

1R - 427-366

APPROVALS

YEAR(S):

2013

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Wednesday, March 20, 2013 9:34 AM
To: Hack Conder (hconder@riceswd.com)
Cc: Leking, Geoffrey R, EMNRD; Laura Pena (lpena@riceswd.com); Katie Jones <kjones@riceswd.com> (kjones@riceswd.com); Lara Weinheimer (lweinheimer@rice-ecs.com); Scott Curtis (scurtis@riceswd.com)
Subject: Remediation Plan (1R427-366) Termination - ROC EME Jct G-14 Site

**RE: Corrective Action Plan Report and Termination Request
for the Rice Operating Company's
EME Jct G-14 Site
Unit Letter G, Section 14, T20S, R36E, NMPM, Lea County, New Mexico
Remediation Plan (1R427-366) Termination**

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has received Rice Operating Company's report and request to close the above-referenced site, dated March 15, 2013 (received March 18, 2013). The reports are acceptable to the OCD.

The above-referenced report, submitted in accordance with 19.15.29 NMAC (Rule 29; formally, Rule 116), indicates that Rice Operating Company has met the requirements of 19.15.29 NMAC; therefore, the OCD approves the report and hereby notifies you that the remediation plan (1R427-366) is terminated in accordance with 19.15.29 NMAC.

Please be advised that OCD approval of this report does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau

Rice Environmental Consulting & Safety

P.O. Box 5630 Hobbs, NM 88241

Phone 575.393.4411 Fax 575.393.0293

CERTIFIED MAIL

RETURN RECEIPT NO. 7008 1140 0001 3073 0698

RECEIVED

March 15th, 2013

MAR 13 2013

Mr. Edward Hansen

New Mexico Energy, Minerals, & Natural Resources

Oil Conservation Division, Environmental Bureau

1220 S. St. Francis Drive

Santa Fe, New Mexico 87505

Oil Conservation Division

1220 S. St. Francis Drive

Santa Fe, NM 87505

RE: Corrective Action Plan (CAP) Report and Termination Request

Rice Operating Company – EME SWD System

EME jct. G-14 (1R427-366): UL/G sec. 14 T20S R36E

Mr. Hansen:

RICE Operating Company (ROC) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site in the EME Salt Water Disposal (SWD) system. ROC is the service provider (agent) for the EME SWD System and has no ownership of any portion of the pipeline, well, or facility. The system is owned by a consortium of oil producers, System Parties, who provide all operating capital on a percentage ownership/usage basis.

Background and Previous Work

The site is located approximately 5 miles southwest of Monument, New Mexico at UL/G sec. 14 T20S R36E as shown on the Site Location Map (Figure 1). Soil bore installation at the site indicates that groundwater will be encountered at 38 ft bgs.

In 2011, ROC initiated work on the former EME G-14 junction box. The site was delineated using a backhoe to form a 30 ft x 30 ft x 12 ft deep excavation and soil samples were screened at regular intervals for both hydrocarbons and chlorides. From the excavation, the four-wall composite and the bottom composite were taken to a commercial laboratory for analysis. Laboratory tests of the four-wall composite showed a chloride reading of non-detect, a gasoline range organics (GRO) reading of non-detect and a diesel range organics (DRO) reading of 980 mg/kg. The sample was also analyzed for BTEX given the elevated field PID reading. Benzene and ethyl benzene returned results of non-detect, toluene returned a result of 0.218 mg/kg and total xylenes returned a result of 1.45 mg/kg. The bottom composite showed a chloride laboratory reading of non-detect, a GRO reading of 118 mg/kg and a DRO reading of 2,450 mg/kg. This sample was also analyzed for BTEX with a benzene reading of non-detect, a toluene reading of 0.488 mg/kg, an ethyl benzene reading of 0.391 mg/kg and a total xylenes reading of 2.32 mg/kg. The excavated soil was properly disposed of at a NMOCD approved facility. Clean soil was imported to the site and used to backfill the excavation

to 5 ft bgs where a 20-mil reinforced poly liner was installed and properly seated. The excavation was then backfilled with clean, imported soil to ground surface.

The area was contoured to the surrounding landscape and seeded. NMOCD was notified of potential groundwater impact on March 13th, 2012 and a junction box disclosure report was submitted to NMOCD with all the 2011 junction box closures and disclosures.

Investigation and Characterization Plan Report

As part of the Investigation and Characterization Plan (ICP) submitted to NMOCD on May 22nd, 2012 and approved on May 29th, 2012, six soil bores were installed at the site on June-13th and 14th, 2012 and August 8th, 2012. As the bores were advanced, soil samples were taken at regular intervals and field tested for both chlorides and hydrocarbons. Representative samples from each bore were taken to a commercial laboratory for confirmation of field numbers. SB-1 returned laboratory chloride readings of 112 mg/kg at 15 ft bgs and 192 mg/kg at 33 ft bgs, and SB-2 through SB-4 and SB-6 returned laboratory chloride readings of non-detect at all depths. SB-5 returned laboratory chloride readings of non-detect at 12 ft bgs and 48 mg/kg at 18 ft bgs. GRO readings returned non-detect in SB-1 at 33 ft bgs, throughout SB-2, SB-3 and SB-4, in SB-5 at 18 ft bgs and throughout SB-6. Otherwise, SB-1 returned GRO results of 118 mg/kg at 15 ft bgs and SB-5 returned GRO results of 74 mg/kg at 12 ft bgs.

DRO readings in SB-1 returned results of 2,000 mg/kg at 15 ft bgs and 308 mg/kg at 33 ft bgs. DRO readings in SB-2 returned results of 2,280 mg/kg at 9 ft bgs and 654 mg/kg at 12 ft bgs. SB-3 returned DRO results of 794 mg/kg at 6 ft bgs and 2,320 mg/kg at 9 ft bgs. SB-4 returned DRO results of non-detect at all depths and SB-5 returned results of 1,920 mg/kg at 12 ft bgs and 69.6 mg/kg at 18 ft bgs. SB-6 returned DRO results of 367 mg/kg at the surface and non-detect at 18 ft bgs.

Two samples, SB-1 at 15 ft bgs and SB-5 at 12 ft bgs were also taken to a commercial laboratory for analysis of BTEX. SB-1 returned a benzene result of non-detect, a toluene result of 0.198 mg/kg, an ethyl benzene result of 0.319 mg/kg and a total xylene reading of 0.712 mg/kg. SB-5 returned benzene and toluene readings of non-detect, an ethyl benzene reading of 0.273 mg/kg and a xylene reading of 0.613 mg/kg.

Corrective Action Plan

On August 24th, 2012, ROC submitted the Investigation and Characterization Plan (ICP) Report and Corrective Action Plan (CAP) to NMOCD. The report stated, it is evident from the soil bore installation data that the chlorides and GRO values in the vadose zone are quite low and will not affect groundwater beneath the site. DRO is relatively high in the upper parts of the some of the bores; however, the readings drop substantially as the bores are advanced. Since there is a 30 ft by 30 ft 20-mil poly liner installed at 5 ft bgs to inhibit the downward migration of soil constituents, RECS recommended that ROC prepare the surface of the site for seeding and then seed the site with a blend of native vegetation. Vegetation will act as an evapo-transpiration barrier that will also inhibit the

downward migration of chlorides and hydrocarbons. Plants capture water through their roots and so reduce the amount of water infiltrating below the root zone.

During a conference call between ROC and NMOCD on September 11th, 2012, NMOCD requested multimed be ran on the remaining soil BTEX. The multimed files were submitted to NMOCD on September 14th, 2012. Based on a 30 ft by 30 ft area, an infiltration rate of 0.6", and highest xylene concentration (0.712 mg/kg), the maximum concentration contributed to groundwater would be 0.09274 mg/L at 78 years. This falls below the WQCC standard of 0.62 mg/L. NMOCD approved the CAP and multimed files on September 17th, 2012.

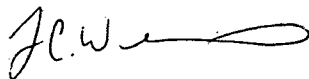
Corrective Action Plan Report

On March 7th, 2013, RECS personnel were on site to prepare and seed the area. The site was disked, and soil amendments were added. The site was then seeded with a blend of native vegetation. The site re-vegetation form and photos of these activities can be found in Appendix A.

ROC has completed the corrective actions as approved by NMOCD on September 17th, 2012. Therefore, ROC requests 'remediation termination' or similar closure status of the site.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-9174 or me if you have any questions or wish to discuss the site.

Sincerely,



Lara Weinheimer
Project Scientist
RECS
(575) 441-0431

Attachments:

Figure 1 – Site Location Map
Appendix A – Seeding Documentation

2013 MAR 18 P 2: 25

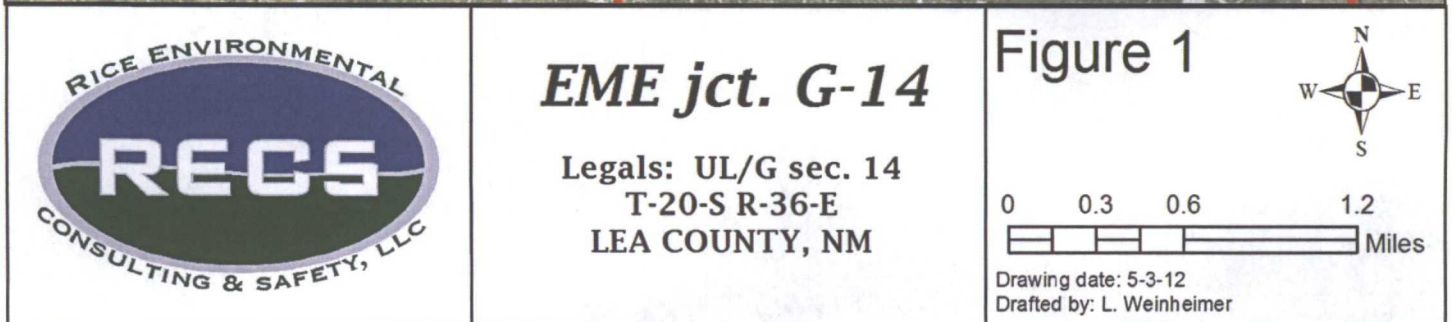
RECEIVED OGD



Figures

RICE Environmental Consulting and Safety (RECS)
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

Site Location Map





Appendix A

Seeding Documentation

RICE Environmental Consulting and Safety (RECS)
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293



PO Box 5630
Hobbs, NM 88241
Phone: (575) 393-4411
Fax: (575) 393-0293

REVEGETATION FORM

1. General Information

Site name: EME Jct. G-14						
U/L G	Section 14	Township T20S	Range R36E	County Lea	Latitude N32°34'33.69	Longitude W103°19'28.89
Contact Name: ZACHARY CONDER						
Email: zconder@rice-ecs.com						
Site size: 70 X 70 ft. Square feet: 4900				Map detail of site attached <input type="checkbox"/>		
Additional information:						

2. Soils

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

Salvaged from site <input checked="" type="checkbox"/>	Bioremediated <input type="checkbox"/>	Imported <input type="checkbox"/>	Blended <input type="checkbox"/>	Depth (in):	
Texture:	Describe soil & subsoil: Sandy				
Soil prep methods:	Rip <input type="checkbox"/>	Depth(in):	Disc <input checked="" type="checkbox"/>	Depth (in): 6	Roller pack <input type="checkbox"/>
Date completed:					

3. Bioremediation

Fertilizer <input type="checkbox"/>	Hay <input type="checkbox"/>	Other <input checked="" type="checkbox"/> BioNhance 10 bags
Type:		Describe: Top soil 6 bags Manure 6 bags
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 <input checked="" type="checkbox"/>	Prescribed mix <input type="checkbox"/>	Seed mix name: Black Grama 2 lbs, Lea County Mix 2 lbs, Blue Grama 2 lbs and Winter Rye 2 lbs Seeding date: 3-7-2013
Broadcast <input checked="" type="checkbox"/>		
Method: Drop Seeder		
Soil conditions during seeding: Dry <input checked="" type="checkbox"/> Damp <input type="checkbox"/> Wet <input type="checkbox"/>		
Photos attached <input type="checkbox"/>	Observations:	
Number of photos:		

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: Eduardo Garcia	Title: Environmental Tech	Date: 3-7-2013
Signature:		

EME Jct. G-14 (1R427-366)

UL/G, Section 14, T20S, R36E



Site Prior, facing east

10/29/2012



Disking site prior to spreading amendments, facing north

3/7/2013



Spreading amendments, facing west

3/7/2013



Disking site preparing for seed, facing west

3/7/2013



Seeding site, facing north

3/7/2013



Site complete, facing east

3/7/2013