

SITE INFORMATION

Report Type: Closure Report

General Site Information:

Site:	BC Federal #10 Tank Battery						
Company:	COG Operating LLC						
Section, Township and Range	Unit F	Sec 19	T17S	R32E			
Lease Number:	API-30-025-37021						
County:	Lea County						
GPS:	32.82310° N			103.80891° W			
Surface Owner:	Federal						
Mineral Owner:							
Directions:	From the intersection of Hwy 529 and CR126, travel north on CR126 for 1.9 miles. Turn left and travel 1.8 miles, turn right and travel 0.2 miles, turn left and travel 0.5 miles, turn right and travel 0.1 miles to site.						

Release Data:

Date Released:	12/4/2012
Type Release:	Oil
Source of Contamination:	4" line to scrubber
Fluid Released:	20 bbls
Fluids Recovered:	18 bbls

Official Communication:

Name:	Robert McNeil		Ike Tavarez
Company:	COG Operating, LLC		Tetra Tech
Address:	One Concho Center 600 W. Illinois Ave.		4000 N. Big Spring Ste 401
City:	Midland Texas, 79701		Midland, Texas
Phone number:	(432) 686-3023		(432) 687-8110
Fax:	(432) 684-7137		
Email:	rmcneil@conchoresources.com		Ike.Tavarez@tetrachtech.com

Ranking Criteria

Depth to Groundwater:	Ranking Score	Site Data
<50 ft	20	
50-99 ft	10	
>100 ft.	0	0
WellHead Protection:	Ranking Score	Site Data
Water Source <1,000 ft., Private <200 ft.	20	
Water Source >1,000 ft., Private >200 ft.	0	0
Surface Body of Water:	Ranking Score	Site Data
<200 ft.	20	
200 ft - 1,000 ft.	10	
>1,000 ft.	0	0
Total Ranking Score:	0	

Acceptable Soil RRAL (mg/kg)		
Benzene	Total BTEX	TPH
10	50	5,000



TETRA TECH

October 9, 2014

Mr. Tomáš 'Doc' Oberding, PhD
Environmental Specialist – New Mexico Oil Conservation Division
Oil Conservation Division, District 1
1625 North French Drive
Hobbs, New Mexico 88240

Re: Closure Request Work Plan for the COG Operating LLC., BC Federal #10 Tank Battery, Unit F, Section 19, Township 17 South, Range 32 East, Lea County, New Mexico.

Mr. Oberding:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the BC Federal #10 Tank Battery, Unit F, Section 19, Township 17 South, Range 32 East, Lea County, New Mexico (Site). The spill site coordinates are N 32.82310°, W 103.80891°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on December 4, 2012, and released approximately twenty (20) barrels of oil from the 4" line to the scrubber with eighteen (18) barrels of standing oil recovered. The spill was contained inside the firewalls of the facility and measured approximately 25' x 45', 10' x 30' and 15' x 40'. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 19. According to the NMOCD groundwater map, the average depth to groundwater in this area is approximately 225' below surface. The average depth to groundwater map is shown in Appendix B.

Regulatory

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-

Tetra Tech

1910 North Big Spring, Midland, TX 79705

Tel 432.682.4559

Fax 432.682.3946

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based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 5,000 mg/kg.

Soil Assessment and Analytical Results

On January 24, 2013, Tetra Tech personnel inspected and sampled the spill area. Four (4) auger holes (AH-1 through AH-4) were installed using a stainless steel hand auger to assess the impacted soils. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The results of the sampling are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, the areas of AH-1 and AH-4 did not show a significant impact to the soils for TPH, BTEX or chlorides. A shallow hydrocarbon impact at 0-1' was detected in the areas of AH-2 and AH-3, with total BTEX concentrations exceeding the RRAL of 432 mg/kg and 420 mg/kg, respectively. However, the deeper samples declined with depth below the RRAL at 1.5' below surface. In addition, the area of AH-2 also exceeded the benzene concentration of 42.2 mg/kg at 0-1', but declined below the RRAL at 1-1.5' below surface.

The chloride concentrations ranged from <20.0 mg/kg to 1,260 mg/kg. Based on the limited area and depth to groundwater, the chlorides detected in the subsurface soils do not appear an environmental concern.

Soil Remediation

Due to the shallow hydrocarbon impact, COG proposed to remediate the areas of AH-2 and AH-3 in-situ with a micro-blaze product for the areas exceeding the RRAL's. The impacted areas are highlighted in Table 1 and shown on Figure 4.

To remediate the impacted soils, the areas of AH-2 and AH-3 were worked and treated twice to aid the degradation of the hydrocarbon. Once the Micro-Blaze was applied to the areas, the soils were tilled and turned to complete the remediation.



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On June 25, 2014, Tetra Tech collected confirmation samples (composites) from each area of AH-2 and AH-3 for BTEX analysis. Referring to Table 1, the BTEX concentrations were below the RRAL.

Based on the assessment and work performed at this site, COG requests closure of this spill issue. A final C-141 is enclosed in Appendix A. If you have any questions or comments concerning the assessment or the remediation activities for this site, please call me at (432) 682-4559.

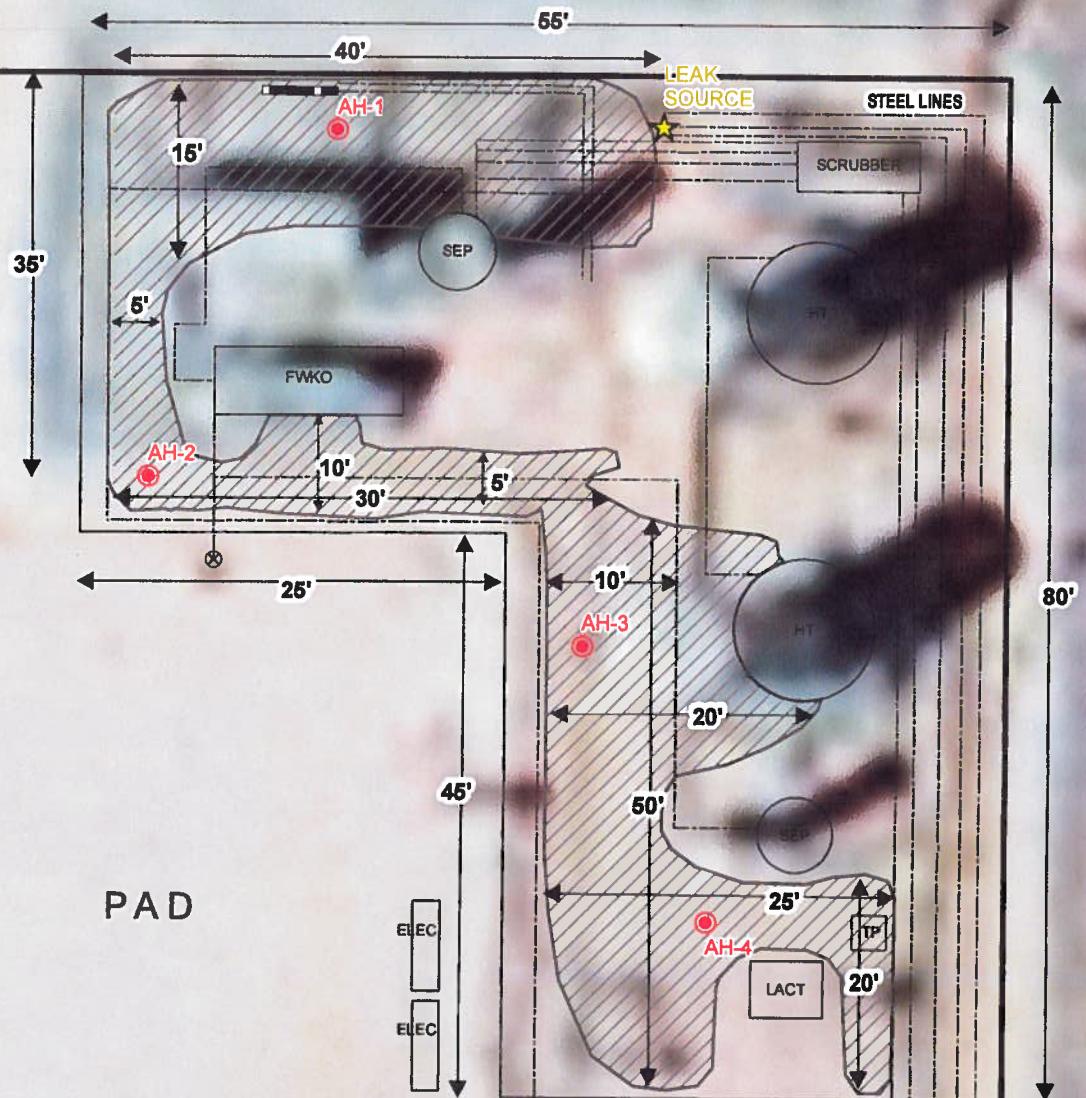
Respectfully submitted,
TETRA TECH

Ike Tavares, PG
Senior Project Manager

cc: Jim Amos - BLM

Figures

PASTURE



EXPLANATION

- AUGER HOLE SAMPLE LOCATIONS
- ★ LEAK SOURCE
- / SPILL AREA

CONCHO

Figure 3

BC Federal #10

Spill Assessment Map

Lea County, New Mexico

Project : 112C04999

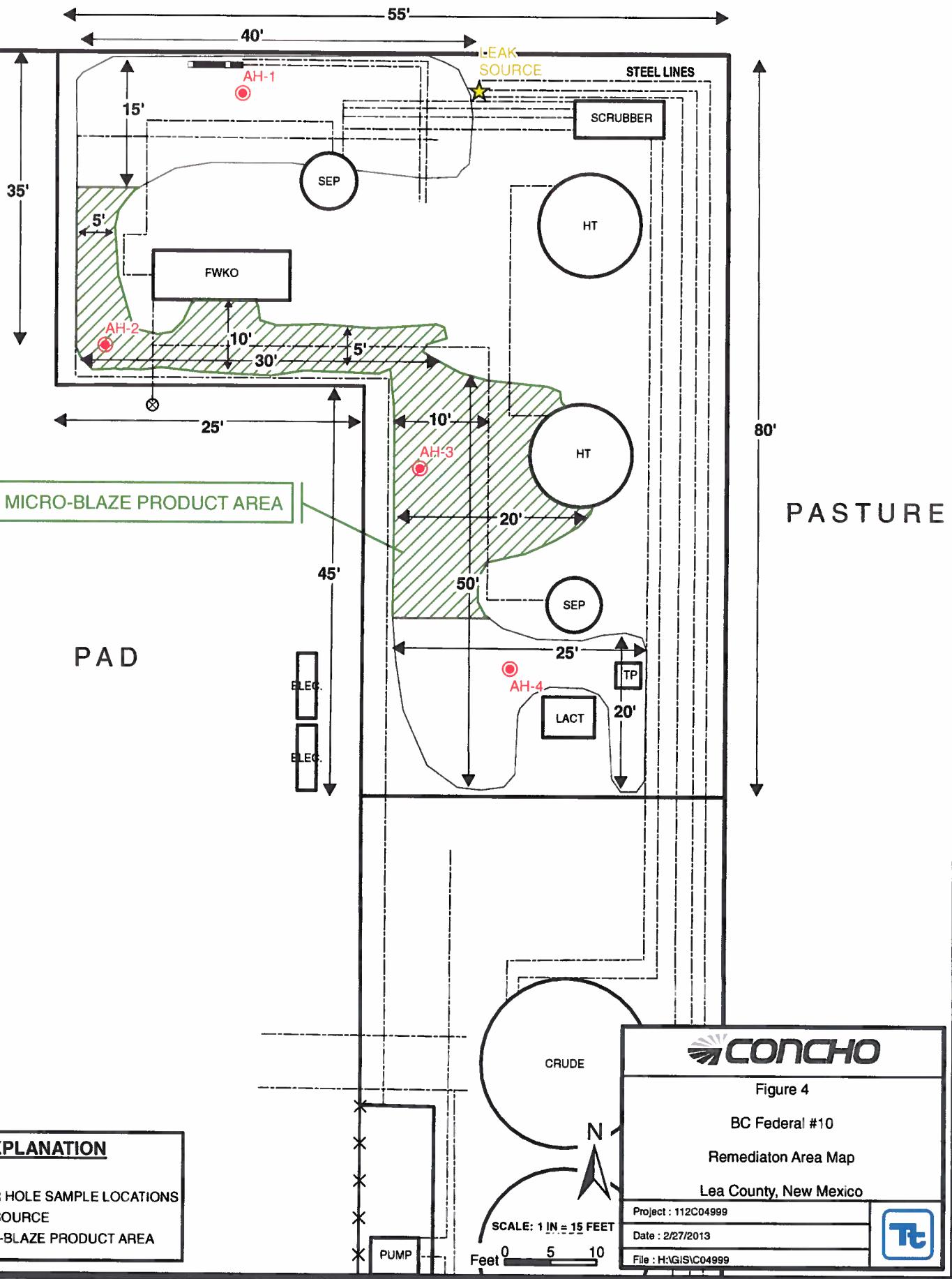
Date : 2/27/2013

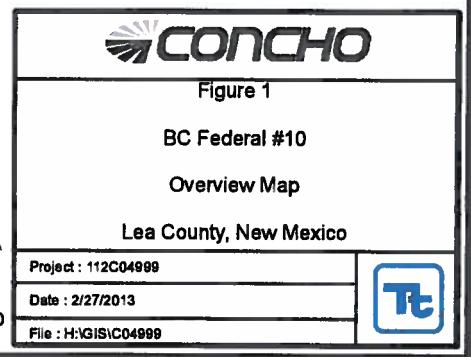
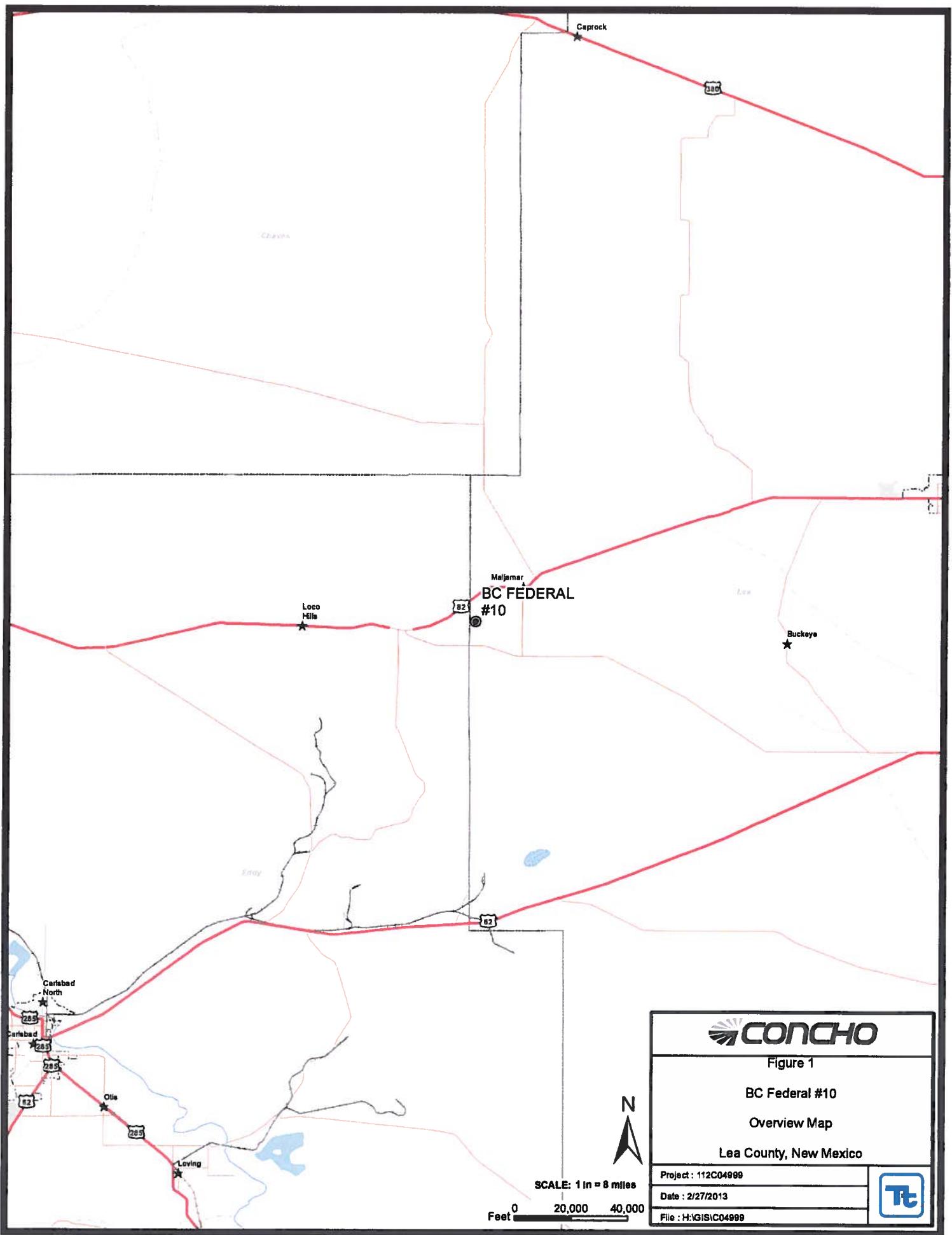
File : H:GISIC04999

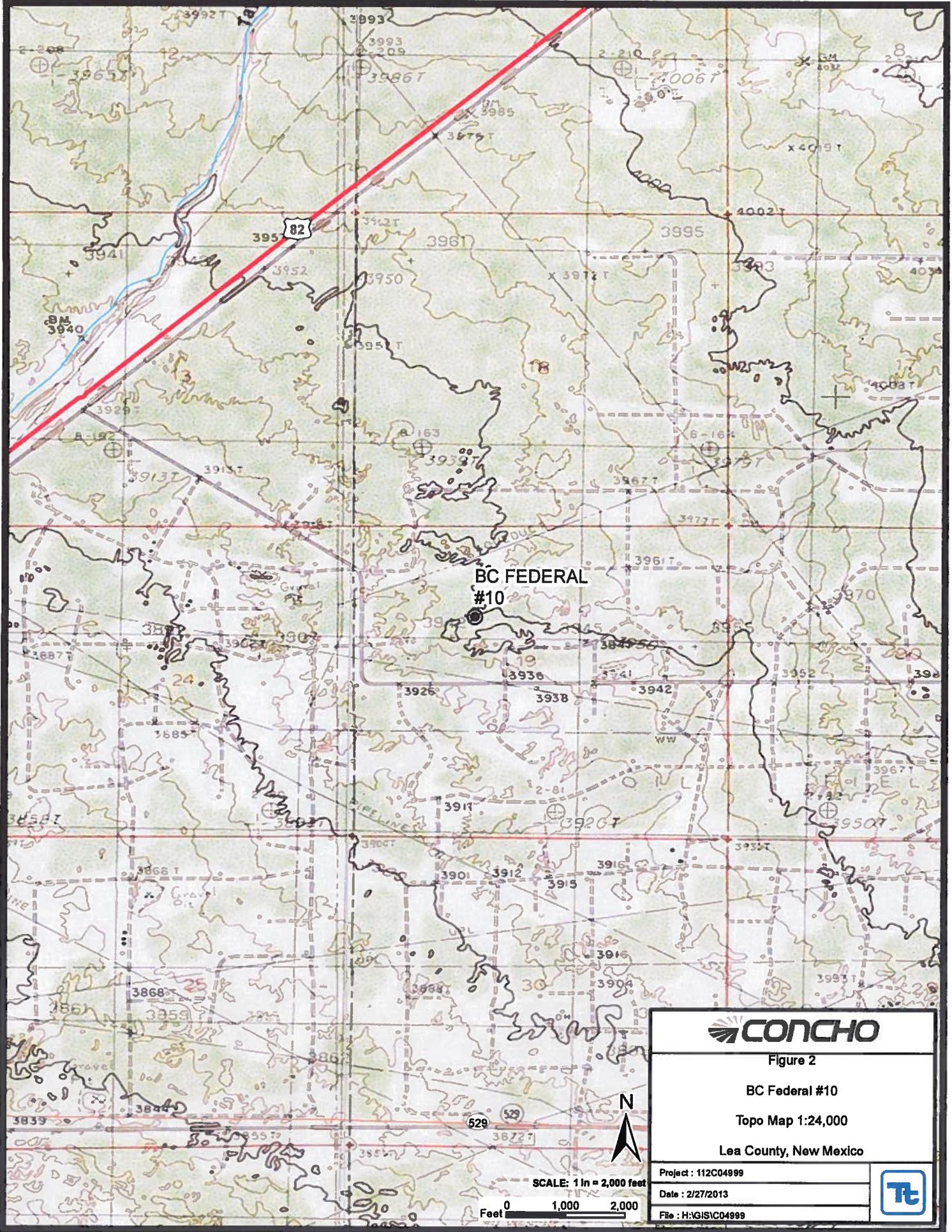


SCALE: 1 IN = 15 FEET
Feet 0 5 10

PASTURE







 CONCHO

Figure 2

BC Federal #10

Topo Map 1:24,000

Lea County, New Mexico

Project : 112C04999

Date : 2/27/2013

File : H:\GIS\1C04

www.construction.com/resources



Tables

Table 1
COG Operating LLC,
BC Federal #10 Tank Battery
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	BEB Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
AH-1	1/24/2013	0-1	1	X	-	848	2,800	3,648	4.05	13.5	8.37	10.8	36.7	844
	"	1-1.5	1	X	-	-	-	-	-	-	-	-	-	1,260
	"	2-2.5	1	X	-	-	-	-	-	-	-	-	-	<20.0
	"	3-3.5	1	X	-	-	-	-	-	-	-	-	-	73.0
	"	4-4.5	1	X	-	-	-	-	-	-	-	-	-	50.2
	"	5-5.5	1	X	-	-	-	-	-	-	-	-	-	<20.0
AH-2	1/24/2013	0-1	0.5	X	2,550	695	3,245	42.2	171	108	111	432	50.2	
	"	1-1.5	0.5	X	-	-	-	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	734
	"	2-2.5	0.5	X	-	-	-	-	-	-	-	-	-	<20.0
	"	3-3.5	0.5	X	-	-	-	-	-	-	-	-	-	<20.0
	"	4-4.5	0.5	X	-	-	-	-	-	-	-	-	-	<20.0
	"	5-5.5	0.5	X	-	-	-	-	-	-	-	-	-	<20.0
Confirmation Sample		6/25/2014	0-1	-	X	-	-	-	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	-
AH-3	1/24/2013	0-1	-	X	357	236	593	<0.100	18.1	23.0	28.3	69.4	420	
	"	1-1.5	-	X	-	-	-	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	117
	"	2-2.5	-	X	-	-	-	-	-	-	-	-	-	117
	"	3-3.5	-	X	-	-	-	-	-	-	-	-	-	167
	"	4-4.5	-	X	-	-	-	-	-	-	-	-	-	104
	"	5-5.5	-	X	-	-	-	-	-	-	-	-	-	54.2
Confirmation Sample		6/25/2014	0-1	-	X	-	-	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	-
AH-4	1/24/2013	0-1	-	X	1,090	2,310	3,400	<1.00	7.47	<1.00	6.57	14.1	293	
	"	1-1.5	-	X	-	-	-	-	-	-	-	-	-	366
	"	2-2.5	-	X	-	-	-	-	-	-	-	-	-	<20.0
	"	3-3.5	-	X	-	-	-	-	-	-	-	-	-	<20.0
	"	4-4.5	-	X	-	-	-	-	-	-	-	-	-	<20.0
	"	5-5.5	-	X	-	-	-	-	-	-	-	-	-	<20.0

(-) Not Analyzed

(BEB) Below Excavation Bottom

Confirmation sample below RRAL

Photos

COG Operating LLC
BC Federal #10 Tank Battery
Lea County, New Mexico



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View East – Area of AH-1



View South – Area of AH-2

COG Operating LLC
BC Federal #10 Tank Battery
Lea County, New Mexico



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View North – Area of AH-3



View North – Area of AH-4

COG Operating LLC
BC Federal #10 Tank Battery
Lea County, New Mexico



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View of Soil Remediation and Micro-Blaze Treatment



View of Soil Remediation and Micro-Blaze Treatment

COG Operating LLC
BC Federal #10 Tank Battery
Lea County, New Mexico



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View of Soil Remediation and Micro-Blaze Treatment



View of Soil Remediation and Micro-Blaze Treatment

Appendix A

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company COG Operating LLC	Contact Robert McNeill
Address 600 W. Illinois Ave, Midland, Texas 79701	Telephone No. (432) 685-4332
Facility Name BC Federal #10	Facility Type Tank Battery

Surface Owner: Federal	Mineral Owner	Lease No. (API#)30-025-37021
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LOCATION OF RELEASE

Unit Letter F	Section 19	Township 17S	Range 32E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea

Latitude 32.82284° N Longitude 103.80913° W

NATURE OF RELEASE

Type of Release: Oil	Volume of Release 20 bbls	Volume Recovered 18 bbls
Source of Release: 4" line to scrubber	Date and Hour of Occurrence 12/04/2012	Date and Hour of Discovery 12/04/2012 8:00am
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher - NMOCD	
By Whom? Michelle Mullins	Date and Hour 10-01-2013 3:41pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

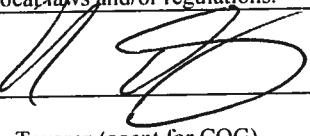
Describe Cause of Problem and Remedial Action Taken.*

A hole developed in the 4" line going to the scrubber inside the BC Federal #10 Tank Battery. An emergency clamp has been installed on the line as a temporary repair.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech inspected site and collected samples to define spill extents. In the areas of AH-2 and AH-3, soils that exceeded RRAL were treated in-situ for the degradation of the impacted soils. Tetra Tech collected confirmation samples to confirm the soils were below the RRAL. Once below the RRAL, Tetra Tech prepared closure report and submitted to NMOCD for review.

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: 	<u>OIL CONSERVATION DIVISION</u>	
	Approved by District Supervisor:	
Printed Name: Ike Tavarez (agent for COG)	Approval Date:	Expiration Date:
Title: Senior Project Manager		
E-mail Address: Ike.Tavarez@TetraTech.com	Conditions of Approval:	
Date: 10-9-14	Attached <input type="checkbox"/>	
Phone: (432) 682-4559		

* Attach Additional Sheets If Necessary

District I
 1625 N. French Dr., Hobbs, NM 88240
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 Energy Minerals and Natural Resources
 Oil Conservation Division
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

Initial Report

Final Report

Name of Company	COG OPERATING LLC	Contact	Pat Ellis
Address	600 West Illinois Avenue, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	BC Federal #10	Facility Type	Tank Battery
Surface Owner	Federal	Mineral Owner	Lease No. (API#) 30-025-37021

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	19	17S	32E					Lea

Latitude 32.82284 Longitude 103.80913

NATURE OF RELEASE

Type of Release	Oil	Volume of Release	20bbls	Volume Recovered	18bbls
Source of Release	4" line to scrubber	Date and Hour of Occurrence	Date and Hour of Discovery 12/04/2012 8:00 a.m.		
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?			
By Whom?	Date and Hour				
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A hole developed in the 4" line going to the scrubber inside the BC Federal #10 Tank Battery. An emergency clamp has been installed on the line as a temporary repair.

Describe Area Affected and Cleanup Action Taken.*

Initially 20bbls were released from the 4" line and we were able to recover 18bbls with a vacuum truck. The entire release has been contained inside the facility. All free fluid has been recovered and the surface of the spill area has been removed and hauled to disposal. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a work plan to the NMOCD/BLM for approval prior to any significant remediation work.

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:				<u>OIL CONSERVATION DIVISION</u>		
Printed Name:	Josh Russo			Approved by District Supervisor:		
Title:	Senior Environmental Coordinator	Approval Date:	Expiration Date:			
E-mail Address:	jrusso@concho.com	Conditions of Approval:				Attached <input type="checkbox"/>
Date:	12/11/2012	Phone:	432-212-2399			

* Attach Additional Sheets If Necessary

Appendix B

Water Well Data
Average Depth to Groundwater (ft)
COG-BC Federal #10 Tank Battery
Lea County, New Mexico

16 South 31 East					
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36
290					

16 South 32 East					
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36
265					

16 South 33 East					
6	5	180	4	3	130
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36
142					

17 South 31 East					
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36
271					

17 South 32 East					
6	5	4	82	3	2 60
7	8	9	10	11	12 120
18	17	16	15	14	13
19	20	21	22	23	24
SITE					
30	180	29	28	27	26
dry					
31	32	33	34	35	36
75					

17 South 33 East					
6	90	5	4	3	155
7	167	8	9	10	11
18	173	17	16	15	12
19	188	20	21	22	13
30	69	29	60	28	25
31	32	33	34	35	36
180					

18 South 31 East					
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36
400					

18 South 32 East					
6	5	4	65	3	2
7	460	8	9	10	11
18	82	17	16	15	13
19			84		
30			429		
31	32	33	34	35	36
164					

18 South 33 East					
6	5	4	3	2	1
7	8	100	9	10	11
18		85	17	16	13
19			36	15	12
>140				60	143
30	29	28	27	26	25
31	32	33	34	35	36
46					

- New Mexico State Engineers Well Reports
- USGS Well Reports
- Geology and Groundwater Conditions in Southern Eddy, County, NM
- NMOCD - Groundwater Data
- Field water level
- New Mexico Water and Infrastructure Data System

Appendix C

Summary Report

Ike Tavarez
 Tetra Tech
 1910 N. Big Spring Street
 Midland, TX 79705

Report Date: February 6, 2013

Work Order: 13012804



Project Location: Lea Co., NM
 Project Name: COG/BC Fed. #10 TB
 Project Number: 112C04999

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
319487	AH-1 0-1' 1' BEB	soil	2013-01-24	00:00	2013-01-25
319488	AH-1 1-1.5' 1' BEB	soil	2013-01-24	00:00	2013-01-25
319489	AH-1 2-2.5' 1' BEB	soil	2013-01-24	00:00	2013-01-25
319490	AH-1 3-3.5' 1' BEB	soil	2013-01-24	00:00	2013-01-25
319491	AH-1 4-4.5' 1' BEB	soil	2013-01-24	00:00	2013-01-25
319492	AH-1 5-5.5' 1' BEB	soil	2013-01-24	00:00	2013-01-25
319494	AH-2 0-1' 0.5' BEB	soil	2013-01-24	00:00	2013-01-25
319495	AH-2 1-1.5' 0.5' BEB	soil	2013-01-24	00:00	2013-01-25
319496	AH-2 2-2.5' 0.5' BEB	soil	2013-01-24	00:00	2013-01-25
319497	AH-2 3-3.5' 0.5' BEB	soil	2013-01-24	00:00	2013-01-25
319498	AH-2 4-4.5' 0.5' BEB	soil	2013-01-24	00:00	2013-01-25
319499	AH-2 5-5.5' 0.5' BEB	soil	2013-01-24	00:00	2013-01-25
319501	AH-3 0-1'	soil	2013-01-24	00:00	2013-01-25
319502	AH-3 1-1.5'	soil	2013-01-24	00:00	2013-01-25
319503	AH-3 2-2.5'	soil	2013-01-24	00:00	2013-01-25
319504	AH-3 3-3.5'	soil	2013-01-24	00:00	2013-01-25
319505	AH-3 4-4.5'	soil	2013-01-24	00:00	2013-01-25
319506	AH-3 5-5.5'	soil	2013-01-24	00:00	2013-01-25
319508	AH-4 0-1'	soil	2013-01-24	00:00	2013-01-25
319509	AH-4 1-1.5'	soil	2013-01-24	00:00	2013-01-25
319510	AH-4 2-2.5'	soil	2013-01-24	00:00	2013-01-25
319511	AH-4 3-3.5'	soil	2013-01-24	00:00	2013-01-25
319512	AH-4 4-4.5'	soil	2013-01-24	00:00	2013-01-25
319513	AH-4 5-5.5'	soil	2013-01-24	00:00	2013-01-25

Sample - Field Code	BTEX				TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)		
319487 - AH-1 0-1' 1' BEB	4.05 q.s.	13.5 q.s.	8.37 q.s.	10.8 q.s.	2800	848 q.s.
319494 - AH-2 0-1' 0.5' BEB	42.2 q.s.	171 q.s.	108 q.s.	111 q.s.	695	2550 q.s.
319495 - AH-2 1-1.5' 0.5' BEB	<0.0200 qr	<0.0200 qr	<0.0200 qr	<0.0200 qr		
319501 - AH-3 0-1'	<0.100 ¹ q.s.	18.1 q.s.	23.0 q.s.	28.3 q.s.	236	357 q.s.
319502 - AH-3 1-1.5'	<0.0200 qr	<0.0200 qr	<0.0200 qr	<0.0200 qr		
319508 - AH-4 0-1'	<1.00 ² q.s.	7.47 q.s.	<1.00 q.s.	6.57 q.s.	2310	1090 q.s.

Sample: 319487 - AH-1 0-1' 1' BEB

Param	Flag	Result	Units	RL
Chloride		844	mg/Kg	4

Sample: 319488 - AH-1 1-1.5' 1' BEB

Param	Flag	Result	Units	RL
Chloride		1260	mg/Kg	4

Sample: 319489 - AH-1 2-2.5' 1' BEB

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 319490 - AH-1 3-3.5' 1' BEB

Param	Flag	Result	Units	RL
Chloride		73.0	mg/Kg	4

Sample: 319491 - AH-1 4-4.5' 1' BEB

Param	Flag	Result	Units	RL
Chloride		50.2	mg/Kg	4

Sample: 319492 - AH-1 5-5.5' 1' BEB

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

¹Dilution due to hydrocarbons.²Dilution due to hydrocarbons.

Sample: 319494 - AH-2 0-1' 0.5' BEB

Param	Flag	Result	Units	RL
Chloride		50.2	mg/Kg	4

Sample: 319495 - AH-2 1-1.5' 0.5' BEB

Param	Flag	Result	Units	RL
Chloride		734	mg/Kg	4

Sample: 319496 - AH-2 2-2.5' 0.5' BEB

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 319497 - AH-2 3-3.5' 0.5' BEB

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 319498 - AH-2 4-4.5' 0.5' BEB

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 319499 - AH-2 5-5.5' 0.5' BEB

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 319501 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		420	mg/Kg	4

Sample: 319502 - AH-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		117	mg/Kg	4

Sample: 319503 - AH-3 2-2.5'

Param	Flag	Result	Units	RL
Chloride		117	mg/Kg	4

Sample: 319504 - AH-3 3-3.5'

Param	Flag	Result	Units	RL
Chloride		167	mg/Kg	4

Sample: 319505 - AH-3 4-4.5'

Param	Flag	Result	Units	RL
Chloride		104	mg/Kg	4

Sample: 319506 - AH-3 5-5.5'

Param	Flag	Result	Units	RL
Chloride		54.2	mg/Kg	4

Sample: 319508 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		293	mg/Kg	4

Sample: 319509 - AH-4 1-1.5'

Param	Flag	Result	Units	RL
Chloride		366	mg/Kg	4

Sample: 319510 - AH-4 2-2.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 319511 - AH-4 3-3.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Report Date: February 6, 2013

Work Order: 13012804

Page Number: 5 of 5

Sample: 319512 - AH-4 4-4.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 319513 - AH-4 5-5.5'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Analysis Request of Chain of Custody Record



TETRA TECH

**1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946**

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13612804

Analysis Request of Chain of Custody Record



TETRA TECH

1910 N. Big Spring St.

Midland Texas 79705

Whitman, Iraq, 3; see also (132) 682-1559; Fax (132) 682-3816

(432) 882-4333 • 1-800 (432) 882-4333

CLIENT NAME: 105		SITE MANAGER: Terry		PROJECT NAME: 6041/ B3C Fd #10		SAMPLE IDENTIFICATION		PRESERVATIVE METHOD		NUMBER OF CONTAINERS FILTERED (Y/N)		PRESERVATIVE METHOD	
PROJECT NO.:	LAB I.D. NUMBER	DATE	TIME	MATRIX	COMPR. GRAB			HCl	HNO3	CE	NONE		
	497	1/24		5	X AH-2	3'-3.5'	0.5' BEB			X			
	498	/		1	AH-2	4'-4.5'	0.5' BEB						
	499	/		1	AH-2	5'-5.5'	0.5' BEB						
	500			1	AH-2	6'-6.5'	0.5' BEB						
	501			1	AH-3	0'-1'							
	502			1	AH-3	1'-1.5'							
	503			1	AH-3	2'-2.5'							
	504			1	AH-3	3'-3.5'							
	505			1	AH-3	4'-4.5'							
	506			1	AH-3	5'-5.5'							
RELINQUISHED BY: (Signature)		RECEIVED BY: (Signature)		Date: 1/25/13		Time: 2:43		SAMPLLED BY: (Print & Initial)		Date: 1/25/13		Time: 2:43	
RELINQUISHED BY: (Signature)		RECEIVED BY: (Signature)		Date: 1/25/13		Time: 1:25:13		SAMPLE SHIPPED BY: (Circle)		Date: 1/25/13		Time: 1:25	
RELINQUISHED BY: (Signature)		RECEIVED BY: (Signature)		Date: 1/25/13		Time: 1:25		FEDEX		AIRBILL #: _____		OTHER: UPS	
RELINQUISHED BY: (Signature)		RECEIVED BY: (Signature)		Date: 1/25/13		Time: 1:25		HAND DELIVERED		TETRA TECH CONTACT PERSON:		Results by:	
RECEIVING LABORATORY: TETRA		RECEIVED BY: (Signature)		Date: 1/25/13		Time: 1:25		RUSH Charges Authorized:		RESULTS:		Yes	
ADDRESS: 100 E. 10th Street CITY: Fort Worth STATE: TX ZIP: 76102 PHONE: (817) 335-1000 CONTACT: Terry		REMARKS:		DATE: 01/25/13		TIME: 1:25		No		RESULTS:		RUSH Charges Authorized:	
SAMPLE CONDITION WHEN RECEIVED:		REMARKS:		DATE: 01/25/13		TIME: 1:25		RESULTS:		RUSH Charges Authorized:		Yes	

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130.12804

Analysis Request of Chain of Custody Record



TETRA TECH

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Summary Report

Ike Tavarez
 Tetra Tech
 1901 N. Big Spring St.
 Midland, TX 79705

Report Date: July 1, 2014

Work Order: 14062702



Project Location: Lea Co., NM
 Project Name: COG/BC Fed. #10 TB
 Project Number: 112C04999

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
366964	Confirmation Sample (AH-2 0-1')	soil	2014-06-25	00:00	2014-06-26
366965	Confirmation Sample (AH-3 0-1')	soil	2014-06-25	00:00	2014-06-26

Sample - Field Code	BTEX			
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)
366964 - Confirmation Sample (AH-2 0-1')	<0.0400 ¹	<0.0400	<0.0400	<0.0400
366965 - Confirmation Sample (AH-3 0-1')	<0.0200	<0.0200	<0.0200	<0.0200

¹Dilution due to hydrocarbons.

14062702

Analysis Request of Chain of Custody Record



TETRATECH

**1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946**

CLIENT NAME: C6	SITE MANAGER: The Tower 2				
PROJECT NO: 112604999	PROJECT NAME: Lab / BC Fld # 10				
LAB I.D. 3d6964	DATE 6/25	TIME 2:24	MATRIX 5	COMP GRAB	SAMPLE IDENTIFICATION Confirmer Sample (AH 2 - 0'-1')
			965	5	Confirmer Sample (AH 3 - 0'-1')
NUMBER OF CONTAINERS FILTERED (Y/N) -					
PRESERVATIVE METHOD					
RCRA Metals Ag As Ba	PAH 8270	TCP Volatiles	TCP Semi Volatiles	TCB 8021B	GC/MS Vol. 8240/8260/62
HCl	HNO3	None	None	PCBs 8080/608	GC/MS Semil. Vol. 8270/6
Pest. 808/608	PCBs 8080/608	Chloride	Gamma Spec.	Alpha Beta (Ali)	PLM (Asbestos)
RCI	RCL	RCI	RCI	Major Actions/Catios, ph	Date: 6/25/14 Time: 10:55
RELINQUISHED BY: (Signature) Date: 6/25/14 Time: 10:55 RECEIVED BY: (Signature) Date: _____ Time: _____					
RELINQUISHED BY: (Signature) Date: _____ Time: _____ RECEIVED BY: (Signature) Date: _____ Time: _____					
RELINQUISHED BY: (Signature) Date: _____ Time: _____ RECEIVED BY: (Signature) Date: _____ Time: _____					
RECEIVING LABORATORY: TAC STATE: TX ZIP: 75240 PHONE: 972-421-1000 DATE: 6/25/14					
REMARKS: The demand .a.g					
SAMPLE CONDITION WHEN RECEIVED: 0.2					
RUSH Charges Authorized: Yes No					

CONTAC
SAMPLE

REMARK:

Project Manager retains Pink copy - Accounting receives Gold copy
D:\www\Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy