1R - 427-211

REPORTS

DATE:

5-3-11

L. Peter Galusky, Jr., Ph.D., P.G.
Texerra

75 Wuthering Hts Drive Colorado Springs, CO 80921
Tel: 719-339-6791 E-mail: lpg@texerra.com

May 3rd, 2011

Mr. Edward Hansen
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

Re: Corrective Action Report and **Remediation Termination Request**
NMOCD Case No. 1R427-211, EME K-6 EOL
UL K Sect 6 Township 20 Range 37
EME SWD System Rice Operating Company

Sent via E-mail and U.S. Certified Mail: No. 7011 0110 0001 5863 8156

Mr. Hansen,

Rice Operating Company (ROC) has completed the work elements specified in the Corrective Action Plan of December 22nd, 2010 for this project. It was determined and summarized in this report that there were negligible residual soil chlorides and moderately elevated levels of total petroleum hydrocarbons, which were contributed from an off-site source. The focus and objective of the Corrective Action Plan was therefore to restore the surface to near-original conditions to facilitate the restoration of natural vegetation.

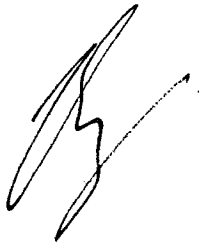
ROC personnel and contractors conducted surface restoration activities during January and February of this year. The compacted caliche pad surrounding the former junction box was removed and spread over the adjacent, active lease road. A composite sample of the caliche was collected for laboratory analysis of chloride, testing 48 mg/kg and a PID (field) reading of 0.2 ppm. Clean soil was imported and backfilled into the excavated area, amended with natural organic materials (peanut hay) and graded to the natural topographic contours. The area was then seeded with a BLM seed mix and the site fenced to exclude wildlife during the early stages of seedling establishment.

The removal of compacted caliche and the restoration of soil material typical of undisturbed soils in the area will allow for a more normal exchange of gases in the upper soil profile so that the soil may "breathe". This will substantially accelerate the natural decomposition of the residual petroleum hydrocarbons contributed from the off-site source. Since residual soil chlorides are not present in high concentration, their potential downward migration into groundwater is not of particular concern. However, the absence of a high residual soil salt content will afford and facilitate the successful re-establishment of native vegetation. This will have aesthetic benefits and provide food and shelter for indigenous wildlife.

These activities have met the objectives and fulfilled the specific work elements specified in the Corrective Action Plan. We therefore request that this site be granted remediation termination or similar closure status.

We appreciate your consideration of this report.

Sincerely,



L. Peter Galusky, Jr. Ph.D., P.G.
Principal

Attachments (in Appendix): Site location map, photographic chronology of corrective actions, laboratory analyses of soil materials, seeding specifications.

Copy: Rice Operating Company

APPENDIX

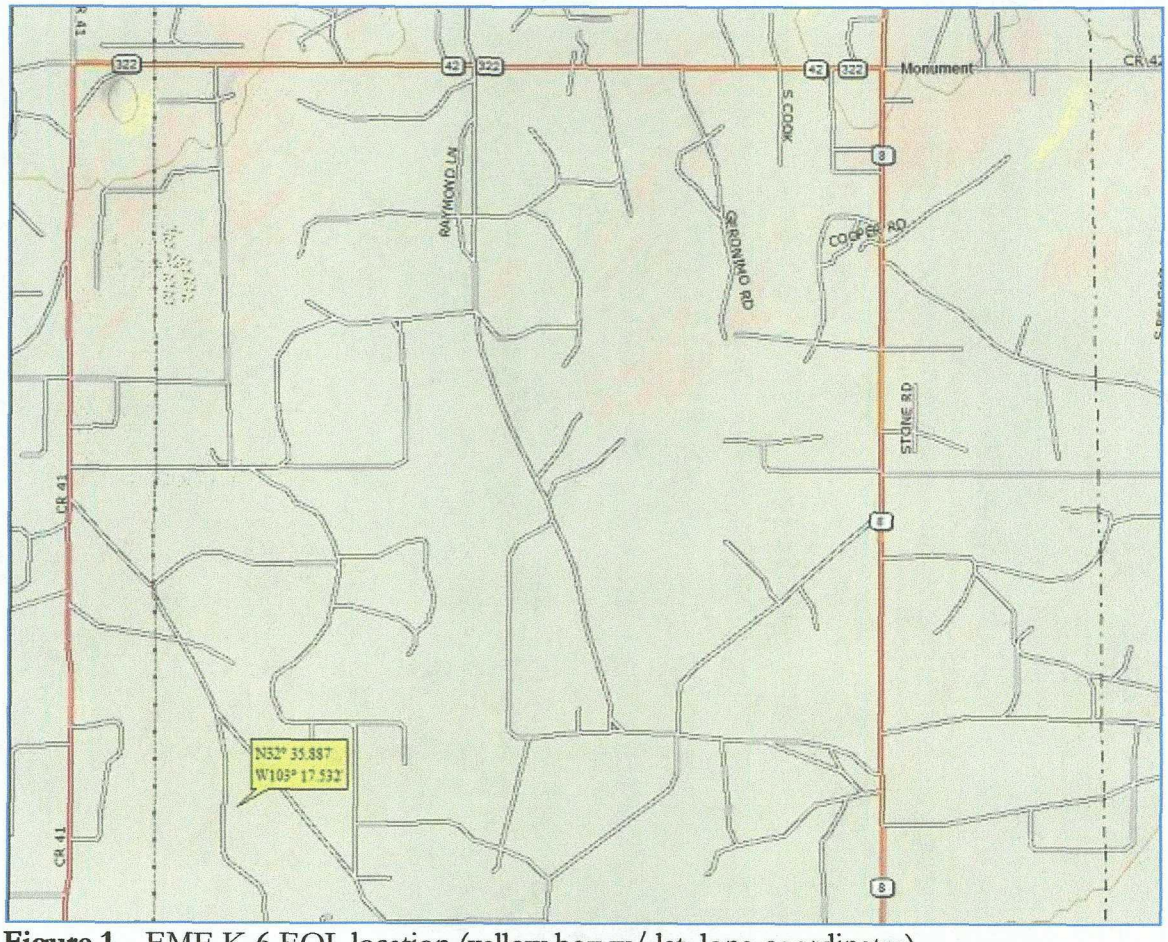
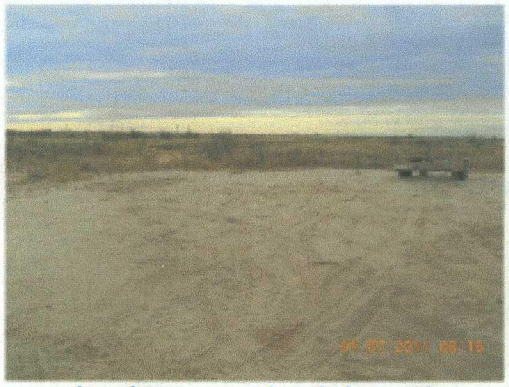


Figure 1 – EME K-6 EOL location (yellow box w/ lat, long coordinates).

EME K-6 EOL (1R427-211)
Unit K, Section 6, T-20-S, R-37-E



site prior to excavation, facing south

scraping a 45x45-ft area

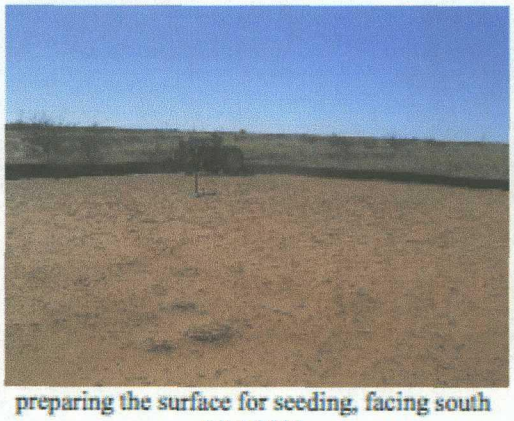
exporting the soil to Sundance

scraping complete

importing blow sand blended with hay

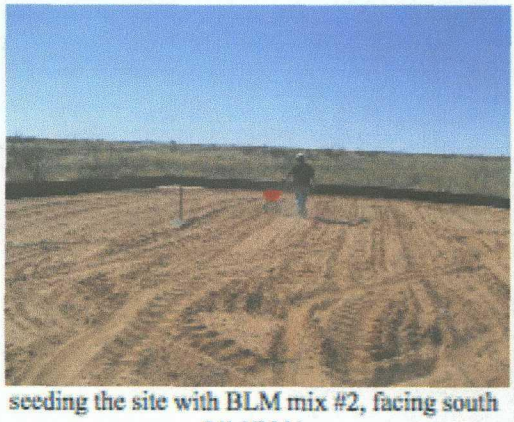
spreading imported soil over the site

Figure 2a – Photographic chronology of corrective actions completed.



preparing the surface for seeding, facing south
2/16/2011

adding BioNhance amendment to the soil
2/16/2011



seeding the site with BLM mix #2, facing south
2/16/2011

site complete, facing south
2/16/2011

Figure 2b – Photographic chronology of corrective actions completed

CARDINAL Laboratories

PHONE (575) 393-2326 * 101 E. MARLAND * HOBBS, NM 88240

Analytical Results For:

Rice Operating Company
Bruce Baker
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received:	01/07/2011	Sampling Date:	01/07/2011
Reported:	01/07/2011	Sampling Type:	Soil
Project Name:	EME K-6 EOL	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	EME K-6		

Sample ID: 5 PT. COMP TOP SOIL (H100044-01)

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/07/2011	ND	432	108	400	0.00	

Cardinal Laboratories *=Accredited Analyte

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Cdcy D. Keene

Cdcy D. Keene, Lab Director/Quality Manager

Figure 3 – Laboratory analysis of composite backfill soil sample.

RICE OPERATING COMPANY
ROC
SINCE 1995

112 West Taylor
Hobbs, NM 88240
Phone: (575) 393-9174
Fax: (575) 393-0293

VEGETATION FORM

1. General Information

Site name: EME K-6 EOL 20.37						
U/L	Section	Township	Range	County	Latitude	Longitude
K	6	20S	37E	LEA	N32.59806	W103.29241
Contact Name: **Bruce Baker**						
Email: bbaker@riceswd.com						
Site size: 90 X 55 4950 square feet			Map detail of site attached ☐			
Additional information:						

2. Soils **Do not rip caliche subsoils; caliche rocks brought to the surface by ripping shall be removed*

Salvaged from site ☒	Bioremediated ☒	Imported ☒	Blended ☐	Depth (in):
Texture: **Sandy**	Describe soil & subsoil: **Caliche**			
Soil prep methods: Rip ☐	Depth(in):	Disc ☒	Depth (in): 5in	Roller pack ☐
Date completed: 2/16/11				

3. Bioremediation

Fertilizer ☐	Hay ☒	Other ☒
Type:		Describe: 500lbs BioNhance
Lbs/acre:		

4. Seeding **Attach seed bag tags to this form. Seed bag tags shall contain the site name and S-T-R*

Custom seed mix ☒	Prescribed mix ☐	Seed mix name:	Seeding date: 2/16/11
Broadcast ☒			
Method: PORTABLE SEEDER			
Soil conditions during seeding: Dry ☒	Damp ☐	Wet ☐	
Photos attached ☒ Number of photos:	Observations: **15 lbs of BLM #2 seed mix**		

5. Certification I hereby certify that the information in this form and attachments is true and complete to the best of my knowledge and belief.

Name: **ROBERT HARRISON**	Title: **Environmental Tech**	Date: **2/16/11**
Signature:		

Figure 4 – Reseeding specifications.