

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Quantum Resources	Contact	Dee Fryar
Address	4000 N. Big Spring, Suite 305, Midland, TX 79705	Telephone No.	(432) 683-1500
Facility Name	M State Central Tank Battery	Facility Type	Battery
Surface Owner	State	Mineral Owner	
		API No.	30-025-38961

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	30	22S	37E	594	FNL	1119	FEL	Lea

Latitude 32.368300 Longitude -103.197300

NATURE OF RELEASE

Type of Release	Produced water and oil	Volume of Release	135 bbls water/5 bbls oil	Volume Recovered	116 bbls water/4 bbls oil
Source of Release	Water tank	Date and Hour of Occurrence	3/19/14 2:00 am	Date and Hour of Discovery	3/19/14 2:00 am
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required	If YES, To Whom?	NMOCD District 1		
By Whom?	Dee Fryar	Date and Hour	3/19/14 3:55 pm		
Was a Watercourse Reached?	☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

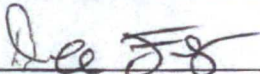
An electrical malfunction caused the alarms not to work and the pump not to turn on which ran the water tank over.

Describe Area Affected and Cleanup Action Taken.*

The release affected 21,941 sq ft of battery pad, lease pad, lease road and pasture land. A total of 8,161 sq ft of the release has been scraped down 6 inches to remove the wet soil. The site was sampled on 3/25/14 and the samples were taken to a commercial laboratory for analysis. Once the labs have been received, a path forward will be determined to remediate the release. The site will be remediated to NMOCD standards.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

OIL CONSERVATION DIVISION

Signature: 	Approved by Environmental Specialist:		
Printed Name: Dee Fryar			
Title: Permian EH&S Coordinator	Approval Date:	Expiration Date:	
E-mail Address: dfryar@qracq.com	Conditions of Approval:		Attached ☐
Date: 3-21-14	Phone: (432) 683-1500		

* Attach Additional Sheets If Necessary



needs final

QUANTUM RESOURCES MANAGEMENT, LLC

4320 SW 3001
Andrews, TX 79714
Phone 432.523.1800

M State Central Tank Battery **Termination Request**

API No. 30-025-38961

Release Date: March 19th, 2014

Unit Letter A, Section 30, Township 22S, Range 37E

May 15th, 2014

Geoffrey Leking

New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau – District 1
1625 N. French Dr.
Hobbs, NM 88240-9273

RE: Termination Request
Quantum Resources – M State Central Tank Battery
UL/A sec. 30 T22S R37E
API No. 30-025-38961

Mr. Leking:

Quantum Resources has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site.

Background and Previous Work

The site is located approximately 5.1 miles southwest of Eunice, New Mexico at UL/A sec. 30 T22S R37E. NM OSE and BLM records indicate that groundwater will likely be encountered at a depth of approximately 79 +/- feet.

On March 19th, 2014, an electrical malfunction caused the alarms to fail, which resulted in the water tank running over. A total of 135 barrels of produced water and 5 barrels of oil were released over 21,941 square feet of battery, lease pad, lease road and pasture. A total of 116 barrels of produced water and 4 barrels of oil were recovered. NMOCD was notified of the release on March 19th, 2014, and an initial C-141 was submitted to NMOCD for their approval (Appendix A).

Prior to RECS arriving at the site, parts of the release had been scraped down to a total of 8,161 square feet to remove the wet soil (Figure 1). RECS personnel arrived on site beginning on March 25th, 2014 to assess the release. Ten points within the release area were field sampled at the surface and four points were sampled with depth. The samples were field tested for chlorides and organic vapors and all samples were sent to a commercial laboratory for analysis (Appendix B).

On April 7th, 2014, a Corrective Action Plan (CAP) was submitted to NMOCD, which was approved on April 10th, 2014. Based on the laboratory analysis of the release, the areas around Point 1, Point 7, Point 9 and Point 10 would be scraped down 1 – 1.5 ft (Figure 2). The areas around Points 2 – 4 and Point 6 would be scraped down 6 inches. Point 5 and Point 8 returned low laboratory chloride and TPH readings; therefore, these areas required no further action. The

battery pad is lined except for the northern most area. The gravel would be removed from the lined portion of the battery by shovel and by hydrovac. The northern most portion of the battery would be scraped down 6 inches by shovel and hydrovac and a composite sample of this area would be taken to show residual chloride and TPH readings. The remainder of the northern portion of the battery would be remediated upon facility abandonment. Clean gravel would be imported to the site to replace the contaminated gravel.

Once the scrapes outside the bermed battery were completed, composite samples from the base of each scrape would be taken to a commercial laboratory to verify that the chloride levels were below 250 mg/kg and TPH levels were below 1,000 mg/kg. If any scrape showed evidence in the field that the composite would not meet these standards, the scrape would be deepened until these standards were met.

The excavated soils would be evaluated for use as backfill and any soils that did not meet regulatory standards would be taken to a NMOCD approved facility for disposal. Clean soil would be imported to the site to replace any soils taken to disposal. The excavated soils would be blended on site with any imported soil. The blended soil would be used as backfill for the site. A sample of the blended soil would be taken to a commercial laboratory to confirm that the chloride value was below 500 mg/kg and the TPH value was below 1,000 mg/kg. All scrapes would be backfilled to the surface with the blended soil and contoured to the surrounding location. Upon completion of backfilling, soil amendments would be added as needed to the pasture area and then seeded with a blend of native vegetation.

As a requirement for CAP approval, NMOCD requested that a clay liner be installed at the north end of the battery.

Corrective action activities began at the site on April 15th, 2014. The release outside the battery was scraped down as shown in Figure 3. Composite samples from each scrape were taken and field tested for chlorides. The samples were then taken to a commercial laboratory for analysis. As evidenced on Figure 3, some of the laboratory analyses returned values above regulatory standards (Appendix C). When this occurred, the scrape was deepened until regulatory standards were met by laboratory analysis. A total of 308 cubic yards of contaminated soil was taken to a NMOCD approved facility for disposal. A total of 108 cubic yards of top soil, 60 cubic yards of gravel and 244 cubic yards of caliche were imported to the site to replace the contaminated soil taken for disposal. The remainder of the excavated top soil was blended on site with the imported top soil. A composite sample of this blended top soil was taken to a commercial laboratory for analysis and returned a chloride, GRO and DRO value of non-detect. A sample of the imported caliche was taken to a commercial laboratory and returned a chloride value of 80 mg/kg (Appendix D).

A total of 12 yards of clay was imported to the site to serve as a liner in the north end of the battery. The clay was installed to the edge of the liner and then the clay was overlaid with caliche.

On May 1st, 2014, NMOCD gave verbal approval for the site to be backfilled. The scrapes were backfilled with either the imported caliche or the blended top soil and then contoured to the

surrounding location. On May 5th, 2014, the pasture areas were seeded with a total of 20 pounds of Lea County Mix.

Photo documentation of all activities can be found in Appendix E.

Given that Quantum completed the CAP work as approved by NMOCD, Quantum respectfully requests 'remediation termination' and site closure. A final C-141 can be found in Appendix F.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-2967 or me if you have any questions or wish to discuss the site.

Sincerely,

A handwritten signature in dark ink, appearing to read 'L. Weinheimer', with a stylized flourish at the end.

Lara Weinheimer
Project Scientist
RECS
(575) 441-0431

Attachments:

- Figure 1 – Initial Sampling Data
- Figure 2 – Proposed Corrective Actions
- Appendix A – Initial C-141
- Appendix B – Initial Sampling Lab
- Appendix C – Photo Documentation
- Appendix D – Blended Spoil Pile Lab and Imported Caliche Lab
- Appendix E – Photo Documentation
- Appendix F – Final C-141

Initial Sampling Data



QUANTUM M STATE CENTRAL TANK BATTERY AD

LEGALS: UL/A SEC 30,
UL/D SEC 29, T22S R37E
LEA COUNTY, NM



6" Scrape Comp			
CI-	GRO	DRO	Date
240	<10	<10	4/24/2014

Battery 3 pt. Comp

CI-	GRO	DRO	Date
352	287	3210	4/25/2014

8 Pt Comp at 6 inches			
CI-	GRO	DRO	Date
32	15.4	593	4/16/2014

Area 4 Comp at 6 inches			
CI-	GRO	DRO	Date
32	<10	<10	4/15/2014

West Road Comp			
CI-	GRO	DRO	Date
1 ft	160	30.6	1800
2 ft	48	<10	<10
			4/28/2014

East Rd. 5 pt. Comp			
CI-	GRO	DRO	Date
6 in	176	<10	1160
8 in	96	<10	1620
1 ft	48	<10	220
			4/29/2014

Spoil Pile Comp.			
CI-	GRO	DRO	Date
<16	<10	<10	4/24/2014



Area 2 Comp at 1 ft			
CI-	GRO	DRO	Date
<16	<10	<10	4/15/2014

DGW = 79 ft.
Landowner = State

Legend

▲ FINAL SAMPLE POINTS

x PIPE END

SCRAPE @ 2 FT

SCRAPE @ 2 FT

BURIED ELECTRIC

— BURIED PIPELINE

- - - LINEFINDER HIT

— OVERHEAD ELECTRIC LINE

— SURFACE PIPELINE

— ROC BURIED 4 IN POLY LINE

PAD

SCRAPE @ 1 FT

SCRAPE @ 6 IN

x x x QUANTUM BATTERY

PREVIOUSLY SCRAPPED TO 6 IN

KNOWN LINER @ 4 FT

CONCRETE BOX

STAIN (21,941 sq ft)

Source: Esri, Digital

QUANTUM

M STATE CENTRAL TANK BATTERY AD

approved for backfill w/ 1' of clay liner @ TB

RECS

RICE ENVIRONMENTAL

LEGALS: UL/A SEC 30,
UL/D SEC 29, T22S R37E
LEA COUNTY, NM

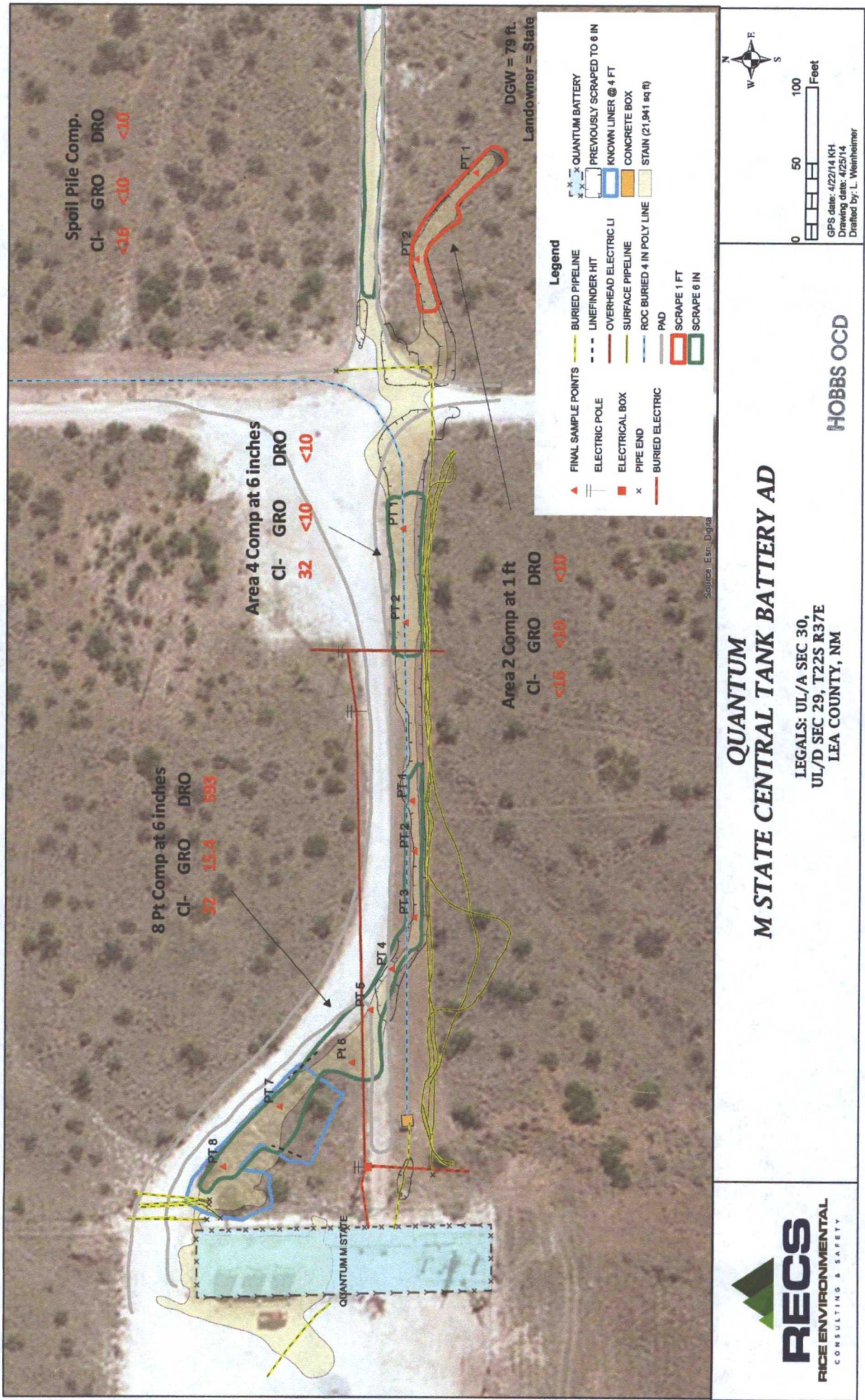
Environmental Specialist

Stacy Selinger

0 50 100
Feet

GPS date: 4/30/14 AR
Drawing date: 5/1/14

Excavation



QUANTUM M STATE CENTRAL TANK BATTERY AD

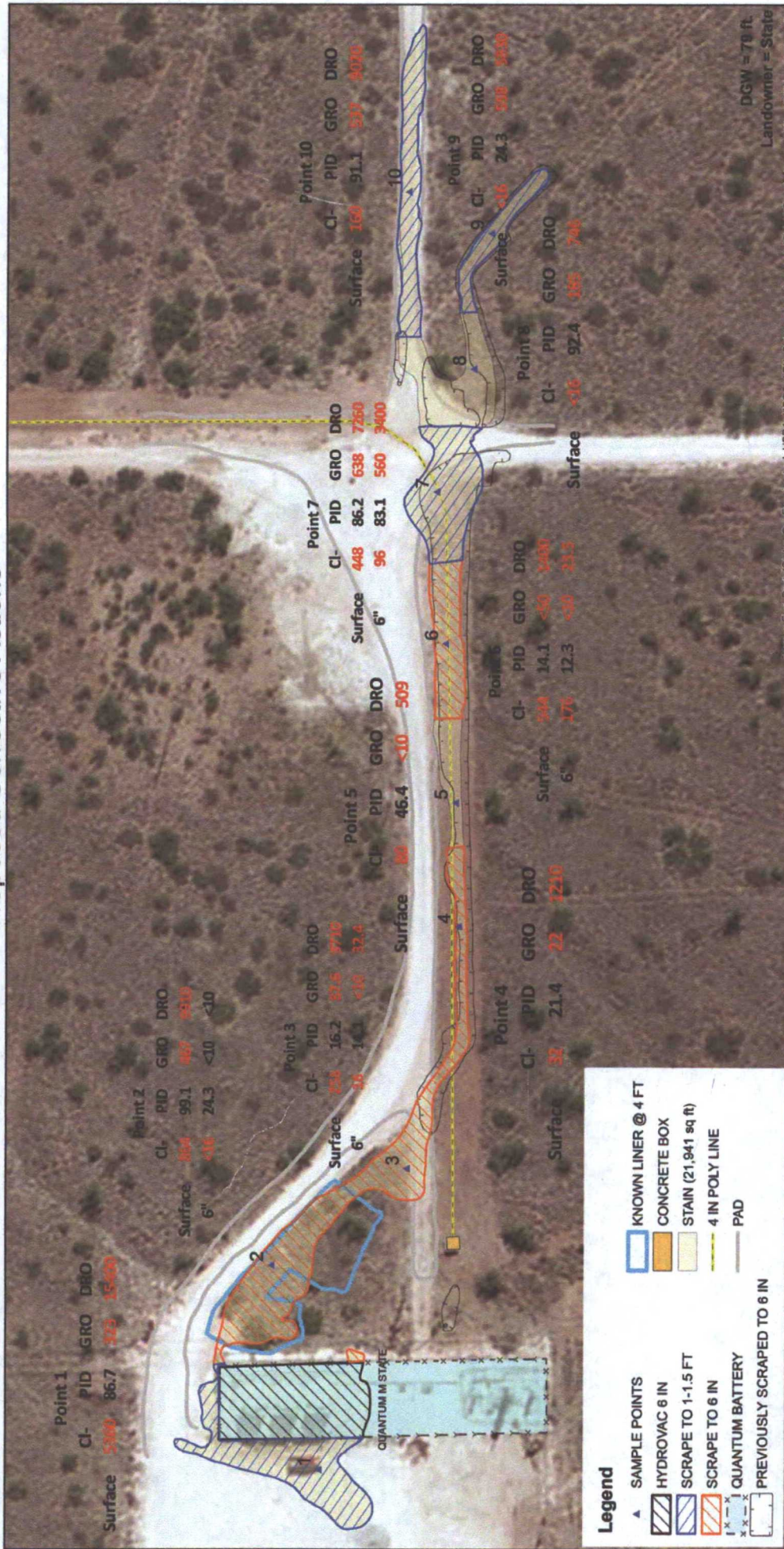
LEGALS: UL/A SEC 30,
 UL/D SEC 29, T22S R37E
 LEA COUNTY, NM

HOBBS OCD

APR 25 2014

RECEIVED

Proposed Corrective Actions



QUANTUM M STATE CENTRAL TANK BATTERY AD

LEGALS: UL/A SEC 30,
 UL/D SEC 29, T22S R37E
 LEA COUNTY, NM

HOBBS OCD

MAY 01 2014



RECEIVED

Excavation Data

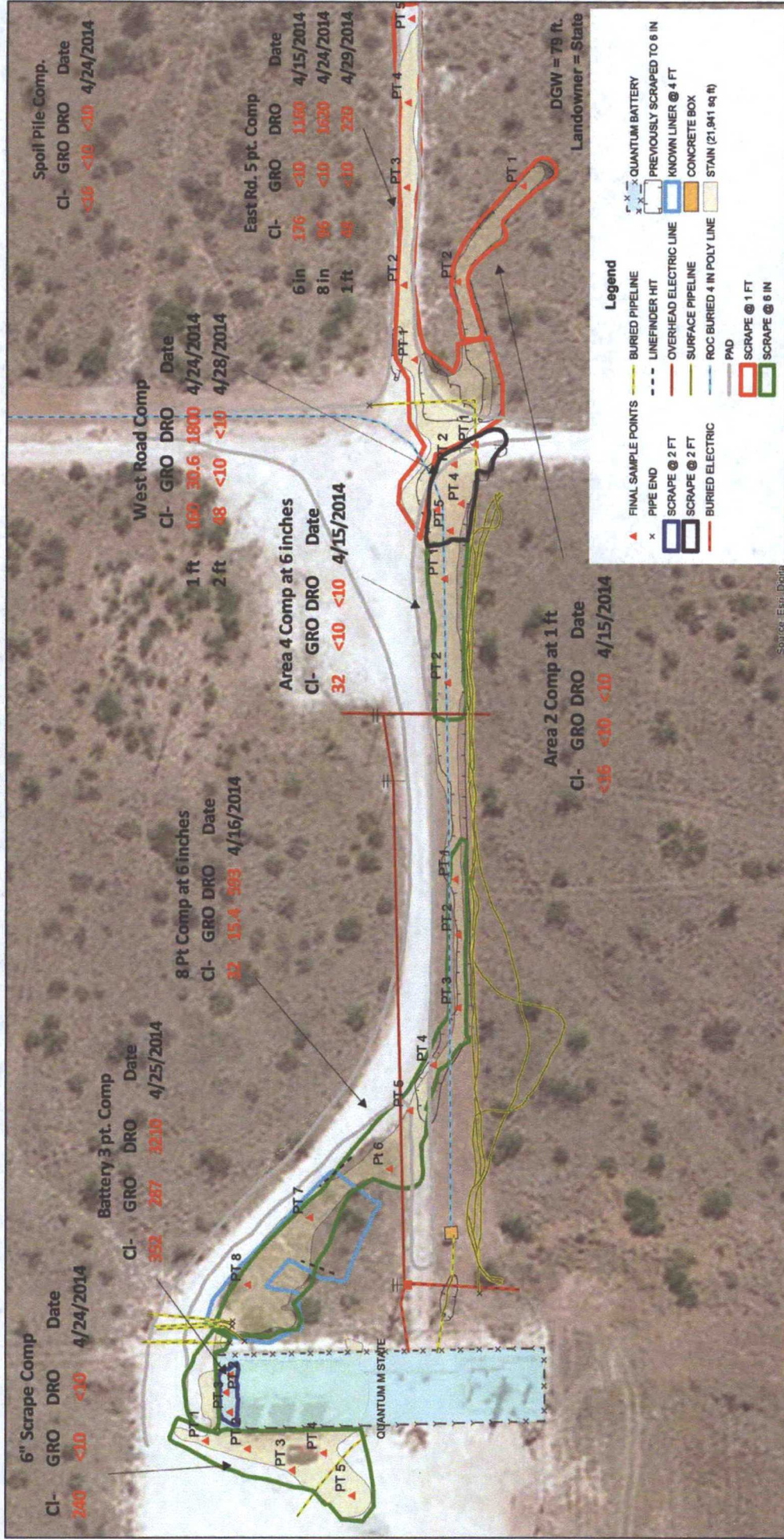


Figure 3

QUANTUM M STATE CENTRAL TANK BATTERY AD

LEGALS: UL/A SEC 30,
UL/D SEC 29, T22S R37E
LEA COUNTY, NM

HOBBS OCD

MAY 01 2014

RECEIVED



GPS date: 4/30/14 AR
 Drawing date: 5/1/14
 Drafted by: L. Weinheimer

May 14, 2014

LAURA FLORES

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: EVGSAU 0546-001

Enclosed are the results of analyses for samples received by the laboratory on 05/13/14 16:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

RICE ENVIRONMENTAL CONSULTING & SAFETY
LAURA FLORES
419 W. CAIN
HOBBS NM, 88240
Fax To: (575) 397-1471

Received: 05/13/2014
Reported: 05/14/2014
Project Name: EVGSAU 0546-001
Project Number: NONE GIVEN
Project Location: CONOCO

Sampling Date: 05/13/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

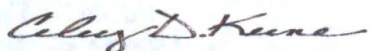
Sample ID: 5 PT. COMP @ 6" (H401450-01)

Chloride, SM4500Cl-B			mg/kg							Analyzed By: AP
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	560	16.0	05/14/2014	ND	416	104	400	0.00		
TPH 8015M			mg/kg							Analyzed By: MS
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/14/2014	ND	194	97.2	200	2.25		
DRO >C10-C28	<10.0	10.0	05/14/2014	ND	211	105	200	2.97		
Surrogate: 1-Chlorooctane	100 %	65.2-140								
Surrogate: 1-Chlorooctadecane	106 %	63.6-154								

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

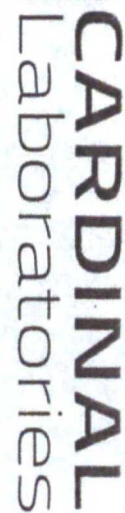
Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

[illegible]