HOBBS OCD

JUL 17 2014

RECEIVED

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 Corporation	Contact: Donna Thompson
Address: 3300 N Ave A, Bldg 6, Midland, TX 79705	Telephone No.: 432-631-0276
Facility Name: Red Hills West State 16-1H	Facility Type: Well Location

Surface Owner: State of New Mexico	Mineral Owner: State of New Mexico	API No.:30-025-40414

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	16	26S	32E	180	North	690	WEST	LEA

Latitude 32° 2.978'N **Longitude** 103° 41.188'W

NATURE OF RELEASE

Type of Release: Oil and Produced water	Volume of Release: 32	Volume Recovered: 31
Source of Release: Open Top Frac Tank	Date and Hour of Occurrence: 8/1/13 @ 0630 HRS (MDT)	Date and Hour of Discovery: 8/1/13 @ 0645 HRS (MDT)
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? GEOFFREY LEKING	
By Whom? Lakin Aaron, Production Specialist.	Date and Hour: 8/1/13 06:47	
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.* On August 1, 2013 at @ 0645 hrs (MST) on the State 16-1H Well Pad located approximately 23 miles west of Jal, NM; a spill of produced water and oil occurred when the 16-1H well unloaded into an open top tank and overflowed onto location. The well had been loaded up for several days with no flow and was routed to an open top tank on location to reduce back pressure on the well. The location was being monitored routinely (every 30 to 60 min) for flow and had shown no sign of unloading for 3 days. At 0500 the MSO left the 16-1H and went to other facilities in the field to restart compressors following a Nuevo shut down. The restart process took longer than expected and when the MSO returned to the 16-5 at 0645, the well had started unloading and was overflowing the open top tank. MSO immediately controlled the release and contacted supervision. Approximately 32-bbl of fluid was released (17 oil and 15 produced water) with 31-bbl recovered (17 oil and 14 produced water).

Describe Area Affected and Cleanup Action Taken.*
The release flow path was ~10,000-ft2. 360-yd^3 of TPH and chloride contaminated soil excavated and disposed of. Remaining excavated to below 1000-ppm chloride, stockpiled and blended with clean caliche to achieve average 1300-ppm chloride. Blended material was used to backfill excavated area(s).

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: Donna Thompson	OIL CONSERVATION DIVISION
Printed Name: Donna Thompson	Approved by Environmental Specialist:
Title: HES Lead	Approval Date: 7-17-14 Expiration Date:
E-mail Address: Donna.K.Thompson@conocophillips.com	Conditions of Approval: Attached ☐
Date: 07/03/2014 Phone: 432-631-0276	7-14-3187

* Attach Additional Sheets If Necessary

og rid 217817
nro 1419836835
pt 1419837109

JUL 17 2014

ConocoPhillips

RED HILLS 16-1H

C141 CLOSURE REPORT

API 30-025-40414

UL-D (NW¼ OF THE NW¼) OF SECTION 16 T26S R32E

LATITUDE: 32° 2.978'N LONGITUDE: 103° 41.188'W

~29.3 MILES WSW (BEARING 261.5°) OF JAL

LEA COUNTY, NEW MEXICO

07/03/14

PREPARED FOR CONOCOPHILLIPS CORPORATION BY:

HydroTech SERVICES

726 E. Michigan Blvd Suite 330, PO Box 968

Hobbs, New Mexico 88241

Telephone: (575) 393-4653; Fax: (575) 393-4662

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1.0 Project Summary

Release Site Name: Red Hills 16-1H
Operating Company: ConocoPhillips Corporation
Company Representative: Donna Thompson, Phone: 432-631-0276
Address: 3300 N Ave A, Bldg 6, Midland, TX 79705
Email: Donna.K.Thompson@conocophillips.com
Remediation Company: Hydrotech Services, Hobbs, NM

SITE SPECIFIC DATA:

Legal Description: Lea County, New Mexico UL-M Section 16 T26S R32E
General Location: ~29.3 Miles WSW (Bearing 261.5°) of Jal.
Latitude: 32° 2.978'N Longitude: 103° 41.188'W Elevation: 3200-ft amsl
Land Ownership: Public; State of New Mexico
Ground Water Depth: >220-ft bgs
Water Wells within 1000-ft: None Surface Water within 1000-ft: None

RELEASE SPECIFIC DATA:

Date and Time of Release(s): 08/01/13 6:30 AM
Material Released: Produced Water
Volume Released: **32-bbl (17 oil; 15 PW)** **Volume Recovered: 31-bbl**
Cause of Release: Well unloaded into surface tank, then overflowed
Release Affected Area: >10,000-ft^2
Depth of Contamination: 5.5-ft bgs maximum
NMOCD Site Ranking: **0 (ground water >100-ft bgs)**
Action Levels: **TPH**: 5000-ppm **Benzene**: 10-ppm **BTEX**: 50-ppm

REMEDIATION SUMMARY:

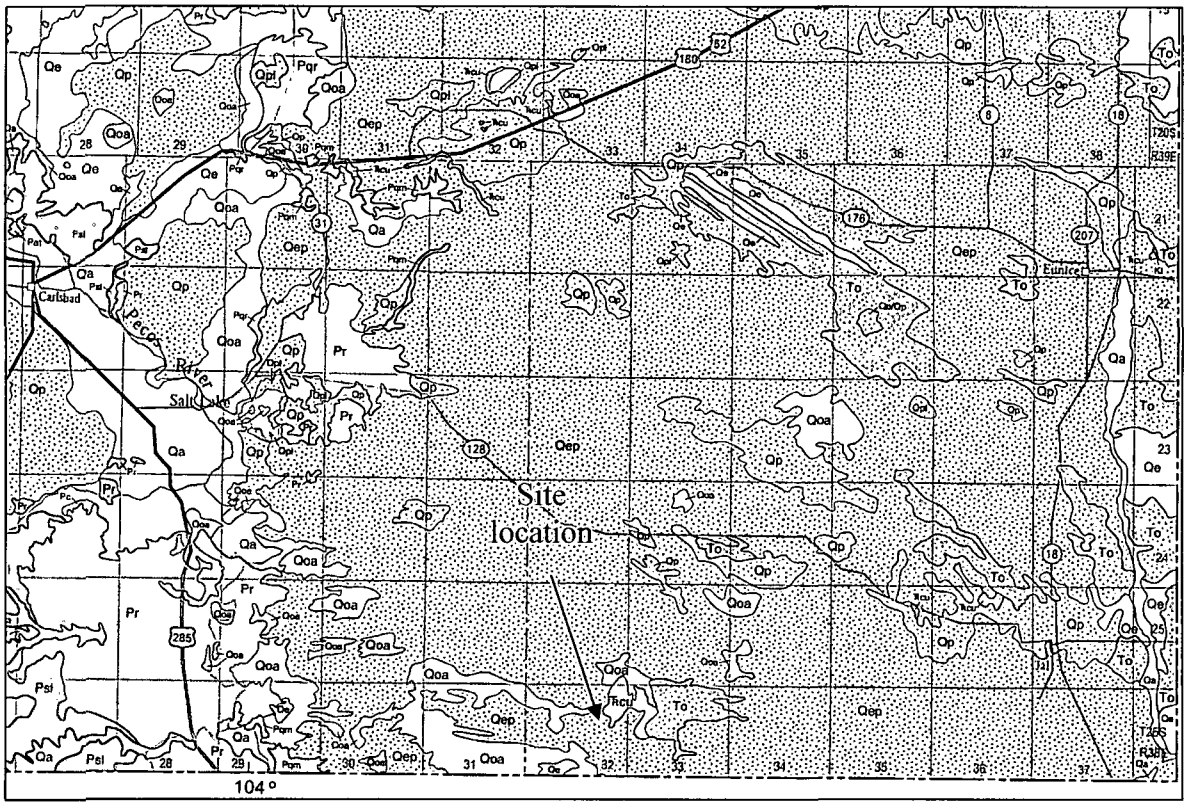
Remediation of the release affected area consisted of the excavation and disposal of 360-yd^3 (expanded) of TPH/chloride contaminated soil from the release affected area. Disposal was at CRI. Chloride contaminated soil that remained in the contaminated area was excavated and blended with clean soil to achieve chloride concentrations <1500-ppm. The excavation was backfilled with the blended soil. Remediation of the release site was completed on June 6, 2014.

2.0 Detailed Site Description

2.1 Geological Description

The release site is located 29-miles WSW (261.5°) of Jal, NM. *The United States Geological Survey (USGS) Ground-Water Report 6, "Geology and Ground-Water Conditions in Southern Lea County, New Mexico," A. Nicholson and A. Clebsch, 1961*, describes the near surface geology of southern Lea County as "an intergrade of the Quaternary Alluvium (QA) sediments, i.e., fine to medium sand, with the mostly eroded Cenozoic Ogallala (CO) formation. Typically, the QA and CO formations in the area are capped by a thick interbed of caliche and generally overlain by sandy soil."

The USGS classifies the release site geological unit as "Qep", meaning Quaternary Eolian and piedmont deposits (Holocene to middle Pleistocene)— Interlayed eolian (wind blown) sands and piedmont-slope deposits along the eastern flank of the Pecos River valley, primarily between Roswell and Carlsbad typically capped by thin eolian deposits.



2.2 Ecological Description

The area is typical of the Upper Chihuahuan Desert Biome consisting primarily of hummocky sand hills covered with Harvard Shin Oak (*Quercus harvardi*) interspersed with Honey Mesquite (*Prosopis glandulosa*) along with typical desert grasses, flowering annuals and flowering perennials. Mammals represented, include Orrd's and Merriam's Kangaroo Rat, Deer Mouse, White Throated Wood Rat, Cottontail Rabbit, Black Tailed Jackrabbit, Mule Deer, Bobcat, Red Fox and Coyote. Reptiles, Amphibians, and Birds are numerous

and typical of the area. A survey of Listed, Threatened, or Endangered species was not conducted.

2.3 Area Ground Water

Based on the Chevron-Texaco contour map (*Plate 4 of Attachments*), depth to ground water (if present) is indicated to be greater than 225-ft below ground surface (bgs).

2.4 Area Water Wells

There are no recorded or observed water wells within 1000 horizontal feet of the site.

2.5 Area Surface Water Features

No permanent surface water bodies or seasonal flow channels exist within 1000 horizontal feet of the site.

3.0 Contaminant and Size of Area

The primary Contaminant of Concern (COC) was total chlorides resulting from the produced water release at this location. Hydrocarbon contamination was limited to the top 1-ft of the release in the immediate area of the Point of Release (POR). The areal extent of the excavated release was ~10,000-ft^2.

4.0 NMOCD Site Ranking

Contaminant delineation and site evaluation work done at this site indicate that the chemical parameters of the soil and the physical parameters of the ground water were characterized consistent with the characterization and remediation/abatement goals and objectives set forth in the following New Mexico Oil Conservation Division (NMOCD) publications:

- *Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)*
- *Unlined Surface Impoundment Closure Guidelines (February 1993)*

Acceptable thresholds for contaminants/constituents of concern (CoCs), i.e., TPH^{8015m}, Benzene, and the mass sum of Benzene, Toluene, Ethyl Benzene, and total Xylenes (BTEX^{8260}), was determined based on the NMOCD Ranking Criteria as follows:

- *Depth to Ground water, i.e., distance from the lower most acceptable concentration to the ground water.*
- *Wellhead Protection Area, i.e., distance from fresh water supply wells.*
- *Distance to Surface Water Body, i.e., horizontal distance to all down gradient surface water bodies.*

Based on the proximity of the site to area water wells, surface water bodies, and depth to ground water from the lower most contamination, the NMOCD ranking score for the site is 0 points with the soil remedial goals highlighted in the Site Ranking Table on the following page.

SITE RANKING TABLE

1. Ground Water	2. Wellhead Protection	3. Distance to Surface Water
Depth to GW <50 feet: 20 points	If <1000' from water source, or; <200' from private domestic water source: 20 points	<200 horizontal feet: 20 points
Depth to GW 50 to 99 feet: 10 points		200-1000 horizontal feet: 10 points
Depth to GW >100 feet: 0 points	If >1000' from water source, or; >200' from private domestic water source: 0 points	>1000 horizontal feet: 0 points
Ground Water Score = 0	Wellhead Protection Score= 0	Surface Water Score= 0
Site Rank (1+2+3) = 20 + 0 + 0 = 20 points		

Total Site Ranking Score and Acceptable Remedial Goal Concentrations			
Parameter	20+	10	0
Benzene	10 ppm	10 ppm	10 ppm
BTEX	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1000 ppm	5000 ppm

5.0 Remediation Process

Remediation of the release affected area consisted of the excavation and disposal of 360-yd^3 (expanded) of TPH and/or high chloride contaminated soil based on the initial sample results from the April 2 sampling. TPH contamination was limited to the area along the north side of the pad and was eliminated from concern by disposing of it. The remaining chloride contaminated soil was excavated down to concentrations <1000-ppm Cl^2 (determined by field analyses utilizing Hach strips). The chloride contaminated soil was stockpiled in a clear area to be blended with clean caliche. 260-yd^3 of clean caliche was brought from nearby locations that were being reduced in size, and additional clean material was obtained from the east side of the Red Hills location. Two piles were blended, resulting in chloride concentrations of 1470—ppm and 1190-ppm (1330-ppm average). This blended material was utilized to backfill all excavated areas of the location. Chloride concentrations <1500-ppm will pose no risk to ground water >220-ft bgs, or non-existent. Remediation of the release site was completed on June 6, 2014.

Based on the contents and data contained herein, ConocoPhillips Corporation requests that NMOCD require "no further action" as regards the soil contamination resulting from the August 1, 2013 release of produced water at this location.

ATTACHMENTS

Plate 1: Site Location Map	8
Plate 2: Site Topography Map	9
Plate 3: Site Aerial Photograph	10
Plate 4: Ground Water Elevation Contour Map	11
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Analytical Results Summary Table	13
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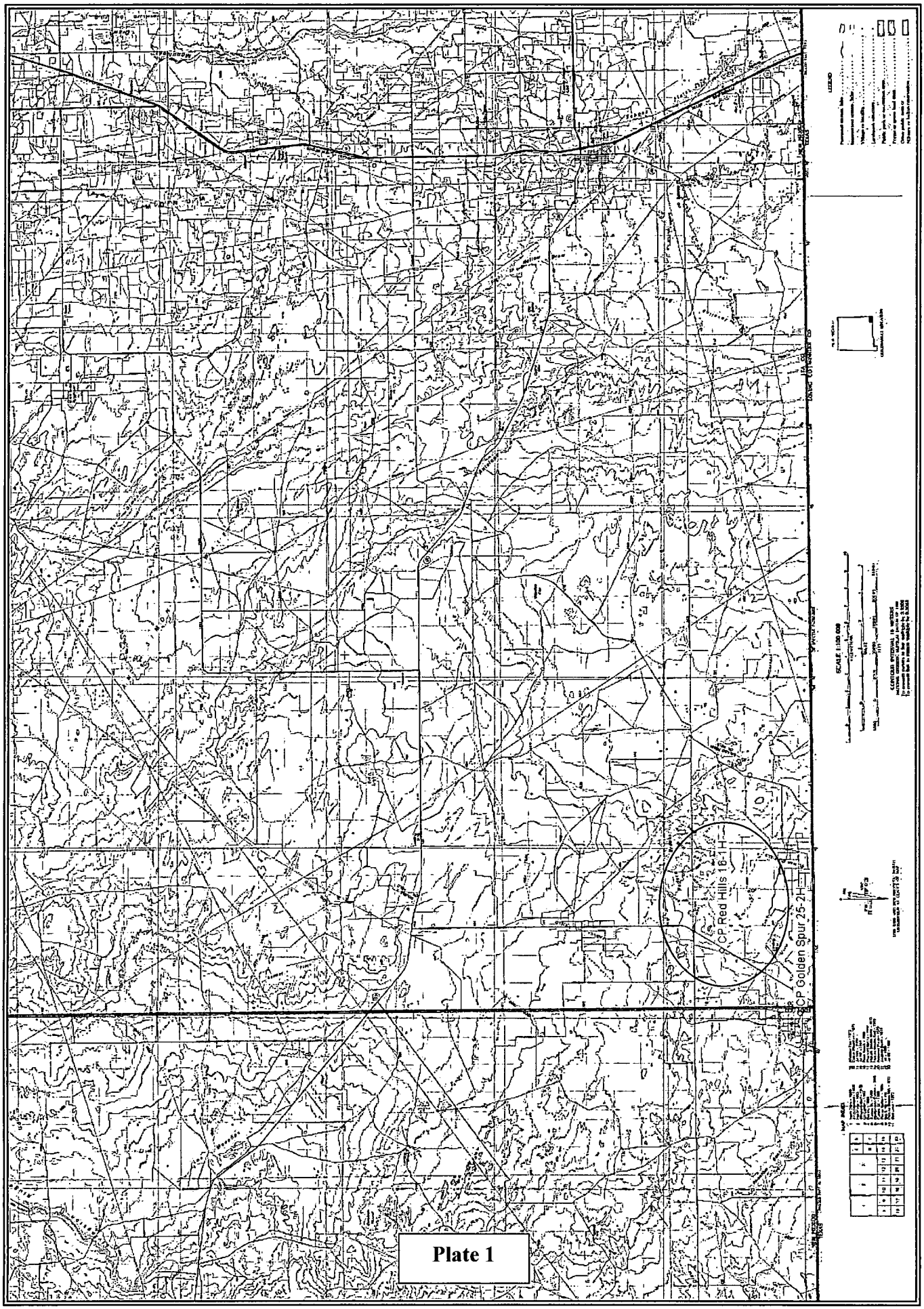


Plate 1

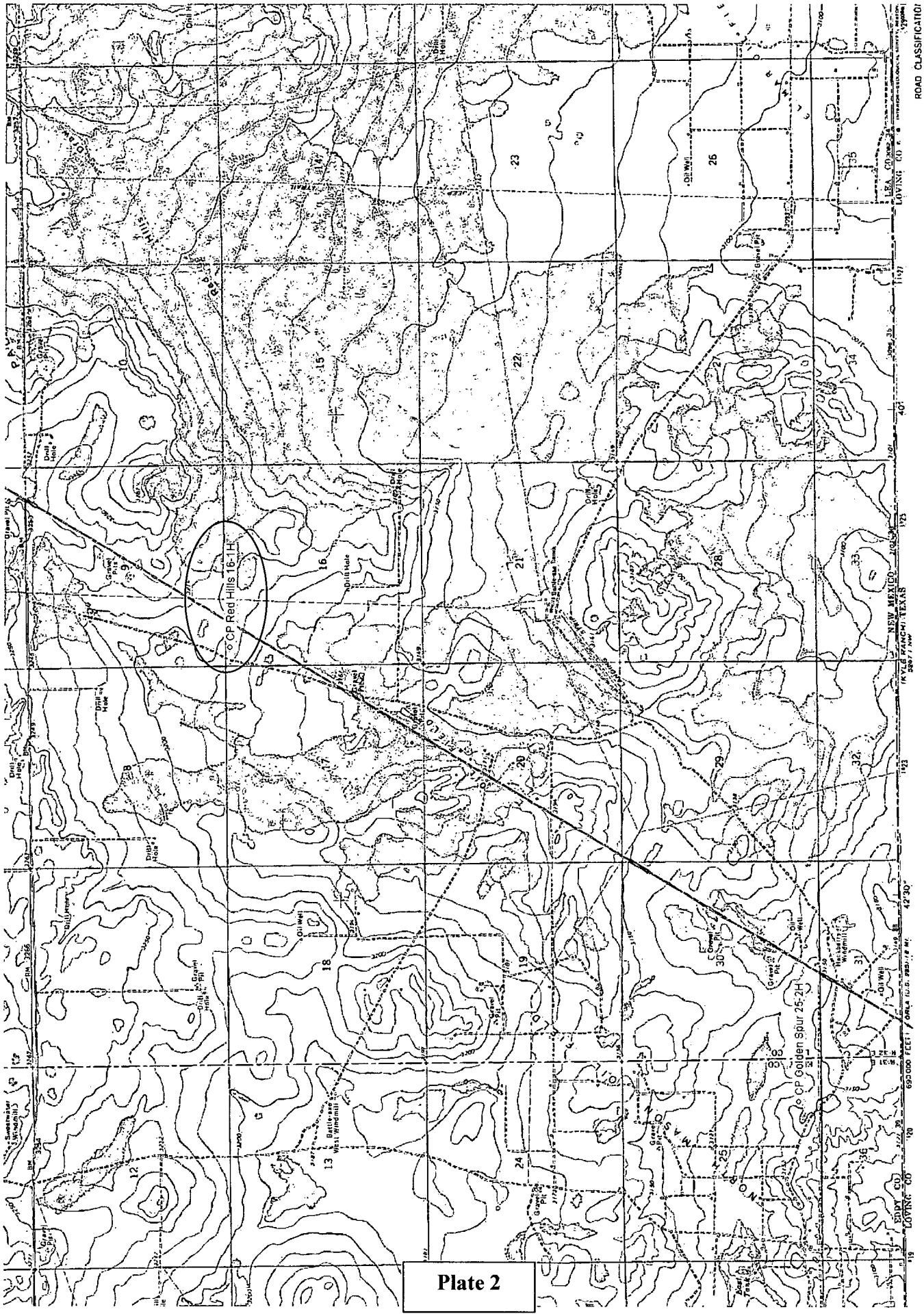
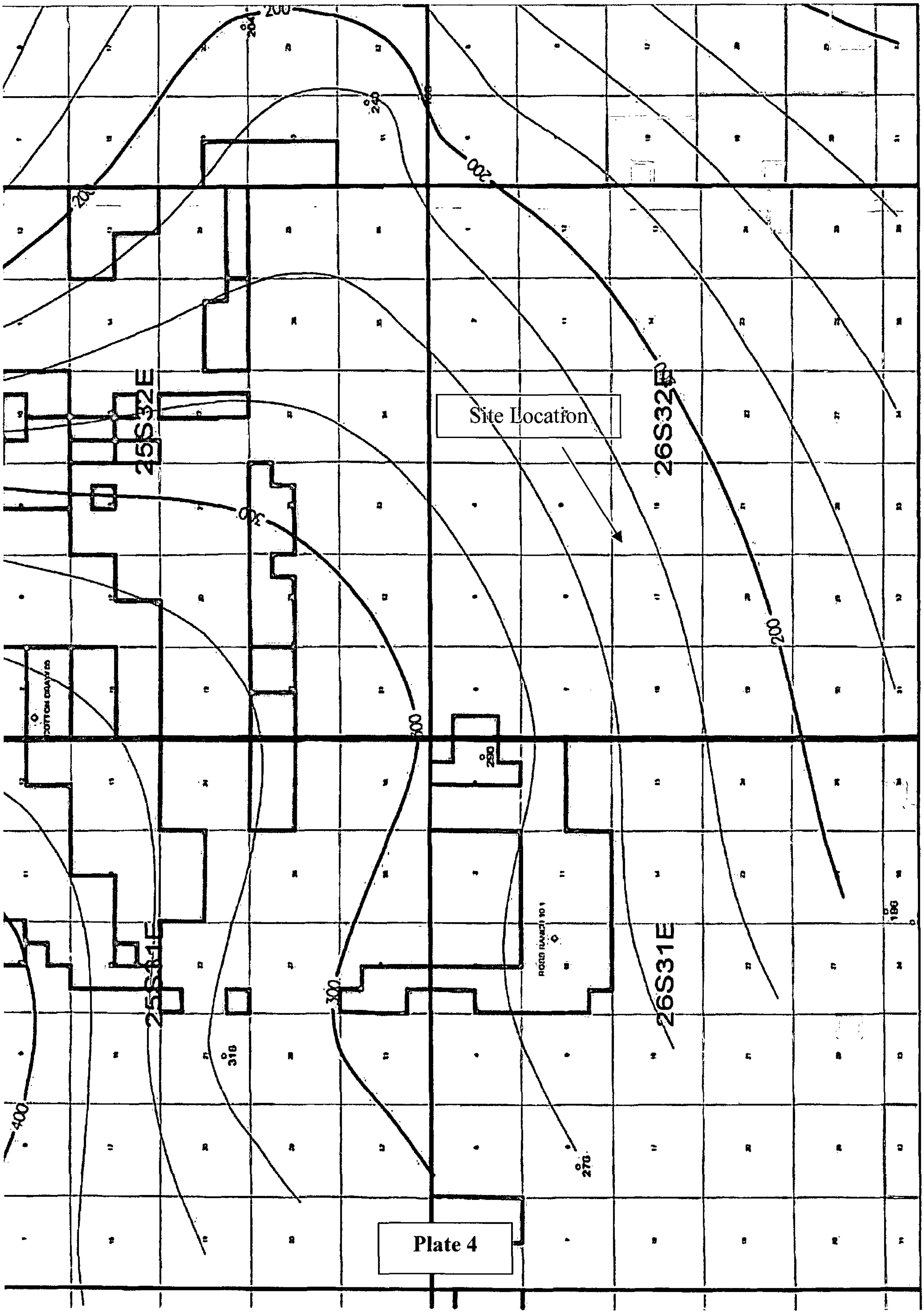

CP Red Hills 16-1H
CP Golden Spur 25-2H
NEW MEXICO
TEXAS
ROAD CLASSIFICATIO

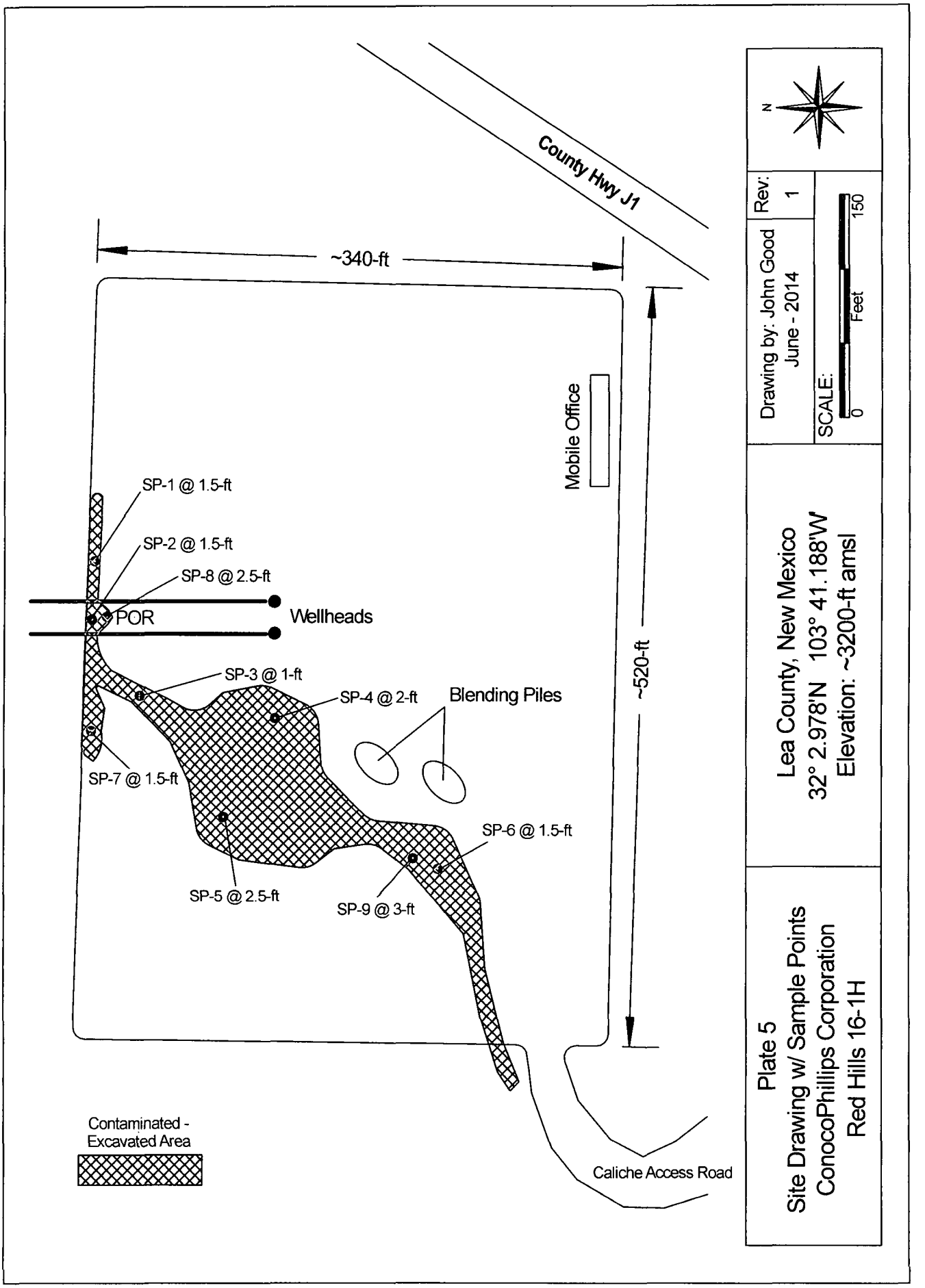
Plate 2

Plate 3



25S32E
26S32E
Site Location
25S31E
26S31E
200
240
300
400
204
250
316
276
186

Plate 4


County Hwy J1
~340-ft
~520-ft
Mobile Office
SP-1 @ 1.5-ft
SP-2 @ 1.5-ft
SP-8 @ 2.5-ft
POR
Wellheads
SP-3 @ 1-ft
SP-4 @ 2-ft
Blending Piles
SP-7 @ 1.5-ft
SP-6 @ 1.5-ft
SP-5 @ 2.5-ft
SP-9 @ 3-ft
Contaminated - Excavated Area
Caliche Access Road
N
Rev: 1
Drawing by: John Good
June - 2014
SCALE:
0
150
Feet
Lea County, New Mexico
32° 2.978'N 103° 41.188'W
Elevation: ~3200-ft amsl
Plate 5
Site Drawing w/ Sample Points
ConocoPhillips Corporation
Red Hills 16-1H

Laboratory Analyses Summary Table
ConocoPhillips - Midland, TX
Project Name: Red Hills 16-1H (Aug-2013 Release)

Analysis Requested						
	Lab ID:	482550-001	482550-002	482550-003	482550-004	482550-005
	Field ID:	1	2	3	4	5
	Depth:	1-inch	6-inch	1-inch	6-inch	5-inch
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	2-Apr-14	2-Apr-14	2-Apr-14	2-Apr-14	2-Apr-14
Inorganic Ions by EPA 300/301	Extracted:	3-Apr-14	3-Apr-14	3-Apr-14	3-Apr-14	3-Apr-14
SUB: TX104704215	Analyzed:	3-Apr-14	3-Apr-14	3-Apr-14	3-Apr-14	3-Apr-14
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloride		**314**	**132**	**22000**	**2230**	**58**
Percent Moisture	Extracted:					
	Analyzed:	3-Apr-14	3-Apr-14	3-Apr-14	3-Apr-14	3-Apr-14
	Units:	%	%	%	%	%
Percent Moisture		**2.04**	**18.8**	**0**	**6.01**	**2.71**
TPH by Texas1005	Extracted:	2-Apr-14	2-Apr-14			
	Analyzed:	3-Apr-14	3-Apr-14			
	Units:	mg/kg	mg/kg			
C6-C12 Gasoline Range Hydrocarbons		ND	ND			
C12-C28 Diesel Range Hydrocarbons		5590	833			
C28-C35 Oil Range Hydrocarbons		558	96			
Total TPH 1005		**6148**	**929**			

Analysis Requested						
	Lab ID:	485704-001	485704-002	485704-003	485704-004	485704-005
	Field ID:	SP-1	SP-2	SP-3	SP-4	SP-5
	Depth:	1.5-ft	1.5-ft	1-ft	2-ft	5.5-ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	16-May-14	16-May-14	16-May-14	16-May-14	16-May-14
	Extracted:	28-May-14	28-May-14			
Benzene/BTEX by EPA 8021B	Analyzed:	28-May-14	28-May-14			
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene		**ND**	**ND**			
Total BTEX		**ND**	**ND**			
Inorganic Ions by EPA 300/301	Extracted:	22-May-14	22-May-14	22-May-14	22-May-14	22-May-14
SUB: TX104704215	Analyzed:	22-May-14	22-May-14	22-May-14	22-May-14	23-May-14
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	
Chloride		**410**	**737**	**254**	**1020**	**9**
Percent Moisture	Extracted:					
	Analyzed:	21-May-14	21-May-14	21-May-14	21-May-14	21-May-14
	Units:	%	%	%	%	%
Percent Moisture		**ND**	**8.59**	**ND**	**1.5**	**1.13**
TPH by Texas1005	Extracted:	27-May-14	27-May-14			
	Analyzed:	27-May-14	27-May-14			
	Units:	mg/kg	mg/kg			
C6-C12 Gasoline Range Hydrocarbons		ND	ND			
C12-C28 Diesel Range Hydrocarbons		134	ND			
C28-C35 Oil Range Hydrocarbons		ND	ND			
Total TPH 1005		**134**	**0**			

Analysis Requested						
	Lab ID:	485704-006	485704-007	485704-008	485704-009	486076-001-002
	Field ID:	SP-6	SP-7	SP-8	SP-9	BP1/BP2
	Depth:	1.5-ft	1.5-ft	2.5-ft	3-ft	Blended Backfill
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	16-May-14	16-May-14	16-May-14	16-May-14	22-May-14
	Extracted:		28-May-14			
Benzene/BTEX by EPA 8021B	Analyzed:		28-May-14			
	Units:		mg/kg			
Benzene			**ND**			
Total BTEX			**ND**			
Inorganic Ions by EPA 300/301	Extracted:	22-May-14	22-May-14	22-May-14	22-May-14	30-May-14
SUB: TX104704215	Analyzed:	23-May-14	23-May-14	23-May-14	23-May-14	31-May-14
	Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chloride		**1380**	**239**	**399**	**477**	**1470/1190**
Percent Moisture	Extracted:					
	Analyzed:	21-May-14	21-May-14	21-May-14	21-May-14	27-May-14
	Units:	%	%	%	%	%
Percent Moisture		**ND**	**7.28**	**ND**	**ND**	**6.0/3.0**
TPH by Texas1005	Extracted:		28-May-14			
	Analyzed:		28-May-14			
	Units:		mg/kg			

Certificate of Analysis Summary 482550

Conoco Phillips-Goldsmith, Goldsmith, TX

Project Name: Red Hill State 16-14

Project Id:
Contact: Bryan Clay
Project Location: NM

Date Received in Lab: Wed Apr-02-14 05:00 pm
Report Date: 03-APR-14
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	482550-001		482550-002		482550-003		482550-004		482550-005	
	Field Id:	1		2		3		4		5	
	Depth:	1 In		6 In		1 In		6 In		5 In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-02-14 09:05		Apr-02-14 09:10		Apr-02-14 09:15		Apr-02-14 09:20		Apr-02-14 09:25	
Inorganic Anions by EPA 300/300.1	*Extracted:*	Apr-03-14 10:00		Apr-03-14 10:00		Apr-03-14 10:00		Apr-03-14 10:00		Apr-03-14 10:00	
	Analyzed:	Apr-03-14 11:15		Apr-03-14 12:00		Apr-03-14 12:23		Apr-03-14 12:46		Apr-03-14 13:08	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		314	10.2	132	12.3	22000	1010	2230	106	57.7	10.3
Percent Moisture	*Extracted:*										
	Analyzed:	Apr-03-14 11:00		Apr-03-14 11:00		Apr-03-14 11:00		Apr-03-14 11:00		Apr-03-14 11:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		2.04	1.00	18.8	1.00	ND	1.00	6.01	1.00	2.71	1.00
TPH by Texas1005	*Extracted:*	Apr-02-14 17:00		Apr-02-14 17:00							
	Analyzed:	Apr-03-14 15:26		Apr-03-14 08:49							
	Units/RL:	mg/kg	RL	mg/kg	RL						
C6-C12 Gasoline Range Hydrocarbons		ND	127	ND	30.7						
C12-C28 Diesel Range Hydrocarbons		5590	127	833	30.7						
C28-C35 Oil Range Hydrocarbons		558	127	95.9	30.7						
Total TPH 1005		6150	127	929	30.7						

Kelsey Brooks
Project Manager

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

XENCO Laboratories

☐ 4143 Greenbriar Drive, Stafford, TX 77477 281-240-4200
☐ 5332, Blackberry Drive, San Antonio, TX 78238 210-509-3334
☐ 9701 Harry Hines Blvd., Dallas, TX 75220 214-902-0300
☐ 12600 West I-20 East, Odessa, TX 79765 432-563-1800
☐ 342 Cantwell, Corpus Christi, TX 78408 361-884-0371

Serial #: 307512 Page of

Company-City: ConocoPhillips Phone

Lab Only: 482550

Project Name-Location: Red Hills State 16-1H ☐ Previously done at XENCO Project ID

TAT: ASAP 5h 12h (24h) 48h 3d 5d 7d 10d 21d Standard TAT is project specific.
It is typically 5-7 Working Days for level II and 10+ Working days for level III and IV data.

Proj. State: TX, AL, FL, GA, LA, MS, NC, NJ, PA, SC, TN, UT Other NM

Proj. Manager (PM): Donna Thompson

E-mail Results to: ☐ PM and goodinhobb@yahoo.com Fax No:

Invoice to: ☐ Accounting ☐ Inc. Invoice with Final Report ☐ Invoice must have a P.O.

Bill to: Bryan.W.Clay@ConocoPhillips.com

Quote/Pricing: P.O. No: ☐ Call for P.O.

Reg Program: UST DRY-CLEAN Land-Fill Waste-Disp NPDES DW TRRP

QAPP Per-Contract CLP AGCEE NAVY DOE DOD USACE OTHER:

Special DLs (GW DW QAPP MDLs RLs See Lab PM Included Call PM)

Sampler Name: John Good Signature: John Good

	Sample ID	Sampling Date	Time	Depth (ft/in)	Matrix	Composite	Grab	# Containers	Container Size	Container Type	Preservatives	VCOs: Full-List BTEX-MTBE EtOH Oxyg VOHs VOAs	VCO's PP TCL DW Appdx-1 Appdx-2 CALL Other	PAHs SIM	TX-1005 DRO GRO MA EPH MA VPH	SVOCs: Full-List DW BN&AE TCL PP Appdx-2 CALL	OC Pesticides PCBs Herbicides OP Pesticides	Metals: RCRA-8 RCRA-4 Pb 13PP 23TAL Appdx-1 Appdx2	SPLP - TCLP (Metals VOCs SVOCs Pest. Herb. PCBs):	EDB / DBCP	Chlorides	TATASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d	Addn. PAH above mg/L W, mg/Kg S Highest Hit	Hold Samples (Surcharges will apply and are pre-approved)	Remarks: Sample Clean-ups are pre-approved as needed	Addn: Date Rcv. by: From:
1	1	4/2/14	9:05	1	S		X	1	4oz	C	C				X						X					
2	2		9:10	6			X	1							X						X					
3	3		9:15	1			X	1													X					
4	4		9:20	6			X	1													X					
5	5	—	9:25	5			X	1	↓	↓	↓										X					
6																										
7																										
8																										
9																										
10																										

	Relinquished by (Initials and Sign)	Date & Time	Relinquished to (Initials and Sign)	Date & Time
1	1) JG John Good	4/2/14 12:30	2)	4-2-14 12:30
2	a)	4.2.14 07:30	4)	
3	5)		6)	4-2-14 17:00

Total Containers per COC: Cooler Temp: 2 1 19

Otherwise agreed on writing, Reports are the Intellectual Property of XENCO until paid. Samples will be held 30 days after final report is e-mailed unless hereby requested. Rush Charges and Collection Fees are pre-approved if needed.

Preservatives: Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO3 pH<2 (N), Asbc Acid&NaOH (A), ZnAc&NaOH (Z), (Cool, <4C) (C), None (NA), See Label (L), Other (O)

Cont. Size: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (40), 1L (1), 500ml (5), Tedlar Bag (B), Various (V), Other Cont. Type: Glass Amb. (A), Glass Clear (C), Plastic (P), Various (V)

Matrix: Air (A), Product (P), Solid (S), Water (W), Liquid (L)

Committed to Excellence in Service and Quality www.xenco.com

Notice: Signature of this document and relinquishment of these samples constitutes a valid purchase order from client company to Xenco Laboratories and its affiliates, subcontractors and assigns under Xenco's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

Certificate of Analysis Summary 485704

Conoco Phillips-Goldsmith, Goldsmith, TX

Project Name: RED HILLS 16-H

Project Id: 16-H
Contact: Bryan Clay
Project Location: TX

Date Received in Lab: Mon May-19-14 03:40 pm
Report Date: 29-MAY-14
Project Manager: Kelsey Brooks

Analysis Requested		485704-001		485704-002		485704-003		485704-004		485704-005		485704-006	
	Lab Id:	485704-001		485704-002		485704-003		485704-004		485704-005		485704-006	
	Field Id:	SP 1		SP 2		SP 3		SP 4		SP 5		SP 6	
	Depth:	18 In		18 In		12 In		2 In		5.5 In		1.5 In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	May-16-14 08:00		May-16-14 08:30		May-16-14 09:00		May-16-14 09:30		May-16-14 10:00		May-16-14 10:30	
BTEX-MTBE by EPA 8021B	Extracted:	May-28-14 07:00		May-28-14 07:00									
	Analyzed:	May-28-14 12:42		May-28-14 12:58									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Benzene		ND	0.00100	ND	0.00109								
Toluene		ND	0.00201	ND	0.00217								
Ethylbenzene		ND	0.00100	ND	0.00109								
m_p-Xylenes		ND	0.00201	ND	0.00217								
o-Xylene		ND	0.00100	ND	0.00109								
MTBE		ND	0.0201	ND	0.0217								
Total Xylenes		ND	0.00100	ND	0.00109								
Total BTEX		ND	0.00100	ND	0.00109								
Inorganic Anions by EPA 300/300.1 SUB: TX104704215	Extracted:	May-22-14 13:00		May-22-14 13:00		May-22-14 13:00		May-22-14 13:00		May-22-14 13:00		May-22-14 13:00	
	Analyzed:	May-22-14 22:05		May-22-14 22:27		May-22-14 22:50		May-22-14 23:58		May-23-14 00:21		May-23-14 00:44	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		410	20.1	737	43.8	254	20.1	1020	40.6	8.93	2.02	1380	101
Percent Moisture	Extracted:												
	Analyzed:	May-21-14 18:45		May-21-14 18:45		May-21-14 18:45		May-21-14 18:45		May-21-14 18:45		May-21-14 18:45	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		ND	1.00	8.59	1.00	ND	1.00	1.50	1.00	1.13	1.00	ND	1.00
TPH by Texas1005	Extracted:	May-27-14 14:00		May-27-14 14:00									
	Analyzed:	May-28-14 11:18		May-28-14 12:36									
	Units/RL:	mg/kg	RL	mg/kg	RL								
C6-C12 Gasoline Range Hydrocarbons		ND	25.1	ND	27.3								
C12-C28 Diesel Range Hydrocarbons		134	25.1	ND	27.3								
C28-C35 Oil Range Hydrocarbons		ND	25.1	ND	27.3								
Total TPH 1005		134	25.1	ND	27.3								

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 485704

Conoco Phillips-Goldsmith, Goldsmith, TX

Project Name: RED HILLS 16-H

Project Id: 16-H
Contact: Bryan Clay
Project Location: TX

Date Received in Lab: Mon May-19-14 03:40 pm
Report Date: 29-MAY-14
Project Manager: Kelsey Brooks

Analysis Requested		Lab Id:	485704-007		485704-008		485704-009					
		Field Id:	SP 7		SP 8		SP 9					
		Depth:	6 In		2.5 In		3 In					
		Matrix:	SOIL		SOIL		SOIL					
		Sampled:	May-16-14 11:00		May-16-14 11:30		May-16-14 12:00					
BTEX-MTBE by EPA 8021B	Extracted:		May-28-14 07:00									
	Analyzed:		May-28-14 13:15									
	Units/RL:		mg/kg	RL								
Benzene			ND	0.00107								
Toluene			ND	0.00215								
Ethylbenzene			ND	0.00107								
m_p-Xylenes			ND	0.00215								
o-Xylene			ND	0.00107								
MTBE			ND	0.0215								
Total Xylenes			ND	0.00107								
Total BTEX			ND	0.00107								
Inorganic Anions by EPA 300/300.1 SUB: TX104704215	Extracted:		May-22-14 13:00		May-22-14 13:00		May-22-14 13:00					
	Analyzed:		May-23-14 01:06		May-23-14 01:29		May-23-14 01:52					
	Units/RL:		mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride			239	21.6	399	20.1	477	40.3				
Percent Moisture	Extracted:											
	Analyzed:		May-21-14 18:45		May-21-14 18:45		May-21-14 18:45					
	Units/RL:		%	RL	%	RL	%	RL				
Percent Moisture			7.28	1.00	ND	1.00	ND	1.00				
TPH by Texas1005	Extracted:		May-27-14 14:00									
	Analyzed:		May-28-14 13:01									
	Units/RL:		mg/kg	RL								
C6-C12 Gasoline Range Hydrocarbons			ND	26.9								
C12-C28 Diesel Range Hydrocarbons			76.7	26.9								
C28-C35 Oil Range Hydrocarbons			ND	26.9								
Total TPH 1005			76.7	26.9								

Kelsey Brooks
Project Manager

XENCO Laboratories

☐ 4141 Greenbriar Drive, Stafford, Tx 77477 281-589-0692
☐ 5332 Blackberry Drive, San Antonio, Tx 78238 210-509-3334
☐ 9701 Harry Hines Blvd., Dallas, Tx 75220 214-902-0300

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

☐ 12600 West I-20 East, Odessa, Tx 79765 432-563-1800
☐ 842 Cantwell, Corpus Christi, Tx 78408 361-884-0371

Serial #: 229188 Page of

Company-City: Conoco Phillips Phone: 432-213-3376

Lab Only: 485704

Proj Name-Location: Red Hills 16-H ☐ Previously done at XENCO Project ID

TAT: ASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d Standard TAT is project specific. It is typically 5-7 Working Days for level II and 10+ Working days for level III and IV data.

Proj State: AL, CO, FL, GA, LA, MS, NC, NJ, NM, OK, PA, SC, TN, TX, UT Other

Proj. Manager (PM): Bryan Clay

e-mail to PM and e-mail to: Conoco Phillips Fax to:

Invoice to ☐ Accounting ☐ Inc. Invoice with Report ☐ Invoice must have a P.O or

Bill to: [illegible]@yahoo.com; Bryan.[illegible].clay@conocophillips

Quote/Pricing: P.O No: ☐ Call for P.O.

Reg Program: UST DRY-CLEAN Land-Fill Waste-Disp NPDES DW

QAPP Per-Contract CLP AFCEE NAVY DOE DOD USACE OTHER:

Special DLs (GW DW QAPP MDLs RLs See Lab PM Included Call PM)

LPST No.: ☐ Dry Basis

Sampler Name: Keylie Martin Signature: Keylie Martin

#	Sample ID	Sampling Date	Time	Depth ft' in" m	Matrix	Composite	Grab	# Containers	Container Size	Container Type	Preservatives	VOCs (BTEX-MTBE) OXYG ETOH VOHs	8260 8021 602 624 524 TCLP/SPLP ( )	PAHs 8270 8270-SIM 8310	TPH: TX1005 8015B 8015Mod 8015DRO 8015GRO 8015ORO	SVOCs 8270 8270-SIM 625 TCLP/SPLP ( )	Metals: RCRA (4, 8, 11) Pb TCLP/SPLP ( ) Other	Metals Method: 6010 6020 200.8 7470/245.1 7471	NORM Ra 226 228 Uranium	Asbestos PLM PCM	Pesticides 8081 608 TCLP/SPLP ( )	Herbicides 8151 615 TCLP/SPLP ( )	PCBS 8082 608	Chloride	TAT ASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d	Addn: PAH above mg/L W, mg/Kg S Highest Hit	Hold Samples (Surcharges will apply and are pre-approved)	Sample Clean-ups are pre-approved as needed	Remarks
1	SP 1	5-16-14	8:00	18"	S		X	1	4	C	O	X			X									X					
2	SP 2	5-16-14	8:30	18"	S		X	1	4	C	O	X			X									X					
3	SP 3	5-16-14	9:00	12"	S		X	1	4	C	O													X					
4	SP 4	5-16-14	9:30	2'	S		X	1	4	C	O													X					
5	SP 5	5-16-14	10:00	5.5'	S		X	1	4	C	O													X					
6	SP 6	5-16-14	10:30	1.5'	S		X	1	4	C	O													X					
7	SP 7	5-16-14	11:00	6"	S		X	1	4	C	O	X			X									X					
8	SP 8	5-16-14	11:30	2.5'	S		X	1	4	C	O													X					
9	SP 9	5-16-14	12:00	3'	S		X	1	4	C	O													X					
10																													

Addn: Date Rcv by: From:

#	Relinquished by (Initials and Sign)	Date & Time	Relinquished to (Initials and Sign)	Date & Time
1	KM Keylie Martin	5-19-14 3:40	[signature]	5/19/14 1540
2				
3			Lab:	

Total Containers per COC: Cooler Temp: 9

Upon signings this COC you accept XENCO terms and Conditions unless otherwise agreed on writing. Reports are the Intellectual Property of XENCO until paid. Samples will be held 30 days after final report is e-mailed unless hereby requested. Rush Charges are pre-approved.

Preservatives: Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO3 pH<2 (N), Asbc Acid&NaOH (A), ZnAc&NaOH (Z), (Cool,<4C) (C); None (NA), See Label (L), Other (O) ______

Cont. Size: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (V), 1L (1), 500ml (5), Tedlar Bag (B), Wipe (W), Other ______ Cont. Type: Glass Amb (A), Glass Clear (C), Plastic (P), Other (O) ICE

Matrix: Air (A), Product (P), Solid(S), Water (W)

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Certificate of Analysis Summary 486076

Conoco Phillips-Goldsmith, Goldsmith, TX

Project Name: Red Hills 16-1H

Project Id:
Contact: Bryan Clay
Project Location: NM

Date Received in Lab: Fri May-23-14 11:02 am
Report Date: 02-JUN-14
Project Manager: Kelsey Brooks

Analysis Requested									
	Lab Id:	486076-001		486076-002					
	Field Id:	Bp 1		Bp 2					
	Depth:								
	Matrix:	SOIL		SOIL					
	Sampled:	May-22-14 11:37		May-22-14 11:40					
Inorganic Anions by EPA 300/300.1	*Extracted:*	May-30-14 10:00		May-30-14 10:00					
	Analyzed:	May-31-14 01:53		May-31-14 02:16					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		1470	213	1190	103				
Percent Moisture	*Extracted:*								
	Analyzed:	May-27-14 15:00		May-27-14 15:00					
	Units/RL:	%	RL	%	RL				
Percent Moisture		6.02	1.00	3.00	1.00				

Kelsey Brooks

CHAIN OF CUSTODY

Page — of —

XENCO LABORATORIES

Setting the Standard since 1990

Stafford, Texas (281-240-4200) Odessa, Texas (432-563-1800) Lakeland, Florida (863-646-8526)

Dallas, Texas (214-902-0300) Norcross, Georgia (770-449-8800) Tampa, Florida (813-620-2000)

Service Center - San Antonio, Texas (210-509-3334) www.xenco.com

Xenco Quote # Xenco Job # 486076

Client / Reporting Information

Company Name / Branch: Conoco Phillips

Company Address:

Email: Bryan.w.Clay@conocophillips.com Phone No:

Project Contact: Bryan Clay

Samplers's Name: Joseph Cotton

Project Information

Project Name/Number: 432-213-3376 Red Hills 16-1H

Project Location: Red Hills 16-1H

Invoice To: Conoco Phillips

PO Number:

Analytical Information

Chloride

Matrix Codes

A = Air
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
WW = Waste Water
W = Wipe
O = Oil

WW = Waste Water

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: ICE	HNO3	H2SO4	NaOH	Na2S2O3	MEOH	NONE	Chloride	Field Comments
1	BP1		5-22-14	11:37	S	1								X	
2	BP2		5-22-14	11:40	S	1								X	
3															
4															
5															
6															
7															
8															
9															
10															

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [x] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [x] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 3:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level III Std QC+ Forms
- [ ] Level 3 (CLP Forms)
- [ ] TRRP Checklist
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] TRRP Level IV
- [ ] UST / RG-411

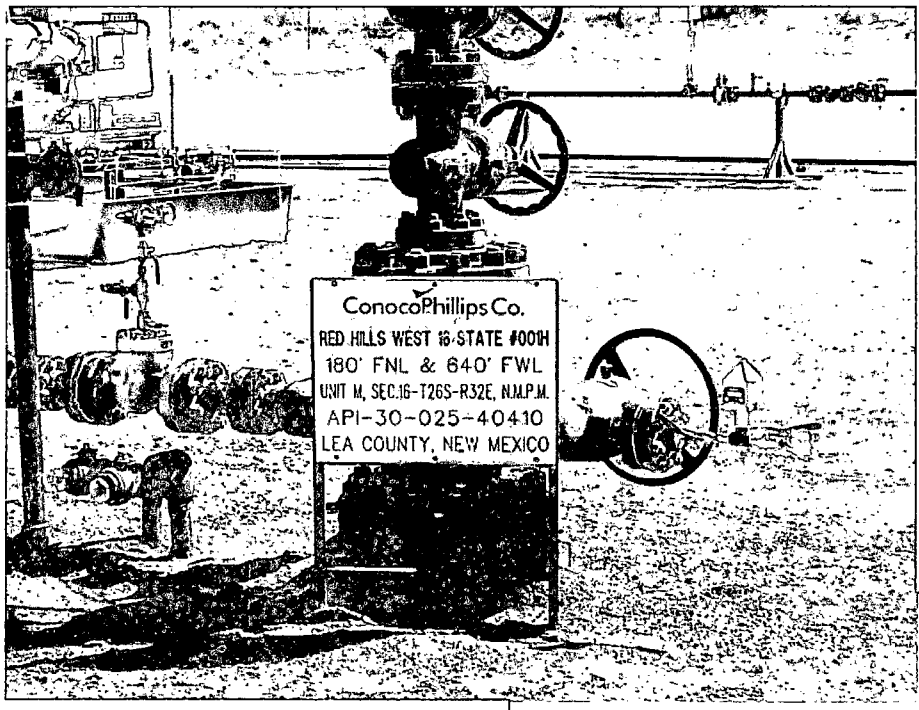
Notes:

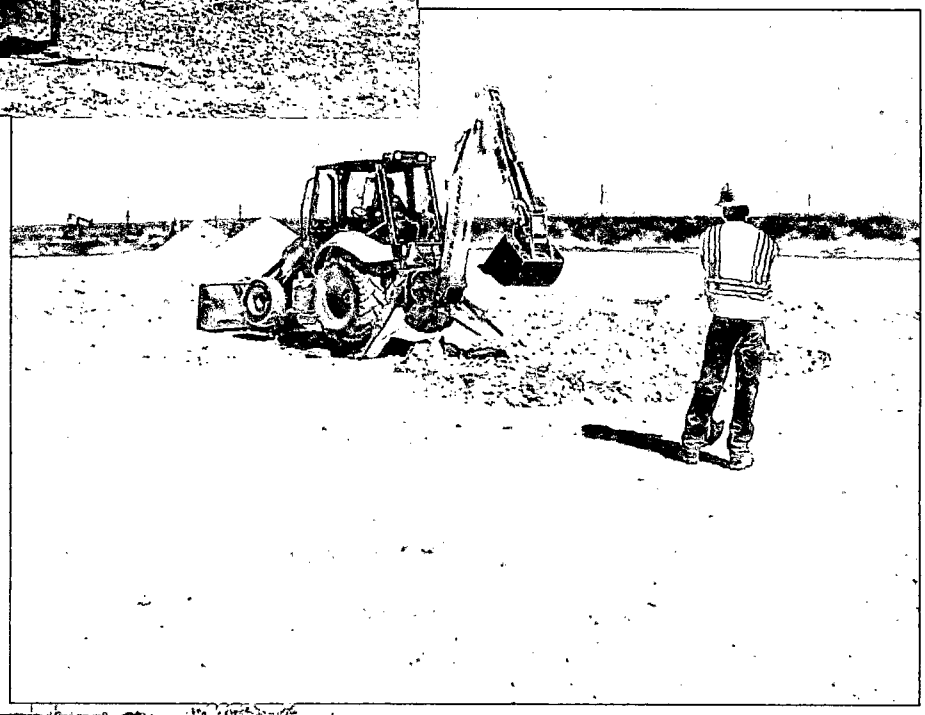
FED-EX / UPS: Tracking #

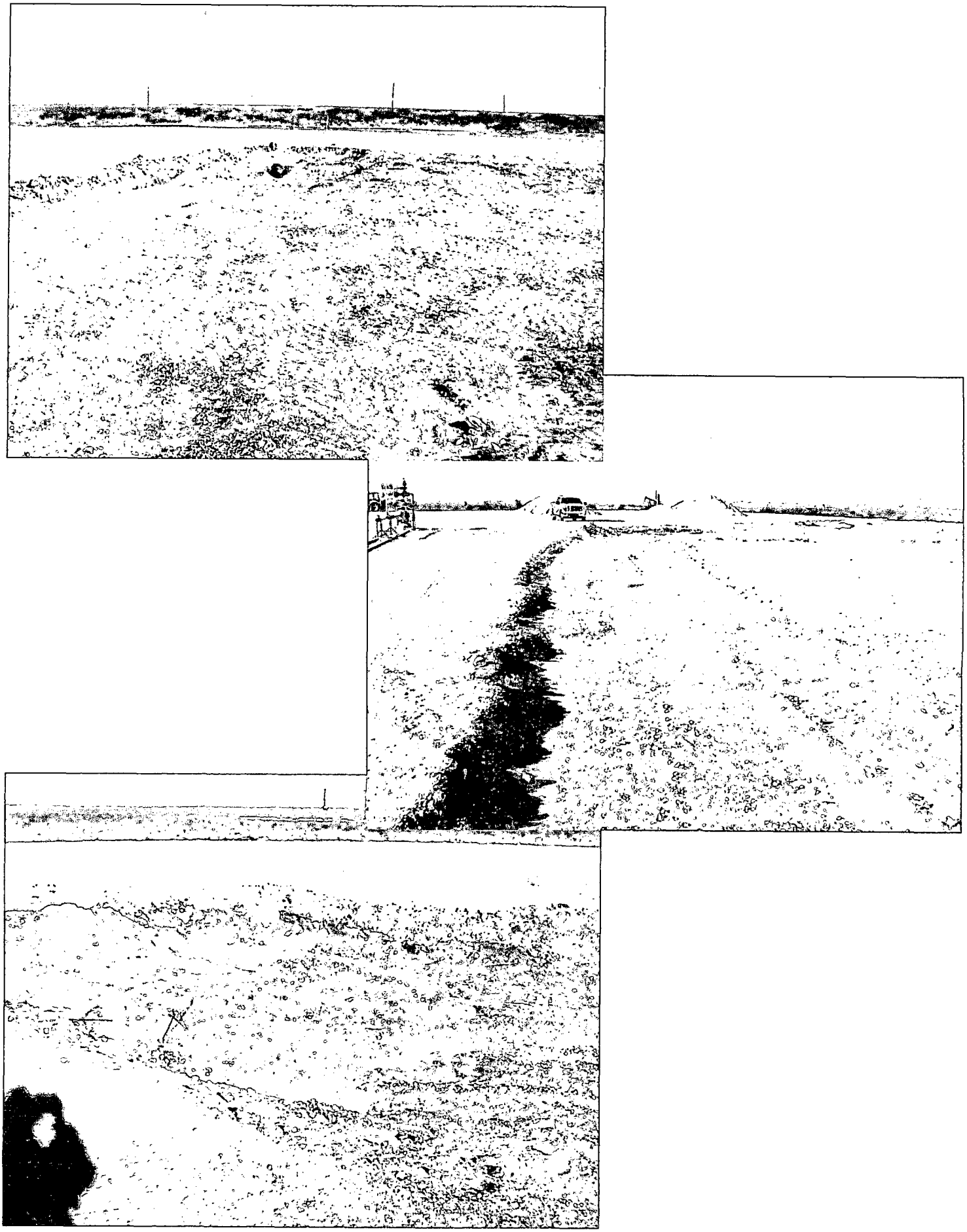
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

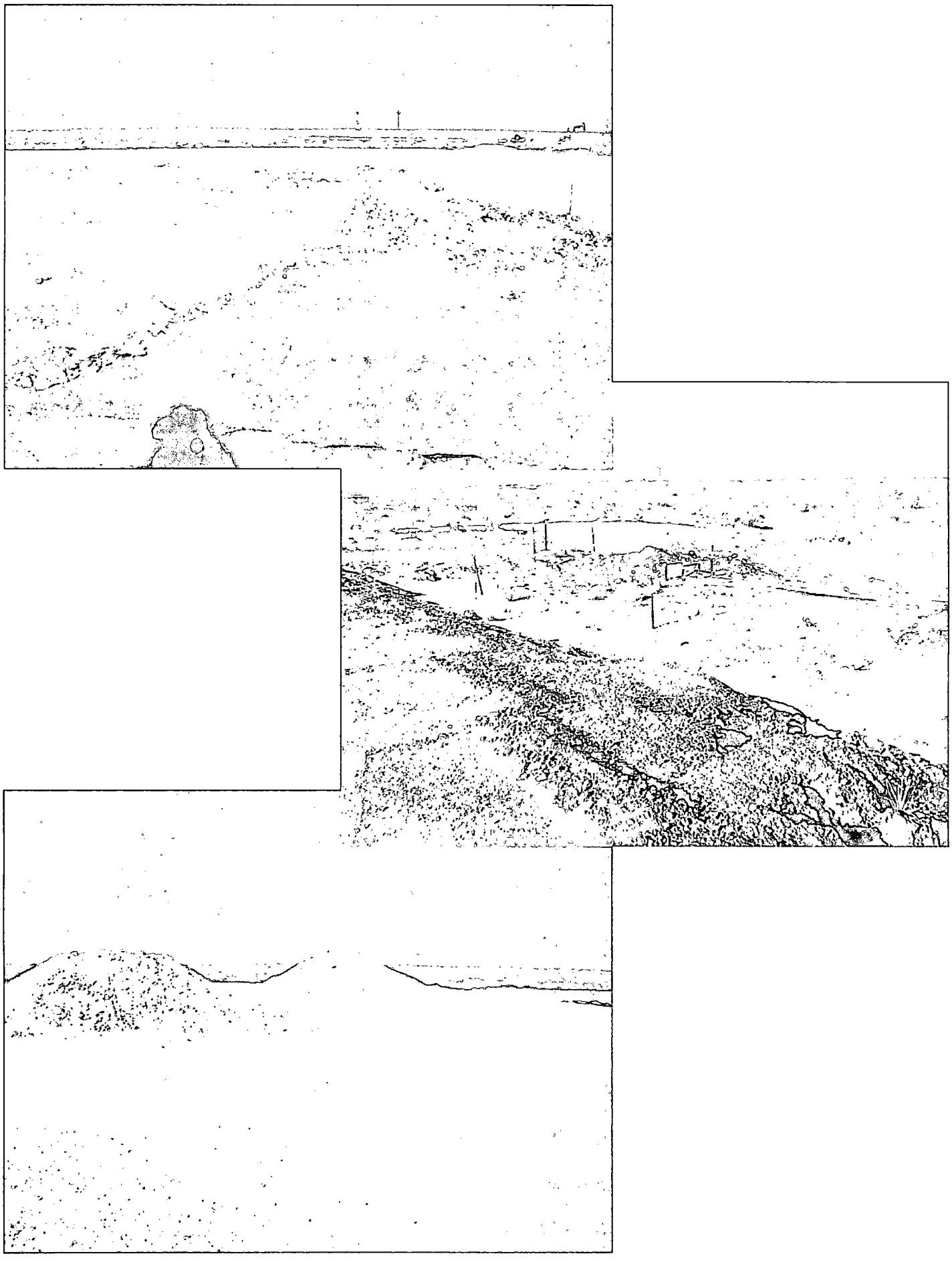
Relinquished by Sampler:	Date Time: 5-23-14 11:01	Received By: 1	Relinquished By: 2 XENCO	Date Time: 5/23/14 11	Received By: 2
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: Y Cooler Temp.: 1°C Thermo Cor. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.


ConocoPhillips Co.
RED HILLS WEST 16 STATE #001H
180' FNL & 640' FWL
UNIT M, SEC.16-T26S-R32E, N.M.P.M.
API-30-025-40410
LEA COUNTY, NEW MEXICO







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: Lakin Aaron
Address: 4001 Penbrook Odessa, Tx 79762	Telephone No.: 432-488-6067
Facility Name: Red Hills West State 16-5	Facility Type: Well Location

Surface Owner: State of New Mexico	Mineral Owner: State of New Mexico	API No.: 30-025-40414

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	16	26S	32E	180	North	690	WEST	LEA

Latitude N32.04963300 **Longitude** W103.68589700

NATURE OF RELEASE

Type of Release: Oil and Produced water	Volume of Release: 32	Volume Recovered: 31
Source of Release: Open Top Frac Tank	Date and Hour of Occurrence: 8/1/13 @ 0630 HRS (MST)	Date and Hour of Discovery: 8/1/13 @ 0645 HRS (MST)
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? GEOFFREY LEKING	
By Whom? Lakin Aaron	Date and Hour: 8/1/13 06:47	
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.*

On August 1, 2013 at @ 0645 hrs (MST) on the State 16-5 Well Pad located approximately 22 miles NW of Orla, TX, a spill of produced water and oil occurred when the 16-5 well unloaded into an open top tank and overflowed onto location. The well had been loaded up for several days with no flow and was routed to an open top tank on location to reduce back pressure on the well. The location was being monitored routinely (every 30 to 60 min) for flow and had shown no sign of unloading for 3 days. At 0500 the MSO left the 16-5 and went to other facilities in the field to restart compressors following a Nuevo shut down. The restart process took longer than expected and when the MSO returned to the 16-5 at 0645, the well had started unloading and was overflowing the open top tank. MSO immediately controlled the release and contacted supervision. Approximately 32 bbls of fluid was released (17 oil and 15 produced water) with 31 bbls recovered (17 oil and 14 produced water).

Describe Area Affected and Cleanup Action Taken.*

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: Lakin Aaron	OIL CONSERVATION DIVISION	
Printed Name: Lakin Aaron	Approved by Environmental Specialist:	
Title: Production Specialist	Approval Date:	Expiration Date:
E-mail Address: Lakin.R.Aaron@cop.com	Conditions of Approval:	Attached ☐
Date: 08/02/2013 Phone: (432) 488-6067		

* Attach Additional Sheets If Necessary

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 Corporation	Contact: Donna Thompson
Address: 3300 N Ave A, Bldg 6, Midland, TX 79705	Telephone No.: 432-631-0276
Facility Name: Red Hills West State 16-1H	Facility Type: Well Location

Surface Owner: State of New Mexico	Mineral Owner: State of New Mexico	API No.: 30-025-40414

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	16	26S	32E	180	North	690	WEST	LEA

Latitude 32° 2.978'N Longitude 103° 41.188'W

NATURE OF RELEASE

Type of Release: Oil and Produced water	Volume of Release: 32	Volume Recovered: 31
Source of Release: Open Top Frac Tank	Date and Hour of Occurrence: 8/1/13 @ 0630 HRS (MDT)	Date and Hour of Discovery: 8/1/13 @ 0645 HRS (MDT)
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? GEOFFREY LEKING	
By Whom? Lakin Aaron, Production Specialist	Date and Hour: 8/1/13 06:47	
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.* On August 1, 2013 at @ 0645 hrs (MST) on the State 16-1H Well Pad located approximately 23 miles west of Jal, NM, a spill of produced water and oil occurred when the 16-1H well unloaded into an open top tank and overflowed onto location. The well had been loaded up for several days with no flow and was routed to an open top tank on location to reduce back pressure on the well. The location was being monitored routinely (every 30 to 60 min) for flow and had shown no sign of unloading for 3 days. At 0500 the MSO left the 16-1H and went to other facilities in the field to restart compressors following a Nuevo shut down. The restart process took longer than expected and when the MSO returned to the 16-5 at 0645, the well had started unloading and was overflowing the open top tank. MSO immediately controlled the release and contacted supervision. Approximately 32 bbl of fluid was released (17 oil and 15 produced water) with 31 bbl recovered (17 oil and 14 produced water).

Describe Area Affected and Cleanup Action Taken.*
The release flow path was ~10,000 ft2. 360-yd^3 of TPH and chloride contaminated soil excavated and disposed of. Remaining excavated to below 1000-ppm chloride, stockpiled and blended with clean caliche to achieve average 1300-ppm chloride. Blended material was used to backfill excavated area(s).

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: Donna Thompson	Approved by Environmental Specialist:	
Title: HES Lead	Approval Date:	Expiration Date:
E-mail Address: Donna.K.Thompson@conocophillips.com	Conditions of Approval:	Attached ☐
Date: 07/03/2014 Phone: 432-631-0276		

* Attach Additional Sheets If Necessary