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

Vac Abo Battery #03

(1RP-3555)

Corrective Action Plan

API No. 30-025-26521

Release Date: March 3rd, 2015

Unit Letter L, Section 34, Township 17S, Range 35E

PO Box 2948 | Hobbs, NM 88241 | Phone 575.393.2967

February 19, 2016

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

RE: **Corrective Action Plan**
ConocoPhillips Vac Abo Battery #03 (1RP-3555)
UL/L sec. 34 T17S R35E
API No. 30-025-26521

Mr. Keyes:

ConocoPhillips (CoP) has retained Basin Environmental Service Technologies (Basin) to address potential environmental concerns at the above-referenced site.

Background and Previous Work

The site is located approximately 3.4 miles east south east of Buckeye, New Mexico at UL/L sec. 34 T17S R35E. NM OSE and Basin installed monitor well records indicate that groundwater will likely be encountered at a depth of approximately 71 +/- feet.

On March 3, 2015, CoP was notified that a tank was overflowing. A total of ~34 barrels of oil and ~2,240 barrels of produced water was released over ~50,000 sq ft of caliche pad and pasture land. 28 barrels of oil and 1,837 barrels of produced water were recovered. NMOCD was notified of the release on March 4, 2015, and an initial C-141 was submitted same day. NMOCD approved the initial C-141 on March 5th, 2015 (Appendix A).

Basin personnel were on site to assess the release March 4, 2015. The release was mapped and photographed (Figure 1). Previous sampling determined that further delineation was needed. On February 9, 2016, four Verticals were installed and soil samples were taken at regular intervals with depth representative samples from the verticals were taken to a commercial laboratory for analysis (Appendix B). Then on February 11, 2016 two soil bores were installed and soil samples were taken at regular intervals and taken with depth, representative samples from the Soil Bores were taken to a commercial laboratory for analysis (Appendix C).

Photo Documentation of these activities may be found in Appendix F.

Corrective Action Plan

Based on the laboratory analysis, the area around Soil Bores 1 and 2 and Verticals 1 and 2 will be excavated to a depth of 2.5 ft bgs. At the base of the excavation, a 20-mil reinforced poly liner will be installed and properly seated. The excavation will then be backfilled with clean soil. The area around Verticals 3 and 4 will be excavated to a depth of 1 ft. bgs and backfilled with clean soil (Figure 2). Any impact within the lease pad area will be in the facility cleanup upon abandonment.

There are buried lines running throughout the release. To provide for the safety of people and equipment at the site, both excavations will remain 5 ft away from the buried lines.

Also, to determine if the residual chloride in the vadose zone pose a threat to groundwater quality, Basin ran the U.S. Environmental Protection Agency Exposure Assessment Multimedia Model (MULTIMED Version 1.5, 2005) (Appendix D). The model prediction concludes that the peak concentration of chloride in groundwater contributed by the vadose zone soils would be approximately 125 mg/L in 232 years. Since the predicted increase in chloride concentrations in groundwater from residual chloride migration is below the WQCC standard of 250 mg/L using a liner at the site, Basin recommends proceeding with the proposed CAP.

All excavated soil will be taken to a NMOCD approved facility for disposal. Clean soil will be imported to the site to serve as backfill. A sample of the backfill soil will be taken to a commercial laboratory to confirm that the chloride reading is below regulatory standards. The lease pad will be backfilled with clean, imported caliche and the pasture will be backfilled with clean, imported top soil. The site will be contoured to the surrounding location. The pasture area will be seeded with a blend of native vegetation.

Once these activities have been completed, a report will be sent to NMOCD requesting 'remediation termination' and site closure.

Basin appreciates the opportunity to work with you on this project. Please contact me if you have any questions or wish to discuss the site.

Sincerely,

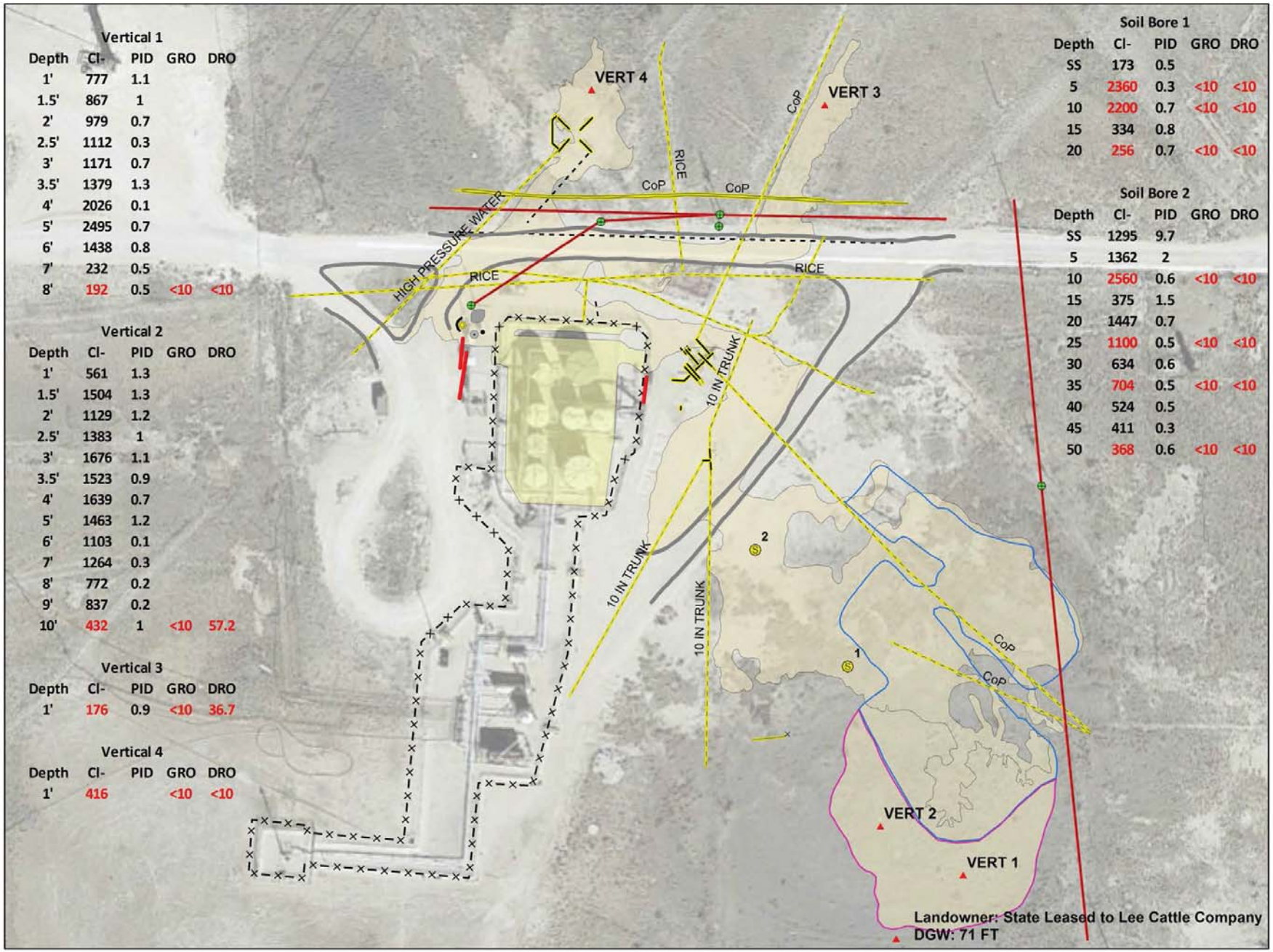
Kyle Norman
Project Lead
Basin Environmental Service Technologies
(575) 942-8542

Attachments:

Figure 1 – Vertical and Soil Bore Sampling Data
Figure 2 – Proposed Excavation and Liner Installation
Appendix A – Initial C-141
Appendix B – Vertical Laboratory Analysis
Appendix C – Soil Bore Installation Documentation & Laboratory Analysis
Appendix D – EPA Exposure Assessment Multimedia Model
Appendix F – Photo Documentation

Figures

Basin Environmental Service Technologies, LLC
P.O. Box 2948, Hobbs, NM 88241
Phone 575.393.2967



Vertical 1

Depth	Cl-	PID	GRO	DRO
1'	777	1.1		
1.5'	867	1		
2'	979	0.7		
2.5'	1112	0.3		
3'	1171	0.7		
3.5'	1379	1.3		
4'	2026	0.1		
5'	2495	0.7		
6'	1438	0.8		
7'	232	0.5		
8'	192	0.5	<10	<10

Vertical 2

Depth	Cl-	PID	GRO	DRO
1'	561	1.3		
1.5'	1504	1.3		
2'	1129	1.2		
2.5'	1383	1		
3'	1676	1.1		
3.5'	1523	0.9		
4'	1639	0.7		
5'	1463	1.2		
6'	1103	0.1		
7'	1264	0.3		
8'	772	0.2		
9'	837	0.2		
10'	432	1	<10	57.2

Vertical 3

Depth	Cl-	PID	GRO	DRO
1'	176	0.9	<10	36.7

Vertical 4

Depth	Cl-	PID	GRO	DRO
1'	416		<10	<10

Soil Bore 1

Depth	Cl-	PID	GRO	DRO
SS	173	0.5		
5	2360	0.3	<10	<10
10	2200	0.7	<10	<10
15	334	0.8		
20	256	0.7	<10	<10

Soil Bore 2

Depth	Cl-	PID	GRO	DRO
SS	1295	9.7		
5	1362	2		
10	2560	0.6	<10	<10
15	375	1.5		
20	1447	0.7		
25	1100	0.5	<10	<10
30	634	0.6		
35	704	0.5	<10	<10
40	524	0.5		
45	411	0.3		
50	368	0.6	<10	<10

Basin Environmental Service Technologies
Effective Solutions

CONOCOPHILLIPS VACUUM ABO BATTERY #3

1RP-3555

UL K,L,M & N SECTION 34
T-17-S R-35-E
LEA COUNTY, NM

Legend

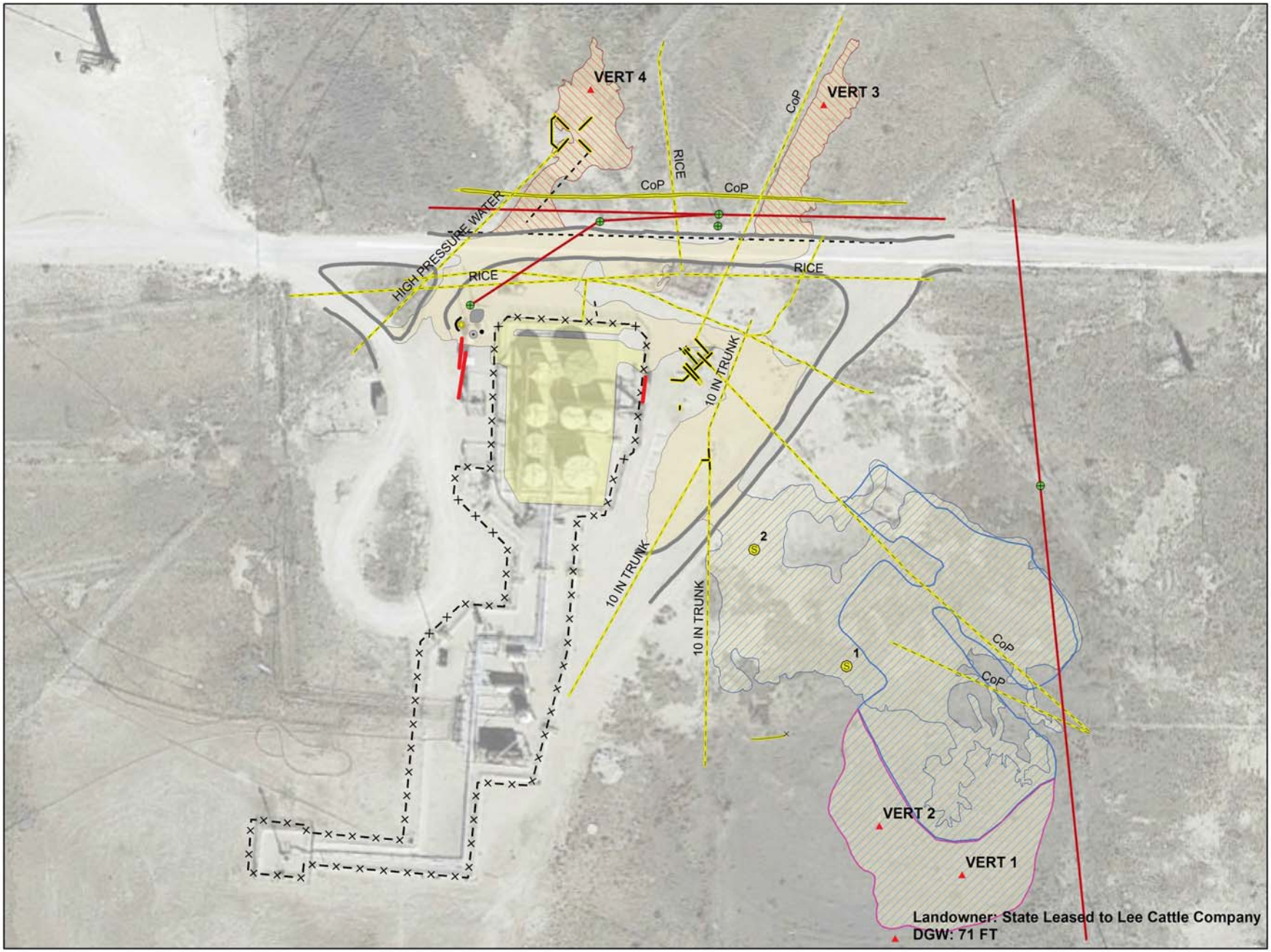
- SOIL BORE
- VERTICAL POINT
- COMUNICATION DISH
- LIGHT POLE
- POLE @ 4 FT
- ELECTRIC POLE
- PIPE END
- BARRIER
- ELECTRICAL BOX
- BATTERY FENCE
- BURIED PIPELINE
- OVERHEAD ELECTRIC LINE
- PAD/ROAD EDGE
- RISER
- SURFACE PIPELINE
- PAINT MARKED LINE
- EXCAVATION 1 FT
- EXCAVATION 6 IN
- CONCRETE PAD
- OIL STAIN INSIDE BATTERY FENCE - 8,345 SQ FT
- OIL STAIN OUTSIDE BATTERY FENCE - 63,563 SQ FT

Figure 1

0 50 100 Feet

N W E S

GPS date: 3/4/15 TG & KS, 6/10/15 KS
Drawing date: 2/18/16
Drafted by: T. Grieco, B. Cooper



Basin Environmental
Effective Solutions
Service Technologies

CONOCOPHILLIPS VACUUM ABO BATTERY #3

1RP-3555

UL K,L,M & N SECTION 34
T-17-S R-35-E
LEA COUNTY, NM

Legend

- SOIL BORE
- VERTICAL POINT
- COMUNICATION DISH
- LIGHT POLE
- POLE @ 4 FT
- ELECTRIC POLE
- PIPE END
- BARRIER
- ELECTRICAL BOX
- BATTERY FENCE
- BURIED PIPELINE
- OVERHEAD ELECTRIC LINE
- PAD/ROAD EDGE
- RISER
- SURFACE PIPELINE
- PAINT MARKED LINE
- EXCAVATION 1 FT
- EXCAVATION 6 IN
- CONCRETE PAD
- OIL STAIN INSIDE BATTERY FENCE - 8,345 SQ FT
- OIL STAIN OUTSIDE BATTERY FENCE - 63,563 SQ FT
- EXCAVATION @ 1 FT
- EXCAVATION @ 2.5 FT WITH 20 MIL REINFORCED POLY LINER

Figure 2

0 50 100 Feet

N W E S

GPS date: 3/4/15 TG & KS, 6/10/15 KS
Drawing date: 2/18/16
Drafted by: T. Grieco, B. Cooper

Appendix A
Intial C-141

Basin Environmental Service Technologies, LLC
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: **Jay Garcia**
Address: **29 Vacuum Complex Lane**	Telephone No. **575-704-2455**
Facility Name: **Vac Abo Battery #03**	Facility Type: **Well**

Surface Owner: NMOCD	Mineral Owner:	API No. 30-025-26521

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	34	17S	35E	1600	North	900	East	**LEA**

Latitude 32.7884411982176,- **Longitude** 103.451152598831

NATURE OF RELEASE

2240 water & 34 oil

1837 water & 28 oil

Type of Release: **Spill**	Volume of Release: ~~8.5 BBLS~~	Volume Recovered. ~~0 BBLS~~
Source of Release: overflowing tank battery.	Date and Hour of Occurrence 03/03/2015 07:30 am	Date and Hour of Discovery 03/03/2015 07:30 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Tomas Oberding- NMOCD**	
By Whom? **Jay Garcia**	Date and Hour: **03/04/2015 12:30 pm**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		

RECEIVED
By OCD; Dr. Oberding at 8:07 am, Mar 05, 2015

ENV – Corporate / Agency Reportable – 34 BO & 2240 BPW – Vac ABO Battery 3 – RR III – MCBU – Buckeye – On Tuesday, March 3, 2015 at 07:30 MST, a MSO was notified that a tank was overflowing at Vac ABO Battery 3 resulting in a release of 34 bbls of oil and 2240 bbls of produced water, with 28 bbls of oil and 1837 bbls of produced water recovered. Immediate action was to shut down and isolate all incoming fluids and begin recovering the fluids. Notifications were made to Crisis Hotline and Management. The investigation is in progress. The area will be remediated according to NMOCD guidelines.
Consequence: 4, Likelihood: 4, RR: III, PSE Tier 2

On Tuesday, March 3rd, 2015 @ 07:30 hrs, a COPC MSO was notified that a leak was observed at the Vac Abo 3 Battery. The release at the Vac Abo 3 facility originated from the produced water overflow tank. All Abo area production was shut in to stop the spill, and containment and cleanup activities started immediately. Surface area affected by the spill was 154' x 230' of pasture, 114' x 69' of diked area, and 625' x 123' of a mix of caliche pad and pasture. Total volume spilled was 2274 bbls (2240 water & 34 oil). 1895 bbls were recovered by vacuum trucks (1837 water & 28 oil). The area will be remediated according to NMOCD guidelines and the investigation is in progress.

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: *Jay Garcia*

Printed Name: Jay Garcia

Title: LEAD HSE

OIL CONSERVATION DIVISION

Hydrologist
Approved by ~~Environmental Specialist~~:

Approval Date: 03/05/2015 Expiration Date: 05/05/2015

E-mail Address: ***jay.c.garcia@conocophillips.com***	Conditions of Approval: Site samples required. Delineate and remeate are as per NMOCD guides.	Attached ☐
Date: 01/06/2015 Phone:575-704-2455		1RP-3555 217817 nTO1506430213 pTO1506430397

* Attach Additional Sheets If Necessary

Appendix B

Vertical Laboratory Analysis

Basin Environmental Service Technologies, LLC
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

CARDINAL Laboratories

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

February 10, 2016

KYLE NORMAN

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: VACUUM ABO BATTERY #3

Enclosed are the results of analyses for samples received by the laboratory on 02/09/16 16:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. 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

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/09/2016	Sampling Date:	02/09/2016
Reported:	02/10/2016	Sampling Type:	Soil
Project Name:	VACUUM ABO BATTERY #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: VERT 1 @ 8' (H600289-01)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	02/10/2016	ND	432	108	400	3.77	

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	02/10/2016	ND	221	110	200	2.06	
DRO >C10-C28	<10.0	10.0	02/10/2016	ND	207	103	200	2.26	

Surrogate: 1-Chlorooctane	*85.6 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*95.3 %*	*28-171*

Sample ID: VERT 2 @ 10' (H600289-02)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**432**	16.0	02/10/2016	ND	432	108	400	3.77	

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	02/10/2016	ND	221	110	200	2.06	
DRO >C10-C28	**57.2**	10.0	02/10/2016	ND	207	103	200	2.26	

Surrogate: 1-Chlorooctane	*80.3 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*90.4 %*	*28-171*

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:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/09/2016	Sampling Date:	02/09/2016
Reported:	02/10/2016	Sampling Type:	Soil
Project Name:	VACUUM ABO BATTERY #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: VERT 3 @ 1' (H600289-03)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	02/10/2016	ND	432	108	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	02/10/2016	ND	221	110	200	2.06	
DRO >C10-C28	**36.7**	10.0	02/10/2016	ND	207	103	200	2.26	

Surrogate: 1-Chlorooctane	*82.4 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*91.7 %*	*28-171*

Sample ID: VERT 4 @ 1' (H600289-04)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**416**	16.0	02/10/2016	ND	432	108	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	02/10/2016	ND	221	110	200	2.06	
DRO >C10-C28	<10.0	10.0	02/10/2016	ND	207	103	200	2.26	

Surrogate: 1-Chlorooctane	*85.7 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*95.0 %*	*28-171*

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:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/09/2016	Sampling Date:	02/09/2016
Reported:	02/10/2016	Sampling Type:	Soil
Project Name:	VACUUM ABO BATTERY #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: POINT 3 @ 1' (H600289-05)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	02/10/2016	ND	432	108	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	02/10/2016	ND	221	110	200	2.06	
DRO >C10-C28	<10.0	10.0	02/10/2016	ND	207	103	200	2.26	

Surrogate: 1-Chlorooctane	*84.1 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*91.2 %*	*28-171*

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!!

CARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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: ConocoPhillips	**BILL TO**
Project Manager: Kyle Norman	**P.O. #:**
Address: 419 W Cain	**Company:** Basin
City: Hobbs **State:** NM **Zip:** 88240	**Attn:**
Phone #: 575-393-2967 **Fax #:** 575-393-0293	**Address:** 419 W Cain
Project #: **Project Owner:**	**City:** Hobbs
Project Name:	**State:** NM **Zip:** 88240
Project Location: Vacuum Abo Battery #3	**Phone #:** 575-393-2967
Sampler Name: Jkamplain	**Fax #:** 575-393-0293

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						
H600288																									
1	Vert 1 @ 8'	G	1			✓					✓		2-9-16	10:10	✓	✓										
2	Vert 2 @ 10'	G	1			✓					✓			1:30	✓	✓										
3	Vert 3 @ 1'	G	1			✓					✓			1:45	✓	✓										
4	Vert 4 @ 1'	G	1			✓					✓			1:50	✓	✓										
5	Hor. 3 @ 1'	G	1			✓					✓			9:00	✓	✓										

Relinquished By:	**Date:** 2-9-16	**Received By:** Jodi Henson	**Phone Result:** ☐ Yes ☑ No **Add'l Phone #:**
	Time: 4:10		**Fax Result:** ☐ Yes ☑ No **Add'l Fax #:**
Relinquished By:	**Date:**	**Received By:**	**REMARKS:** email results: knorman@basinenv.com; jkamplain@basinenv
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 5.4°C	**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY: (Initials)**	

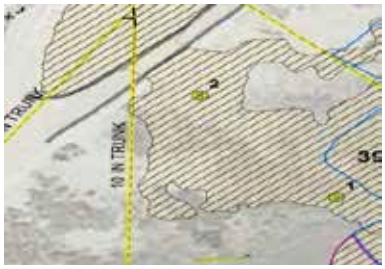
† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#54

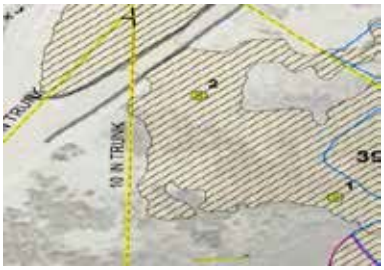
Appendix C

Soil Bore Installation Documentation And Laboratory Analysis

Basin Environmental Service Technologies, LLC
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

Logger:	Jacob Kamplain		**Company:** ConocoPhillips
Driller:	White Drilling		**Project Name:** Vac ABO Battery #3 **Well ID:** SB-1
Drilling Method:	Air Rotary		**Project Consultant:** Basin
Start Date:	2/11/2016		
End Date:	2/11/2016		
Comments: All Samples were taken from cuttings. **DRAFTED BY:** TD = 20' GW = 71'			**Location:** U/L N Sec 34 T-17-S R-35-E **Lat: 32.787348** **Long: -103.449556** **County**: Lea **State**:NM

Depth (feet)	Chloride field tests	LAB	PID	Description	Lithology	Well Construction
SS	173		0.5	dark brown clay w/ sandy clay		Bentonite Seal
5 ft	1867	CL-2360	0.3			
		GRO <10				
		DRO <10				
10 ft	1350	CL-2200	0.7	caliche/limestone		
		GRO <10				
		DRO <10				
15 ft	334		0.8	limestone		
20 ft	237	CL-256	0.7	tanish silt sand w/ sand stone		
		GRO <10				
		DRO <10				

Logger:	Jacob Kamplain		Basin Environmental Effective Solutions Service Technologies
Driller:	White Drilling		**Company:** ConocoPhillips
Drilling Method:	Air Rotary		**Project Name:** Vac ABO Battery #3 **Well ID:** SB-2
Start Date:	2/11/2016		**Project Consultant:** Basin
End Date:	2/11/2016		

Comments: All Samples were taken from cuttings.

DRAFTED BY:

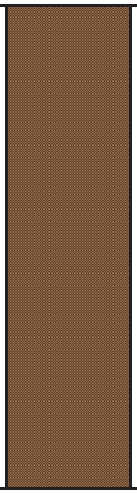
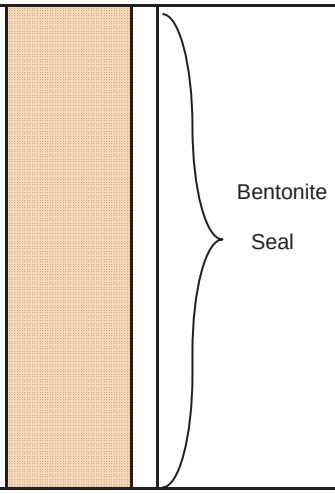
TD = 50' GW = 71'

Location: U/L N Sec 34 T-17-S R-35-E

Lat: 32.787554 **County**: Lea

Long: -103.449746 **State**:NM

Depth (feet)	Chloride field tests	LAB	PID	Description	Lithology	Well Construction
SS	1295		9.7	dark brown clay w/ sandy clay		
5 ft	1362		2			
10 ft	1125	CL-2560	0.6	caliche/limestone		
		GRO <10				
		DRO <10				
15 ft	375		1.5	limestone		
20 ft	1447		0.7	brown sand/sand stone		Bentonite Seal
25 ft	1007	CL-1100	0.5			
		GRO <10				
		DRO <10				
30 ft	634		0.6			
35 ft	716	CL-704	0.5			
		GRO <10				
		DRO <10				

Depth (feet)	Chloride field tests	LAB	PID	Description	Lithology	Well Construction
40 ft	524		0.5	brown sand/sand stone		
45 ft	411		0.3			
50 ft	284	CL-368	0.6			
		GRO <10				
		DRO <10				

CARDINAL Laboratories

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

February 15, 2016

KYLE NORMAN

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: VACUUM ABO BATTERY #3

Enclosed are the results of analyses for samples received by the laboratory on 02/11/16 15:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. 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,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/11/2016	Sampling Date:	02/11/2016
Reported:	02/15/2016	Sampling Type:	Soil
Project Name:	VACUUM ABO BATTERY #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 1 @ 5' (H600321-01)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2360**	16.0	02/15/2016	ND	416	104	400	3.77	

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	02/12/2016	ND	215	108	200	3.48	
DRO >C10-C28	<10.0	10.0	02/12/2016	ND	196	98.1	200	7.87	

Surrogate: 1-Chlorooctane	*74.1 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*86.8 %*	*28-171*

Sample ID: SB 1 @ 10' (H600321-02)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2200**	16.0	02/15/2016	ND	416	104	400	3.77	

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	02/12/2016	ND	215	108	200	3.48	
DRO >C10-C28	<10.0	10.0	02/12/2016	ND	196	98.1	200	7.87	

Surrogate: 1-Chlorooctane	*82.0 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*94.1 %*	*28-171*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/11/2016	Sampling Date:	02/11/2016
Reported:	02/15/2016	Sampling Type:	Soil
Project Name:	VACUUM ABO BATTERY #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 1 @ 20' (H600321-03)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**256**	16.0	02/15/2016	ND	416	104	400	3.77	

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	02/12/2016	ND	215	108	200	3.48	
DRO >C10-C28	<10.0	10.0	02/12/2016	ND	196	98.1	200	7.87	

Surrogate: 1-Chlorooctane	*78.2 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*89.7 %*	*28-171*

Sample ID: SB 2 @ 10' (H600321-04)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2560**	16.0	02/15/2016	ND	416	104	400	3.77	

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	02/12/2016	ND	215	108	200	3.48	
DRO >C10-C28	<10.0	10.0	02/12/2016	ND	196	98.1	200	7.87	

Surrogate: 1-Chlorooctane	*74.0 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*87.5 %*	*28-171*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/11/2016	Sampling Date:	02/11/2016
Reported:	02/15/2016	Sampling Type:	Soil
Project Name:	VACUUM ABO BATTERY #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 2 @ 25' (H600321-05)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1100**	16.0	02/15/2016	ND	416	104	400	3.77	

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	02/12/2016	ND	215	108	200	3.48	
DRO >C10-C28	<10.0	10.0	02/12/2016	ND	196	98.1	200	7.87	

Surrogate: 1-Chlorooctane	*83.5 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*95.4 %*	*28-171*

Sample ID: SB 2 @ 35' (H600321-06)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**704**	16.0	02/15/2016	ND	416	104	400	3.77	

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	02/12/2016	ND	215	108	200	3.48	
DRO >C10-C28	<10.0	10.0	02/12/2016	ND	196	98.1	200	7.87	

Surrogate: 1-Chlorooctane	*82.2 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*93.7 %*	*28-171*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

Basin Environmental Service
KYLE NORMAN
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	02/11/2016	Sampling Date:	02/11/2016
Reported:	02/15/2016	Sampling Type:	Soil
Project Name:	VACUUM ABO BATTERY #3	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 2 @ 50' (H600321-07)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**368**	16.0	02/15/2016	ND	416	104	400	3.77	

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	02/12/2016	ND	215	108	200	3.48	
DRO >C10-C28	<10.0	10.0	02/12/2016	ND	196	98.1	200	7.87	

Surrogate: 1-Chlorooctane	*81.5 %*	*35-147*
Surrogate: 1-Chlorooctadecane	*95.2 %*	*28-171*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For 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

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

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: ConocoPhillips	**BILL TO**
Project Manager: Kyle Norman	**P.O. #:**
Address: 419 W Cain	**Company:** Basin
City: Hobbs **State:** NM **Zip:** 88240	**Attn:**
Phone #: 575-393-2967 **Fax #:** 575-393-0293	**Address:** 419 W Cain
Project #: **Project Owner:**	**City:** Hobbs
Project Name:	**State:** NM **Zip:** 88240
Project Location: Vacuum Abo Battery #3	**Phone #:** 575-393-2967
Sampler Name: JKamplain	**Fax #:** 575-393-0293

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
H600321																				
1	SB1 @ 5'	G	1			X					X		2-11-16	10:00	X	X				
2	SB1 @ 10'	G	1			X					X			10:15	X	X				
3	SB1 @ 20'	G	1			X					X			10:30	X	X				
4	SB2 @ 10'	G	1			X					X			11:00	X	X				
5	SB2 @ 25'	G	1			X					X			11:15	X	X				
6	SB2 @ 35'	G	1			X					X			11:20	X	X				
7	SB2 @ 50'	G	1			X					X			11:30	X	X				

ANALYSIS REQUEST

Relinquished By:	**Date:** 2/11/16	**Received By:** Jodi Henson	
	Time: 3:30		
Relinquished By:	**Date:**	**Received By:**	
	Time:		

Phone Result: ☐ Yes ☑ No **Add'l Phone #:**
Fax Result: ☐ Yes ☑ No **Add'l Fax #:**
REMARKS:
email results:
hconder@basinenv.com; knorman@basinenv.com;
jkamplain@basinenv; lflores@basinenv; lweinheimer@basinenv;
cursanic@basinenv; sedwards@basinenv
environmental tech: @basinenv

Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4.8°C

Sample Condition Cool: ☑ Yes ☐ No Intact: ☐ Yes ☐ No

CHECKED BY: (Initials) JH

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

#54

Appendix D

EPA Exposure Assessment Multimedia

Basin Environmental Service Technologies, LLC
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

MULTIMED V1.01 DATE OF CALCULATIONS: 17-FEB-2016 TIME: 20: 1:11

U. S. E N V I R O N M E N T A L P R O T E C T I O N A G E N C Y

E X P O S U R E A S S E S S M E N T

M U L T I M E D I A M O D E L

MULTIMED (Version 1.50, 2005)

1
Run options
--- -------

C-P Vacuum Abo Battery #3

1R-3555
Chemical simulated is Chloride

Option Chosen Saturated and unsaturated zone models
Run was DETERMIN
Infiltration Specified By User: 1.524E-02 m/yr
Run was transient
Well Times: Find Maximium Concentration
Reject runs if Y coordinate outside plume
Reject runs if Z coordinate outside plume
Gaussian source used in saturated zone model
1
1
UNSATURATED ZONE FLOW MODEL PARAMETERS
(input parameter description and value)

NP	- Total number of nodal points	240
NMAT	- Number of different porous materials	1
KPROP	- Van Genuchten or Brooks and Corey	1
IMSHGN	- Spatial discretization option	1
NVFLAYR	- Number of layers in flow model	1

OPTIONS CHOSEN
------- ------
Van Genuchten functional coefficients
User defined coordinate system
1

Layer information

LAYER NO.	LAYER THICKNESS	MATERIAL PROPERTY
1	14.00	1

DATA FOR MATERIAL 1

VADOSE ZONE MATERIAL VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Saturated hydraulic conductivity	cm/hr	CONSTANT	3.60	-999.	-999.	-999.
Unsaturated zone porosity	--	CONSTANT	0.250	-999.	-999.	-999.
Air entry pressure head	m	CONSTANT	0.700	-999.	-999.	-999.
Depth of the unsaturated zone	m	CONSTANT	14.0	0.000	0.000	0.000

DATA FOR MATERIAL 1

VADOSE ZONE FUNCTION VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Residual water content	--	CONSTANT	0.116	-999.	-999.	-999.
Brook and Corey exponent,EN	--	CONSTANT	-999.	-999.	-999.	-999.
ALFA coefficient	1/cm	CONSTANT	0.500E-02	-999.	-999.	-999.
Van Genuchten exponent, ENN	--	CONSTANT	1.09	-999.	-999.	-999.

1

UNSATURATED ZONE TRANSPORT MODEL PARAMETERS

NLAY	- Number of different layers used		1
NTSTPS	- Number of time values concentration calc		40
DUMMY	- Not presently used		1
ISOL	- Type of scheme used in unsaturated zone		2
N	- Stehfest terms or number of increments		18
NTEL	- Points in Lagrangian interpolation		3
NGPTS	- Number of Gauss points		104
NIT	- Convolution integral segments		2
IBOUND	- Type of boundary condition		3
ITSGEN	- Time values generated or input		1
TMAX	- Max simulation time	--	0.0
WTFUN	- Weighting factor	--	1.2

OPTIONS CHOSEN

Convolution integral approach
Exponentially decaying continuous source
Computer generated times for computing concentrations

1

DATA FOR LAYER 1

VADOSE TRANSPORT VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Thickness of layer	m	CONSTANT	14.0	-999.	-999.	-999.
Longitudinal dispersivity of layer	m	DERIVED	-999.	-999.	-999.	-999.
Percent organic matter	--	CONSTANT	0.000	-999.	-999.	-999.
Bulk density of soil for layer	g/cc	CONSTANT	1.99	-999.	-999.	-999.
Biological decay coefficient	1/yr	CONSTANT	0.000	-999.	-999.	-999.

1

CHEMICAL SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Solid phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Dissolved phase decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Overall chemical decay coefficient	1/yr	DERIVED	-999.	-999.	-999.	-999.
Acid catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Neutral hydrolysis rate constant	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Base catalyzed hydrolysis rate	l/M-yr	CONSTANT	0.000	-999.	-999.	-999.
Reference temperature	C	CONSTANT	25.0	-999.	-999.	-999.
Normalized distribution coefficient	ml/g	CONSTANT	0.000	-999.	-999.	-999.
Distribution coefficient	--	DERIVED	-999.	-999.	-999.	-999.
Biodegradation coefficient (sat. zone)	1/yr	CONSTANT	0.000	-999.	-999.	-999.
Air diffusion coefficient	cm2/s	CONSTANT	-999.	-999.	-999.	-999.
Reference temperature for air diffusion	C	CONSTANT	-999.	-999.	-999.	-999.
Molecular weight	g/M	CONSTANT	-999.	-999.	-999.	-999.
Mole fraction of solute	--	CONSTANT	-999.	-999.	-999.	-999.
Vapor pressure of solute	mm Hg	CONSTANT	-999.	-999.	-999.	-999.
Henry`s law constant	atm-m^3/M	CONSTANT	-999.	-999.	-999.	-999.
Overall 1st order decay sat. zone	1/yr	DERIVED	0.000	0.000	0.000	1.00
Not currently used		CONSTANT	0.000	0.000	0.000	0.000
Not currently used		CONSTANT	0.000	0.000	0.000	0.000

1

SOURCE SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS	LIMITS

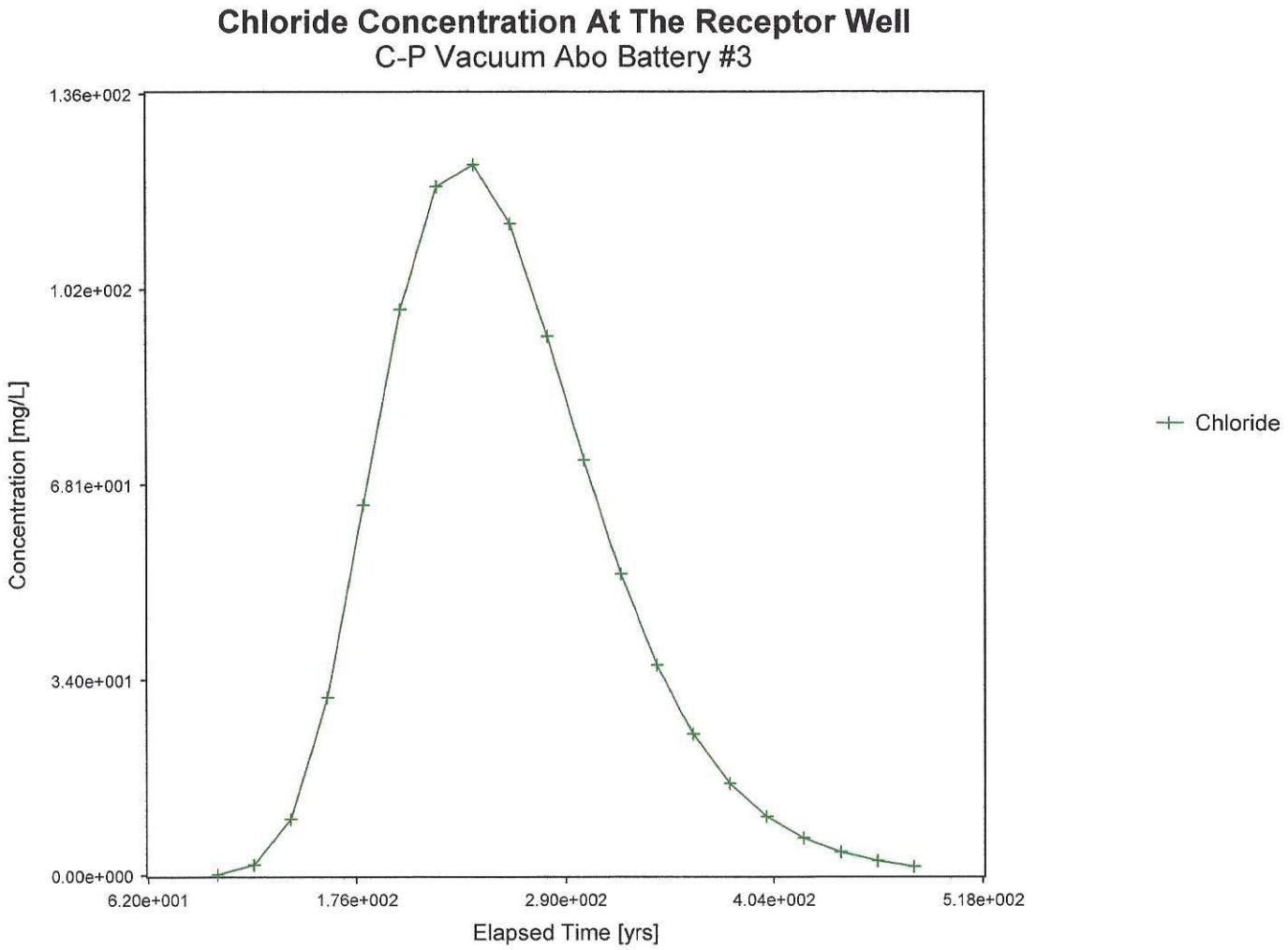
			MEAN	STD DEV	MIN	MAX
Infiltration rate	m/yr	CONSTANT	0.152E-01	-999.	-999.	-999.
Area of waste disposal unit	m^2	CONSTANT	0.372E+04	-999.	-999.	-999.
Duration of pulse	yr	DERIVED	0.100E-08	-999.	-999.	-999.
Spread of contaminant source	m	DERIVED	-999.	-999.	-999.	-999.
Recharge rate	m/yr	CONSTANT	0.000	-999.	-999.	-999.
Source decay constant	1/yr	CONSTANT	0.250E-01	0.000	0.000	0.000
Initial concentration at landfill	mg/l	CONSTANT	0.115E+04	-999.	-999.	-999.
Length scale of facility	m	DERIVED	-999.	-999.	-999.	-999.
Width scale of facility	m	DERIVED	-999.	-999.	-999.	-999.
Near field dilution		DERIVED	1.00	0.000	0.000	1.00

1

AQUIFER SPECIFIC VARIABLES

VARIABLE NAME	UNITS	DISTRIBUTION	PARAMETERS MEAN	PARAMETERS STD DEV	LIMITS MIN	LIMITS MAX
Particle diameter	cm	CONSTANT	-999.	-999.	-999.	-999.
Aquifer porosity	--	CONSTANT	0.300	-999.	-999.	-999.
Bulk density	g/cc	CONSTANT	1.86	-999.	-999.	-999.
Aquifer thickness	m	CONSTANT	6.10	-999.	-999.	-999.
Source thickness (mixing zone depth)	m	DERIVED	-999.	-999.	-999.	-999.
Conductivity (hydraulic)	m/yr	CONSTANT	315.	-999.	-999.	-999.
Gradient (hydraulic)		CONSTANT	0.300E-02	-999.	-999.	-999.
Groundwater seepage velocity	m/yr	DERIVED	-999.	-999.	-999.	-999.
Retardation coefficient	--	DERIVED	-999.	-999.	-999.	-999.
Longitudinal dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Transverse dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Vertical dispersivity	m	FUNCTION OF X	-999.	-999.	-999.	-999.
Temperature of aquifer	C	CONSTANT	20.0	-999.	-999.	-999.
pH	--	CONSTANT	7.00	-999.	-999.	-999.
Organic carbon content (fraction)		CONSTANT	0.000	-999.	-999.	-999.
Well distance from site	m	CONSTANT	1.00	-999.	-999.	-999.
Angle off center	degree	CONSTANT	0.000	-999.	-999.	-999.
Well vertical distance	m	CONSTANT	0.000	-999.	-999.	-999.

MAXIMUM WELL CONCENTRATION IS 125.3 AT 0.232E+03 YEARS


Chloride Concentration At The Receptor Well
C-P Vacuum Abo Battery #3
1.36e+002
1.02e+002
6.81e+001
3.40e+001
0.00e+000
Concentration [mg/L]
6.20e+001
1.76e+002
2.90e+002
4.04e+002
5.18e+002
Elapsed Time [yrs]
Chloride

Appendix F

Photo Documentation

Basin Environmental Service Technologies, LLC
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

ConocoPhillips Vacuum Abo Battery #3

UL/K,L,M & N, Section 34, T17S, R35E

Initial release area, facing southwest 3/4/15

Initial release area, facing west 3/4/15

Initial release area, facing southeast 3/4/15

Initial release area, facing southwest 3/4/15

Initial release area, facing south 3/4/15

Initial release area, facing northeast 3/4/15

Initial release area, facing south 3/4/15

Initial release area, facing northeast 3/4/15

Initial release area, facing north 3/4/15

Initial release area, facing northeast 3/4/15

Initial release area, facing northeast 3/4/15

Initial release area, facing north 3/4/15

Installing vertical #1, facing north west 2/9/16

Installing vertical #2, facing north east 2/9/16

Installing soil bore #2, facing west 2/11/16

Collecting sample, facing south east 2/11/16

Plugging soil bore #2, facing west 2/11/16

Soil bore #2 plugged, facing west 2/11/16