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Fasken Oil and Ranch, LTD.

Denton SWD Emergency Pit Overflow Closure Report

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Unit Letter D, Section 13 of Township 15 South, Range 37 East, Lea County, New Mexico

August 10, 2010



Prepared for:

Fasken Oil and Ranch, LTD. 303 West Wall, Suite 1800 Midland, Texas 79701-5116

By:

Safety & Environmental Solutions, Inc. 703 East Clinton Hobbs, New Mexico 88240 (575) 397-0510

Approved by startful Lipin Environmental Engineer NMOCD-Hobbs 09/23/10

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I. Company Contacts

Representative	Company	Telephone	E-mail
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Bob Allen	SESI	575-397-0510	ballen@sesi-nm.com

II. Background

Safety and Environmental Solutions, Inc. (SESI) was engaged by Fasken Oil and Ranch, LTD. to perform cleanup services at the Denton SWD Emergency Pit. The facility was affected by an overflow in of the emergency pit. Approximately 680 barrels of produced fluid were released, 640 barrels were recovered.

III. Surface and Ground Water

There are (3) three monitoring wells located on the north and east side of the Denton SWD facility. Depth to water measurements collected from these monitor wells on February 2, 2010 indicated an average ground water depth of 60.06 ft.

IV Soils

The surface soils in the area are predominantly sand and sandy loam.

V. Work Performed

On February 22, 2010 SESI was onsite with Eco Enviro Drilling LLC. A total of four (4) boreholes were installed within the spill area to determine the vertical extent of the contamination. Borehole #1 was installed to depth of 17' below ground surface (bgs), borehole #2 & #3 were installed to a depth of 20' bgs. Due to auger refusal, borehole #4 was installed to a depth of 35' bgs. Samples were retrieved in five (5) foot intervals from all boreholes. All samples were properly preserved and transported under Chain of Custody to Cardinal Laboratories of Hobbs, New Mexico for analysis. The samples were analyzed for Chlorides (EPA Method 4500-Cl⁻B).

The results of the analysis are as follows:

Date	Sample ID	CI ⁻ (mg/kg)		
2/22/10	BH #1-5'	2,640		
2/22/10	BH #1-10'	624		
2/22/10	BH #1-15'	16		
2/22/10	BH #1-17'	48		
2/22/10	BH #2-5'	624		
2/22/10	BH #2-10'	32		
2/22/10	BH #2-15'-16'	32		
2/22/10	BH #3-5'	1,360		
2/22/10	BH #3-10'	832		
2/22/10	BH #3-15'	304		
2/22/10	BH #3-20'	96		
2/22/10	BH #4-5'	2,760		

Date	Sample ID	Cl ⁻ (mg/kg)			
2/22/10	BH #4-10'	1,140			
2/22/10	BH #4-15'	176			
2/22/10	BH #4-20'	368			
2/22/10	BH #4-25'	608			
2/22/10	BH #4-30'	1,040			
2/22/10	BH #4-35'	768			

All borings were backfilled from total depth to surface with bentonite and hydrated.

On June 22-24, 2010 SESI was onsite with Watson Construction to begin remediation of the affected area. The entire area between the lease road leading to the battery and the overflow pit was excavated to a depth of 4' below ground level (bgl). A total of six (6) grab samples were retrieved from the west wall of the excavation. All samples were properly preserved and transported under Chain of Custody to Cardinal Laboratories of Hobbs, New Mexico for analysis. The samples were analyzed for Chlorides (EPA Method 4500-Cl⁻B).

The results of the analysis are as follows:

Date	Sample ID	CI ⁻ (mg/kg)
6/22/10	WW #1	96
6/22/10	WW #2	32
6/24/10	WW #3	<16
6/24/10	WW #4	32
6/22/10	WW #5	48
6/24/10	WW #6	<16

On June 30, 2010 through July 28, 2010, the floor of the excavation was padded and domed with one (1) foot of clean topsoil. Akome, Inc. was onsite to install the 20-mil reinforced geo-membrane liner. Upon completion, the area was padded with an additional one (1) foot of clean topsoil then backfilled with like soils and contoured to grade.

A total of 5,100 yards of contaminated soil were transported to Sundance Services for disposal.

VI. Conclusion

Remedial actions at this site have all been performed with the approval of, and in accordance with all NMOCD requirements. The area will be reseeded in the spring as per landowner's specifications.

As a result, we respectfully submit this closure report for your consideration and approval.

VII. Figures & Appendices

Figure 1 – Vicinity Map Figure 2 – Site Plan Appendix A – Analytical Results Appendix B – Site Photographs Appendix C –C-141

Figure 1 Vicinity Map

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Figure 2 Site Plan

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Appendix A Analytical Results Appendix B Site Photographs



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Excavation padded with top soil facing northwest



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Excavation padded with top soil facing northeast



Excavation with 20 mil liner installed facing northwest





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Excavation with 20 mil liner installed facing northeast



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District I 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 1301 W. Grand Avenue, Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 District IV

District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

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State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

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	•					OPERA			X Initi	al Report		Final Report
				Ranch, Lto			immy Carli			· · ·	<u> </u>	
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