Americo Energy Denton #1 SWD Northeast Corner Work Plan Unit J, Section 11, Township 15S, Range 37E Lea County, New Mexico

April 6, 2005



Prepared for:

Americo Energy 10940 Old Katy Road Houston, Texas 77043

By:

Safety & Environmental Solutions, Inc. 703 E. Clinton Suite 102 Hobbs, New Mexico 88240 (505) 397-0510

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I. Company Contacts

Oscar Nosrati	Americo	713-984-9700	oscar.nosrati@americoenergy.com
Bob Allen	SESI	505-397-0510	ballen@sesi-nm.com

II. Purpose

The purpose of this work plan is to propose a plan for the cleanup of the area identified as the Denton #1 SWD Northeast Corner release. The site is located in Unit J, Section 11, Township; 15S, Range 37E. The land is owned by Mr. Darr Angell.

III. Background

On November 15, 2004 the Denton # 1 SWD 4" high-pressure-fiberglass-line breached and released approximately 150 barrels of salt-water. The line was shut down, excavated, and the leak was repaired. The area was then fenced off.

IV. Contaminant

The suspected contaminant is salt water. Approximately <u>150-barrels of salt-water were</u> released, of which <u>145 barrels were recovered</u>

V. Vertical and Horizontal Extent of Contamination

The horizontal extent of contamination was visually determined to be approximately 12' X 12' in the initial leak area. The runoff area measures approximately 65' X 2'. The vertical extent of contamination has reached depths of approximately 36" and to the hard caliche layer that underlies the spill area.

VI. Groundwater

Monitor wells installed by SESI within $\frac{1}{2}$ to $\frac{3}{4}$ of a mile of the subject site have respective depths to water of 56.04' and 67.78'. During installation of the monitor well on this site the depth to groundwater was found to be 59.1 feet.

VII. Action Plan

On February 10, 2005 SESI installed three (3) shallow boreholes to a depth varying from 12" to 36". Samples were retrieved in Borehole #1 and Borehole #2 at 18" and 36". Samples were retrieved in Borehole #3 at 12". All samples were properly preserved and sent 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 ⁻

2/10/05	XX-1, 18	3279
2/10/05	XX-1, 36	2639
2/10/05	XX-3, 12	240
2/10/05	XX-2, 18	5438
2/10/05	XX-2, 36	4719

The installation of the boreholes and the subsequent analysis of the soil extracted from them indicate that the vertical migration of the chlorides has reached depths of approximately 36" and to the hard caliche layer that underlies the spill area. A groundwater monitor well is situated inside the SWD location to the southwest of the spill area. This monitor well was sampled in October 2004 and the analysis indicated the water was not contaminated. This well will be sampled again as an integral part of this action plan.

The affected area will be excavated until the chloride level reaches 1000 ppm or to the hard caliche layer, which ever is encountered first. This soil will be transported to an NMOCD approved facility for disposal. A 40-mil plastic liner will be placed in the bottom of the excavation.

The entire area will then be backfilled with the clean blended soils and be reseeded with an appropriate seed mix.

VIII. Figures & Appendices

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







PHONE (325) 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 #102 HOBBS, NM 88240 FAX TO: (505) 393-4388

Receiving Date: 02/11/05 Reporting Date: 02/14/05 Project Number: AME-05-001 Project Name: AMERICO SWD NORTHEAST CORNER Project Location: SEC12 T35S R37E Analysis Date: 02/14/05 Sampling Date: 02/10/05 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: GP Analyzed By: AH

LAB NUMBER	SAMPLE ID	Ci (mg/Kg)
H9545-1A	XX-1, 18	3279
H9545-2A	XX-1, 36	2639
H9545-3A	XX-3, 12	240
H9545-4A	XX-2, 18	5438
H9545-5A	XX-2, 36	4719
Quality Control		950
True Value QC		1000
% Recovery	——————————————————————————————————————	95.0
Relative Percent	Difference	10

METHOD: Standard Methods

Note: Analyses performed on 1:4 w/v aqueous extracts. Samples were only stirred with DI water.

LI /

4500-C/B

PLEASE NOTE: Liability and Damagon. Cardina's tability and clear's exclusive sensedy tor any claim unising, whether based in contract or tort, shall be limited to the emount paid by client for analyses. All charge, including those for negligence and any other cause whetheower chall be deemed users made in writing and received by Cardinal writing that they (30) days after completion of the applicable service) Machine that Cardinal the for incidential or consequential damages, including, without imitation, business interargoless, loss of use, or toos of points including by client, its subsciences, affiliates or successors arising out of or related to the performance of services hereands by Cardinal, regardless of whether such data is based upon any of the above-failed reasons or otherwise.



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