SITE INFORMATION

Report Type: Closure Report

General Site Information:						
Site:	**Jenkins B Federal # 17**					
Company:	**COG Operating LLC**					
Section, Township and Range	**Unit N**	**Sec 17**	**T17S**	**R30E**		
Lease Number:	**API-30-015-34138**					
County:	**Eddy County**					
GPS:	**32.82648° N**			**103.99734° W**		
Surface Owner:	Federal					
Mineral Owner:						
Directions:	From the intersection of Hwy 82 and CR 217, turn north on CR 217 and travel 0.6 miles, turn left (west) and travel 0.6 miles, turn left (south) and travel 0.2 miles to location.					

Release Data:	
Date Released:	10/29/2010
Type Release:	Produced Water
Source of Contamination:	Steel Flowline
Fluid Released:	20 bbls
Fluids Recovered:	0 bbls

Official Communication:			
Name:	Pat Ellis		Ike Tavarez
Company:	COG Operating, LLC		Tetra Tech
Address:	550 W. Texas Ave. Ste. 1300		1910 N. Big Spring
P.O. Box			
City:	Midland Texas, 79701		Midland, Texas
Phone number:	(432) 686-3023		(432) 425-3878
Fax:	(432) 684-7137		
Email:	pellis@conchoresources.com		ike.tavarez@tetratech.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

February 2, 2012

Mr. Mike Bratcher
Environmental Engineer Specialist
Oil Conservation Division, District 2
1301 West Grand Avenue
Artesia, New Mexico 88210

Re: Closure Report for the COG Operating LLC., Jenkins B Federal # 17 Flow Line, Unit N, Section 17, Township 17 South, Range 30 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the Jenkins B Federal # 17 Flow Line located in Unit N, Section 17, Township 17 South, Range 30 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.82648º, W 103.99734º. 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 October 29, 2010, and released approximately twenty (20) barrels of produced fluid from a steel flow line. None of the standing fluids were recovered. The spill measured approximately 10' x 100' and initiated in the pasture east of the well site. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 17. According to the NMOCD groundwater map, the average depth to groundwater in this area is greater than 200' below surface. The average depth to groundwater map is shown in Appendix B.

Tetra Tech
1910 North Big Spring, Midland,TX 79705
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

TETRA TECH

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-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 December 6, 2010, Tetra Tech personnel inspected and sampled the spill area. Three (3) auger holes (AH-1, AH-2 and AH-3) were installed using a stainless steel hand auger to assess the impacted soils. Select 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, all auger holes were below the RRAL for TPH and BTEX. The chloride impact was not vertically defined in auger holes (AH-1 and AH-3), with bottom auger hole samples of 11,800 mg/kg and 2,770 mg/kg, respectively. The area of AH-2 did not show an impact to the subsurface soils. As a result, the spill was not vertically defined.

On February 16, 2011, Tetra Tech personnel supervised the installation of soil borings (SB-1 and SB-2) utilizing an air rotary drilling rig. Soil samples were collected to a depth of 60.0’ to define the impact of the chloride concentrations. Referring to Table 1, chloride concentrations significantly declined to 295 mg/kg at 20.0’ (SB-1) and 383 mg/kg at 10.0’ (SB-2) and then increased with depth before declining at approximately 25.0’ to 50.0’ below surface. The deeper impact appears to be from a historical spill in the area. The soil boring locations are shown on Figure 3.

TETRA TECH

Closure Activities

Based on the approved work plan, Tetra Tech personnel supervised the excavation of the site. The final excavation depths of the soil remediation were met as stated in the approved work plan. The spill area around AH-1 was excavated to approximately 7.0' below surface, and the spill area by AH-3 was excavated to approximately 5.0' below surface. A total of 220 cubic yards of soil were excavated and hauled to Controlled Recovery, Inc. (CRI) for proper disposal. The excavation depths are highlighted in Table 1 and shown on Figure 4.

As requested by the BLM, confirmation samples were collected from the excavation bottom holes and sidewalls. The confirmation samples results are shown in Table 1. Once excavated to the appropriate depths, a liner was installed in both excavations and was then backfilled with clean soil to grade.

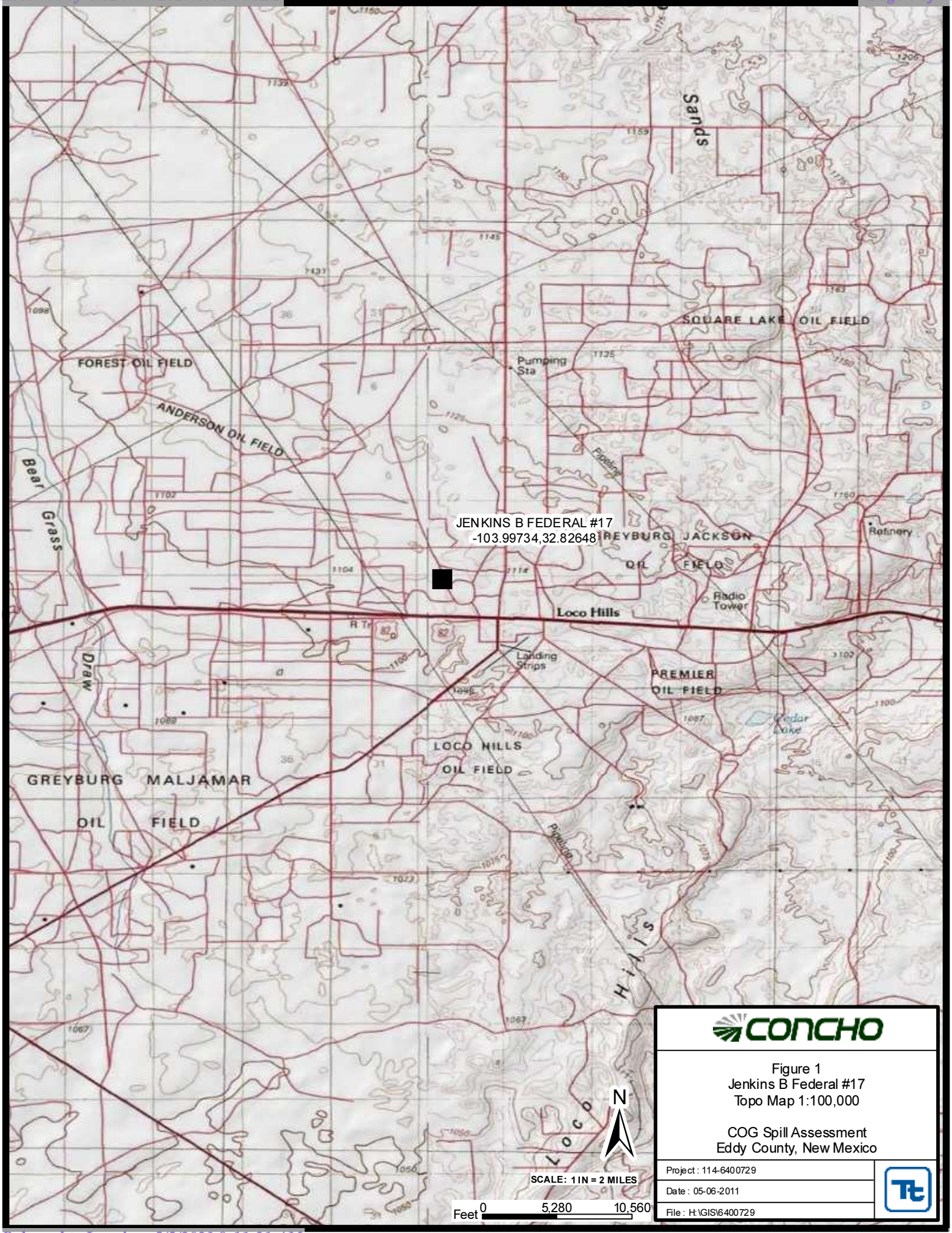
Based on the remedial activities performed, COG request closure of the site. A copy of the C-141 (Final) is included in Appendix A. If you have any questions or comments concerning the remedial activities, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Ike Tavarez. PG
Senior Project Manager

cc: Pat Ellis – COG
cc: Terry Gregston - BLM

Figures

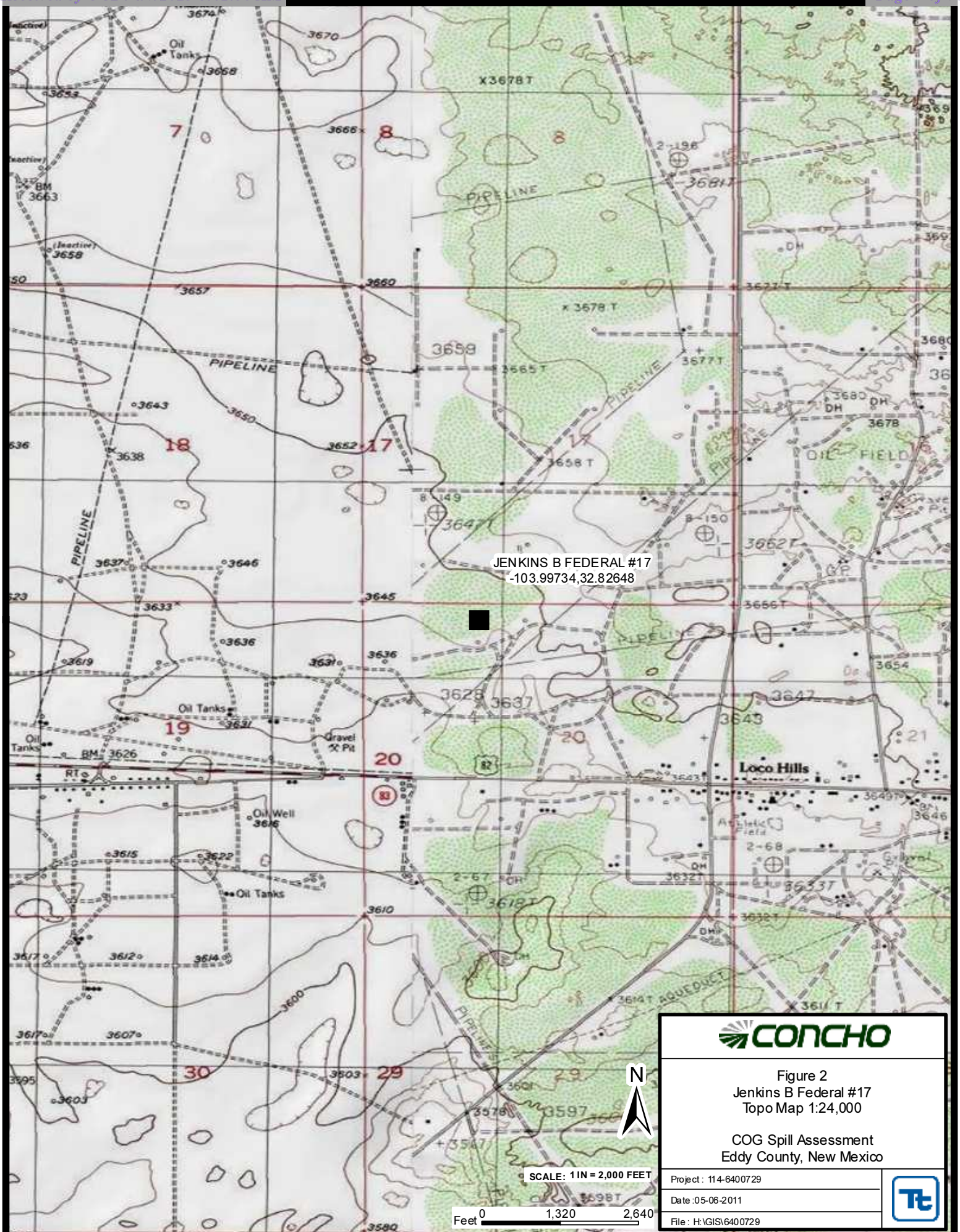


CONCHO

Figure 1
Jenkins B Federal #17
Topo Map 1:100,000

COG Spill Assessment
Eddy County, New Mexico

Project : 114-6400729	
Date : 05-06-2011	
File : H:\GIS\6400729	

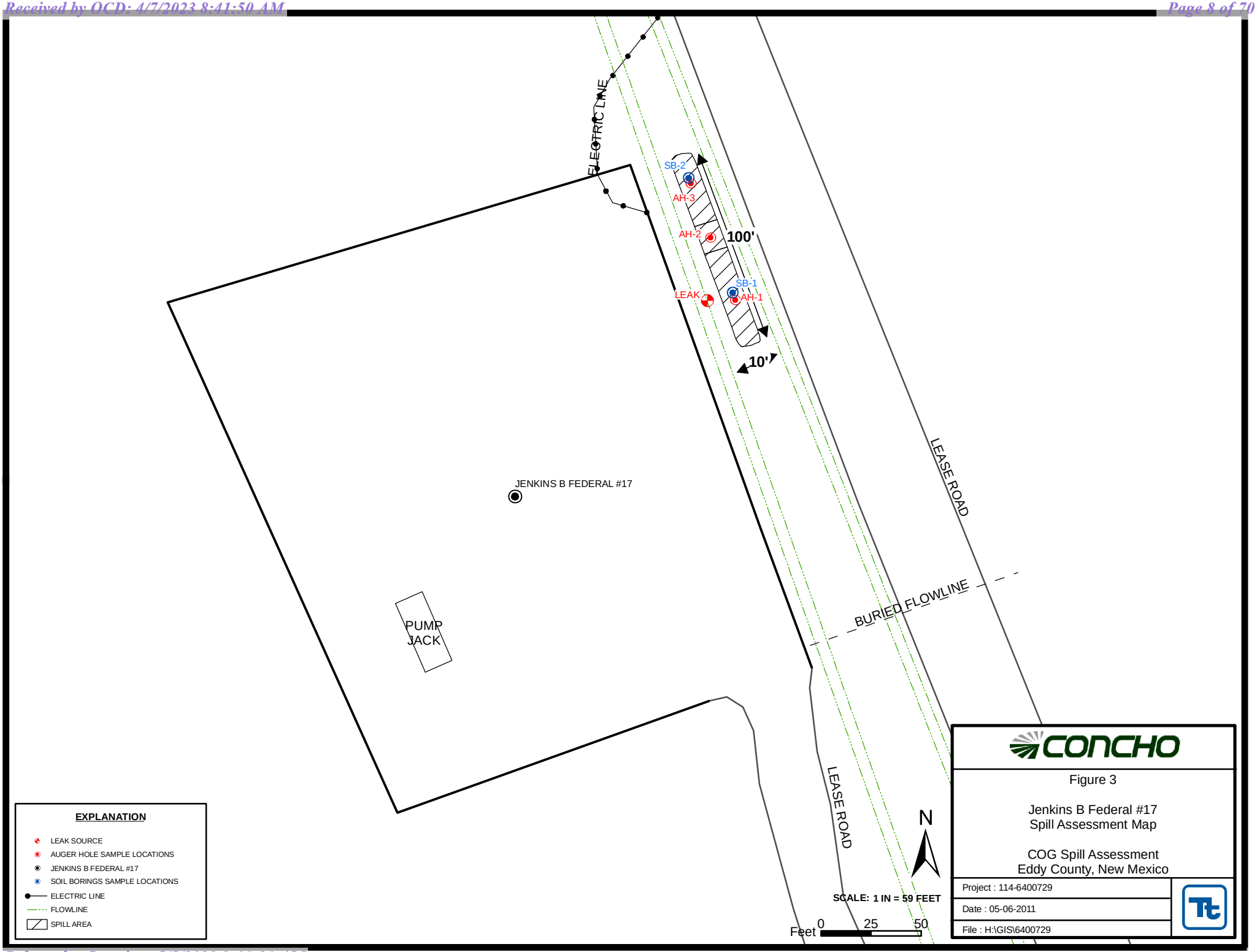


CONCHO

Figure 2
Jenkins B Federal #17
Topo Map 1:24,000

COG Spill Assessment
Eddy County, New Mexico

Project : 114-6400729	
Date :05-06-2011	
File : H:\GIS\6400729	



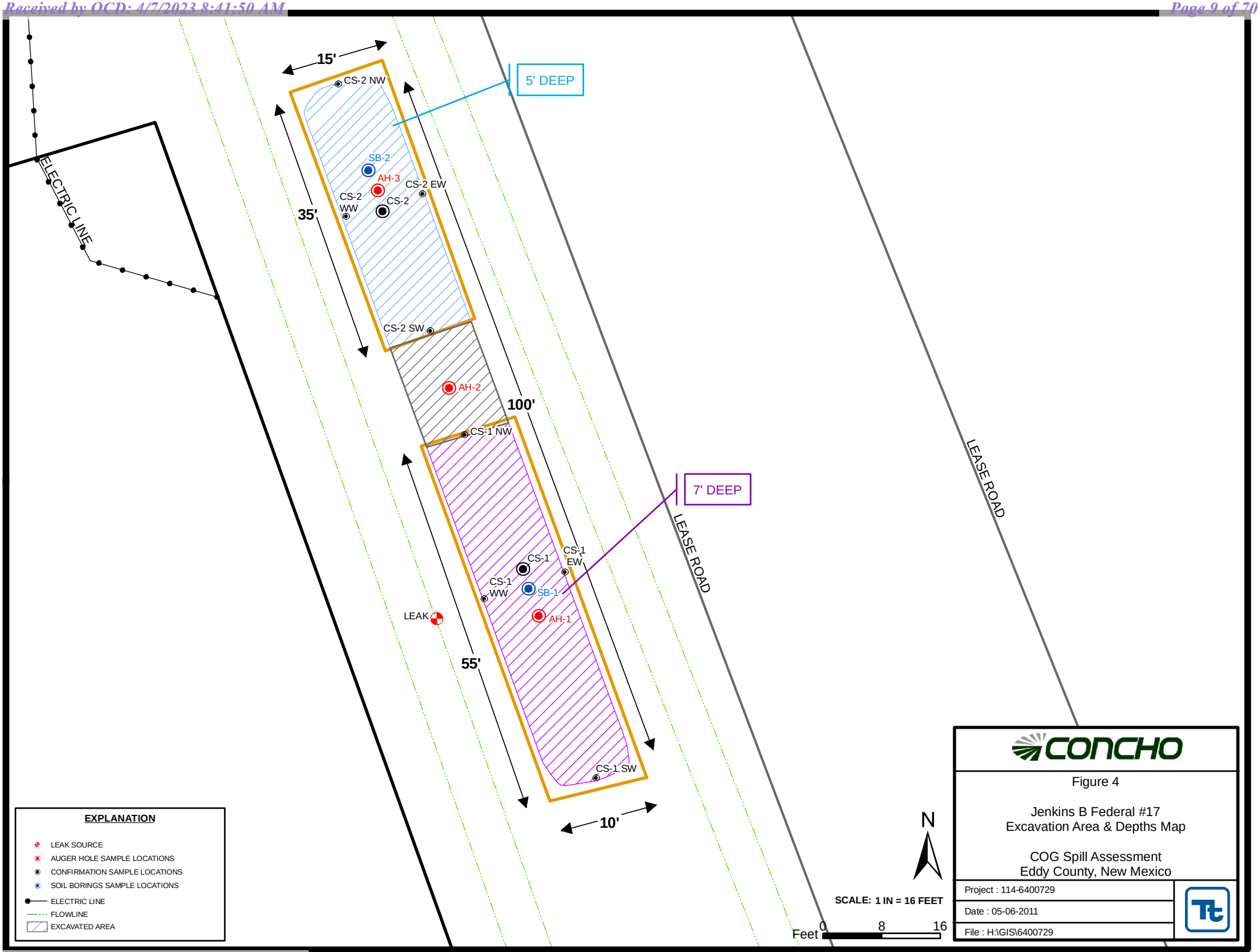
CONCHO

Figure 3

Jenkins B Federal #17
Spill Assessment Map

COG Spill Assessment
Eddy County, New Mexico

Project : 114-6400729	
Date : 05-06-2011	
File : H:\GIS\6400729	



CONCHO

Figure 4

Jenkins B Federal #17
Excavation Area & Depths Map

COG Spill Assessment
Eddy County, New Mexico

Project : 114-6400729
Date : 05-06-2011
File : H:\GIS\6400729

Tables

Table 1
COG Operating LLC.
Jenkins B Federal #17
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth (ft)	Depth (BEB)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	BTEX Total	Chloride (mg/kg)
				In-Situ	Removed	DRO	GRO	Total						
AH-1	12/6/10	0-1'			X	54.3	<2.00	54.3	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	389
		1-1.5'			X	-	-	-	-	-	-	-	-	1,080
		2-2.5'			X	-	-	-	-	-	-	-	-	9,450
		3-3.5'			X	-	-	-	-	-	-	-	-	15,400
		4-4.5'			X	-	-	-	-	-	-	-	-	11,800
SB-1	2/16/11	0-1'			X	-	-	-	-	-	-	-	-	<200
		3'			X	-	-	-	-	-	-	-	-	1,570
		5'			X	-	-	-	-	-	-	-	-	6,640
		7'			X	-	-	-	-	-	-	-	-	13,400
		10'		X		-	-	-	-	-	-	-	-	1,780
		15'		X		-	-	-	-	-	-	-	-	3,310
		20'		X		-	-	-	-	-	-	-	-	295
		25'		X		-	-	-	-	-	-	-	-	1,060
		30'		X		-	-	-	-	-	-	-	-	1,220
		40'		X		-	-	-	-	-	-	-	-	2,170
		50'		X		-	-	-	-	-	-	-	-	<200
		60'		X		-	-	-	-	-	-	-	-	<200
CS-1 Bottom	6/28/11	7'		X		-	-	-	-	-	-	-	-	12,500
N. Sidewall				X		-	-	-	-	-	-	-	-	12,900
E. Sidewall				X		-	-	-	-	-	-	-	-	13,000
S. Sidewall				X		-	-	-	-	-	-	-	-	13,100
W. Sidewall				X		-	-	-	-	-	-	-	-	4,920

Table 1
COG Operating LLC.
Jenkins B Federal #17
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth (ft)	Depth (BEB)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	BTEX Total	Chloride (mg/kg)
				In-Situ	Removed	DRO	GRO	Total						
AH-2	12/6/10	0-1'		X		<50.0	<2.00	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<200
		1-1.5'		X		-	-	-	-	-	-	-	-	<200
		2-2.5'		X		-	-	-	-	-	-	-	-	<200
		3-3.5'		X		-	-	-	-	-	-	-	-	<200
		4-4.5'		X		-	-	-	-	-	-	-	-	<200
		5-5.5'		X		-	-	-	-	-	-	-	-	410

Table 1
COG Operating LLC.
Jenkins B Federal #17
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth (ft)	Depth (BEB)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	BTEX Total	Chloride (mg/kg)
				In-Situ	Removed	DRO	GRO	Total						
AH-3	12/6/10	0-1'			X	<50.0	<2.00	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	307
		1-1.5'			X	-	-	-	-	-	-	-	-	394
		2-2.5'			X	-	-	-	-	-	-	-	-	569
		3-3.5'			X	-	-	-	-	-	-	-	-	1,150
		4-4.5'			X	-	-	-	-	-	-	-	-	2,770
SB-2	2/16/11	0-1'			X	-	-	-	-	-	-	-	-	<200
		3'			X	-	-	-	-	-	-	-	-	<200
		5'			X	-	-	-	-	-	-	-	-	<200
		7'		X		-	-	-	-	-	-	-	-	2,040
		10'		X		-	-	-	-	-	-	-	-	383
		15'		X		-	-	-	-	-	-	-	-	2,700
		20'		X		-	-	-	-	-	-	-	-	8,080
		25'		X		-	-	-	-	-	-	-	-	206
		30'		X		-	-	-	-	-	-	-	-	249
		40'		X		-	-	-	-	-	-	-	-	<200
CS-2 Bottom	6/28/11	5'		X		-	-	-	-	-	-	-	-	963
N. Sidewall				X		-	-	-	-	-	-	-	-	4,540
E. Sidewall				X		-	-	-	-	-	-	-	-	2,520
S. Sidewall				X		-	-	-	-	-	-	-	-	<200
W. Sidewall				X		-	-	-	-	-	-	-	-	1,940

BEB Below Excavation Bottom

(--) Not Analyzed

Liner Installation

Excavated Depths

Appendix A

Page 15 of 70

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	Pat Ellis
Address	550 W. Texas, Suite 100, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	Jenkins B Federal #17	Facility Type	Well

Surface Owner	Mineral Owner	Lease No. (API#)
Federal		30-015-34138

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	17	17S	30E					Eddy

Latitude 32 49.815 **Longitude** 103 59.804

NATURE OF RELEASE

Type of Release Produced water	Volume of Release 20bbls	Volume Recovered 0bbls
Source of Release Steel flowline	Date and Hour of Occurrence 10/29/2010	Date and Hour of Discovery 10/29/2010 9:00 a.m.
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
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.*

The steel flowline from the Jenkins B Federal #17 well developed a hole in it causing the release. The section of the pipe that had the hole was replaced with new pipe.

Describe Area Affected and Cleanup Action Taken.*

Initially 20bbls of produced water was released from the steel flowline. We were unable to recover any of the fluid from the release. The dimensions of the spill area measured 10' x 100' in the pasture to the west of our Northwest Central Tank Battery. The closest well location to the release is the McIntyre DK Federal #3, N-17-17S-30E, 660' FSL 1980' FWL, API# 30-015-04186. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation 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:	OIL CONSERVATION DIVISION
Printed Name: Josh Russo	Approved by District Supervisor:
Title: HSE Coordinator	Approval Date: / Expiration Date:
E-mail Address: jrusso@conchoresources.com	Conditions of Approval: / Attached ☐
Date: 11/02/2010 Phone: 432-212-2399	

Attach Additional Sheets If Necessary

Received by OCD: 4/7/2023 8:41:50 AM

Released to Imaging: 5/5/2023 9:11:21 AM

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
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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 **Pat Ellis**
Address **550 W. Texas, Suite 1300 Midland, Texas 79701**	Telephone No. **(432) 230-0077**
Facility Name Jenkins B Federal #17	Facility Type **Well**

Surface Owner: Federal	Mineral Owner	Lease No. (API#) 30-015-34138

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	17	17S	30E					Eddy

Latitude 32 49.815 **Longitude** 103 59.804

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release 20 bbls	Volume Recovered 0 bbls
Source of Release: Steel Flowline	Date and Hour of Occurrence 10/29/2010	Date and Hour of Discovery 10/29/2010 9:00a.m.
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and	
Was a Watercourse Reached? ☐ Yes ☒ 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.*

The steel flowline from the Jenkins B Federal #17 well developed a hole in it causing the release. The section of the pipe that had the hole was replaced with new pipe.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech personal inspected the site and collected samples to define the spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. Confirmation samples were taken and liners were installed, the site was then brought up to surface grade with clean backfill material. Tetra Tech prepared a closure report and submitted it to the 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:	OIL CONSERVATION DIVISION
Printed Name: Ike Tavarez	Approved by District Supervisor: Ashley Maxwell
Title: Senior HSE Supervisor	Approval Date: 5/5/2023 Expiration Date:
E-mail Address: ITavarez@concho.com	Conditions of Approval: Attached ☐
Date: January 25, 2019 Phone: (432) 685-2573	

* Attach Additional Sheets If Necessary

Appendix B

Water Well Data
Average Depth to Groundwater (ft)
COG - Jenkins B Federal # 17
Eddy County, New Mexico

16 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19 110	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

16 South 30 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

16 South 31 East

6	5	4	3	2
7	8	9	10	11
18	17	16	15	14
19	20	21	22	23
30	29	28	27	26
31 290	32	33	34	35

17 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22 80	23	24
30	29 210 208'	28	27	26	25
31	32	33	34	35 153	36

17 South 30 East

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

17 South 31 East

6	5	4	3	2
7	8	9	10	11
18	17	16	15	14
19	20	21	22	23
30	29	28	27	26
31	32	33	34 271	35

18 South 29 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

18 South 30 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

18 South 31 East

6	5	4	3	2
7	8	9	10	11
18	17	16	15	14 317
19	20	21	22	23
30	29	28	27	26
31	32	33	34	35 261

New Mexico State Engineers Well Reports
USGS Well Reports
Geology and Groundwater Conditions in Southern Eddy, County, NM
NMOCD - Groundwater Data

Appendix C

TRACEANALYSIS, INC.
6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: July 12, 2011

Work Order: 11070523

Project Location: Eddy Co., NM
Project Name: COG/Jenkins B Federal #17
Project Number: 114-6400729

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
271194	CS-1 Bottom 7'	soil	2011-06-28	00:00	2011-07-05
271195	CS-1 North Sidewall	soil	2011-06-28	00:00	2011-07-05
271196	CS-1 East Sidewall	soil	2011-06-28	00:00	2011-07-05
271197	CS-1 South Sidewall	soil	2011-06-28	00:00	2011-07-05
271198	CS-1 West Sidewall	soil	2011-06-28	00:00	2011-07-05
271199	CS-2 Bottom 5'	soil	2011-06-28	00:00	2011-07-05
271200	CS-2 North Sidewall	soil	2011-06-28	00:00	2011-07-05
271201	CS-2 East Sidewall	soil	2011-06-28	00:00	2011-07-05
271202	CS-2 South Sidewall	soil	2011-06-28	00:00	2011-07-05
271203	CS-2 West Sidewall	soil	2011-06-28	00:00	2011-07-05

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 12 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Report Contents

Case Narrative

Samples for project COG/Jenkins B Federal #17 were received by TraceAnalysis, Inc. on 2011-07-05 and assigned to work order 11070523. Samples for work order 11070523 were received intact at a temperature of 10.4 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (Titration)	SM 4500-Cl B	70311	2011-07-06 at 08:36	82930	2011-07-11 at 14:07
Chloride (Titration)	SM 4500-Cl B	70311	2011-07-06 at 08:36	82931	2011-07-11 at 14:08

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11070523 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 271194 - CS-1 Bottom 7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	82930	Date Analyzed:	2011-07-11	Analyzed By:	AR
Prep Batch:	70311	Sample Preparation:	2011-07-06	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**12500**	mg/Kg	100	4.00

Sample: 271195 - CS-1 North Sidewall

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	82930	Date Analyzed:	2011-07-11	Analyzed By:	AR
Prep Batch:	70311	Sample Preparation:	2011-07-06	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**12900**	mg/Kg	100	4.00

Sample: 271196 - CS-1 East Sidewall

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	82930	Date Analyzed:	2011-07-11	Analyzed By:	AR
Prep Batch:	70311	Sample Preparation:	2011-07-06	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**13000**	mg/Kg	100	4.00

Sample: 271197 - CS-1 South Sidewall

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	82930	Date Analyzed:	2011-07-11	Analyzed By:	AR
Prep Batch:	70311	Sample Preparation:	2011-07-06	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**13100**	mg/Kg	100	4.00

Sample: 271198 - CS-1 West Sidewall

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	82930	Date Analyzed:	2011-07-11	Analyzed By:	AR
Prep Batch:	70311	Sample Preparation:	2011-07-06	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**4920**	mg/Kg	100	4.00

Sample: 271199 - CS-2 Bottom 5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	82930	Date Analyzed:	2011-07-11	Analyzed By:	AR
Prep Batch:	70311	Sample Preparation:	2011-07-06	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**963**	mg/Kg	100	4.00

Sample: 271200 - CS-2 North Sidewall

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	82931	Date Analyzed:	2011-07-11	Analyzed By:	AR
Prep Batch:	70311	Sample Preparation:	2011-07-06	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**4540**	mg/Kg	100	4.00

Sample: 271201 - CS-2 East Sidewall

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	82931	Date Analyzed:	2011-07-11	Analyzed By:	AR
Prep Batch:	70311	Sample Preparation:	2011-07-06	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2520**	mg/Kg	100	4.00

Sample: 271202 - CS-2 South Sidewall

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	82931	Date Analyzed:	2011-07-11	Analyzed By:	AR
Prep Batch:	70311	Sample Preparation:	2011-07-06	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			<200	mg/Kg	50	4.00

Sample: 271203 - CS-2 West Sidewall

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	82931	Date Analyzed:	2011-07-11	Analyzed By:	AR
Prep Batch:	70311	Sample Preparation:	2011-07-06	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1940**	mg/Kg	100	4.00

Method Blanks

Method Blank (1) QC Batch: 82930

QC Batch:	82930	Date Analyzed:	2011-07-11	Analyzed By:	AR
Prep Batch:	70311	QC Preparation:	2011-07-06	Prepared By:	AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 82931

QC Batch:	82931	Date Analyzed:	2011-07-11	Analyzed By:	AR
Prep Batch:	70311	QC Preparation:	2011-07-06	Prepared By:	AR

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 82930 Date Analyzed: 2011-07-11 Analyzed By: AR
Prep Batch: 70311 QC Preparation: 2011-07-06 Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			95.3	mg/Kg	1	100	<3.85	95	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			106	mg/Kg	1	100	<3.85	106	85 - 115	11	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 82931 Date Analyzed: 2011-07-11 Analyzed By: AR
Prep Batch: 70311 QC Preparation: 2011-07-06 Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			96.3	mg/Kg	1	100	<3.85	96	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			102	mg/Kg	1	100	<3.85	102	85 - 115	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 271199

QC Batch: 82930 Date Analyzed: 2011-07-11 Analyzed By: AR
Prep Batch: 70311 QC Preparation: 2011-07-06 Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			11400	mg/Kg	100	10000	963	104	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			11700	mg/Kg	100	10000	963	107	80 - 120	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 271203

QC Batch: 82931 Date Analyzed: 2011-07-11 Analyzed By: AR
Prep Batch: 70311 QC Preparation: 2011-07-06 Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			12100	mg/Kg	100	10000	1940	102	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			12700	mg/Kg	100	10000	1940	108	80 - 120	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Calibration Standards

Standard (ICV-1)

QC Batch: 82930 Date Analyzed: 2011-07-11 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	96.5	96	85 - 115	2011-07-11

Standard (CCV-1)

QC Batch: 82930 Date Analyzed: 2011-07-11 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	104	104	85 - 115	2011-07-11

Standard (ICV-1)

QC Batch: 82931 Date Analyzed: 2011-07-11 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2011-07-11

Standard (CCV-1)

QC Batch: 82931 Date Analyzed: 2011-07-11 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2011-07-11

Received by OCD: 4/7/2023 8:41:50 AM

Appendix

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

Released to Imaging: 5/5/2023 9:11:21 AM

Released to Imaging: 5/5/2023 9:11:21 AM
Received by OCD: 4/7/2023 8:41:50 AM

Analysis Request of Chain of Custody Record

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6400729

PROJECT NAME: COG / Jenkins 13 Federal #17
Eddy Co. NM

LAB I.D. NUMBER	DATE 2011	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
271194	6/28		S		X	CS-1 Bottom 7'	1				X														X				
195						CS-1 North Sidewall																							
196						CS-1 East Sidewall																							
197						CS-1 South Sidewall																							
198						CS-1 West Sidewall																							
199						CS-2 Bottom 5'																							
200						CS-2 North Sidewall																							
201						CS-2 East Sidewall																							
202						CS-2 South Sidewall																							
203						CS-2 West Sidewall																							

RELINQUISHED BY: (Signature)	Date: 7/5/11 Time: 1635	RECEIVED BY: (Signature)	Date: 7/5/11 Time: 1635
SAMPLED BY: (Print & Initial) JT	Date: Time:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez	Results by:		
RECEIVING LABORATORY: Trace ADDRESS: CITY: Midland STATE: TX ZIP: CONTACT: PHONE:	RECEIVED BY: (Signature) DATE: TIME:		RUSH Charges Authorized: Yes No
SAMPLE CONDITION WHEN RECEIVED: 10.4°C intact	REMARKS: All tests - Midland		

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

TRACEANALYSIS, INC.
6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
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5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: December 15, 2010

Work Order: 10121024

Project Location: Eddy Co., NM
Project Name: COG/Jenkins B Federal #17
Project Number: 114-6400729

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
252880	AH-1 0-1'	soil	2010-12-06	00:00	2010-12-10
252881	AH-1 1-1.5'	soil	2010-12-06	00:00	2010-12-10
252882	AH-1 2-2.5'	soil	2010-12-06	00:00	2010-12-10
252883	AH-1 3-3.5'	soil	2010-12-06	00:00	2010-12-10
252884	AH-1 4-4.5'	soil	2010-12-06	00:00	2010-12-10
252885	AH-2 0-1'	soil	2010-12-06	00:00	2010-12-10
252886	AH-2 1-1.5'	soil	2010-12-06	00:00	2010-12-10
252887	AH-2 2-2.5'	soil	2010-12-06	00:00	2010-12-10
252888	AH-2 3-3.5'	soil	2010-12-06	00:00	2010-12-10
252889	AH-2 4-4.5'	soil	2010-12-06	00:00	2010-12-10

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
252890	AH-2 5-5.5'	soil	2010-12-06	00:00	2010-12-10
252891	AH-3 0-1'	soil	2010-12-06	00:00	2010-12-10
252892	AH-3 1-1.5'	soil	2010-12-06	00:00	2010-12-10
252893	AH-3 2-2.5'	soil	2010-12-06	00:00	2010-12-10
252894	AH-3 3-3.5'	soil	2010-12-06	00:00	2010-12-10
252895	AH-3 4-4.5'	soil	2010-12-06	00:00	2010-12-10

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 19 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project COG/Jenkins B Federal #17 were received by TraceAnalysis, Inc. on 2010-12-10 and assigned to work order 10121024. Samples for work order 10121024 were received intact at a temperature of 3.6 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	65313	2010-12-14 at 10:54	76151	2010-12-14 at 12:48
Chloride (Titration)	SM 4500-Cl B	65250	2010-12-13 at 10:17	76123	2010-12-14 at 12:56
Chloride (Titration)	SM 4500-Cl B	65250	2010-12-13 at 10:17	76124	2010-12-14 at 12:57
TPH DRO - NEW	S 8015 D	65320	2010-12-14 at 09:15	76161	2010-12-14 at 09:15
TPH GRO	S 8015 D	65313	2010-12-14 at 10:54	76152	2010-12-14 at 12:48

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 10121024 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 252880 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	76151	Date Analyzed:	2010-12-14	Analyzed By:	ME
Prep Batch:	65313	Sample Preparation:	2010-12-14	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.43	mg/Kg	1	2.00	122	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.52	mg/Kg	1	2.00	126	38.4 - 157

Sample: 252880 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76123	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	Sample Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**389**	mg/Kg	50	4.00

Sample: 252880 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	76161	Date Analyzed:	2010-12-14	Analyzed By:	kg
Prep Batch:	65320	Sample Preparation:	2010-12-14	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**54.3**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		130	mg/Kg	1	100	130	70 - 130

Sample: 252880 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	76152	Date Analyzed:	2010-12-14	Analyzed By:	ME
Prep Batch:	65313	Sample Preparation:	2010-12-14	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.60	mg/Kg	1	2.00	130	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.50	mg/Kg	1	2.00	125	42 - 159

Sample: 252881 - AH-1 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76123	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	Sample Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1080**	mg/Kg	100	4.00

Sample: 252882 - AH-1 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76123	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	Sample Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**9450**	mg/Kg	100	4.00

Sample: 252883 - AH-1 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76123	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	Sample Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**15400**	mg/Kg	100	4.00

Sample: 252884 - AH-1 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76123	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	Sample Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**11800**	mg/Kg	100	4.00

Sample: 252885 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	76151	Date Analyzed:	2010-12-14	Analyzed By:	ME
Prep Batch:	65313	Sample Preparation:	2010-12-14	Prepared By:	ME

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.40	mg/Kg	1	2.00	120	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.58	mg/Kg	1	2.00	129	38.4 - 157

Sample: 252885 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76123	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	Sample Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 252885 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	76161	Date Analyzed:	2010-12-14	Analyzed By:	kg
Prep Batch:	65320	Sample Preparation:	2010-12-14	Prepared By:	kg

Parameter	Flag	Result	RL Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		116	mg/Kg	1	100	116	70 - 130

Sample: 252885 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	76152	Date Analyzed:	2010-12-14	Analyzed By:	ME
Prep Batch:	65313	Sample Preparation:	2010-12-14	Prepared By:	ME

Parameter	Flag	Result	RL Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.62	mg/Kg	1	2.00	131	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.57	mg/Kg	1	2.00	128	42 - 159

Sample: 252886 - AH-2 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76123	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	Sample Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 252887 - AH-2 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76123	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	Sample Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 252888 - AH-2 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76123	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	Sample Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 252889 - AH-2 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76123	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	Sample Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 252890 - AH-2 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76124	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	Sample Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**410**	mg/Kg	50	4.00

Sample: 252891 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	76151	Date Analyzed:	2010-12-14	Analyzed By:	ME
Prep Batch:	65313	Sample Preparation:	2010-12-14	Prepared By:	ME

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.71	mg/Kg	1	2.00	86	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.90	mg/Kg	1	2.00	95	38.4 - 157

Sample: 252891 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76124	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	Sample Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**307**	mg/Kg	50	4.00

Sample: 252891 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	76161	Date Analyzed:	2010-12-14	Analyzed By:	kg
Prep Batch:	65320	Sample Preparation:	2010-12-14	Prepared By:	kg

Parameter	Flag	Result	RL Result	Units	Dilution	RL
DRO			<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		110	mg/Kg	1	100	110	70 - 130

Sample: 252891 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	76152	Date Analyzed:	2010-12-14	Analyzed By:	ME
Prep Batch:	65313	Sample Preparation:	2010-12-14	Prepared By:	ME

Parameter	Flag	Result	RL Result	Units	Dilution	RL
GRO			<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.87	mg/Kg	1	2.00	94	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.90	mg/Kg	1	2.00	95	42 - 159

Sample: 252892 - AH-3 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76124	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	Sample Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	Result	RL Result	Units	Dilution	RL
Chloride			**394**	mg/Kg	50	4.00

Sample: 252893 - AH-3 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76124	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	Sample Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**569**	mg/Kg	50	4.00

Sample: 252894 - AH-3 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76124	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	Sample Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1150**	mg/Kg	100	4.00

Sample: 252895 - AH-3 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	76124	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	Sample Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2770**	mg/Kg	100	4.00

Method Blank (1) QC Batch: 76123

QC Batch:	76123	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	QC Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

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Method Blank (1) QC Batch: 76124

QC Batch:	76124	Date Analyzed:	2010-12-14	Analyzed By:	AR
Prep Batch:	65250	QC Preparation:	2010-12-13	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 76151

QC Batch:	76151	Date Analyzed:	2010-12-14	Analyzed By:	ME
Prep Batch:	65313	QC Preparation:	2010-12-14	Prepared By:	ME

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.0150	mg/Kg	0.02
Toluene		<0.00950	mg/Kg	0.02
Ethylbenzene		<0.0106	mg/Kg	0.02
Xylene		<0.00930	mg/Kg	0.02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/Kg	1	2.00	97	66.6 - 122
4-Bromofluorobenzene (4-BFB)		2.02	mg/Kg	1	2.00	101	55.4 - 132

Method Blank (1) QC Batch: 76152

QC Batch:	76152	Date Analyzed:	2010-12-14	Analyzed By:	ME
Prep Batch:	65313	QC Preparation:	2010-12-14	Prepared By:	ME

Parameter	Flag	MDL Result	Units	RL
GRO		<1.65	mg/Kg	2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.12	mg/Kg	1	2.00	106	67.6 - 150
4-Bromofluorobenzene (4-BFB)		2.03	mg/Kg	1	2.00	102	52.4 - 130

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Method Blank (1) QC Batch: 76161

QC Batch: 76161 Date Analyzed: 2010-12-14 Analyzed By: kg
Prep Batch: 65320 QC Preparation: 2010-12-14 Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<14.6	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		91.6	mg/Kg	1	100	92	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 76123 Date Analyzed: 2010-12-14 Analyzed By: AR
Prep Batch: 65250 QC Preparation: 2010-12-13 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	96.9	mg/Kg	1	100	<2.18	97	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	103	mg/Kg	1	100	<2.18	103	85 - 115	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 76124 Date Analyzed: 2010-12-14 Analyzed By: AR
Prep Batch: 65250 QC Preparation: 2010-12-13 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	96.5	mg/Kg	1	100	<2.18	96	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	103	mg/Kg	1	100	<2.18	103	85 - 115	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 76151 Date Analyzed: 2010-12-14 Analyzed By: ME
Prep Batch: 65313 QC Preparation: 2010-12-14 Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.82	mg/Kg	1	2.00	<0.0150	91	81.9 - 108
Toluene	1.80	mg/Kg	1	2.00	<0.00950	90	81.9 - 107
Ethylbenzene	1.82	mg/Kg	1	2.00	<0.0106	91	78.4 - 107
Xylene	5.50	mg/Kg	1	6.00	<0.00930	92	79.1 - 107

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.98	mg/Kg	1	2.00	<0.0150	99	81.9 - 108	8	20
Toluene	1.96	mg/Kg	1	2.00	<0.00950	98	81.9 - 107	8	20
Ethylbenzene	2.00	mg/Kg	1	2.00	<0.0106	100	78.4 - 107	9	20
Xylene	6.03	mg/Kg	1	6.00	<0.00930	100	79.1 - 107	9	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.76	1.76	mg/Kg	1	2.00	88	88	70.2 - 114
4-Bromofluorobenzene (4-BFB)	1.94	1.89	mg/Kg	1	2.00	97	94	69.8 - 121

Laboratory Control Spike (LCS-1)

QC Batch: 76152 Date Analyzed: 2010-12-14 Analyzed By: ME
Prep Batch: 65313 QC Preparation: 2010-12-14 Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.7	mg/Kg	1	20.0	<1.65	84	69.9 - 95.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.7	mg/Kg	1	20.0	<1.65	84	69.9 - 95.4	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.03	2.04	mg/Kg	1	2.00	102	102	61.9 - 142
4-Bromofluorobenzene (4-BFB)	2.02	2.00	mg/Kg	1	2.00	101	100	65.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 76161 Date Analyzed: 2010-12-14 Analyzed By: kg
Prep Batch: 65320 QC Preparation: 2010-12-14 Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	192	mg/Kg	1	250	<14.6	77	47.5 - 144.1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	214	mg/Kg	1	250	<14.6	86	47.5 - 144.1	11	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	110	124	mg/Kg	1	100	110	124	70 - 130

Matrix Spike (MS-1) Spiked Sample: 252889

QC Batch: 76123 Date Analyzed: 2010-12-14 Analyzed By: AR
Prep Batch: 65250 QC Preparation: 2010-12-13 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	9990	mg/Kg	100	10000	<218	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10300	mg/Kg	100	10000	<218	103	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 252903

QC Batch: 76124 Date Analyzed: 2010-12-14 Analyzed By: AR
Prep Batch: 65250 QC Preparation: 2010-12-13 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10900	mg/Kg	100	10000	630	103	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	11300	mg/Kg	100	10000	630	107	85 - 115	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 252958

QC Batch: 76151 Date Analyzed: 2010-12-14 Analyzed By: ME
Prep Batch: 65313 QC Preparation: 2010-12-14 Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.93	mg/Kg	1	2.00	<0.0150	96	80.5 - 112
Toluene	1.94	mg/Kg	1	2.00	<0.00950	97	82.4 - 113
Ethylbenzene	2.02	mg/Kg	1	2.00	<0.0106	101	83.9 - 114
Xylene	6.13	mg/Kg	1	6.00	<0.00930	102	84 - 114

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.00	mg/Kg	1	2.00	<0.0150	100	80.5 - 112	4	20
Toluene	2.03	mg/Kg	1	2.00	<0.00950	102	82.4 - 113	4	20
Ethylbenzene	2.10	mg/Kg	1	2.00	<0.0106	105	83.9 - 114	4	20
Xylene	6.38	mg/Kg	1	6.00	<0.00930	106	84 - 114	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.17	2.15	mg/Kg	1	2	108	108	41.3 - 117
4-Bromofluorobenzene (4-BFB)	2.31	2.29	mg/Kg	1	2	116	114	35.5 - 129

Matrix Spike (MS-1) Spiked Sample: 253025

QC Batch: 76152 Date Analyzed: 2010-12-14 Analyzed By: ME
Prep Batch: 65313 QC Preparation: 2010-12-14 Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.6	mg/Kg	1	20.0	<1.65	88	61.8 - 114

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	18.5	mg/Kg	1	20.0	<1.65	92	61.8 - 114	5	20

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Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.40	2.40	mg/Kg	1	2	120	120	50 - 162
4-Bromofluorobenzene (4-BFB)	2.43	2.44	mg/Kg	1	2	122	122	50 - 162

Matrix Spike (MS-1) Spiked Sample: 252939

QC Batch: 76161 Date Analyzed: 2010-12-14 Analyzed By: kg
Prep Batch: 65320 QC Preparation: 2010-12-14 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	231	mg/Kg	1	250	<14.6	92	11.7 - 152.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	224	mg/Kg	1	250	<14.6	90	11.7 - 152.3	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	124	125	mg/Kg	1	100	124	125	70 - 130

Standard (ICV-1)

QC Batch: 76123 Date Analyzed: 2010-12-14 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.3	98	85 - 115	2010-12-14

Standard (CCV-1)

QC Batch: 76123 Date Analyzed: 2010-12-14 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2010-12-14

Standard (ICV-1)

QC Batch: 76124 Date Analyzed: 2010-12-14 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2010-12-14

Standard (CCV-1)

QC Batch: 76124 Date Analyzed: 2010-12-14 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.5	100	85 - 115	2010-12-14

Standard (CCV-1)

QC Batch: 76151 Date Analyzed: 2010-12-14 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0965	96	80 - 120	2010-12-14
Toluene		mg/Kg	0.100	0.0970	97	80 - 120	2010-12-14
Ethylbenzene		mg/Kg	0.100	0.0967	97	80 - 120	2010-12-14
Xylene		mg/Kg	0.300	0.295	98	80 - 120	2010-12-14

Standard (CCV-2)

QC Batch: 76151 Date Analyzed: 2010-12-14 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0941	94	80 - 120	2010-12-14
Toluene		mg/Kg	0.100	0.0923	92	80 - 120	2010-12-14
Ethylbenzene		mg/Kg	0.100	0.0889	89	80 - 120	2010-12-14
Xylene		mg/Kg	0.300	0.274	91	80 - 120	2010-12-14

Standard (CCV-1)

QC Batch: 76152 Date Analyzed: 2010-12-14 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.07	107	80 - 120	2010-12-14

Standard (CCV-2)

QC Batch: 76152 Date Analyzed: 2010-12-14 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.02	102	80 - 120	2010-12-14

Standard (CCV-2)

QC Batch: 76161 Date Analyzed: 2010-12-14 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	260	104	80 - 120	2010-12-14

Standard (CCV-3)

QC Batch: 76161 Date Analyzed: 2010-12-14 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	253	101	80 - 120	2010-12-14

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Analysis Request of Chain of Custody Record

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PAGE: 1 OF 2

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6400 729

PROJECT NAME: COG / Jenkins B Federal #17 Eddy Co, NM

LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Past. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
252880	12/6		S		X	AH-1 0-1'	1				X		X	X										X				
881						AH-1 1-1.5'																		X				
882						AH-1 2-2.5'																		X				
883						AH-1 3-3.5'																		X				
884						AH-1 4-4.5'																		X				
885						AH-2 0-1'							X	X										X				
886						AH-2 1-1.5'																		X				
887						AH-2 2-2.5'																		X				
888						AH-2 3-3.5'																		X				
889	↓		Y		Y	AH-2 4-4.5'	Y				Y													X				

RELINQUISHED BY: (Signature) — Date: 12/6/10 Time: 1030
RECEIVED BY: (Signature) — Date: 12/6/10 Time: 10:30
SAMPLED BY: (Print & Initial) Robert Gubler Jr — Date: 12/6/10 Time: 2030

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez — Results by:

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: Mondo PHONE:
RECEIVED BY: (Signature)
DATE: TIME:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.6°c intact

REMARKS: NOTE: Run deeper Benzene & TPH exceeds 6,000 mg/kg
Run deeper Benzene, & TPH exceeds 6,000 mg/kg &

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Released to Imaging: 5/5/2023 9:11:21 AM
Received by OCD: 4/7/2023 8:41:50 AM

WO# 10121024

Analysis Request of Chain of Custody Record

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

PAGE: 2 OF 2

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6400729

PROJECT NAME: COG / Jealous B Federal # 17 Eddy Co, NM

LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
252890	12/6		S		X	AH-2 1'-1.5'	1				X	
891						AH-3 0-1'						
892						AH-3 1-1.5'						
893						AH-3 2-2.5'						
894						AH-3 3-3.5'						
895	↓		X		X	AH-3 4-4.5'	↓				↓	

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
X	X											X				
												X				
												X				
												X				
												X				
												X				

RELINQUISHED BY: (Signature) — Date: 12/10/10 Time: 1030
RECEIVED BY: (Signature) — Date: 12/10/10 Time: 10:30
SAMPLED BY: (Print & Initial) Robert Gabbs IV — Date: 12/6/10 Time: 2038

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez — Results by:

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: Mike PHONE:
RECEIVED BY: (Signature)
DATE: TIME:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.6°C intact

REMARKS:

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

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TRACEANALYSIS, INC.
6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Tim Reed
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: February 24, 2011

Work Order: 11022107

Project Location: Eddy Co., NM
Project Name: COG/Jenkins B Federal #17
Project Number: 114-6400729

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
258079	SB-1 0-1'	soil	2011-02-16	00:00	2011-02-21
258080	SB-1 3'	soil	2011-02-16	00:00	2011-02-21
258081	SB-1 5'	soil	2011-02-16	00:00	2011-02-21
258082	SB-1 7'	soil	2011-02-16	00:00	2011-02-21
258083	SB-1 10'	soil	2011-02-16	00:00	2011-02-21
258084	SB-1 15'	soil	2011-02-16	00:00	2011-02-21
258085	SB-1 20'	soil	2011-02-16	00:00	2011-02-21
258086	SB-1 25'	soil	2011-02-16	00:00	2011-02-21
258087	SB-1 30'	soil	2011-02-16	00:00	2011-02-21
258088	SB-1 40'	soil	2011-02-16	00:00	2011-02-21

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
258089	SB-1 50’	soil	2011-02-16	00:00	2011-02-21
258090	SB-1 60’	soil	2011-02-16	00:00	2011-02-21
258091	SB-2 0-1’	soil	2011-02-16	00:00	2011-02-21
258092	SB-2 3’	soil	2011-02-16	00:00	2011-02-21
258093	SB-2 5’	soil	2011-02-16	00:00	2011-02-21
258094	SB-2 7’	soil	2011-02-16	00:00	2011-02-21
258095	SB-2 10’	soil	2011-02-16	00:00	2011-02-21
258096	SB-2 15’	soil	2011-02-16	00:00	2011-02-21
258097	SB-2 20’	soil	2011-02-16	00:00	2011-02-21
258098	SB-2 25’	soil	2011-02-16	00:00	2011-02-21
258099	SB-2 30’	soil	2011-02-16	00:00	2011-02-21
258100	SB-2 40’	soil	2011-02-16	00:00	2011-02-21

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 13 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Samples for project COG/Jenkins B Federal #17 were received by TraceAnalysis, Inc. on 2011-02-21 and assigned to work order 11022107. Samples for work order 11022107 were received intact at a temperature of 0.7 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (Titration)	SM 4500-Cl B	66730	2011-02-22 at 09:19	77848	2011-02-23 at 14:39
Chloride (Titration)	SM 4500-Cl B	66730	2011-02-22 at 09:19	77849	2011-02-23 at 14:40
Chloride (Titration)	SM 4500-Cl B	66730	2011-02-22 at 09:19	77850	2011-02-23 at 14:41

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11022107 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 258079 - SB-1 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77848	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 258080 - SB-1 3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77848	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1570**	mg/Kg	100	4.00

Sample: 258081 - SB-1 5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77848	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6640**	mg/Kg	100	4.00

Sample: 258082 - SB-1 7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77849	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

continued . . .

sample 258082 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**13400**	mg/Kg	100	4.00

Sample: 258083 - SB-1 10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77849	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1780**	mg/Kg	100	4.00

Sample: 258084 - SB-1 15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77849	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**3310**	mg/Kg	100	4.00

Sample: 258085 - SB-1 20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77849	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**295**	mg/Kg	50	4.00

Sample: 258086 - SB-1 25'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77849	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**1060**	mg/Kg	100	4.00

Sample: 258087 - SB-1 30'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77849	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**1220**	mg/Kg	100	4.00

Sample: 258088 - SB-1 40'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77849	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**2170**	mg/Kg	100	4.00

Sample: 258089 - SB-1 50'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77849	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 258090 - SB-1 60'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77849	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 258091 - SB-2 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77849	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 258092 - SB-2 3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77850	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 258093 - SB-2 5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77850	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 258094 - SB-2 7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77850	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**2040**	mg/Kg	100	4.00

Sample: 258095 - SB-2 10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77850	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**383**	mg/Kg	50	4.00

Sample: 258096 - SB-2 15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77850	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**2700**	mg/Kg	100	4.00

Sample: 258097 - SB-2 20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77850	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**8080**	mg/Kg	100	4.00

Sample: 258098 - SB-2 25'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77850	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**206**	mg/Kg	50	4.00

Sample: 258099 - SB-2 30'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77850	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**249**	mg/Kg	50	4.00

Sample: 258100 - SB-2 40'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77850	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Method Blank (1) QC Batch: 77848

QC Batch:	77848	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	QC Preparation:	2011-02-22	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 77849

QC Batch: 77849 Date Analyzed: 2011-02-23 Analyzed By: AR
Prep Batch: 66730 QC Preparation: 2011-02-22 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 77850

QC Batch: 77850 Date Analyzed: 2011-02-23 Analyzed By: AR
Prep Batch: 66730 QC Preparation: 2011-02-22 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Laboratory Control Spike (LCS-1)

QC Batch: 77848 Date Analyzed: 2011-02-23 Analyzed By: AR
Prep Batch: 66730 QC Preparation: 2011-02-22 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.9	mg/Kg	1	100	<2.18	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	103	mg/Kg	1	100	<2.18	103	85 - 115	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 77849 Date Analyzed: 2011-02-23 Analyzed By: AR
Prep Batch: 66730 QC Preparation: 2011-02-22 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	95.9	mg/Kg	1	100	<2.18	96	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	103	mg/Kg	1	100	<2.18	103	85 - 115	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 77850 Date Analyzed: 2011-02-23 Analyzed By: AR
Prep Batch: 66730 QC Preparation: 2011-02-22 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	96.1	mg/Kg	1	100	<2.18	96	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	105	mg/Kg	1	100	<2.18	105	85 - 115	9	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 258081

QC Batch: 77848 Date Analyzed: 2011-02-23 Analyzed By: AR
Prep Batch: 66730 QC Preparation: 2011-02-22 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	16200	mg/Kg	100	10000	6640	96	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	16800	mg/Kg	100	10000	6640	102	85 - 115	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 258091

QC Batch: 77849 Date Analyzed: 2011-02-23 Analyzed By: AR
Prep Batch: 66730 QC Preparation: 2011-02-22 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10200	mg/Kg	100	10000	<218	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10500	mg/Kg	100	10000	<218	104	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 258143

QC Batch: 77850 Date Analyzed: 2011-02-23 Analyzed By: AR
Prep Batch: 66730 QC Preparation: 2011-02-22 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10900	mg/Kg	100	10000	1040	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	11400	mg/Kg	100	10000	1040	104	85 - 115	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 77848 Date Analyzed: 2011-02-23 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2011-02-23

Standard (CCV-1)

QC Batch: 77848 Date Analyzed: 2011-02-23 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2011-02-23

Standard (ICV-1)

QC Batch: 77849 Date Analyzed: 2011-02-23 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2011-02-23

Standard (CCV-1)

QC Batch: 77849 Date Analyzed: 2011-02-23 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.2	99	85 - 115	2011-02-23

Standard (ICV-1)

QC Batch: 77850 Date Analyzed: 2011-02-23 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.1	98	85 - 115	2011-02-23

Standard (CCV-1)

QC Batch: 77850 Date Analyzed: 2011-02-23 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2011-02-23

Released to Imaging: 5/5/2023 9:11:21 AM
Received by OCD: 4/7/2023 8:41:50 AM

Lwo#: 1102210 7

Analysis Request of Chain of Custody Record

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114640072 9

PROJECT NAME: Jenkins B Federal #17 Eddy Co., NM

LAB I.D. NUMBER	DATE 2011	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
258079	2/16		S		X	SB-1 0-1'	1				X													X				
080						SB-1 3'	1				X													X				
081						SB-1 5'	1				X													X				
082						SB-1 7'	1				X													X				
083						SB-1 10'	1				X													X				
084						SB-1 15'	1				X													X				
085						SB-1 20'	1				X													X				
086						SB-1 25'	1				X													X				
087						SB-1 30'	1				X													X				
088						SB-1 40'	1				X													X				

RELINQUISHED BY: (Signature) Date: 2-16-11 Time: 1750
RECEIVED BY: (Signature) 0.7°C Date: 2-21-11 Time: 7:50
SAMPLED BY: (Print & Initial) Kim Date: 2/17/11 Time:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS
AIRBILL #:
OTHER:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: TRACE
ADDRESS:
CITY: MIDLAND STATE: TX ZIP:
CONTACT: PHONE: DATE: TIME:
RECEIVED BY: (Signature)

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 0.7°c intact

REMARKS: *All tests Midland

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Released to Imaging: 5/5/2023 9:11:21 AM

Received by OCD: 4/7/2023 8:41:50 AM

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6400729

PROJECT NAME: Jenkins B Federal #17

Eddy Co., NM

LAB I.D. NUMBER	DATE 2011	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
038089	2/16		S		X	SB-1 50'	1				X														X				
090						SB-1 60'	1				X														X				
091						SB-2 0-1'	1				X														X				
092						SB-2 3'	1				X														X				
093						SB-2 5'	1				X														X				
094						SB-2 7'	1				X														X				
095						SB-2 10'	1				X														X				
096						SB-2 15'	1				X														X				
097						SB-2 20'	1				X														X				
098						SB-2 25'	1				X														X				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) Date: 2-21-11 Time: 0730

RECEIVED BY: (Signature) Date: 2-21-11 Time: 7:50 0.7C

SAMPLED BY: (Print & Initial) Kim Date: 2/17/11 Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: TRACE

ADDRESS:

CITY: MIDLAND STATE: TX ZIP:

CONTACT: PHONE: DATE: TIME:

RECEIVED BY: (Signature)

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Released to Imaging: 5/5/2023 9:11:21 AM
Received by OCD: 4/7/2023 8:41:50 AM

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6400729

PROJECT NAME: Jenkins B Federal #17

Eddy Co, NM

LAB I.D. NUMBER	DATE 2011	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
658099	2/16		S	X		SB-2 30'	1				X	
100	2/16		S	X		SB-2 40'	1				X	

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride X X | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature) Date: 2-16-11 Time: 0750

RECEIVED BY: (Signature) 0.7° Date: 2-2-11 Time: 07:50

SAMPLED BY: (Print & Initial) Kim Date: 2/17/11 Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX HAND DELIVERED BUS UPS AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: TRACE

ADDRESS:

CITY: MIDLAND STATE: TX ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 205099

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 205099
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	5/5/2023