CONOCOPHILLIPS
P.O. Box 2197
Houston, TX 77252-2197
Phone 281.293.1000

Vacuum Glorieta East Unit Well #20
(1RP-3333)

Termination Request

API No. 30-025-37850

Release Date: October 19th, 2013

Unit Letter G, Section 32, Township 17S, Range 35E

RECS
RICE ENVIRONMENTAL
CONSULTING & SAFETY
PO Box 2948 | Hobbs, NM 88241 | Phone 575.393.2967

April 2, 2015

Dr. Tomáš Oberding, PhD
Environmental Specialist – New Mexico Oil Conservation Division
Energy, Minerals and Natural Resources Department
1625 N. French Dr.
Hobbs, NM 88240

RE: **Termination Request**
ConocoPhillips Vacuum Glorieta East Unit Well #20 (1RP-3333)
UL/G sec. 32 T17S R35E
API No. 30-025-37850

Dr. Oberding:

ConocoPhillips (CoP) 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 1.5 miles southeast of Buckeye, New Mexico at UL/G sec. 32 T17S R35E. NM OSE and BLM records indicate that groundwater will likely be encountered at a depth of approximately 87 +/- feet.

On October 19th, 2013, CoP discovered that a flow line had corroded resulting in a pin hole, which released 12 barrels of fluid. The well was shut in, the line was repaired and a vacuum truck was called to the site. Five barrels of the released fluid were recovered. NMOCD was notified of the release on October 21st, 2013, and an initial C-141 was sent to NMOCD for their approval. NMOCD approved the initial C-141 on September 16th, 2014 (Appendix A).

RECS personnel were on site to assess the release on December 9th, 2013. The release was mapped and photographed. On September 4th, 2014, verticals were installed at three points within the release (Figure 1). Vertical 1 was installed to a depth of 3 ft bgs, Vertical 2 was installed to a depth of 5.5 ft bgs and Vertical 3 was installed to a depth of 6 ft bgs. Samples were collected every 6 inches at each vertical and field tested for chlorides and organic vapors. Representative samples from each vertical were sent to a commercial laboratory for analysis. At 3 ft bgs, Vertical 1 returned laboratory chloride, Gasoline Range Organics (GRO) and Diesel Range Organics (DRO) values below regulatory standards. At 5.5 ft bgs, Vertical 2 returned laboratory chloride, GRO and DRO values below regulatory standards, while Vertical 3 returned laboratory chloride, GRO and DRO values below regulatory standards at 6 ft bgs (Appendix B).

Based on the laboratory analysis, a Corrective Action Plan (CAP) was submitted to NMOCD on September 25th, 2014. NMOCD approved the CAP the same day. The CAP stated that the area around Vertical 1 would be excavated down to 3 ft bgs. Once the excavation was completed, a 5 point bottom composite would be taken and field tested for chlorides and organic vapors. If the field data indicated that the bottom composite would not achieve laboratory chloride, GRO and DRO numbers below regulatory standards, a 20-mil reinforced poly liner would be installed and properly seated into the base of the excavation. If the field data did indicate that the bottom composite would achieve laboratory chloride, GRO and DRO numbers below regulatory standards, the bottom composite would be taken to a commercial laboratory for analysis. Once the laboratory analysis confirmed that the bottom composite achieved laboratory chloride, GRO and DRO numbers below regulatory standards, the excavation would be backfilled with clean soil.

The area around Vertical 2 and 3 showed elevated chloride readings with depth. Given the difficulty of excavating through the hard substrate at the site, the area around Vertical 2 and 3 would be excavated to a depth of 3 ft bgs. At the base of the excavation, a 20-mil reinforced poly liner would be installed and properly seated. The excavation would then be backfilled with clean soil.

There is a buried CoP line running through the center of the release. To provide for the safety of people and equipment at the site, both excavations would remain 5 ft away from this line. All 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. A sample of the imported soil would be taken to a commercial laboratory to confirm that the chloride reading was below regulatory standards. The excavations would be backfilled and contoured to the surrounding location. The disturbed area would then be seeded with a blend of native vegetation.

Corrective Actions began at the site on October 13th, 2014. The release was excavated in three portions to 3 ft bgs (Figure 2). All excavated soil, for a total of 1,245 cubic yards, was taken to a NMOCD approved facility for disposal. A total of 1,342 cubic yards of top soil was imported to the site to pad the liners and to serve as backfill. A sample of the imported soil was taken to a commercial laboratory for analysis and returned a chloride value of non-detect (Appendix C). The bottoms of the north excavation and the north excavation (2) were padded with 6 inches of the imported top soil to protect the liners from punctures. 20-mil reinforced poly liners were then installed and properly seated into the base of both excavations.

A 5 point bottom composite of the south excavation was taken to a commercial laboratory for analysis. The bottom composite returned a laboratory chloride reading of 192 mg/kg with GRO and DRO readings of non-detect. On October 29th, 2014, a request was sent to NMOCD with the excavation data and a request to backfill the site. NMOCD approved the site to be backfilled the same day. All three excavations were backfilled with the imported top soil and contoured to the surrounding location. On November 7th, 2014, the disturbed area was seeded with BLM mix #2.

Photo documentation of all field activities can be found in Appendix D.

Given that the site was remediated per the NMOCD approved CAP, CoP respectfully requests 'remediation termination' and site closure. A final C-141 can be found in Appendix E.

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,

Lara Weinheimer
Project Scientist
RECS
(575) 441-0431

Attachments:
Figure 1– Vertical Data and Proposed Corrective Actions
Figure 2 – Excavation Data
Appendix A – Initial C-141
Appendix B – Vertical Sampling Lab
Appendix C – Corrective Action Labs
Appendix D – Photo Documentation
Appendix E – Final C-141

Figures

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948, Hobbs, NM 88241
Phone 575.393.2967

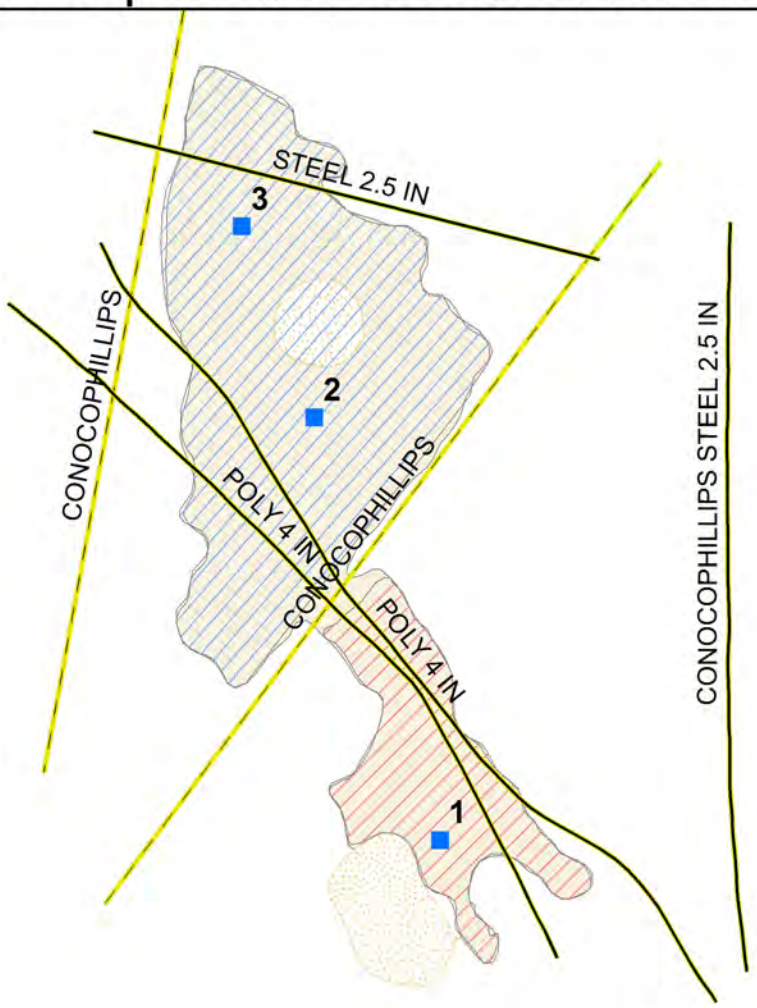
Vertical Data and Proposed Corrective Actions

VERTICAL 1

	Cl-	PID	GRO	DRO
Surface	3200	16.8	331	38300
6"	2692	42.7		
1'	3079	25.9		
1.5'	4440	21.5	<50	185
2'	825	20.3		
2.5'	1525	20.5		
3'	224	4.3	<10	65.2

VERTICAL 2

	Cl-	PID	GRO	DRO
Surface	21000	8.7	<10	<10
6"	13075	5.5		
1'	4089	7.6		
1.5'	4076	13.5		
2'	2936	1.6		
2.5'	3821	1.4		
3'	5300	1.2		
3.5'	5309	8.4		
4'	4109	0		
4.5'	5625	0.1		
5'	6080	0.6	<10	<10
5.5'	432	0.4	<10	<10



VERTICAL 3

	Cl-	PID	GRO	DRO
Surface	22400	4.4	<10	445
6"	9115	0		
1'	7933	1.1		
1.5'	4800	11.6		
2'	3548	3.3		
2.5'	2984	2.5		
3'	1020	5.7		
3.5'	1323	2.9		
4'	2552	0.1		
4.5'	2016	0.2		
5'	1656	0.9		
5.5'	2162	0.6		
6'	192	0.5	<10	<10

Legend

- VERTICAL
- BURIED PIPELINE
- SURFACE PIPELINE
- PROPOSED 20-MIL POLY LINER AT 3 FT BGS
- PROPOSED EXCAVATION TO 3 FT BGS WITH POSSIBLE LINER
- SPOIL PILE
- STAIN (9,779 sq ft)

Cl- FIELD DATA

Cl- LAB DATA

LANDOWNER: STATE
DGW: 87 ft

RECS
RICE ENVIRONMENTAL
CONSULTING & SAFETY

CONOCOPHILLIPS
VACUUM GLORIETA
EAST UNIT WELL #20

LEGALS: UL/G sec. 32
T-17-S R-35-E
LEA COUNTY, NM

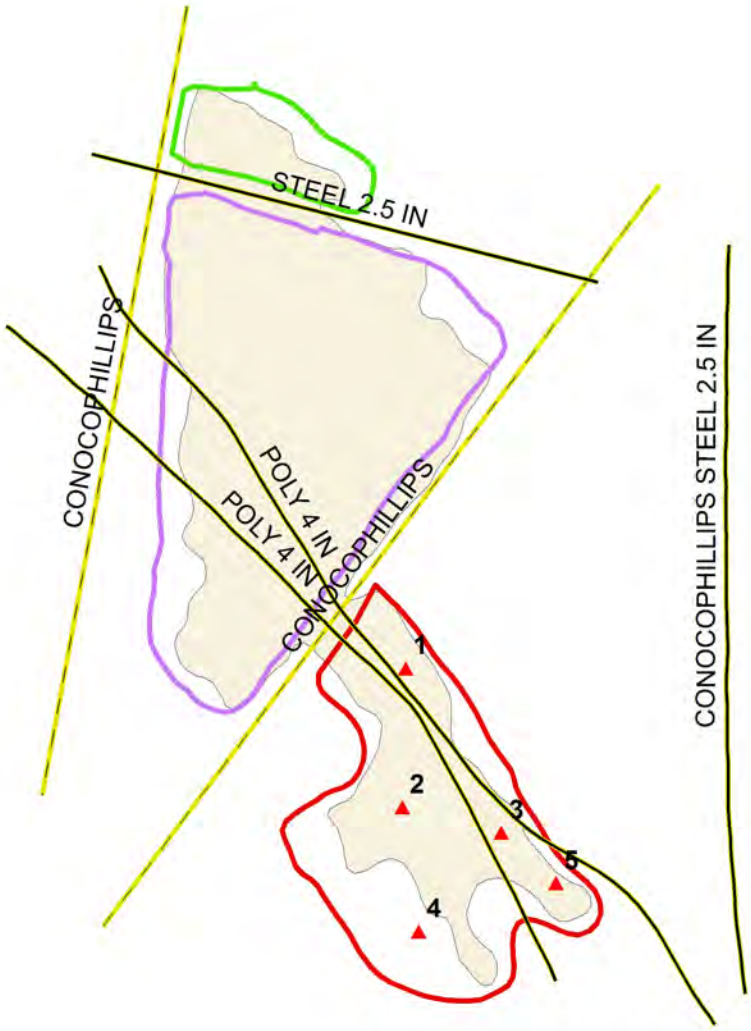
Figure 1

N W E S

0 30 60
Feet

GPS date: 12/9/13 & 9/3,8/14 CF
Drawing date: 9/10/14
Drafted by: L. Weinheimer

Excavation Data



5 PT. BOTTOM COMP.

	Cl-	GRO	DRO
3'	192	<10	<10

Legend

- FINAL SAMPLE POINTS
- BURIED PIPELINE
- SURFACE PIPELINE
- NORTH EXCAVATION (2) AT 3 FT
- SOUTH EXCAVATION AT 3 FT
- NORTH EXCAVATION AT 3 FT
- STAIN (9,779 sq ft)

Cl- FIELD DATA
Cl- LAB DATA

LANDOWNER: STATE
DGW: 87 ft

RECS
RICE ENVIRONMENTAL
CONSULTING & SAFETY

CONOCOPHILLIPS
VACUUM GLORIETA
EAST UNIT WELL #20

LEGALS: UL/G sec. 32
T-17-S R-35-E
LEA COUNTY, NM

Figure 2

N
W E
S

0 30 60
Feet

GPS date: 12/9/13 & 9/3,8/14 CF
Drawing date: 10/30/14
Drafted by: L. Weinheimer

Appendix A
Initial C-141

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

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: **ConocoPhillips**	Contact: **David May**
Address: **29 Vacuum Complex Lane**	Telephone No. **575-391-3106**
Facility Name: **Vacuum Glorieta East Unit well #020**	Facility Type: **Oil well**

Surface Owner: State	Mineral Owner BLM	API No.3002537850

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	32	17S	35E	1353	North	2260	East	**LEA**

Latitude 32.7950368559814 **Longitude -103.478661562816**

NATURE OF RELEASE

Type of Release: **Spill**	Volume of Release: 12 BBLS	Volume Recovered: 5 BBLS
Source of Release: 2 inch flow line	Date and Hour of Occurrence **10/19/13 9:15 am**	Date and Hour of Discovery **SAME**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Geoffrey Leking**	
By Whom? **David May**	Date and Hour: **10/21/13 12:00 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.*
Release was caused by pin hole in Flow line due to external corrosion. MSO Shut in well and isolated flow line until repairs can be made

Describe Area Affected and Cleanup Action Taken.*
Affected area was 60 feet X 120 feet. Spill will be remediated in place according to NMOCD requirements.

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.

Signature:

Printed Name: David May

Title: LEAD HSE

E-mail Address: ***david.d.may@conocophillips.com***

Date: 10/21/13 Phone:575-391-3106

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 9.16.14 Expiration Date: 11.16.14

Conditions of Approval:
Site Supervisor report
Release & remediation work per
NMOCD guidelines. Submit final
C141 by 11.16.14

Attached ☐

IRP-3333
ogrid 217817
n-T019 28 056146
p-T019 28 056325

* Attach Additional Sheets If Necessary

SEP 19 2014

Appendix B
Vertical Sampling Lab

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

CARDINAL Laboratories

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

September 10, 2014

LAURA FLORES

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: VGEU WELL #020

Enclosed are the results of analyses for samples received by the laboratory on 09/09/14 8:15.

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 accreditated 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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2014	Sampling Date:	09/08/2014
Reported:	09/10/2014	Sampling Type:	Soil
Project Name:	VGEU WELL #020	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	COP		

Sample ID: VERTICAL 1 @ SURFACE (H402787-01)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3200**	16.0	09/09/2014	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: ms S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	**331**	200	09/09/2014	ND	168	84.0	200	4.11	
DRO >C10-C28	**38300**	200	09/09/2014	ND	186	92.9	200	2.47	

Surrogate: 1-Chlorooctane	*167 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*1550 %*	*63.6-154*

Sample ID: VERTICAL 1 @ 1.5' (H402787-02)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**4440**	16.0	09/09/2014	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	<50.0	50.0	09/09/2014	ND	168	84.0	200	4.11	
DRO >C10-C28	**185**	50.0	09/09/2014	ND	186	92.9	200	2.47	

Surrogate: 1-Chlorooctane	*99.2 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*118 %*	*63.6-154*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2014	Sampling Date:	09/08/2014
Reported:	09/10/2014	Sampling Type:	Soil
Project Name:	VGEU WELL #020	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	COP		

Sample ID: VERTICAL 1 @ 3' (H402787-03)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	09/09/2014	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	09/09/2014	ND	168	84.0	200	4.11	
DRO >C10-C28	**65.2**	10.0	09/09/2014	ND	186	92.9	200	2.47	

Surrogate: 1-Chlorooctane	*94.1 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*96.3 %*	*63.6-154*

Sample ID: VERTICAL 2 @ SURFACE (H402787-04)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**21000**	16.0	09/09/2014	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	09/09/2014	ND	168	84.0	200	4.11	
DRO >C10-C28	<10.0	10.0	09/09/2014	ND	186	92.9	200	2.47	

Surrogate: 1-Chlorooctane	*84.8 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*97.1 %*	*63.6-154*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2014	Sampling Date:	09/08/2014
Reported:	09/10/2014	Sampling Type:	Soil
Project Name:	VGEU WELL #020	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	COP		

Sample ID: VERTICAL 2 @ 5' (H402787-05)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6080**	16.0	09/09/2014	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	09/09/2014	ND	168	84.0	200	4.11	
DRO >C10-C28	<10.0	10.0	09/09/2014	ND	186	92.9	200	2.47	

Surrogate: 1-Chlorooctane	*89.2 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*95.2 %*	*63.6-154*

Sample ID: VERTICAL 2 @ 5.5' (H402787-06)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**432**	16.0	09/09/2014	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	09/09/2014	ND	168	84.0	200	4.11	
DRO >C10-C28	<10.0	10.0	09/09/2014	ND	186	92.9	200	2.47	

Surrogate: 1-Chlorooctane	*88.4 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*100 %*	*63.6-154*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/09/2014	Sampling Date:	09/08/2014
Reported:	09/10/2014	Sampling Type:	Soil
Project Name:	VGEU WELL #020	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	COP		

Sample ID: VERTICAL 3 @ SURFACE (H402787-07)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**22400**	16.0	09/09/2014	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	09/09/2014	ND	168	84.0	200	4.11	
DRO >C10-C28	**445**	10.0	09/09/2014	ND	186	92.9	200	2.47	

Surrogate: 1-Chlorooctane	*87.4 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*108 %*	*63.6-154*

Sample ID: VERTICAL 3 @ 6' (H402787-08)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	09/09/2014	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	09/09/2014	ND	168	84.0	200	4.11	
DRO >C10-C28	<10.0	10.0	09/09/2014	ND	186	92.9	200	2.47	

Surrogate: 1-Chlorooctane	*96.1 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*97.0 %*	*63.6-154*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
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

Celey D. Keene, Lab Director/Quality Manager

* RUSH *

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name: RECS	BILL TO
Project Manager: Laura Flores, Kyle Norman	P.O. #:
Address:	Company:
City: Hobbs State: NM Zip: 88240	Attn:
Phone #: Fax #:	Address:
Project #: Project Owner:	City:
Project Name: CoP	State: Zip:
Project Location: VGEU Well #020	Phone #:
Sampler Name: Chris Flores	Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS
H402787																				
1	Vertical 1 @ Surface	G	1			✓					✓		9-8-2014	10:46 AM	X	X				
2	Vertical 1 @ 1.5'	G	1			✓					✓			10:55 AM	X	X				
3	Vertical 1 @ 3'	G	1			✓					✓			11:10 AM	X	X				
4	Vertical 2 @ Surface	G	1			✓					✓			11:20 AM	X	X				
5	Vertical 2 @ 5'	G	1			✓					✓			1:45 PM	X	X				
6	Vertical 2 @ 5.5'	G	1			✓					✓			1:50 PM	X	X				
7	Vertical 3 @ Surface	G	1			✓					✓			2:40 PM	X	X				
8	Vertical 3 @ 6'	G	1			✓					✓			3:40 PM	X	X				

Relinquished By:	Date: 9-9-2014	Received By: Jodi Henson	
Relinquished By:	Time: 8:15	Received By:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Date: Time:	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials)

Phone Result: ☐ Yes ☑ No Add'l Phone #:
Fax Result: ☐ Yes ☑ No Add'l Fax #:
REMARKS:

email: hconder@riceswd.com; lflores@rice-ecs.com; lweinheimer@rice-ecs.com; knorman@rice-ecs.com; jkamplain@rice-ecs.com; sedwards@rice-ecs.com; cursanic@rice-ecs.com
Environmental Tech: cflores@rice-ecs.com

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#54

Appendix C
Corrective Action Labs

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

CARDINAL Laboratories

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

October 29, 2014

LAURA FLORES

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: VGEU WELL #020

Enclosed are the results of analyses for samples received by the laboratory on 10/28/14 15:25.

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 accreditated 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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/28/2014	Sampling Date:	10/28/2014
Reported:	10/29/2014	Sampling Type:	Soil
Project Name:	VGEU WELL #020	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	COP		

Sample ID: 5 PT. BOTTOM COMP @ 3' (H403312-01)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	10/28/2014	ND	400	100	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	10/28/2014	ND	176	87.9	200	0.451	
DRO >C10-C28	<10.0	10.0	10/28/2014	ND	196	98.0	200	3.25	

Surrogate: 1-Chlorooctane	*77.0 %*	*47.2-157*
Surrogate: 1-Chlorooctadecane	*94.0 %*	*52.1-176*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Celey D. Keene, Lab Director/Quality Manager

Rush

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

		BILL TO	
Company Name:	RECS	P.O. #:	
Project Manager:	Laura Flores / Kyle Norman	Company:	
Address:	419 W Cain	Attn:	
City:	Hobbs State: NM Zip: 88240	Address:	
Phone #:	Fax #:	City:	
Project #:	Project Owner:	State: Zip:	
Project Name:	CoP	Phone #:	
Project Location:	UGEU Well #20	Fax #:	
Sampler Name:	Chris Flores		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS					
H403312																								
1	5 Point Bottom Composite @ 3'	C	1			✓					✓		10/28/2014	3:00 pm	X	X									

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 the client for the 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 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 10-28-2014 Time: 3:25	Received By:	
Relinquished By:	Date: Time:	Received By:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	3.4°C	Sample Condition Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No	CHECKED BY: (Initials)

Phone Result: ☐ Yes ☑ No Add'l Phone #:
Fax Result: ☐ Yes ☑ No Add'l Fax #:
REMARKS: Kyle 942-8542
email results: hconder@rice-ecs.com; knorman@rice-ecs.com; jkamplain@rice-ecs.com; regans@rice-ecs.com; lflores@rice-ecs.com; lweinheimer@rice-ecs.com; cursanic@rice-ecs.com
environmental tech: cflores @rice-ecs.com

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#54

CARDINAL Laboratories

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

November 03, 2014

LAURA FLORES

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: VGEU WELL #020

Enclosed are the results of analyses for samples received by the laboratory on 10/30/14 16:08.

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 accreditated 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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	10/30/2014	Sampling Date:	10/29/2014
Reported:	11/03/2014	Sampling Type:	Soil
Project Name:	VGEU WELL #020	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	COP		

Sample ID: IMPORTED TOP SOIL (H403361-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/31/2014	ND	400	100	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: RECS	**BILL TO**
Project Manager: Laura Flores / Kyle Norman	P.O. #:
Address: 419 W Cain	Company:
City: Hobbs State: NM Zip: 88240	Attn:
Phone #: Fax #:	Address:
Project #: Project Owner:	City:
Project Name: Conoco Phillips	State: Zip:
Project Location: UGEU Well #20	Phone #:
Sampler Name: Chris Flores	Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS
H40336-1	Imported Top Soil	C	1			✓					✓		10-29-14	10:30AM	X					

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 the client for the 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 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 10-29-2014 Time: 4:00	Received By:	
Relinquished By:	Date: Time:	Received By:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4.8°	Sample Condition Cool: ☑ Yes ☐ No Intact: ☐ Yes ☐ No	CHECKED BY: (Initials)	

Phone Result: ☐ Yes ☑ No Add'l Phone #:
Fax Result: ☐ Yes ☑ No Add'l Fax #:
REMARKS:

email results:
hconder@rice-ecs.com; knorman@rice-ecs.com;
jkamplain@rice-ecs.com; regans@rice-ecs.com; lflores@rice-ecs.com;
lweinheimer@rice-ecs.com; cursanic@rice-ecs.com
environmental tech: lflores @rice-ecs.com

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

Appendix D
Photo Documentation

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

ConocoPhillips Vacuum Glorieta East Unit Well #20

Unit Letter G, Section 32, T17S, R35E

Initial site photo, facing west 12/9/13

Initial site photo, facing south 12/9/13

Initial site photo, facing east 12/9/13

Initial site photo, facing southeast 12/9/13

Sampling release, facing south 12/9/13

Auguring for depth, facing east 12/9/13

Installing verticals, facing northwest 9/8/14

Excavating to 3 ft bgs, facing northwest 10/14/14

Exporting soil, facing northwest 10/20/14

North excavation completed, facing northeast 10/28/14

Excavating to 3 ft in the south, facing northwest 10/28/14

North excavation (2) completed, facing northeast 10/29/14

Importing top soil to pad for liner, facing north 10/29/14

Padding north excavation for liner installation, facing northeast 10/29/14

North excavation padded with imported soil and installing liner, facing southeast 10/29/14

Liner installation completed, facing southwest 10/29/14

Padding north excavation (2) for liner installation, facing east 10/29/14

Liner installation in north excavation (2) completed and begin backfilling, facing southwest 10/29/14

South excavation completed, facing northwest 10/29/14

Backfilling the north excavation, facing north 10/30/14

Importing soil, facing east 10/30/14

North excavation backfilled, facing northeast 11/6/14

Backfilling south excavation, facing northeast 11/7/14

Site backfilled, facing southeast 11/7/14

Site backfilled, facing northwest 11/7/14

Seeding site, facing southeast 11/7/14

Site completed, facing southeast 11/7/14

Site completed, facing northeast 11/7/14

Appendix E
Final C-141

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

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 ConocoPhillips	Contact
Address 29 Vacuum Complex Lane	Telephone No.
Facility Name Vacuum Glorieta East Unit well #020	Facility Type Oil well

Surface Owner State	Mineral Owner BLM	API No. 3002537850

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	32	17S	35E	1353	North	2260	East	Lea

Latitude 32.7950368559814 **Longitude** -103.478661562816

NATURE OF RELEASE

Type of Release Spill	Volume of Release 12 BBLS	Volume Recovered 5 BBLS
Source of Release 2 inch flow line	Date and Hour of Occurrence 10/19/13 9:15 am	Date and Hour of Discovery SAME
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Geoffrey Leking	
By Whom? David May	Date and Hour 10/21/13 12:00 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.*
Release was caused by pin hole in Flow line due to external corrosion. MOS Shut in well and isolated flow line until repairs could be made.

Describe Area Affected and Cleanup Action Taken.* The release covered 9,779 square feet of pasture land. RECS personnel were on site beginning on September 4th, 2014 to assess the release. Three vertical were installed within the release area at the surface and with depth. Representative samples from the 3 verticals were taken to a commercial laboratory for analysis. Based on the laboratory analysis, a CAP was submitted to NMOCD on September 25th, 2014. NMOCD approved the CAP the same day. Corrective Actions began at the site on October 13th, 2014. The release was excavated in three portions to 3 ft bgs. All excavated soil, for a total of 1,245 cubic yards, was taken to a NMOCD approved facility for disposal. A total of 1,342 cubic yards of top soil was imported to the site to pad the liners and to serve as backfill. A sample of the imported soil was taken to a commercial laboratory for analysis and returned a chloride value of non-detect. The bottoms of the north excavation and the north excavation (2) were padded with 6 inches of the imported top soil to protect the liners from punctures. 20-mil reinforced poly liners were then installed and properly seated into the base of both excavations. A 5 point bottom composite of the south excavation was taken to a commercial laboratory for analysis. The bottom composite returned a laboratory chloride reading of 192 mg/kg with GRO and DRO readings of non-detect. On October 29th, 2014, a request was sent to NMOCD with the excavation data and a request to backfill the site. NMOCD approved the site to be backfilled the same day. All three excavations were backfilled with the imported top soil and contoured to the surrounding location. On November 7th, 2014, the disturbed area was seeded with BLM mix #2.

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.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Sean Robertson	Approved by Environmental Specialist:
Title: Operations Supervisor	Approval Date: / Expiration Date:
E-mail Address: strobin@cop.com	Conditions of Approval: / Attached ☐
Date: 2-27-15 Phone: 575 391 3147	

* Attach Additional Sheets If Necessary