SITE INFORMATION

Report Type: Closure Report

General Site Information:						
Site:	**Aid State SWD**					
Company:	**COG Operating LLC**					
Section, Township and Range	**Unit O**	**Sec 14**	**T17S**	**R28E**		
Lease Number:	**API-30-015-29569**					
County:	**Eddy County**					
GPS:	**32.82873° N**			**104.14433° W**		
Surface Owner:	State					
Mineral Owner:						
Directions:	From the intersection of Hwy 260 and Hwy 82 travel east approximately 1.1 miles and turn north on the paved lease road. Continue north approximately 2 miles and turn to the east onto the pad and caliche lease road continueing 0.15 miles to the SWD.					

Release Data:	
Date Released:	9/22/2012
Type Release:	Produced Water
Source of Contamination:	Water Tanks
Fluid Released:	700 bbls
Fluids Recovered:	650 bbls

RECEIVED
MAR 13 2013
NMOCD ARTESIA

Official Communication:			
Name:	Pat Ellis		Ike Tavarez
Company:	COG Operating, LLC		Tetra Tech
Address:	One Concho Center		1910 N. Big Spring
	600 W. Illinois Ave.		
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	10
>100 ft.	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:	**20**	

Acceptable Soil RRAL (mg/kg)		
Benzene	***Total BTEX***	***TPH***
10	50	1,000

TETRA TECH

February 12, 2013

Mr. Mike Bratcher
Environmental Engineer Specialist
Oil Conservation Division, District 2
811 S. First Avenue
Artesia, New Mexico 88210

Re: Closure Report for the COG Operating LLC., Aid State SWD, Unit O, Section 14, Township 17 South, Range 28 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the Aid State SWD located in Unit O, Section 14, Township 17 South, Range 28 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.82873°, W 104.14433°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on September 22, 2012 and released approximately 700 barrels of produced water from the SWD storage tanks. The leak was caused by a plugged equalizer line and alarm failure. Approximately 650 barrels of fluids were recovered. The spill originated on the pad, flowed into the neighboring pad and onto the pasture. The final C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 14. According to the NMOCD groundwater map, the average depth to groundwater in this area is approximately 75' 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 1,000 mg/kg.

Soil Assessment and Analytical Results

On October 2, 2012, Tetra Tech personnel inspected and sampled the spill area. Twenty (20) auger holes (AH-1 through AH-20) were installed using a stainless steel hand auger to assess the impacted soils. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The sampling results are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, all of the auger hole samples were below the RRAL for TPH and BTEX. The chloride concentrations showed a shallow impact (0 to 2.0') to the soils at majority of the auger hole locations. Auger holes (AH-1, AH-2, AH-7, AH-8, AH-13, AH-19 and AH-20) were not vertically defined during the assessment.

The areas of AH-3 and AH-15 did not show a chloride impact to the soils. Auger holes (AH-9 and AH-10) detected chloride concentrations of 1,040 mg/kg (0-1') and 1,440 mg/kg (0-1'), respectively. The deeper samples (1-1.5') declined with depth to 293 mg/kg (AH-9) and 375 mg/kg (AH-10). Auger hole (AH-5) exhibited the highest chloride concentration of 10,600 mg/kg at 1-1.5', but declined to 571 mg/kg at 2-2.5' below surface. All chloride concentrations declined with depth, with the exception of AH-19 and AH-20. These two auger holes exhibited chloride concentrations of 2,080 and 604 mg/kg respectively at 1-1.5' below surface and increased to 5,950 and 3,320 mg/kg at 2-2.5' below surface.

TETRA TECH

Remediation and Conclusion

On January 8, 2013, Tetra Tech implemented the work plan. Tetra Tech personnel installed trenches and supervised the excavation of the site. The trenches were installed in AH-1 (T-7), AH-2 (T-6), AH-7 (T-5), AH-8 (T-4), AH-13 (T-3), AH-19 (T-2) and AH-20 (T-1) and soil samples were collected and analyzed for chloride. The results are summarized in Table 1.

Referring to Table 1, all trench samples showed chloride concentrations declined with depth and were vertically defined. The excavation depths were met as stated in the approved work plan and are highlighted in Table 1 and shown on Figure 4. Approximately 724 cubic yards of soil were excavated and transported to the R360 facility for proper disposal. The excavations were then brought to grade with additional clean soil.

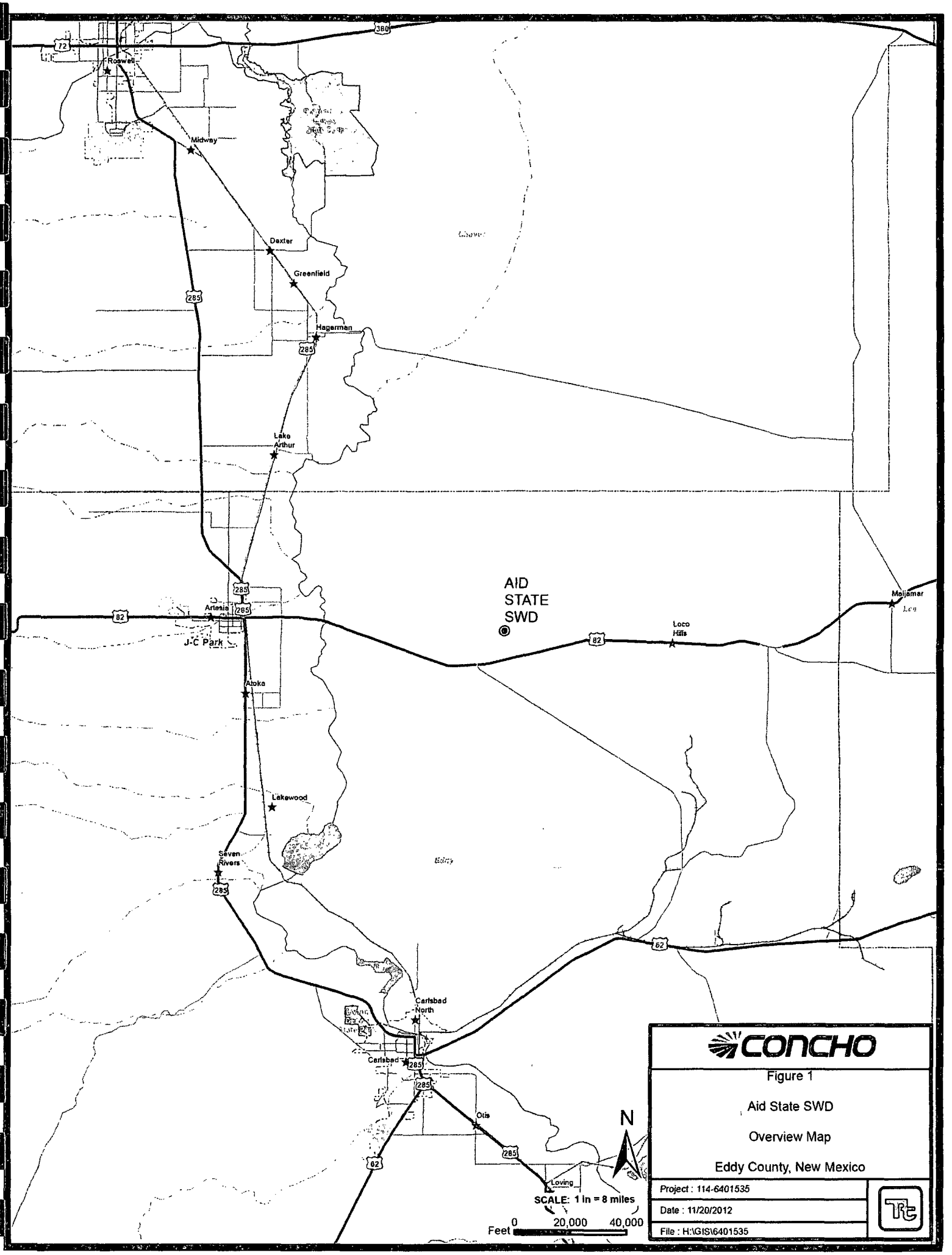
Based on the remedial activities performed, COG request closure of the site. A copy of the C-141 (Final) is included in Appendix A. If you have any questions or comments concerning the remedial activities, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Ike Tavarez, PG
Senior Project Manager

cc: Pat Ellis – COG

FIGURES



CONCHO

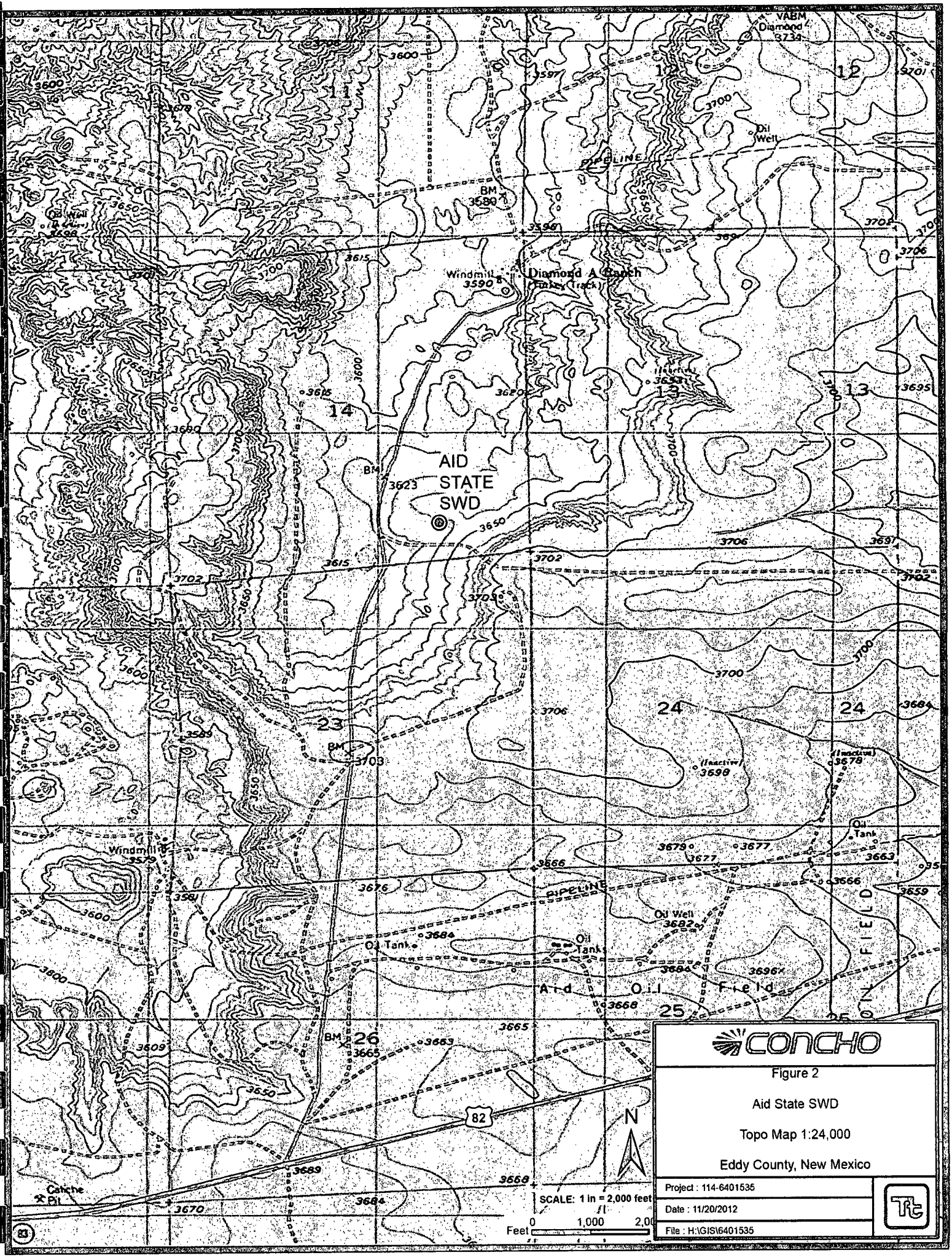
Figure 1

Aid State SWD

Overview Map

Eddy County, New Mexico

Project : 114-6401535	
Date : 11/20/2012	
File : H:\GIS\6401535	



CONCHO

Figure 2

Aid State SWD

Topo Map 1:24,000

Eddy County, New Mexico

Project : 114-6401535	
Date : 11/20/2012	
File : H:\GIS\6401535	

PAD

PASTURE

ROAD

ROAD

85'

55'

TANK TANK TANK

WELL

TANK
TANK
TANK
TANK
TANK
TANK

20'

15'

AH-2

AH-1

160'

130'

AH-3

AH-4

100'

AH-6

AH-5

40'

AH-7

PAD

ROAD

40'

AH-10

30'

AH-9

45'

AH-8

60'

50'

10'

AH-11

100'

100'

AH-12

PAD

PASTURE

90'

AH-13

AH-17

AH-14

20'

50'

25'

AH-18

45'

AH-16

30'

AH-15

90'

AH-19

AH-20

20'

180'

ROAD

BURIED LINE

EXPLANATION

- AUGER HOLE SAMPLE LOCATIONS
- SPILL AREA

N

SCALE: 1 IN = 77 FEET

Feet 0 20 40

CONCHO

Figure 3

Aid State SWD

Spill Assessment Map

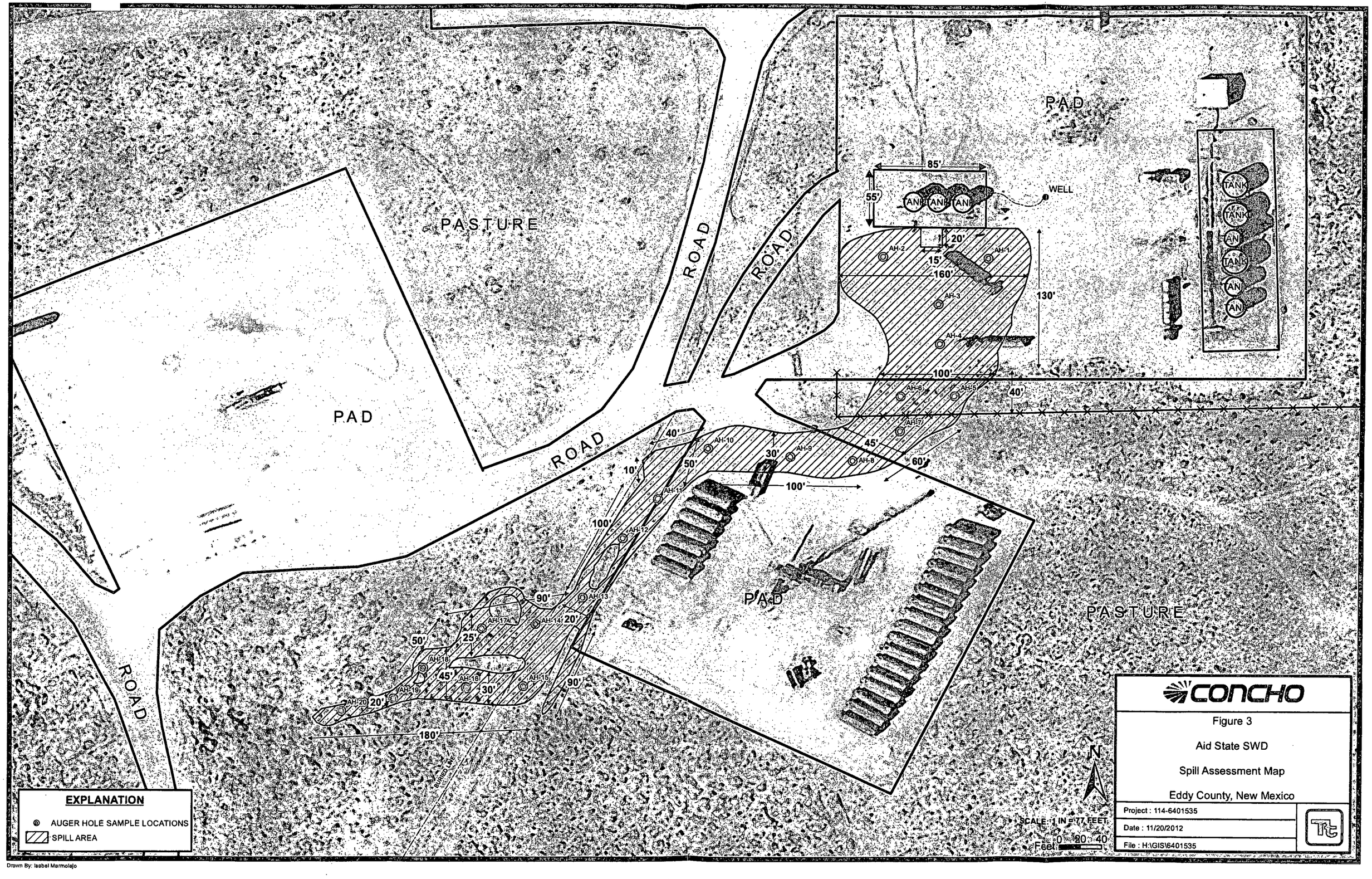
Eddy County, New Mexico

Project : 114-6401535

Date : 11/20/2012

File : H:\GIS\6401535

Drawn By: Isabel Marmolejo



Drawn By: Isabel Marmolejo

PASTURE

PAD

ROAD

ROAD

PAD

85'

55'

TANK TANK TANK

WELL

TANK

TANK

TANK

TANK

TANK

TANK

1.5' DEEP

20'

AH-2

T-6

AH-1

T-7

15'

160'

2' DEEP

AH-3

130'

50'

1' DEEP

AH-4

100'

AH-6

AH-5

40'

CS-2

AH-7

T-5

2' DEEP

45'

60'

T-4

CS-1

AH-8

40'

AH-10

30'

AH-9

50'

10'

100'

AH-11

1.5' DEEP

1' DEEP

SURFACE SCRAPE

PASTURE

100'

AH-12

1' DEEP

PAD

90'

AH-13

T-3

AH-17

AH-14

20'

50'

25'

AH-18

45'

AH-16

AH-15

30'

3' DEEP

AH-20

T-1

20'

T-2

AH-19

ROAD

180'

BURIED LINE

EXPLANATION

- AUGER HOLE SAMPLE LOCATIONS
- CONFIRMATION SAMPLE LOCATIONS
- TRENCH LOCATIONS
- EXCAVATION AREAS
- FIELD CHLORIDE SHOWED NO IMPACT

N

SCALE: 1 IN = 67 FEET

Feet 0 20 40

CONCHO

Figure 4

Aid State SWD

Excavation Areas & Depths Map

Eddy County, New Mexico

Project : 114-6401535

Date : 2/14/2013

File : H:\GIS\6401535

Drawn By: Isabel Marmolejo

TABLES

Table 1
COG Operating LLC.
Aid State Salt Water Disposal
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	Total						
AH-1	10/2/2012	0-0.5		X	173	142	315	<0.100	<0.100	0.972	2.24	3.21	5,100
T-7	1/16/2013	1		X	-	-	-	-	-	-	-	-	1,830
	"	2	X		-	-	-	-	-	-	-	-	139
	"	3	X		-	-	-	-	-	-	-	-	834
	"	4	X		-	-	-	-	-	-	-	-	825
	"	6	X		-	-	-	-	-	-	-	-	968
	"	7	X		-	-	-	-	-	-	-	-	925
AH-2	10/2/2012	0-1		X	<1.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	2,560
	"	1-1.5		X	-	-	-	-	-	-	-	-	1,100
T-6	1/16/2013	1		X	-	-	-	-	-	-	-	-	2,380
	"	2		X	-	-	-	-	-	-	-	-	1,570
	"	3	X		-	-	-	-	-	-	-	-	115
	"	4	X		-	-	-	-	-	-	-	-	52.7
AH-3	10/2/2012	0-1	X		20.2	<50.0	20.2	<0.100	<0.100	<0.100	<0.100	<0.100	495
	"	1-1.5	X		-	-	-	-	-	-	-	-	605
	"	2-2.5	X		-	-	-	-	-	-	-	-	24.0
AH-4	10/2/2012	0-1		X	3.25	<50.0	3.25	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	2,400
	"	1-1.5	X		-	-	-	-	-	-	-	-	413
	"	2-2.5	X		-	-	-	-	-	-	-	-	81.7
AH-5	10/2/2012	0-1		X	4.16	<50.0	4.16	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	5,870
	"	1-1.5		X	-	-	-	-	-	-	-	-	10,600
	"	2-2.5	X		-	-	-	-	-	-	-	-	571

Table 1
COG Operating LLC.
Aid State Salt Water Disposal
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	Total						
AH-6	10/2/2012	0-1	X		<1.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	833
	"	1-1.5	X		-	-	-	-	-	-	-	-	378
	"	2-2.5	X		-	-	-	-	-	-	-	-	692
	"	3-3.5	X		-	-	-	-	-	-	-	-	857
	"	4-4.5	X		-	-	-	-	-	-	-	-	561
AH-7	10/2/2012	0-1		X	263	95.7	359	<0.100	0.516	1.22	2.54	4.28	6,720
	"	1-1.5		X	-	-	-	-	-	-	-	-	2,410
T-5	1/14/2013	2		X	-	-	-	-	-	-	-	-	3,200
	"	4	X		-	-	-	-	-	-	-	-	149
	"	6	X		-	-	-	-	-	-	-	-	67.1
	"	8	X		-	-	-	-	-	-	-	-	67.1
CS-2	1/16/2013	2' Bottom	X		-	-	-	-	-	-	-	-	537
AH-8	10/2/2012	0-1		X	165	159	324	<0.100	0.412	2.35	6.07	8.83	2,220
T-4	1/14/2013	2	X		-	-	-	-	-	-	-	-	<20.0
	"	4	X		-	-	-	-	-	-	-	-	320
	"	6	X		-	-	-	-	-	-	-	-	315
	"	8	X		-	-	-	-	-	-	-	-	263
CS-1	1/16/2013	1' Bottom	X		-	-	-	-	-	-	-	-	700

Table 1
COG Operating LLC.
Aid State Salt Water Disposal
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	Total						
AH-9	10/2/2012	0-1	X		27.9	<50.0	27.9	<0.0200	<0.0200	<0.0200	0.0690	0.0690	1,040
	"	1-1.5	X		-	-	-	-	-	-	-	-	293
AH-10	10/2/2012	0-1	X		174	95.6	270	<0.100	<0.100	1.70	5.02	6.72	1,440
	"	1-1.5	X		-	-	-	-	-	-	-	-	376
	"	2-2.5	X		-	-	-	-	-	-	-	-	29.3
	"	3-3.5	X		-	-	-	-	-	-	-	-	185
	"	4-4.5	X		-	-	-	-	-	-	-	-	161
AH-11	10/2/2012	0-1		X	1.36	<50.0	1.36	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	3,400
	"	1-1.5	X		-	-	-	-	-	-	-	-	1,350
	"	2-2.5	X		-	-	-	-	-	-	-	-	<20.0
	"	3-3.5	X		-	-	-	-	-	-	-	-	190
AH-12	10/2/2012	0-1		X	2.15	<50.0	2.15	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	472
	"	1-1.5		X	-	-	-	-	-	-	-	-	2,970
	"	2-2.5	X		-	-	-	-	-	-	-	-	73.1
AH-13	10/3/2012	0-1		X	7.25	<50.0	7.25	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	1,800
T-3	1/14/2013	2	X		-	-	-	-	-	-	-	-	435
	"	4	X		-	-	-	-	-	-	-	-	511
	"	6	X		-	-	-	-	-	-	-	-	282
	"	8	X		-	-	-	-	-	-	-	-	110

Table 1
COG Operating LLC.
Aid State Salt Water Disposal
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	Total						
AH-14	10/3/2012	0-1		X	8.50	<50.0	8.50	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	5,730
	"	1-1.5	X		-	-	-	-	-	-	-	-	857
	"	2-2.5	X		-	-	-	-	-	-	-	-	166
	"	3-3.5	X		-	-	-	-	-	-	-	-	156
	"	4-4.5	X		-	-	-	-	-	-	-	-	151
AH-15	10/3/2012	0-1	X		<1.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<20.0
	"	1-1.5	X		-	-	-	-	-	-	-	-	63.5
	"	2-2.5	X		-	-	-	-	-	-	-	-	<20.0
AH-16	10/3/2012	0-1		X	3.52	<50.0	3.52	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	6,870
	"	1-1.5	X		-	-	-	-	-	-	-	-	420
	"	2-2.5	X		-	-	-	-	-	-	-	-	278
AH-17	10/3/2012	0-1		X	5.04	<50.0	5.04	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	6,760
	"	1-1.5	X		-	-	-	-	-	-	-	-	708
	"	2-2.5	X		-	-	-	-	-	-	-	-	381
AH-18	10/3/2012	0-1		X	9.81	<50.0	9.81	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	5,100
	"	1-1.5	X		-	-	-	-	-	-	-	-	667
	"	2-2.5	X		-	-	-	-	-	-	-	-	297

Table 1
COG Operating LLC.
Aid State Salt Water Disposal
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	Total						
AH-19	10/3/2012	0-1		X	62.4	57.1	120	<0.0200	<0.0200	<0.0200	0.0427	0.0427	443
	"	1-1.5		X	-	-	-	-	-	-	-	-	2,080
	"	2-2.5		X	-	-	-	-	-	-	-	-	5,950
T-2	1/8/2013	2		X	-	-	-	-	-	-	-	-	2,570
	"	4	X		-	-	-	-	-	-	-	-	266
	"	6	X		-	-	-	-	-	-	-	-	133
AH-20	10/3/2012	0-1		X	27.9	<50.0	27.9	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	102
	"	1-1.5		X	-	-	-	-	-	-	-	-	604
	"	2-2.5		X	-	-	-	-	-	-	-	-	3,320
T-1	1/8/2013	2		X	-	-	-	-	-	-	-	-	310
	"	4	X		-	-	-	-	-	-	-	-	222
	"	6	X		-	-	-	-	-	-	-	-	49.0

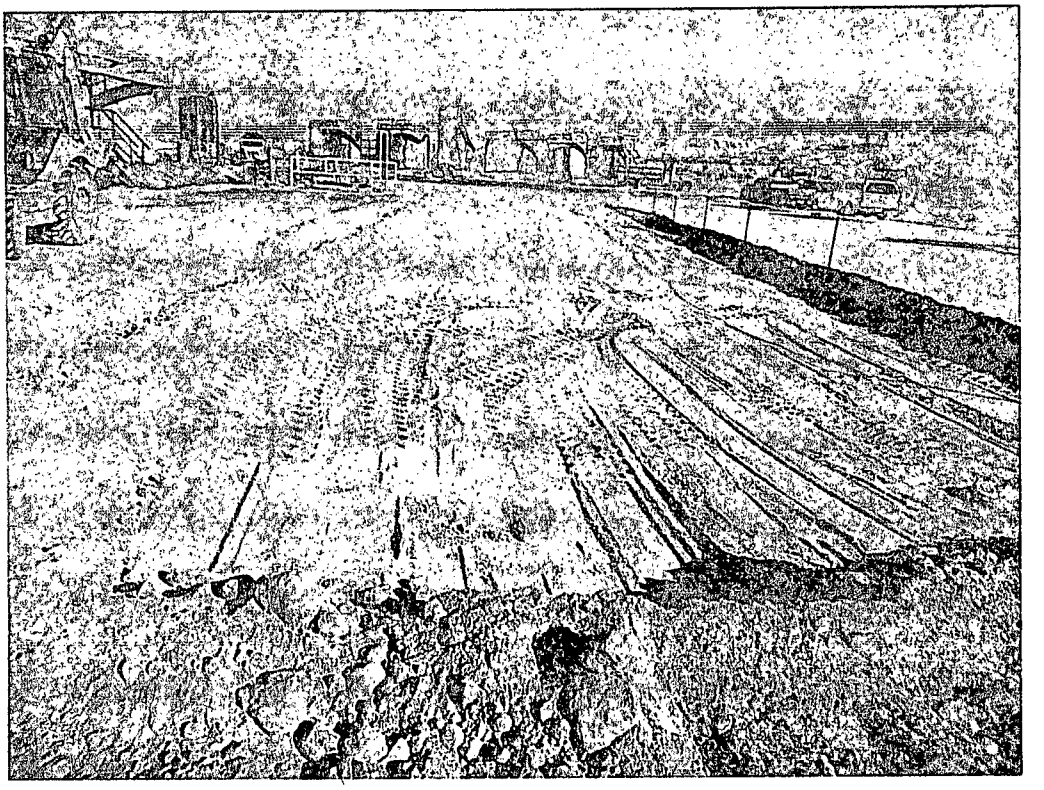
(-) Not Analyzed

Excavated Depths

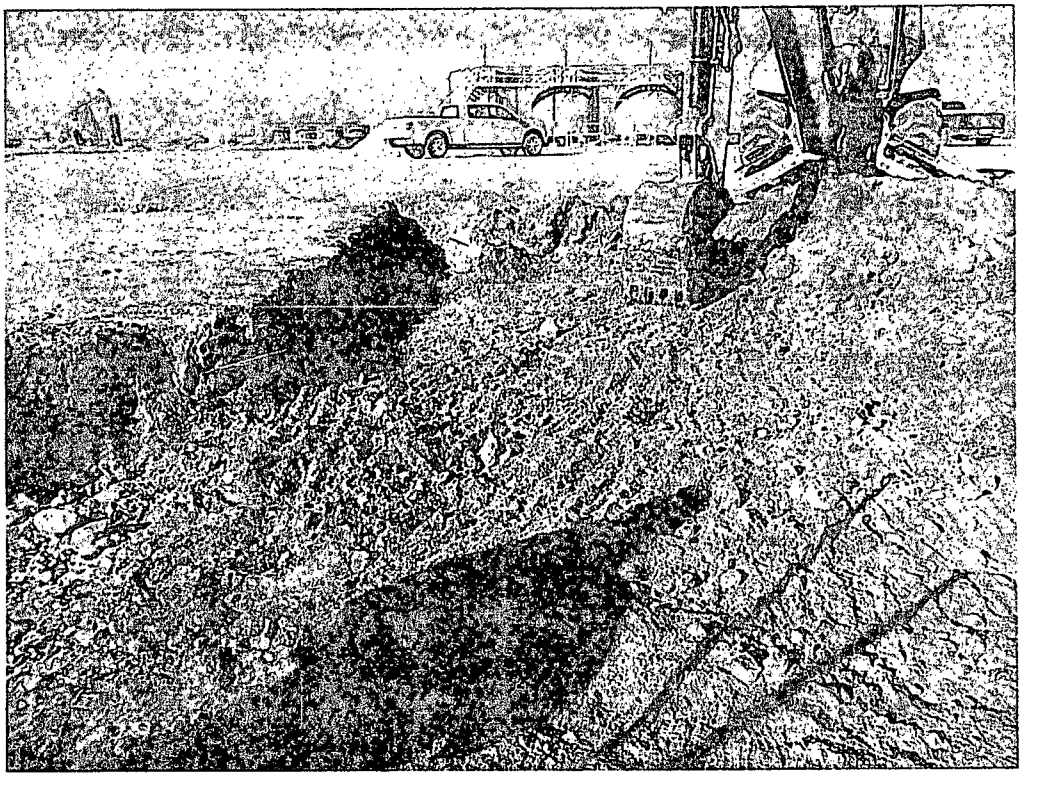
PHOTOGRAPHS

COG Operating LLC
AID State SWD
Eddy County, New Mexico

TETRA TECH



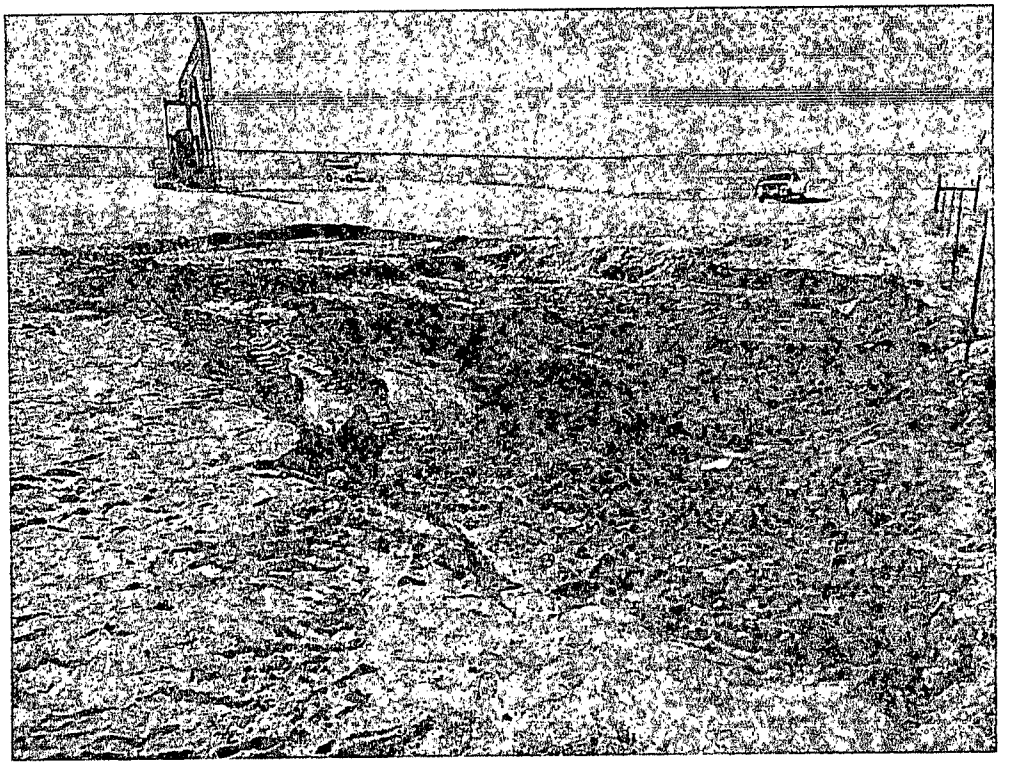
View East – Excavation of AH-1 and AH-2.



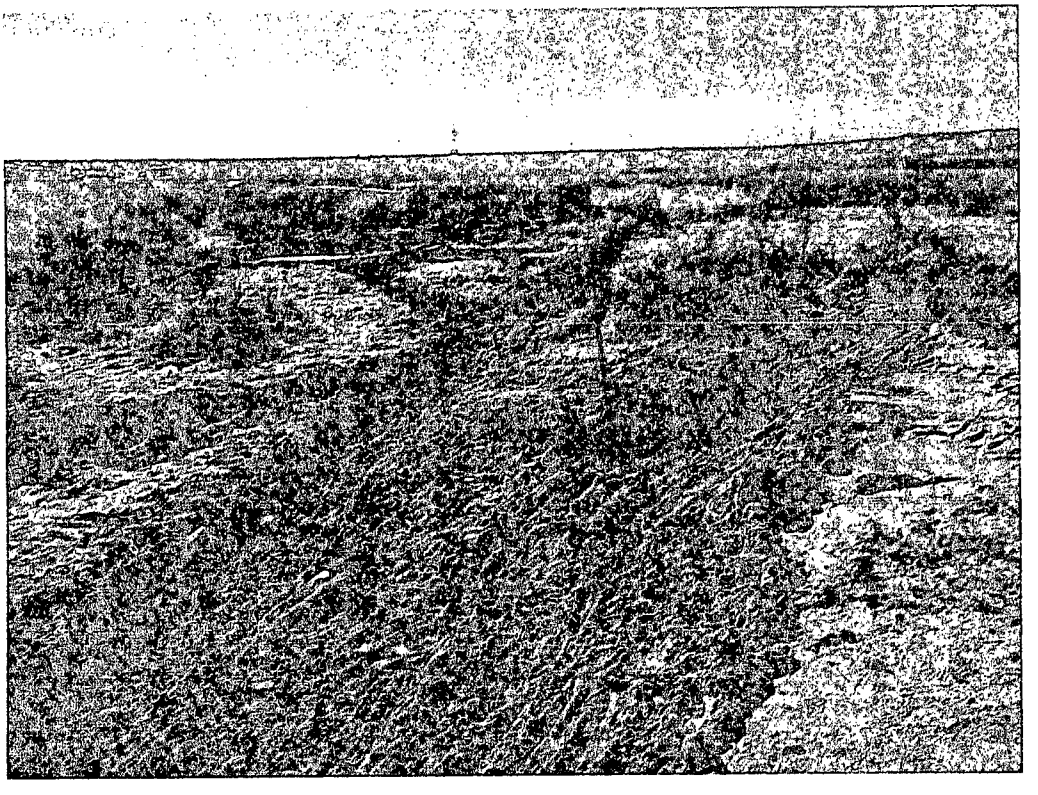
View North – Excavation of AH-5 and AH-7.

COG Operating LLC
AID State SWD
Eddy County, New Mexico

TETRA TECH



View Southwest – Excavation of AH-8 and AH-9

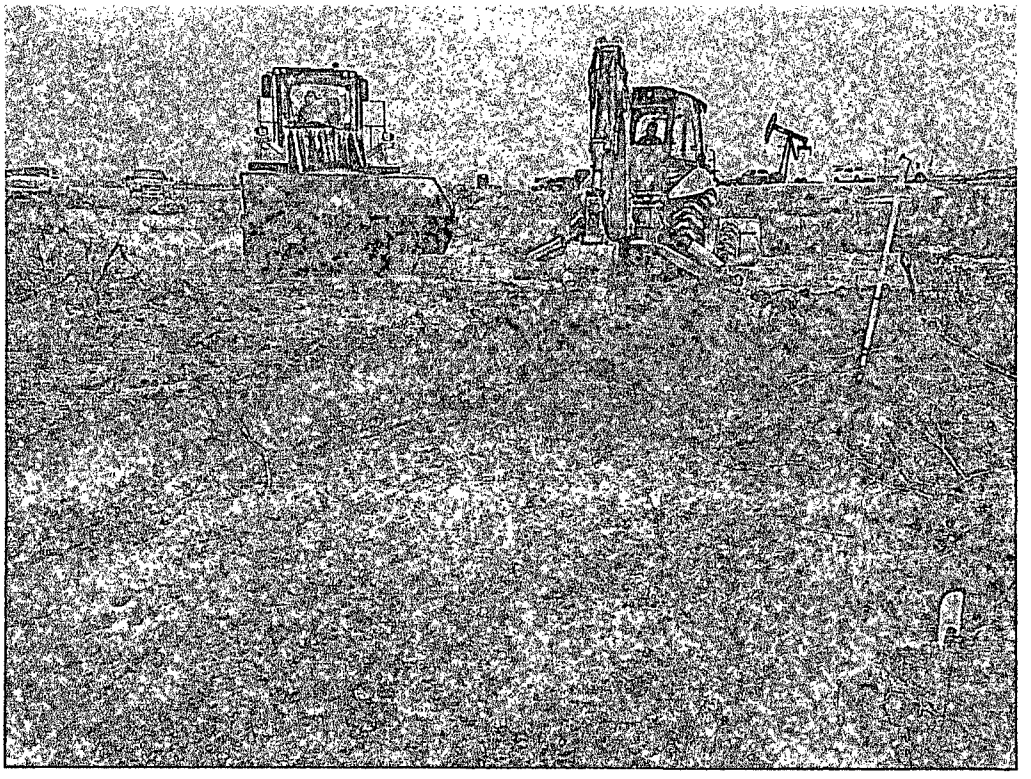


View Northeast – Excavation of AH-11, AH-12 and AH-13.

COG Operating LLC
AID State SWD
Eddy County, New Mexico

TETRA TECH

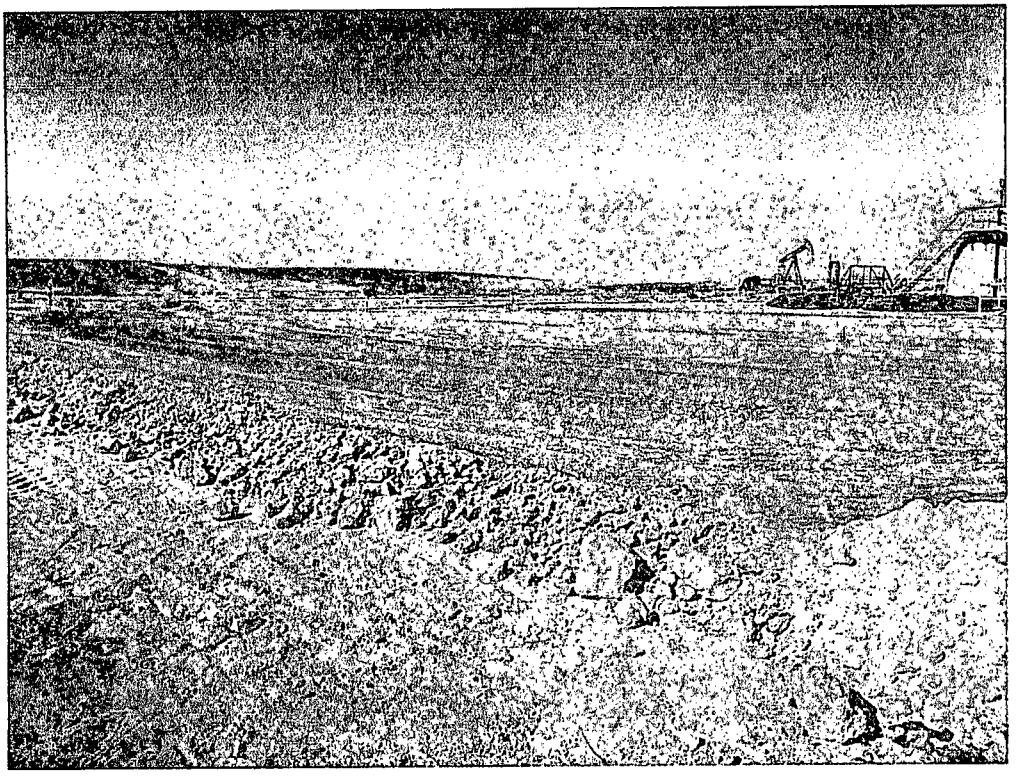
View Northeast – Excavation of AH-14, AH-16, AH-17 and AH-18.



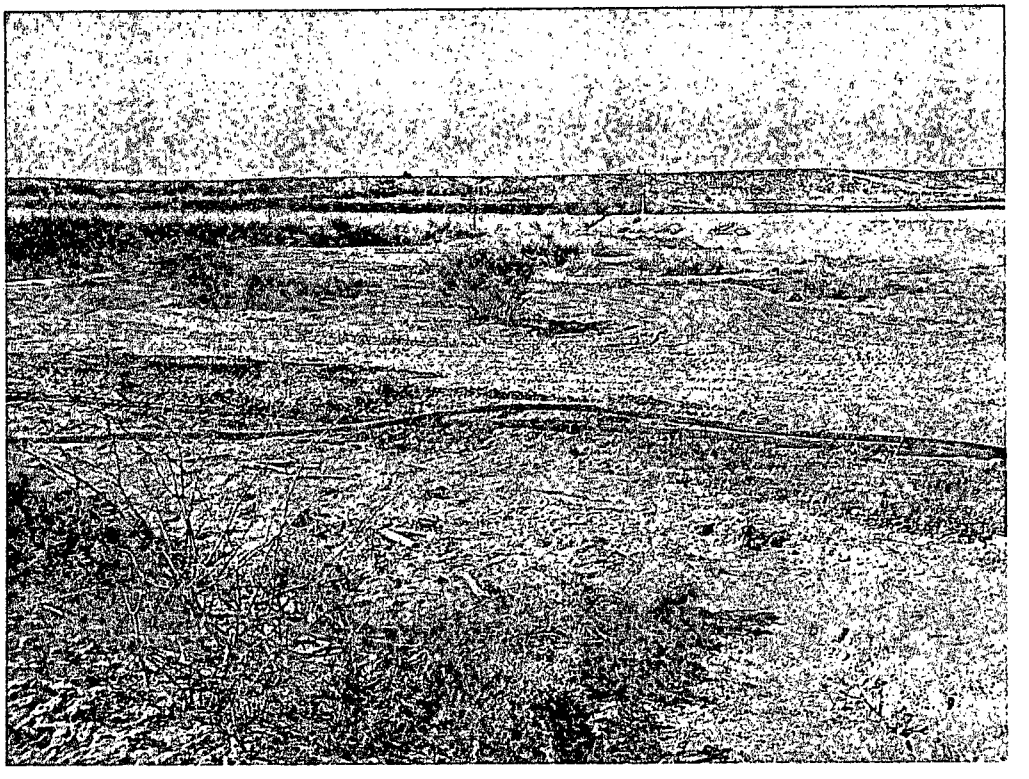
View Northeast– Excavation of AH-19 and AH-20.

COG Operating LLC
AID State SWD
Eddy County, New Mexico

TETRA TECH



View Northwest – Backfill



View Southwest – Backfill

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
MAR 13 2013
NMOCD ARTESIA

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	COG OPERATING LLC	Contact	Pat Ellis
Address	550 W. Texas, Suite 100, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	Aid State SWD	Facility Type	SWD

Surface Owner State	Mineral Owner	Lease No. (API#) 30-015-29569

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	14	17S	28E					Eddy

Latitude 32.83002 **Longitude** 104.14274

NATURE OF RELEASE

Type of Release Produced water w/ skim oil	Volume of Release 700bbls	Volume Recovered 650bbls
Source of Release Water tanks	Date and Hour of Occurrence 09/22/2012	Date and Hour of Discovery 09/22/2012 8:00 a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher-OCD	
By Whom? Michelle Mullins	Date and Hour 09/23/2012 7:33 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Water was released from the water tanks due to a plugged equalizer line and alarm failure. The alarms have been re-calibrated and the problem with the equalizer line has been resolved.

Describe Area Affected and Cleanup Action Taken.*

Initially 700bbls were released from the water tanks and we were able to recover 650bbls with a vacuum truck. The majority of the release was contained inside the lined facility of the Aid State SWD; however, some fluid did travel into the pasture area. All free fluid has been recovered. Contaminated gravel inside the facility has been removed and fresh gravel has been added. The facility has been returned to its prior condition. Tetra Tech will sample the spill site area in the pasture to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation work.

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

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Josh Russo	Approved by District Supervisor:	
Title: HSE Coordinator	Approval Date:	Expiration Date:
E-mail Address: jrusso@conchoresources.com	Conditions of Approval:	Attached ☐
Date: 09/28/2012 Phone: 432-212-2399		

* Attach Additional Sheets If Necessary

District I
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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	**COG Operating LLC**	Contact	**Pat Ellis**
Address	**550 W. Texas, Suite 1300 Midland, Texas 79701**	Telephone No.	**(432) 230-0077**
Facility Name	**Aid State SWD**	Facility Type	**SWD**

Surface Owner: State	Mineral Owner	Lease No. (API#) 30-015-29569

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	14	17S	28E					Eddy

Latitude 32.83002 **Longitude** 103.14274

NATURE OF RELEASE

Type of Release: Produced Water with Skim Oil	Volume of Release 700 bbls oil	Volume Recovered 650 bbls
Source of Release: Water Tanks	Date and Hour of Occurrence 9/22/2012	Date and Hour of Discovery 9/22/2012 8:00 a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☒ Not Required	If YES, To Whom? Mike Bratcher-OCD	
By Whom? Michelle Mullins	Date and Hour 9/23/2012 7:33 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Water was released from the water tanks due to a plugged equalizer line and alarm failure. The alarms have be re-calibrated and the problem with the equalizer line has been solved.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech personnel inspected the site and collected samples to define the spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. The site was then brought up to surface grade with clean backfill material. Tetra Tech prepared a closure report and submitted it to NMOCD for review.

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

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Ike Tavarez (agent fort COG)	Approved by District Supervisor:	
Title: Project Manager	Approval Date:	Expiration Date:
E-mail Address: Ike.Tavarez@TetraTech.com	Conditions of Approval:	Attached ☐
Date: 3-12-13 Phone: (432) 682-4559		

* Attach Additional Sheets If Necessary

APPENDIX B

Water Well Data
Average Depth to Groundwater (ft)
COG - Aid State SWD
Eddy County, New Mexico

16 South 27 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 **70**	26	25
31	32	33	34	35	36

16 South 28 East

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

16 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14 220 dry	13
19 **110**	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

17 South 27 East

6	5 **30**	4	3	2	1
7 **14**	8	9	10	11 **54 50**	12
18 **111**	17 **90**	16 **175**	15	14	13
19	20	21	22	23 **40**	24
30	29	28	27	26	25
31	32 **140**	33	34	35	36

17 South 28 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14 SITE	13
19	20	21	22 **79**	23	24
30	29	28	27	26	25
31	32	33	34	35 **258**	36

17 South 29 East

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

18 South 27 East

6	5	4	3	2	1
7	8	9	10 **50**	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28 **100**	27	26	25
31 **65**	32	33	34	35	36

18 South 28 East

6	5	4 **108**	3	2	1
7 **49**	8 **69**	9	10	11	12
18	17	16	15	14	13
19	20	21 **226**	22	23	24
49	29	28	27	26	25
31	32	33	34	35 **65**	36

18 South 29 East

6	5	4	3	2	1
7	8	9	10 **95**	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

- 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: October 12, 2012

Work Order: 12100522

Project Location: Eddy Co., NM
Project Name: COG/Aid State SWD
Project Number: 114-6401535

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
310999	AH-1 (0-6 in.)	soil	2012-10-02	00:00	2012-10-05
311000	AH-2 (0-1')	soil	2012-10-02	00:00	2012-10-05
311001	AH-2 (1-1.5')	soil	2012-10-02	00:00	2012-10-05
311002	AH-3 (0-1')	soil	2012-10-03	00:00	2012-10-05
311003	AH-3 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311004	AH-3 (2-2.5')	soil	2012-10-03	00:00	2012-10-05
311005	AH-4 (0-1')	soil	2012-10-03	00:00	2012-10-05
311006	AH-4 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311007	AH-4 (2-2.5')	soil	2012-10-03	00:00	2012-10-05
311008	AH-5 (0-1')	soil	2012-10-02	00:00	2012-10-05
311009	AH-5 (1-1.5')	soil	2012-10-02	00:00	2012-10-05
311010	AH-5 (2-2.5')	soil	2012-10-02	00:00	2012-10-05
311011	AH-6 (0-1')	soil	2012-10-02	00:00	2012-10-05
311012	AH-6 (1-1.5')	soil	2012-10-02	00:00	2012-10-05
311013	AH-6 (2-2.5')	soil	2012-10-02	00:00	2012-10-05
311014	AH-6 (3-3.5')	soil	2012-10-02	00:00	2012-10-05
311015	AH-6 (4-4.5')	soil	2012-10-02	00:00	2012-10-05
311016	AH-7 (0-1')	soil	2012-10-02	00:00	2012-10-05
311017	AH-7 (1-1.5')	soil	2012-10-02	00:00	2012-10-05
311018	AH-8 (0-1')	soil	2012-10-02	00:00	2012-10-05
311019	AH-9 (0-1')	soil	2012-10-02	00:00	2012-10-05
311020	AH-9 (1-1.5')	soil	2012-10-02	00:00	2012-10-05
311021	AH-10 (0-1')	soil	2012-10-02	00:00	2012-10-05
311022	AH-10 (1-1.5')	soil	2012-10-02	00:00	2012-10-05
311023	AH-10 (2-2.5')	soil	2012-10-02	00:00	2012-10-05
311024	AH-10 3-3.5')	soil	2012-10-02	00:00	2012-10-05
311025	AH-10 (4-4.5')	soil	2012-10-02	00:00	2012-10-05
311026	AH-11 (0-1')	soil	2012-10-02	00:00	2012-10-05
311027	AH-11 (1-1.5')	soil	2012-10-02	00:00	2012-10-05
311028	AH-11 (2-2.5')	soil	2012-10-02	00:00	2012-10-05

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
311029	AH-11 (3-3.5')	soil	2012-10-02	00:00	2012-10-05
311030	AH-12 (0-1')	soil	2012-10-02	00:00	2012-10-05
311031	AH-12 (1-1.5')	soil	2012-10-02	00:00	2012-10-05
311032	AH-12 (2-2.5')	soil	2012-10-02	00:00	2012-10-05
311033	AH-13 (0-1')	soil	2012-10-03	00:00	2012-10-05
311034	AH-14 (0-1')	soil	2012-10-03	00:00	2012-10-05
311035	AH-14 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311036	AH-14 (2-2.5')	soil	2012-10-03	00:00	2012-10-05
311037	AH-14 (3-3.5')	soil	2012-10-03	00:00	2012-10-05
311038	AH-14 (4-4.5')	soil	2012-10-03	00:00	2012-10-05
311039	AH-15 (0-1')	soil	2012-10-03	00:00	2012-10-05
311040	AH-15 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311041	AH-15 (2-2.5')	soil	2012-10-03	00:00	2012-10-05
311042	AH-16 (0-1')	soil	2012-10-03	00:00	2012-10-05
311043	AH-16 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311044	AH-16 (2-2.5')	soil	2012-10-03	00:00	2012-10-05
311045	AH-17 (0-1')	soil	2012-10-03	00:00	2012-10-05
311046	AH-17 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311047	AH-17 (2-2.5')	soil	2012-10-03	00:00	2012-10-05
311048	AH-18 (0-1')	soil	2012-10-03	00:00	2012-10-05
311049	AH-18 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311050	AH-18 (2-2.5')	soil	2012-10-03	00:00	2012-10-05
311051	AH-19 (0-1')	soil	2012-10-03	00:00	2012-10-05
311052	AH-19 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311053	AH-19 (2-2.5')	soil	2012-10-03	00:00	2012-10-05
311054	AH-20 (0-1')	soil	2012-10-03	00:00	2012-10-05
311055	AH-20 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311056	AH-20 (2-2.5')	soil	2012-10-03	00:00	2012-10-05

Sample - Field Code	BTEX Benzene (mg/Kg)	BTEX Toluene (mg/Kg)	BTEX Ethylbenzene (mg/Kg)	BTEX Xylene (mg/Kg)	TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
310999 - AH-1 (0-6 in.)	<0.100 [1]	<0.100	**0.972**	**2.24**	**142**	**173**
311000 - AH-2 (0-1')	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<1.00
311002 - AH-3 (0-1')	<0.100 [2]	<0.100	<0.100	<0.100	<50.0	**20.2**
311005 - AH-4 (0-1')	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**3.25**
311008 - AH-5 (0-1')	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**4.16**
311011 - AH-6 (0-1')	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<1.00
311016 - AH-7 (0-1')	<0.100 [3]	**0.516**	**1.22**	**2.54**	**95.7**	**263**
311018 - AH-8 (0-1')	<0.100 [4]	**0.412**	**2.35**	**6.07**	**159**	**165**
311019 - AH-9 (0-1')	<0.0200	<0.0200	<0.0200	**0.0690**	<50.0	**27.9**
311021 - AH-10 (0-1')	<0.100 [5]	<0.100	**1.70**	**5.02**	**95.6**	**174**
311026 - AH-11 (0-1')	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**1.36**
311030 - AH-12 (0-1')	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**2.15**

continued ...

[1]dilution due to Hydrocarbons.
[2]dilution due to Hydrocarbons.
[3]dilution due to Hydrocarbons.
[4]dilution due to Hydrocarbons.
[5]dilution due to Hydrocarbons.

... continued

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)
311033 - AH-13 (0-1')	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**7.25**
311034 - AH-14 (0-1')	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**8.50**
311039 - AH-15 (0-1')	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<1.00
311042 - AH-16 (0-1')	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**3.52**
311045 - AH-17 (0-1')	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**5.04**
311048 - AH-18 (0-1')	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**9.81**
311051 - AH-19 (0-1')	<0.0200	<0.0200	<0.0200	**0.0427**	**57.1**	**62.4**
311054 - AH-20 (0-1')	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	**27.9**

Sample: 310999 - AH-1 (0-6 in.)

Param	Flag	Result	Units	RL
Chloride		**5100**	mg/Kg	4

Sample: 311000 - AH-2 (0-1')

Param	Flag	Result	Units	RL
Chloride		**2560**	mg/Kg	4

Sample: 311001 - AH-2 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**1100**	mg/Kg	4

Sample: 311002 - AH-3 (0-1')

Param	Flag	Result	Units	RL
Chloride		**495**	mg/Kg	4

Sample: 311003 - AH-3 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**605**	mg/Kg	4

Sample: 311004 - AH-3 (2-2.5')

continued ...

sample 311004 continued ...

Param	Flag	Result	Units	RL

Param	Flag	Result	Units	RL
Chloride		**24.0**	mg/Kg	4

Sample: 311005 - AH-4 (0-1')

Param	Flag	Result	Units	RL
Chloride		**2400**	mg/Kg	4

Sample: 311006 - AH-4 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**413**	mg/Kg	4

Sample: 311007 - AH-4 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		**81.7**	mg/Kg	4

Sample: 311008 - AH-5 (0-1')

Param	Flag	Result	Units	RL
Chloride		**5870**	mg/Kg	4

Sample: 311009 - AH-5 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**10600**	mg/Kg	4

Sample: 311010 - AH-5 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		**571**	mg/Kg	4

Sample: 311011 - AH-6 (0-1')

Param	Flag	Result	Units	RL
Chloride		**833**	mg/Kg	4

Sample: 311012 - AH-6 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**378**	mg/Kg	4

Sample: 311013 - AH-6 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		**692**	mg/Kg	4

Sample: 311014 - AH-6 (3-3.5')

Param	Flag	Result	Units	RL
Chloride		**857**	mg/Kg	4

Sample: 311015 - AH-6 (4-4.5')

Param	Flag	Result	Units	RL
Chloride		**561**	mg/Kg	4

Sample: 311016 - AH-7 (0-1')

Param	Flag	Result	Units	RL
Chloride		**6720**	mg/Kg	4

Sample: 311017 - AH-7 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**2410**	mg/Kg	4

Sample: 311018 - AH-8 (0-1')

Param	Flag	Result	Units	RL
Chloride		**2220**	mg/Kg	4

Sample: 311019 - AH-9 (0-1')

Param	Flag	Result	Units	RL
Chloride		**1040**	mg/Kg	4

Sample: 311020 - AH-9 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**293**	mg/Kg	4

Sample: 311021 - AH-10 (0-1')

Param	Flag	Result	Units	RL
Chloride		**1440**	mg/Kg	4

Sample: 311022 - AH-10 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**376**	mg/Kg	4

Sample: 311023 - AH-10 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		**29.3**	mg/Kg	4

Sample: 311024 - AH-10 3-3.5')

Param	Flag	Result	Units	RL
Chloride		**185**	mg/Kg	4

Sample: 311025 - AH-10 (4-4.5')

Param	Flag	Result	Units	RL
Chloride		**161**	mg/Kg	4

Sample: 311026 - AH-11 (0-1')

Param	Flag	Result	Units	RL
Chloride		**3400**	mg/Kg	4

Sample: 311027 - AH-11 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**1350**	mg/Kg	4

Sample: 311028 - AH-11 (2-2.5')

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

Sample: 311029 - AH-11 (3-3.5')

Param	Flag	Result	Units	RL
Chloride		**190**	mg/Kg	4

Sample: 311030 - AH-12 (0-1')

Param	Flag	Result	Units	RL
Chloride		**472**	mg/Kg	4

Sample: 311031 - AH-12 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**2970**	mg/Kg	4

Sample: 311032 - AH-12 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		**73.1**	mg/Kg	4

Sample: 311033 - AH-13 (0-1')

Param	Flag	Result	Units	RL
Chloride		**1800**	mg/Kg	4

Sample: 311034 - AH-14 (0-1')

Param	Flag	Result	Units	RL
Chloride		**5730**	mg/Kg	4

Sample: 311035 - AH-14 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**857**	mg/Kg	4

Sample: 311036 - AH-14 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		**166**	mg/Kg	4

Sample: 311037 - AH-14 (3-3.5')

Param	Flag	Result	Units	RL
Chloride		**156**	mg/Kg	4

Sample: 311038 - AH-14 (4-4.5')

Param	Flag	Result	Units	RL
Chloride		**151**	mg/Kg	4

Sample: 311039 - AH-15 (0-1')

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

Sample: 311040 - AH-15 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**63.5**	mg/Kg	4

Sample: 311041 - AH-15 (2-2.5')

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

Sample: 311042 - AH-16 (0-1')

Param	Flag	Result	Units	RL
Chloride		**6870**	mg/Kg	4

Sample: 311043 - AH-16 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**420**	mg/Kg	4

Sample: 311044 - AH-16 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		**278**	mg/Kg	4

Sample: 311045 - AH-17 (0-1')

Param	Flag	Result	Units	RL
Chloride		**6760**	mg/Kg	4

Sample: 311046 - AH-17 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**708**	mg/Kg	4

Sample: 311047 - AH-17 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		**381**	mg/Kg	4

Sample: 311048 - AH-18 (0-1')

Param	Flag	Result	Units	RL
Chloride		**5100**	mg/Kg	4

Sample: 311049 - AH-18 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**667**	mg/Kg	4

Sample: 311050 - AH-18 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		**297**	mg/Kg	4

Sample: 311051 - AH-19 (0-1')

Param	Flag	Result	Units	RL
Chloride		**443**	mg/Kg	4

Sample: 311052 - AH-19 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**2080**	mg/Kg	4

Sample: 311053 - AH-19 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		**5950**	mg/Kg	4

Sample: 311054 - AH-20 (0-1')

Param	Flag	Result	Units	RL
Chloride		**102**	mg/Kg	4

Sample: 311055 - AH-20 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		**604**	mg/Kg	4

Sample: 311056 - AH-20 (2-2.5')

Param	Flag	Result	Units	RL
Chloride		**3320**	mg/Kg	4

TRACEANALYSIS, INC.

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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: October 12, 2012

Work Order: 12100522

Project Location: Eddy Co., NM
Project Name: COG/Aid State SWD
Project Number: 114-6401535

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
310999	AH-1 (0-6 in.)	soil	2012-10-02	00:00	2012-10-05
311000	AH-2 (0-1')	soil	2012-10-02	00:00	2012-10-05
311001	AH-2 (1-1.5')	soil	2012-10-02	00:00	2012-10-05
311002	AH-3 (0-1')	soil	2012-10-03	00:00	2012-10-05
311003	AH-3 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311004	AH-3 (2-2.5')	soil	2012-10-03	00:00	2012-10-05
311005	AH-4 (0-1')	soil	2012-10-03	00:00	2012-10-05
311006	AH-4 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311007	AH-4 (2-2.5')	soil	2012-10-03	00:00	2012-10-05
311008	AH-5 (0-1')	soil	2012-10-02	00:00	2012-10-05
311009	AH-5 (1-1.5')	soil	2012-10-02	00:00	2012-10-05
311010	AH-5 (2-2.5')	soil	2012-10-02	00:00	2012-10-05
311011	AH-6 (0-1')	soil	2012-10-02	00:00	2012-10-05
311012	AH-6 (1-1.5')	soil	2012-10-02	00:00	2012-10-05
311013	AH-6 (2-2.5')	soil	2012-10-02	00:00	2012-10-05
311014	AH-6 (3-3.5')	soil	2012-10-02	00:00	2012-10-05
311015	AH-6 (4-4.5')	soil	2012-10-02	00:00	2012-10-05
311016	AH-7 (0-1')	soil	2012-10-02	00:00	2012-10-05

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
311017	AH-7 (1-1.5')	soil	2012-10-02	00:00	2012-10-05
311018	AH-8 (0-1')	soil	2012-10-02	00:00	2012-10-05
311019	AH-9 (0-1')	soil	2012-10-02	00:00	2012-10-05
311020	AH-9 (1-1.5')	soil	2012-10-02	00:00	2012-10-05
311021	AH-10 (0-1')	soil	2012-10-02	00:00	2012-10-05
311022	AH-10 (1-1.5')	soil	2012-10-02	00:00	2012-10-05
311023	AH-10 (2-2.5')	soil	2012-10-02	00:00	2012-10-05
311024	AH-10 3-3.5')	soil	2012-10-02	00:00	2012-10-05
311025	AH-10 (4-4.5')	soil	2012-10-02	00:00	2012-10-05
311026	AH-11 (0-1')	soil	2012-10-02	00:00	2012-10-05
311027	AH-11 (1-1.5')	soil	2012-10-02	00:00	2012-10-05
311028	AH-11 (2-2.5')	soil	2012-10-02	00:00	2012-10-05
311029	AH-11 (3-3.5')	soil	2012-10-02	00:00	2012-10-05
311030	AH-12 (0-1')	soil	2012-10-02	00:00	2012-10-05
311031	AH-12 (1-1.5')	soil	2012-10-02	00:00	2012-10-05
311032	AH-12 (2-2.5')	soil	2012-10-02	00:00	2012-10-05
311033	AH-13 (0-1')	soil	2012-10-03	00:00	2012-10-05
311034	AH-14 (0-1')	soil	2012-10-03	00:00	2012-10-05
311035	AH-14 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311036	AH-14 (2-2.5')	soil	2012-10-03	00:00	2012-10-05
311037	AH-14 (3-3.5')	soil	2012-10-03	00:00	2012-10-05
311038	AH-14 (4-4.5')	soil	2012-10-03	00:00	2012-10-05
311039	AH-15 (0-1')	soil	2012-10-03	00:00	2012-10-05
311040	AH-15 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311041	AH-15 (2-2.5')	soil	2012-10-03	00:00	2012-10-05
311042	AH-16 (0-1')	soil	2012-10-03	00:00	2012-10-05
311043	AH-16 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311044	AH-16 (2-2.5')	soil	2012-10-03	00:00	2012-10-05
311045	AH-17 (0-1')	soil	2012-10-03	00:00	2012-10-05
311046	AH-17 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311047	AH-17 (2-2.5')	soil	2012-10-03	00:00	2012-10-05
311048	AH-18 (0-1')	soil	2012-10-03	00:00	2012-10-05
311049	AH-18 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311050	AH-18 (2-2.5')	soil	2012-10-03	00:00	2012-10-05
311051	AH-19 (0-1')	soil	2012-10-03	00:00	2012-10-05
311052	AH-19 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311053	AH-19 (2-2.5')	soil	2012-10-03	00:00	2012-10-05
311054	AH-20 (0-1')	soil	2012-10-03	00:00	2012-10-05
311055	AH-20 (1-1.5')	soil	2012-10-03	00:00	2012-10-05
311056	AH-20 (2-2.5')	soil	2012-10-03	00:00	2012-10-05

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

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

Report Contents

Case Narrative

Samples for project COG/Aid State SWD were received by TraceAnalysis, Inc. on 2012-10-05 and assigned to work order 12100522. Samples for work order 12100522 were received intact at a temperature of 3.8 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	80935	2012-10-06 at 09:45	95513	2012-10-06 at 09:45
BTEX	S 8021B	80969	2012-10-06 at 09:45	95546	2012-10-06 at 09:45
Chloride (Titration)	SM 4500-Cl B	80964	2012-10-08 at 18:14	95573	2012-10-09 at 22:26
Chloride (Titration)	SM 4500-Cl B	80964	2012-10-08 at 18:14	95668	2012-10-10 at 20:15
Chloride (Titration)	SM 4500-Cl B	80964	2012-10-08 at 18:14	95669	2012-10-11 at 20:16
Chloride (Titration)	SM 4500-Cl B	80964	2012-10-08 at 18:14	95670	2012-10-11 at 22:16
Chloride (Titration)	SM 4500-Cl B	80964	2012-10-08 at 18:14	95671	2012-10-11 at 22:17
Chloride (Titration)	SM 4500-Cl B	81023	2012-10-10 at 21:11	95672	2012-10-11 at 22:19
TPH DRO - NEW	S 8015 D	80934	2012-10-05 at 08:00	95512	2012-10-08 at 08:21
TPH DRO - NEW	S 8015 D	80986	2012-10-09 at 08:00	95568	2012-10-09 at 17:45
TPH GRO	S 8015 D	80935	2012-10-06 at 09:45	95521	2012-10-06 at 09:45
TPH GRO	S 8015 D	80969	2012-10-06 at 09:45	95547	2012-10-06 at 09:45

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 12100522 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: 310999 - AH-1 (0-6 in.)

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95513	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.100	mg/Kg	5	0.0200
Toluene	U	1	<0.100	mg/Kg	5	0.0200
Ethylbenzene		1	**0.972**	mg/Kg	5	0.0200
Xylene		1	**2.24**	mg/Kg	5	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.40	mg/Kg	5	10.0	84	70 - 130
4-Bromofluorobenzene (4-BFB)			9.34	mg/Kg	5	10.0	93	70 - 130

Sample: 310999 - AH-1 (0-6 in.)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95573	Date Analyzed:	2012-10-09	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**5100**	mg/Kg	10	4.00

Sample: 310999 - AH-1 (0-6 in.)

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95568	Date Analyzed:	2012-10-09	Analyzed By:	CW
Prep Batch:	80986	Sample Preparation:	2012-10-09	Prepared By:	CW

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO		1	**142**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			120	mg/Kg	1	100	120	70 - 130

Sample: 310999 - AH-1 (0-6 in.)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95521	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B	1	**173**	mg/Kg	5	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.15	mg/Kg	5	10.0	92	70 - 130
4-Bromofluorobenzene (4-BFB)			11.0	mg/Kg	5	10.0	110	70 - 130

Sample: 311000 - AH-2 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95513	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.72	mg/Kg	1	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			1.68	mg/Kg	1	2.00	84	70 - 130

Sample: 311000 - AH-2 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95573	Date Analyzed:	2012-10-09	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2560**	mg/Kg	10	4.00

Sample: 311000 - AH-2 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			123	mg/Kg	1	100	123	70 - 130

Sample: 311000 - AH-2 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95521	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.16	mg/Kg	1	2.00	108	70 - 130
4-Bromofluorobenzene (4-BFB)			1.74	mg/Kg	1	2.00	87	70 - 130

Sample: 311001 - AH-2 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95573	Date Analyzed:	2012-10-09	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**1100**	mg/Kg	5	4.00

Sample: 311002 - AH-3 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95513	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene [2]	U	1	<0.100	mg/Kg	5	0.0200
Toluene	U	1	<0.100	mg/Kg	5	0.0200
Ethylbenzene	U	1	<0.100	mg/Kg	5	0.0200
Xylene	U	1	<0.100	mg/Kg	5	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.39	mg/Kg	5	10.0	84	70 - 130
4-Bromofluorobenzene (4-BFB)			8.32	mg/Kg	5	10.0	83	70 - 130

Sample: 311002 - AH-3 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95573	Date Analyzed:	2012-10-09	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**495**	mg/Kg	5	4.00

Sample: 311002 - AH-3 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			99.5	mg/Kg	1	100	100	70 - 130

Sample: 311002 - AH-3 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95521	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B	1	**20.2**	mg/Kg	5	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.98	mg/Kg	5	10.0	90	70 - 130
4-Bromofluorobenzene (4-BFB)			8.88	mg/Kg	5	10.0	89	70 - 130

Sample: 311003 - AH-3 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95573	Date Analyzed:	2012-10-09	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**605**	mg/Kg	5	4.00

Sample: 311004 - AH-3 (2-2.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95573	Date Analyzed:	2012-10-09	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**24.0**	mg/Kg	5	4.00

Sample: 311005 - AH-4 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95513	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.72	mg/Kg	1	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			1.64	mg/Kg	1	2.00	82	70 - 130

Sample: 311005 - AH-4 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95573	Date Analyzed:	2012-10-09	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2400**	mg/Kg	10	4.00

Sample: 311005 - AH-4 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			98.2	mg/Kg	1	100	98	70 - 130

Sample: 311005 - AH-4 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95521	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
GRO	B	1		**3.25**	mg/Kg	1	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.18	mg/Kg	1	2.00	109	70 - 130
4-Bromofluorobenzene (4-BFB)			1.71	mg/Kg	1	2.00	86	70 - 130

Sample: 311006 - AH-4 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95573	Date Analyzed:	2012-10-09	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
Chloride				**413**	mg/Kg	5	4.00

Sample: 311007 - AH-4 (2-2.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95573	Date Analyzed:	2012-10-09	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**81.7**	mg/Kg	5	4.00

Sample: 311008 - AH-5 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95513	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.72	mg/Kg	1	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			1.70	mg/Kg	1	2.00	85	70 - 130

Sample: 311008 - AH-5 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95668	Date Analyzed:	2012-10-10	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**5870**	mg/Kg	10	4.00

Sample: 311008 - AH-5 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			99.5	mg/Kg	1	100	100	70 - 130

Sample: 311008 - AH-5 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95521	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
GRO	B	1	**4.16**		mg/Kg	1	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.04	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			1.90	mg/Kg	1	2.00	95	70 - 130

Sample: 311009 - AH-5 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95668	Date Analyzed:	2012-10-10	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
Chloride			**10600**		mg/Kg	10	4.00

Sample: 311010 - AH-5 (2-2.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95668	Date Analyzed:	2012-10-10	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**571**	mg/Kg	5	4.00

Sample: 311011 - AH-6 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95513	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.71	mg/Kg	1	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			1.65	mg/Kg	1	2.00	82	70 - 130

Sample: 311011 - AH-6 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95668	Date Analyzed:	2012-10-10	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**833**	mg/Kg	5	4.00

Sample: 311011 - AH-6 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			93.5	mg/Kg	1	100	94	70 - 130

Sample: 311011 - AH-6 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95521	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.21	mg/Kg	1	2.00	110	70 - 130
4-Bromofluorobenzene (4-BFB)			1.72	mg/Kg	1	2.00	86	70 - 130

Sample: 311012 - AH-6 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95668	Date Analyzed:	2012-10-10	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
Chloride			**378**		mg/Kg	5	4.00

Sample: 311013 - AH-6 (2-2.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95668	Date Analyzed:	2012-10-10	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**692**		mg/Kg	5	4.00

Sample: 311014 - AH-6 (3-3.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95668	Date Analyzed:	2012-10-10	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**857**		mg/Kg	5	4.00

Sample: 311015 - AH-6 (4-4.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95668	Date Analyzed:	2012-10-10	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**561**		mg/Kg	5	4.00

Sample: 311016 - AH-7 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95513	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Benzene [3]	U	1	<0.100		mg/Kg	5	0.0200
Toluene		1	**0.516**		mg/Kg	5	0.0200
Ethylbenzene		1	**1.22**		mg/Kg	5	0.0200
Xylene		1	**2.54**		mg/Kg	5	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.22	mg/Kg	5	10.0	82	70 - 130
4-Bromofluorobenzene (4-BFB)			9.37	mg/Kg	5	10.0	94	70 - 130

Sample: 311016 - AH-7 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95668	Date Analyzed:	2012-10-10	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**6720**		mg/Kg	10	4.00

Sample: 311016 - AH-7 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
DRO	B	1	**95.7**		mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			90.5	mg/Kg	1	100	90	70 - 130

Sample: 311016 - AH-7 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95521	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	**263**	mg/Kg	5	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.84	mg/Kg	5	10.0	88	70 - 130
4-Bromofluorobenzene (4-BFB)			11.0	mg/Kg	5	10.0	110	70 - 130

Sample: 311017 - AH-7 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95668	Date Analyzed:	2012-10-10	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2410**	mg/Kg	10	4.00

Sample: 311018 - AH-8 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95513	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene [4]	U	1	<0.100	mg/Kg	5	0.0200
Toluene		1	**0.412**	mg/Kg	5	0.0200
Ethylbenzene		1	**2.35**	mg/Kg	5	0.0200
Xylene		1	**6.07**	mg/Kg	5	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.42	mg/Kg	5	10.0	84	70 - 130
4-Bromofluorobenzene (4-BFB)			9.34	mg/Kg	5	10.0	93	70 - 130

Sample: 311018 - AH-8 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95669	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**2220**	mg/Kg	10	4.00

Sample: 311018 - AH-8 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	B	1	**159**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			117	mg/Kg	1	100	117	70 - 130

Sample: 311018 - AH-8 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95521	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	B	1	**165**	mg/Kg	5	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.99	mg/Kg	5	10.0	90	70 - 130
4-Bromofluorobenzene (4-BFB)			11.4	mg/Kg	5	10.0	114	70 - 130

Sample: 311019 - AH-9 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95513	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene		1	<0.0200	mg/Kg	1	0.0200
Xylene		1	**0.0690**	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.69	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			1.76	mg/Kg	1	2.00	88	70 - 130

Sample: 311019 - AH-9 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95669	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1040**	mg/Kg	10	4.00

Sample: 311019 - AH-9 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			106	mg/Kg	1	100	106	70 - 130

Sample: 311019 - AH-9 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95521	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B	1	**27.9**	mg/Kg	1	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.14	mg/Kg	1	2.00	107	70 - 130
4-Bromofluorobenzene (4-BFB)			2.11	mg/Kg	1	2.00	106	70 - 130

Sample: 311020 - AH-9 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95669	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**293**	mg/Kg	5	4.00

Sample: 311021 - AH-10 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95513	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene [5]	U	1	<0.100	mg/Kg	5	0.0200
Toluene	U	1	<0.100	mg/Kg	5	0.0200
Ethylbenzene		1	**1.70**	mg/Kg	5	0.0200
Xylene		1	**5.02**	mg/Kg	5	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.38	mg/Kg	5	10.0	84	70 - 130
4-Bromofluorobenzene (4-BFB)			9.50	mg/Kg	5	10.0	95	70 - 130

Sample: 311021 - AH-10 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95669	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1440**	mg/Kg	5	4.00

Sample: 311021 - AH-10 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	B	1	**95.6**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			88.8	mg/Kg	1	100	89	70 - 130

Sample: 311021 - AH-10 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95521	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B	1	**174**	mg/Kg	5	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.97	mg/Kg	5	10.0	90	70 - 130
4-Bromofluorobenzene (4-BFB)			11.5	mg/Kg	5	10.0	115	70 - 130

Sample: 311022 - AH-10 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95669	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**376**	mg/Kg	5	4.00

Sample: 311023 - AH-10 (2-2.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95669	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**29.3**	mg/Kg	5	4.00

Sample: 311024 - AH-10 3-3.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95669	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**185**	mg/Kg	5	4.00

Sample: 311025 - AH-10 (4-4.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95669	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**161**	mg/Kg	5	4.00

Sample: 311026 - AH-11 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95513	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.70	mg/Kg	1	2.00	85	70 - 130
4-Bromofluorobenzene (4-BFB)			1.68	mg/Kg	1	2.00	84	70 - 130

Sample: 311026 - AH-11 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95669	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3400**	mg/Kg	10	4.00

Sample: 311026 - AH-11 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			120	mg/Kg	1	100	120	70 - 130

Sample: 311026 - AH-11 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95521	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B	1	**1.36**	mg/Kg	1	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.18	mg/Kg	1	2.00	109	70 - 130
4-Bromofluorobenzene (4-BFB)			1.78	mg/Kg	1	2.00	89	70 - 130

Sample: 311027 - AH-11 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95669	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1350**	mg/Kg	10	4.00

Sample: 311028 - AH-11 (2-2.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95670	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

Sample: 311029 - AH-11 (3-3.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95670	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**190**	mg/Kg	5	4.00

Sample: 311030 - AH-12 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95513	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.70	mg/Kg	1	2.00	85	70 - 130
4-Bromofluorobenzene (4-BFB)			1.68	mg/Kg	1	2.00	84	70 - 130

Sample: 311030 - AH-12 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95670	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**472**	mg/Kg	5	4.00

Sample: 311030 - AH-12 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

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

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

Sample: 311030 - AH-12 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95521	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	B	1	**2.15**	mg/Kg	1	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.11	mg/Kg	1	2.00	106	70 - 130
4-Bromofluorobenzene (4-BFB)			1.77	mg/Kg	1	2.00	88	70 - 130

Sample: 311031 - AH-12 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95670	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**2970**		mg/Kg	10	4.00

Sample: 311032 - AH-12 (2-2.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95670	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**73.1**		mg/Kg	5	4.00

Sample: 311033 - AH-13 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95513	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.69	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			1.66	mg/Kg	1	2.00	83	70 - 130

Sample: 311033 - AH-13 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95670	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1800**	mg/Kg	10	4.00

Sample: 311033 - AH-13 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			112	mg/Kg	1	100	112	70 - 130

Sample: 311033 - AH-13 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95521	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80935	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B	1	**7.25**	mg/Kg	1	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.17	mg/Kg	1	2.00	108	70 - 130
4-Bromofluorobenzene (4-BFB)			1.76	mg/Kg	1	2.00	88	70 - 130

Sample: 311034 - AH-14 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95546	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80969	Sample Preparation:	2012-10-06	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.69	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			1.74	mg/Kg	1	2.00	87	70 - 130

Sample: 311034 - AH-14 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95670	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**5730**	mg/Kg	10	4.00

Sample: 311034 - AH-14 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95568	Date Analyzed:	2012-10-09	Analyzed By:	CW
Prep Batch:	80986	Sample Preparation:	2012-10-09	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			102	mg/Kg	1	100	102	70 - 130

Sample: 311034 - AH-14 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95547	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80969	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B	1	**8.50**	mg/Kg	1	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.04	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			1.87	mg/Kg	1	2.00	94	70 - 130

Sample: 311035 - AH-14 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95670	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**857**	mg/Kg	5	4.00

Sample: 311036 - AH-14 (2-2.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95670	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**166**	mg/Kg	5	4.00

Sample: 311037 - AH-14 (3-3.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95670	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**156**	mg/Kg	5	4.00

Sample: 311038 - AH-14 (4-4.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95671	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**151**	mg/Kg	5	4.00

Sample: 311039 - AH-15 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95546	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80969	Sample Preparation:	2012-10-06	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.69	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			1.68	mg/Kg	1	2.00	84	70 - 130

Sample: 311039 - AH-15 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95671	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

Sample: 311039 - AH-15 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

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

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

Sample: 311039 - AH-15 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95547	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80969	Sample Preparation:	2012-10-06	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.11	mg/Kg	1	2.00	106	70 - 130
4-Bromofluorobenzene (4-BFB)			1.76	mg/Kg	1	2.00	88	70 - 130

Sample: 311040 - AH-15 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95671	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**63.5**	mg/Kg	5	4.00

Sample: 311041 - AH-15 (2-2.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95671	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

Sample: 311042 - AH-16 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95546	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80969	Sample Preparation:	2012-10-06	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.69	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			1.66	mg/Kg	1	2.00	83	70 - 130

Sample: 311042 - AH-16 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95671	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**6870**	mg/Kg	10	4.00

Sample: 311042 - AH-16 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			109	mg/Kg	1	100	109	70 - 130

Sample: 311042 - AH-16 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95547	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80969	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	B	1	**3.52**	mg/Kg	1	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.83	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.78	mg/Kg	1	2.00	89	70 - 130

Sample: 311043 - AH-16 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95671	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**420**	mg/Kg	5	4.00

Sample: 311044 - AH-16 (2-2.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95671	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**278**	mg/Kg	5	4.00

Sample: 311045 - AH-17 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95546	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80969	Sample Preparation:	2012-10-06	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.70	mg/Kg	1	2.00	85	70 - 130
4-Bromofluorobenzene (4-BFB)			1.66	mg/Kg	1	2.00	83	70 - 130

Sample: 311045 - AH-17 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95671	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**6760**	mg/Kg	10	4.00

Sample: 311045 - AH-17 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			106	mg/Kg	1	100	106	70 - 130

Sample: 311045 - AH-17 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95547	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80969	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B	1	**5.04**	mg/Kg	1	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.13	mg/Kg	1	2.00	106	70 - 130
4-Bromofluorobenzene (4-BFB)			1.76	mg/Kg	1	2.00	88	70 - 130

Sample: 311046 - AH-17 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95671	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**708**	mg/Kg	5	4.00

Sample: 311047 - AH-17 (2-2.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95671	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	Sample Preparation:	2012-10-08	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**381**	mg/Kg	5	4.00

Sample: 311048 - AH-18 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95546	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80969	Sample Preparation:	2012-10-06	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.68	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			1.66	mg/Kg	1	2.00	83	70 - 130

Sample: 311048 - AH-18 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95672	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	81023	Sample Preparation:	2012-10-10	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**5100**	mg/Kg	10	4.00

Sample: 311048 - AH-18 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

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

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

Sample: 311048 - AH-18 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95547	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80969	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	B	1	**9.81**	mg/Kg	1	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.13	mg/Kg	1	2.00	106	70 - 130
4-Bromofluorobenzene (4-BFB)			1.77	mg/Kg	1	2.00	88	70 - 130

Sample: 311049 - AH-18 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95672	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	81023	Sample Preparation:	2012-10-10	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**667**	mg/Kg	5	4.00

Sample: 311050 - AH-18 (2-2.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95672	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	81023	Sample Preparation:	2012-10-10	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**297**	mg/Kg	5	4.00

Sample: 311051 - AH-19 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95546	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80969	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene		1	**0.0427**	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.67	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			1.88	mg/Kg	1	2.00	94	70 - 130

Sample: 311051 - AH-19 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95672	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	81023	Sample Preparation:	2012-10-10	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**443**		mg/Kg	5	4.00

Sample: 311051 - AH-19 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
DRO	B	1	**57.1**		mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			124	mg/Kg	1	100	124	70 - 130

Sample: 311051 - AH-19 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95547	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80969	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
GRO		1	**62.4**		mg/Kg	1	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.05	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			2.16	mg/Kg	1	2.00	108	70 - 130

Sample: 311052 - AH-19 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95672	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	81023	Sample Preparation:	2012-10-10	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**2080**	mg/Kg	10	4.00

Sample: 311053 - AH-19 (2-2.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95672	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	81023	Sample Preparation:	2012-10-10	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**5950**	mg/Kg	10	4.00

Sample: 311054 - AH-20 (0-1')

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	95546	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80969	Sample Preparation:	2012-10-06	Prepared By:	YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.68	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			1.71	mg/Kg	1	2.00	86	70 - 130

Sample: 311054 - AH-20 (0-1')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95672	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	81023	Sample Preparation:	2012-10-10	Prepared By:	AR

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Chloride			**102**		mg/Kg	5	4.00

Sample: 311054 - AH-20 (0-1')

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	95512	Date Analyzed:	2012-10-08	Analyzed By:	CW
Prep Batch:	80934	Sample Preparation:	2012-10-05	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			113	mg/Kg	1	100	113	70 - 130

Sample: 311054 - AH-20 (0-1')

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	95547	Date Analyzed:	2012-10-06	Analyzed By:	YG
Prep Batch:	80969	Sample Preparation:	2012-10-06	Prepared By:	YG

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
GRO	B	1	**27.9**		mg/Kg	1	1.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.08	mg/Kg	1	2.00	104	70 - 130
4-Bromofluorobenzene (4-BFB)			1.84	mg/Kg	1	2.00	92	70 - 130

Sample: 311055 - AH-20 (1-1.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95672	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	81023	Sample Preparation:	2012-10-10	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**604**	mg/Kg	5	4.00

Sample: 311056 - AH-20 (2-2.5')

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	95672	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	81023	Sample Preparation:	2012-10-10	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3320**	mg/Kg	10	4.00

Method Blanks

Method Blank (1) QC Batch: 95512

QC Batch: 95512 | Date Analyzed: 2012-10-08 | Analyzed By: CW
Prep Batch: 80934 | QC Preparation: 2012-10-05 | Prepared By: CW

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	16.0	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			120	mg/Kg	1	100	120	70 - 130

Method Blank (1) QC Batch: 95513

QC Batch: 95513 | Date Analyzed: 2012-10-06 | Analyzed By: YG
Prep Batch: 80935 | QC Preparation: 2012-10-06 | Prepared By: YG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00100	mg/Kg	0.02
Toluene		1	<0.00100	mg/Kg	0.02
Ethylbenzene		1	<0.00110	mg/Kg	0.02
Xylene		1	<0.00360	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.70	mg/Kg	1	2.00	85	70 - 130
4-Bromofluorobenzene (4-BFB)			1.64	mg/Kg	1	2.00	82	70 - 130

Method Blank (1) QC Batch: 95521

QC Batch: 95521 | Date Analyzed: 2012-10-06 | Analyzed By: YG
Prep Batch: 80935 | QC Preparation: 2012-10-06 | Prepared By: YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.82	mg/Kg	1	2.00	91	70 - 130
4-Bromofluorobenzene (4-BFB)			1.70	mg/Kg	1	2.00	85	70 - 130

Method Blank (1) QC Batch: 95546

QC Batch: 95546 Date Analyzed: 2012-10-06 Analyzed By: YG
Prep Batch: 80969 QC Preparation: 2012-10-06 Prepared By: YG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00100	mg/Kg	0.02
Toluene		1	<0.00100	mg/Kg	0.02
Ethylbenzene		1	<0.00110	mg/Kg	0.02
Xylene		1	<0.00360	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.67	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			1.61	mg/Kg	1	2.00	80	70 - 130

Method Blank (1) QC Batch: 95547

QC Batch: 95547 Date Analyzed: 2012-10-06 Analyzed By: YG
Prep Batch: 80969 QC Preparation: 2012-10-06 Prepared By: YG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.80	mg/Kg	1	2.00	90	70 - 130
4-Bromofluorobenzene (4-BFB)			1.70	mg/Kg	1	2.00	85	70 - 130

Method Blank (1) QC Batch: 95568

QC Batch:	95568	Date Analyzed:	2012-10-09	Analyzed By:	CW
Prep Batch:	80986	QC Preparation:	2012-10-09	Prepared By:	CW

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<9.09	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			104	mg/Kg	1	100	104	70 - 130

Method Blank (1) QC Batch: 95573

QC Batch:	95573	Date Analyzed:	2012-10-09	Analyzed By:	AR
Prep Batch:	80964	QC Preparation:	2012-10-08	Prepared By:	AR

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

Method Blank (1) QC Batch: 95668

QC Batch:	95668	Date Analyzed:	2012-10-10	Analyzed By:	AR
Prep Batch:	80964	QC Preparation:	2012-10-08	Prepared By:	AR

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

Method Blank (1) QC Batch: 95669

QC Batch:	95669	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	QC Preparation:	2012-10-08	Prepared By:	AR

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

Method Blank (1) QC Batch: 95670

QC Batch:	95670	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	QC Preparation:	2012-10-08	Prepared By:	AR

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

Method Blank (1) QC Batch: 95671

QC Batch:	95671	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	80964	QC Preparation:	2012-10-08	Prepared By:	AR

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

Method Blank (1) QC Batch: 95672

QC Batch:	95672	Date Analyzed:	2012-10-11	Analyzed By:	AR
Prep Batch:	81023	QC Preparation:	2012-10-10	Prepared By:	AR

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

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 95512 | Date Analyzed: 2012-10-08 | Analyzed By: CW
Prep Batch: 80934 | QC Preparation: 2012-10-05 | Prepared By: CW

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	261	mg/Kg	1	250	16	98	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	272	mg/Kg	1	250	16	102	70 - 130	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
n-Tricosane	111	115	mg/Kg	1	100	111	115	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 95513 | Date Analyzed: 2012-10-06 | Analyzed By: YG
Prep Batch: 80935 | QC Preparation: 2012-10-06 | Prepared By: YG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.97	mg/Kg	1	2.00	<0.00100	98	70 - 130
Toluene		1	1.80	mg/Kg	1	2.00	<0.00100	90	70 - 130
Ethylbenzene		1	1.75	mg/Kg	1	2.00	<0.00110	88	70 - 130
Xylene		1	5.32	mg/Kg	1	6.00	<0.00360	89	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.82	mg/Kg	1	2.00	<0.00100	91	70 - 130	8	20
Toluene		1	1.67	mg/Kg	1	2.00	<0.00100	84	70 - 130	8	20
Ethylbenzene		1	1.64	mg/Kg	1	2.00	<0.00110	82	70 - 130	6	20
Xylene		1	4.97	mg/Kg	1	6.00	<0.00360	83	70 - 130	7	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.74	1.72	mg/Kg	1	2.00	87	86	70 - 130
4-Bromofluorobenzene (4-BFB)	1.72	1.67	mg/Kg	1	2.00	86	84	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 95521 | Date Analyzed: 2012-10-06 | Analyzed By: YG
Prep Batch: 80935 | QC Preparation: 2012-10-06 | Prepared By: YG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	17.8	mg/Kg	1	20.0	3.63	71	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	16.4	mg/Kg	1	20.0	3.63	82	70 - 130	8	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.08	2.07	mg/Kg	1	2.00	104	104	70 - 130
4-Bromofluorobenzene (4-BFB)	1.82	1.82	mg/Kg	1	2.00	91	91	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 95546 | Date Analyzed: 2012-10-06 | Analyzed By: YG
Prep Batch: 80969 | QC Preparation: 2012-10-06 | Prepared By: YG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.11	mg/Kg	1	2.00	<0.00100	106	70 - 130
Toluene		1	1.92	mg/Kg	1	2.00	<0.00100	96	70 - 130
Ethylbenzene		1	1.88	mg/Kg	1	2.00	<0.00110	94	70 - 130
Xylene		1	5.68	mg/Kg	1	6.00	<0.00360	95	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	2.01	mg/Kg	1	2.00	<0.00100	100	70 - 130	5	20

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control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Toluene		1	1.83	mg/Kg	1	2.00	<0.00100	92	70 - 130	5	20
Ethylbenzene		1	1.78	mg/Kg	1	2.00	<0.00110	89	70 - 130	6	20
Xylene		1	5.39	mg/Kg	1	6.00	<0.00360	90	70 - 130	5	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)	1.69	1.71	mg/Kg	1	2.00	84	86	70 - 130
4-Bromofluorobenzene (4-BFB)	1.67	1.72	mg/Kg	1	2.00	84	86	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 95547 | Date Analyzed: 2012-10-06 | Analyzed By: YG
Prep Batch: 80969 | QC Preparation: 2012-10-06 | Prepared By: YG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	19.9	mg/Kg	1	20.0	3.61	100	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	18.6	mg/Kg	1	20.0	3.61	93	70 - 130	7	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.79	1.81	mg/Kg	1	2.00	90	90	70 - 130
4-Bromofluorobenzene (4-BFB)	1.81	1.84	mg/Kg	1	2.00	90	92	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 95568 | Date Analyzed: 2012-10-09 | Analyzed By: CW
Prep Batch: 80986 | QC Preparation: 2012-10-09 | Prepared By: CW

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	256	mg/Kg	1	250	<9.09	102	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	215	mg/Kg	1	250	<9.09	86	70 - 130	17	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	Qsr	Qsr	132	121	mg/Kg	1	100	132	121	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 95573 | Date Analyzed: 2012-10-09 | Analyzed By: AR
Prep Batch: 80964 | QC Preparation: 2012-10-08 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2550	mg/Kg	1	2500	<3.85	102	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2640	mg/Kg	1	2500	<3.85	106	85 - 115	4	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: 95668 | Date Analyzed: 2012-10-10 | Analyzed By: AR
Prep Batch: 80964 | QC Preparation: 2012-10-08 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2730	mg/Kg	1	2500	<3.85	109	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2650	mg/Kg	1	2500	<3.85	106	85 - 115	3	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: 95669 | Date Analyzed: 2012-10-11 | Analyzed By: AR
Prep Batch: 80964 | QC Preparation: 2012-10-08 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2580	mg/Kg	1	2500	<3.85	103	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2660	mg/Kg	1	2500	<3.85	106	85 - 115	3	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: 95670 | Date Analyzed: 2012-10-11 | Analyzed By: AR
Prep Batch: 80964 | QC Preparation: 2012-10-08 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2490	mg/Kg	1	2500	<3.85	100	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2440	mg/Kg	1	2500	<3.85	98	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: 95671 | Date Analyzed: 2012-10-11 | Analyzed By: AR
Prep Batch: 80964 | QC Preparation: 2012-10-08 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2560	mg/Kg	1	2500	<3.85	102	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2490	mg/Kg	1	2500	<3.85	100	85 - 115	3	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: 95672 | Date Analyzed: 2012-10-11 | Analyzed By: AR
Prep Batch: 81023 | QC Preparation: 2012-10-10 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2600	mg/Kg	1	2500	<3.85	104	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2550	mg/Kg	1	2500	<3.85	102	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: 311000

QC Batch: 95512 | Date Analyzed: 2012-10-08 | Analyzed By: CW
Prep Batch: 80934 | QC Preparation: 2012-10-05 | Prepared By: CW

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	309	mg/Kg	1	250	<9.09	124	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	310	mg/Kg	1	250	<9.09	124	70 - 130	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	Qsr	Qsr	139	140	mg/Kg	1	100	139	140	70 - 130

Matrix Spike (MS-1) Spiked Sample: 310961

QC Batch: 95513 | Date Analyzed: 2012-10-06 | Analyzed By: YG
Prep Batch: 80935 | QC Preparation: 2012-10-06 | Prepared By: YG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.55	mg/Kg	1	2.00	<0.00100	78	70 - 130
Toluene		1	1.67	mg/Kg	1	2.00	<0.00100	84	70 - 130
Ethylbenzene		1	1.74	mg/Kg	1	2.00	<0.00110	87	70 - 130
Xylene		1	5.31	mg/Kg	1	6.00	<0.00360	88	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.60	mg/Kg	1	2.00	<0.00100	80	70 - 130	3	20
Toluene		1	1.72	mg/Kg	1	2.00	<0.00100	86	70 - 130	3	20
Ethylbenzene		1	1.77	mg/Kg	1	2.00	<0.00110	88	70 - 130	2	20
Xylene		1	5.40	mg/Kg	1	6.00	<0.00360	90	70 - 130	2	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)	1.72	1.73	mg/Kg	1	2	86	86	70 - 130
4-Bromofluorobenzene (4-BFB)	1.70	1.70	mg/Kg	1	2	85	85	70 - 130

Matrix Spike (MS-1) Spiked Sample: 310961

QC Batch: 95521 | Date Analyzed: 2012-10-06 | Analyzed By: YG
Prep Batch: 80935 | QC Preparation: 2012-10-06 | Prepared By: YG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	19.7	mg/Kg	1	20.0	<0.482	98	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	17.0	mg/Kg	1	20.0	<0.482	85	70 - 130	15	20

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

continued ...

matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.53	2.11	mg/Kg	1	2	126	106	70 - 130
4-Bromofluorobenzene (4-BFB)	1.80	1.84	mg/Kg	1	2	90	92	70 - 130

Matrix Spike (MS-1) Spiked Sample: 311039

QC Batch: 95546 | Date Analyzed: 2012-10-06 | Analyzed By: YG
Prep Batch: 80969 | QC Preparation: 2012-10-06 | Prepared By: YG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.93	mg/Kg	1	2.00	<0.00100	96	70 - 130
Toluene		1	1.75	mg/Kg	1	2.00	<0.00100	88	70 - 130
Ethylbenzene		1	1.69	mg/Kg	1	2.00	<0.00110	84	70 - 130
Xylene		1	5.11	mg/Kg	1	6.00	<0.00360	85	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	2.07	mg/Kg	1	2.00	<0.00100	104	70 - 130	7	20
Toluene		1	1.88	mg/Kg	1	2.00	<0.00100	94	70 - 130	7	20
Ethylbenzene		1	1.83	mg/Kg	1	2.00	<0.00110	92	70 - 130	8	20
Xylene		1	5.55	mg/Kg	1	6.00	<0.00360	92	70 - 130	8	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)	1.69	1.68	mg/Kg	1	2	84	84	70 - 130
4-Bromofluorobenzene (4-BFB)	1.72	1.70	mg/Kg	1	2	86	85	70 - 130

Matrix Spike (MS-1) Spiked Sample: 311039

QC Batch: 95547 | Date Analyzed: 2012-10-06 | Analyzed By: YG
Prep Batch: 80969 | QC Preparation: 2012-10-06 | Prepared By: YG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	15.7	mg/Kg	1	20.0	<0.482	78	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	16.5	mg/Kg	1	20.0	<0.482	82	70 - 130	5	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)	2.10	2.12	mg/Kg	1	2	105	106	70 - 130
4-Bromofluorobenzene (4-BFB)	1.85	1.86	mg/Kg	1	2	92	93	70 - 130

Matrix Spike (MS-1) Spiked Sample: 310999

QC Batch: 95568 | Date Analyzed: 2012-10-09 | Analyzed By: CW
Prep Batch: 80986 | QC Preparation: 2012-10-09 | Prepared By: CW

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	361	mg/Kg	1	250	142	88	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	338	mg/Kg	1	250	142	78	70 - 130	7	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	128	102	mg/Kg	1	100	128	102	70 - 130

Matrix Spike (MS-1) Spiked Sample: 311007

QC Batch: 95573 | Date Analyzed: 2012-10-09 | Analyzed By: AR
Prep Batch: 80964 | QC Preparation: 2012-10-08 | Prepared By: AR

continued ...

matrix spikes continued ...

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2670	mg/Kg	5	2500	81.7	104	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2510	mg/Kg	5	2500	81.7	97	78.9 - 121	6	20

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

Matrix Spike (MS-1) Spiked Sample: 311017

QC Batch: 95668 | Date Analyzed: 2012-10-10 | Analyzed By: AR
Prep Batch: 80964 | QC Preparation: 2012-10-08 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			4650	mg/Kg	10	2500	2410	90	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			4860	mg/Kg	10	2500	2410	98	78.9 - 121	4	20

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

Matrix Spike (MS-1) Spiked Sample: 311027

QC Batch: 95669 | Date Analyzed: 2012-10-11 | Analyzed By: AR
Prep Batch: 80964 | QC Preparation: 2012-10-08 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			4080	mg/Kg	10	2500	1350	109	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			3940	mg/Kg	10	2500	1350	104	78.9 - 121	4	20

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

Matrix Spike (MS-1) Spiked Sample: 311037

QC Batch: 95670 | Date Analyzed: 2012-10-11 | Analyzed By: AR
Prep Batch: 80964 | QC Preparation: 2012-10-08 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2760	mg/Kg	5	2500	156	104	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2880	mg/Kg	5	2500	156	109	78.9 - 121	4	20

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

Matrix Spike (MS-1) Spiked Sample: 311047

QC Batch: 95671 | Date Analyzed: 2012-10-11 | Analyzed By: AR
Prep Batch: 80964 | QC Preparation: 2012-10-08 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			3050	mg/Kg	5	2500	381	107	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			3130	mg/Kg	5	2500	381	110	78.9 - 121	3	20

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

Matrix Spike (MS-1) Spiked Sample: 311072

QC Batch: 95672 | Date Analyzed: 2012-10-11 | Analyzed By: AR
Prep Batch: 81023 | QC Preparation: 2012-10-10 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			7640	mg/Kg	10	2500	5230	96	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			7750	mg/Kg	10	2500	5230	101	78.9 - 121	1	20

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

Calibration Standards

Standard (CCV-1)

QC Batch: 95512 | Date Analyzed: 2012-10-08 | Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	234	94	80 - 120	2012-10-08

Standard (CCV-2)

QC Batch: 95512 | Date Analyzed: 2012-10-08 | Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	222	89	80 - 120	2012-10-08

Standard (CCV-3)

QC Batch: 95512 | Date Analyzed: 2012-10-08 | Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	210	84	80 - 120	2012-10-08

Standard (CCV-4)

QC Batch: 95512 | Date Analyzed: 2012-10-08 | Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	273	109	80 - 120	2012-10-08

Standard (CCV-1)

QC Batch: 95513 | Date Analyzed: 2012-10-06 | Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.101	101	80 - 120	2012-10-06
Toluene		1	mg/kg	0.100	0.0902	90	80 - 120	2012-10-06
Ethylbenzene		1	mg/kg	0.100	0.0859	86	80 - 120	2012-10-06
Xylene		1	mg/kg	0.300	0.260	87	80 - 120	2012-10-06

Standard (CCV-2)

QC Batch: 95513 | Date Analyzed: 2012-10-06 | Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0825	82	80 - 120	2012-10-06
Toluene		1	mg/kg	0.100	0.0867	87	80 - 120	2012-10-06
Ethylbenzene		1	mg/kg	0.100	0.0868	87	80 - 120	2012-10-06
Xylene		1	mg/kg	0.300	0.263	88	80 - 120	2012-10-06

Standard (CCV-3)

QC Batch: 95513 | Date Analyzed: 2012-10-06 | Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0824	82	80 - 120	2012-10-06
Toluene		1	mg/kg	0.100	0.0871	87	80 - 120	2012-10-06
Ethylbenzene		1	mg/kg	0.100	0.0857	86	80 - 120	2012-10-06
Xylene		1	mg/kg	0.300	0.260	87	80 - 120	2012-10-06

Standard (CCV-1)

QC Batch: 95521 | Date Analyzed: 2012-10-06 | Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.16	116	80 - 120	2012-10-06

Standard (CCV-2)

QC Batch: 95521 Date Analyzed: 2012-10-06 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.872	87	80 - 120	2012-10-06

Standard (CCV-3)

QC Batch: 95521 Date Analyzed: 2012-10-06 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.14	114	80 - 120	2012-10-06

Standard (CCV-1)

QC Batch: 95546 Date Analyzed: 2012-10-06 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.101	101	80 - 120	2012-10-06
Toluene		1	mg/kg	0.100	0.0899	90	80 - 120	2012-10-06
Ethylbenzene		1	mg/kg	0.100	0.0854	85	80 - 120	2012-10-06
Xylene		1	mg/kg	0.300	0.259	86	80 - 120	2012-10-06

Standard (CCV-2)

QC Batch: 95546 Date Analyzed: 2012-10-06 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.100	100	80 - 120	2012-10-06
Toluene		1	mg/kg	0.100	0.0886	89	80 - 120	2012-10-06
Ethylbenzene		1	mg/kg	0.100	0.0823	82	80 - 120	2012-10-06
Xylene		1	mg/kg	0.300	0.247	82	80 - 120	2012-10-06

Standard (CCV-3)

QC Batch: 95546 Date Analyzed: 2012-10-06 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.100	100	80 - 120	2012-10-06
Toluene		1	mg/kg	0.100	0.0895	90	80 - 120	2012-10-06
Ethylbenzene		1	mg/kg	0.100	0.0827	83	80 - 120	2012-10-06
Xylene		1	mg/kg	0.300	0.250	83	80 - 120	2012-10-06

Standard (CCV-1)

QC Batch: 95547 Date Analyzed: 2012-10-06 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.18	118	80 - 120	2012-10-06

Standard (CCV-2)

QC Batch: 95547 Date Analyzed: 2012-10-06 Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.18	118	80 - 120	2012-10-06

Standard (CCV-3)

QC Batch: 95547 | Date Analyzed: 2012-10-06 | Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.916	92	80 - 120	2012-10-06

Standard (CCV-1)

QC Batch: 95568 | Date Analyzed: 2012-10-09 | Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	231	92	80 - 120	2012-10-09

Standard (CCV-2)

QC Batch: 95568 | Date Analyzed: 2012-10-09 | Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	242	97	80 - 120	2012-10-09

Standard (CCV-3)

QC Batch: 95568 | Date Analyzed: 2012-10-09 | Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	214	86	80 - 120	2012-10-09

Standard (CCV-1)

QC Batch: 95573 | Date Analyzed: 2012-10-09 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2012-10-09

Standard (CCV-2)

QC Batch: 95573 Date Analyzed: 2012-10-09 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.5	100	85 - 115	2012-10-09

Standard (CCV-1)

QC Batch: 95668 Date Analyzed: 2012-10-10 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2012-10-10

Standard (CCV-2)

QC Batch: 95668 Date Analyzed: 2012-10-10 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.7	100	85 - 115	2012-10-10

Standard (CCV-1)

QC Batch: 95669 Date Analyzed: 2012-10-11 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.6	100	85 - 115	2012-10-11

Standard (CCV-2)

QC Batch: 95669 Date Analyzed: 2012-10-11 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2012-10-11

Standard (CCV-1)

QC Batch: 95670 Date Analyzed: 2012-10-11 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2012-10-11

Standard (CCV-2)

QC Batch: 95670 Date Analyzed: 2012-10-11 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.8	100	85 - 115	2012-10-11

Standard (CCV-1)

QC Batch: 95671 Date Analyzed: 2012-10-11 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2012-10-11

Standard (CCV-2)

QC Batch: 95671 Date Analyzed: 2012-10-11 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.7	100	85 - 115	2012-10-11

Standard (CCV-1)

QC Batch: 95672 Date Analyzed: 2012-10-11 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.5	100	85 - 115	2012-10-11

Standard (CCV-2)

QC Batch: 95672 Date Analyzed: 2012-10-11 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2012-10-11

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-12-4	Midland

Standard Flags

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

Result Comments

1 dilution due to Hydrocarbons.
2 dilution due to Hydrocarbons.
3 dilution due to Hydrocarbons.
4 dilution due to Hydrocarbons.

5 dilution due to Hydrocarbons.

Attachments

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

12100522

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: 1 OF: 6

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401535

PROJECT NAME: Aid State Gas Com #1 Eddy Co NM.

LAB I.D. NUMBER	DATE	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
310999	10.2.12			S	X	AH1 (0-6")	1				X		X	X											X				
311000	10.2.12			S	X	AH2 (0-1')	1				X		X	X											X				
001	10.2.12			S	X	AH2 (1-1.5')	1				X														X				
002	10.3.12			S	X	AH3 (0-1')	1				X		X	X											X				
003				S	X	AH3 (1-1.5')	1				X														X				
004				S	X	AH3 (2-2.5')	1				X														X				
005				S	X	AH4 (0-1')	1				X		X	X											X				
006				S	X	AH4 (1-1.5')	1				X														X				
007				S	X	AH4 (2-2.5')	1				X														X				
RUSH				S	X	AH4 (3-3.5')	1				X														X				

RELINQUISHED BY: (Signature) — Date: 10.5.12 Time: 1030 — RECEIVED BY: (Signature) — Date: 10/5/12 Time: 1030

SAMPLED BY: (Print & Initial) Evan Reich — Date: — Time:

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

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

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

RECEIVING LABORATORY: Trace — ADDRESS: — CITY: Midland — STATE: — 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: 38 intact

REMARKS: Run deeper samples if TPH exceeds ~~5000~~ 1,000 mg/kg Midland. all

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

Run deeper samples if benzene exceeds 10 mg/kg or total BTEX exceeds 50 mg/kg AH

12102522

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: 6

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG
SITE MANAGER: Ike Tavarez
PROJECT NO.: 114-640535
PROJECT NAME: Aid State SWD Eddy Co. NM

LAB I.D. NUMBER	DATE	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
~~10~~	~~10.3.12~~			S	X	~~AH 4 (4-4.5')~~	1				X													X				
008	10.2.12			S	X	AH 5 (0-1')	1				X		X	X										X				
009				S	X	AH 5 (1-1.5')	1				X													X				
010				S	X	AH 5 (2-2.5')	1				X													X				
011				S	X	AH 6 (0-1')	1				X		X	X										X				
012				S	X	AH 6 (1-1.5')	1				X													X				
013				S	X	AH 6 (2-2.5')	1				X													X				
014				S	X	AH 6 (3-3.5')	1				X													X				
015				S	X	AH 6 (4-4.5')	1				X													X				
016	~~10.3.12~~			S	X	AH 7 (0-1')	1				X		X	X										X				

RELINQUISHED BY: (Signature) — Date: 10-5-12 Time: 1030
RECEIVED BY: (Signature) — Date: 10/5/12 Time: 10:30
SAMPLED BY: (Print & Initial) Ryan Reich — Date: Time:

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

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

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

SAMPLE CONDITION WHEN RECEIVED: 8.8° Intact
REMARKS:

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

AH

12102522

Analysis Request of Chain of Custody Record

PAGE: 3 OF: 6

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: LDG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401535

PROJECT NAME: Aid State SWD Eddy Co NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH TX1005 (Ext. to C35)	TPH 8015 MOD.	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
017	10-2-12			S	X	AH 7 (1-1.5')	1				X															X				
018				S	X	AH 8 (0-1')	1				X		X	X												X				
019				S	X	AH 9 (0-1')	1				X		X	X												X				
020				S	X	AH 9 (1-1.5')	1				X															X				
021				S	X	AH 10 (0-1')	1				X		X	X												X				
022				S	X	AH 10 (1-1.5')	1				X															X				
023				S	X	AH 10 (2-2.5')	1				X															X				
024				S	X	AH 10 (3-3.5')	1				X															X				
025				S	X	AH 10 (4-4.5')	1				X															X				
026				S	X	AH 11 (0-1')	1				X		X	X												X				

RELINQUISHED BY: (Signature) — Date: 10-5-12 Time: 1030 — RECEIVED BY: (Signature) — Date: 10/5/12 Time: 10:30

SAMPLED BY: (Print & Initial) Ryan Rojo — Date: — Time:

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

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

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

TETRA TECH CONTACT PERSON: Ike Tavarez — Results by:

RECEIVING LABORATORY: Trace — RECEIVED BY: (Signature)

ADDRESS: — CITY: Midland — STATE: — ZIP: — CONTACT: — PHONE: — DATE: — TIME:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: Iced

REMARKS:

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

AH

12105522

Analysis Request of Chain of Custody Record

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG
SITE MANAGER: Ike Tavarez
PROJECT NO.: 114-6401535
PROJECT NAME: Aid State Sub
Eddy Co NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH TX1005 (Ext. to C35) / 8015 MOD	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
027	10.2.12			S	X	AH 11 (1-1.5')	1				X													X				
028				S	X	AH 11 (2-2.5')	1				X													X				
029				S	X	AH 11 (3-3.5')	1				X													X				
030				S	X	AH 12 (0-1')	1				X		X	X										X				
031				S	X	AH 12 (1-1.5')	1				X													X				
032				S	X	AH 12 (2-2.5')	1				X													X				
033	10.3.12			S	X	AH 13 (0-1')	1				X		X	X										X				
034				S	X	AH 14 (0-1')	1				X		X	X										X				
035				S	X	AH 14 (1-1.5')	1				X													X				
036				S	X	AH 14 (2-2.5')	1				X													X				

RELINQUISHED BY: (Signature) — Date: 10-5-12 Time: 10:30
RECEIVED BY: (Signature) — Date: 10/5/12 Time: 10:30
SAMPLED BY: (Print & Initial) Ryan Reich — Date: Time:

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

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

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

SAMPLE CONDITION WHEN RECEIVED: 3.8°
REMARKS:

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

AH

1210532

Analysis Request of Chain of Custody Record

PAGE: 5 OF: 6

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.: 114-640 1535

PROJECT NAME: Aid State SWD
Eddy Co NM

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB I.D. NUMBER	DATE	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
037	10-3-12			S	X	AH 14 (3-3.5')	1				X													X				
038				S	X	AH 14 (4-4.5')	1				X													X				
039				S	X	AH 15 (0-1')	1				X		X	X										X				
040				S	X	AH 15 (1-1.5')	1				X													X				
041				S	X	AH 15 (2-2.5')	1				X													X				
042				S	X	AH 16 (0-1')	1				X		X	X										X				
043				S	X	AH 16 (1-1.5')	1				X													X				
044				S	X	AH 16 (2-2.5')	1				X													X				
045				S	X	AH 17 (0-1')	1				X		X	X										X				
046				S	X	AH 17 (1-1.5')	1				X													X				

RELINQUISHED BY: (Signature) — Date: 10-3-12 Time: 1030
RECEIVED BY: (Signature) — Date: 10/3/12 Time: 10:30
SAMPLED BY: (Print & Initial) Ryan Reyh — Date: Time:

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

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

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

SAMPLE CONDITION WHEN RECEIVED: 38
REMARKS:

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

AH

12107522

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: 6 OF: 6

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401535

PROJECT NAME: Aid Stake SWD Eddy Co NM

LAB I.D. NUMBER	DATE	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
537	10.3.12			S	X	AH 17 (2-2.5')	1				X													X				
538				S	X	AH 18 (0-1')	1						X	X										X					
539				S	X	AH 18 (1-1.5')	1																	X				
540				S	X	AH 18 (2-2.5')	1																	X				
541				S	X	AH 19 (0-1')	1						X	X										X				
542				S	X	AH 19 (1-1.5')	1																	X				
543				S	X	AH 19 (2-2.5')	1																	X				
544				S	X	AH 20 (0-1')	1						X	X										X				
545				S	X	AH 20 (1-1.5')	1																	X				
546				S	X	AH 20 (2-2.5')	1																	X				

RELINQUISHED BY: (Signature) — Date: 10-5-12 Time: 1030 — RECEIVED BY: (Signature) — Date: 10/5/12 Time: 1030

SAMPLED BY: (Print & Initial) Ryan Reich — Date: — Time:

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

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

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

TETRA TECH CONTACT PERSON: Ike Tavarez — Results by:

RECEIVING LABORATORY: Trace — RECEIVED BY: (Signature)

ADDRESS: — CITY: Midland — STATE: — ZIP: — CONTACT: — PHONE: — DATE: — TIME:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8° Intact

REMARKS:

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

AH

Summary Report

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

Report Date: January 11, 2013

Work Order: 13011003

Project Location: Eddy Co., NM
Project Name: COG/Aid State SWD
Project Number: 114-6401535

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
318060	T-1 2' (AH-20)	soil	2013-01-08	00:00	2013-01-09
318061	T-1 4' (AH-20)	soil	2013-01-08	00:00	2013-01-09
318062	T-1 6' (AH-20)	soil	2013-01-08	00:00	2013-01-09
318063	T-2 2' (AH-19)	soil	2013-01-08	00:00	2013-01-09
318064	T-2 4' (AH-19)	soil	2013-01-08	00:00	2013-01-09
318065	T-2 6' (AH-19)	soil	2013-01-08	00:00	2013-01-09

Sample: 318060 - T-1 2' (AH-20)

Param	Flag	Result	Units	RL
Chloride		**310**	mg/Kg	4

Sample: 318061 - T-1 4' (AH-20)

Param	Flag	Result	Units	RL
Chloride		**222**	mg/Kg	4

Sample: 318062 - T-1 6' (AH-20)

Param	Flag	Result	Units	RL
Chloride		**49.0**	mg/Kg	4

Sample: 318063 - T-2 2' (AH-19)

Param	Flag	Result	Units	RL
Chloride		**2570**	mg/Kg	4

Sample: 318064 - T-2 4' (AH-19)

Param	Flag	Result	Units	RL
Chloride		**266**	mg/Kg	4

Sample: 318065 - T-2 6' (AH-19)

Param	Flag	Result	Units	RL
Chloride		**133**	mg/Kg	4

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 915-585-3443 FAX 915-585-4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: January 11, 2013

Work Order: 13011003

Project Location: Eddy Co., NM
Project Name: COG/Aid State SWD
Project Number: 114-6401535

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
318060	T-1 2' (AH-20)	soil	2013-01-08	00:00	2013-01-09
318061	T-1 4' (AH-20)	soil	2013-01-08	00:00	2013-01-09
318062	T-1 6' (AH-20)	soil	2013-01-08	00:00	2013-01-09
318063	T-2 2' (AH-19)	soil	2013-01-08	00:00	2013-01-09
318064	T-2 4' (AH-19)	soil	2013-01-08	00:00	2013-01-09
318065	T-2 6' (AH-19)	soil	2013-01-08	00:00	2013-01-09

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.

Michael Abel

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

Report Contents

Case Narrative

Samples for project COG/Aid State SWD were received by TraceAnalysis, Inc. on 2013-01-09 and assigned to work order 13011003. Samples for work order 13011003 were received intact at a temperature of 17.7 C. Samples were received without ice.

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	83041	2013-01-11 at 13:47	98017	2013-01-11 at 13:50

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 13011003 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: 318060 - T-1 2' (AH-20)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98017	Date Analyzed:	2013-01-11	Analyzed By:	AH
Prep Batch:	83041	Sample Preparation:	2013-01-11	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**310**	mg/Kg	5	4.00

Sample: 318061 - T-1 4' (AH-20)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98017	Date Analyzed:	2013-01-11	Analyzed By:	AH
Prep Batch:	83041	Sample Preparation:	2013-01-11	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**222**	mg/Kg	5	4.00

Sample: 318062 - T-1 6' (AH-20)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98017	Date Analyzed:	2013-01-11	Analyzed By:	AH
Prep Batch:	83041	Sample Preparation:	2013-01-11	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**49.0**	mg/Kg	5	4.00

Sample: 318063 - T-2 2' (AH-19)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98017	Date Analyzed:	2013-01-11	Analyzed By:	AH
Prep Batch:	83041	Sample Preparation:	2013-01-11	Prepared By:	AH

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**2570**	mg/Kg	5	4.00

Sample: 318064 - T-2 4' (AH-19)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98017	Date Analyzed:	2013-01-11	Analyzed By:	AH
Prep Batch:	83041	Sample Preparation:	2013-01-11	Prepared By:	AH

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**266**	mg/Kg	5	4.00

Sample: 318065 - T-2 6' (AH-19)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98017	Date Analyzed:	2013-01-11	Analyzed By:	AH
Prep Batch:	83041	Sample Preparation:	2013-01-11	Prepared By:	AH

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**133**	mg/Kg	5	4.00

Method Blanks

Method Blank (1) QC Batch: 98017

QC Batch:	98017	Date Analyzed:	2013-01-11	Analyzed By:	AH
Prep Batch:	83041	QC Preparation:	2013-01-11	Prepared By:	AH

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

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 98017 | Date Analyzed: 2013-01-11 | Analyzed By: AH
Prep Batch: 83041 | QC Preparation: 2013-01-11 | Prepared By: AH

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2880	mg/Kg	1	2500	<3.85	115	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2570	mg/Kg	1	2500	<3.85	103	85 - 115	11	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: 318065

QC Batch: 98017 | Date Analyzed: 2013-01-11 | Analyzed By: AH
Prep Batch: 83041 | QC Preparation: 2013-01-11 | Prepared By: AH

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2640	mg/Kg	5	2500	133	100	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2690	mg/Kg	5	2500	133	102	78.9 - 121	2	20

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

Calibration Standards

Standard (ICV-1)

QC Batch: 98017 | Date Analyzed: 2013-01-11 | Analyzed By: AH

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-01-11

Standard (CCV-1)

QC Batch: 98017 | Date Analyzed: 2013-01-11 | Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-01-11

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

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

1301100 5

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: COG

PROJECT NO.: 114-6410 15.35

PROJECT NAME: COG / Bird St SWD
Eddy Co, NM

LAB I.D. NUMBER	DATE 2013	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
318060	1/8		S		X	T-1 2' (AH-20)	1				X													X				
061						T-1 4' (AH-20)																							
062						T-1 6' (AH-20)																							
063						T-2 2' (AH-19)																							
064						T-2 4' (AH-19)																							
065			X		X	T-2 6' (AH-19)																							

RELINQUISHED BY: (Signature) Robert Gubbs Jr	Date: 1-9-13 Time: 1620	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: 1/9/13 Time: 1655	RECEIVED BY: (Signature)	Date: 1/9/13 Time: 16:55
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:

SAMPLED BY: (Print & Initial) Robert Gubbs Jr — Date: 1-9-13 Time: 1320

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: Xenco
ADDRESS:
CITY: Midland STATE: Tx ZIP:
CONTACT: PHONE: DATE: TIME:
RECEIVED BY: (Signature)

SAMPLE CONDITION WHEN RECEIVED: N.T noted

REMARKS: Midland all

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: January 24, 2013

Work Order: 13011825

Project Location: Eddy Co., NM
Project Name: COG/Aid State SWD
Project Number: 114-6401535

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
318743	T-3 (AH-13) 2'	soil	2013-01-14	00:00	2013-01-18
318744	T-3 (AH-13) 4'	soil	2013-01-14	00:00	2013-01-18
318745	T-3 (AH-13) 6'	soil	2013-01-14	00:00	2013-01-18
318746	T-3 (AH-13) 8'	soil	2013-01-14	00:00	2013-01-18
318747	T-4 (AH-8) 2'	soil	2013-01-14	00:00	2013-01-18
318748	T-4 (AH-8) 4'	soil	2013-01-14	00:00	2013-01-18
318749	T-4 (AH-8) 6'	soil	2013-01-14	00:00	2013-01-18
318750	T-4 (AH-8) 8'	soil	2013-01-14	00:00	2013-01-18
318751	T-5 (AH-7) 2'	soil	2013-01-14	00:00	2013-01-18
318752	T-5 (AH-7) 4'	soil	2013-01-14	00:00	2013-01-18
318753	T-5 (AH-7) 6'	soil	2013-01-14	00:00	2013-01-18
318754	T-5 (AH-7) 8'	soil	2013-01-14	00:00	2013-01-18
318755	T-6 (AH-2) 1'	soil	2013-01-16	00:00	2013-01-18
318756	T-6 (AH-2) 2'	soil	2013-01-16	00:00	2013-01-18
318757	T-6 (AH-2) 3'	soil	2013-01-16	00:00	2013-01-18
318758	T-6 (AH-2) 4'	soil	2013-01-16	00:00	2013-01-18
318759	T-7 (AH-1) 1'	soil	2013-01-16	00:00	2013-01-18
318760	T-7 (AH-1) 2'	soil	2013-01-16	00:00	2013-01-18
318761	T-7 (AH-1) 3'	soil	2013-01-16	00:00	2013-01-18
318762	T-7 (AH-1) 4'	soil	2013-01-16	00:00	2013-01-18
318763	T-7 (AH-1) 6'	soil	2013-01-16	00:00	2013-01-18
318764	T-7 (AH-1) 7'	soil	2013-01-16	00:00	2013-01-18
318765	CS-1 (AH-8) 1' Bottom	soil	2013-01-16	00:00	2013-01-18
318766	CS-2 (AH-7) 2' Bottom	soil	2013-01-16	00:00	2013-01-18

Sample: 318743 - T-3 (AH-13) 2'

Param	Flag	Result	Units	RL
Chloride		**435**	mg/Kg	4

Sample: 318744 - T-3 (AH-13) 4'

Param	Flag	Result	Units	RL
Chloride		**511**	mg/Kg	4

Sample: 318745 - T-3 (AH-13) 6'

Param	Flag	Result	Units	RL
Chloride		**282**	mg/Kg	4

Sample: 318746 - T-3 (AH-13) 8'

Param	Flag	Result	Units	RL
Chloride		**110**	mg/Kg	4

Sample: 318747 - T-4 (AH-8) 2'

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

Sample: 318748 - T-4 (AH-8) 4'

Param	Flag	Result	Units	RL
Chloride		**320**	mg/Kg	4

Sample: 318749 - T-4 (AH-8) 6'

Param	Flag	Result	Units	RL
Chloride		**315**	mg/Kg	4

Sample: 318750 - T-4 (AH-8) 8'

Param	Flag	Result	Units	RL
Chloride		**263**	mg/Kg	4

Sample: 318751 - T-5 (AH-7) 2'

Param	Flag	Result	Units	RL
Chloride		**3200**	mg/Kg	4

Sample: 318752 - T-5 (AH-7) 4'

Param	Flag	Result	Units	RL
Chloride		**149**	mg/Kg	4

Sample: 318753 - T-5 (AH-7) 6'

Param	Flag	Result	Units	RL
Chloride		**67.1**	mg/Kg	4

Sample: 318754 - T-5 (AH-7) 8'

Param	Flag	Result	Units	RL
Chloride		**67.1**	mg/Kg	4

Sample: 318755 - T-6 (AH-2) 1'

Param	Flag	Result	Units	RL
Chloride		**2380**	mg/Kg	4

Sample: 318756 - T-6 (AH-2) 2'

Param	Flag	Result	Units	RL
Chloride		**1570**	mg/Kg	4

Sample: 318757 - T-6 (AH-2) 3'

Param	Flag	Result	Units	RL
Chloride		**115**	mg/Kg	4

Sample: 318758 - T-6 (AH-2) 4'

Param	Flag	Result	Units	RL
Chloride		**52.7**	mg/Kg	4

Sample: 318759 - T-7 (AH-1) 1'

Param	Flag	Result	Units	RL
Chloride		**1830**	mg/Kg	4

Sample: 318760 - T-7 (AH-1) 2'

Param	Flag	Result	Units	RL
Chloride		**139**	mg/Kg	4

Sample: 318761 - T-7 (AH-1) 3'

Param	Flag	Result	Units	RL
Chloride		**834**	mg/Kg	4

Sample: 318762 - T-7 (AH-1) 4'

Param	Flag	Result	Units	RL
Chloride		**825**	mg/Kg	4

Sample: 318763 - T-7 (AH-1) 6'

Param	Flag	Result	Units	RL
Chloride		**968**	mg/Kg	4

Sample: 318764 - T-7 (AH-1) 7'

Param	Flag	Result	Units	RL
Chloride		**925**	mg/Kg	4

Sample: 318765 - CS-1 (AH-8) 1' Bottom

Param	Flag	Result	Units	RL
Chloride		**700**	mg/Kg	4

Sample: 318766 - CS-2 (AH-7) 2' Bottom

Param	Flag	Result	Units	RL
Chloride		**537**	mg/Kg	4

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298
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5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: January 24, 2013

Work Order: 13011825

Project Location: Eddy Co., NM
Project Name: COG/Aid State SWD
Project Number: 114-6401535

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
318743	T-3 (AH-13) 2'	soil	2013-01-14	00:00	2013-01-18
318744	T-3 (AH-13) 4'	soil	2013-01-14	00:00	2013-01-18
318745	T-3 (AH-13) 6'	soil	2013-01-14	00:00	2013-01-18
318746	T-3 (AH-13) 8'	soil	2013-01-14	00:00	2013-01-18
318747	T-4 (AH-8) 2'	soil	2013-01-14	00:00	2013-01-18
318748	T-4 (AH-8) 4'	soil	2013-01-14	00:00	2013-01-18
318749	T-4 (AH-8) 6'	soil	2013-01-14	00:00	2013-01-18
318750	T-4 (AH-8) 8'	soil	2013-01-14	00:00	2013-01-18
318751	T-5 (AH-7) 2'	soil	2013-01-14	00:00	2013-01-18
318752	T-5 (AH-7) 4'	soil	2013-01-14	00:00	2013-01-18
318753	T-5 (AH-7) 6'	soil	2013-01-14	00:00	2013-01-18
318754	T-5 (AH-7) 8'	soil	2013-01-14	00:00	2013-01-18
318755	T-6 (AH-2) 1'	soil	2013-01-16	00:00	2013-01-18
318756	T-6 (AH-2) 2'	soil	2013-01-16	00:00	2013-01-18
318757	T-6 (AH-2) 3'	soil	2013-01-16	00:00	2013-01-18
318758	T-6 (AH-2) 4'	soil	2013-01-16	00:00	2013-01-18
318759	T-7 (AH-1) 1'	soil	2013-01-16	00:00	2013-01-18
318760	T-7 (AH-1) 2'	soil	2013-01-16	00:00	2013-01-18

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
318761	T-7 (AH-1) 3'	soil	2013-01-16	00:00	2013-01-18
318762	T-7 (AH-1) 4'	soil	2013-01-16	00:00	2013-01-18
318763	T-7 (AH-1) 6'	soil	2013-01-16	00:00	2013-01-18
318764	T-7 (AH-1) 7'	soil	2013-01-16	00:00	2013-01-18
318765	CS-1 (AH-8) 1' Bottom	soil	2013-01-16	00:00	2013-01-18
318766	CS-2 (AH-7) 2' Bottom	soil	2013-01-16	00:00	2013-01-18

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.

Blair Leftwich

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

Report Contents

Case Narrative

Samples for project COG/Aid State SWD were received by TraceAnalysis, Inc. on 2013-01-18 and assigned to work order 13011825. Samples for work order 13011825 were received intact at a temperature of -1.3 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	83284	2013-01-22 at 09:31	98315	2013-01-23 at 15:08
Chloride (Titration)	SM 4500-Cl B	83284	2013-01-22 at 09:31	98316	2013-01-23 at 15:09
Chloride (Titration)	SM 4500-Cl B	83284	2013-01-22 at 09:31	98317	2013-01-23 at 15:10

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 13011825 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: 318743 - T-3 (AH-13) 2'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98315	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**435**	mg/Kg	5	4.00

Sample: 318744 - T-3 (AH-13) 4'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98315	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**511**	mg/Kg	5	4.00

Sample: 318745 - T-3 (AH-13) 6'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98315	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**282**	mg/Kg	5	4.00

Sample: 318746 - T-3 (AH-13) 8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98315	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**110**	mg/Kg	5	4.00

Sample: 318747 - T-4 (AH-8) 2'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98315	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

Sample: 318748 - T-4 (AH-8) 4'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98315	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**320**	mg/Kg	5	4.00

Sample: 318749 - T-4 (AH-8) 6'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98315	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**315**	mg/Kg	5	4.00

Sample: 318750 - T-4 (AH-8) 8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98315	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**263**	mg/Kg	5	4.00

Sample: 318751 - T-5 (AH-7) 2'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98315	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3200**	mg/Kg	10	4.00

Sample: 318752 - T-5 (AH-7) 4'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98316	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**149**	mg/Kg	5	4.00

Sample: 318753 - T-5 (AH-7) 6'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98316	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**67.1**	mg/Kg	5	4.00

Sample: 318754 - T-5 (AH-7) 8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98316	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**67.1**	mg/Kg	5	4.00

Sample: 318755 - T-6 (AH-2) 1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98316	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**2380**	mg/Kg	10	4.00

Sample: 318756 - T-6 (AH-2) 2'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98316	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1570**	mg/Kg	10	4.00

Sample: 318757 - T-6 (AH-2) 3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98316	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**115**	mg/Kg	5	4.00

Sample: 318758 - T-6 (AH-2) 4'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98316	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**52.7**	mg/Kg	5	4.00

Sample: 318759 - T-7 (AH-1) 1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98316	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1830**	mg/Kg	10	4.00

Sample: 318760 - T-7 (AH-1) 2'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98316	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**139**	mg/Kg	5	4.00

Sample: 318761 - T-7 (AH-1) 3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98316	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**834**	mg/Kg	5	4.00

Sample: 318762 - T-7 (AH-1) 4'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98317	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**825**	mg/Kg	5	4.00

Sample: 318763 - T-7 (AH-1) 6'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98317	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**968**	mg/Kg	10	4.00

Sample: 318764 - T-7 (AH-1) 7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98317	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**925**	mg/Kg	5	4.00

Sample: 318765 - CS-1 (AH-8) 1' Bottom

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98317	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**700**	mg/Kg	10	4.00

Sample: 318766 - CS-2 (AH-7) 2' Bottom

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	98317	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	Sample Preparation:	2013-01-22	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**537**	mg/Kg	10	4.00

Method Blanks

Method Blank (1) QC Batch: 98315

QC Batch:	98315	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	QC Preparation:	2013-01-22	Prepared By:	AR

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

Method Blank (1) QC Batch: 98316

QC Batch:	98316	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	QC Preparation:	2013-01-22	Prepared By:	AR

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

Method Blank (1) QC Batch: 98317

QC Batch:	98317	Date Analyzed:	2013-01-23	Analyzed By:	AR
Prep Batch:	83284	QC Preparation:	2013-01-22	Prepared By:	AR

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

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 98315 | Date Analyzed: 2013-01-23 | Analyzed By: AR
Prep Batch: 83284 | QC Preparation: 2013-01-22 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2610	mg/Kg	1	2500	<3.85	104	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2750	mg/Kg	1	2500	<3.85	110	85 - 115	5	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 98316 | Date Analyzed: 2013-01-23 | Analyzed By: AR
Prep Batch: 83284 | QC Preparation: 2013-01-22 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2700	mg/Kg	1	2500	<3.85	108	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2580	mg/Kg	1	2500	<3.85	103	85 - 115	4	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: 98317 | Date Analyzed: 2013-01-23 | Analyzed By: AR
Prep Batch: 83284 | QC Preparation: 2013-01-22 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2640	mg/Kg	1	2500	<3.85	106	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2740	mg/Kg	1	2500	<3.85	110	85 - 115	4	20

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

Matrix Spike (MS-1) Spiked Sample: 318751

QC Batch: 98315 | Date Analyzed: 2013-01-23 | Analyzed By: AR
Prep Batch: 83284 | QC Preparation: 2013-01-22 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			5730	mg/Kg	10	2500	3200	101	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			5950	mg/Kg	10	2500	3200	110	78.9 - 121	4	20

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

Matrix Spike (MS-1) Spiked Sample: 318761

QC Batch: 98316 | Date Analyzed: 2013-01-23 | Analyzed By: AR
Prep Batch: 83284 | QC Preparation: 2013-01-22 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			3360	mg/Kg	5	2500	834	101	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			3210	mg/Kg	5	2500	834	95	78.9 - 121	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: 318892

QC Batch: 98317 | Date Analyzed: 2013-01-23 | Analyzed By: AR
Prep Batch: 83284 | QC Preparation: 2013-01-22 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2800	mg/Kg	5	2500	297	100	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2940	mg/Kg	5	2500	297	106	78.9 - 121	5	20

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

Calibration Standards

Standard (CCV-1)

QC Batch: 98315 | Date Analyzed: 2013-01-23 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	98.8	99	85 - 115	2013-01-23

Standard (CCV-2)

QC Batch: 98315 | Date Analyzed: 2013-01-23 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2013-01-23

Standard (CCV-1)

QC Batch: 98316 | Date Analyzed: 2013-01-23 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-01-23

Standard (CCV-2)

QC Batch: 98316 | Date Analyzed: 2013-01-23 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.8	100	85 - 115	2013-01-23

Standard (CCV-1)

QC Batch: 98317 | Date Analyzed: 2013-01-23 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.8	100	85 - 115	2013-01-23

Standard (CCV-2)

QC Batch: 98317 | Date Analyzed: 2013-01-23 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-01-23

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-12-4	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

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

1391825

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-G401535

PROJECT NAME: COG / Aid State 600

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
318743	1/14		S		X	T-3	(AH-13)	2'	—				
744						T-3	(AH-13)	4'					
745						T-3	(AH-13)	6'					
746						T-3	(AH-13)	8'					
747						T-4	(AH-8)	2'					
748						T-4	(AH-8)	4'					
749						T-4	(AH-8)	6'					
750						T-4	(AH-8)	8'					
751						T-5	(AH-7)	2'					
752						T-5	(AH-7)	4'					

ANALYSIS REQUEST (Circle or Specify Method No.)

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

RELINQUISHED BY: (Signature) — Date: 1/16/13 Time: 15:40 — RECEIVED BY: (Signature) — Date: 1/18/13 Time: 15:40

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

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

SAMPLED BY: (Print & Initial) JT / MK — Date: 1/18/13 Time:

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

TETRA TECH CONTACT PERSON: Ike Tavarez — Results by:

RECEIVING LABORATORY: Trace — RECEIVED BY: (Signature)

ADDRESS: — CITY: Midland — STATE: TX — ZIP: — CONTACT: — PHONE: — DATE: — TIME:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: -1.3

REMARKS: Per Jeanne, run Cl- on all samples! AH 1/18/13

JAN 24 2013 EPT

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

13011825

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.: 114-640 1535

PROJECT NAME: COG / Aid State GWD Eddy Co, NM

LAB I.D. NUMBER	DATE 2013	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1006 (Ext. to C36)	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
318753	1/14		S		X	T-5 (AH-7) 6'	1																	X				
754	1	14				T-5 (AH-7) 8'																		•				
755	1	16				T-6 (AH-2) 1'																		•				
756	1	16				T-6 (AH-2) 2'																		•				
757	1	16				T-6 (AH-2) 3'																		•				
758	1	16				T-6 (AH-2) 4'																		•				
759	1	16				T-7 (AH-1) 1'																		•				
760	1	16				T-7 (AH-1) 2'																		•				
761	1	16				T-7 (AH-1) 3'																		•				
762						T-7 (AH-1) 4'																		•				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) — Date: 1/14/13 Time: 1340
RECEIVED BY: (Signature) — Date: 1/18/13 Time: 15:40
SAMPLED BY: (Print & Initial) JT/MK — Date: 1/16/13 Time:

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

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

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

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: -1.3

REMARKS:

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

1301825

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.: 114-0401535

PROJECT NAME: COG / Aid State 6WD Eddy Co. NM

LAB I.D. NUMBER	DATE 2013	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	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
318763	1/16		S		X	T-7 (AH-1) 6'	1																	X				
764						T-7 (AH-1) 7'																						
765						CS-1 (AH-8) 1' bottom																						
766						CS-2 (AH-7) 2' bottom.																						

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature)	Date: 1/16/13 Time: 15:46	RECEIVED BY: (Signature)	Date: 1/18/13 Time: 15:40
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:

SAMPLED BY: (Print & Initial) JT / MK — Date: 1/16/13 Time:

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

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: -1.3

REMARKS:

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