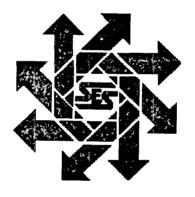
# Americo Energy Resources East Shugart Unit #15 Work Plan Eddy County, New Mexico

**February 8, 2008** 



#### Prepared for:

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By:

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#### **TABLE OF CONTENTS**

l <b>.</b>	COMPANY CONTACTS	1
1.	BACKGROUND	1
III.	SURFACE AND GROUND WATER	1
IV.	WORK PERFORMED	1
٧.	CLOSURE PLAN	2
VI.	FIGURES & APPENDICES  Figure 1 – Vicinity Map  Figure 2 – Site Plan  Appendix A – Analytical Results  Appendix B – Site Photos	2
	Figure 1 – Vicinity Map	3
	Figure 2 – Site Plan	4
	Appendix A – Analytical Results	5
	Appendix B – Site Photos	6
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#### I. Company Contacts

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#### II. Background

Safety and Environmental Solutions, Inc. (SESI) was engaged by Americo Energy Resources to perform cleanup services at the East Shugart Unit #15 spill site. This an injection well site in which the supply line ruptured, releasing 150 barrels of primarily produced water. A vacuum truck was used to remove the standing fluids.

#### III. Surface and Ground Water

The closest groundwater of record is in the same Section Range and Township. The depth of water in this well was 261' in March of 1994.

#### IV. Work Performed

On January 23, 2008 samples were retrieved in three areas of the spill, utilizing a hand auger. Samples were taken from the surface, as well as, at the 1' and 2' depths. There was a hard layer encountered at the 2' depth, which resulted in auger refusal. Field analysis were performed on each sample to determine chloride concentrations. The results of the analysis were as follows:

Depth	AH #1	AH #2	AH #3
Surface	<124 ppm	3532 ppm	<124 ppm
1'	<124 ppm	300 ppm	504 ppm
2'	836 ppm	904 ppm	

On January 30, 2008 test trenches were installed to further delineate the site. Grab samples were retrieved from each test trench and field analysis was performed on each sample to determine chloride concentrations. The results of the analysis were as follows:

Depth	TT #1	TT #2	TT #3
3'	2104 ppm	4236 ppm	
4'		4236 ppm	<124 ppm
5'	1048 ppm	1832 ppm	
6'		2104 ppm	
7'	656 ppm	1960 ppm	
8'	656 ppm	1492 ppm	
9'		1392 ppm	
10'	904 ppm	1392 ppm	
11'		1392 ppm	

On February 5, 2008 a borehole was installed via auger rig to complete the delineation of the site. Grab samples were retrieved from Borehole #4 at intervals of 5'. Field analysis were preformed on each sample to determine chloride concentrations. The auger rig

cored to a depth of 50' at which a layer of sandstone was encountered that could not be penetrated. The field chlorides samples indicated a pattern of decrease from the 35' to 50' depth of Borehole #4. The results of the analysis were as follows:

Depth	BH#4
5'	
10'	
15'	904 ppm
20'	1596 ppm
25'	1708 ppm
30'	5932 ppm
35'	6428 ppm
40'	6428 ppm
45'	2904 ppm
50'	1128 ppm

Confirmation samples were retrieved at the depth of 8' from Test Trench #3, as well as from BH #4 at the depth of 50'. These samples were transported under Chain of Custody to Aragon Laboratories for the analysis. The samples were analyzed for Chlorides (EPA Method 300). The results of the analysis were as follows:

Sample ID	Cl ppm
TT #3 8'	100
BH #4 50'	950

#### V. Closure Plan

It is requested that the top 4' be excavated from the spill area. The most highly contaminated soils will be transported to an NMOC approved facility fro disposal. A like amount of clean soils from offsite will be blended with the remaining soils in order to bring the chloride concentrations to an acceptable level that will allow re-vegetation. The excavated area will then be lined with a 20-mil impervious liner and backfilled with the blended soils. The area will be contoured to natural grade and seeded.

#### VI. Figures & Appendices

Figure 1 – Vicinity Map

Figure 2 - Site Plan

Appendix A - Analytical Results

Appendix B – Site Photos

Figure 1 Vicinity Map

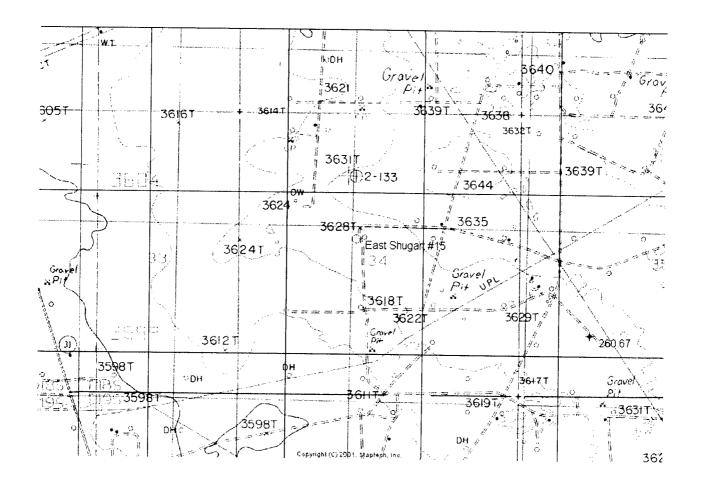
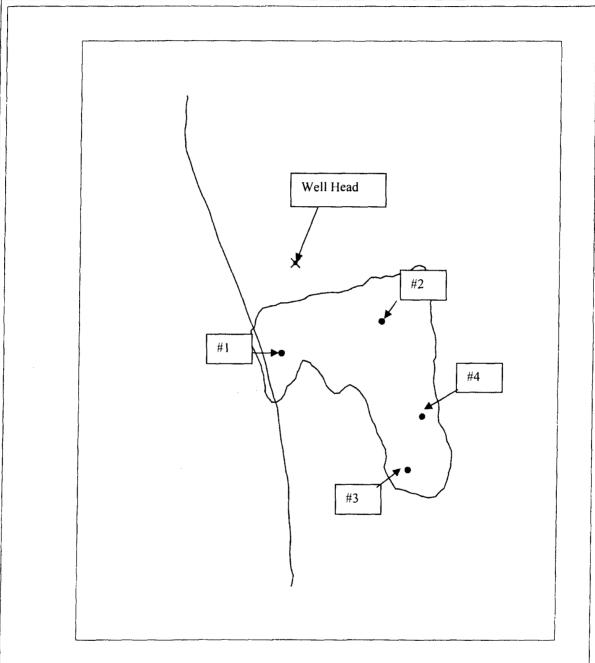


Figure 2 Site Plan



### Americo East Shugart #15

Lat/Long WGS 1984



Scale 1:750 0 80.00 Feet Site Plan.ssf 1/30/2008 GPS Pathfinder®Office



## Appendix A Analytical Results

Appendix B Site Photos

