SITE INFORMATION

Report Type: Closure Report

General Site Information:						
Site:	GJ West Coop Unit #7					
Company:	COG Operating LLC					
Section, Township and Range	Unit H	Sec 28	T17S	R29E		
Lease Number:	API-30-015-03170					
County:	Eddy County					
GPS:	32.80643° N			104.07265° W		
Surface Owner:	State					
Mineral Owner:						
Directions:	From the intersection of Hwy 529 and CR 217, travel west on Hwy 529 for 5.1 miles. Turn left onto CR212 and travel 0.7 miles to site.					

Release Data:	
Date Released:	9/4/2010
Type Release:	Produced Fluid
Source of Contamination:	Steel Flowline
Fluid Released:	10 bbls
Fluids Recovered:	8 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., GJ West Coop Unit #7 Flow Line, Unit H, Section 28, Township 17 South, Range 29 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 GJ West Coop Unit #7 Flow Line located in Unit H, Section 28, Township 17 South, Range 29 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.80643°, W 104.07265°. 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 September 4, 2010, and released approximately ten (10) barrels of produced fluid from a steel flow line. To alleviate the problem, COG personnel replaced the line with a poly line. Eight (8) barrels of standing fluids were recovered. The spill initiated southwest of the well pad and affected an area 15' x 70' in the pasture. The initial and final C-141 forms are enclosed in Appendix A.

Groundwater

No water wells were listed within Section 28. The Geology and Groundwater Resources of Eddy County, New Mexico (Report 3) shows wells in Section 29 and Section 22, with a depth to groundwater of 210' and 80' below surface. According to the NMOCD groundwater map, the average

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

depth to groundwater in this area is greater than 100' 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-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 September 1, 2010, Tetra Tech personnel inspected and sampled the spill area. One (1) auger hole (AH-1) was 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 location is shown on Figure 3.

Referring to Table 1, none of the samples for TPH and BTEX exceeded the RRAL. Elevated chloride concentrations were detected ranging from 1,740 mg/kg at 0-1' to 14,300 mg/kg at 3-3.5'. The chloride impact was not vertically defined. In order to delineate the chloride impact, a soil boring was installed utilizing an air rotary drilling rig.

On February 17, 2011, Tetra Tech personnel supervised the installation of one soil boring (SB-1). Soil samples were collected to a depth of 30.0' below surface. Referring to Table 1, the soil boring did show a shallow impact to soil, compared AH-1. Elevated chloride concentrations were detected from surface to 5.0' and significantly declined to 399 mg/kg at 7.0' below surface. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The soil boring results are summarized in Table 1. The soil boring location is 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 was excavated to approximately 8.0' below surface. A total of 540 cubic yards of soil were excavated and hauled away for proper disposal. The excavation depths are highlighted in Table 1 and shown on Figure 4. Once excavated to the appropriate depths, the excavation was backfilled with clean soil to grade.

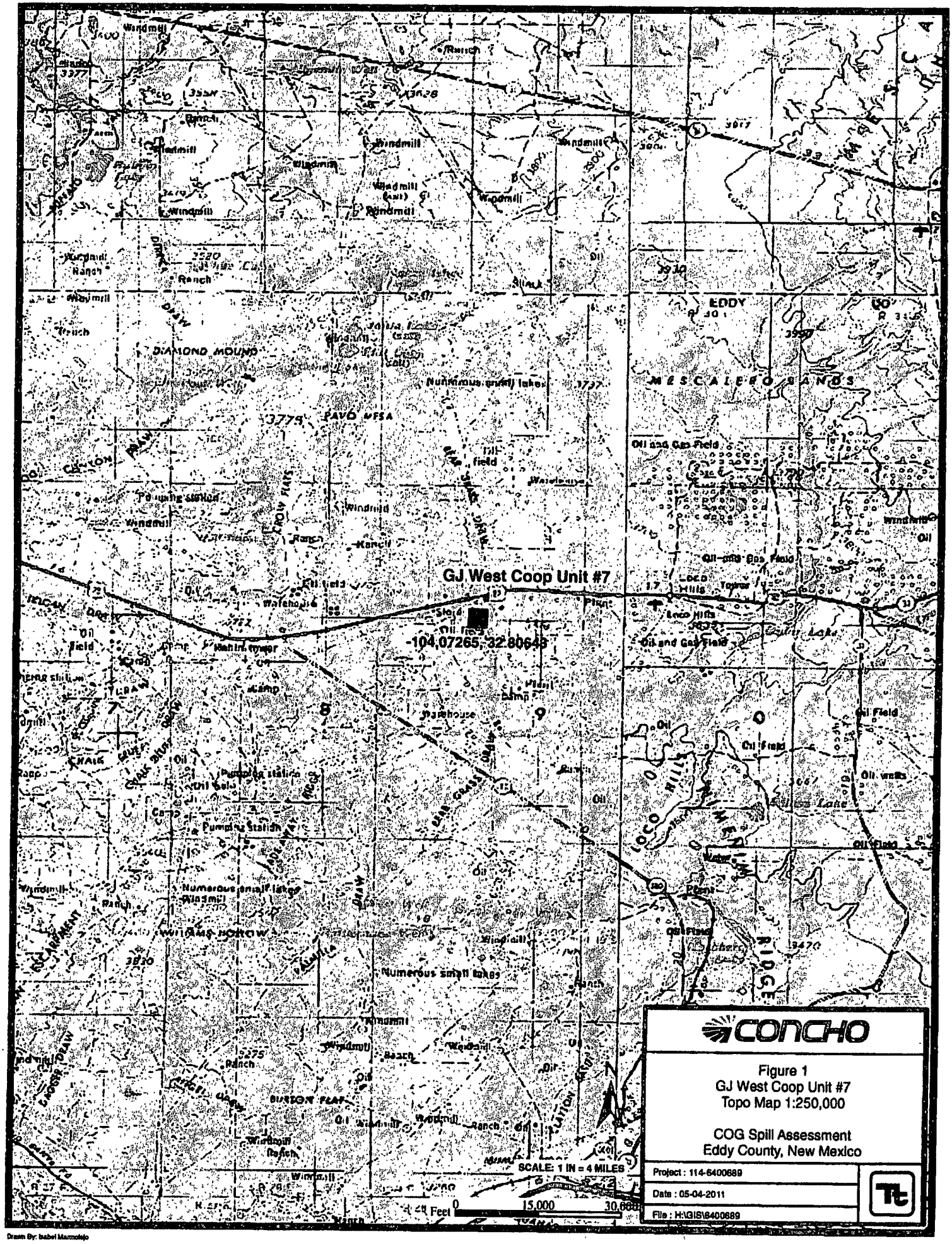
Based on the remedial activities performed, COG request closure of the site. A copy of the C-141 (Final) is included in Appendix A. If you have any questions or comments concerning the remedial activities, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Ike Tavarez, PG
Senior Project Manager

cc: Pat Ellis – COG

FIGURES



CONCHO

Figure 1
GJ West Coop Unit #7
Topo Map 1:250,000

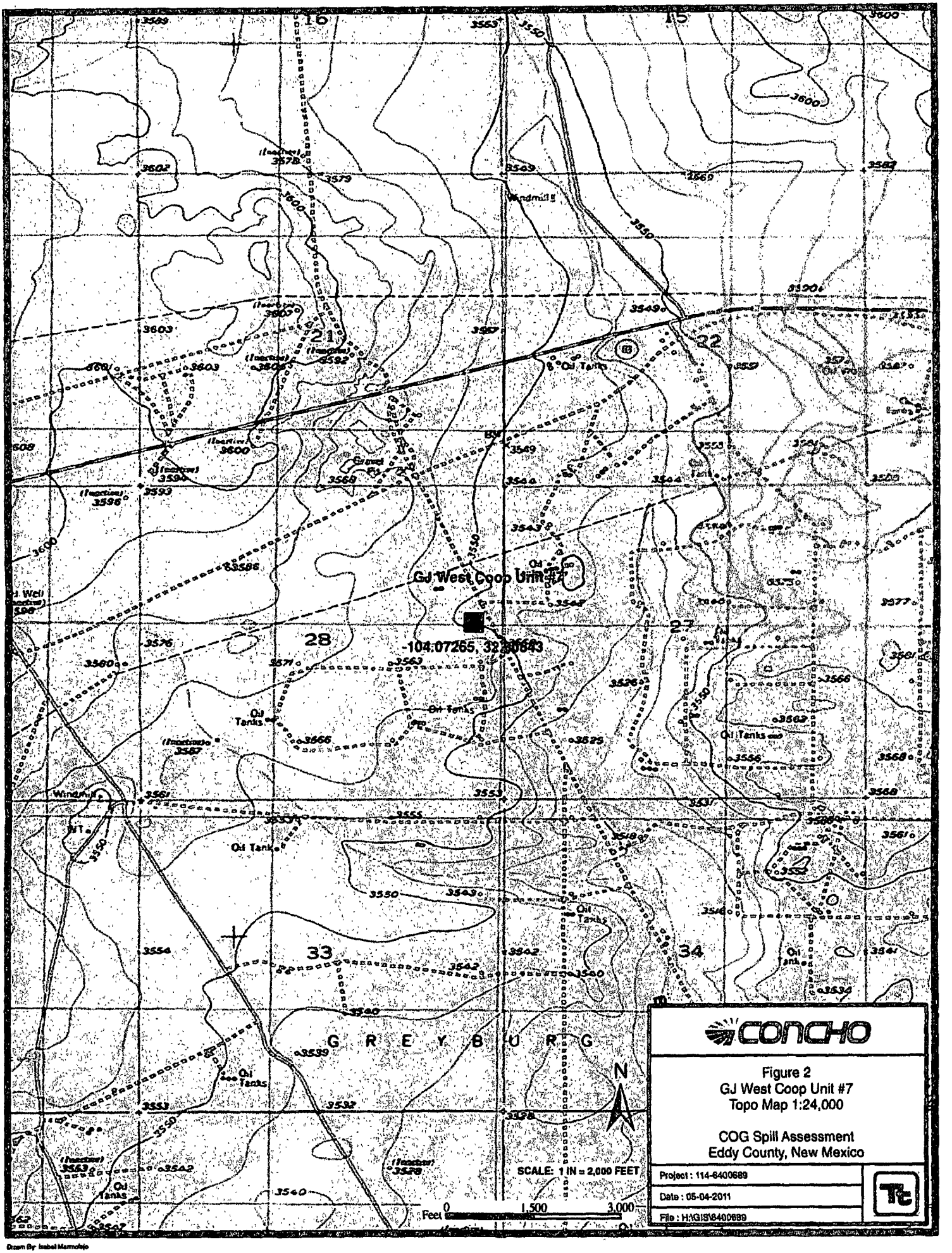
COG Spill Assessment
Eddy County, New Mexico

Project : 114-6400689

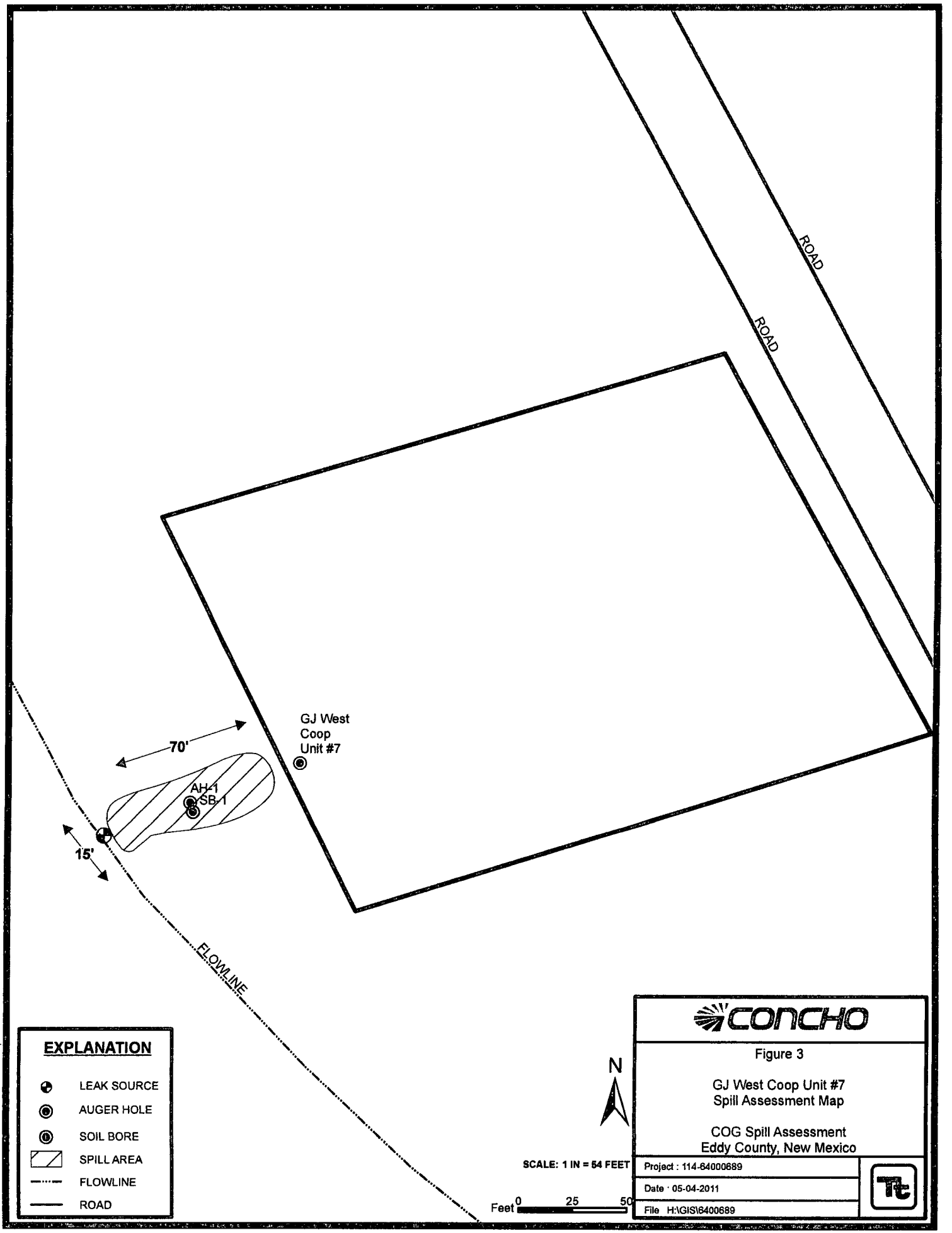
Date : 05-04-2011

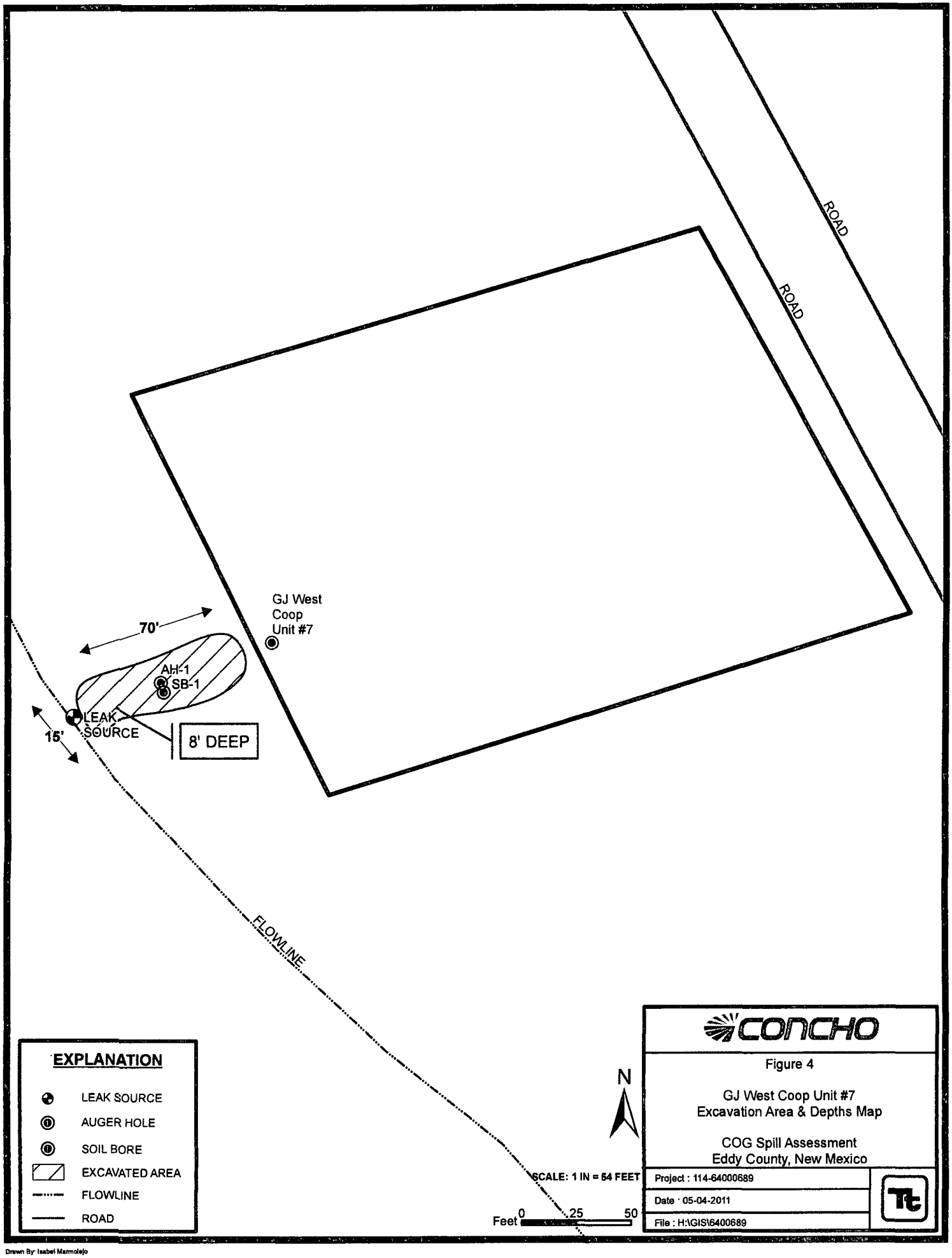
File : H:\GIS\6400689

Drawn By: Isabel Marmolejo



Drawn By: Isabel Marmolejo


ROAD
ROAD
GJ West
Coop
Unit #7
70'
AH-1
SB-1
15'
FLOWLINE
EXPLANATION
LEAK SOURCE
AUGER HOLE
SOIL BORE
SPILL AREA
FLOWLINE
ROAD
N
SCALE: 1 IN = 54 FEET
Feet 0 25 50
CONCHO
Figure 3
GJ West Coop Unit #7
Spill Assessment Map
COG Spill Assessment
Eddy County, New Mexico
Project : 114-64000689
Date : 05-04-2011
File H:\GIS\6400689
Drawn By Isabel Marmolejo



Drawn By: Isabel Marmolejo

TABLES

Table 1
COG Operating LLC.
GJ WEST CO-OP #7
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)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total					
AH-1	9/22/2010	0-1'			X	940	3,270	4,210	<0.500	6.58	10.5	13.5	1,740
	"	1-1.5'			X	2,360	2,380	4,740	-	-	-	-	3,720
	"	2-2.5'			X	330	289	619	-	-	-	-	12,600
	"	3-3.5'			X	-	-	-	-	-	-	-	14,300
	"	4-4.5'			X	-	-	-	-	-	-	-	8,560
	"	5-5.5'			X	-	-	-	-	-	-	-	6,390
	"	6-6.5'			X	-	-	-	-	-	-	-	7,900
	"	7-7.5'			X	-	-	-	-	-	-	-	2,790
	"	8-8.5'			X	-	-	-	-	-	-	-	3,660
	"	9-9.5'		X		-	-	-	-	-	-	-	3,230
SB-1	2/17/2011	0-1'			X	-	-	-	-	-	-	-	1,040
	"	3'			X	-	-	-	-	-	-	-	9,380
	"	5'			X	-	-	-	-	-	-	-	4,180
	"	7'			X	-	-	-	-	-	-	-	399
	"	10'		X		-	-	-	-	-	-	-	<200
	"	15'		X		-	-	-	-	-	-	-	<200
	"	20'		X		-	-	-	-	-	-	-	<200
	"	25'		X		-	-	-	-	-	-	-	<200
	"	30'		X		-	-	-	-	-	-	-	<200

BEB Below Excavation Bottom

(--) Not Analyzed

Excavated Depths

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

RECEIVED
FEB 28 2012
NMOCD ARTESIA

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 GJ West Coop Unit #7	Facility Type **Flowline**

Surface Owner: State	Mineral Owner	Lease No. B-255 (API#) 30-015-03170

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	28	17S	29E					Eddy

Latitude 32 48.380 **Longitude** 104 04.374

NATURE OF RELEASE

Type of Release: Produced Fluid	Volume of Release 10 bbls	Volume Recovered 8 bbls
Source of Release: Steel Flowline	Date and Hour of Occurrence 09/04/2010	Date and Hour of Discovery 09/04/2010 4:00p.m.
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom? Josh Russo	Date and Hour	
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 developed a weak spot and eventually ruptured causing this release. The steel flowline will be replaced with a new poly flowline.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech personal inspected the site and collected samples to define spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. 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 (Agent for COG)	Approved by District Supervisor:	
Title: Project Manager	Approval Date:	Expiration Date:
E-mail Address: Ike.Tavarez@TetraTech.com	Conditions of Approval:	Attached ☐
Date: 2-13-12 Phone: (432) 682-4559		

* Attach Additional Sheets If Necessary

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 Repor

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	GJ WEST COOP UNIT #7	Facility Type	Flowline

Surface Owner	Mineral Owner	Lease No.
State		B-255 (API#)30-015-03170

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	28	17S	29E					Eddy

Latitude 32 48.380 **Longitude** 104 04.374

NATURE OF RELEASE

Type of Release Produced fluid	Volume of Release 10bbls	Volume Recovered 8bbls
Source of Release Steel flowline	Date and Hour of Occurrence 09/04/2010	Date and Hour of Discovery 09/04/2010 4:00 p.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 developed a weak spot and eventually ruptured causing this release. The steel flowline will be replaced with a new poly flowline.

Describe Area Affected and Cleanup Action Taken.*

Initially 10bbls was released from the ruptured flowline and we were able to recover 8bbls with a vacuum truck. The dimensions of the release area measured 15' x 40' in the pasture. (The closest well location to the release is the GJ West COOP Unit #65, API# 30-015-25131, Unit H, Sec.28-T17S-R29E, 2260' FNL 330' FEL, Eddy County, NM). 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 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: 09/14/2010 Phone: 432-212-2399	

Attach Additional Sheets If Necessary

APPENDIX B

Water Well Data
Average Depth to Groundwater (ft)
COG - GJ West Coop Unit #7
Eddy County, New Mexico

16 South 28 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21 **61**	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

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

17 South 28 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22 **79**	23	24
30	29	28	27	26	25
31	32	33	34 **53**	35	36

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 Site	27	26	25
31	32	33	34	35 153	36

17 South 30 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	35

18 South 28 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 **65**	36

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

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

APPENDIX C

Summary Report

Tom Franklin
Tetra Tech
1910 N. Big Spring Street
Midland, TX 79705

Report Date: February 24, 2011

Work Order: 11022110

Project Location: Eddy County, NM
Project Name: COG/GJ West Co-op #7
Project Number: 114-6400689

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
258143	SB-1 0-1'	soil	2011-02-17	00:00	2011-02-21
258144	SB-1 3'	soil	2011-02-17	00:00	2011-02-21
258145	SB-1 5'	soil	2011-02-17	00:00	2011-02-21
258146	SB-1 7'	soil	2011-02-17	00:00	2011-02-21
258147	SB-1 10'	soil	2011-02-17	00:00	2011-02-21
258148	SB-1 15'	soil	2011-02-17	00:00	2011-02-21
258149	SB-1 20'	soil	2011-02-17	00:00	2011-02-21
258150	SB-1 25'	soil	2011-02-17	00:00	2011-02-21
258151	SB-1 30'	soil	2011-02-17	00:00	2011-02-21

Sample: 258143 - SB-1 0-1'

Param	Flag	Result	Units	RL
Chloride		**1040**	mg/Kg	4.00

Sample: 258144 - SB-1 3'

Param	Flag	Result	Units	RL
Chloride		**9380**	mg/Kg	4.00

Sample: 258145 - SB-1 5'

continued ...

sample 258145 continued ...

Param	Flag	Result	Units	RL

Param	Flag	Result	Units	RL
Chloride		**4180**	mg/Kg	4.00

Sample: 258146 - SB-1 7'

Param	Flag	Result	Units	RL
Chloride		**399**	mg/Kg	4.00

Sample: 258147 - SB-1 10'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 258148 - SB-1 15'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 258149 - SB-1 20'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 258150 - SB-1 25'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 258151 - SB-1 30'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

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

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

Report Date: February 24, 2011

Work Order: 11022110

Project Location: Eddy County, NM
Project Name: COG/GJ West Co-op #7
Project Number: 114-6400689

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
258143	SB-1 0-1'	soil	2011-02-17	00:00	2011-02-21
258144	SB-1 3'	soil	2011-02-17	00:00	2011-02-21
258145	SB-1 5'	soil	2011-02-17	00:00	2011-02-21
258146	SB-1 7'	soil	2011-02-17	00:00	2011-02-21
258147	SB-1 10'	soil	2011-02-17	00:00	2011-02-21
258148	SB-1 15'	soil	2011-02-17	00:00	2011-02-21
258149	SB-1 20'	soil	2011-02-17	00:00	2011-02-21
258150	SB-1 25'	soil	2011-02-17	00:00	2011-02-21
258151	SB-1 30'	soil	2011-02-17	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 9 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/GJ West Co-op #7 were received by TraceAnalysis, Inc. on 2011-02-21 and assigned to work order 11022110. Samples for work order 11022110 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	77850	2011-02-23 at 14:41
Chloride (Titration)	SM 4500-Cl B	66730	2011-02-22 at 09:19	77851	2011-02-23 at 14:42

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 11022110 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: 258143 - SB-1 0-1'

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		**1040**	mg/Kg	50	4.00

Sample: 258144 - SB-1 3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77851	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		**9380**	mg/Kg	100	4.00

Sample: 258145 - SB-1 5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77851	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		**4180**	mg/Kg	100	4.00

Sample: 258146 - SB-1 7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77851	Date Analyzed:	2011-02-23	Analyzed By:	AR
Prep Batch:	66730	Sample Preparation:	2011-02-22	Prepared By:	AR

continued ...

sample 258146 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**399**	mg/Kg	50	4.00

Sample: 258147 - SB-1 10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77851	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: 258148 - SB-1 15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77851	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: 258149 - SB-1 20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77851	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: 258150 - SB-1 25'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77851	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: 258151 - SB-1 30'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	77851	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: 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

Method Blank (1) QC Batch: 77851

QC Batch:	77851	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: 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.

Laboratory Control Spike (LCS-1)

QC Batch: 77851 | 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	97.3	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.

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.

Matrix Spike (MS-1) Spiked Sample: 258151

QC Batch: 77851 | 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	10000	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	10400	mg/Kg	100	10000	<218	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: 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

Standard (ICV-1)

QC Batch: 77851 | 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: 77851 | 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	98.9	99	85 - 115	2011-02-23

xwo#:11022110

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 1

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.: 114640068 9

PROJECT NAME: GJ West COOP #7

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
258143	2/17		S		X	SB-1 0-1'	1				X	
144						SB-1 3'	1				X	
145						SB-1 5'	1				X	
146						SB-1 7'	1				X	
147						SB-1 10'	1				X	
148						SB-1 15'	1				X	
149						SB-1 20'	1				X	
150						SB-1 25'	1				X	
151						SB-1 30'	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	Chlorides	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
												X				

RELINQUISHED BY: (Signature) Date: 2-21-11 Time: 1750

RECEIVED BY: (Signature) 0.7C Date: 2-22-11 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 HAND DELIVERED BUS 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: DATE: TIME:

RECEIVED BY: (Signature)

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 0.7°c intact

REMARKS: xAll 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.

Summary Report

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

Report Date: October 5, 2010

Work Order: 10092339

Project Location: Eddy County, NM
Project Name: COG/GJ West Co-op #7
Project Number: 114-6400689

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
245657	AH-1 0-1'	soil	2010-09-22	00:00	2010-09-23
245658	AH-1 1-1.5'	soil	2010-09-22	00:00	2010-09-23
245659	AH-1 2-2.5'	soil	2010-09-22	00:00	2010-09-23
245660	AH-1 3-3.5'	soil	2010-09-22	00:00	2010-09-23
245661	AH-1 4-4.5'	soil	2010-09-22	00:00	2010-09-23
245662	AH-1 5-5.5'	soil	2010-09-22	00:00	2010-09-23
245663	AH-1 6-6.5'	soil	2010-09-22	00:00	2010-09-23
245664	AH-1 7-7.5'	soil	2010-09-22	00:00	2010-09-23
245665	AH-1 8-8.5'	soil	2010-09-22	00:00	2010-09-23
245666	AH-1 9-9.5'	soil	2010-09-22	00:00	2010-09-23

	BTEX				TPH DRO - NEW	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
245657 - AH-1 0-1'	<0.500	**6.58**	**10.5**	**13.5**	**3270**	**940**
245658 - AH-1 1-1.5'					**2380**	**2360**
245659 - AH-1 2-2.5'					**289**	**330**

Sample: 245657 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		**1740**	mg/Kg	4.00

Sample: 245658 - AH-1 1-1.5'

continued ...

sample 245658 continued ...

Param	Flag	Result	Units	RL

Param	Flag	Result	Units	RL
Chloride		**3720**	mg/Kg	4.00

Sample: 245659 - AH-1 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**12600**	mg/Kg	4.00

Sample: 245660 - AH-1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**14300**	mg/Kg	4.00

Sample: 245661 - AH-1 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**8560**	mg/Kg	4.00

Sample: 245662 - AH-1 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**6390**	mg/Kg	4.00

Sample: 245663 - AH-1 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**7900**	mg/Kg	4.00

Sample: 245664 - AH-1 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**2790**	mg/Kg	4.00

Sample: 245665 - AH-1 8-8.5'

Param	Flag	Result	Units	RL
Chloride		**3660**	mg/Kg	4.00

Sample: 245666 - AH-1 9-9.5'

Param	Flag	Result	Units	RL
Chloride		**3230**	mg/Kg	4.00

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

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

Report Date: October 5, 2010

Work Order: 10092339

Project Location: Eddy County, NM
Project Name: COG/GJ West Co-op #7
Project Number: 114-6400689

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
245657	AH-1 0-1'	soil	2010-09-22	00:00	2010-09-23
245658	AH-1 1-1.5'	soil	2010-09-22	00:00	2010-09-23
245659	AH-1 2-2.5'	soil	2010-09-22	00:00	2010-09-23
245660	AH-1 3-3.5'	soil	2010-09-22	00:00	2010-09-23
245661	AH-1 4-4.5'	soil	2010-09-22	00:00	2010-09-23
245662	AH-1 5-5.5'	soil	2010-09-22	00:00	2010-09-23
245663	AH-1 6-6.5'	soil	2010-09-22	00:00	2010-09-23
245664	AH-1 7-7.5'	soil	2010-09-22	00:00	2010-09-23
245665	AH-1 8-8.5'	soil	2010-09-22	00:00	2010-09-23
245666	AH-1 9-9.5'	soil	2010-09-22	00:00	2010-09-23

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/GJ West Co-op #7 were received by TraceAnalysis, Inc. on 2010-09-23 and assigned to work order 10092339. Samples for work order 10092339 were received intact at a temperature of 3.1 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	63331	2010-09-24 at 16:00	73941	2010-09-28 at 11:21
Chloride (Titration)	SM 4500-Cl B	63409	2010-09-28 at 10:14	74096	2010-10-05 at 10:22
TPH DRO - NEW	S 8015 D	63364	2010-09-24 at 09:40	73844	2010-09-24 at 09:40
TPH DRO - NEW	S 8015 D	63468	2010-09-29 at 11:13	73971	2010-09-29 at 11:13
TPH GRO	S 8015 D	63331	2010-09-24 at 16:00	73937	2010-09-28 at 11:48
TPH GRO	S 8015 D	63453	2010-09-29 at 09:00	73975	2010-09-29 at 11:25

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 10092339 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: 245657 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	73941	Date Analyzed:	2010-09-28	Analyzed By:	AG
Prep Batch:	63331	Sample Preparation:	2010-09-24	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.500	mg/Kg	50	0.0100
Toluene		**6.58**	mg/Kg	50	0.0100
Ethylbenzene		**10.5**	mg/Kg	50	0.0100
Xylene		**13.5**	mg/Kg	50	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		43.1	mg/Kg	50	50.0	86	66.5 - 108
4-Bromofluorobenzene (4-BFB)		49.5	mg/Kg	50	50.0	99	50 - 139

Sample: 245657 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74096	Date Analyzed:	2010-10-05	Analyzed By:	AR
Prep Batch:	63409	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1740**	mg/Kg	100	4.00

Sample: 245657 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	73844	Date Analyzed:	2010-09-24	Analyzed By:	kg
Prep Batch:	63364	Sample Preparation:	2010-09-24	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**3270**	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[1]	389	mg/Kg	5	100	389	70 - 130

Sample: 245657 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	73937	Date Analyzed:	2010-09-28	Analyzed By:	AG
Prep Batch:	63331	Sample Preparation:	2010-09-24	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**940**	mg/Kg	50	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		51.3	mg/Kg	50	50.0	103	73.4 - 122
4-Bromofluorobenzene (4-BFB)		63.1	mg/Kg	50	50.0	126	50 - 138

Sample: 245658 - AH-1 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74096	Date Analyzed:	2010-10-05	Analyzed By:	AR
Prep Batch:	63409	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**3720**	mg/Kg	100	4.00

Sample: 245658 - AH-1 1-1.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	73971	Date Analyzed:	2010-09-29	Analyzed By:	kg
Prep Batch:	63468	Sample Preparation:	2010-09-29	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**2380**	mg/Kg	1	50.0

[1] High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[2]	396	mg/Kg	1	100	396	70 - 130

Sample: 245658 - AH-1 1-1.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	73975	Date Analyzed:	2010-09-29	Analyzed By:	AG
Prep Batch:	63453	Sample Preparation:	2010-09-29	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**2360**	mg/Kg	20	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		20.2	mg/Kg	20	20.0	101	73.4 - 122
4-Bromofluorobenzene (4-BFB)	[3]	42.0	mg/Kg	20	20.0	210	50 - 138

Sample: 245659 - AH-1 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74096	Date Analyzed:	2010-10-05	Analyzed By:	AR
Prep Batch:	63409	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**12600**	mg/Kg	100	4.00

Sample: 245659 - AH-1 2-2.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	73971	Date Analyzed:	2010-09-29	Analyzed By:	kg
Prep Batch:	63468	Sample Preparation:	2010-09-29	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**289**	mg/Kg	1	50.0

[2]High surrogate recovery due to peak interference.
[3]High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		114	mg/Kg	1	100	114	70 - 130

Sample: 245659 - AH-1 2-2.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	73975	Date Analyzed:	2010-09-29	Analyzed By:	AG
Prep Batch:	63453	Sample Preparation:	2010-09-29	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**330**	mg/Kg	5	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5.56	mg/Kg	5	5.00	111	73.4 - 122
4-Bromofluorobenzene (4-BFB)	[4]	9.05	mg/Kg	5	5.00	181	50 - 138

Sample: 245660 - AH-1 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74096	Date Analyzed:	2010-10-05	Analyzed By:	AR
Prep Batch:	63409	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**14300**	mg/Kg	100	4.00

Sample: 245661 - AH-1 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74096	Date Analyzed:	2010-10-05	Analyzed By:	AR
Prep Batch:	63409	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**8560**	mg/Kg	100	4.00

[4]High surrogate recovery due to peak interference.

Sample: 245662 - AH-1 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74096	Date Analyzed:	2010-10-05	Analyzed By:	AR
Prep Batch:	63409	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6390**	mg/Kg	100	4.00

Sample: 245663 - AH-1 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74096	Date Analyzed:	2010-10-05	Analyzed By:	AR
Prep Batch:	63409	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**7900**	mg/Kg	100	4.00

Sample: 245664 - AH-1 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74096	Date Analyzed:	2010-10-05	Analyzed By:	AR
Prep Batch:	63409	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2790**	mg/Kg	100	4.00

Sample: 245665 - AH-1 8-8.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74096	Date Analyzed:	2010-10-05	Analyzed By:	AR
Prep Batch:	63409	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**3660**	mg/Kg	100	4.00

Sample: 245666 - AH-1 9-9.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74096	Date Analyzed:	2010-10-05	Analyzed By:	AR
Prep Batch:	63409	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**3230**	mg/Kg	100	4.00

Method Blank (1) QC Batch: 73844

QC Batch:	73844	Date Analyzed:	2010-09-24	Analyzed By:	kg
Prep Batch:	63364	QC Preparation:	2010-09-24	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		77.6	mg/Kg	1	100	78	70 - 130

Method Blank (1) QC Batch: 73937

QC Batch:	73937	Date Analyzed:	2010-09-28	Analyzed By:	AG
Prep Batch:	63331	QC Preparation:	2010-09-24	Prepared By:	AG

Parameter	Flag	MDL Result	Units	RL
GRO		<0.482	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.17	mg/Kg	1	2.00	108	76.9 - 115
4-Bromofluorobenzene (4-BFB)		1.95	mg/Kg	1	2.00	98	45.8 - 147

Method Blank (1) QC Batch: 73941

QC Batch:	73941	Date Analyzed:	2010-09-28	Analyzed By:	AG
Prep Batch:	63331	QC Preparation:	2010-09-24	Prepared By:	AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00100	mg/Kg	0.01
Toluene		<0.00100	mg/Kg	0.01
Ethylbenzene		<0.00110	mg/Kg	0.01
Xylene		<0.00360	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.81	mg/Kg	1	2.00	90	75.6 - 110
4-Bromofluorobenzene (4-BFB)		1.76	mg/Kg	1	2.00	88	41.5 - 139

Method Blank (1) QC Batch: 73971

QC Batch: 73971 | Date Analyzed: 2010-09-29 | Analyzed By: kg
Prep Batch: 63468 | QC Preparation: 2010-09-29 | 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		72.4	mg/Kg	1	100	72	70 - 130

Method Blank (1) QC Batch: 73975

QC Batch: 73975 | Date Analyzed: 2010-09-29 | Analyzed By: AG
Prep Batch: 63453 | QC Preparation: 2010-09-29 | Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<0.482	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.17	mg/Kg	1	2.00	108	76.9 - 115
4-Bromofluorobenzene (4-BFB)		1.95	mg/Kg	1	2.00	98	45.8 - 147

Method Blank (1) QC Batch: 74096

QC Batch: 74096 | Date Analyzed: 2010-10-05 | Analyzed By: AR
Prep Batch: 63409 | QC Preparation: 2010-09-28 | Prepared By: AR

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

Laboratory Control Spike (LCS-1)

QC Batch: 73844 | Date Analyzed: 2010-09-24 | Analyzed By: kg
Prep Batch: 63364 | QC Preparation: 2010-09-24 | Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	204	mg/Kg	1	250	<14.6	82	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	222	mg/Kg	1	250	<14.6	89	47.5 - 144.1	8	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	106	102	mg/Kg	1	100	106	102	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 73937 | Date Analyzed: 2010-09-28 | Analyzed By: AG
Prep Batch: 63331 | QC Preparation: 2010-09-24 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.6	mg/Kg	1	20.0	<0.482	83	56.5 - 98.2

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	17.7	mg/Kg	1	20.0	<0.482	88	56.5 - 98.2	6	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)	2.21	2.28	mg/Kg	1	2.00	110	114	76.5 - 118
4-Bromofluorobenzene (4-BFB)	2.01	2.08	mg/Kg	1	2.00	100	104	51.1 - 150

Laboratory Control Spike (LCS-1)

QC Batch: 73941 | Date Analyzed: 2010-09-28 | Analyzed By: AG
Prep Batch: 63331 | QC Preparation: 2010-09-24 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.77	mg/Kg	1	2.00	<0.00100	88	81.7 - 120
Toluene	1.84	mg/Kg	1	2.00	<0.00100	92	81.8 - 120
Ethylbenzene	1.85	mg/Kg	1	2.00	<0.00110	92	79.8 - 120
Xylene	5.52	mg/Kg	1	6.00	<0.00360	92	74 - 123

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	1.78	mg/Kg	1	2.00	<0.00100	89	81.7 - 120	1	20
Toluene	1.86	mg/Kg	1	2.00	<0.00100	93	81.8 - 120	1	20
Ethylbenzene	1.88	mg/Kg	1	2.00	<0.00110	94	79.8 - 120	2	20
Xylene	5.62	mg/Kg	1	6.00	<0.00360	94	74 - 123	2	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)	1.80	1.82	mg/Kg	1	2.00	90	91	77.4 - 110
4-Bromofluorobenzene (4-BFB)	1.73	1.77	mg/Kg	1	2.00	86	88	46 - 140

Laboratory Control Spike (LCS-1)

QC Batch: 73971 | Date Analyzed: 2010-09-29 | Analyzed By: kg
Prep Batch: 63468 | QC Preparation: 2010-09-29 | Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	167	mg/Kg	1	250	<14.6	67	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	166	mg/Kg	1	250	<14.6	66	47.5 - 144.1	1	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	113	113	mg/Kg	1	100	113	113	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 73975 | Date Analyzed: 2010-09-29 | Analyzed By: AG
Prep Batch: 63453 | QC Preparation: 2010-09-29 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.2	mg/Kg	1	20.0	<0.482	81	56.5 - 98.2

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	17.4	mg/Kg	1	20.0	<0.482	87	56.5 - 98.2	7	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)	2.18	2.31	mg/Kg	1	2.00	109	116	76.5 - 118
4-Bromofluorobenzene (4-BFB)	2.00	2.13	mg/Kg	1	2.00	100	106	51.1 - 150

Laboratory Control Spike (LCS-1)

QC Batch: 74096 | Date Analyzed: 2010-10-05 | Analyzed By: AR
Prep Batch: 63409 | QC Preparation: 2010-09-28 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.4	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	102	mg/Kg	1	100	<2.18	102	85 - 115	5	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: 245725

QC Batch: 73844 | Date Analyzed: 2010-09-24 | Analyzed By: kg
Prep Batch: 63364 | QC Preparation: 2010-09-24 | Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	273	mg/Kg	1	250	18.8	102	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	292	mg/Kg	1	250	18.8	109	11.7 - 152.3	7	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	111	108	mg/Kg	1	100	111	108	70 - 130

Matrix Spike (MS-1) Spiked Sample: 245725

QC Batch: 73937 | Date Analyzed: 2010-09-28 | Analyzed By: AG
Prep Batch: 63331 | QC Preparation: 2010-09-24 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	13.6	mg/Kg	1	20.0	<0.482	68	50 - 150

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 [5]	18.2	mg/Kg	1	20.0	<0.482	91	50 - 150	29	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)	2.01	1.94	mg/Kg	1	2	100	97	71.6 - 117
4-Bromofluorobenzene (4-BFB)	1.94	1.92	mg/Kg	1	2	97	96	50 - 170

Matrix Spike (MS-1) Spiked Sample: 245508

QC Batch: 73941 | Date Analyzed: 2010-09-28 | Analyzed By: AG
Prep Batch: 63331 | QC Preparation: 2010-09-24 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.80	mg/Kg	1	2.00	<0.00100	90	75.7 - 125
Toluene	1.87	mg/Kg	1	2.00	<0.00100	94	74.4 - 125
Ethylbenzene	1.96	mg/Kg	1	2.00	<0.00110	98	72.2 - 128
Xylene	5.83	mg/Kg	1	6.00	<0.00360	97	63 - 131

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

[5] MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.78	mg/Kg	1	2.00	<0.00100	89	75.7 - 125	1	20
Toluene	1.85	mg/Kg	1	2.00	<0.00100	92	74.4 - 125	1	20
Ethylbenzene	1.95	mg/Kg	1	2.00	<0.00110	98	72.2 - 128	0	20
Xylene	5.79	mg/Kg	1	6.00	<0.00360	96	63 - 131	1	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)	1.78	1.90	mg/Kg	1	2	89	95	79.1 - 109
4-Bromofluorobenzene (4-BFB)	1.71	1.82	mg/Kg	1	2	86	91	50 - 136

Matrix Spike (MS-1) Spiked Sample: 245514

QC Batch: 73971 | Date Analyzed: 2010-09-29 | Analyzed By: kg
Prep Batch: 63468 | QC Preparation: 2010-09-29 | Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO [6]	3880	mg/Kg	1	250	3880	0	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 [7]	3630	mg/Kg	1	250	3880	0	11.7 - 152.3	7	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 [8] [9]	558	529	mg/Kg	1	100	558	529	70 - 130

Matrix Spike (MS-1) Spiked Sample: 245441

QC Batch: 73975 | Date Analyzed: 2010-09-29 | Analyzed By: AG
Prep Batch: 63453 | QC Preparation: 2010-09-29 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.4	mg/Kg	1	20.0	<0.482	77	50 - 150

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

[6] Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[7] Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[8] High surrogate recovery due to peak interference.
[9] High surrogate recovery due to peak interference.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.0	mg/Kg	1	20.0	<0.482	80	50 - 150	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)	2.19	2.14	mg/Kg	1	2	110	107	71.6 - 117
4-Bromofluorobenzene (4-BFB)	2.11	2.07	mg/Kg	1	2	106	104	50 - 170

Matrix Spike (MS-1) Spiked Sample: 245666

QC Batch: 74096 | Date Analyzed: 2010-10-05 | Analyzed By: AR
Prep Batch: 63409 | QC Preparation: 2010-09-28 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	13300	mg/Kg	100	10000	3230	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	13600	mg/Kg	100	10000	3230	104	85 - 115	2	20

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

Standard (CCV-3)

QC Batch: 73844 | Date Analyzed: 2010-09-24 | Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	200	80	80 - 120	2010-09-24

Standard (CCV-4)

QC Batch: 73844 | Date Analyzed: 2010-09-24 | Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	228	91	80 - 120	2010-09-24

Standard (CCV-2)

QC Batch: 73937 | Date Analyzed: 2010-09-28 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.04	104	80 - 120	2010-09-28

Standard (CCV-3)

QC Batch: 73937 | Date Analyzed: 2010-09-28 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.986	99	80 - 120	2010-09-28

Standard (CCV-2)

QC Batch: 73941 | Date Analyzed: 2010-09-28 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0912	91	80 - 120	2010-09-28
Toluene		mg/Kg	0.100	0.0929	93	80 - 120	2010-09-28
Ethylbenzene		mg/Kg	0.100	0.0949	95	80 - 120	2010-09-28
Xylene		mg/Kg	0.300	0.282	94	80 - 120	2010-09-28

Standard (CCV-3)

QC Batch: 73941 | Date Analyzed: 2010-09-28 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0869	87	80 - 120	2010-09-28
Toluene		mg/Kg	0.100	0.0891	89	80 - 120	2010-09-28
Ethylbenzene		mg/Kg	0.100	0.0890	89	80 - 120	2010-09-28
Xylene		mg/Kg	0.300	0.265	88	80 - 120	2010-09-28

Standard (CCV-1)

QC Batch: 73971 | Date Analyzed: 2010-09-29 | Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	200	80	80 - 120	2010-09-29

Standard (CCV-2)

QC Batch: 73971 Date Analyzed: 2010-09-29 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	207	83	80 - 120	2010-09-29

Standard (CCV-3)

QC Batch: 73971 Date Analyzed: 2010-09-29 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	250	100	80 - 120	2010-09-29

Standard (CCV-2)

QC Batch: 73975 Date Analyzed: 2010-09-29 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.01	101	80 - 120	2010-09-29

Standard (CCV-3)

QC Batch: 73975 Date Analyzed: 2010-09-29 Analyzed By: AG

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	2010-09-29

Standard (ICV-1)

QC Batch: 74096 Date Analyzed: 2010-10-05 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.4	99	85 - 115	2010-10-05

Standard (CCV-1)

QC Batch: 74096 Date Analyzed: 2010-10-05 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2010-10-05

Work Order #: 10092339

Analysis Request of Chain of Custody Record

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SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-G400689

PROJECT NAME: COG / GJ West Coop #7 Eddy Co, NM

ANALYSIS REQUEST (Circle or Specify Method No.)

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 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
245657	9/22		S		X	AH-1 0-1'	1				X		X	X											X				
6658						AH-1 1'-1.5'																							
6659						AH-1 2'-2.5'																							
6660						AH-1 3'-3.5'																							
6661						AH-1 4'-4.5'																							
6662						AH-1 5'-5.5'																							
6663						AH-1 6'-6.5'																							
6664						AH-1 7'-7.5'																							
6665						AH-1 8'-8.5'																							
6666	▼		▼		▼	AH-1 9'-9.5'	▼				▼														▼				

RELINQUISHED BY: (Signature) Date: 9/23/10 Time: 1500
RECEIVED BY: (Signature) Date: 9/23/10 Time: 1500
SAMPLED BY: (Print & Initial) JT/RG Date: 9/22/10 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: 3.1°C intact

REMARKS: If total TPH exceeds 1,000 mg/Kg, run deeper horizons / If total BTEX exceeds 50 mg/Kg or Benzene exceeds 10 mg/Kg run deeper horizons

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

All tests - Midland