STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION COMMISSION

IN THE MATTER OF THE APPLICATION OF THE NEW MEXICO OIL AND GAS ASSOCIATION FOR AMENDMENT OF CERTAIN PROVISIONS OF TITLE 19, CHAPTER 15 OF THE NEW MEXICO ADMINISTRATIVE CODE CONCERNING PITS, CLOSED LOOP SYSTEMS, BELOW GRADE TANKS, SUMPS AND OTHER ALTERNATIVE METHODS RELATED TO THE FOREGOING AND AMENDING OTHER RULES TO CONFORMING CHANGES, STATEWIDE.

CASE NO. 14784 CASE NO. 14785

NEW MEXICO OIL & GAS ASSOCIATION'S SUPPLEMENTAL PROPOSED FINDINGS AND CONCLUSIONS

Pursuant to the instructions of the New Mexico Oil Conservation Commission ("Commission") at its January 10, 2013, public hearing, the New Mexico Oil & Gas Association ("NMOGA") submits these supplemental proposed findings of fact conclusions of law.

1. At the Commission's November 15, 2012, public hearing, the Commissioners expressed concern that the proposed tables "use values reported as either milligrams per kilogram or milligrams per liter" and suggested that the proposed tables "should use one method of reporting for all values..." Tr. 11/15/12 at p. 4, lines 16-20. At least one Commissioner suggested "that milligrams per kilograms would be a more appropriate method of calculation" but noted that "since the record does not support any conversion of values currently in the proposal, the Commission cannot make such a conversion on its own." Tr. 11/15/12 at p. 4, line 21 through p. 5, line 1. To address this narrow issue, the Commission voted in favor of an order that required Petitioners to submit a revised set of tables using a "consistent method of reporting measurements for each value provided in the tables" and to hold a public hearing "for the limited purpose of receiving testimony on the revised set of tables submitted by the petitioners." Tr. 11/15/12 at p. 6, lines 1-15; p. 9; lines 3-6.

- 2. Pursuant to the Commission's instructions, NMOGA filed on November 29, 2012, a Notice of NMOGA's Corrections To Its Proposed Amendments To Title 19, Chapter 15, Part 17 under which it submitted the following revisions to the "Method" column for chlorides in the proposed Tables:
 - A. Inserted EPA Method 300.0 in place of EPA Method 300.1 for chlorides in both Tables;
 - B. Moved the asterisk from the entire Method column to chlorides only;
 - C. Changed the asterisk to read "or other test methods approved by the Division"; and
 - D. Moved the reference to EPA SPLP and SW 846 from the asterisk directly to the "Method" column for chlorides in Table II and specifically referenced Method 1312.

Compare page 41 of NMOGA Exhibit 1 with page 41 of NMOGA's Exhibit 20.

- 3. Neither Petitioner submitted revisions to the concentration levels reflected in the "Limits" column of proposed Tables I and II, which had been the subject of extensive hearings before the Commission from May through August of 2012. *Id*.
- 4. No modifications to NMOGA's proposed corrections were filed either before or after the December 24, 2012, deadline set by the Commission in its December 3, 2012, public notice of hearing. *See also* NMAC 19.15.3.11.C.
- 5. On January 9, 2013, and continuing through January 10, 2013, the Commission held a public hearing for the limited purpose of addressing the narrow issue raised at its November 15, 2012, hearing and to address the corrections to the proposed Tables submitted by Petitioners.
- 6. NMOGA presented the testimony of Dr. Clay Robinson, a Soil Scientist, who was accepted by the Commission as an expert in soil science and related testing methods for inorganic compounds, such as chlorides. *See* NMOGA Ex. 21; Tr. 3878.

Table I

- 7. NMOGA's proposed Table I contains constituent levels for impacted <u>soils</u> beneath lined pits and below grade tanks. *See* NMOGA Ex. 20 at p. 26, 28 [19.15.17.13.A(3) and 17.13.B(9)].
- 8. Under NMOGA's proposed modifications, the purpose of the constituent levels in Table I is to determine whether the impacted soils can remain in place under a minimum of four feet of non-waste containing earthen material. *See* NMOGA Ex. 20 at p. 38-39 [19.15.17.13.F(2)]
- 9. Dr. Robinson testified that EPA Method 300.0 is the appropriate method to test the concentration of chlorides in impacted <u>soils</u> beneath lined pits and below grade tanks for the purposes of applying the standards set forth in Table I and explained the basis for his conclusions. *See* NMOGA Ex. 22 and 26; Tr. 3878-79; 3884-87; 3914-16.
- 10. Dr. Robinson noted that EPA Method 300.0 was approved by the Division in 2008 for addressing chlorides under the current rule. *See* NMOGA Ex. 25; Tr. 3912-13.
- 11. Dr. Robinson testified that it is more appropriate to use EPA Method 300.0 rather than EPA 300.1 in the proposed tables and explained the basis for his conclusion. Tr. 3908-11.
- 12. Dr. Robinson testified that EPA Method 300.0 is designed to address inorganic anions in soils and EPA Method 300.1 only has provisions to address inorganic anions in drinking waters. *See* NMOGA Ex. 22, 24 and 26; Tr. 3909-10.
- 13. Dr. Donald Neeper, a soil physicist, agreed it is appropriate to utilize EPA Method 300.0 rather than 300.1 in the proposed tables. Tr. 4028, lines 24-25.
- 14. Dr. Robinson testified that it is appropriate and necessary to use mg/kg as the unit of measurement where EPA Method 300.0 is applied to impacted soils beneath lined pits and below grade tanks, and explained the basis for his conclusions. Tr. 3878-79; Tr. 3884-89; 3914-16.

- 15. Dr. Robinson testified that it is common practice for laboratories testing impacted soils with EPA Method 300.0 to report the results in mg/kg and explained why the results are never reported in mg/L. Tr. 3888-89; 3963-64.
- 16. No other party presented evidence to contradict Dr. Robinson's conclusions concerning the use of EPA Method 300.0 for measuring chlorides in the soils that are the subject of Table I.
- 17. The evidence establishes that EPA Method 300.0 is the appropriate method for determining the concentration of chlorides in impacted soils beneath lined pits and below grade tanks for the purposes of applying the standards set forth in Table I.
- 18. The evidence establishes that mg/kg is the appropriate unit of measurement for reporting the level of chlorides in the impacted soils that are the subject of Table I.
- 19. The evidence establishes that the testing method and corresponding unit of measurement in proposed Table I are technically accurate for addressing the level of chlorides in impacted soils, follow standard laboratory practices, are endorsed by the EPA, and are feasible for operators to follow and apply.

Table II

- 20. Under NMOGA's proposed revisions, Table II is intended to address the constituents levels in the contents of lined pits as well as drying pads and tanks associated with closed loop systems that are destined for burial in place or into nearby Division approved pits or trenches. *See* NMOGA Ex. 20 at p. 27 [19.15.17.13.B(5), (6) and (8)].
- 21. Dr. Robinson explained that the wastes addressed by Table II constitute <u>mixed phase</u> wastes that are materially different from the impacted soils addressed by Table I. Tr. 3889-90.

- Dr. Robinson testified that even after these mixed phase wastes are blended with soils and passed through the paint filter test as required by NMOGA's proposed section 17.13.B(4), these wastes remain materially different from the impacted <u>soils</u> that are the subject of Table I. Tr. 3921-24; 3928-29; 3980-82.
- 23. Dr. Robinson testified that the SW-846 Method 1312 leaching procedure, in conjunction with EPA Method 300.0, is the appropriate testing method for addressing the potential mobility of chlorides in the mixed phase wastes that are the subject of Table II and explained the basis for his conclusions. *See* NMOGA Ex. 23 and 26; Tr. 3878-79; 3894-3902; 3914-16.
- 24. Dr. Robinson noted that the current provisions of Title 19, Chapter 15, Part 17 recognize EPA SW-846 Method 1312 as an appropriate leaching procedure to address the potential mobility of chlorides in the mixed phase wastes that are the subject of Table II. See, e.g., NMOGA Ex. 20 at p. 34; Tr. 3907-08; 4005-06.
- 25. Title 19, Chapter 15, Part 17 further utilizes mg/L as the unit of measurement for chlorides when EPA SW-846 Method 1312 is the designated leaching procedure. *See* NMOGA Ex. 20 at p. 34; Tr. 4005-06.
- 26. Dr. Robinson testified that chlorides are the most mobile, most soluble substance in the mixed phased wastes and therefore a good tracer for the leading edge of any potential migration. Tr. 3919.
- 27. Dr. Robinson testified that because SW-846 Method 1312 utilizes an acid in the leaching procedure, rather than reagent water, it "dramatically" and "vastly" overstates the potential mobility of chlorides in mixed phase wastes in the event a meteoric water drive reached these wastes. *See* NMOGA Ex. 26; Tr, 3924-25; 3967; 3980; 3984; 3992.

- 28. Dr. Donald Neeper, a soil physicist, likewise agreed that SW-846 Method 1312 overstates the potential mobility of chlorides in mixed phase wastes in the event a meteoric water drive reaches these wastes. Tr. 4078.
- 29. Dr. Robinson noted that the solid phase utilized in the SW-846 Method 1312 leaching procedure is different from the dried solid referenced and utilized when EPA Method 300.0 is applied to soils. Tr. 3895-3900; Tr. 3908-09.
- 30. Dr. Robinson testified that because the solid phase of the SW-846 Method 1312 leaching procedure is not a dried soil, it is appropriate and necessary to use mg/L as the unit of measurement. Tr. 3878-79; 3902-03; 3908-09; 3914-16.
- 31. Dr. Robinson testified that because no dried mass of soil exists when leaching method SW-846 Method 1312 is utilized, it is not scientifically accurate and would violate standard laboratory practices to utilize mg/kg as a unit of measurement for chlorides in Table II. Tr. 3879; 3906-09.
- 32. Dr. Robinson testified that no certified laboratory using the SW-846 Method 1312 leaching procedure in conjunction with EPA Method 300.0 will report the chloride results in mg/kg and instead will always report the results in mg/L. Tr. 3906.
- 33. Dr. Robinson testified that the 20:1 conversion from mg/L to mg/kg reflected on slides 3, 8, and 9 of the admitted portion of NMCCA&W's Exhibit 6 are based on various assumptions and that it is not accurate to apply such a conversion uniformly to the variety of mixed phase wastes that are the subject of Table II. Tr. 3904-06; 3930-32; 3969-71; 4003.
- 34. Dr. Robinson testified that a certified laboratory will not report the mg/L results obtained from the SW-846 Method 1312 leaching procedure in mg/kg using a 20:1 conversion ratio, or any other conversion ratio. Tr. 3906; 4003.

- 35. Dr. Donald Neeper acknowledged a 20:1 conversion from mg/L to mg/Kg will result in some level of error and stated he did not propose that any such ratio be formally adopted by the Commission; instead it was offered to assist the Commission in understanding a general correlation between mg/L and mg/kg. Tr. 4030; 4071.
- 36. Dr. Robinson testified that the testing methods and corresponding units of measurement for chlorides set forth in the proposed tables are feasible for operators and laboratories to apply, and scientifically accurate. Tr. 3914-15.
- 37. Dr. Robinson testified that because Tables I and II address different types of substances (soils vs. mixed phase wastes) and serve different purposes, it is appropriate and necessary to maintain two tables with different units of measurement for chlorides. Tr. 3915-16; 3993-94; 3996.
- 38. Dr. Donald Neeper likewise testified there are technical reasons for retaining two different tables. Tr. 4062.
- 39. No party presented evidence to contradict Dr. Robinson's conclusions that the SW-846 Method 1312 leaching procedure in conjunction with EPA Method 300.0 is appropriate for measuring the potential mobility of chlorides in the mixed phase wastes that are the subject of Table II.
- 40. The evidence establishes that the SW-846 Method 1312 leaching procedure, in conjunction with EPA Method 300.0, are the appropriate methods for measuring the potential mobility of chlorides in the mixed phase wastes that are the subject of Table II.
- 41. The evidence establishes that the SW-846 Method 1312 leaching procedure, in conjunction with EPA Method 300.0, actually overstates the potential mobility of chlorides in the mixed phase wastes that are the subject of Table II and thereby provides a heightened degree of environmental protection.

- 42. The evidence establishes that mg/L is the appropriate unit of measurement when the SW-846 Method 1312 leaching procedure and EPA Method 300.0 are utilized to measure the potential mobility of chlorides in the mixed phase wastes that are the subject of Table II.
- 43. The evidence establishes that the testing methods and corresponding unit of measurement in proposed Table II are technically accurate for addressing the mobility of chlorides in mixed phase wastes, follow standard laboratory practices, are endorsed by the EPA, and are feasible for operators to follow and apply.

Respectfully Submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on this 16th day of January 2013, I served a copy of the foregoing NMOGA'S Supplemental Proposed Findings and Conclusions upon following counsel of record via Hand Delivery; Electronic Mail, and U.S. Mail, postage pre-paid to:

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