



DELINEATION WORKPLAN

OXY – RED TANK 28 FEDERAL #1 CTB (Leak Date: 6/20/17)

RP # 1RP-4741
API # 30-025-31661

This delineation workplan and remediation proposal addresses the release associated with RP # 1RP-4741.

The following information includes:

1. Scaled digital site map with spill area demarcated and leak point identified along with sample point locations and areas of remediation at appropriate depths.
2. GPS information for sample points and sample methodology
3. Depth to groundwater information (i.e., pdf of OSE search results and/or copy of Chevron groundwater trend map).
4. Laboratory analysis results summary table and original laboratory analysis reports
5. A copy of the initial C-141
6. Potentially other pertinent information as necessary for site specific purposes.

Based on the information included in this package and the NMOCD guidelines, the following remediation is proposed:

OXY will excavate the spill area as depicted on the following site diagram. The entire leak area will be excavated to a depth of 3.5 feet.

The entire site will then be backfilled with clean soil and revegetated (if warranted) to the standards of the appropriate regulatory agency or private surface owner.

All excavated materials will be disposed of at an NMOCD-approved disposal facility.

APPROVED

By Olivia Yu at 9:59 am, Dec 08, 2017

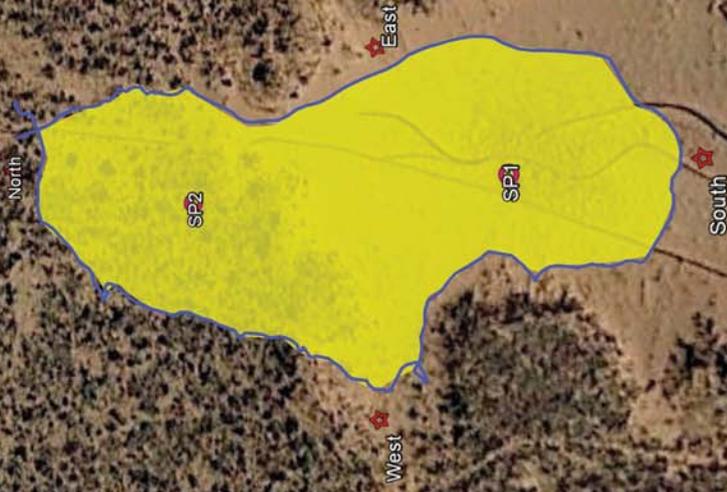
NMOCD approves of the delineation and proposed remediation for 1RP-4741.

Oxy, Red Tank 28 Federal #1 CTB

Leak date: 06/20/2017
Lea County, NM
API# 30-025-31661
1RP-4741

Legend

-  3.5 ft Excavation across entire leak area
-  Cardinal sample points
-  Leak Area
-  Sample points



100 ft

Oxy, Red Tank 28 Federal #1 CTB

Sample points,

SP1, N 32.36377 W-103.67222

SP2, N 32.36401 W-103.67225

NORTH, N 32.36417 W-103.67224

SOUTH, N 32.36365 W-103.67220

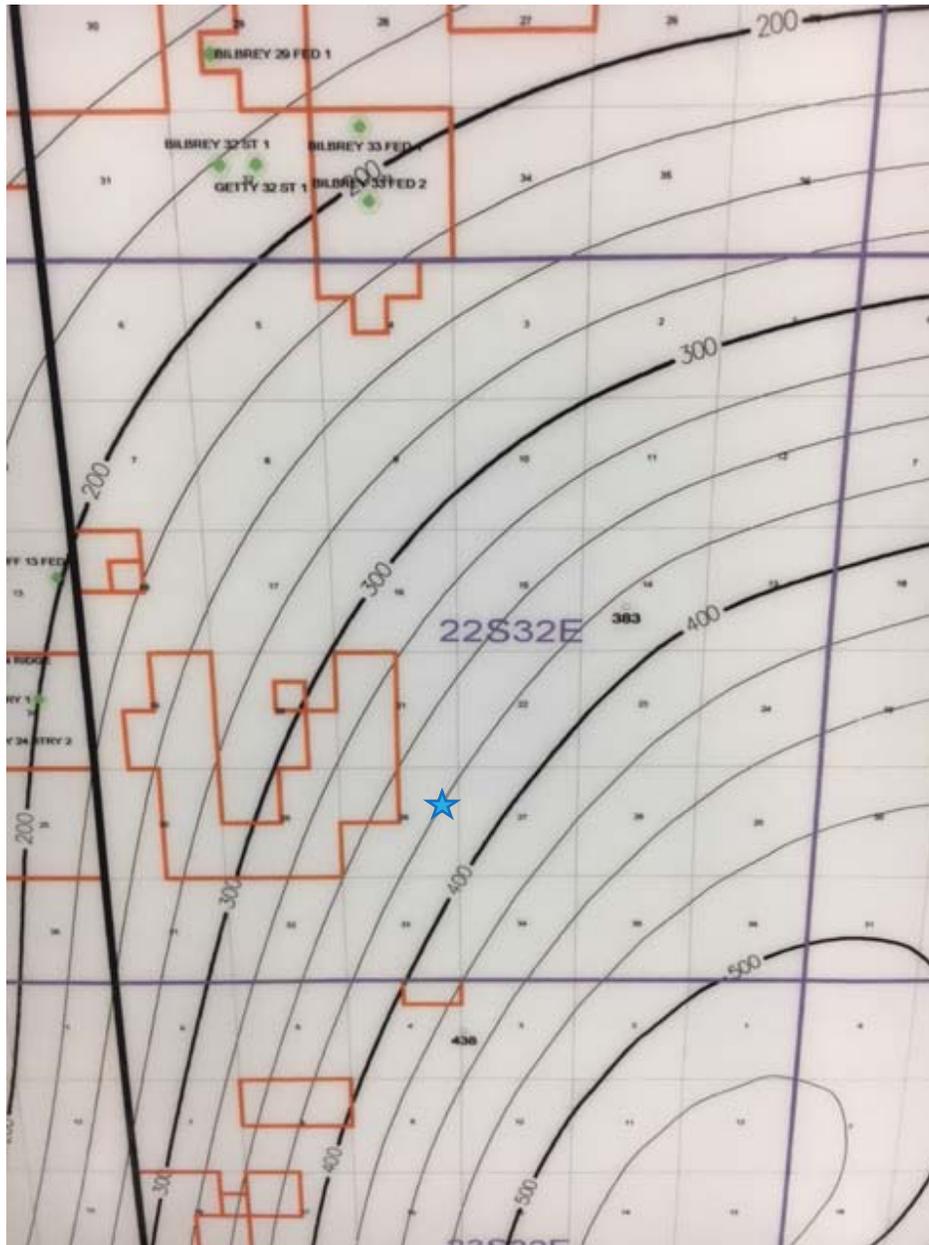
EAST, N 32.36386 W-103.67214

WEST, N 32.36386 W-103.67239

Oxy, Red Tank 28 Federal #1 CTB

U/L H, Section 28, T22S, R32E

Groundwater: 375'





New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 624827

Northing (Y): 3581607

Radius: 1700

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/26/17 10:57 AM

WATER COLUMN/ AVERAGE
DEPTH TO WATER

Public Land Survey System (PLSS)

Q64: Q16: Q4: Sec: Tws: Rng:

State Plane Coordinate System - NAD27

X: ft Y: ft Zone:

State Plane Coordinate System - NAD83

X: ft Y: ft Zone:

Degrees/Minutes/Seconds

Longitude (X): Degrees: ° Minutes: ' Seconds: "

Latitude (Y): Degrees: ° Minutes: ' Seconds: "

UTM - NAD27

Easting (X): mtrs Northing (Y): mtrs Zone:

SUBMIT

All Conversion Results are displayed as NAD 1983 UTM Zone 13

Easting (X): mtrs Northing (Y): mtrs

~~ Please keep screen open to copy UTM values for Reports. ~~

Laboratory Analytical Results Summary
Red Tank 28 Federal #1 CTB

Analyte	Method	Sample Date	SP1 @ 1'	SP1 @ 3'	SP1 @ 5'	SP1 @ 7'	SP1 @ 8'
			8/16/17 mg/Kg	8/16/17 mg/Kg	8/16/17 mg/Kg	8/16/17 mg/Kg	8/16/17 mg/Kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		0.164	0.659	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		1.53	3.43	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		1.69	4.09	<0.300	<0.300	<0.300
Chloride	SM4500C1-B		224	784	336	480	288
GRO	TPH 8015M		234	792	<10.0	<10.0	<10.0
DRO	TPH 8015M		6070	8590	<10.0	26.8	11
EXT DRO	TPH 8015M		1080	1400	<10.0	<10.0	<10.0

Analyte	Method	Sample Date	SP2 @ 1'	SP2 @ 3'	SP2 @ 5'	SP2 @ 7'	SP2 @ 8'	SP2 @ 9'
			8/16/17 mg/Kg	8/16/17 mg/Kg	8/16/17 mg/Kg	8/16/17 mg/Kg	8/16/17 mg/Kg	8/16/17 mg/Kg
Benzene	BTEX 8021B		<0.050	<0.500	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		0.143	0.656	<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.500	<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		1.15	<0.150	<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		1.29	<0.300	<0.300	<0.300	<0.300	<0.300
Chloride	SM4500C1-B		320	368	400	416	320	320
GRO	TPH 8015M		207	907	<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		6250	10200	<10.0	19.1	<10.0	<10.0
EXT DRO	TPH 8015M		1140	1650	<10.0	<10.0	<10.0	<10.0

Analyte	Method	Sample Date	NORTH @ SURFACE
			8/16/17 mg/Kg
Chloride	SM4500C1-B		<16.0

Analyte	Method	Sample Date	EAST @ SURFACE
			8/16/17 mg/Kg
Chloride	SM4500C1-B		<16.0

Analyte	Method	Sample Date	WEST @ SURFACE
			8/16/17 mg/Kg
Chloride	SM4500C1-B		16

Analyte	Method	Sample Date	SOUTH @ SURFACE
			8/16/17 mg/Kg
Chloride	SM4500C1-B		16

August 24, 2017

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: RED TANK 28 FED #1 CTB

Enclosed are the results of analyses for samples received by the laboratory on 08/17/17 13:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	08/17/2017	Sampling Date:	08/16/2017
Reported:	08/24/2017	Sampling Type:	Soil
Project Name:	RED TANK 28 FED #1 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY		

Sample ID: SP 1 @ 1 (H702189-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/23/2017	ND	1.96	98.0	2.00	1.28	
Toluene*	0.164	0.050	08/23/2017	ND	1.81	90.7	2.00	0.638	
Ethylbenzene*	<0.050	0.050	08/23/2017	ND	1.84	92.0	2.00	1.42	
Total Xylenes*	1.53	0.150	08/23/2017	ND	5.53	92.2	6.00	1.69	
Total BTEX	1.69	0.300	08/23/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	08/19/2017	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	234	50.0	08/21/2017	ND	177	88.5	200	2.45		
DRO >C10-C28	6070	50.0	08/21/2017	ND	176	87.8	200	4.19		
EXT DRO >C28-C36	1080	50.0	08/21/2017	ND						

Surrogate: 1-Chlorooctane 132 % 28.3-164

Surrogate: 1-Chlorooctadecane 177 % 34.7-157

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*=Accredited Analyte

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 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	08/17/2017	Sampling Date:	08/16/2017
Reported:	08/24/2017	Sampling Type:	Soil
Project Name:	RED TANK 28 FED #1 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY		

Sample ID: SP 1 @ 3 (H702189-02)

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/23/2017	ND	1.96	98.0	2.00	1.28	
Toluene*	0.659	0.050	08/23/2017	ND	1.81	90.7	2.00	0.638	
Ethylbenzene*	<0.050	0.050	08/23/2017	ND	1.84	92.0	2.00	1.42	
Total Xylenes*	3.43	0.150	08/23/2017	ND	5.53	92.2	6.00	1.69	
Total BTEX	4.09	0.300	08/23/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 199 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	784	16.0	08/19/2017	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	792	50.0	08/21/2017	ND	177	88.5	200	2.45	
DRO >C10-C28	8590	50.0	08/21/2017	ND	176	87.8	200	4.19	
EXT DRO >C28-C36	1400	50.0	08/21/2017	ND					

Surrogate: 1-Chlorooctane 177 % 28.3-164

Surrogate: 1-Chlorooctadecane 216 % 34.7-157

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Received:	08/17/2017	Sampling Date:	08/16/2017
Reported:	08/24/2017	Sampling Type:	Soil
Project Name:	RED TANK 28 FED #1 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY		

Sample ID: SP 1 @ 5 (H702189-03)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/23/2017	ND	1.96	98.0	2.00	1.28	
Toluene*	<0.050	0.050	08/23/2017	ND	1.81	90.7	2.00	0.638	
Ethylbenzene*	<0.050	0.050	08/23/2017	ND	1.84	92.0	2.00	1.42	
Total Xylenes*	<0.150	0.150	08/23/2017	ND	5.53	92.2	6.00	1.69	
Total BTEX	<0.300	0.300	08/23/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	08/19/2017	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	08/21/2017	ND	177	88.5	200	2.45	
DRO >C10-C28	<10.0	10.0	08/21/2017	ND	176	87.8	200	4.19	
EXT DRO >C28-C36	<10.0	10.0	08/21/2017	ND					

Surrogate: 1-Chlorooctane 89.5 % 28.3-164

Surrogate: 1-Chlorooctadecane 96.0 % 34.7-157

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Received:	08/17/2017	Sampling Date:	08/16/2017
Reported:	08/24/2017	Sampling Type:	Soil
Project Name:	RED TANK 28 FED #1 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY		

Sample ID: SP 1 @ 7 (H702189-04)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/23/2017	ND	1.96	98.0	2.00	1.28	
Toluene*	<0.050	0.050	08/23/2017	ND	1.81	90.7	2.00	0.638	
Ethylbenzene*	<0.050	0.050	08/23/2017	ND	1.84	92.0	2.00	1.42	
Total Xylenes*	<0.150	0.150	08/23/2017	ND	5.53	92.2	6.00	1.69	
Total BTEX	<0.300	0.300	08/23/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	08/19/2017	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	08/20/2017	ND	181	90.4	200	6.61	
DRO >C10-C28	26.8	10.0	08/20/2017	ND	184	91.9	200	7.97	
EXT DRO >C28-C36	<10.0	10.0	08/20/2017	ND					

Surrogate: 1-Chlorooctane 83.9 % 28.3-164

Surrogate: 1-Chlorooctadecane 95.5 % 34.7-157

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Received:	08/17/2017	Sampling Date:	08/16/2017
Reported:	08/24/2017	Sampling Type:	Soil
Project Name:	RED TANK 28 FED #1 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY		

Sample ID: SP 1 @ 8 (H702189-05)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/22/2017	ND	2.02	101	2.00	1.51		
Toluene*	<0.050	0.050	08/22/2017	ND	1.85	92.5	2.00	1.80		
Ethylbenzene*	<0.050	0.050	08/22/2017	ND	1.92	95.8	2.00	2.27		
Total Xylenes*	<0.150	0.150	08/22/2017	ND	5.74	95.7	6.00	1.64		
Total BTEX	<0.300	0.300	08/22/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	08/19/2017	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	08/20/2017	ND	181	90.4	200	6.61		
DRO >C10-C28	11.0	10.0	08/20/2017	ND	184	91.9	200	7.97		
EXT DRO >C28-C36	<10.0	10.0	08/20/2017	ND						

Surrogate: 1-Chlorooctane 82.3 % 28.3-164
Surrogate: 1-Chlorooctadecane 88.8 % 34.7-157

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* = Accredited Analyte

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Received:	08/17/2017	Sampling Date:	08/16/2017
Reported:	08/24/2017	Sampling Type:	Soil
Project Name:	RED TANK 28 FED #1 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY		

Sample ID: SP 2 @ 1 (H702189-06)

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/22/2017	ND	2.02	101	2.00	1.51	
Toluene*	0.143	0.050	08/22/2017	ND	1.85	92.5	2.00	1.80	
Ethylbenzene*	<0.050	0.050	08/22/2017	ND	1.92	95.8	2.00	2.27	
Total Xylenes*	1.15	0.150	08/22/2017	ND	5.74	95.7	6.00	1.64	
Total BTEX	1.29	0.300	08/22/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 155 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	08/19/2017	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	207	50.0	08/20/2017	ND	181	90.4	200	6.61	
DRO >C10-C28	6250	50.0	08/20/2017	ND	184	91.9	200	7.97	
EXT DRO >C28-C36	1140	50.0	08/20/2017	ND					

Surrogate: 1-Chlorooctane 126 % 28.3-164

Surrogate: 1-Chlorooctadecane 184 % 34.7-157

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*=Accredited Analyte

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Received:	08/17/2017	Sampling Date:	08/16/2017
Reported:	08/24/2017	Sampling Type:	Soil
Project Name:	RED TANK 28 FED #1 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY		

Sample ID: SP 2 @ 3 (H702189-07)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	08/22/2017	ND	2.02	101	2.00	1.51	
Toluene*	0.656	0.500	08/22/2017	ND	1.85	92.5	2.00	1.80	
Ethylbenzene*	<0.500	0.500	08/22/2017	ND	1.92	95.8	2.00	2.27	
Total Xylenes*	6.01	1.50	08/22/2017	ND	5.74	95.7	6.00	1.64	
Total BTEX	6.66	3.00	08/22/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	08/19/2017	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	907	50.0	08/20/2017	ND	181	90.4	200	6.61		
DRO >C10-C28	10200	50.0	08/20/2017	ND	184	91.9	200	7.97		
EXT DRO >C28-C36	1650	50.0	08/20/2017	ND						

Surrogate: 1-Chlorooctane 189 % 28.3-164

Surrogate: 1-Chlorooctadecane 256 % 34.7-157

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	08/17/2017	Sampling Date:	08/16/2017
Reported:	08/24/2017	Sampling Type:	Soil
Project Name:	RED TANK 28 FED #1 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY		

Sample ID: SP 2 @ 5 (H702189-08)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/22/2017	ND	2.02	101	2.00	1.51	
Toluene*	<0.050	0.050	08/22/2017	ND	1.85	92.5	2.00	1.80	
Ethylbenzene*	<0.050	0.050	08/22/2017	ND	1.92	95.8	2.00	2.27	
Total Xylenes*	<0.150	0.150	08/22/2017	ND	5.74	95.7	6.00	1.64	
Total BTEX	<0.300	0.300	08/22/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	08/19/2017	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	08/21/2017	ND	177	88.5	200	2.45	
DRO >C10-C28	<10.0	10.0	08/21/2017	ND	176	87.8	200	4.19	
EXT DRO >C28-C36	<10.0	10.0	08/21/2017	ND					

Surrogate: 1-Chlorooctane 81.0 % 28.3-164

Surrogate: 1-Chlorooctadecane 90.0 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	08/17/2017	Sampling Date:	08/16/2017
Reported:	08/24/2017	Sampling Type:	Soil
Project Name:	RED TANK 28 FED #1 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY		

Sample ID: SP 2 @ 7 (H702189-09)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/22/2017	ND	2.02	101	2.00	1.51		
Toluene*	<0.050	0.050	08/22/2017	ND	1.85	92.5	2.00	1.80		
Ethylbenzene*	<0.050	0.050	08/22/2017	ND	1.92	95.8	2.00	2.27		
Total Xylenes*	<0.150	0.150	08/22/2017	ND	5.74	95.7	6.00	1.64		
Total BTEX	<0.300	0.300	08/22/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	08/19/2017	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	08/21/2017	ND	177	88.5	200	2.45		
DRO >C10-C28	19.7	10.0	08/21/2017	ND	176	87.8	200	4.19		
EXT DRO >C28-C36	<10.0	10.0	08/21/2017	ND						

Surrogate: 1-Chlorooctane 84.2 % 28.3-164

Surrogate: 1-Chlorooctadecane 88.6 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	08/17/2017	Sampling Date:	08/16/2017
Reported:	08/24/2017	Sampling Type:	Soil
Project Name:	RED TANK 28 FED #1 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY		

Sample ID: SP 2 @ 8 (H702189-10)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/22/2017	ND	2.02	101	2.00	1.51		
Toluene*	<0.050	0.050	08/22/2017	ND	1.85	92.5	2.00	1.80		
Ethylbenzene*	<0.050	0.050	08/22/2017	ND	1.92	95.8	2.00	2.27		
Total Xylenes*	<0.150	0.150	08/22/2017	ND	5.74	95.7	6.00	1.64		
Total BTEX	<0.300	0.300	08/22/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	08/19/2017	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	08/21/2017	ND	177	88.5	200	2.45		
DRO >C10-C28	<10.0	10.0	08/21/2017	ND	176	87.8	200	4.19		
EXT DRO >C28-C36	<10.0	10.0	08/21/2017	ND						

Surrogate: 1-Chlorooctane 87.6 % 28.3-164

Surrogate: 1-Chlorooctadecane 92.5 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	08/17/2017	Sampling Date:	08/16/2017
Reported:	08/24/2017	Sampling Type:	Soil
Project Name:	RED TANK 28 FED #1 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY		

Sample ID: SP 2 @ 9 (H702189-11)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/22/2017	ND	2.02	101	2.00	1.51		
Toluene*	<0.050	0.050	08/22/2017	ND	1.85	92.5	2.00	1.80		
Ethylbenzene*	<0.050	0.050	08/22/2017	ND	1.92	95.8	2.00	2.27		
Total Xylenes*	<0.150	0.150	08/22/2017	ND	5.74	95.7	6.00	1.64		
Total BTEX	<0.300	0.300	08/22/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	08/19/2017	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	08/21/2017	ND	177	88.5	200	2.45		
DRO >C10-C28	<10.0	10.0	08/21/2017	ND	176	87.8	200	4.19		
EXT DRO >C28-C36	<10.0	10.0	08/21/2017	ND						

Surrogate: 1-Chlorooctane 83.1 % 28.3-164

Surrogate: 1-Chlorooctadecane 86.1 % 34.7-157

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- 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



Celey D. Keene, Lab Director/Quality Manager



CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1072

BILL TO

ANALYSIS REQUEST

Company Name: BBC International, Inc.
 Project Manager: Cliff Brunson
 Address: P.O. Box 805
 City: Hobbs
 Phone #: 575-397-6388
 Project #: [blank]
 Project Name: Red Tank 28 Fed H1 CTB
 Project Location: Red Tank 28 Fed H1 CTB
 Sampler Name: [blank]

P.O. #: [blank]
 Company: Oxy
 Attn: Wade Pritchich
 Address: [blank]
 City: [blank]
 State: NM Zip: 88241
 Project Owner: Oxy
 State: [blank] Zip: [blank]
 Phone #: [blank]
 Fax #: [blank]

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	CI	BTex	TPHEX
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
H702189	SP101	G	1												
	SP103	G	1												
	SP105	G	1												
	SP107	G	1												
	SP108	G	1												
	SP201	G	1												
	SP203	G	1												
	SP205	G	1												
	SP207	G	1												
	SP208	G	1												

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Relinquished By: [Signature]
 Date: 8/16/17
 Type: 30gon

Received By: [Signature]
 Date: 8/16/17
 Time: 1:05

Delivered By: (Circle One) #75 -8.150
 Sampler - UPS - Bus - Other: -8.492

Sample Condition: Cool Intact
 Yes No

CHECKED BY: [Signature]

REMARKS: [blank]

Phone Result: Yes No Add'l Phone #: [blank]
 Fax Result: Yes No Add'l Fax #: [blank]

* Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476. 8/16/17 2:25



ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: BBC International, Inc.		P.O. #:			
Project Manager: Cliff Brunson		Company: <i>AY</i>			
Address: P.O. Box 805		Attn: <i>Wade Dittrich</i>			
City: Hobbs		Address:			
State: NM zip: 88241		City:			
Phone #: 575-397-6388		State:			
Fax #: 575-397-0397		Zip:			
Project #: <i>AY</i>		Project Name: <i>Red Tank 28 Fed #1 CTR</i>			
Project Location: <i>Lea County</i>		Sample Name: <i>Roger Hernandez</i>			
FOR LAB USE ONLY		Matrix		DATE	
Lab I.D. <i>H102189</i>		Sample I.D. <i>SP209</i>		TIME	
		<input checked="" type="checkbox"/> (G)RAB OR (C)OMP.		<i>8-10-03 08:00</i>	
		# CONTAINERS <i>1</i>		<i>✓</i>	
		GROUNDWATER			
		WASTEWATER			
		<input checked="" type="checkbox"/> SOIL			
		OIL			
		SLUDGE			
		OTHER :			
		ACID/BASE:			
		ICE / COOL			
		OTHER :			
		PRESERV			
		SAMPLING			
		DATE			
		TIME			
		<i>CI</i>			
		<i>BTex</i>			
		<i>TPH EXT</i>			

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Relinquished By: <i>Heather Stank</i>	Date: <i>8/16/03</i>	Received By: <i>Wade Dittrich</i>	DATE: <i>8-10-03</i>
Time: <i>5:30P</i>	Time: <i>1:05</i>	Time: <i>8:40</i>	Time: <i>08:00</i>
Relinquished By: <i>Heather Stank</i>	Date: <i>8/17/03</i>	Received By: <i>Wade Dittrich</i>	DATE: <i>8-10-03</i>
Time: <i>1:05</i>	Time: <i>8:15</i>	Time: <i>8:40</i>	Time: <i>08:00</i>
Delivered By: (Circle One)	Sampler - UPS - Bus - Other: <i>#75</i>	Sample Condition	CHECKED BY: <i>Wade Dittrich</i>
<input checked="" type="checkbox"/> UPS	<input checked="" type="checkbox"/> Bus	<input checked="" type="checkbox"/> Intact	(Initials)
	<i>-8.15</i>	<input checked="" type="checkbox"/> Yes	
	<i>-8.40</i>	<input checked="" type="checkbox"/> No	
		<input checked="" type="checkbox"/> Yes	
		<input checked="" type="checkbox"/> No	

* Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476 +25

August 31, 2017

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: RED TANK 28 FED #1 CTB

Enclosed are the results of analyses for samples received by the laboratory on 08/28/17 8:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 BBC International, Inc.
 Cliff Brunson
 P.O. Box 805
 Hobbs NM, 88241
 Fax To: (575) 397-0397

Received:	08/28/2017	Sampling Date:	08/16/2017
Reported:	08/31/2017	Sampling Type:	Soil
Project Name:	RED TANK 28 FED #1 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY		

Sample ID: NORTH @ SURFACE (H702266-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/30/2017	ND	432	108	400	3.64		

Sample ID: EAST @ SURFACE (H702266-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/30/2017	ND	432	108	400	3.64		

Sample ID: WEST @ SURFACE (H702266-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/30/2017	ND	432	108	400	3.64		

Sample ID: SOUTH @ SURFACE (H702266-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	08/30/2017	ND	432	108	400	3.64		

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- 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



Celey D. Keene, Lab Director/Quality Manager

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 April 3, 2017

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	Contact CASEY L SUMMERS
Address PO BOX 4294; HOUSTON, TX 77210	Telephone No. 575-513-8289
Facility Name RED TANK 28 FED #1 CTB	Facility Type BATTERY
Surface Owner Federal	Mineral Owner Federal
API No. 30-025-31661	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	28	22S	32E					

Latitude_N 32.368930_ Longitude_W -103.672350_ NAD83

NATURE OF RELEASE

Type of Release OIL & PRODUCED WATER	Volume of Release 4 bbls OIL 10 bbls PRODUCED WATER	Volume Recovered 0 bbls
Source of Release 4 inch Poly main gas line leaked	Date and Hour of Occurrence 6/20/2017	Date and Hour of Discovery
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OLIVIA YU-NMOCD; SHELLY TUCKER-BLM	
By Whom? WADE DITTRICH	Date and Hour 6/22/2017 @ 11:21 AM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

RECEIVED

By Olivia Yu at 7:47 am, Jun 30, 2017

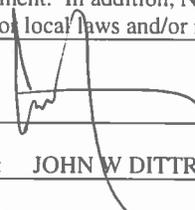
Describe Cause of Problem and Remedial Action Taken.*

A 4 inch poly main gas line leaked and resulted in a 4 bbls oil and 10 bbls produced water spill. No free fluids have been recovered. The line has been repaired and placed back in operation.

Describe Area Affected and Cleanup Action Taken.*

Measurements will be given when the GPS track is completed. Remediation will be completed in accordance with a remediation plan approved by the NMOCD and BLM.

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: JOHN W DITTRICH	Approved by Environmental Specialist: 	
Title: ENVIRONMENTAL COORDINATOR	Approval Date: 6/30/2017	Expiration Date:
E-mail Address: wade_dittrich@oxy.com	Conditions of Approval: see attached directive	Attached <input checked="" type="checkbox"/>
Date: 6-27-17 Phone: 575-390-2828		

* Attach Additional Sheets If Necessary

1RP-4741

pOY1718132149

nOY1718132063

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 6/27/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 1RP-4741 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 1 office in Hobbs on or before 7/30/2017. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold

OCD Environmental Bureau Chief
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