Navajo Refining Company Leaker Line Remediation/Cleanup Report Lea County, New Mexico

Sec 16 TI75 R 32E

July 1, 2002

21/2 MILES S MALJAMAR



Prepared for:

Navajo Refining Company P.O. Box 159 Artesia, New Mexico 88211

By:



Safety & Environmental Solutions, Inc. 703 E. Clinton Suite 103 Hobbs, New Mexico 88240 (505) 397-0510

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I. Background

Safety & Environmental Solutions, Inc. (SESI) was contacted by Navajo Refining Company to perform assessment and cleanup services on an area impacted by the spillage of approximately <u>120 barrels of crude oil from a pipeline</u> on the Leaker lease. The subject area is located in Section 16, Township <u>17S</u>, Range 32E in Lea County, New Mexico. The site is situated on a relatively level area (Figure 1). The subject site is located approximately ¹/₂ mile west of County Road 33 (Figure 2).

II. Contaminant and Size of Leak

The suspected contaminant is produced crude oil emulsion, which leaked from the pipeline associated with production in the area. The approximate size of the impacted area is approximately 2,500 sq. ft. Navajo Refining Company received notification from the Oil Conservation Division that the crude oil in this pipeline does not have to be subjected to the Toxic Leaching Characteristics Procedure (TCLP) for toxicity. No evidence of other contaminants was observed.

III. Surface and Ground Water

The nearest groundwater of record with the New Mexico State Engineer's Office is in Section 11 and 12 of 17S 36E. The depths to water in Section 11 range from 105.86 to 32.35 feet. The depth to water in Section 12 is 120.13 feet.

IV. Soils

The soils in the area are predominantly sandy loam.

V. Work Performed

The cleanup level reached by the application of the "Guidelines for Remediation of Leaks, Spill and Releases" New Mexico Oil Conservation Division – August 13, 1993 to this site is 5000 ppm TPH. The site was excavated both horizontally and vertically for the removal of all highly contaminated and/or saturated soils as defined in the Guidelines. The excavated soils were blended on-site with adjacent clean soils to a level of no greater than 5000 ppm TPH.

The impacted soils were excavated and vertical extent of contamination was found to be approximately 14 feet in depth. The soils were blended with clean soils on site. The blended soils were backfilled into the excavation, and the area was contoured back to normal grade.

SESI retrieved composite samples from the bottom of the excavation and a final composite sample of the surface after back filling operations were completed. The

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samples were preserved in appropriate containers and transported under chain of custody to Cardinal Laboratories in Hobbs, New Mexico for analysis for TPH (method TRPHC-EPA 600/7-79-020,418.1) and BTEX (method BTEX-EPA SW-846-8020).

SAMPLE TOTAL ETHYL DATE TPH BENZENE TOLUENE D BENZENE **XYLENES** Bottom 6/21/02 906 0.008 0.061 0.554 0.805 Hole Final 6/25/02 3180 < 0.005 4.03 7.00 1.60 Composite

The results of the analysis are as follows:

VI. Figures & Appendices

Figure 1 - Vicinity Map Figure 2 - Site Plan Appendix A - Analytical Results Appendix B - Site Photos

Navajo Refining Company LeaCounty, New Mexico

Figure 1 Vicinity Map



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Navajo Refining Company LeaCounty, New Mexico

Figure 2 Site Plan



Navajo Refining Company LeaCounty, New Mexico

Appendix A Analytical Results



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR SAFETY & ENVIRONMENTAL SOLUTIONS, INC. ATTN: BOB ALLEN 703 E. CLINTON, #103 HOBBS, NM 88240 FAX TO: (505) 393-4388

Receiving Date: 06/21/02 Reporting Date: 06/24/02 Project Number: NAV-02-0020 (NAVAJO) Project Name: LEAKER LEAK Project Location: LEA CO., NM Sampling Date: 06/21/02 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: BC Analyzed By: BC

				ETHYL	TOTAL
LAB NO. SAMPLE ID	TPH	BENZENE	TOLUENE	BENZENE	XYLENES
	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
ANALYSIS DATE:	06/21/02	06/21/02	06/21/02	06/21/02	06/21/02
H6830-1 BOTTOM HOLE	906	0.008	0.061	0.554	0.805
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	·	·			
			+		
Quality Control	233	0.104	0.109	0.101	0.290
True Value QC	240	0.100	0.100	0.100	0.300
% Recovery	96.9	104	109	101	96.7
Relative Percent Difference	3.7	2.3	5.1	6.8	6.9

METHODS TRPHC - EPA 600/7-79-020, 418.1; BTEX - EPA SW-846-8020

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Image: G J D Tigne: G D Received By Time: Sample C Sample C Sample C Cool Inda Cool Inda No No	inversion inner the second writed unless incover that be deemed writed unless amages, including without limitation, but amages, including without limitation, but and the second by Candinal, regarders of the second by Candinal Second by Second the second by Candinal Second by Second the second by Candinal Second by Second by Second the second by Second by Second by Second by Second by Second the second by Second		#(GF)RAB OR (C)OMP. CONTAINERS ROUNDWATER ASTEWATER DIL	Merico MATRIX	<	Project Owner: Nauato		Zip: 88240					
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	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
ANALYSIS DATE:	06/25/02	06/26/02	06/26/02	06/26/02	06/26/02
H6841-1 FINAL COMPOSITE	3180	<0.005	1.60	4.03	7.00
			_		
Quality Control	233	0.102	0.102	0.104	0.299
True Value QC	240	0.100	0.100	0.100	0.300
% Recovery	96.9	102	102	104	99.7
Relative Percent Difference	3.7	7.8	4.1	3.1	2.5

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Navajo Refining Company LeaCounty, New Mexico

Appendix B Site Photos



Bottom of Excavation Facing North-West



Bottom of Excavation Facing North



Bottom of Excavation Facing South



Completed Site Facing Pipeline



Completed Site Facing North-West



Completed Site Facing South-West



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Completed Site Facing West