers or users of Alkane's products;

7. Declaring Alkane as the prevailing party and this case as exceptional, and awarding Alkane its reasonable attorneys' fees, pursuant to 35 U.S.C. § 285;

8. That Crusoe be ordered to pay all fees, expenses, and costs associated with this action; and

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

JURY DEMAND

Alkane requests a jury trial for all triable issues in Crusoe's Amended Complaint, Alkane's defenses, and Alkane's Counterclaims to the extent allowed under the Federal Rules of Civil Procedure.

Dated: October 7, 2022

/s/ Ryan M. Sugden

Ryan M. Sugden
STINSON LLP
1144 Fifteenth St., Suite 2400
Denver, Colorado 80202
Phone: 303.376.8405
Fax No.: 303.578.7985
Email: ryan.sugden@stinson.com

John R. Schroeder
STINSON LLP
7700 Forsyth Boulevard, Suite 1100
St. Louis, Missouri 63105
Phone: 314.345.7023
Fax No.: 314.863.9388
Email: john.schroeder@stinson.com

Attorneys for Defendant Alkane Midstream LLC