

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8

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IN THE MATTER OF:)
)
Maralex Disposal, LLC,)
)
Respondent)

Docket No. SDWA-8-2011-0079

**RESPONDENT'S PROPOSED FINDINGS OF FACT AND
CONCLUSIONS OF LAW**

Respondent, Maralex Disposal, LLC ("Maralex"), by and through its undersigned counsel, pursuant to 40 C.F.R. § 22.26, hereby submits its Proposed Findings of Fact and Conclusions of Law.

PROPOSED FINDINGS OF FACT

A. MARALEX DISPOSAL, LLC

1. Maralex is a Colorado corporation doing business in the State of Colorado. Stipulation of Facts, Exhibits and Testimony ("Stipulation") at ¶ 1.
2. Maralex is a "person" as defined in the Safe Drinking Water Act (Act), and is therefore subject to the requirements of the statute and its implementing regulation. *Id.* at ¶ 2.
3. The structure and management of Maralex vis-à-vis Maralex Resources, Inc., is as follows: Maralex is an LLC and has a single manager, A.M. O'Hare. There are no officers of this LLC. In addition, Maralex has no employees. If an employee of Maralex Resources, Inc. performs services for Maralex, Maralex Resources, Inc. invoices Maralex for that work (and materials, as appropriate), and then Maralex pays that invoice to Maralex Resources, Inc. *Id.* at ¶ 22. Maralex does not pay any employees of Maralex Resources, Inc.

for working on Maralex. *Id.* at ¶ 23; Hearing Transcript at Page 196, Lines 11 - 20 (hereinafter referenced as “Tr. At p. 191; 11 - 20”).

4. Maralex is a relatively small company. Stipulated Exhibit No. 26 and No. 37. Maralex lost \$88,000 in 2008. Stipulated Exhibit No. 26.; Tr. at p. 197; ln. 3 – 11. Maralex made \$363,000 in 2009. Stipulated Exhibit No. 26.; Tr. at p. 199; ln. 3 – 9. Maralex made \$63,000 in 2010. Stipulated Exhibit No. 26.; Tr. at p. 199; ln. 14 – 20. . Maralex made less than \$20,000 in 2011. Stipulated Exhibit No. 37.; Tr. at p. 200; ln. 8 – 18. Thus, over the course of the last four years, Maralex averaged slightly less than \$90,000 per year in income.

5. Maralex has owned and/or operated the Ferguson #1 well at all times relevant to the Complaint. Stipulation at ¶ 3. The Ferguson # 1 Well has not paid out, *i.e.*, the costs of construction and operation of the well exceeds the revenues produced from the well. *Id.* at p. 163; ln. 25 – p. 164; ln. 2.

B. MECHANICAL INTEGRITY

i. THE PERMIT FOR THE FERGUSON # 1 WELL

6. The Ferguson #1 Well is located in what the Colorado Oil and Gas Conservation Commission has designated as a natural gas field known as the Ignacio Blanco Field in Township 33 North, Range 9 West, Section 32, in La Plata County, Colorado, within the exterior boundary of the Southern Ute Indian Reservation. Stipulation at ¶ 4.

7. Maralex is authorized to operate the Ferguson #1 well by EPA Permit #C021011-06908 and is required to comply with all conditions in the Permit at all times. *Id.* at ¶ 6. The Ferguson #1 well is a “Class II Injection Well” as defined by 40 C.F.R. §§ 144.80 and 146.5. *Id.* at ¶ 4. Maralex is subject to applicable requirements of 40 C.F.R. §§ 124, 144 and 146 due to its ownership and/or operation of the Ferguson #1 well. *Id.* at ¶ 5.

8. The Ferguson # 1 Well is a commercially operated Class II disposal well that injects waste fluids that are brought to the surface in connection with oil and gas production. *Id.* at p. 26: ln. 14 – p. 27: ln. 3. It is a “commercial” well because it injects other people’s wastewater and charges them for disposal of such wastewater. *Id.* at p. 27: ln. 3-6. The Permit for the Ferguson # 1 Well is Stipulated Exhibit No. 2.

9. The objectives of a UIC permit is to ensure that water injection into a disposal well does not harm underground sources of drinking water or endanger them. *Id.* at p. 24: ln. 4-8.

10. The Ferguson # 1 Well disposes of something in the vicinity of 60,000 to 65, 000 barrels of wastewater every month. *Id.* at p. 29: ln. 3-9. This well is considered a large injection well based on the amount of water that is being disposed of in the well, placing it in the top ten percent of injection wells in Region 8. *Id.* at p. 29: ln. 11-17.

11. Although the Ferguson # 1 Well was approved for frac flow back water, Maralex has never taken frac flow back water for disposal. *Id.* at p. 162: ln. 9-17. All of the water disposed of in the Ferguson # 1 Well is coal seam produced water that is filtered by Maralex, with the filters being changed 2 or 3 times per week; the injected water averages around 6 000 total dissolved solids (the EPA considers less than 10,000 TDS as usable) resulting in extremely clean water being injected. *Id.* at p 162: ln. 17 – p. 163: ln. 25,

12. There are seven public drinking water wells within a five-mile radius of the Ferguson # 1 Well, the closest public drinking water well being about one and one-half miles from the Ferguson # 1 Well. *Id.* at 29: ln. 24 – 30: ln. 8.

13. While the Permit for the Ferguson # 1 Well requires the well to maintain zero pressure in the annulus, the Permit acknowledges that there may be situations were the Permittee

is unable to maintain zero pounds on the annulus because of heating of liquid in the annulus that may cause pressure to build up in the annulus. *Id.* at p. 39: ln. 4-16.

14. Alexis Michael O'Hare oversees the operation of the Ferguson # 1 Well. Tr. at p. 12-16. Mr. O'Hare began monitoring the annular pressure in late 2009. *Id.* at p. 201: ln. 2-12. Sometimes the pressures he saw were zero to 200 pounds and sometimes they were as high as 1,600 pounds, although he did not see the higher pressures until 2010. *Id.* at p. 201: ln. 15 – 21. Mr. O'Hare would bleed off the pressure to zero and the pressure would not return for some period and there was no flow once the pressure was bled off. *Id.* at p. 201: ln. 22 – p. 202: ln. 4.

ii. CONSTRUCTION OF THE FERGUSON # 1 WELL.

15. Stipulated Exhibit 31 contains a diagram of the proposed construction schematic for the Ferguson # 1 Well. The casing consists of three concentric strings of outer steel piping and the innermost steel pipe is called the tubing. The innermost pipe of tubing is sealed at its bottom by a packer or packer assembly and at the top by the well head and the area between the inside of the outer casing and the outside of the inner tubing is the annulus. Stipulated Exhibit 31 and Tr. at p. 31: ln. 20 – p. 33: ln. 22.

16. Dennis Reimers is an engineer and is the engineer manager for Maralex Resources, Inc.. Tr. at p. 130: ln. 20-23; Stipulated Ex. No. 27 (Resume of Dennis Reimers). Mr. Reimers testified that when Maralex was drilling the well, he kept the EPA informed about the progress of the construction and invited the EPA overseeing the permitting for the well, Patricia Pfeiffer, to observe the construction process, which she did for a week. *Id.* at p. 138: ln. 21 – p. 139: ln. 12.

17. Maralex made the decision to using a stronger casing pipe than proposed in its Permit that cost more money and dramatically improved the integrity of the casing. *Id.* at p. 140:

ln. 6 – p. 141 ln. 1. Mr. Reimers over-designed the Ferguson # 1 Well. *Id.* at 142; ln. 2 – 14. While Maralex did not circulate cement completely, Maralex provided all EPA with all information regarding the cementing and the EPA approved that the cementing in place was adequate to protect the well. *Id.* at p. 143; ln. 7-19.

iii. EPA INSPECTIONS OF THE FERGUSON # 1 WELL

18. Ken Phillips and Clark Davenport of the EPA inspected the Ferguson # 1 Well in 2008. *Id.* at p. 54: ln. 4-12. That inspection showed annulus pressure at 790 pounds and the inspectors recommended bleeding off the annulus pressure. *Id.* at p. 54: ln. 20 – p. 55: ln. 8. Mr. Reimers was at the inspection conducted in 2008 and was told to bleed off the pressure in the annulus. *Id.* at p. 147: ln. 13-20. After bleeding off the pressure, there was no flow coming back from the annular. *Id.* at p. 148: ln. 6-9.

19. Nathan Wiser worked for the EPA in Region 8 reviewing and overseeing underground injection well permits and regulatory compliance. *Id.* at p. 13: ln. 21- p. 14: ln 9. As part of his duties, Mr. Wiser conducted a routine inspection of the Ferguson # 1 Well on May 5, 2010, to ascertain whether the well was operating in compliance with the Permit. *Id.* at p. 40: ln. 7-14. *See also* Stipulated Exhibit No. 8.

20. During his May 5, 2008 inspection, Mr. Wiser observed annulus pressure to be 1,725 pounds. *Tr.* at p. 41: 3-11. Mr. Wiser and Dennis Reimers discussed the possible cause of this elevated annulus pressure and agreed that it was possibly caused by heated liquid. *Id.* at p. 41: 12-22. They were unable to bleed off liquid from the annulus at the time of the inspection and Mr. Wiser asked Mr. Reimers to call him the next day to report on the annulus pressure. *Id.* at p. 41: ln. 23 – p. 42: ln. 6. On May 6, 2010, the day after the inspection, Mr. Reimers advised Mr. Wiser that after Mr. Reimers bled about a barrel of liquid off of the annulus that the annulus

pressure was reduced to zero. *Id.* at p. 41: ln. 23 – p. 42: ln. 25. When Mr. Reimers bled off the pressure, he bled off about a barrel of liquid (one barrel equals 42 gallons) and the annulus pressure was reduced to zero in less than sixty seconds and there was absolutely no flow after the pressure dissipated off the annular area between the 3 1/2 inch tubing and the 7 inch casing. *Id.* at p. 145: ln. 14-21; p. 146: ln. 10-25; p. 148: ln. 10-25.

21. Mr. Wiser testified that the annulus pressure observed at the May 5, 2012 inspection did not necessarily mean that the Ferguson # 1 Well had lost mechanical integrity. Tr. 64: ln. 7-10.

22. Mr. Reimers believed that the annulus pressure observed at the May 5, 2010 inspection was temperature related – when the annular pressure valve is shut in, the temperature increases and, based on the laws of physics, the pressure increases. *Id.* at p. 146: ln. 8 0 p. 147: ln. 6.

23. Mr. Wiser re-inspected the Ferguson # 1 Well on May 26, 2010, to ascertain whether the well was operating in compliance with the Permit. *Id.* at p. 43: ln. 10-19. *See also* Stipulated Exhibit No. 9. During that inspection, Mr. Wiser observed annulus pressure to be 1,840 pounds. Tr. at p. 41: 3-11. Mr. Reimers bled off about 60 gallons of liquid that reduced the pressure and after which there was no flow. *Id.* at p. 150: ln. 18 – p. 151: ln. 3. Mr. Wiser and Dennis Reimers discussed the possible cause of this elevated annulus pressure and agreed that it was possibly caused by heated liquid. *Id.* at p. 43: 20-24.

24. After that inspection, the EPA sent Maralex a letter dated June 7, 2010, alleging that the well might be experiencing a loss of mechanical integrity, but also allowing for the possibility that the increased pressure might be induced from thermal heating. *Id.* at p. 43: 20-24; Stipulated Exhibit No. 10.

25. By letter dated July 6, 2010, Maralex responded to the EPA's letter of June 7, 2010. Stipulated Exhibit No. 11. Mr. Reimers, who wrote the July 6, 2010 letter, testified that the build up of the annulus pressure between the May 5 and May 26 inspections was the first time that Maralex observed the pressure building back up so quickly and was the first indication that Maralex had that there may be something more to the annulus pressure than thermal effects. Tr. at p. 151: ln. 3-8; Stipulated Exhibit No. 11. Maralex's July 6, 2010 letter did not state or concede that the Ferguson # 1 Well had lost mechanical integrity, but merely set forth a proposed testing procedure on how Maralex was going to test the mechanical integrity of the well. Tr. at p. 152: ln. 2-23; Stipulated Exhibit No. 11.

26. Between July 7, 2010 and April 13, 2011, the EPA had not received any additional information from the Respondent regarding the Ferguson #1 well. Stipulation at ¶ 13. 23. Maralex was waiting to hear from the EPA before it undertook the proposed testing set forth in the July 6, 2010 letter. Tr. at p. 154: ln. 1-12. In Mr. Reimers' experience, it was standard protocol to wait for a response from the EPA on a proposed testing proposal. *Id.* at p. 154: ln. 13-25.

27. When Mr. Reimers was handing off the responsibilities for the Ferguson # 1 Well to Christi Reid, he realized he had not heard back from the EPA and called Nathan Wisner in late September or early October 2010 to ask about the EPA's response to Maralex's July 6, 2010 letter. *Id.* at p. 155: ln. 1-7. In response to Mr. Reimers' inquiry, Mr. Wisner told Mr. Reimers "Let me see. Something apparently fell through the cracks." *Id.* at p. 155: ln. 8-12. Mr. Wisner called Mr. Reimers back roughly two days later and verbally him to proceed. *Id.* at p. 155: ln. 13-15. Mr. O'Hare did not proceed with the testing proposed in the July 6, 2010 because he wanted to receive a formal written approval of the proposed testing. *Id.* at p. 204: ln. 8 – 10. The

reason Mr. O'Hare wanted to written verification was because he had gotten written verification from the EPA before about testing protocols. *Id.* at p. 204: ln. 11 – 25.

28. Mr. Wisner transferred his duties to inspect injection wells in Region 8, including the Ferguson # 1 Well, to Sarah Roberts in late 2010 and early 2011. *Id.* at p. 67: ln. 2 – 7; p. 82: ln. 23 – p. 83: ln. 6. Ms. Roberts is an environmental scientist who works in the UIC program for the Office of Enforcement, Compliance, and Environmental Justice. *Id.* at p. 78: ln. 1-10.

29. Ms. Roberts conducted a site inspection of the Ferguson # 1 Well on April 13, 2011. *Id.* at p. 89: ln. 1; Stipulation at ¶ 4. During that inspection, Ms. Roberts observed annulus pressure of 1,670 pounds. *Id.* at p. 89: ln. 12-16. Ms. Roberts prepared an report of her inspection, which is found at Stipulated Exhibit No. 13. *Id.* at p. 91: ln. 1-7.

30. Christi Reid is a petroleum engineer for Maralex who took over responsibility from Mr. Reimers for the Ferguson No. 1 Well in August 2010. *Tr.* at p. 168: ln. 16 – p. 169: ln. 18.

31. Ms. Reid was present at Ms. Roberts' April 13, 2011 site visit. *Id.* at p. 170: ln. 14-24. While Ms. Roberts measured the annulus pressure on the Ferguson # 1 Well, Ms. Roberts did not bleed the pressure off of the annulus at that site inspection. *Id.* at p. 171: ln. 3 - 11.

32. After the April 13, 2011 site visit, the EPA issued a Notice of Violation. *Id.* at 91: ln. 14 – 92: ln. 7; p. 171: ln. 11-20. This Notice of Violation, dated April 19, 2011, is found at Stipulated Exhibit 15. Maralex shut in the Ferguson # 1 Well immediately after received the April 19, 2011 Notice of Violation on April 26, 2011. *Tr.* at 92: ln. 12 – 93: ln. 2; p. 171: ln. 21 - p. 172: ln. 4.

33. Maralex performed a rework of the well from May 11, 2011 to May 24, 2011 and the Ferguson # 1 Well passed a mechanical integrity test on May 24, 2011. *Id.* at 94: ln. 15 – 95:

ln. 21; Tr. at 173: ln. 17 - p. 174: ln 8; Well Rework Record and Mechanical Integrity Test (Stipulated Exhibit No. 17).

34. During the reworking of the well, Maralex found two loose connections of tubing and tightened those connections. Tr. at 172: ln. 12 - p. 173: ln. 17.

35. After receiving the results of the Mechanical Integrity Test, the EPA sent Maralex a permission to resume injection letter. Tr. at 96: ln. 2-7; Tr. at 174: ln. 9 – 12.

36. The Ferguson #1 well was operating between May 5, 2010 and May 24, 2011 and the annulus pressure was above zero during EPA inspections. Stipulation at ¶ 16.

37. No mechanical integrity testing was performed during the period May 5, 2010, and May 24, 2011. *Id.* at ¶ 17.

38. EPA observed and Maralex confirmed the existence of annulus pressure on the Ferguson #1 well in May of 2010 through May of 2011. Maralex contends that the annulus pressure on the Ferguson #1 Well during this time was intermittent and not consistent. *Id.* at ¶ 18.

iv. EXPERT OPINIONS REGARDING THE MECHANICAL INTEGRITY OF THE FERGUSON # 1 WELL

a. NATHAN WISER:

39. In addition to testifying as a fact witness regarding his inspections of the Ferguson # 1 Well, Mr. Wisser testified on behalf of the EPA as an expert in the EPA's Underground Injection Control ("UIC") program, its purpose, implementation and regulation, including permit compliance; but he was not qualified as an expert on the operation of an injection well or the construction of an injection well. Tr. at p. 20: ln. 14-22.

40. Mr. Wiser has two degrees in geology, but is not a petroleum engineer. *Id.* at 12 (20-23); 19 (22-25). Mr. Wiser has never supervised the drilling of an injection well nor has he ever been responsible for supervising the operation of an injection well. *Id.* at p. 20: ln. 1-9.

41. Mr. Wiser acknowledged that a build up of annulus pressure does not necessarily mean that an injection well has lost mechanical integrity. *Id.* at 57: ln. 13-17.

42. On direct examination, Mr. Wiser opined that the Ferguson # 1 Well had a leak somewhere in the well and that in its July 6, 2010 letter (Stipulated Exhibit No. 11), Maralex recognized that the annulus pressure was not caused by thermal heating. Based on these considerations, Mr. Wiser opined that Maralex was directed to follow the steps as though the well had lost mechanical integrity due to a leak pursuant to Guidance No. 35 (Stipulated Exhibit No. 34). *Tr.* at 47: ln. 3-22.

43. On cross-examination, however, Mr. Wiser acknowledged that his supervision of the Ferguson No. 1 Well, Mr. Wiser never found that the Ferguson # 1 Well lacked mechanical integrity. *Id.* at 70: ln. 3-10; 71: ln. 19-21. If Mr. Wiser had determined that the Ferguson # 1 Well lacked mechanical integrity he would have followed the guidelines and told Maralex to shut in the Ferguson # 1 Well. *Id.* at p. 70: ln. 11-14.

44. Mr. Wiser also testified under cross examination there was no evidence that he was aware of that indicates there was any leakage from the Ferguson # 1 Well into the surrounding formations other than the perforations where it was permitted to be injected into. *Id.* at p. 70: ln. 15-20. If the EPA believed that there was any unpermitted leakage from the well into the surrounding formations, the EPA may have required Maralex to perform remediation, but the EPA never required Maralex to remediate the surrounding ground water. *Id.* at p. 71: ln. 1-18.

45. The purpose of Guidance No. 35 is intended as an aid to UIC field inspectors, such as Mr. Wiser, to follow when they observe excessive annulus pressure on injection wells. *Id.* at 57: ln. 1-6; p. 39: Ln. 6-22. Stipulated Ex. 34 at p. 1. Pages 2-3 of Guidance No. 35 sets forth a table entitled “Procedures to Follow When Excessive Annular Pressure is Observed.” 17.

46. Mr. Wiser testified that it is important that inspections should be standard and that the purpose and one of the feature of Guidance No. 35 is to have standard inspections. Tr. at 61: ln. 13-24. Mr. Wiser also recognized that the reason for Guidance No. 35 is for the EPA to have consistent inspections and consistence outcomes. *Id.* at p. 62: ln. 15-18.

47. Guidance No. 35 instructs the field inspector to open the annulus for up to sixty seconds to see whether the pressure reduces to zero. *Id.* at p. 2. Mr. Wiser did not follow his protocol during his May 5, 2010 inspection. Tr. at p. 58: ln. 8-23.

48. Guidance No. 35 also instructs the EPA technical expert to determine whether the annulus pressure returns within 14 days. If it does not, then the well is considered to have mechanical integrity. If annulus pressure returns, the EPA technical expert will design a mechanical integrity test and the EPA compliance officer will require the operator to conduct the test within 14 days. Stipulated Ex. 34 at p. 3. Mr. Wiser never requested that Maralex observed annulus pressure for 14 days and did not provide Maralex with the 14-Day Pressure Monitoring form found at page 5 of Guidance No. 35. Tr. at 63: ln. 25 – p. 64: ln. 6.

49. Mr. Wiser did not follow Guidance No. 35 during his May 26, 2010 inspection (Stipulated Ex. No. 9). Tr. at p. 64: ln. 11-21. Mr. Wiser did not provide Maralex with the 14-Day Pressure Monitoring form found at page 5 of Guidance No. 35 at that inspection. Tr. p. 64: ln. 22-24. Instead, twelve days later, EPA sent Maralex the June 7, 2010 Notice of Violation letter (Stipulated Ex. No. 11). *Id.* at 63: ln. 25 – 64: ln. 19. There was no 14-day monitoring

period between the May 26, 2010 inspection and the June 7, 2010 Notice of Violation. *Id.* at p. 65: ln. 20-25.

b. DENNIS REIMERS:

50. In addition to testifying as a fact witness with respect to the construction and operation of the Ferguson # 1 Well and the various EPA's inspections, Mr. Reimers was qualified to testify as an expert in petroleum engineering and underground injection control. Tr. at p. 137: ln. 8-10. Mr. Reimers has extensive experience in the construction and operation of injection wells. Tr. at p. 133: ln. 14 – 134: ln. 14; Stipulated Ex. No. 27.

51. Based on testing of the Ferguson # 1 Well, Maralex discovered that the well was experiencing an intermittent pinhole leak that was sporadic. Tr. at p. 152: ln. 24 – p. 153: ln. 25.

53. Mr. Reimers opined as an expert that the annulus pressure that the well experienced was due to temperature and to temporary, intermittent leaks caused by loosing tubing connections that in certain pressures and certain conditions and certain harmonics of the tubing string would have a temporary leak. Tr. at p. 158: ln. 14 – p. 159: ln. 24.

54. Mr. Reimers opined as an expert that the Ferguson # 1 Well maintained mechanical integrity because the leaks were “extremely minor” and there was never any loss of liquid from the annular other than what Maralex bled off. Tr. at p. 158: ln. 14 - p. 161: ln. 7.

c. ALEXIS MICHAEL O'HARE:

55. In addition to testifying as a fact witness with respect to the construction and operation of the Ferguson # 1 Well, Mr. O'Hare was qualified to testify as an expert witness in petroleum engineering and the operation of UIC wells. Tr. at p. 194: ln. 23 – 25. Mr. O'Hare has many years of extensive experience in the construction and operation of underground

injection wells. *Id.* at p. 178: ln. 13 – p. 181: ln. 6; p. 182: ln. 4 – p. 194: ln. 16; Stipulated Exhibit No. 29.

56. Mr. O'Hare testified that he had no concern that the Ferguson # 1 Well had lost mechanical integrity because (1) it never had a significant leak; (2) Maralex had performed a number of mechanical integrity tests, some of which were not reported to the EPA, and those tests gave Maralex great assurance that there was no possible way that water could be leaking into an underground source of water. *Id.* at p. 205: ln. 1 – 22.

57. If Mr. O'Hare thought that the Ferguson # 1 Well had lost mechanical integrity, he would have shut in the well. *Id.* at p. 205: ln. 23 – p. 206: ln. 1.

58. Mr. O'Hare opined that fluid from the Ferguson # 1 Well never migrated from the wellbore into the surrounding formations, other than where it was allowed to do so under the Permit. *Id.* at p. 206: ln. 2 – 9. The basis of Mr. O'Hare's opinion is that there was never a significant flow from the well that was not controlled by Maralex, the well never failed a mechanical integrity test and at no time did Maralex ever have to repair the 7 1/2 inch casing and a failure in the casing is the only way fluid could flow into an underground source of drinking water. *Id.* at p. 206: ln. 10 – p. 207: ln. 2 .

59. Mr. O'Hare also opined that the intermittent leak from the loose connections of tubing was never significant because if it were significant, the well would have continued to flow event though the pressure had been bled off, especially when they were injecting. *Id.* at p. 204: ln. 2 – p. 205: ln. 9.

C. WEEKLY OBSERVATIONS OF THE ANNULUS PRESSURE

60. Weekly observations of annulus pressure are required for the Ferguson #1 well by the Permit at Part II(D)(1). Stipulation at ¶ 7.

61. Respondent violated the Permit and therefore the Act by failing to observe weekly annulus pressure measurements of the Ferguson #1 well *Id.* at ¶ 8.

62. The Respondent admits that it did not make consistent weekly observations of the annulus pressure but did observe the annulus pressure several times per month and, on some occasions, several times per week. *Id.* at ¶ 9.

63. The person responsible for making these observations was Pete Tree, who was terminated by Maralex after his performance was inadequate because, among other things, he failed to monitor the annulus pressure. *Id.* at p. 165: ln. 16 – p. 166: ln 9.

64. Mr. Reimers monitored the pressure at least twice a month. *Id.* at p. 166: ln. 24 – p. 167: ln 2. Mr. O'Hare monitored the annulus pressure approximately once per month. *Id.* at p. 201: ln. 9 – 14.

D. ANNUAL REPORTING

65. On February 18, 2011, EPA received from Maralex the annual monitoring report for 2010 from Maralex that reported minimum and maximum annulus pressures of zero pounds per square in gauge for every month of 2010. Stipulation at 19.

66. The reporting of the annulus pressure in the 2010 report was incorrect. *Id.* at ¶ 20.

PROPOSED CONCLUSIONS OF LAW

A. THE EPA HAS THE BURDEN OF PERSUASION TO PROVE THE VIOLATIONS SET FORTH IN THE COMPLAINT.

1. The EPA has the burden of persuasion that the violations set forth in the Proposed Penalty Complaint and Notice of Opportunity for Hearing filed on September 27, 2011 (“Complaint”). 40 C.F.R. § 22.24(a). The Presiding Office shall decide this controversy based upon a preponderance of evidence. 40 C.F.R. § 22.24(b).

B. **THE FERGUSON # 1 WELL NEVER FAILED TO MAINTAIN MECHANICAL INTEGRITY**

2. The EPA alleges that Maralex violated 40 C.F.R. § 144.51(q)(1) and the Permit at Part II(C)(6) Ferguson # 1 Well by failing to maintain mechanical integrity for the Ferguson # 1 Well between at least May 5, 2010 and May 24, 2011. Complaint at ¶ 20.

3. Pursuant to 40 C.F.R. § 146.8:

An injection well has mechanical integrity if:

- (1) There is no significant leak in the casing, tubing or packer; and
- (2) There is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the injection well bore.

There is insufficient evidence to conclude that Maralex violated 40 C.F.R. § 144.51(q)(1) and the Permit by failing to maintain mechanical integrity with respect to the Ferguson # 1 Well.

4. First, Mr. Wisner, the EPA's own expert, testified that during the time of his supervision of the Ferguson # 1 Well he never found that the Ferguson # 1 Well lacked mechanical integrity Proposed Findings of Fact at ¶ 43 (hereinafter "PFF at ¶ ____").

Significant, Mr. Wisner acknowledged that if he thought that the Ferguson # 1 Well lacked mechanical integrity, he would have ordered that it be shut-in, an action that he never took. *Id.*

5. Second, Mr. Wisner's opinion that the Ferguson # 1 Well never failed to maintain mechanical integrity is supported by the facts developed with respect to each of the four inspections of the well. During the first three inspections, Maralex bled off the annulus pressure to zero, the pressure did not return and there was no flow. PFF at ¶ 18 (2008 inspection); ¶ 20 (May 5, 2010 inspection: and ¶ 23 (May 26, 2010 inspection). During the 2011 inspection, Ms. Roberts did not seek to bleed off the annulus. *Id.* at ¶ 31.

6. Third, EPA's Guidance No. 35 is a protocol that the EPA designed to ensure uniform regulatory oversight for use by UIC field inspectors in establishing whether an injection well lacks mechanical integrity. PFF at ¶¶ 45 - 46. Mr. Wisner admitted that he failed to follow Guidance No. 35 when he conducted his inspections, a protocol that is necessary to establish whether a well needs to be tested in the first instance for mechanical integrity. *Id.* at ¶¶ 47 - 49. Thus, the EPA failed to follow its own protocol that is required to establish that the Ferguson No. 1 Well lacked mechanical integrity.

7. Fourth, Ms. Roberts' sending of the letter ordering the Ferguson # 1 Well to be shut-in was egregiously unfounded because she failed to bleed off the annulus pressure during her site visit, but instead merely read the annulus pressure. PFF at ¶ 31. As Mr. Wisner admitted, the mere presence of annulus pressure is insufficient to establish that an injection well lacks mechanical integrity because it could be explained by the effect of temperature. *Id.* at ¶¶ 13; 21 and 41.

8. Fifth, both Mr. Reimers and Mr. O'Hare opined as experts that the Ferguson # 1 Well never failed to lack mechanical integrity. PFF at ¶¶ 54; 56-59.

9. Sixth, as Mr. Wisner admitted, there is no evidence that any fluid left the wellbore and migrated into any underground source of drinking water, let alone a "significant" amount necessary to trigger a violation. PFF at ¶ 43. Mr. Reimers and Mr. O'Hare also opined that no fluid from the wellbore migrated to any unpermitted formations. *Id.* at ¶¶ 54; 56; 58.

10. Seventh, the amount of any leak was minor, caused by an intermittent leak. PFF ¶¶ at 51; 53; 56; 59. By definition, in order to have a lack of mechanical integrity, the leak in the casing, tubing or packing has to be "significant." The EPA failed to establish that the leak in the tubing was anything other than a minor, intermittent leak.

11. To the extent that the EPA finds a violation of 40 C.F.R. § 144.51(q)(1) for failing to maintain mechanical integrity, the amount of the proposed penalty requested by the EPA in the Complaint, \$99,700, is excessive. First, Maralex is a relatively small company that averages slightly less than \$60,000 per year in income. PFF at ¶ 4. Second, Maralex over-designed the Ferguson # 1 Well to prevent any significant leaks. *Id.* at ¶¶ 15-17. Third, the water that is injected into the well is extremely clean, minimizing any alleged harm to the underground source of drinking water. *Id.* at ¶ 11.

12. Maralex submits that based on the facts recounted in Paragraph 11 above, the amount of the penalty should be reduced to \$12,500.

C. WEEKLY OBSERVATIONS OF THE ANNULUS PRESSURE

13. While Maralex admits that it violated the requirement for making weekly observations of the annulus pressure, Maralex submits that the amount of the penalty proposed by the EPA, \$8,050, is excessive. Maralex terminated the employee who failed to take the weekly observations of the annulus pressure and PFF at ¶¶ 62-64.

14. The \$8,050 proposed penalty was based on a seven month duration of this violation. Tr. at p. 103: ln. 12-18. Because between Mr. Reimers and Mr. O'Hare, Maralex made observed the annulus pressure 3 or 4 times per month, albeit on an irregular schedule, the seven month duration is inaccurate. Maralex submits that the duration should be reduced to 2 months because of the frequent checking of the pressure and the fine accordingly reduced by 5/7, which would reduce the fine to \$2,300. Such a reduction would be consistent with the EPA's

14. Based on these considerations, Maralex submits that its fine for failing to make weekly observations of the annulus pressure should be reduced to \$2,000.

D. ANNUAL REPORTING

15. Maralex admits that its reporting of the annulus pressure in the 2010 report was incorrect, but this error did not impair or impede the EPA from carrying out its regulatory duties. The EPA knew from its own records that there annulus pressure for the Ferguson # 1 Well based on its two inspections held in 2011. PFF at ¶¶ 21 and 23.

16. Based on the fact that the incorrect reported caused no harm, Maralex submits that the proposed penalty should be reduced from \$3,900 to \$500.

Dated this 17th day of December, 2012.

Abadie & Schill, PC

/s/ William E. Zimsky

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CERTIFICATE OF SERVICE

I hereby certify that the original and one true copy of this **RESPONDENT'S PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW** was sent on December 17, 2012 via email (Artemis.Tina@epamail.epa.gov) and by overnight delivery, to the Regional Hearing Clerk, EPA Region 8, 1595 Wynkoop Street, Denver, Colorado, and that a true copy was sent via First Class Mail, Postage Prepaid, to Complainant's counsel at the following address and via email:

Amy Swanson
Email: Swanson.Amy@epamail.epa.gov
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U.S. EPA – Region 8
1595 Wynkoop Street,
Denver, CO 80202

By: /s/ William E. Zimsky

William E. Zimsky