SITE INFORMATION

2RP-451 Report Type: Closure Report

General Site Information:						
Site:	Skelly Unit 967					
Company:	COG Operating LLC					
Section, Township and Range	Unit P	Sec 15	T17S	R31E		
Lease Number:	API-30-15-35871					
County:	Eddy County					
GPS:	32.83073° N			103.85220° W		
Surface Owner:	Federal					
Mineral Owner:						
Directions:	From the intersection of Hwy 529 and Hwy 82 turn right on Hwy 82 and travel 1.9 miles, turn left and travel 0.2 miles, turn right and travel 0.3 miles, turn left and travel 0.2 miles to location.					

Release Data:	
Date Released:	12/31/2009
Type Release:	Oil & Water
Source of Contamination:	1" nipple on pumping tee
Fluid Released:	15 bbls
Fluids Recovered:	10 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) 682-4559
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 7, 2011

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., Skelly Unit #967 Welll Site, Unit P, Section 15, Township 17 South, Range 31 East, Eddy County, New Mexico. 2RP-451

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the Skelly Unit #967 Well Site, Unit P, Section 15, Township 17 South, Range 31 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.83073°, W 103.85220°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on December 31, 2009, and released approximately fifteen (15) barrels of oil and produced water from a leak in a 1" nipple on the pumping tee. To alleviate the problem, COG personnel repaired the leak. Ten (10) barrels of standing fluids were recovered. The majority of the spill remained on the caliche pad. The spill migrated west and impacted 15' x 35' area of pasture in a low lying area. COG initiated a surfical scrape of the location pad to remove the saturated material. The collected material was hauled away for disposal. The initial C-141 form is enclosed in Appendix C.

Groundwater

No water wells were listed within Section 15. According to the NMOCD Eddy County groundwater map, the average depth to groundwater in this area is greater than 300' below surface. The groundwater data 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

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 March 4, 2010, Tetra Tech personnel inspected and sampled the spill area. A total of five (5) auger holes (AH-1 through AH-5) 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 B. The results of the sampling are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, all of the submitted samples were below the RRAL for TPH and BTEX. Elevated chloride concentrations were detected and vertically defined to less than 200 mg/kg at depth for each auger hole with the exception of AH-5 (8,690 mg/kg at 6.5-7.0').

In order to vertically define the extents in the area of AH-5, Tetra Tech supervised the installation of one soil bore (SB-1) utilizing an air rotary drilling rig. Soil samples were collected down to a total depth of 20.0' bgs. Select samples were analyzed for chloride by EPA method 300.0.

Referring to Table 1, SB-1 (AH-5) shows a definitive decline in chloride concentrations from 15,100 mg/kg at 10.0' bgs to less than 200 mg/kg at 20.0' bgs.

TETRA TECH

Closure Activities

As per the approved work plan, Tetra Tech personnel supervised the removal of impacted material on November 11, 2010. Approximately 740 cubic yards of soil were excavated and transported to CRI Inc. for proper disposal. Once excavated to the appropriate depths, six (6) confirmation samples were collected from the bottom of the excavations. Three locations CS-1, CS-2 and CS-5 showed chloride concentrations of <200 mg/kg. Chloride levels were reflected in CS-3 of 685 mg/kg and CS-4 of 1,850 mg/kg. Based on the results, the NMOCD was contacted to discuss the results of the confirmation samples. Mr. Bratcher reviewed the data and approved the sample results. The excavated area was then backfilled and brought up to surface grade with clean soils. The sample locations are shown on Figure 4. The confirmation sample results are shown in Table 2.

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

Respectfully submitted,
TETRA TECH

Ike Tavarez
Staff Geologist

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

FIGURES

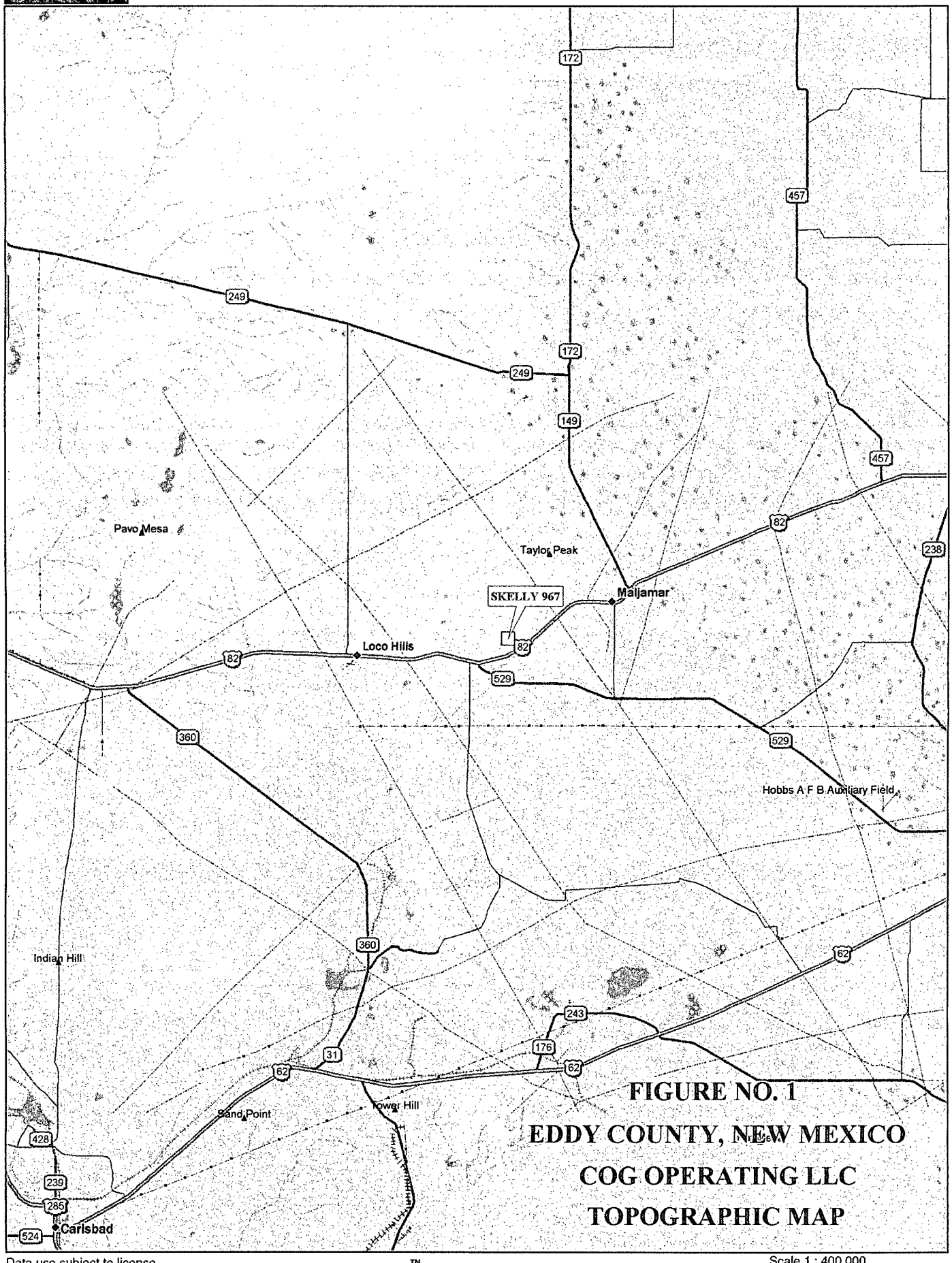


FIGURE NO. 1
EDDY COUNTY, NEW MEXICO
COG OPERATING LLC
TOPOGRAPHIC MAP

TN
MN (7.9°E)

Scale 1 : 400,000
1" = 6.31 mi
Data Zoom 9-0

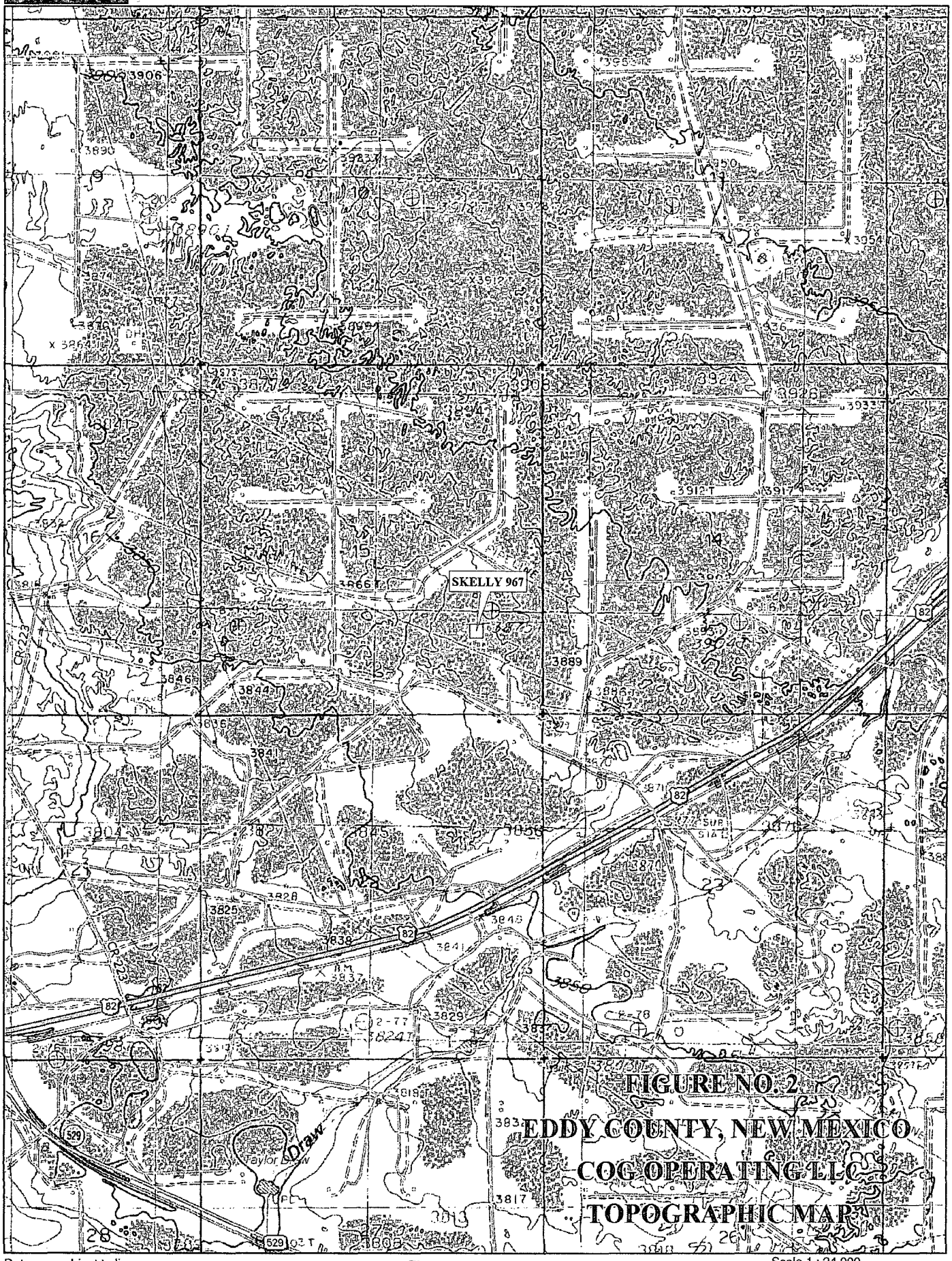


FIGURE NO. 2

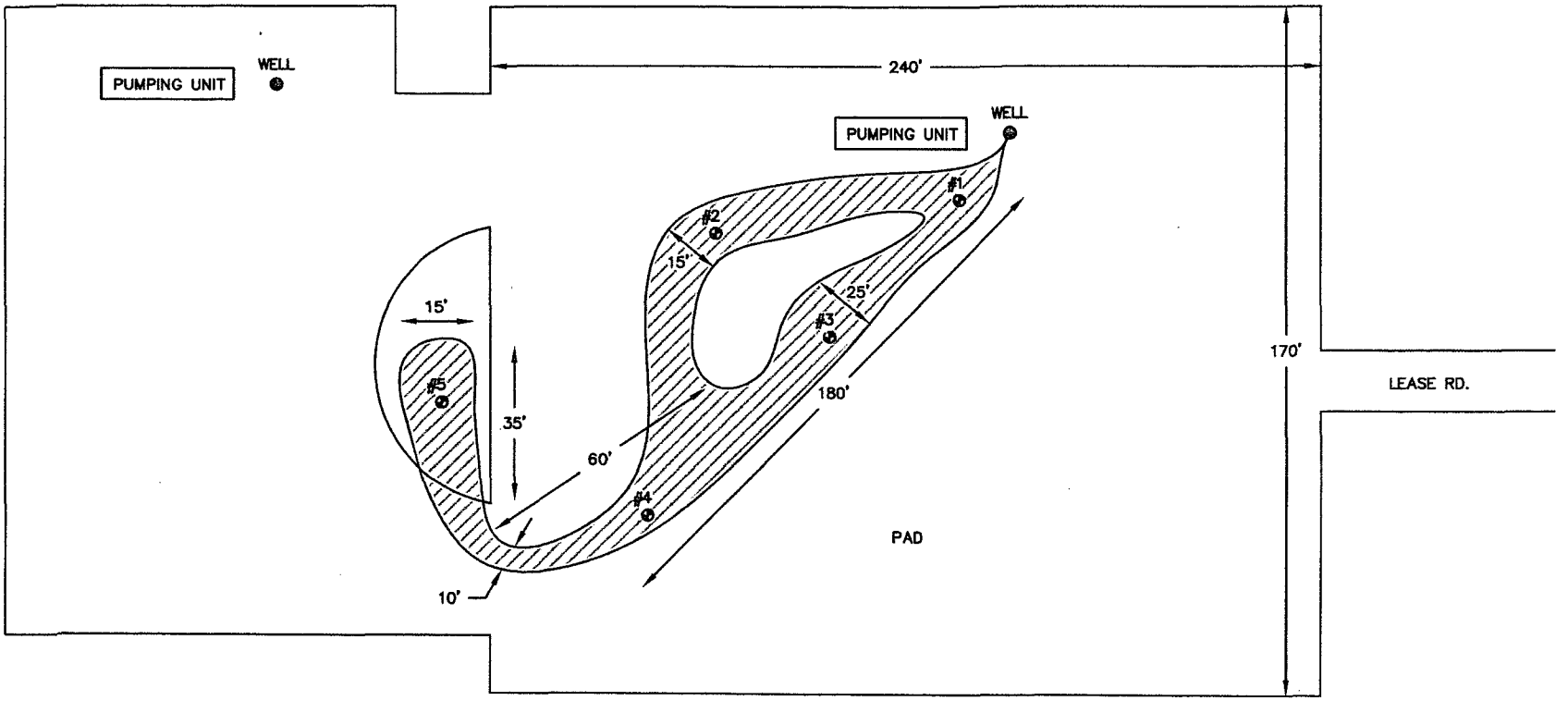
EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

TOPOGRAPHIC MAP

TN
MN (7.8°E)

Scale 1 : 24,000
0 600 1200 1800 2400 3000 ft
0 200 400 600 800 1000 m
1" = 2,000.0 ft Data Zoom 13-0



SPILL AREA
SAMPLE LOCATIONS

NOT TO SCALE

FIGURE NO. 3

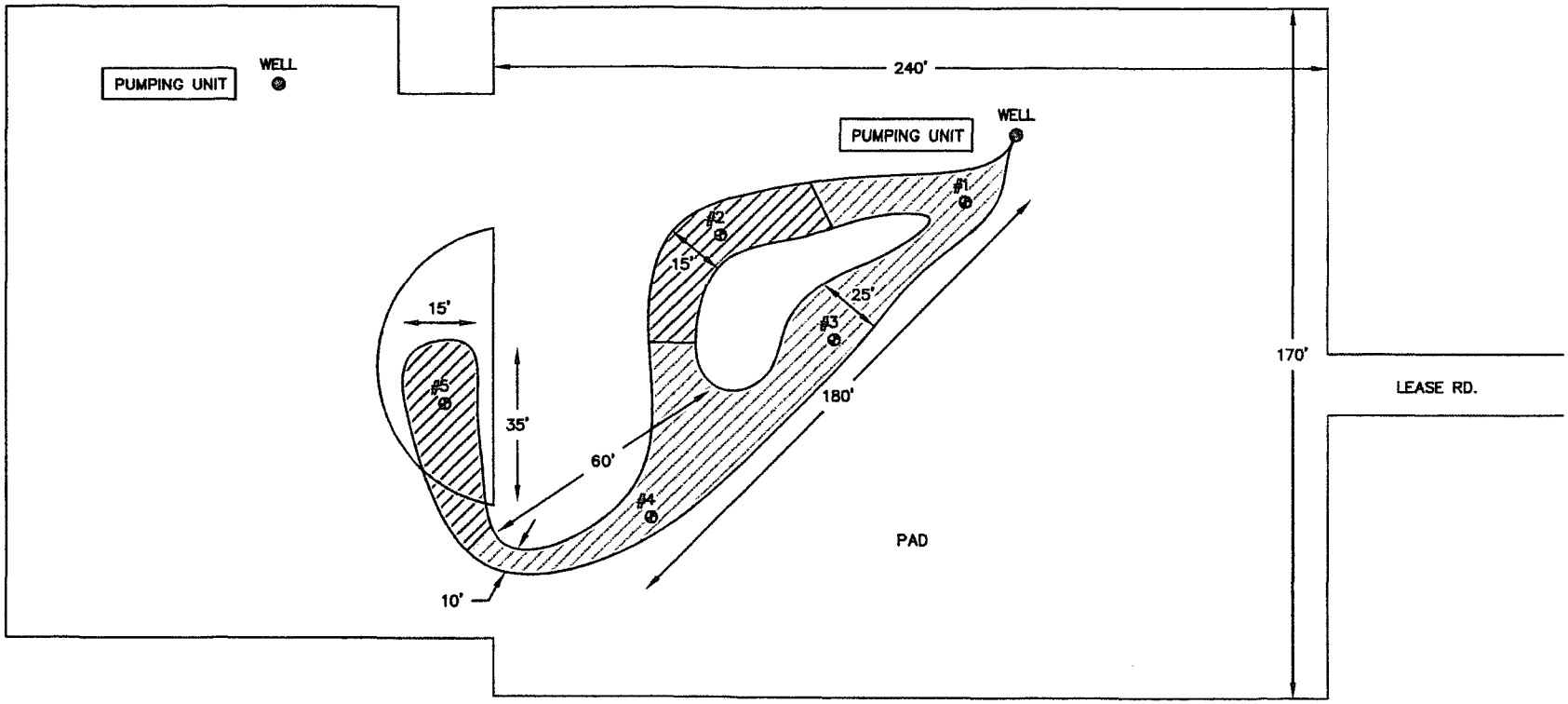
EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

SKELLY 967

DATE: 3/4/10
DWN. BY: JJ
FILE: H:\COG\640043S SKELLY 967

TETRA TECH, INC.
MIDLAND, TEXAS



EXCAVATED AREA 1.0' DEEP
EXCAVATED AREA 6.0' DEEP
EXCAVATED AREA 10.0' DEEP
SAMPLE LOCATIONS

NOT TO SCALE

FIGURE NO. 4

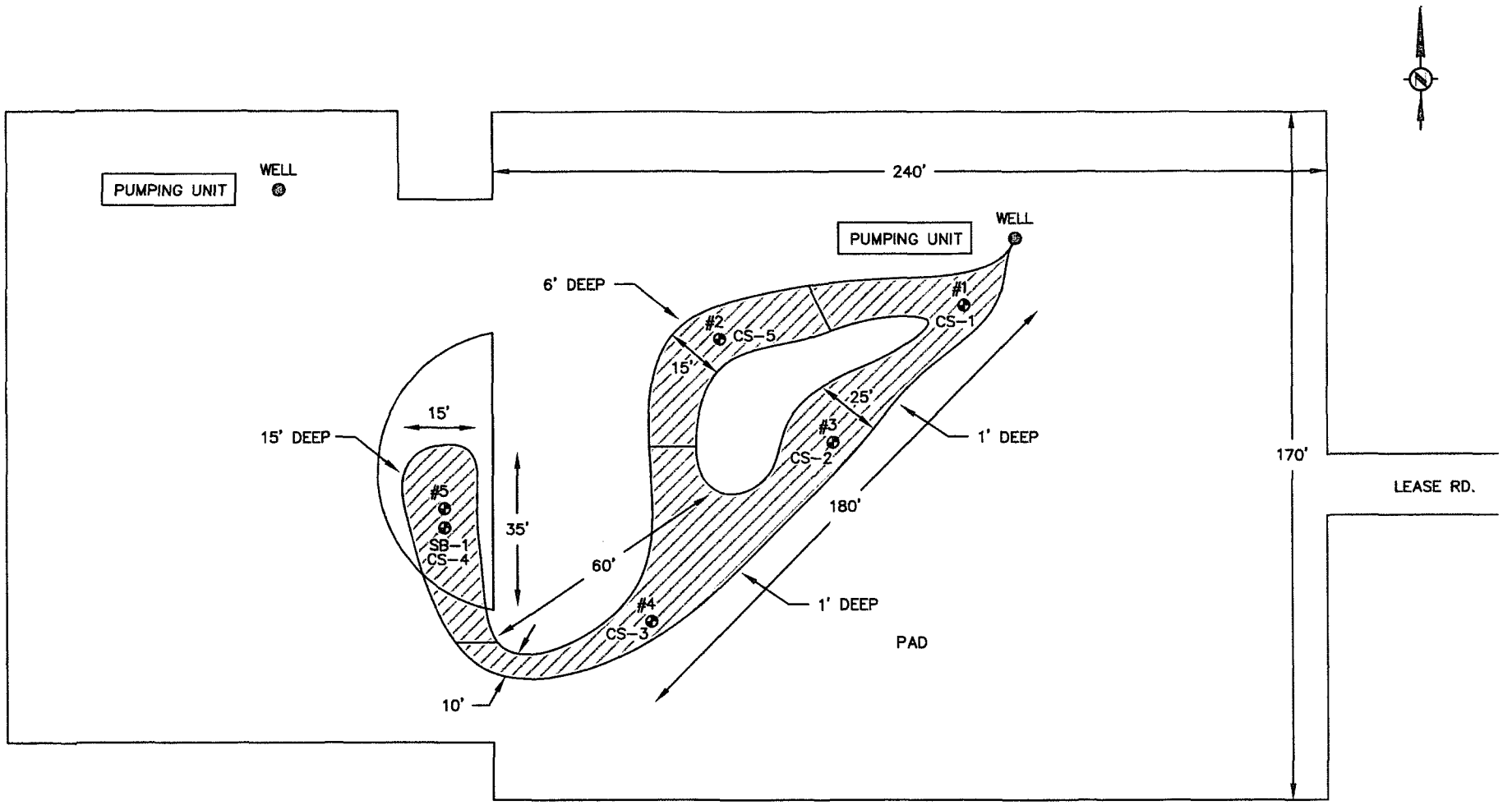
EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

SKELLY 967

DATE:	3/4/10
DWN. BY:	JJ
FILE:	H:\CAD\9400433 SKELLY 967

TETRA TECH, INC.
MIDLAND, TEXAS



EXCAVATED AREA
SAMPLE LOCATIONS
SOIL BORING LOCATION
COMFIRMATION SAMPLE LOCATIONS

NOT TO SCALE

FIGURE NO. 5

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

SKELLY 967

DATE: 3/4/10
DWN. BY: JJ
FILE: H:\COG\84000438 SKELLY 967

TETRA TECH, INC.
MIDLAND, TEXAS

TABLES

Table 1
COG Operating LLC.
Skelly 967
LEA 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	3/4/2010	0-1'			X	<50.0	<1.00	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	4,220
		1-1.5'		X		-	-	-	-	-	-	-	<200
		2-2.5'		X		-	-	-	-	-	-	-	<200
CS-1	11/11/2010	0-1	1'	X		-	-	-	-	-	-	-	<200
AH-2	3/4/2010	0-1'			X	71.6	4.9	76.5	<0.0100	<0.0100	<0.0100	<0.0100	3,580
		1-1.5'			X	-	-	-	-	-	-	-	490
		2-2.5'			X	-	-	-	-	-	-	-	<200
		3-3.5'			X	-	-	-	-	-	-	-	<200
		4-4.5'			X	-	-	-	-	-	-	-	3,160
		5-5.5'			X	-	-	-	-	-	-	-	4,150
		6-6.5'			X	-	-	-	-	-	-	-	4,400
		7-7.5'		X		-	-	-	-	-	-	-	304
		7.5-8'		X		-	-	-	-	-	-	-	<200
CS-5	11/11/2010	0-1	6'	X		-	-	-	-	-	-	-	<200
AH-3	3/4/2010	0-1'			X	<50.0	<1.00	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	2,160
		1-1.5'		X		-	-	-	-	-	-	-	<200
		2-2.5'		X		-	-	-	-	-	-	-	<200
CS-2	11/11/2010	0-1	1'	X		-	-	-	-	-	-	-	<200

Table 1
COG Operating LLC.
Skelly 967
LEA 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-4	3/4/2010	0-1'			X	<50.0	<1.00	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	1,600
		1-1.5'		X		-	-	-	-	-	-	-	<200
		2-2.5'		X		-	-	-	-	-	-	-	666
		3-3.5'		X		-	-	-	-	-	-	-	1,070
		4-4.5'		X		-	-	-	-	-	-	-	<200
		5-5.5'		X		-	-	-	-	-	-	-	<200
		6-6.5'		X		-	-	-	-	-	-	-	<200
CS-3	11/11/2010	0-1	1'	X		-	-	-	-	-	-	-	685

Table 1
COG Operating LLC.
Skelly 967
LEA 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-5	3/4/2010	0-1'			X	1,930	308	2,238	<0.100	<0.100	<0.100	1.27	289
		1-1.5'			X	-	-	-	-	-	-	-	219
		2-2.5'			X	-	-	-	-	-	-	-	<200
		3-3.5'			X	-	-	-	-	-	-	-	<200
		4-4.5'			X	-	-	-	-	-	-	-	473
		5-5.5'			X	-	-	-	-	-	-	-	856
		6-6.5'			X	-	-	-	-	-	-	-	2,640
		6.5-7'			X	-	-	-	-	-	-	-	8,690
SB-1	4/12/2010	8'			X	-	-	-	-	-	-	-	15,600
		10'			X	-	-	-	-	-	-	-	15,100
		15'			X	-	-	-	-	-	-	-	689
		20'		X		-	-	-	-	-	-	-	<200
CS-4	11/11/2010	0-1	15'	X		-	-	-	-	-	-	-	1,850

BEB Below Excavation Bottom

CS Confirmation Samples

(--) Not Analyzed

Excavated material

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 14 2011
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 **Kanicia Carrillo**
Address **550 W. Texas, Suite 1300 Midland, Texas 79701**	Telephone No. **(432) 685-4332**
Facility Name Skelly Unit 967	Facility Type **Tank Battery**

Surface Owner: Federal	Mineral Owner	Lease No. NMLC029420A/ 30-15-35871

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	15	17S	31E	1250	SOUTH	990	EAST	Eddy

Latitude N 32.853001° **Longitude** W 103.959150°

NATURE OF RELEASE

Type of Release: Oil & Water	Volume of Release 15 bbls	Volume Recovered 10 bbls
Source of Release: 1" nipple on pumping tee	Date and Hour of Occurrence 12/31/09	Date and Hour of Discovery 12/31/09
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom? Josh Russo	Date and Hour 3/15/10 4:59 p.m.	
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.*

There was a hole in the 1" nipple on the pumping tee.

Describe Area Affected and Cleanup Action Taken.*

The majority of the spill remained on the caliche pad however the spill migrated west and impacted a 15' X 35' area of the pasture. Tetra Tech inspected site and collected samples to define spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. Site was then brought up to surface grade with clean backfill material. Tetra Tech prepared closure report and submitted to NMOCD for review.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Ike Tavarez	Approved by District Supervisor:
Title: Project Manager	Approval Date: / Expiration Date:
E-mail Address: Ike.Tavarez@TetraTech.com	Conditions of Approval: / Attached ☐
Date: 2/8/11 Phone: (432) 682-4559	

* Attach Additional Sheets If Necessary

APPENDIX B

Water Well Data
Average Depth to Groundwater (ft)
COG - Skelly Unit #967
Eddy County, New Mexico

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	1
7	8	9	10	11	12 **288**
18	17	16	15	14	13 **113**
19	20	21	22	23	24
30	29	28	27	26	25
31 **290**	32	33	34	35	36

16 South 32 East

6	5	4	3 **65**	2 **265**	1 **265**
7	8	9	10	11	12 **215**
18	17	16 **221**	15	14	13 **215**
19 **220**	20	21 **210**	22	23 **210**	24
30	29	28	27	26 **243**	25
31	32	33	34	35	36 **260**

17 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

17 South 31 East

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

17 South 32 East

6	5	4 **82**	3 **175**	2 **60**	1 **225**
7	8	9	10	11 **70 88**	12
18	17	16	15	14	13
19	20	21	22	23	24
30 180 dry	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	1
7	8	9	10	11	12 **400**
18	17	16	15	14 **317**	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35 **261**	36

18 South 32 East

6	5	4 **65**	3	2	1
7 **460 82**	8	9	10	11	12
18	17	16 **84**	15	14	13
19	20 **164**	21	22 **429**	23	24
30	29	28	27	26	25
31	32	33	34 **117**	35	36

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

APPENDIX C

Summary Report

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

Report Date: March 15, 2010

Work Order: 10031003

Project Location: Lea County, NM
Project Name: COG/Skelly 967
Project Number: 114-6400436

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
224980	AH-1 0-1'	soil	2010-03-04	00:00	2010-03-09
224981	AH-1 1-1.5'	soil	2010-03-04	00:00	2010-03-09
224982	AH-1 2-2.5'	soil	2010-03-04	00:00	2010-03-09
224983	AH-2 0-1'	soil	2010-03-04	00:00	2010-03-09
224984	AH-2 1-1.5'	soil	2010-03-04	00:00	2010-03-09
224985	AH-2 2-2.5'	soil	2010-03-04	00:00	2010-03-09
224986	AH-2 3-3.5'	soil	2010-03-04	00:00	2010-03-09
224987	AH-2 4-4.5'	soil	2010-03-04	00:00	2010-03-09
224988	AH-2 5-5.5'	soil	2010-03-04	00:00	2010-03-09
224989	AH-2 6-6.5'	soil	2010-03-04	00:00	2010-03-09
224990	AH-2 7-7.5'	soil	2010-03-04	00:00	2010-03-09
224991	AH-2 7.5-8'	soil	2010-03-04	00:00	2010-03-09
224992	AH-3 0-1'	soil	2010-03-04	00:00	2010-03-09
224993	AH-3 1-1.5'	soil	2010-03-04	00:00	2010-03-09
224994	AH-3 2-2.5'	soil	2010-03-04	00:00	2010-03-09
224995	AH-4 0-1'	soil	2010-03-04	00:00	2010-03-09
224996	AH-4 1-1.5'	soil	2010-03-04	00:00	2010-03-09
224997	AH-4 2-2.5'	soil	2010-03-04	00:00	2010-03-09
224998	AH-4 3-3.5'	soil	2010-03-04	00:00	2010-03-09
224999	AH-4 4-4.5'	soil	2010-03-04	00:00	2010-03-09
225000	AH-4 5-5.5'	soil	2010-03-04	00:00	2010-03-09
225001	AH-4 6-6.5'	soil	2010-03-04	00:00	2010-03-09
225002	AH-5 0-1'	soil	2010-03-04	00:00	2010-03-09
225003	AH-5 1-1.5'	soil	2010-03-04	00:00	2010-03-09
225004	AH-5 2-2.5'	soil	2010-03-04	00:00	2010-03-09
225005	AH-5 3-3.5'	soil	2010-03-04	00:00	2010-03-09
225006	AH-5 4-4.5'	soil	2010-03-04	00:00	2010-03-09
225007	AH-5 5-5.5'	soil	2010-03-04	00:00	2010-03-09
225008	AH-5 6-6.5'	soil	2010-03-04	00:00	2010-03-09
225009	AH-5 6.5-7'	soil	2010-03-04	00:00	2010-03-09

Sample - Field Code	BTEX Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
224980 - AH-1 0-1'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
224983 - AH-2 0-1'	<0.0100	<0.0100	<0.0100	<0.0100	**71.6**	**4.89**
224992 - AH-3 0-1'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
224995 - AH-4 0-1'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
225002 - AH-5 0-1'	<0.100	<0.100	<0.100	**1.27**	**1930**	**308**

Sample: 224980 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		**4220**	mg/Kg	4.00

Sample: 224981 - AH-1 1-1.5'

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

Sample: 224982 - AH-1 2-2.5'

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

Sample: 224983 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		**3580**	mg/Kg	4.00

Sample: 224984 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**490**	mg/Kg	4.00

Sample: 224985 - AH-2 2-2.5'

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

Sample: 224986 - AH-2 3-3.5'

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

Sample: 224987 - AH-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**3160**	mg/Kg	4.00

Sample: 224988 - AH-2 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**4150**	mg/Kg	4.00

Sample: 224989 - AH-2 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**4400**	mg/Kg	4.00

Sample: 224990 - AH-2 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**304**	mg/Kg	4.00

Sample: 224991 - AH-2 7.5-8'

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

Sample: 224992 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		**2160**	mg/Kg	4.00

Sample: 224993 - AH-3 1-1.5'

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

Sample: 224994 - AH-3 2-2.5'

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

Sample: 224995 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		**1600**	mg/Kg	4.00

Sample: 224996 - AH-4 1-1.5'

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

Sample: 224997 - AH-4 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**666**	mg/Kg	4.00

Sample: 224998 - AH-4 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**1070**	mg/Kg	4.00

Sample: 224999 - AH-4 4-4.5'

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

Sample: 225000 - AH-4 5-5.5'

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

Sample: 225001 - AH-4 6-6.5'

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

Sample: 225002 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		**289**	mg/Kg	4.00

Sample: 225003 - AH-5 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**219**	mg/Kg	4.00

Sample: 225004 - AH-5 2-2.5'

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

Sample: 225005 - AH-5 3-3.5'

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

Sample: 225006 - AH-5 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**473**	mg/Kg	4.00

Sample: 225007 - AH-5 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**856**	mg/Kg	4.00

Sample: 225008 - AH-5 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**2640**	mg/Kg	4.00

Sample: 225009 - AH-5 6.5-7'

Param	Flag	Result	Units	RL
Chloride		**8690**	mg/Kg	4.00

TRACEANALYSIS, INC.

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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: March 15, 2010

Work Order: 10031003

Project Location: Lea County, NM
Project Name: COG/Skelly 967
Project Number: 114-6400436

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
224980	AH-1 0-1'	soil	2010-03-04	00:00	2010-03-09
224981	AH-1 1-1.5'	soil	2010-03-04	00:00	2010-03-09
224982	AH-1 2-2.5'	soil	2010-03-04	00:00	2010-03-09
224983	AH-2 0-1'	soil	2010-03-04	00:00	2010-03-09
224984	AH-2 1-1.5'	soil	2010-03-04	00:00	2010-03-09
224985	AH-2 2-2.5'	soil	2010-03-04	00:00	2010-03-09
224986	AH-2 3-3.5'	soil	2010-03-04	00:00	2010-03-09
224987	AH-2 4-4.5'	soil	2010-03-04	00:00	2010-03-09
224988	AH-2 5-5.5'	soil	2010-03-04	00:00	2010-03-09
224989	AH-2 6-6.5'	soil	2010-03-04	00:00	2010-03-09

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
224990	AH-2 7-7.5'	soil	2010-03-04	00:00	2010-03-09
224991	AH-2 7.5-8'	soil	2010-03-04	00:00	2010-03-09
224992	AH-3 0-1'	soil	2010-03-04	00:00	2010-03-09
224993	AH-3 1-1.5'	soil	2010-03-04	00:00	2010-03-09
224994	AH-3 2-2.5'	soil	2010-03-04	00:00	2010-03-09
224995	AH-4 0-1'	soil	2010-03-04	00:00	2010-03-09
224996	AH-4 1-1.5'	soil	2010-03-04	00:00	2010-03-09
224997	AH-4 2-2.5'	soil	2010-03-04	00:00	2010-03-09
224998	AH-4 3-3.5'	soil	2010-03-04	00:00	2010-03-09
224999	AH-4 4-4.5'	soil	2010-03-04	00:00	2010-03-09
225000	AH-4 5-5.5'	soil	2010-03-04	00:00	2010-03-09
225001	AH-4 6-6.5'	soil	2010-03-04	00:00	2010-03-09
225002	AH-5 0-1'	soil	2010-03-04	00:00	2010-03-09
225003	AH-5 1-1.5'	soil	2010-03-04	00:00	2010-03-09
225004	AH-5 2-2.5'	soil	2010-03-04	00:00	2010-03-09
225005	AH-5 3-3.5'	soil	2010-03-04	00:00	2010-03-09
225006	AH-5 4-4.5'	soil	2010-03-04	00:00	2010-03-09
225007	AH-5 5-5.5'	soil	2010-03-04	00:00	2010-03-09
225008	AH-5 6-6.5'	soil	2010-03-04	00:00	2010-03-09
225009	AH-5 6.5-7'	soil	2010-03-04	00:00	2010-03-09

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.

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/Skelly 967 were received by TraceAnalysis, Inc. on 2010-03-09 and assigned to work order 10031003. Samples for work order 10031003 were received intact at a temperature of 7.6 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	58275	2010-03-09 at 17:00	68153	2010-03-10 at 03:29
BTEX	S 8021B	58349	2010-03-11 at 15:00	68187	2010-03-11 at 14:27
Chloride (Titration)	SM 4500-Cl B	58320	2010-03-11 at 09:51	68197	2010-03-12 at 15:27
Chloride (Titration)	SM 4500-Cl B	58321	2010-03-11 at 09:52	68198	2010-03-12 at 15:28
Chloride (Titration)	SM 4500-Cl B	58322	2010-03-11 at 09:52	68199	2010-03-12 at 15:29
Chloride (Titration)	SM 4500-Cl B	58323	2010-03-11 at 09:53	68200	2010-03-12 at 15:30
TPH DRO - NEW	Mod. 8015B	58292	2010-03-10 at 14:49	68138	2010-03-10 at 14:49
TPH GRO	S 8015B	58275	2010-03-09 at 17:00	68154	2010-03-10 at 03:56
TPH GRO	S 8015B	58349	2010-03-11 at 15:00	68188	2010-03-11 at 14:54

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 10031003 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: 224980 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	68153	Date Analyzed:	2010-03-10	Analyzed By:	AG
Prep Batch:	58275	Sample Preparation:	2010-03-09	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.58	mg/Kg	1	2.00	79	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.77	mg/Kg	1	2.00	88	43.1 - 158.4

Sample: 224980 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68197	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58320	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4220**	mg/Kg	100	4.00

Sample: 224980 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	68138	Date Analyzed:	2010-03-10	Analyzed By:	kg
Prep Batch:	58292	Sample Preparation:	2010-03-10	Prepared By:	kg

Parameter	Flag	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		96.4	mg/Kg	1	100	96	70 - 130

Sample: 224980 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	68154	Date Analyzed:	2010-03-10	Analyzed By:	AG
Prep Batch:	58275	Sample Preparation:	2010-03-09	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.19	mg/Kg	1	2.00	110	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.08	mg/Kg	1	2.00	104	61.7 - 131.1

Sample: 224981 - AH-1 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68198	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58321	Sample Preparation:	2010-03-11	Prepared By:	AR

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

Sample: 224982 - AH-1 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68198	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58321	Sample Preparation:	2010-03-11	Prepared By:	AR

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

Sample: 224983 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	68187	Date Analyzed:	2010-03-11	Analyzed By:	AG
Prep Batch:	58349	Sample Preparation:	2010-03-11	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.65	mg/Kg	1	2.00	82	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.82	mg/Kg	1	2.00	91	43.1 - 158.4

Sample: 224983 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68198	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58321	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**3580**	mg/Kg	100	4.00

Sample: 224983 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	68138	Date Analyzed:	2010-03-10	Analyzed By:	kg
Prep Batch:	58292	Sample Preparation:	2010-03-10	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**71.6**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		99.4	mg/Kg	1	100	99	70 - 130

Sample: 224983 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	68188	Date Analyzed:	2010-03-11	Analyzed By:	AG
Prep Batch:	58349	Sample Preparation:	2010-03-11	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**4.89**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.29	mg/Kg	1	2.00	114	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.15	mg/Kg	1	2.00	108	61.7 - 131.1

Sample: 224984 - AH-2 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68198	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58321	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**490**	mg/Kg	50	4.00

Sample: 224985 - AH-2 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68198	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58321	Sample Preparation:	2010-03-11	Prepared By:	AR

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

Sample: 224986 - AH-2 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68198	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58321	Sample Preparation:	2010-03-11	Prepared By:	AR

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

Sample: 224987 - AH-2 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68198	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58321	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**3160**	mg/Kg	100	4.00

Sample: 224988 - AH-2 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68198	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58321	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4150**	mg/Kg	100	4.00

Sample: 224989 - AH-2 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68198	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58321	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4400**	mg/Kg	100	4.00

Sample: 224990 - AH-2 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68198	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58321	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**304**	mg/Kg	50	4.00

Sample: 224991 - AH-2 7.5-8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68199	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58322	Sample Preparation:	2010-03-11	Prepared By:	AR

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

Sample: 224992 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	68187	Date Analyzed:	2010-03-11	Analyzed By:	AG
Prep Batch:	58349	Sample Preparation:	2010-03-11	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.73	mg/Kg	1	2.00	86	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.91	mg/Kg	1	2.00	96	43.1 - 158.4

Sample: 224992 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68199	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58322	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2160**	mg/Kg	100	4.00

Sample: 224992 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	68138	Date Analyzed:	2010-03-10	Analyzed By:	kg
Prep Batch:	58292	Sample Preparation:	2010-03-10	Prepared By:	kg

Parameter	Flag	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		96.6	mg/Kg	1	100	97	70 - 130

Sample: 224992 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	68188	Date Analyzed:	2010-03-11	Analyzed By:	AG
Prep Batch:	58349	Sample Preparation:	2010-03-11	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.33	mg/Kg	1	2.00	116	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.20	mg/Kg	1	2.00	110	61.7 - 131.1

Sample: 224993 - AH-3 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68199	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58322	Sample Preparation:	2010-03-11	Prepared By:	AR

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

Sample: 224994 - AH-3 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68199	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58322	Sample Preparation:	2010-03-11	Prepared By:	AR

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

Sample: 224995 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	68187	Date Analyzed:	2010-03-11	Analyzed By:	AG
Prep Batch:	58349	Sample Preparation:	2010-03-11	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.90	mg/Kg	1	2.00	95	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.08	mg/Kg	1	2.00	104	43.1 - 158.4

Sample: 224995 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68199	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58322	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1600**	mg/Kg	50	4.00

Sample: 224995 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	68138	Date Analyzed:	2010-03-10	Analyzed By:	kg
Prep Batch:	58292	Sample Preparation:	2010-03-10	Prepared By:	kg

Parameter	Flag	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		105	mg/Kg	1	100	105	70 - 130

Sample: 224995 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	68188	Date Analyzed:	2010-03-11	Analyzed By:	AG
Prep Batch:	58349	Sample Preparation:	2010-03-11	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.53	mg/Kg	1	2.00	126	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.38	mg/Kg	1	2.00	119	61.7 - 131.1

Sample: 224996 - AH-4 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68199	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58322	Sample Preparation:	2010-03-11	Prepared By:	AR

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

Sample: 224997 - AH-4 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68199	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58322	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**666**	mg/Kg	50	4.00

Sample: 224998 - AH-4 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68199	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58322	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**1070**	mg/Kg	50	4.00

Sample: 224999 - AH-4 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68199	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58322	Sample Preparation:	2010-03-11	Prepared By:	AR

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

Sample: 225000 - AH-4 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68199	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58322	Sample Preparation:	2010-03-11	Prepared By:	AR

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

Sample: 225001 - AH-4 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68200	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58323	Sample Preparation:	2010-03-11	Prepared By:	AR

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

Sample: 225002 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	68187	Date Analyzed:	2010-03-11	Analyzed By:	AG
Prep Batch:	58349	Sample Preparation:	2010-03-11	Prepared By:	AG

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		<0.100	mg/Kg	10	0.0100
Toluene		<0.100	mg/Kg	10	0.0100
Ethylbenzene		<0.100	mg/Kg	10	0.0100
Xylene		**1.27**	mg/Kg	10	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.80	mg/Kg	10	10.0	98	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		11.3	mg/Kg	10	10.0	113	43.1 - 158.4

Sample: 225002 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68200	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58323	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**289**	mg/Kg	50	4.00

Sample: 225002 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	68138	Date Analyzed:	2010-03-10	Analyzed By:	kg
Prep Batch:	58292	Sample Preparation:	2010-03-10	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**1930**	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[1]	416	mg/Kg	5	100	416	70 - 130

Sample: 225002 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	68188	Date Analyzed:	2010-03-11	Analyzed By:	AG
Prep Batch:	58349	Sample Preparation:	2010-03-11	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**308**	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		13.2	mg/Kg	10	10.0	132	65.3 - 145
4-Bromofluorobenzene (4-BFB)	[2]	13.4	mg/Kg	10	10.0	134	61.7 - 131.1

Sample: 225003 - AH-5 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68200	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58323	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**219**	mg/Kg	50	4.00

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

Sample: 225004 - AH-5 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68200	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58323	Sample Preparation:	2010-03-11	Prepared By:	AR

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

Sample: 225005 - AH-5 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68200	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58323	Sample Preparation:	2010-03-11	Prepared By:	AR

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

Sample: 225006 - AH-5 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68200	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58323	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**473**	mg/Kg	50	4.00

Sample: 225007 - AH-5 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68200	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58323	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**856**	mg/Kg	50	4.00

Sample: 225008 - AH-5 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68200	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58323	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2640**	mg/Kg	100	4.00

Sample: 225009 - AH-5 6.5-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	68200	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58323	Sample Preparation:	2010-03-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**8690**	mg/Kg	100	4.00

Method Blank (1) QC Batch: 68138

QC Batch:	68138	Date Analyzed:	2010-03-10	Analyzed By:	kg
Prep Batch:	58292	QC Preparation:	2010-03-10	Prepared By:	kg

Parameter	Flag	MDL Result	Units	RL
DRO		<5.86	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		87.9	mg/Kg	1	100	88	70 - 130

Method Blank (1) QC Batch: 68153

QC Batch:	68153	Date Analyzed:	2010-03-10	Analyzed By:	AG
Prep Batch:	58275	QC Preparation:	2010-03-09	Prepared By:	AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00410	mg/Kg	0.01

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method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Toluene		<0.00310	mg/Kg	0.01
Ethylbenzene		<0.00240	mg/Kg	0.01
Xylene		<0.00650	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.86	mg/Kg	1	2.00	93	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.57	mg/Kg	1	2.00	78	43.9 - 141.9

Method Blank (1) QC Batch: 68154

QC Batch: 68154 | Date Analyzed: 2010-03-10 | Analyzed By: AG
Prep Batch: 58275 | QC Preparation: 2010-03-09 | Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<0.396	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.58	mg/Kg	1	2.00	129	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.85	mg/Kg	1	2.00	92	62 - 120.5

Method Blank (1) QC Batch: 68187

QC Batch: 68187 | Date Analyzed: 2010-03-11 | Analyzed By: AG
Prep Batch: 58349 | QC Preparation: 2010-03-11 | Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00410	mg/Kg	0.01
Toluene		<0.00310	mg/Kg	0.01
Ethylbenzene		<0.00240	mg/Kg	0.01
Xylene		<0.00650	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.83	mg/Kg	1	2.00	92	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.68	mg/Kg	1	2.00	84	43.9 - 141.9

Method Blank (1) QC Batch: 68188

QC Batch:	68188	Date Analyzed:	2010-03-11	Analyzed By:	AG
Prep Batch:	58349	QC Preparation:	2010-03-11	Prepared By:	AG

Parameter	Flag	MDL Result	Units	RL
GRO		<0.396	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.54	mg/Kg	1	2.00	127	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.98	mg/Kg	1	2.00	99	62 - 120.5

Method Blank (1) QC Batch: 68197

QC Batch:	68197	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58320	QC Preparation:	2010-03-11	Prepared By:	AR

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

Method Blank (1) QC Batch: 68198

QC Batch:	68198	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58321	QC Preparation:	2010-03-11	Prepared By:	AR

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

Method Blank (1) QC Batch: 68199

QC Batch:	68199	Date Analyzed:	2010-03-12	Analyzed By:	AR
Prep Batch:	58322	QC Preparation:	2010-03-11	Prepared By:	AR

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

Method Blank (1) QC Batch: 68200

QC Batch: 68200 | Date Analyzed: 2010-03-12 | Analyzed By: AR
Prep Batch: 58323 | QC Preparation: 2010-03-11 | Prepared By: AR

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

Laboratory Control Spike (LCS-1)

QC Batch: 68138 | Date Analyzed: 2010-03-10 | Analyzed By: kg
Prep Batch: 58292 | QC Preparation: 2010-03-10 | Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	225	mg/Kg	1	250	<5.86	90	57.4 - 133.4

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
DRO	226	mg/Kg	1	250	<5.86	90	57.4 - 133.4	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
n-Tricosane	109	104	mg/Kg	1	100	109	104	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 68153 | Date Analyzed: 2010-03-10 | Analyzed By: AG
Prep Batch: 58275 | QC Preparation: 2010-03-09 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.74	mg/Kg	1	2.00	<0.00410	87	75.4 - 115.7
Toluene	1.74	mg/Kg	1	2.00	<0.00310	87	78.4 - 113.6
Ethylbenzene	1.75	mg/Kg	1	2.00	<0.00240	88	76 - 114.2
Xylene	5.23	mg/Kg	1	6.00	<0.00650	87	76.9 - 113.6

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	1.80	mg/Kg	1	2.00	<0.00410	90	75.4 - 115.7	3	20

continued ...

control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Toluene	1.80	mg/Kg	1	2.00	<0.00310	90	78.4 - 113.6	3	20
Ethylbenzene	1.81	mg/Kg	1	2.00	<0.00240	90	76 - 114.2	3	20
Xylene	5.41	mg/Kg	1	6.00	<0.00650	90	76.9 - 113.6	3	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)	1.74	1.76	mg/Kg	1	2.00	87	88	65 - 142.9
4-Bromofluorobenzene (4-BFB)	2.01	2.02	mg/Kg	1	2.00	100	101	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 68154 | Date Analyzed: 2010-03-10 | Analyzed By: AG
Prep Batch: 58275 | QC Preparation: 2010-03-09 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.3	mg/Kg	1	20.0	<0.396	82	52.5 - 114.3

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	15.6	mg/Kg	1	20.0	<0.396	78	52.5 - 114.3	4	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)	2.27	2.30	mg/Kg	1	2.00	114	115	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	2.12	2.14	mg/Kg	1	2.00	106	107	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 68187 | Date Analyzed: 2010-03-11 | Analyzed By: AG
Prep Batch: 58349 | QC Preparation: 2010-03-11 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.79	mg/Kg	1	2.00	<0.00410	90	75.4 - 115.7
Toluene	1.78	mg/Kg	1	2.00	<0.00310	89	78.4 - 113.6
Ethylbenzene	1.75	mg/Kg	1	2.00	<0.00240	88	76 - 114.2
Xylene	5.26	mg/Kg	1	6.00	<0.00650	88	76.9 - 113.6

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	1.82	mg/Kg	1	2.00	<0.00410	91	75.4 - 115.7	2	20
Toluene	1.81	mg/Kg	1	2.00	<0.00310	90	78.4 - 113.6	2	20
Ethylbenzene	1.82	mg/Kg	1	2.00	<0.00240	91	76 - 114.2	4	20
Xylene	5.45	mg/Kg	1	6.00	<0.00650	91	76.9 - 113.6	4	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)	1.68	1.76	mg/Kg	1	2.00	84	88	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.89	2.01	mg/Kg	1	2.00	94	100	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 68188 | Date Analyzed: 2010-03-11 | Analyzed By: AG
Prep Batch: 58349 | QC Preparation: 2010-03-11 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.3	mg/Kg	1	20.0	<0.396	82	52.5 - 114.3

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	16.6	mg/Kg	1	20.0	<0.396	83	52.5 - 114.3	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)	2.39	2.18	mg/Kg	1	2.00	120	109	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	2.23	2.05	mg/Kg	1	2.00	112	102	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 68197 | Date Analyzed: 2010-03-12 | Analyzed By: AR
Prep Batch: 58320 | QC Preparation: 2010-03-11 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.3	mg/Kg	1	100	<2.18	99	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	101	mg/Kg	1	100	<2.18	101	85 - 115	2	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: 68198 | Date Analyzed: 2010-03-12 | Analyzed By: AR
Prep Batch: 58321 | QC Preparation: 2010-03-11 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.4	mg/Kg	1	100	<2.18	99	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	101	mg/Kg	1	100	<2.18	101	85 - 115	2	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: 68199 | Date Analyzed: 2010-03-12 | Analyzed By: AR
Prep Batch: 58322 | QC Preparation: 2010-03-11 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.5	mg/Kg	1	100	<2.18	100	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	101	mg/Kg	1	100	<2.18	101	85 - 115	2	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: 68200 | Date Analyzed: 2010-03-12 | Analyzed By: AR
Prep Batch: 58323 | QC Preparation: 2010-03-11 | Prepared By: AR

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.0	mg/Kg	1	100	<2.18	99	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	99.9	mg/Kg	1	100	<2.18	100	85 - 115	1	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: 224995

QC Batch: 68138 | Date Analyzed: 2010-03-10 | Analyzed By: kg
Prep Batch: 58292 | QC Preparation: 2010-03-10 | Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	198	mg/Kg	1	250	<5.86	79	35.2 - 167.1

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	198	mg/Kg	1	250	<5.86	79	35.2 - 167.1	0	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	94.2	93.3	mg/Kg	1	100	94	93	70 - 130

Matrix Spike (MS-1) Spiked Sample: 224758

QC Batch: 68153 | Date Analyzed: 2010-03-10 | Analyzed By: AG
Prep Batch: 58275 | QC Preparation: 2010-03-09 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.87	mg/Kg	1	2.00	<0.00410	94	57.7 - 140.7
Toluene	1.91	mg/Kg	1	2.00	<0.00310	96	53.4 - 146.6
Ethylbenzene	1.96	mg/Kg	1	2.00	<0.00240	98	62.1 - 141.6
Xylene	5.91	mg/Kg	1	6.00	<0.00650	98	61.2 - 142.7

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	1.99	mg/Kg	1	2.00	<0.00410	100	57.7 - 140.7	6	20
Toluene	2.02	mg/Kg	1	2.00	<0.00310	101	53.4 - 146.6	6	20
Ethylbenzene	2.11	mg/Kg	1	2.00	<0.00240	106	62.1 - 141.6	7	20
Xylene	6.32	mg/Kg	1	6.00	<0.00650	105	61.2 - 142.7	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
Trifluorotoluene (TFT)	1.70	2.11	mg/Kg	1	2	85	106	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.96	2.42	mg/Kg	1	2	98	121	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 224691

QC Batch: 68154 | Date Analyzed: 2010-03-10 | Analyzed By: AG
Prep Batch: 58275 | QC Preparation: 2010-03-09 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.2	mg/Kg	1	20.0	<0.396	86	10 - 198.3

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
GRO	19.4	mg/Kg	1	20.0	<0.396	97	10 - 198.3	12	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)	2.12	2.45	mg/Kg	1	2	106	122	65.5 - 143
4-Bromofluorobenzene (4-BFB)	2.13	2.47	mg/Kg	1	2	106	124	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 224995

QC Batch: 68187 | Date Analyzed: 2010-03-11 | Analyzed By: AG
Prep Batch: 58349 | QC Preparation: 2010-03-11 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene [3]	1.65	mg/Kg	1	2.00	<0.00410	82	57.7 - 140.7
Toluene	1.67	mg/Kg	1	2.00	<0.00310	84	53.4 - 146.6
Ethylbenzene	1.67	mg/Kg	1	2.00	<0.00240	84	62.1 - 141.6

continued . . .

[3]SPECIAL - MSD was run but not reported due to prep error (spiked with wrong spiking solution). •

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	5.02	mg/Kg	1	6.00	<0.00650	84	61.2 - 142.7

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	<0.00410	mg/Kg	1	2.00	<0.00410		57.7 - 140.7		20
Toluene	<0.00310	mg/Kg	1	2.00	<0.00310		53.4 - 146.6		20
Ethylbenzene	<0.00240	mg/Kg	1	2.00	<0.00240		62.1 - 141.6		20
Xylene	<0.00650	mg/Kg	1	6.00	<0.00650		61.2 - 142.7		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
Trifluorotoluene (TFT)	1.60	0.00	mg/Kg	1	2	80		61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.79	0.00	mg/Kg	1	2	90		49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 224992

QC Batch: 68188 | Date Analyzed: 2010-03-11 | Analyzed By: AG
Prep Batch: 58349 | QC Preparation: 2010-03-11 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	18.4	mg/Kg	1	20.0	<0.396	92	10 - 198.3

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
GRO	18.5	mg/Kg	1	20.0	<0.396	92	10 - 198.3	0	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	1.58	mg/Kg	1	2	108	79	65.5 - 143
4-Bromofluorobenzene (4-BFB)	2.20	1.66	mg/Kg	1	2	110	83	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 224980

QC Batch: 68197 | Date Analyzed: 2010-03-12 | Analyzed By: AR
Prep Batch: 58320 | QC Preparation: 2010-03-11 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	14200	mg/Kg	100	10000	4223	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	14400	mg/Kg	100	10000	4223	102	85 - 115	1	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: 224990

QC Batch: 68198 | Date Analyzed: 2010-03-12 | Analyzed By: AR
Prep Batch: 58321 | QC Preparation: 2010-03-11 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10200	mg/Kg	100	10000	304	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	10400	mg/Kg	100	10000	304	101	85 - 115	2	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: 225000

QC Batch: 68199 | Date Analyzed: 2010-03-12 | Analyzed By: AR
Prep Batch: 58322 | QC Preparation: 2010-03-11 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	9950	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	10100	mg/Kg	100	10000	<218	101	85 - 115	2	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: 225025

QC Batch: 68200 | Date Analyzed: 2010-03-12 | Analyzed By: AR
Prep Batch: 58323 | QC Preparation: 2010-03-11 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11400	mg/Kg	100	10000	2840	86	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	11600	mg/Kg	100	10000	2840	88	85 - 115	2	20

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

Standard (CCV-1)

QC Batch: 68138 Date Analyzed: 2010-03-10 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	2010-03-10

Standard (CCV-2)

QC Batch: 68138 Date Analyzed: 2010-03-10 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	238	95	80 - 120	2010-03-10

Standard (CCV-3)

QC Batch: 68138 Date Analyzed: 2010-03-10 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	224	90	80 - 120	2010-03-10

Standard (CCV-4)

QC Batch: 68138 Date Analyzed: 2010-03-10 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	222	89	80 - 120	2010-03-10

Standard (CCV-1)

QC Batch: 68153 Date Analyzed: 2010-03-10 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	0.0900	90	80 - 120	2010-03-10
Toluene		mg/Kg	0.100	0.0898	90	80 - 120	2010-03-10
Ethylbenzene		mg/Kg	0.100	0.0907	91	80 - 120	2010-03-10
Xylene		mg/Kg	0.300	0.271	90	80 - 120	2010-03-10

Standard (CCV-2)

QC Batch: 68153 Date Analyzed: 2010-03-10 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	0.0888	89	80 - 120	2010-03-10
Toluene		mg/Kg	0.100	0.0882	88	80 - 120	2010-03-10
Ethylbenzene		mg/Kg	0.100	0.0884	88	80 - 120	2010-03-10
Xylene		mg/Kg	0.300	0.264	88	80 - 120	2010-03-10

Standard (CCV-1)

QC Batch: 68154 Date Analyzed: 2010-03-10 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	0.979	98	80 - 120	2010-03-10

Standard (CCV-2)

QC Batch: 68154 Date Analyzed: 2010-03-10 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	1.03	103	80 - 120	2010-03-10

Standard (CCV-1)

QC Batch: 68187 Date Analyzed: 2010-03-11 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	0.0872	87	80 - 120	2010-03-11
Toluene		mg/Kg	0.100	0.0860	86	80 - 120	2010-03-11
Ethylbenzene		mg/Kg	0.100	0.0841	84	80 - 120	2010-03-11
Xylene		mg/Kg	0.300	0.254	85	80 - 120	2010-03-11

Standard (CCV-2)

QC Batch: 68187 Date Analyzed: 2010-03-11 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	0.0905	90	80 - 120	2010-03-11
Toluene		mg/Kg	0.100	0.0895	90	80 - 120	2010-03-11
Ethylbenzene		mg/Kg	0.100	0.0877	88	80 - 120	2010-03-11
Xylene		mg/Kg	0.300	0.264	88	80 - 120	2010-03-11

Standard (CCV-3)

QC Batch: 68187 Date Analyzed: 2010-03-11 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	0.0917	92	80 - 120	2010-03-11
Toluene		mg/Kg	0.100	0.0911	91	80 - 120	2010-03-11
Ethylbenzene		mg/Kg	0.100	0.0886	89	80 - 120	2010-03-11
Xylene		mg/Kg	0.300	0.266	89	80 - 120	2010-03-11

Standard (CCV-1)

QC Batch: 68188 Date Analyzed: 2010-03-11 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	1.06	106	80 - 120	2010-03-11

Standard (CCV-2)

QC Batch: 68188 Date Analyzed: 2010-03-11 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	1.03	103	80 - 120	2010-03-11

Standard (CCV-3)

QC Batch: 68188 Date Analyzed: 2010-03-11 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	1.03	103	80 - 120	2010-03-11

Standard (ICV-1)

QC Batch: 68197 Date Analyzed: 2010-03-12 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.5	98	85 - 115	2010-03-12

Standard (CCV-1)

QC Batch: 68197 Date Analyzed: 2010-03-12 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	2010-03-12

Standard (ICV-1)

QC Batch: 68198 Date Analyzed: 2010-03-12 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.9	100	85 - 115	2010-03-12

Standard (CCV-1)

QC Batch: 68198 Date Analyzed: 2010-03-12 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	2010-03-12

Standard (ICV-1)

QC Batch: 68199 Date Analyzed: 2010-03-12 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2010-03-12

Standard (CCV-1)

QC Batch: 68199 Date Analyzed: 2010-03-12 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.4	98	85 - 115	2010-03-12

Standard (ICV-1)

QC Batch: 68200 Date Analyzed: 2010-03-12 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.5	98	85 - 115	2010-03-12

Standard (CCV-1)

QC Batch: 68200 Date Analyzed: 2010-03-12 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	2010-03-12

Order #: 100 31003

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 3

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.: 114-6400432

PROJECT NAME: COG / Shelly 9&7 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 8015 MOD. (Ext. to C35) TX1005	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
224980	3/4		S		X	AH-1 0-1'	1				X		X	X											X				
981						AH-1 1-1.5'																							
982						AH-1 2-2.5'																							
983						AH-2 0-1'							X	X															
984						AH-2 1-1.5'																							
985						AH-2 2-2.5'																							
986						AH-2 3-3.5'																							
987						AH-2 4-4.5'																							
988						AH-2 5-5.5'																							
989	↓		↓		↓	AH-2 6-6.5'	↓				↓																		

RELINQUISHED BY: (Signature) — Date: 5-6-10 Time: 1600 — RECEIVED BY: (Signature) — Date: 5/6/10 Time: 1600

RELINQUISHED BY: (Signature) — Date: 5/9/10 Time: 1610 — RECEIVED BY: (Signature) — Date: 5/9/10 Time: 1610

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

SAMPLED BY: (Print & Initial) Robert Gamblin Jr — Date: 5-6-10 Time: 1335

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

TETRA TECH CONTACT PERSON: Ike Tavarez — Results by:

RUSH Charges Authorized: Yes No

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

SAMPLE CONDITION WHEN RECEIVED: 7.6° C, Intact

REMARKS: If total TPH exceed 5,000 mg/kg run deeper samples / If Benzene exceeds 10mg/kg or Total BTEX exceeds 50 mg/kg run deeper samples

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

Order #: 100310003

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: 3

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6400433 6

PROJECT NAME: COG / Skelly 967 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 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
224990	3/4		S		X	AH-2	1				X															X				
991						AH-2																								
992						AH-3							X	X																
993						AH-3																								
994						AH-3																								
995						AH-4							X	X																
996						AH-4																								
997						AH-4																								
998						AH-4																								
999	↓		↓		↓	AH-4	↓				↓															▽				

RELINQUISHED BY: (Signature) Date: 3-8-10 Time: 1606
RECEIVED BY: (Signature) Date: 3/8/10 Time: 1600

RELINQUISHED BY: (Signature) Date: 3/9/10 Time: 1116
RECEIVED BY: (Signature) Date: 3/9/10 Time: 16:10

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

SAMPLED BY: (Print & Initial) Date: 3-8-10 Time: 1345

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

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

SAMPLE CONDITION WHEN RECEIVED: 7.6°C intact

REMARKS: If total TPH exceed 5,000 mg/kg run deeper samples / If Benzene exceeds 10 mg/kg or total BTEX exceeds 50 mg/kg run deeper samples

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

Order #: 10031003

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.: 114-6400436

PROJECT NAME: COG / Skelly 9107 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
225000	3/4		S		X	AH-4 5'-5.5'	1				X	
001	↓		↓		↓	AH-4 6'-6.5'	↓				↓	
002						AH-5 0-1'						
003						AH-5 1'-1.5'						
004						AH-5 2'-2.5'						
005						AH-5 3'-3.5'						
006						AH-5 4'-4.5'						
007						AH-5 5'-5.5'						
008						AH-5 6'-6.5'						
009						AH-5 6.5'-7'						

LAB I.D. NUMBER	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. 808/808	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
225000													X				
001													↓				
002	X	X															
003																	
004																	
005																	
006																	
007																	
008																	
009																	

RELINQUISHED BY: (Signature) [signature] Date: 3/9/10 Time: 1610

RECEIVED BY: (Signature) [signature] Date: 3/9/10 Time: 1610

SAMPLED BY: (Print & Initial) [signature] Date: 3-8-10 Time: 1355

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:

Results by:

RUSH Charges Authorized: Yes No

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

SAMPLE CONDITION WHEN RECEIVED: 7.6°c intact

REMARKS: If total TPH exceeds 5,000 mg/kg run deeper samples / If Benzene exceeds 10mg/kg run deeper sample / If total BTEX exceeds 50 mg/kg run deeper samples

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: April 21, 2010

Work Order: 10041412

Project Location: Lea County, NM
Project Name: COG/Skelly 967
Project Number: 114-6400436

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
228497	SB-1 8'	soil	2010-04-12	00:00	2010-04-13
228498	SB-1 10'	soil	2010-04-12	00:00	2010-04-13
228499	SB-1 15'	soil	2010-04-12	00:00	2010-04-13
228500	SB-1 20'	soil	2010-04-12	00:00	2010-04-13

Sample: 228497 - SB-1 8'

Param	Flag	Result	Units	RL
Chloride		**15600**	mg/Kg	4.00

Sample: 228498 - SB-1 10'

Param	Flag	Result	Units	RL
Chloride		**15100**	mg/Kg	4.00

Sample: 228499 - SB-1 15'

Param	Flag	Result	Units	RL
Chloride		**689**	mg/Kg	4.00

Sample: 228500 - SB-1 20'

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: April 21, 2010

Work Order: 10041412

Project Location: Lea County, NM
Project Name: COG/Skelly 967
Project Number: 114-6400436

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
228497	SB-1 8'	soil	2010-04-12	00:00	2010-04-13
228498	SB-1 10'	soil	2010-04-12	00:00	2010-04-13
228499	SB-1 15'	soil	2010-04-12	00:00	2010-04-13
228500	SB-1 20'	soil	2010-04-12	00:00	2010-04-13

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.

Michael Abel

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/Skelly 967 were received by TraceAnalysis, Inc. on 2010-04-13 and assigned to work order 10041412. Samples for work order 10041412 were received intact at a temperature of 7.5 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	59238	2010-04-19 at 11:46	69269	2010-04-20 at 15:22
Chloride (Titration)	SM 4500-Cl B	59239	2010-04-19 at 11:47	69270	2010-04-20 at 15:23

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 10041412 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: 228497 - SB-1 8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	69269	Date Analyzed:	2010-04-20	Analyzed By:	AR
Prep Batch:	59238	Sample Preparation:	2010-04-19	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**15600**	mg/Kg	100	4.00

Sample: 228498 - SB-1 10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	69269	Date Analyzed:	2010-04-20	Analyzed By:	AR
Prep Batch:	59238	Sample Preparation:	2010-04-19	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**15100**	mg/Kg	100	4.00

Sample: 228499 - SB-1 15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	69270	Date Analyzed:	2010-04-20	Analyzed By:	AR
Prep Batch:	59239	Sample Preparation:	2010-04-19	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**689**	mg/Kg	50	4.00

Sample: 228500 - SB-1 20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	69270	Date Analyzed:	2010-04-20	Analyzed By:	AR
Prep Batch:	59239	Sample Preparation:	2010-04-19	Prepared By:	AR

continued ...

sample 228500 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL

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

Method Blank (1) QC Batch: 69269

QC Batch: 69269 Date Analyzed: 2010-04-20 Analyzed By: AR
Prep Batch: 59238 QC Preparation: 2010-04-19 Prepared By: AR

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

Method Blank (1) QC Batch: 69270

QC Batch: 69270 Date Analyzed: 2010-04-20 Analyzed By: AR
Prep Batch: 59239 QC Preparation: 2010-04-19 Prepared By: AR

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

Laboratory Control Spike (LCS-1)

QC Batch: 69269 Date Analyzed: 2010-04-20 Analyzed By: AR
Prep Batch: 59238 QC Preparation: 2010-04-19 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.6	mg/Kg	1	100	<2.18	99	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	99.9	mg/Kg	1	100	<2.18	100	85 - 115	1	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: 69270 | Date Analyzed: 2010-04-20 | Analyzed By: AR
Prep Batch: 59239 | QC Preparation: 2010-04-19 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.3	mg/Kg	1	100	<2.18	99	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	101	mg/Kg	1	100	<2.18	101	85 - 115	2	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: 228498

QC Batch: 69269 | Date Analyzed: 2010-04-20 | Analyzed By: AR
Prep Batch: 59238 | QC Preparation: 2010-04-19 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	24700	mg/Kg	100	10000	15100	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	25200	mg/Kg	100	10000	15100	101	85 - 115	2	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: 228628

QC Batch: 69270 | Date Analyzed: 2010-04-20 | Analyzed By: AR
Prep Batch: 59239 | QC Preparation: 2010-04-19 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	19200	mg/Kg	100	10000	8620	106	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	19100	mg/Kg	100	10000	8620	105	85 - 115	0	20

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

Standard (ICV-1)

QC Batch: 69269 | Date Analyzed: 2010-04-20 | 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	2010-04-20

Standard (CCV-1)

QC Batch: 69269 | Date Analyzed: 2010-04-20 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.8	100	85 - 115	2010-04-20

Standard (ICV-1)

QC Batch: 69270 | Date Analyzed: 2010-04-20 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.5	100	85 - 115	2010-04-20

Standard (CCV-1)

QC Batch: 69270 | Date Analyzed: 2010-04-20 | 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	2010-04-20

Order #: 1004142

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-640 0436

PROJECT NAME: COG - Skelly Federal #967 TB
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 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. 808/808	Chlorides	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
228497	4/12		S		X	SB-1 8'	1																	X				
498	4/12		S		X	SB-1 10'	1																	X				
499	4/12		S		X	SB-1 15'	1																	X				
500	4/12		S		X	SB-1 20'	1																	X				
501	4/12		S		X	SB-1 25'	1																					
502	4/12		S		X	SB-1 30'	1																					
503	4/12		S		X	SB-1 40'	1																					

RELINQUISHED BY: (Signature) — Date: 4/13/10 Time: 1645
RECEIVED BY: (Signature) — Date: 4/13/10 Time: 1645
SAMPLED BY: (Print & Initial) Kim — Date: 4/12/10 Time:

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

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

RECEIVING LABORATORY: Midland 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: 7.5°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.

Summary Report

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

Report Date: November 23, 2010

Work Order: 10111928

Project Location: Lea County, NM
Project Name: COG/Skelly 967
Project Number: 114-6400436

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
251017	CS-1 0-1 (1' BEB)	soil	2010-11-11	00:00	2010-11-19
251018	CS-2 0-1 (1' BEB)	soil	2010-11-11	00:00	2010-11-19
251019	CS-3 0-1 (1' BEB)	soil	2010-11-11	00:00	2010-11-19
251020	CS-4 0-1 (15' BEB)	soil	2010-11-11	00:00	2010-11-19
251021	CS-5 0-1 (6' BEB)	soil	2010-11-12	00:00	2010-11-19

Sample: 251017 - CS-1 0-1 (1' BEB)

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

Sample: 251018 - CS-2 0-1 (1' BEB)

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

Sample: 251019 - CS-3 0-1 (1' BEB)

Param	Flag	Result	Units	RL
Chloride		**685**	mg/Kg	4.00

Sample: 251020 - CS-4 0-1 (15' BEB)

Param	Flag	Result	Units	RL
Chloride		**1850**	mg/Kg	4.00

Sample: 251021 - CS-5 0-1 (6' BEB)

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: November 23, 2010

Work Order: 10111928

Project Location: Lea County, NM
Project Name: COG/Skelly 967
Project Number: 114-6400436

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
251017	CS-1 0-1 (1' BEB)	soil	2010-11-11	00:00	2010-11-19
251018	CS-2 0-1 (1' BEB)	soil	2010-11-11	00:00	2010-11-19
251019	CS-3 0-1 (1' BEB)	soil	2010-11-11	00:00	2010-11-19
251020	CS-4 0-1 (15' BEB)	soil	2010-11-11	00:00	2010-11-19
251021	CS-5 0-1 (6' BEB)	soil	2010-11-12	00:00	2010-11-19

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.

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/Skelly 967 were received by TraceAnalysis, Inc. on 2010-11-19 and assigned to work order 10111928. Samples for work order 10111928 were received intact at a temperature of 3.2 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	64825	2010-11-22 at 09:23	75586	2010-11-23 at 09:16

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 10111928 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: 251017 - CS-1 0-1 (1' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	75586	Date Analyzed:	2010-11-23	Analyzed By:	AR
Prep Batch:	64825	Sample Preparation:	2010-11-22	Prepared By:	AR

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

Sample: 251018 - CS-2 0-1 (1' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	75586	Date Analyzed:	2010-11-23	Analyzed By:	AR
Prep Batch:	64825	Sample Preparation:	2010-11-22	Prepared By:	AR

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

Sample: 251019 - CS-3 0-1 (1' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	75586	Date Analyzed:	2010-11-23	Analyzed By:	AR
Prep Batch:	64825	Sample Preparation:	2010-11-22	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**685**	mg/Kg	50	4.00

Sample: 251020 - CS-4 0-1 (15' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	75586	Date Analyzed:	2010-11-23	Analyzed By:	AR
Prep Batch:	64825	Sample Preparation:	2010-11-22	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1850**	mg/Kg	100	4.00

Sample: 251021 - CS-5 0-1 (6' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	75586	Date Analyzed:	2010-11-23	Analyzed By:	AR
Prep Batch:	64825	Sample Preparation:	2010-11-22	Prepared By:	AR

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

Method Blank (1) QC Batch: 75586

QC Batch:	75586	Date Analyzed:	2010-11-23	Analyzed By:	AR
Prep Batch:	64825	QC Preparation:	2010-11-22	Prepared By:	AR

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

Laboratory Control Spike (LCS-1)

QC Batch:	75586	Date Analyzed:	2010-11-23	Analyzed By:	AR
Prep Batch:	64825	QC Preparation:	2010-11-22	Prepared By:	AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.6	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.

Matrix Spike (MS-1) Spiked Sample: 251022

QC Batch: 75586 | Date Analyzed: 2010-11-23 | Analyzed By: AR
Prep Batch: 64825 | QC Preparation: 2010-11-22 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10400	mg/Kg	100	10000	368	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	10700	mg/Kg	100	10000	368	103	85 - 115	3	20

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

Standard (ICV-1)

QC Batch: 75586 | Date Analyzed: 2010-11-23 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2010-11-23

Standard (CCV-1)

QC Batch: 75586 | Date Analyzed: 2010-11-23 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	97.9	98	85 - 115	2010-11-23

xWO #: 10111928

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

ANALYSIS REQUEST (Circle or Specify Method No.)

CLIENT NAME:	SITE MANAGER:
COG	Ike Tavarez
PROJECT NO.:	**PROJECT NAME:**
114-C406436	COG / Skelly #967 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 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. 8270/825	PCB's 8080/608	Pest. 808/608	Chlorides	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
251017	11/11		S		X	CS-1 0-1 (1' BEB)	1				X														X			
018						CS-2 0-1 (1' BEB)																			X			
019						CS-3 0-1 (1' BEB)																			X			
020						CS-4 0-1 (1½' BEB)																			X			
021	11/12					CS-5 0-1 (6' BEB)																			X			

RELINQUISHED BY: (Signature)	Date: 11-18-10 Time: 12:00 pm	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
RECEIVING LABORATORY: Trace		RECEIVED BY: (Signature)	
ADDRESS: CITY: Midland STATE: TX ZIP: CONTACT: PHONE:		DATE: 11-19-10	TIME: 11:50

SAMPLED BY: (Print & Initial) JT Date: 11/12/10 Time:

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.2°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.