SITE INFORMATION

Report Type: Closure Report

General Site Information:

Site:	**Foster Eddy Tank Battery**				
Company:	**COG Operating LLC**				
Section, Township and Range	**Unit J**	**Sec. 17**	**T-17-S**	**R-31-E**	
Lease Number:	**NMLC-049998-A**				
County:	**Eddy County**				
GPS:	**32.83448° N**			**103.89102° W**	
Surface Owner:	Federal				
Mineral Owner:					
Directions:	Intersection of 529 and Hwy 82, travel west on 82 1.0mi, turn right 1.3 mi on main lease road to location on right.				

Release Data:

Date Released:	3/13/2012
Type Release:	Produced water with skim oil
Source of Contamination:	Alarm system failed and tank ran over
Fluid Released:	160 bbls
Fluids Recovered:	160 bbls

Official Communication:

Name:	Pat Ellis		Ike Tavarez
Company:	COG Operating, LLC		Tetra Tech
Address:	550 W. Texas Ave. Ste. 1300		1910 N. Big Spring
P.O. Box			
City:	Midland Texas, 79701		Midland, Texas
Phone number:	(432) 686-3023		(432) 682-4559
Fax:	(432) 684-7137		
Email:	pellis@conchoresources.com		Ike.Tavarez@tetratech.com

Ranking Criteria

Depth to Groundwater:	Ranking Score	Site Data
<50 ft	20	
50-99 ft	10	
>100 ft.	**0**	**0**

WellHead Protection:	Ranking Score	Site Data
Water Source <1,000 ft., Private <200 ft.	20	
Water Source >1,000 ft., Private >200 ft.	**0**	**0**

Surface Body of Water:	Ranking Score	Site Data
<200 ft.	20	
200 ft - 1,000 ft.	10	
>1,000 ft.	**0**	**0**

Total Ranking Score:	0

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

TETRA TECH

January 3, 2013

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

Re: Closure Request for the COG Operating LLC., Foster Eddy Tank Battery, Unit J, Section 17, Township 17 South, Range 31 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 Foster Eddy Tank Battery, Unit J, Section 17, Township 17 South, Range 31 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.83448°, W 103.89102°. 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 March 13, 2012, and released approximately 160 barrels (bbls) of produced water with skim of oil from the produced water tank due to an alarm failure. Approximately 160 barrels of standing fluids were recovered. The entire spill measured approximately 90' x 50' and was completely contained inside the firewall of the facility. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 17. According to the NMOCD groundwater map, the average depth to groundwater in this area is approximately 325' below surface. The average depth to groundwater map is shown in Appendix B.

Regulatory

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

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

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

Soil Assessment and Analytical Results

On March 29, 2012, Tetra Tech personnel inspected and sampled the spill area. Three (3) auger holes (AH-1, AH-2, and AH-3) were installed using a stainless steel hand auger to assess the impacted soils. Due to the tanks, lines and structures, additional auger holes were not installed at the site. 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, auger holes (AH-2 and AH-3) exceeded the RRAL for TPH and BTEX at depths of approximately 1.0' to 1.5' below surface. Deeper samples had TPH and BTEX concentrations below the RRAL. Auger holes (AH-1 and AH-2) showed a shallow chloride impact to the soils. The chloride impact was not vertically defined, but significantly declined with depth to 704 mg/kg and 984 mg/kg at 9-9.5', respectively. Due to the limited access, boreholes were not installed the area.

Auger hole (AH-3) also showed elevated chloride concentrations and was not vertically defined, with a bottom hole sample of 1,900 mg/kg at 9.0' below surface. On June 7, 2012, Tetra Tech personnel supervised the installation of a borehole (BH-1) utilizing an air rotary drilling rig in order to collect deeper samples. Samples from borehole (BH-1) were submitted for laboratory analysis and the results are summarized on Table 1. The borehole location is shown on Figure 3.

Referring to Table 1, the chloride concentrations from borehole (BH-1) ranged from 258 mg/kg to 2,100 mg/kg. The chloride impact was vertically defined and declined to 411 mg/kg at 69-70' and 258 mg/kg at 79-80' below surface.

Conclusion

As recommended in the work plan, COG proposed the removal of the TPH and BTEX impacted soils above the RRAL in the areas of AH-2 and AH-3, if accessible. In addition, the area of AH-3 proposed excavation depths of approximately 2.0' to 3.0' to remove the elevated chloride concentrations. Once excavated, a clay cap will then be placed in the excavation bottom (6" to 1.0' thick) and the remaining impacted material will be deferred until abandonment of the facility.

TETRA TECH

After an onsite meeting with COG representatives it was concluded that excavation was not practical or safe for this site, due to the proximity of the tanks, lines and structures at the facility. If accessible, COG proposes to micro-blaze the impacted soil to remediate the impacted soils exceeding the RRAL in the areas of AH-2 and AH-3. The remaining impacted material will be deferred until abandonment of the facility.

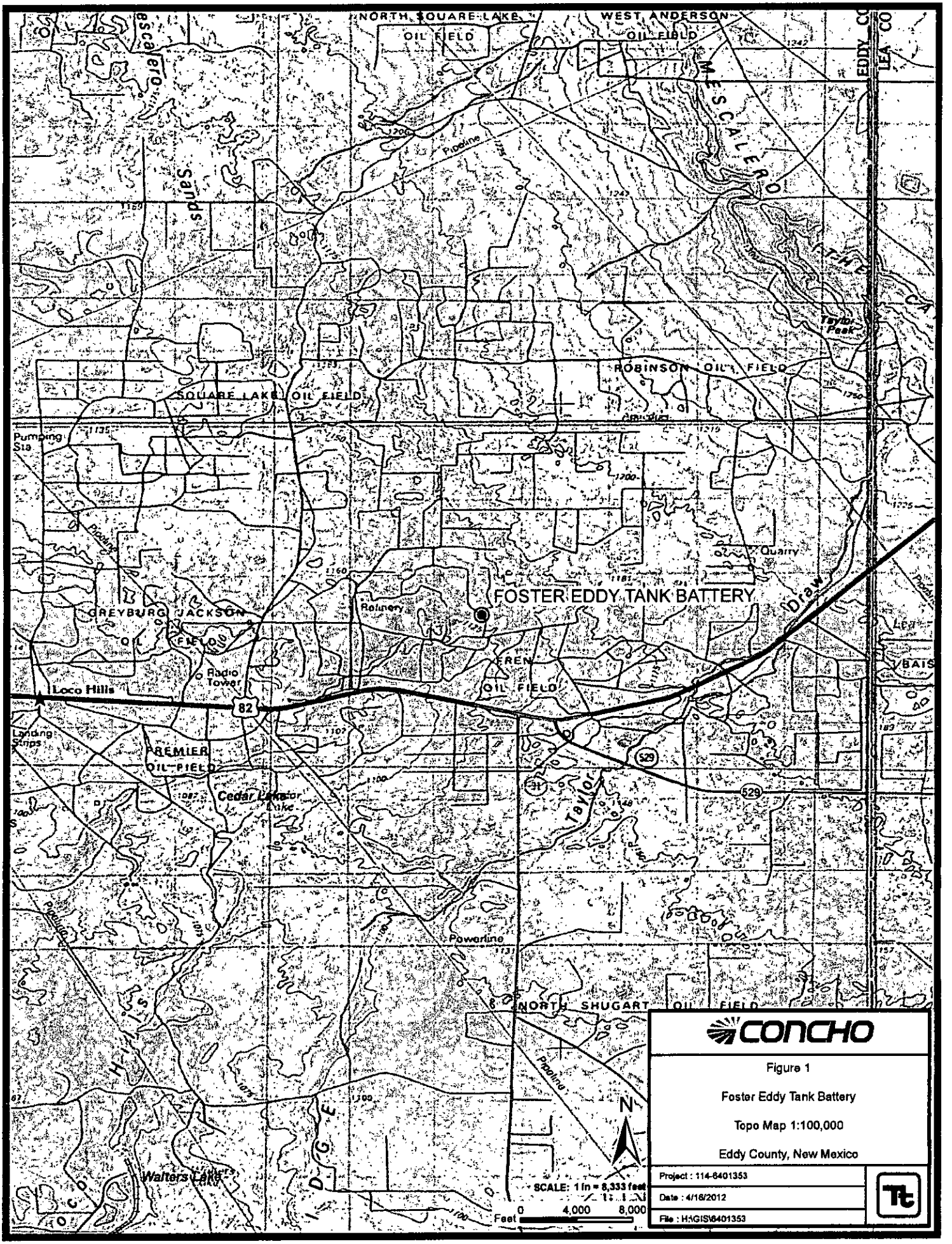
Based on the results of the sampling and the obstructions in the facility, COG requests closure of the site. A copy of the C-141 (Final) is included in Appendix A. If you have any questions or comments concerning the remedial activities, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

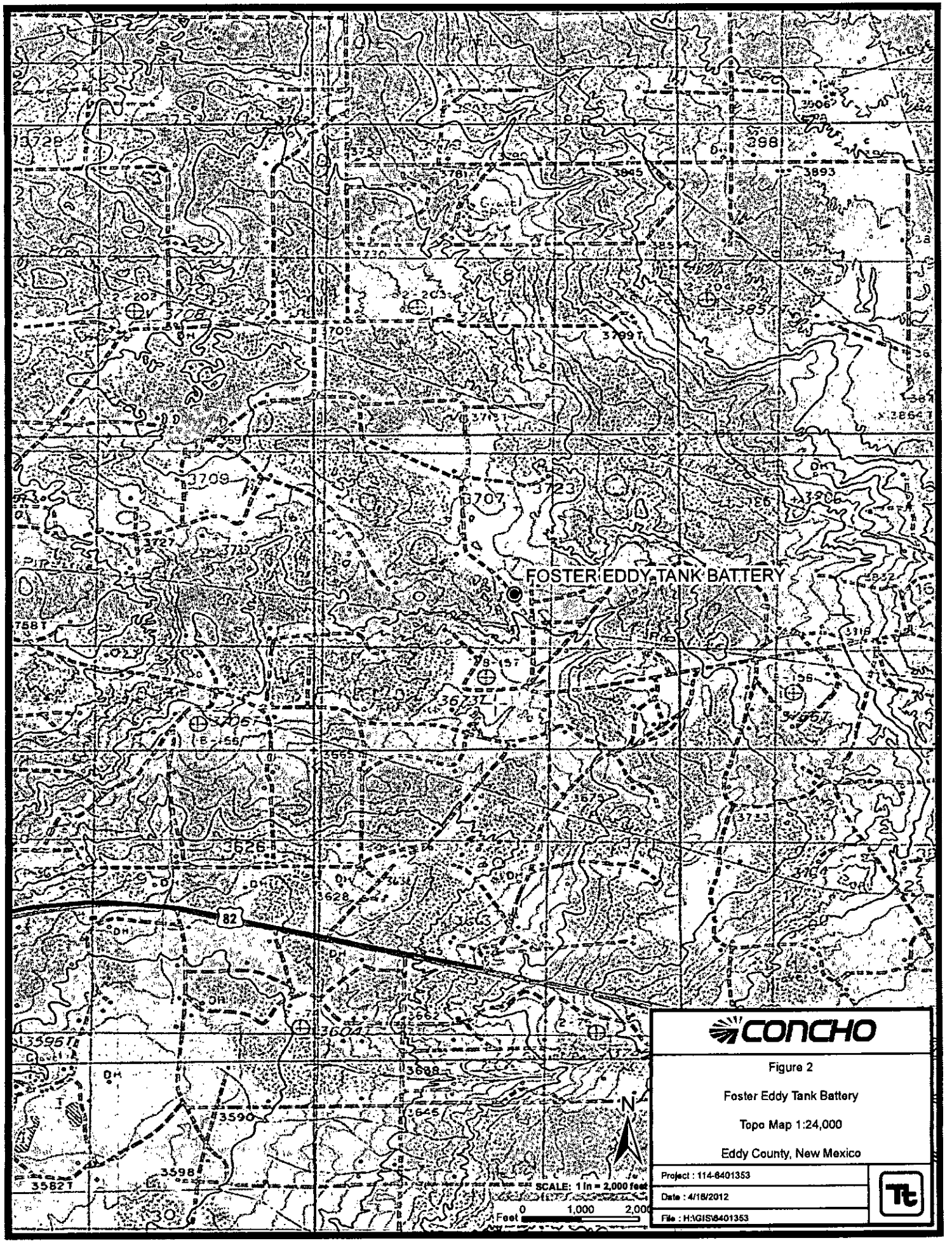
Ike Tavarez, PG
Senior Project Manager

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

Figures



Drawn By: Isabel Marmolejo



CONCHO

Figure 2

Foster Eddy Tank Battery

Topo Map 1:24,000

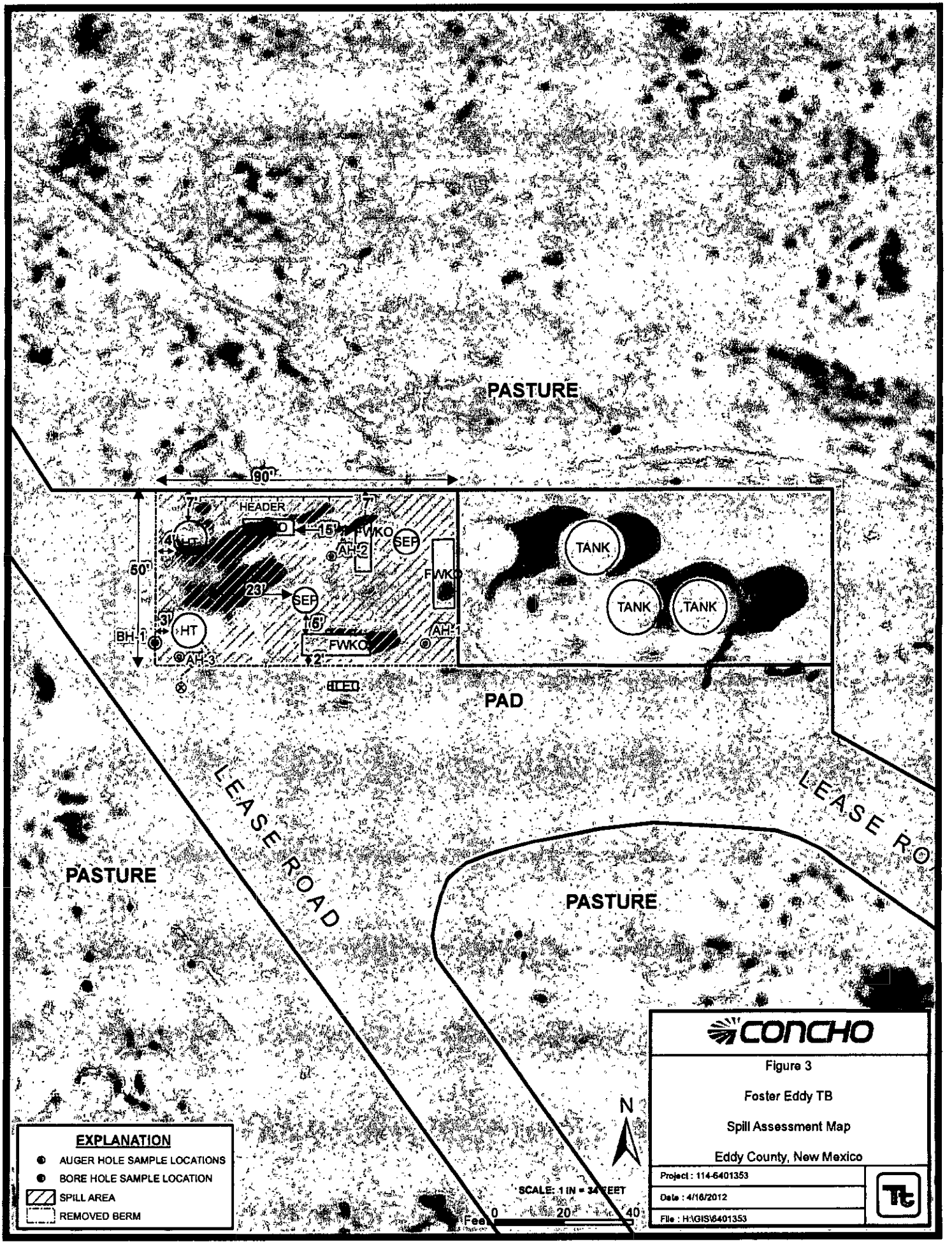
Eddy County, New Mexico

Project : 114-6401353

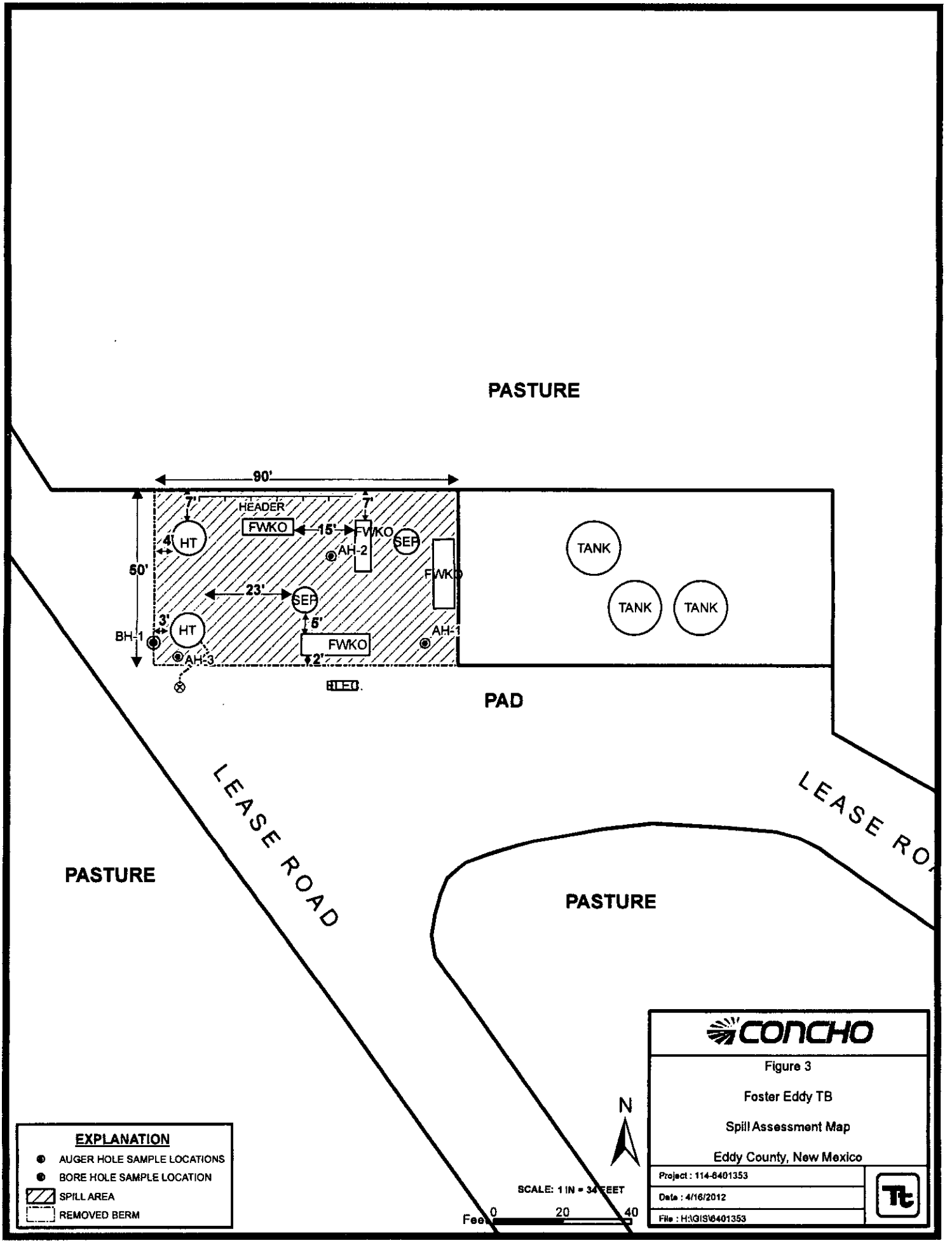
Date : 4/18/2012

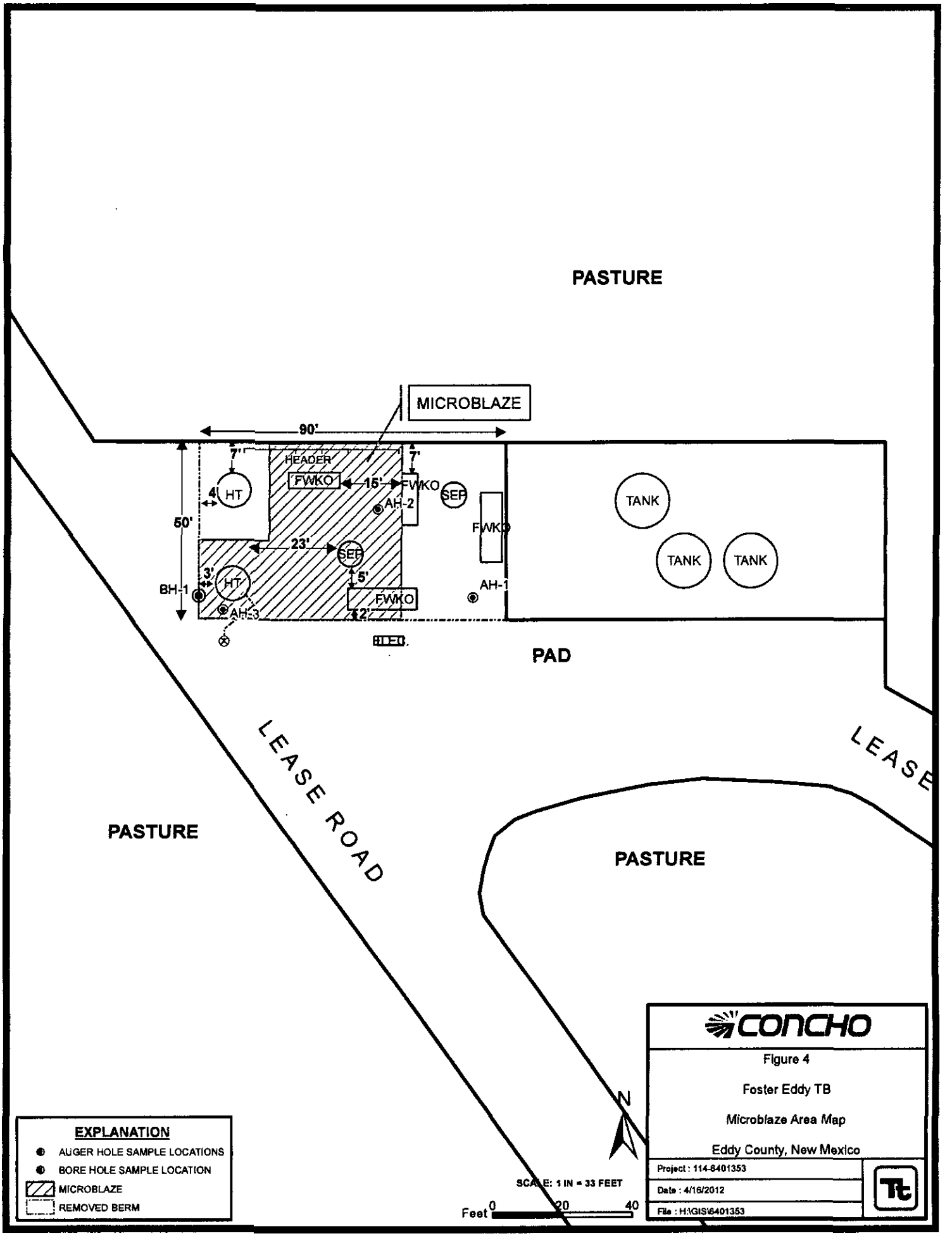
File : H:\GIS\6401353

Drawn By: Isabel Marmolejo



Drawn By: Isabel Marmolejo


PASTURE
90'
7'
HEADER
7'
FWKO
15'
FWKO
4'
HT
AH-2
SEP
50'
FWKO
23'
SEP
5'
3'
HT
BH-1
AH-3
FWKO
2'
AH-1
BLED
TANK
TANK
TANK
PAD
LEASE ROAD
LEASE RO
PASTURE
PASTURE
EXPLANATION
AUGER HOLE SAMPLE LOCATIONS
BORE HOLE SAMPLE LOCATION
SPILL AREA
REMOVED BERM
N
SCALE: 1 IN = 34 FEET
Feet
0
20
40
CONCHO
Figure 3
Foster Eddy TB
Spill Assessment Map
Eddy County, New Mexico
Project : 114-6401353
Date : 4/16/2012
File : H:\GIS\6401353
Drawn By: Isabel Mermolejo



Drawn By: Isabel Mazmelejo

Tables

Table 1
COG Operating LLC.
Foster Eddy Tank Battery
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	BEB 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	3/29/2012	0-1	0.5	X		739	2,450	3,189	6.05	16.3	5.89	6.28	34.5	1,710
	"	1-1.5	0.5	X		-	-	-	-	-	-	-	-	655
	"	2-2.5	0.5	X		-	-	-	-	-	-	-	-	1,110
	"	3-3.5	0.5	X		-	-	-	-	-	-	-	-	1,270
	"	4-4.5	0.5	X		-	-	-	-	-	-	-	-	1,180
	"	5-5.5	0.5	X		-	-	-	-	-	-	-	-	910
	"	6-6.5	0.5	X		-	-	-	-	-	-	-	-	905
	"	7-7.5	0.5	X		-	-	-	-	-	-	-	-	836
	"	8-8.5	0.5	X		-	-	-	-	-	-	-	-	817
	"	9-9.5	0.5	X		-	-	-	-	-	-	-	-	704
AH-2	3/29/2012	0-1	0.5	X		2,390	10,100	**12,490**	**28.3**	28.7	12.4	20.4	**89.8**	4,770
	"	1-1.5	0.5	X		2,830	8,450	**11,280**	**51.3**	71.2	24.6	30.9	**178**	2,350
	"	2-2.5	0.5	X		28.8	88.5	117	<0.100	0.283	0.440	0.956	1.68	2,920
	"	3-3.5	0.5	X		<10.0	<50.0	<50.0	<0.100	<0.100	<0.100	<0.100	<0.100	2,670
	"	4-4.5	0.5	X		-	-	-	-	-	-	-	-	628
	"	5-5.5	0.5	X		-	-	-	-	-	-	-	-	811
	"	6-6.5	0.5	X		-	-	-	-	-	-	-	-	840
	"	7-7.5	0.5	X		-	-	-	-	-	-	-	-	460
	"	8-8.5	0.5	X		-	-	-	-	-	-	-	-	865
	"	9-9.5	0.5	X		-	-	-	-	-	-	-	-	984

Table 1
COG Operating LLC.
Foster Eddy Tank Battery
Eddy County, New Mexico

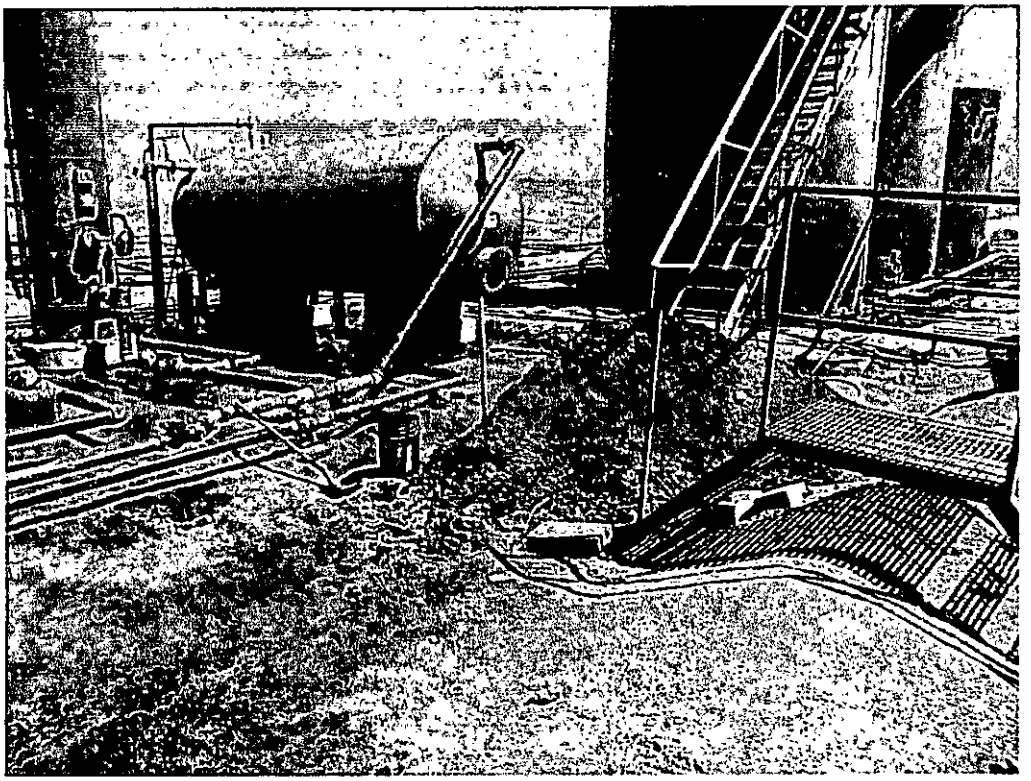
Sample ID	Sample Date	Sample Depth (ft)	BEB Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
AH-3	3/29/2012	0-1	0.5	X		6,490	8,300	14,790	66.8	224	156	207	654	3,350
	"	1-1.5	0.5	X		28	194	222	<0.200	<0.200	<0.200	0.937	0.937	2,770
	"	2-2.5	0.5	X		-	-	-	-	-	-	-	-	4,760
	"	3-3.5	0.5	X		-	-	-	-	-	-	-	-	2,560
	"	4-4.5	0.5	X		-	-	-	-	-	-	-	-	1,280
	"	5-5.5	0.5	X		-	-	-	-	-	-	-	-	1,300
	"	6-6.5	0.5	X		-	-	-	-	-	-	-	-	1,230
	"	7-7.5	0.5	X		-	-	-	-	-	-	-	-	1,190
	"	8-8.5	0.5	X		-	-	-	-	-	-	-	-	1,180
	"	9-9.5	0.5	X		-	-	-	-	-	-	-	-	1,900
BH-1	06/07/2012	0-1	3	X		-	-	-	-	-	-	-	-	660
	"	2-3	3	X		-	-	-	-	-	-	-	-	589
	"	4-5	3	X		-	-	-	-	-	-	-	-	670
	"	6-7	3	X		-	-	-	-	-	-	-	-	1,760
	"	9-10	3	X		-	-	-	-	-	-	-	-	1,790
	"	14-15	3	X		-	-	-	-	-	-	-	-	1,680
	"	19-20	3	X		-	-	-	-	-	-	-	-	2,100
	"	24-25	3	X		-	-	-	-	-	-	-	-	1,210
	"	29-30	3	X		-	-	-	-	-	-	-	-	1,420
	"	39-40	3	X		-	-	-	-	-	-	-	-	1,670
	"	49-50	3	X		-	-	-	-	-	-	-	-	1,520
	"	59-60	3	X		-	-	-	-	-	-	-	-	2,110
	"	69-70	3	X		-	-	-	-	-	-	-	-	411
	"	79-80	3	X		-	-	-	-	-	-	-	-	258

BEB Below Excavation Bottom
(--) Not Analyzed
Proposed Areas to Micorblaze

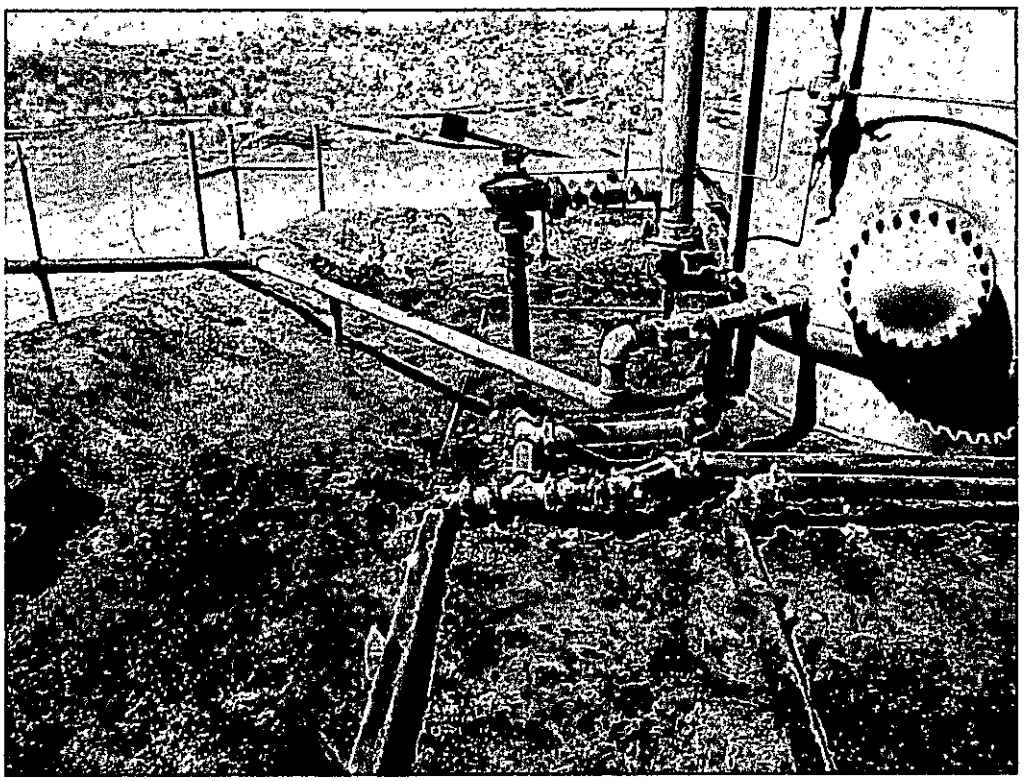
Photos

COG Operating LLC
Foster Eddy Tank Battery
Eddy County, New Mexico

TETRA TECH



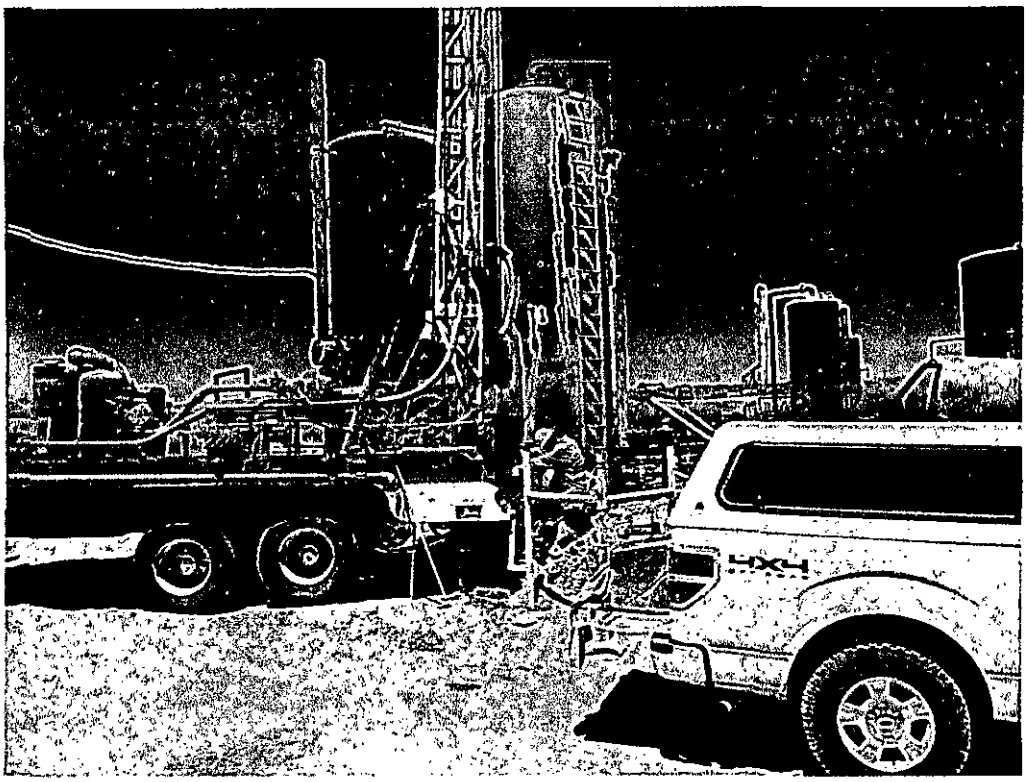
View north – Tank Battery



View west – Near AH-3 and BH-1

COG Operating LLC
Foster Eddy Tank Battery
Eddy County, New Mexico

TETRA TECH



View north – Installing BH-1

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

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NMOCD ARTESIA

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	COG Operating LLC	Contact	Pat Ellis
Address	550 W. Texas, Suite 1300 Midland, Texas 79701	Telephone No.	(432) 230-0077
Facility Name	Foster Eddy Tank Battery	Facility Type	Tank Battery

Surface Owner: Federal	Mineral Owner	Lease No. NMLC-049998-A

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	17	17S	31E					Eddy

Latitude N 32.83448° **Longitude** W 103.89102°

NATURE OF RELEASE

Type of Release: Produced water w/ skim oil	Volume of Release 160 bbls	Volume Recovered 160 bbls
Source of Release: Produced water tank	Date and Hour of Occurrence 03/13/2012	Date and Hour of Discovery 03/13/2012 7:00 p.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher-OCD, Jim Amos-BLM, Terry Gregston-BLM	
By Whom? Josh Russo	Date and Hour 03/14/2012 7:43 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.*

The alarm system failed at the tank battery causing the produced water tank to overflow. Electricians have corrected the problem.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech inspected the site and collected samples to define spills extent. Due to the congestion of structures, lines and vessels, excavation was not practical. COG proposes to use microblaze to remediate the soils that exceeded regulatory limits for Benzene, Total BTEX and TPH. Soil that has elevated chloride levels will be deferred until the abandonment of the facility. 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 for COG)	Approved by District Supervisor:	
Title: Project Manager	Approval Date:	Expiration Date:
E-mail Address: Ike.Tavarez@TetraTech.com	Conditions of Approval:	Attached ☐
Date: 1-3-13 Phone: (432) 682-4559		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

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

Surface Owner Federal	Mineral Owner	Lease No. NMLC-049998-A

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	17	17S	31E					Eddy

Latitude 32 50.070 **Longitude** 103 53.438

NATURE OF RELEASE

Type of Release Produced water w/ skim oil	Volume of Release 160bbls	Volume Recovered 160bbls
Source of Release Produced water tank	Date and Hour of Occurrence 03/13/2012	Date and Hour of Discovery 03/13/2012 7:00 p.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher-OCD, Jim Amos-BLM, Terry Gregston-BLM	
By Whom? Josh Russo	Date and Hour 03/14/2012 7:43 p.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.**

The alarm system failed at the tank battery causing the produced water tank to overflow. Electricians have corrected the problem.

Describe Area Affected and Cleanup Action Taken.*

Initially 160bbls were released into the lined dike of the Foster Eddy Tank Battery. Due to the volume of the release, some of the fluid was able to reach a portion of the tank battery that is not lined with 40mil plastic. Tetra Tech will take soils samples of the spill area in the unlined portion of the tank battery to delineate any possible contamination from the release. We will submit a work plan to the NMOCD/BLM for approval prior to any significant remediation work.

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

Signature:	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: 03/26/2012 Phone: 432-212-2399		

* Attach Additional Sheets If Necessary

Appendix B

Water Well Data
Average Depth to Groundwater (ft)
COG - Foster Eddy Federal Tank Battery
Eddy County, New Mexico

16 South 30 East

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

16 South 31 East

6	5	4	3	2	1
7	8	9	10	11	12 **288**
18	17	16	15	14	13 **113**
19	20	21	22	23	24
30	29	28	27	26	25
31 **290**	32	33	34	35	36

16 South 32 East

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

17 South 30 East

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

17 South 31 East

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

17 South 32 East

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

18 South 30 East

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

18 South 31 East

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

18 South 32 East

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

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

Appendix C

Summary Report

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

Report Date: June 15, 2012

Work Order: 12060827

Project Location: Eddy Co., NM
Project Name: *COG/Foster Eddy Tank Battery*
Project Number: 114-6401353

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
300488	BH-1 @ AH-3 (3' BEB-Berm Removed) 0-1'	soil	2012-06-07	00:00	2012-06-08
300489	BH-1 @ AH-3 (3' BEB-Berm Removed) 2-3'	soil	2012-06-07	00:00	2012-06-08
300490	BH-1 @ AH-3 (3' BEB-Berm Removed) 4-5'	soil	2012-06-07	00:00	2012-06-08
300491	BH-1 @ AH-3 (3' BEB-Berm Removed) 6-7'	soil	2012-06-07	00:00	2012-06-08
300492	BH-1 @ AH-3 (3' BEB-Berm Removed) 9-10'	soil	2012-06-07	00:00	2012-06-08
300493	BH-1 @ AH-3 (3' BEB-Berm Removed) 14-15'	soil	2012-06-07	00:00	2012-06-08
300494	BH-1 @ AH-3 (3' BEB-Berm Removed) 19-20'	soil	2012-06-07	00:00	2012-06-08
300495	BH-1 @ AH-3 (3' BEB-Berm Removed) 24-25'	soil	2012-06-07	00:00	2012-06-08
300496	BH-1 @ AH-3 (3' BEB-Berm Removed) 29-30'	soil	2012-06-07	00:00	2012-06-08
300497	BH-1 @ AH-3 (3' BEB-Berm Removed) 39-40'	soil	2012-06-07	00:00	2012-06-08
300498	BH-1 @ AH-3 (3' BEB-Berm Removed) 49-50'	soil	2012-06-07	00:00	2012-06-08
300499	BH-1 @ AH-3 (3' BEB-Berm Removed) 59-60'	soil	2012-06-07	00:00	2012-06-08
300500	BH-1 @ AH-3 (3' BEB-Berm Removed) 69-70'	soil	2012-06-07	00:00	2012-06-08
300501	BH-1 @ AH-3 (3' BEB-Berm Removed) 79-80'	soil	2012-06-07	00:00	2012-06-08

Sample: 300488 - BH-1 @ AH-3 (3' BEB-Berm Removed) 0-1'

Param	Flag	Result	Units	RL
Chloride		**660**	mg/Kg	4

Sample: 300489 - BH-1 @ AH-3 (3' BEB-Berm Removed) 2-3'

Param	Flag	Result	Units	RL
Chloride		**589**	mg/Kg	4

Sample: 300490 - BH-1 @ AH-3 (3' BEB-Berm Removed) 4-5'

Param	Flag	Result	Units	RL
Chloride		**670**	mg/Kg	4

Sample: 300491 - BH-1 @ AH-3 (3' BEB-Berm Removed) 6-7'

Param	Flag	Result	Units	RL
Chloride		**1760**	mg/Kg	4

Sample: 300492 - BH-1 @ AH-3 (3' BEB-Berm Removed) 9-10'

Param	Flag	Result	Units	RL
Chloride		**1790**	mg/Kg	4

Sample: 300493 - BH-1 @ AH-3 (3' BEB-Berm Removed) 14-15'

Param	Flag	Result	Units	RL
Chloride		**1680**	mg/Kg	4

Sample: 300494 - BH-1 @ AH-3 (3' BEB-Berm Removed) 19-20'

Param	Flag	Result	Units	RL
Chloride		**2100**	mg/Kg	4

Sample: 300495 - BH-1 @ AH-3 (3' BEB-Berm Removed) 24-25'

Param	Flag	Result	Units	RL
Chloride		**1210**	mg/Kg	4

Sample: 300496 - BH-1 @ AH-3 (3' BEB-Berm Removed) 29-30'

Param	Flag	Result	Units	RL
Chloride		**1420**	mg/Kg	4

Sample: 300497 - BH-1 @ AH-3 (3' BEB-Berm Removed) 39-40'

Param	Flag	Result	Units	RL
Chloride		**1670**	mg/Kg	4

Sample: 300498 - BH-1 @ AH-3 (3' BEB-Berm Removed) 49-50'

Param	Flag	Result	Units	RL
Chloride		**1520**	mg/Kg	4

Sample: 300499 - BH-1 @ AH-3 (3' BEB-Berm Removed) 59-60'

Param	Flag	Result	Units	RL
Chloride		**2110**	mg/Kg	4

Sample: 300500 - BH-1 @ AH-3 (3' BEB-Berm Removed) 69-70'

Param	Flag	Result	Units	RL
Chloride		**411**	mg/Kg	4

Sample: 300501 - BH-1 @ AH-3 (3' BEB-Berm Removed) 79-80'

Param	Flag	Result	Units	RL
Chloride		**258**	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: June 15, 2012

Work Order: 12060827

Project Location: Eddy Co., NM
Project Name: COG/Foster Eddy Tank Battery
Project Number: 114-6401353

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
300488	BH-1 @ AH-3 (3' BEB-Berm Removed) 0-1'	soil	2012-06-07	00:00	2012-06-08
300489	BH-1 @ AH-3 (3' BEB-Berm Removed) 2-3'	soil	2012-06-07	00:00	2012-06-08
300490	BH-1 @ AH-3 (3' BEB-Berm Removed) 4-5'	soil	2012-06-07	00:00	2012-06-08
300491	BH-1 @ AH-3 (3' BEB-Berm Removed) 6-7'	soil	2012-06-07	00:00	2012-06-08
300492	BH-1 @ AH-3 (3' BEB-Berm Removed) 9-10'	soil	2012-06-07	00:00	2012-06-08
300493	BH-1 @ AH-3 (3' BEB-Berm Removed) 14-15'	soil	2012-06-07	00:00	2012-06-08
300494	BH-1 @ AH-3 (3' BEB-Berm Removed) 19-20'	soil	2012-06-07	00:00	2012-06-08
300495	BH-1 @ AH-3 (3' BEB-Berm Removed) 24-25'	soil	2012-06-07	00:00	2012-06-08
300496	BH-1 @ AH-3 (3' BEB-Berm Removed) 29-30'	soil	2012-06-07	00:00	2012-06-08
300497	BH-1 @ AH-3 (3' BEB-Berm Removed) 39-40'	soil	2012-06-07	00:00	2012-06-08
300498	BH-1 @ AH-3 (3' BEB-Berm Removed) 49-50'	soil	2012-06-07	00:00	2012-06-08
300499	BH-1 @ AH-3 (3' BEB-Berm Removed) 59-60'	soil	2012-06-07	00:00	2012-06-08
300500	BH-1 @ AH-3 (3' BEB-Berm Removed) 69-70'	soil	2012-06-07	00:00	2012-06-08
300501	BH-1 @ AH-3 (3' BEB-Berm Removed) 79-80'	soil	2012-06-07	00:00	2012-06-08

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

This report consists of a total of 14 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

Report Contents

Case Narrative

Samples for project COG/Foster Eddy Tank Battery were received by TraceAnalysis, Inc. on 2012-06-08 and assigned to work order 12060827. Samples for work order 12060827 were received intact at a temperature of 3.5 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (Titration)	SM 4500-Cl B	78114	2012-06-12 at 09:13	92102	2012-06-13 at 16:01
Chloride (Titration)	SM 4500-Cl B	78114	2012-06-12 at 09:13	92103	2012-06-13 at 16:02

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 12060827 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: 300488 - BH-1 @ AH-3 (3' BEB-Berm Removed) 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	92102	Date Analyzed:	2012-06-13	Analyzed By:	AR
Prep Batch:	78114	Sample Preparation:	2012-06-12	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**660**	mg/Kg	5	4.00

Sample: 300489 - BH-1 @ AH-3 (3' BEB-Berm Removed) 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	92102	Date Analyzed:	2012-06-13	Analyzed By:	AR
Prep Batch:	78114	Sample Preparation:	2012-06-12	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**589**	mg/Kg	5	4.00

Sample: 300490 - BH-1 @ AH-3 (3' BEB-Berm Removed) 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	92102	Date Analyzed:	2012-06-13	Analyzed By:	AR
Prep Batch:	78114	Sample Preparation:	2012-06-12	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**670**	mg/Kg	5	4.00

Sample: 300491 - BH-1 @ AH-3 (3' BEB-Berm Removed) 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	92102	Date Analyzed:	2012-06-13	Analyzed By:	AR
Prep Batch:	78114	Sample Preparation:	2012-06-12	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**1760**	mg/Kg	10	4.00

Sample: 300492 - BH-1 @ AH-3 (3' BEB-Berm Removed) 9-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	92102	Date Analyzed:	2012-06-13	Analyzed By:	AR
Prep Batch:	78114	Sample Preparation:	2012-06-12	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**1790**	mg/Kg	10	4.00

Sample: 300493 - BH-1 @ AH-3 (3' BEB-Berm Removed) 14-15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	92102	Date Analyzed:	2012-06-13	Analyzed By:	AR
Prep Batch:	78114	Sample Preparation:	2012-06-12	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**1680**	mg/Kg	10	4.00

Sample: 300494 - BH-1 @ AH-3 (3' BEB-Berm Removed) 19-20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	92102	Date Analyzed:	2012-06-13	Analyzed By:	AR
Prep Batch:	78114	Sample Preparation:	2012-06-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2100**	mg/Kg	10	4.00

Sample: 300495 - BH-1 @ AH-3 (3' BEB-Berm Removed) 24-25'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	92102	Date Analyzed:	2012-06-13	Analyzed By:	AR
Prep Batch:	78114	Sample Preparation:	2012-06-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1210**	mg/Kg	10	4.00

Sample: 300496 - BH-1 @ AH-3 (3' BEB-Berm Removed) 29-30'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	92102	Date Analyzed:	2012-06-13	Analyzed By:	AR
Prep Batch:	78114	Sample Preparation:	2012-06-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1420**	mg/Kg	10	4.00

Sample: 300497 - BH-1 @ AH-3 (3' BEB-Berm Removed) 39-40'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	92102	Date Analyzed:	2012-06-13	Analyzed By:	AR
Prep Batch:	78114	Sample Preparation:	2012-06-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1670**	mg/Kg	10	4.00

Sample: 300498 - BH-1 @ AH-3 (3' BEB-Berm Removed) 49-50'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	92103	Date Analyzed:	2012-06-13	Analyzed By:	AR
Prep Batch:	78114	Sample Preparation:	2012-06-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1520**	mg/Kg	10	4.00

Sample: 300499 - BH-1 @ AH-3 (3' BEB-Berm Removed) 59-60'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	92103	Date Analyzed:	2012-06-13	Analyzed By:	AR
Prep Batch:	78114	Sample Preparation:	2012-06-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2110**	mg/Kg	10	4.00

Sample: 300500 - BH-1 @ AH-3 (3' BEB-Berm Removed) 69-70'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	92103	Date Analyzed:	2012-06-13	Analyzed By:	AR
Prep Batch:	78114	Sample Preparation:	2012-06-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**411**	mg/Kg	5	4.00

Sample: 300501 - BH-1 @ AH-3 (3' BEB-Berm Removed) 79-80'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	92103	Date Analyzed:	2012-06-13	Analyzed By:	AR
Prep Batch:	78114	Sample Preparation:	2012-06-12	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**258**	mg/Kg	5	4.00

Method Blanks

Method Blank (1) QC Batch: 92102

QC Batch:	92102	Date Analyzed:	2012-06-13	Analyzed By:	AR
Prep Batch:	78114	QC Preparation:	2012-06-12	Prepared By:	AR

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

Method Blank (1) QC Batch: 92103

QC Batch:	92103	Date Analyzed:	2012-06-13	Analyzed By:	AR
Prep Batch:	*78114*	*QC Preparation:*	*2012-06-12*	*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: 92102 | Date Analyzed: 2012-06-13 | Analyzed By: AR
Prep Batch: 78114 | QC Preparation: 2012-06-12 | 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: 92103 | Date Analyzed: 2012-06-13 | Analyzed By: AR
Prep Batch: 78114 | QC Preparation: 2012-06-12 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2540	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			2680	mg/Kg	1	2500	<3.85	107	85 - 115	5	20

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

Matrix Spike (MS-1) Spiked Sample: 300497

QC Batch: 92102 | Date Analyzed: 2012-06-13 | Analyzed By: AR
Prep Batch: 78114 | QC Preparation: 2012-06-12 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			4060	mg/Kg	10	2500	1670	96	79.4 - 120.6

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			4320	mg/Kg	10	2500	1670	106	79.4 - 120.6	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: 300507

QC Batch: 92103 | Date Analyzed: 2012-06-13 | Analyzed By: AR
Prep Batch: 78114 | QC Preparation: 2012-06-12 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			8570	mg/Kg	10	2500	5890	107	79.4 - 120.6

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			8330	mg/Kg	10	2500	5890	98	79.4 - 120.6	3	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: 92102 | Date Analyzed: 2012-06-13 | 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	2012-06-13

Standard (CCV-2)

QC Batch: 92102 | Date Analyzed: 2012-06-13 | 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	99.1	99	85 - 115	2012-06-13

Standard (CCV-1)

QC Batch: 92103 | Date Analyzed: 2012-06-13 | 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	2012-06-13

Standard (CCV-2)

QC Batch: 92103 | Date Analyzed: 2012-06-13 | 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	2012-06-13

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.
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.

1206082?

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 2

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.: 114640 1353

PROJECT NAME: Foster Eddy Tank Battery

Eddy Co., NM

LAB I.D. NUMBER	DATE 2012	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
300488	6/7		S		X	BH-1 @ AH-3 (3' BEB - Berm Removed) 0-1'	1				X													X				
489						2-3'	1																	X				
490						4-5'	1																	X				
491						6-7'	1																	X				
492						9-10'	1																	X				
493						14-15'	1																	X				
494						19-20'	1																	X				
495						24-25'	1																	X				
496						29-30'	1																	X				
497						39-40'	1																	X				

ANALYSIS REQUEST
(Circle or Specify Method No.)

RELINQUISHED BY: (Signature)	Date:	Time:	RECEIVED BY: (Signature)	Date:	Time:
			Kasey Fitch	6-8-12	0800
RELINQUISHED BY: (Signature) Kasey Fitch	Date: 6-8-12	Time: 1352	RECEIVED BY: (Signature)	Date:	Time:
RELINQUISHED BY: (Signature)	Date:	Time:	RECEIVED BY: (Signature)	Date:	Time:

SAMPLED BY: (Print & Initial) Kim — Date: 6/7/12 Time:

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

RECEIVING LABORATORY: TRACE
ADDRESS:
CITY: MIDLAND STATE: TX ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature)
DATE: 6-8-12 TIME: 13:52

SAMPLE CONDITION WHEN RECEIVED: 3.5° C intact

REMARKS:

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

12060827

Analysis Request of Chain of Custody Record

PAGE: 2 F: 2

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.: 114-6401353

PROJECT NAME: Foster Eddy Tank Battery

Eddy Co, NM

LAB I.D. NUMBER	DATE 2012	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
498	6/7		S		X	BH-1 @ AH-3 (3' BEB - Berm Removal) 49-50'	1				X													X				
499	"		"		"	59-60'	1				X													X				
500	"		"		"	69-70'	1				X													X				
501	"		"		"	79-80'	1				X													X				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature)	Date: / Time:	RECEIVED BY: (Signature) Jeanne Fitch	Date: 6-8-12 Time: 0900
RELINQUISHED BY: (Signature) Jeanne Fitch	Date: 6-8-12 Time: 1352	RECEIVED BY: (Signature)	Date: / Time:
RELINQUISHED BY: (Signature)	Date: / Time:	RECEIVED BY: (Signature)	Date: / Time:

SAMPLED BY: (Print & Initial) Kim — Date: 6/7/12 Time:

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

RECEIVING LABORATORY: TRACE
ADDRESS:
CITY: MIDLAND STATE: TX ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature)
DATE: 6-8-12 TIME: 13:52

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.5°C intact

REMARKS:

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

Summary Report

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

Report Date: April 11, 2012

Work Order: 12033034

Project Location: Eddy Co., NM
Project Name: COG/Foster Eddy Tank Battery
Project Number: 114-6401353

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
293072	AH-1 0.5' BEB 0-1'	soil	2012-03-29	00:00	2012-03-30
293073	AH-1 0.5' BEB 1-1.5'	soil	2012-03-29	00:00	2012-03-30
293074	AH-1 0.5' BEB 2-2.5'	soil	2012-03-29	00:00	2012-03-30
293075	AH-1 0.5' BEB 3-3.5'	soil	2012-03-29	00:00	2012-03-30
293076	AH-1 0.5' BEB 4-4.5'	soil	2012-03-29	00:00	2012-03-30
293077	AH-1 0.5' BEB 5-5.5'	soil	2012-03-29	00:00	2012-03-30
293078	AH-1 0.5' BEB 6-6.5'	soil	2012-03-29	00:00	2012-03-30
293079	AH-1 0.5' BEB 7-7.5'	soil	2012-03-29	00:00	2012-03-30
293080	AH-1 0.5' BEB 8-8.5'	soil	2012-03-29	00:00	2012-03-30
293081	AH-1 0.5' BEB 9-9.5'	soil	2012-03-29	00:00	2012-03-30
293082	AH-2 0.5' BEB 0-1'	soil	2012-03-29	00:00	2012-03-30
293083	AH-2 0.5' BEB 1-1.5'	soil	2012-03-29	00:00	2012-03-30
293084	AH-2 0.5' BEB 2-2.5'	soil	2012-03-29	00:00	2012-03-30
293085	AH-2 0.5' BEB 3-3.5'	soil	2012-03-29	00:00	2012-03-30
293086	AH-2 0.5' BEB 4-4.5'	soil	2012-03-29	00:00	2012-03-30
293087	AH-2 0.5' BEB 5-5.5'	soil	2012-03-29	00:00	2012-03-30
293088	AH-2 0.5' BEB 6-6.5'	soil	2012-03-29	00:00	2012-03-30
293089	AH-2 0.5' BEB 7-7.5'	soil	2012-03-29	00:00	2012-03-30
293090	AH-2 0.5' BEB 8-8.5'	soil	2012-03-29	00:00	2012-03-30
293091	AH-2 0.5' BEB 9-9.5'	soil	2012-03-29	00:00	2012-03-30
293092	AH-3 0.5' BEB 0-1'	soil	2012-03-29	00:00	2012-03-30
293093	AH-3 0.5' BEB 1-1.5'	soil	2012-03-29	00:00	2012-03-30
293094	AH-3 0.5' BEB 2-2.5'	soil	2012-03-29	00:00	2012-03-30
293095	AH-3 0.5' BEB 3-3.5'	soil	2012-03-29	00:00	2012-03-30
293096	AH-3 0.5' BEB 4-4.5'	soil	2012-03-29	00:00	2012-03-30
293097	AH-3 0.5' BEB 5-5.5'	soil	2012-03-29	00:00	2012-03-30
293098	AH-3 0.5' BEB 6-6.5'	soil	2012-03-29	00:00	2012-03-30
293099	AH-3 0.5' BEB 7-7.5'	soil	2012-03-29	00:00	2012-03-30
293100	AH-3 0.5' BEB 8-8.5'	soil	2012-03-29	00:00	2012-03-30
293101	AH-3 0.5' BEB 9-9.5'	soil	2012-03-29	00:00	2012-03-30

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)
293072 - AH-1 0.5' BEB 0-1'	**6.05** Qr	**16.3** Qr	**5.89** Qr	**6.28** Qr	**2450**	**739**
293082 - AH-2 0.5' BEB 0-1'	**28.3** Qr	**28.7** Qr	**12.4** Qr	**20.4** Qr	**10100**	**2390** Qs
293083 - AH-2 0.5' BEB 1-1.5'	**51.3**	**71.2**	**24.6**	**30.9**	**8450** Qs	**2830**
293084 - AH-2 0.5' BEB 2-2.5'	<0.100	**0.283**	**0.440**	**0.956**	**88.5**	**28.8**
293085 - AH-2 0.5' BEB 3-3.5'	<0.100	<0.100	<0.100	<0.100	<50.0	<10.0
293092 - AH-3 0.5' BEB 0-1'	**66.8**	**224**	**156**	**207**	**8300**	**6490** Qs
293093 - AH-3 0.5' BEB 1-1.5'	<0.200	<0.200	<0.200	**0.937**	**194** Qs	**28.1**

Sample: 293072 - AH-1 0.5' BEB 0-1'

Param	Flag	Result	Units	RL
Chloride		**1710**	mg/Kg	4

Sample: 293073 - AH-1 0.5' BEB 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**655**	mg/Kg	4

Sample: 293074 - AH-1 0.5' BEB 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**1110**	mg/Kg	4

Sample: 293075 - AH-1 0.5' BEB 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**1270**	mg/Kg	4

Sample: 293076 - AH-1 0.5' BEB 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**1180**	mg/Kg	4

Sample: 293077 - AH-1 0.5' BEB 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**910**	mg/Kg	4

Sample: 293078 - AH-1 0.5' BEB 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**905**	mg/Kg	4

Sample: 293079 - AH-1 0.5' BEB 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**836**	mg/Kg	4

Sample: 293080 - AH-1 0.5' BEB 8-8.5'

Param	Flag	Result	Units	RL
Chloride		**817**	mg/Kg	4

Sample: 293081 - AH-1 0.5' BEB 9-9.5'

Param	Flag	Result	Units	RL
Chloride		**704**	mg/Kg	4

Sample: 293082 - AH-2 0.5' BEB 0-1'

Param	Flag	Result	Units	RL
Chloride		**4770**	mg/Kg	4

Sample: 293083 - AH-2 0.5' BEB 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**2350**	mg/Kg	4

Sample: 293084 - AH-2 0.5' BEB 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**2920**	mg/Kg	4

Sample: 293085 - AH-2 0.5' BEB 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**2670**	mg/Kg	4

Sample: 293086 - AH-2 0.5' BEB 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**628**	mg/Kg	4

Sample: 293087 - AH-2 0.5' BEB 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**811**	mg/Kg	4

Sample: 293088 - AH-2 0.5' BEB 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**840**	mg/Kg	4

Sample: 293089 - AH-2 0.5' BEB 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**460**	mg/Kg	4

Sample: 293090 - AH-2 0.5' BEB 8-8.5'

Param	Flag	Result	Units	RL
Chloride		**865**	mg/Kg	4

Sample: 293091 - AH-2 0.5' BEB 9-9.5'

Param	Flag	Result	Units	RL
Chloride		**984**	mg/Kg	4

Sample: 293092 - AH-3 0.5' BEB 0-1'

Param	Flag	Result	Units	RL
Chloride		**3350**	mg/Kg	4

Sample: 293093 - AH-3 0.5' BEB 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**2770**	mg/Kg	4

Sample: 293094 - AH-3 0.5' BEB 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**4760**	mg/Kg	4

Sample: 293095 - AH-3 0.5' BEB 3-3.5'

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

Sample: 293096 - AH-3 0.5' BEB 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**1280**	mg/Kg	4

Sample: 293097 - AH-3 0.5' BEB 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**1300**	mg/Kg	4

Sample: 293098 - AH-3 0.5' BEB 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**1230**	mg/Kg	4

Sample: 293099 - AH-3 0.5' BEB 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**1190**	mg/Kg	4

Sample: 293100 - AH-3 0.5' BEB 8-8.5'

Param	Flag	Result	Units	RL
Chloride		**1180**	mg/Kg	4

Sample: 293101 - AH-3 0.5' BEB 9-9.5'

Param	Flag	Result	Units	RL
Chloride		**1900**	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: April 11, 2012

Work Order: 12033034

Project Location: Eddy Co., NM
Project Name: COG/Foster Eddy Tank Battery
Project Number: 114-6401353

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
293072	AH-1 0.5' BEB 0-1'	soil	2012-03-29	00:00	2012-03-30
293073	AH-1 0.5' BEB 1-1.5'	soil	2012-03-29	00:00	2012-03-30
293074	AH-1 0.5' BEB 2-2.5'	soil	2012-03-29	00:00	2012-03-30
293075	AH-1 0.5' BEB 3-3.5'	soil	2012-03-29	00:00	2012-03-30
293076	AH-1 0.5' BEB 4-4.5'	soil	2012-03-29	00:00	2012-03-30
293077	AH-1 0.5' BEB 5-5.5'	soil	2012-03-29	00:00	2012-03-30
293078	AH-1 0.5' BEB 6-6.5'	soil	2012-03-29	00:00	2012-03-30
293079	AH-1 0.5' BEB 7-7.5'	soil	2012-03-29	00:00	2012-03-30
293080	AH-1 0.5' BEB 8-8.5'	soil	2012-03-29	00:00	2012-03-30
293081	AH-1 0.5' BEB 9-9.5'	soil	2012-03-29	00:00	2012-03-30
293082	AH-2 0.5' BEB 0-1'	soil	2012-03-29	00:00	2012-03-30
293083	AH-2 0.5' BEB 1-1.5'	soil	2012-03-29	00:00	2012-03-30
293084	AH-2 0.5' BEB 2-2.5'	soil	2012-03-29	00:00	2012-03-30
293085	AH-2 0.5' BEB 3-3.5'	soil	2012-03-29	00:00	2012-03-30
293086	AH-2 0.5' BEB 4-4.5'	soil	2012-03-29	00:00	2012-03-30
293087	AH-2 0.5' BEB 5-5.5'	soil	2012-03-29	00:00	2012-03-30
293088	AH-2 0.5' BEB 6-6.5'	soil	2012-03-29	00:00	2012-03-30
293089	AH-2 0.5' BEB 7-7.5'	soil	2012-03-29	00:00	2012-03-30

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
293090	AH-2 0.5' BEB 8-8.5'	soil	2012-03-29	00:00	2012-03-30
293091	AH-2 0.5' BEB 9-9.5'	soil	2012-03-29	00:00	2012-03-30
293092	AH-3 0.5' BEB 0-1'	soil	2012-03-29	00:00	2012-03-30
293093	AH-3 0.5' BEB 1-1.5'	soil	2012-03-29	00:00	2012-03-30
293094	AH-3 0.5' BEB 2-2.5'	soil	2012-03-29	00:00	2012-03-30
293095	AH-3 0.5' BEB 3-3.5'	soil	2012-03-29	00:00	2012-03-30
293096	AH-3 0.5' BEB 4-4.5'	soil	2012-03-29	00:00	2012-03-30
293097	AH-3 0.5' BEB 5-5.5'	soil	2012-03-29	00:00	2012-03-30
293098	AH-3 0.5' BEB 6-6.5'	soil	2012-03-29	00:00	2012-03-30
293099	AH-3 0.5' BEB 7-7.5'	soil	2012-03-29	00:00	2012-03-30
293100	AH-3 0.5' BEB 8-8.5'	soil	2012-03-29	00:00	2012-03-30
293101	AH-3 0.5' BEB 9-9.5'	soil	2012-03-29	00:00	2012-03-30

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/Foster Eddy Tank Battery were received by TraceAnalysis, Inc. on 2012-03-30 and assigned to work order 12033034. Samples for work order 12033034 were received intact at a temperature of 0.9 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	76308	2012-04-02 at 10:48	89915	2012-04-02 at 11:09
BTEX	S 8021B	76335	2012-04-03 at 10:12	89940	2012-04-03 at 10:29
BTEX	S 8021B	76371	2012-04-04 at 10:00	89995	2012-04-04 at 11:05
BTEX	S 8021B	76405	2012-04-05 at 09:44	90033	2012-04-05 at 09:59
BTEX	S 8021B	76426	2012-04-06 at 10:00	90067	2012-04-06 at 11:58
Chloride (Titration)	SM 4500-Cl B	76336	2012-04-03 at 09:27	89956	2012-04-04 at 10:51
Chloride (Titration)	SM 4500-Cl B	76336	2012-04-03 at 09:27	90006	2012-04-05 at 11:36
Chloride (Titration)	SM 4500-Cl B	76336	2012-04-03 at 09:27	90007	2012-04-05 at 11:37
Chloride (Titration)	SM 4500-Cl B	76336	2012-04-03 at 09:27	90008	2012-04-05 at 11:38
TPH DRO - NEW	S 8015 D	76291	2012-04-02 at 13:55	89888	2012-04-02 at 13:59
TPH DRO - NEW	S 8015 D	76359	2012-04-04 at 14:12	89977	2012-04-04 at 14:16
TPH DRO - NEW	S 8015 D	76385	2012-04-05 at 13:14	90014	2012-04-05 at 13:16
TPH DRO - NEW	S 8015 D	76407	2012-04-06 at 10:38	90036	2012-04-06 at 10:40
TPH GRO	S 8015 D	76308	2012-04-02 at 10:48	89908	2012-04-03 at 11:36
TPH GRO	S 8015 D	76335	2012-04-03 at 10:12	89939	2012-04-03 at 12:00
TPH GRO	S 8015 D	76371	2012-04-04 at 10:00	89994	2012-04-04 at 10:25
TPH GRO	S 8015 D	76405	2012-04-05 at 09:44	90034	2012-04-05 at 10:36
TPH GRO	S 8015 D	76426	2012-04-06 at 10:00	90068	2012-04-06 at 12:25

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 12033034 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: 293072 - AH-1 0.5' BEB 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	89915	Date Analyzed:	2012-04-02	Analyzed By:	tc
Prep Batch:	76308	Sample Preparation:	2012-04-02	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr	1	**6.05**	mg/Kg	10	0.0200
Toluene	Qr	1	**16.3**	mg/Kg	10	0.0200
Ethylbenzene	Qr	1	**5.89**	mg/Kg	10	0.0200
Xylene	Qr	1	**6.28**	mg/Kg	10	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.32	mg/Kg	10	10.0	93	75 - 135.4
4-Bromofluorobenzene (4-BFB)			10.1	mg/Kg	10	10.0	101	63.6 - 158.9

Sample: 293072 - AH-1 0.5' BEB 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	89956	Date Analyzed:	2012-04-04	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1710**	mg/Kg	100	4.00

Sample: 293072 - AH-1 0.5' BEB 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	89888	Date Analyzed:	2012-04-02	Analyzed By:	DA
Prep Batch:	76291	Sample Preparation:	2012-04-02	Prepared By:	DA

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	**2450**	mg/Kg	10	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	491	mg/Kg	10	100	491	49.3 - 157.5

Sample: 293072 - AH-1 0.5' BEB 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	89908	Date Analyzed:	2012-04-03	Analyzed By:	tc
Prep Batch:	76308	Sample Preparation:	2012-04-02	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	**739**	mg/Kg	10	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.50	mg/Kg	10	10.0	95	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			11.1	mg/Kg	10	10.0	111	45.1 - 162.2

Sample: 293073 - AH-1 0.5' BEB 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	89956	Date Analyzed:	2012-04-04	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**655**	mg/Kg	50	4.00

Sample: 293074 - AH-1 0.5' BEB 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90006	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

continued ...

sample 293074 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1110**	mg/Kg	100	4.00

Sample: 293075 - AH-1 0.5' BEB 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90006	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1270**	mg/Kg	100	4.00

Sample: 293076 - AH-1 0.5' BEB 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90006	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1180**	mg/Kg	100	4.00

Sample: 293077 - AH-1 0.5' BEB 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90006	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**910**	mg/Kg	100	4.00

Sample: 293078 - AH-1 0.5' BEB 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90006	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**905**	mg/Kg	50	4.00

Sample: 293079 - AH-1 0.5' BEB 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90006	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**836**	mg/Kg	50	4.00

Sample: 293080 - AH-1 0.5' BEB 8-8.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90006	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**817**	mg/Kg	50	4.00

Sample: 293081 - AH-1 0.5' BEB 9-9.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90006	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**704**	mg/Kg	50	4.00

Sample: 293082 - AH-2 0.5' BEB 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	89915	Date Analyzed:	2012-04-02	Analyzed By:	tc
Prep Batch:	76308	Sample Preparation:	2012-04-02	Prepared By:	tc

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	Qr	1	**28.3**	mg/Kg	10	0.0200
Toluene	Qr	1	**28.7**	mg/Kg	10	0.0200
Ethylbenzene	Qr	1	**12.4**	mg/Kg	10	0.0200
Xylene	Qr	1	**20.4**	mg/Kg	10	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.20	mg/Kg	10	10.0	82	75 - 135.4
4-Bromofluorobenzene (4-BFB)			12.2	mg/Kg	10	10.0	122	63.6 - 158.9

Sample: 293082 - AH-2 0.5' BEB 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90006	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**4770**	mg/Kg	100	4.00

Sample: 293082 - AH-2 0.5' BEB 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	89888	Date Analyzed:	2012-04-02	Analyzed By:	DA
Prep Batch:	76291	Sample Preparation:	2012-04-02	Prepared By:	DA

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
DRO		1	**10100**		mg/Kg	20	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Q#r Q#r		1500	mg/Kg	20	100	1500	49.3 - 157.5

Sample: 293082 - AH-2 0.5' BEB 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	89939	Date Analyzed:	2012-04-03	Analyzed By:	tc
Prep Batch:	76335	Sample Preparation:	2012-04-03	Prepared By:	tc

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
GRO	Q#	1	**2390**		mg/Kg	100	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			88.5	mg/Kg	100	100	88	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			93.7	mg/Kg	100	100	94	45.1 - 162.2

Sample: 293083 - AH-2 0.5' BEB 1-1.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	89995	Date Analyzed:	2012-04-04	Analyzed By:	tc
Prep Batch:	76371	Sample Preparation:	2012-04-04	Prepared By:	tc

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
Benzene		1	**51.3**		mg/Kg	100	0.0200
Toluene		1	**71.2**		mg/Kg	100	0.0200
Ethylbenzene		1	**24.6**		mg/Kg	100	0.0200
Xylene		1	**30.9**		mg/Kg	100	0.0200

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	Qsr		54.7	mg/Kg	100	100	55	75 - 135.4
4-Bromofluorobenzene (4-BFB)				69.5	mg/Kg	100	100	70	63.6 - 158.9

Sample: 293083 - AH-2 0.5' BEB 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90006	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2350**	mg/Kg	100	4.00

Sample: 293083 - AH-2 0.5' BEB 1-1.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	89977	Date Analyzed:	2012-04-04	Analyzed By:	DA
Prep Batch:	76359	Sample Preparation:	2012-04-04	Prepared By:	DA

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qe	1	***8450***	mg/Kg	20	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		980	mg/Kg	20	100	980	49.3 - 157.5

Sample: 293083 - AH-2 0.5' BEB 1-1.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	89994	Date Analyzed:	2012-04-04	Analyzed By:	tc
Prep Batch:	76371	Sample Preparation:	2012-04-04	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	**2830**	mg/Kg	100	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	Qsr	52.8	mg/Kg	100	100	53	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			70.6	mg/Kg	100	100	71	45.1 - 162.2

Sample: 293084 - AH-2 0.5' BEB 2-2.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90067	Date Analyzed:	2012-04-06	Analyzed By:	AG
Prep Batch:	76426	Sample Preparation:	2012-04-06	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.100	mg/Kg	5	0.0200
Toluene		1	**0.283**	mg/Kg	5	0.0200
Ethylbenzene		1	**0.440**	*mg/Kg*	5	0.0200
Xylene		1	**0.956**	mg/Kg	5	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			5.44	mg/Kg	5	5.00	109	75 - 135.4
4-Bromofluorobenzene (4-BFB)			5.51	mg/Kg	5	5.00	110	63.6 - 158.9

Sample: 293084 - AH-2 0.5' BEB 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90007	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2920**	mg/Kg	100	4.00

Sample: 293084 - AH-2 0.5' BEB 2-2.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	90036	Date Analyzed:	2012-04-06	Analyzed By:	DA
Prep Batch:	76407	Sample Preparation:	2012-04-06	Prepared By:	DA

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO		1	**88.5**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			134	mg/Kg	1	100	134	49.3 - 157.5

Sample: 293084 - AH-2 0.5' BEB 2-2.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90068	Date Analyzed:	2012-04-06	Analyzed By:	AG
Prep Batch:	76426	Sample Preparation:	2012-04-06	Prepared By:	AG

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO		1	**28.8**	mg/Kg	5	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			5.41	mg/Kg	5	5.00	108	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			5.11	mg/Kg	5	5.00	102	45.1 - 162.2

Sample: 293085 - AH-2 0.5' BEB 3-3.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90067	Date Analyzed:	2012-04-06	Analyzed By:	AG
Prep Batch:	76426	Sample Preparation:	2012-04-06	Prepared By:	AG

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	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)			5.42	mg/Kg	5	5.00	108	75 - 135.4
4-Bromofluorobenzene (4-BFB)			5.29	mg/Kg	5	5.00	106	63.6 - 158.9

Sample: 293085 - AH-2 0.5' BEB 3-3.5'

Laboratory:	Midland				
Analysis:	*Chloride (Titration)*	*Analytical Method:*	SM 4500-Cl B	*Prep Method:*	N/A
QC Batch:	90007	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2670**	mg/Kg	100	4.00

Sample: 293085 - AH-2 0.5' BEB 3-3.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	90014	Date Analyzed:	2012-04-05	Analyzed By:	DA
Prep Batch:	76385	Sample Preparation:	2012-04-05	Prepared By:	DA

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			118	mg/Kg	1	100	118	49.3 - 157.5

Sample: 293085 - AH-2 0.5' BEB 3-3.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90068	Date Analyzed:	2012-04-06	Analyzed By:	AG
Prep Batch:	76426	Sample Preparation:	2012-04-06	Prepared By:	AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	1	<10.0	mg/Kg	5	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			5.32	mg/Kg	5	5.00	106	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			4.85	mg/Kg	5	5.00	97	45.1 - 162.2

Sample: 293086 - AH-2 0.5' BEB 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90007	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**628**	mg/Kg	50	4.00

Sample: 293087 - AH-2 0.5' BEB 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90007	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**811**	mg/Kg	50	4.00

Sample: 293088 - AH-2 0.5' BEB 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90007	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**840**	mg/Kg	50	4.00

Sample: 293089 - AH-2 0.5' BEB 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90007	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**460**	mg/Kg	50	4.00

Sample: 293090 - AH-2 0.5' BEB 8-8.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90007	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**865**	mg/Kg	50	4.00

Sample: 293091 - AH-2 0.5' BEB 9-9.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90007	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**984**	mg/Kg	50	4.00

Sample: 293092 - AH-3 0.5' BEB 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	89940	Date Analyzed:	2012-04-03	Analyzed By:	tc
Prep Batch:	76335	Sample Preparation:	2012-04-03	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**66.8**	mg/Kg	500	0.0200
Toluene		1	**224**	mg/Kg	500	0.0200
Ethylbenzene		1	**156**	mg/Kg	500	0.0200

continued ...

sample 293092 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Xylene		1	**207**	mg/Kg	500	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			456	mg/Kg	500	500	91	75 - 135.4
4-Bromofluorobenzene (4-BFB)			453	mg/Kg	500	500	91	63.6 - 158.9

Sample: 293092 - AH-3 0.5' BEB 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90007	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3350**	mg/Kg	100	4.00

Sample: 293092 - AH-3 0.5' BEB 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	89888	Date Analyzed:	2012-04-02	Analyzed By:	DA
Prep Batch:	76291	Sample Preparation:	2012-04-02	Prepared By:	DA

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	**8300**	mg/Kg	20	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr Qsr		881	mg/Kg	20	100	881	49.3 - 157.5

Sample: 293092 - AH-3 0.5' BEB 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	89939	Date Analyzed:	2012-04-03	Analyzed By:	tc
Prep Batch:	76335	Sample Preparation:	2012-04-03	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Q8	1	**6490**	mg/Kg	500	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			437	mg/Kg	500	500	87	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			494	mg/Kg	500	500	99	45.1 - 162.2

Sample: 293093 - AH-3 0.5' BEB 1-1.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	90033	Date Analyzed:	2012-04-05	Analyzed By:	tc
Prep Batch:	76405	Sample Preparation:	2012-04-05	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.200	mg/Kg	10	0.0200
Toluene	U	1	<0.200	mg/Kg	10	0.0200
Ethylbenzene	U	1	<0.200	mg/Kg	10	0.0200
Xylene		1	**0.937**	mg/Kg	10	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			10.4	mg/Kg	10	10.0	104	75 - 135.4
4-Bromofluorobenzene (4-BFB)			10.2	mg/Kg	10	10.0	102	63.6 - 158.9

Sample: 293093 - AH-3 0.5' BEB 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90007	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

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

Sample: 293093 - AH-3 0.5' BEB 1-1.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	89977	Date Analyzed:	2012-04-04	Analyzed By:	DA
Prep Batch:	76359	Sample Preparation:	2012-04-04	Prepared By:	DA

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
DRO	Qm	1	**194**		mg/Kg	1	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		176	mg/Kg	1	100	176	49.3 - 157.5

Sample: 293093 - AH-3 0.5' BEB 1-1.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	90034	Date Analyzed:	2012-04-05	Analyzed By:	tc
Prep Batch:	76405	Sample Preparation:	2012-04-05	Prepared By:	tc

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
GRO		1		**28.1**	mg/Kg	10	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			10.5	mg/Kg	10	10.0	105	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			9.66	mg/Kg	10	10.0	97	45.1 - 162.2

Sample: 293094 - AH-3 0.5' BEB 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90008	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
Chloride				**4760**	mg/Kg	100	4.00

Sample: 293095 - AH-3 0.5' BEB 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90008	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2560**	mg/Kg	100	4.00

Sample: 293096 - AH-3 0.5' BEB 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90008	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1280**	mg/Kg	100	4.00

Sample: 293097 - AH-3 0.5' BEB 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90008	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1300**	mg/Kg	100	4.00

Sample: 293098 - AH-3 0.5' BEB 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90008	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1230**	mg/Kg	100	4.00

Sample: 293099 - AH-3 0.5' BEB 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90008	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1190**	mg/Kg	100	4.00

Sample: 293100 - AH-3 0.5' BEB 8-8.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90008	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1180**	mg/Kg	100	4.00

Sample: 293101 - AH-3 0.5' BEB 9-9.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	90008	Date Analyzed:	2012-04-05	Analyzed By:	AR
Prep Batch:	76336	Sample Preparation:	2012-04-03	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1900**	mg/Kg	100	4.00

Method Blanks

Method Blank (1) QC Batch: 89888

QC Batch: 89888 | Date Analyzed: 2012-04-02 | Analyzed By: DA
Prep Batch: 76291 | QC Preparation: 2012-04-02 | Prepared By: DA

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<14.5	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			*126*	*mg/Kg*	*1*	*100*	*126*	*52 - 140.8*

Method Blank (1) QC Batch: 89908

QC Batch: 89908 | Date Analyzed: 2012-04-03 | Analyzed By: tc
Prep Batch: 76308 | QC Preparation: 2012-04-02 | Prepared By: tc

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	1.22	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.65	mg/Kg	1	2.00	82	78.6 - 111
4-Bromofluorobenzene (4-BFB)			1.53	mg/Kg	1	2.00	76	55 - 100

Method Blank (1) QC Batch: 89915

QC Batch: 89915 | Date Analyzed: 2012-04-02 | Analyzed By: tc
Prep Batch: 76308 | QC Preparation: 2012-04-02 | Prepared By: tc

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00470	mg/Kg	0.02
Toluene		1	<0.00980	mg/Kg	0.02

continued ...

method blank continued ...

Parameter	Flag	Cert	MDL Result	Units	RL
Ethylbenzene		1	<0.00500	mg/Kg	0.02
Xylene		1	<0.0170	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.62	mg/Kg	1	2.00	81	78 - 123.6
4-Bromofluorobenzene (4-BFB)			1.64	mg/Kg	1	2.00	82	55.9 - 112.4

Method Blank (1) QC Batch: 89939

QC Batch: 89939 | Date Analyzed: 2012-04-03 | Analyzed By: tc
Prep Batch: 76335 | QC Preparation: 2012-04-03 | Prepared By: tc

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	1.49	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.58	mg/Kg	1	2.00	79	78.6 - 111
4-Bromofluorobenzene (4-BFB)			1.44	mg/Kg	1	2.00	72	55 - 100

Method Blank (1) QC Batch: 89940

QC Batch: 89940 | Date Analyzed: 2012-04-03 | Analyzed By: tc
Prep Batch: 76335 | QC Preparation: 2012-04-03 | Prepared By: tc

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00470	mg/Kg	0.02
Toluene		1	<0.00980	mg/Kg	0.02
Ethylbenzene		1	<0.00500	mg/Kg	0.02
Xylene		1	<0.0170	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.59	mg/Kg	1	2.00	80	78 - 123.6
4-Bromofluorobenzene (4-BFB)			1.53	mg/Kg	1	2.00	76	55.9 - 112.4

Method Blank (1) QC Batch: 89956

QC Batch:	89956	Date Analyzed:	2012-04-04	Analyzed By:	AR
Prep Batch:	76336	QC Preparation:	2012-04-03	Prepared By:	AR

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

Method Blank (1) QC Batch: 89977

QC Batch:	89977	Date Analyzed:	2012-04-04	Analyzed By:	DA
Prep Batch:	76359	QC Preparation:	2012-04-04	Prepared By:	DA

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<14.5	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			93.6	mg/Kg	1	100	94	52 - 140.8

Method Blank (1) QC Batch: 89994

QC Batch:	89994	Date Analyzed:	2012-04-04	Analyzed By:	tc
Prep Batch:	76371	QC Preparation:	2012-04-04	Prepared By:	tc

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	1.74	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.15	mg/Kg	1	2.00	108	78.6 - 111
4-Bromofluorobenzene (4-BFB)			1.95	mg/Kg	1	2.00	98	55 - 100

Method Blank (1) QC Batch: 89995

QC Batch: 89995 | Date Analyzed: 2012-04-04 | Analyzed By: tc
Prep Batch: 76371 | QC Preparation: 2012-04-04 | Prepared By: tc

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00470	mg/Kg	0.02
Toluene		1	<0.00980	mg/Kg	0.02
Ethylbenzene		1	<0.00500	mg/Kg	0.02
Xylene		1	<0.0170	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.12	mg/Kg	1	2.00	106	78 - 123.6
4-Bromofluorobenzene (4-BFB)			2.06	mg/Kg	1	2.00	103	55.9 - 112.4

Method Blank (1) QC Batch: 90006

QC Batch: 90006 | Date Analyzed: 2012-04-05 | Analyzed By: AR
Prep Batch: 76336 | QC Preparation: 2012-04-03 | Prepared By: AR

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

Method Blank (1) QC Batch: 90007

QC Batch: 90007 | Date Analyzed: 2012-04-05 | Analyzed By: AR
Prep Batch: 76336 | QC Preparation: 2012-04-03 | Prepared By: AR

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

Method Blank (1) QC Batch: 90008

QC Batch: 90008 | Date Analyzed: 2012-04-05 | Analyzed By: AR
Prep Batch: 76336 | QC Preparation: 2012-04-03 | Prepared By: AR

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

Method Blank (1) QC Batch: 90014

QC Batch: 90014 Date Analyzed: 2012-04-05 Analyzed By: DA
Prep Batch: 76385 QC Preparation: 2012-04-05 Prepared By: DA

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<14.5	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			111	mg/Kg	1	100	111	52 - 140.8

Method Blank (1) QC Batch: 90033

QC Batch: 90033 Date Analyzed: 2012-04-05 Analyzed By: tc
Prep Batch: 76405 QC Preparation: 2012-04-05 Prepared By: tc

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00470	mg/Kg	0.02
Toluene		1	<0.00980	mg/Kg	0.02
Ethylbenzene		1	<0.00500	mg/Kg	0.02
Xylene		1	<0.0170	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	78 - 123.6
4-Bromofluorobenzene (4-BFB)			1.90	mg/Kg	1	2.00	95	55.9 - 112.4

Method Blank (1) QC Batch: 90034

QC Batch: 90034 Date Analyzed: 2012-04-05 Analyzed By: tc
Prep Batch: 76405 QC Preparation: 2012-04-05 Prepared By: tc

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	1.78	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.99	mg/Kg	1	2.00	100	78.6 - 111
4-Bromofluorobenzene (4-BFB)			1.81	mg/Kg	1	2.00	90	55 - 100

Method Blank (1) QC Batch: 90036

QC Batch: 90036 | Date Analyzed: 2012-04-06 | Analyzed By: DA
Prep Batch: 76407 | QC Preparation: 2012-04-06 | Prepared By: DA

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<14.5	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			105	mg/Kg	1	100	105	52 - 140.8

Method Blank (1) QC Batch: 90067

QC Batch: 90067 | Date Analyzed: 2012-04-06 | Analyzed By: AG
Prep Batch: 76426 | QC Preparation: 2012-04-06 | Prepared By: tc

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00470	mg/Kg	0.02
Toluene		1	<0.00980	mg/Kg	0.02
Ethylbenzene		1	<0.00500	mg/Kg	0.02
Xylene		1	<0.0170	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.01	mg/Kg	1	2.00	100	78 - 123.6
4-Bromofluorobenzene (4-BFB)			1.96	mg/Kg	1	2.00	98	55.9 - 112.4

Method Blank (1) QC Batch: 90068

QC Batch:	90068	Date Analyzed:	2012-04-06	Analyzed By:	AG
Prep Batch:	76426	QC Preparation:	2012-04-06	Prepared By:	tc

Parameter	Flag	Cert	MDL Result	Units	RL
GRO			1.52	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.00	mg/Kg	1	2.00	100	78.6 - 111
4-Bromofluorobenzene (4-BFB)			1.80	mg/Kg	1	2.00	90	55 - 100

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 89888 | Date Analyzed: 2012-04-02 | Analyzed By: DA
Prep Batch: 76291 | QC Preparation: 2012-04-02 | Prepared By: DA

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	246	mg/Kg	1	250	<14.5	98	62 - 128.3

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	245	mg/Kg	1	250	<14.5	98	62 - 128.3	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	116	109	mg/Kg	1	100	116	109	58.6 - 149.6

Laboratory Control Spike (LCS-1)

QC Batch: 89908 | Date Analyzed: 2012-04-03 | Analyzed By: tc
Prep Batch: 76308 | QC Preparation: 2012-04-02 | Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	18.9	mg/Kg	1	20.0	<1.22	94	68.3 - 105.7

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	19.2	mg/Kg	1	20.0	<1.22	96	68.3 - 105.7	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.91	2.00	mg/Kg	1	2.00	96	100	80 - 111.2
4-Bromofluorobenzene (4-BFB)	1.80	1.90	mg/Kg	1	2.00	90	95	66.4 - 106.6

Laboratory Control Spike (LCS-1)

QC Batch: 89915 | Date Analyzed: 2012-04-02 | Analyzed By: tc
Prep Batch: 76308 | QC Preparation: 2012-04-02 | Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.23	mg/Kg	1	2.00	<0.00470	112	86.5 - 124.9
Toluene		1	2.22	mg/Kg	1	2.00	<0.00980	111	84.7 - 122.5
Ethylbenzene		1	2.23	mg/Kg	1	2.00	<0.00500	112	79.4 - 118.9
Xylene		1	6.68	mg/Kg	1	6.00	<0.0170	111	79.5 - 118.9

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	2.19	mg/Kg	1	2.00	<0.00470	110	86.5 - 124.9	2	20
Toluene		1	2.20	mg/Kg	1	2.00	<0.00980	110	84.7 - 122.5	1	20
Ethylbenzene		1	2.21	mg/Kg	1	2.00	<0.00500	110	79.4 - 118.9	1	20
Xylene		1	6.70	mg/Kg	1	6.00	<0.0170	112	79.5 - 118.9	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.89	1.95	mg/Kg	1	2.00	94	98	73.9 - 127
4-Bromofluorobenzene (4-BFB)	1.90	1.93	mg/Kg	1	2.00	95	96	70.4 - 119.9

Laboratory Control Spike (LCS-1)

QC Batch: 89939 | Date Analyzed: 2012-04-03 | Analyzed By: tc
Prep Batch: 76335 | QC Preparation: 2012-04-03 | Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	15.9	mg/Kg	1	20.0	<1.22	80	68.3 - 105.7

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	16.8	mg/Kg	1	20.0	<1.22	84	68.3 - 105.7	6	20

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

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control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Surrogate	*LCS Result*	*LCSD Result*	*Units*	*Dil.*	*Spike Amount*	*LCS Rec.*	*LCSD Rec.*	*Rec. Limit*
Trifluorotoluene (TFT)	1.97	1.68	mg/Kg	1	2.00	98	84	80 - 111.2
4-Bromofluorobenzene (4-BFB)	1.81	1.57	mg/Kg	1	2.00	90	78	66.4 - 106.6

Laboratory Control Spike (LCS-1)

QC Batch: 89940 | Date Analyzed: 2012-04-03 | Analyzed By: tc
Prep Batch: 76335 | QC Preparation: 2012-04-03 | Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.20	mg/Kg	1	2.00	<0.00470	110	86.5 - 124.9
Toluene		1	2.18	mg/Kg	1	2.00	<0.00980	109	84.7 - 122.5
Ethylbenzene		1	2.17	mg/Kg	1	2.00	<0.00500	108	79.4 - 118.9
Xylene		1	6.49	mg/Kg	1	6.00	<0.0170	108	79.5 - 118.9

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	2.17	mg/Kg	1	2.00	<0.00470	108	86.5 - 124.9	1	20
Toluene		1	2.17	mg/Kg	1	2.00	<0.00980	108	84.7 - 122.5	0	20
Ethylbenzene		1	2.16	mg/Kg	1	2.00	<0.00500	108	79.4 - 118.9	0	20
Xylene		1	6.42	mg/Kg	1	6.00	<0.0170	107	79.5 - 118.9	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.51	1.83	mg/Kg	1	2.00	76	92	73.9 - 127
4-Bromofluorobenzene (4-BFB)	1.47	1.80	mg/Kg	1	2.00	74	90	70.4 - 119.9

Laboratory Control Spike (LCS-1)

QC Batch: 89956 | Date Analyzed: 2012-04-04 | Analyzed By: AR
Prep Batch: 76336 | QC Preparation: 2012-04-03 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			96.2	mg/Kg	1	100	<3.85	96	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			101	mg/Kg	1	100	<3.85	101	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: 89977 | Date Analyzed: 2012-04-04 | Analyzed By: DA
Prep Batch: 76359 | QC Preparation: 2012-04-04 | Prepared By: DA

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	232	mg/Kg	1	250	<14.5	93	62 - 128.3

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	206	mg/Kg	1	250	<14.5	82	62 - 128.3	12	20

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	104	98.0	mg/Kg	1	100	104	98	58.6 - 149.6

Laboratory Control Spike (LCS-1)

QC Batch: 89994 | Date Analyzed: 2012-04-04 | Analyzed By: tc
Prep Batch: 76371 | QC Preparation: 2012-04-04 | Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	17.2	mg/Kg	1	20.0	<1.22	86	68.3 - 105.7

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	17.3	mg/Kg	1	20.0	<1.22	86	68.3 - 105.7	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.64	1.66	mg/Kg	1	2.00	82	83	80 - 111.2
4-Bromofluorobenzene (4-BFB)	1.54	1.56	mg/Kg	1	2.00	77	78	66.4 - 106.6

Laboratory Control Spike (LCS-1)

QC Batch: 89995 | Date Analyzed: 2012-04-04 | Analyzed By: tc
Prep Batch: 76371 | QC Preparation: 2012-04-04 | Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.98	mg/Kg	1	2.00	<0.00470	99	86.5 - 124.9
Toluene		1	1.98	mg/Kg	1	2.00	<0.00980	99	84.7 - 122.5
Ethylbenzene		1	1.98	mg/Kg	1	2.00	<0.00500	99	79.4 - 118.9
Xylene		1	5.94	mg/Kg	1	6.00	<0.0170	99	79.5 - 118.9

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	2.15	mg/Kg	1	2.00	<0.00470	108	86.5 - 124.9	8	20
Toluene		1	2.16	mg/Kg	1	2.00	<0.00980	108	84.7 - 122.5	9	20
Ethylbenzene		1	2.14	mg/Kg	1	2.00	<0.00500	107	79.4 - 118.9	8	20
Xylene		1	6.42	mg/Kg	1	6.00	<0.0170	107	79.5 - 118.9	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)	1.75	1.88	mg/Kg	1	2.00	88	94	73.9 - 127
4-Bromofluorobenzene (4-BFB)	1.75	1.88	mg/Kg	1	2.00	88	94	70.4 - 119.9

Laboratory Control Spike (LCS-1)

QC Batch: 90006 | Date Analyzed: 2012-04-05 | Analyzed By: AR
Prep Batch: 76336 | QC Preparation: 2012-04-03 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			96.1	mg/Kg	1	100	<3.85	96	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			103	mg/Kg	1	100	<3.85	103	85 - 115	7	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 90007 | Date Analyzed: 2012-04-05 | Analyzed By: AR
Prep Batch: 76336 | QC Preparation: 2012-04-03 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			96.1	mg/Kg	1	100	<3.85	96	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			104	mg/Kg	1	100	<3.85	104	85 - 115	8	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: 90008 | Date Analyzed: 2012-04-05 | Analyzed By: AR
Prep Batch: 76336 | QC Preparation: 2012-04-03 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			100	mg/Kg	1	100	<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			94.1	mg/Kg	1	100	<3.85	94	85 - 115	6	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 90014 | Date Analyzed: 2012-04-05 | Analyzed By: DA
Prep Batch: 76385 | QC Preparation: 2012-04-05 | Prepared By: DA

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	234	mg/Kg	1	250	<14.5	94	62 - 128.3

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	236	mg/Kg	1	250	<14.5	94	62 - 128.3	1	20

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

Surrogate	*LCS* Result	*LCSD* Result	Units	Dil.	*Spike* Amount	*LCS* Rec.	*LCSD* Rec.	*Rec.* Limit
n-Tricosane	119	120	mg/Kg	1	100	119	120	58.6 - 149.6

Laboratory Control Spike (LCS-1)

QC Batch: 90033 | Date Analyzed: 2012-04-05 | Analyzed By: tc
Prep Batch: 76405 | QC Preparation: 2012-04-05 | Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.20	mg/Kg	1	2.00	<0.00470	110	86.5 - 124.9
Toluene		1	2.24	mg/Kg	1	2.00	<0.00980	112	84.7 - 122.5
Ethylbenzene		1	2.26	mg/Kg	1	2.00	<0.00500	113	79.4 - 118.9
Xylene		1	6.79	mg/Kg	1	6.00	<0.0170	113	79.5 - 118.9

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	2.27	mg/Kg	1	2.00	<0.00470	114	86.5 - 124.9	3	20
Toluene		1	2.28	mg/Kg	1	2.00	<0.00980	114	84.7 - 122.5	2	20
Ethylbenzene		1	2.31	mg/Kg	1	2.00	<0.00500	116	79.4 - 118.9	2	20
Xylene		1	6.91	mg/Kg	1	6.00	<0.0170	115	79.5 - 118.9	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.98	1.98	mg/Kg	1	2.00	99	99	73.9 - 127

continued ...

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	2.01	2.02	mg/Kg	1	2.00	100	101	70.4 - 119.9

Laboratory Control Spike (LCS-1)

QC Batch: 90034 | Date Analyzed: 2012-04-05 | Analyzed By: tc
Prep Batch: 76405 | QC Preparation: 2012-04-05 | Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	17.8	mg/Kg	1	20.0	<1.22	89	68.3 - 105.7

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	17.9	mg/Kg	1	20.0	<1.22	90	68.3 - 105.7	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.94	2.04	mg/Kg	1	2.00	97	102	80 - 111.2
4-Bromofluorobenzene (4-BFB)	1.82	1.93	mg/Kg	1	2.00	91	96	66.4 - 106.6

Laboratory Control Spike (LCS-1)

QC Batch: 90036 | Date Analyzed: 2012-04-06 | Analyzed By: DA
Prep Batch: 76407 | QC Preparation: 2012-04-06 | Prepared By: DA

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	238	mg/Kg	1	250	<14.5	95	62 - 128.3

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	238	mg/Kg	1	250	<14.5	95	62 - 128.3	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	121	122	mg/Kg	1	100	121	122	58.6 - 149.6

Laboratory Control Spike (LCS-1)

QC Batch: 90067 | Date Analyzed: 2012-04-06 | Analyzed By: AG
Prep Batch: 76426 | QC Preparation: 2012-04-06 | Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.07	mg/Kg	1	2.00	<0.00470	104	86.5 - 124.9
Toluene		1	2.07	mg/Kg	1	2.00	<0.00980	104	84.7 - 122.5
Ethylbenzene		1	2.07	mg/Kg	1	2.00	<0.00500	104	79.4 - 118.9
Xylene		1	6.20	mg/Kg	1	6.00	<0.0170	103	79.5 - 118.9

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	2.21	mg/Kg	1	2.00	<0.00470	110	86.5 - 124.9	6	20
Toluene		1	2.19	mg/Kg	1	2.00	<0.00980	110	84.7 - 122.5	6	20
Ethylbenzene		1	2.20	mg/Kg	1	2.00	<0.00500	110	79.4 - 118.9	6	20
Xylene		1	6.58	mg/Kg	1	6.00	<0.0170	110	79.5 - 118.9	6	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.98	2.00	mg/Kg	1	2.00	99	100	73.9 - 127
4-Bromofluorobenzene (4-BFB)	2.02	2.05	mg/Kg	1	2.00	101	102	70.4 - 119.9

Laboratory Control Spike (LCS-1)

QC Batch: 90068 | Date Analyzed: 2012-04-06 | Analyzed By: AG
Prep Batch: 76426 | QC Preparation: 2012-04-06 | Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	17.4	mg/Kg	1	20.0	<1.22	87	68.3 - 105.7

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	17.5	mg/Kg	1	20.0	<1.22	88	68.3 - 105.7	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.05	1.90	mg/Kg	1	2.00	102	95	80 - 111.2
4-Bromofluorobenzene (4-BFB)	1.92	1.80	mg/Kg	1	2.00	96	90	66.4 - 106.6

Matrix Spike (MS-1) Spiked Sample: 293135

QC Batch: 89888 | Date Analyzed: 2012-04-02 | Analyzed By: DA
Prep Batch: 76291 | QC Preparation: 2012-04-02 | Prepared By: DA

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	1040	mg/Kg	5	250	865	70	45.5 - 127

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	1040	mg/Kg	5	250	865	70	45.5 - 127	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	290	297	mg/Kg	5	100	290	297	45.4 - 145.8

Matrix Spike (MS-1) Spiked Sample: 293145

QC Batch: 89908 | Date Analyzed: 2012-04-03 | Analyzed By: tc
Prep Batch: 76308 | QC Preparation: 2012-04-02 | Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	89.9	mg/Kg	5	50.0	34.1827	111	28.2 - 157.2

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

continued ...

matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	97.4	mg/Kg	5	50.0	34.1827	126	28.2 - 157.2	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)	5.33	5.45	mg/Kg	5	5	107	109	75.5 - 122.3
4-Bromofluorobenzene (4-BFB)	5.00	5.12	mg/Kg	5	5	100	102	77.9 - 122.4

Matrix Spike (MS-1) Spiked Sample: 293125

QC Batch:	89915	*Date Analyzed:*	2012-04-02	*Analyzed By:*	tc
Prep Batch:	76308	QC Preparation:	2012-04-02	Prepared By:	tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.90	mg/Kg	1	2.00	<0.00470	95	69.3 - 159.2
Toluene		1	1.93	mg/Kg	1	2.00	<0.00980	96	68.7 - 157
Ethylbenzene		1	2.01	mg/Kg	1	2.00	<0.00500	100	71.6 - 158.2
Xylene		1	6.02	mg/Kg	1	6.00	<0.0170	100	70.8 - 159.8

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	Qr	Qr	1	2.42	mg/Kg	1	2.00	<0.00470	121	69.3 - 159.2	24	20
Toluene	Qr	Qr	1	2.48	mg/Kg	1	2.00	<0.00980	124	68.7 - 157	25	20
Ethylbenzene	Qr	Qr	1	2.59	mg/Kg	1	2.00	<0.00500	130	71.6 - 158.2	25	20
Xylene	Qr	Qr	1	7.83	mg/Kg	1	6.00	<0.0170	130	70.8 - 159.8	26	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)	1.84	2.20	mg/Kg	1	2	92	110	71.4 - 133.9
4-Bromofluorobenzene (4-BFB)	1.76	2.17	mg/Kg	1	2	88	108	72.6 - 144.1

Matrix Spike (MS-1) Spiked Sample: 293178

QC Batch: 89939 | Date Analyzed: 2012-04-03 | Analyzed By: tc
Prep Batch: 76335 | QC Preparation: 2012-04-03 | Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	Q=	Q=	2.85	mg/Kg	1	20.0	1.4473	7	28.2 - 157.2

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	Q=	Q=	2.42	mg/Kg	1	20.0	1.4473	5	28.2 - 157.2	16	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.78	1.88	mg/Kg	1	2	89	94	75.5 - 122.3
4-Bromofluorobenzene (4-BFB)	1.69	1.71	mg/Kg	1	2	84	86	77.9 - 122.4

Matrix Spike (MS-1) Spiked Sample: 293180

QC Batch: 89940 | Date Analyzed: 2012-04-03 | Analyzed By: tc
Prep Batch: 76335 | QC Preparation: 2012-04-03 | Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.00	mg/Kg	1	2.00	<0.00470	100	69.3 - 159.2
Toluene		1	2.04	mg/Kg	1	2.00	<0.00980	102	68.7 - 157
Ethylbenzene		1	2.10	mg/Kg	1	2.00	<0.00500	105	71.6 - 158.2
Xylene		1	6.35	mg/Kg	1	6.00	<0.0170	106	70.8 - 159.8

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	2.08	mg/Kg	1	2.00	<0.00470	104	69.3 - 159.2	4	20
Toluene		1	2.12	mg/Kg	1	2.00	<0.00980	106	68.7 - 157	4	20
Ethylbenzene		1	2.18	mg/Kg	1	2.00	<0.00500	109	71.6 - 158.2	4	20
Xylene		1	6.60	mg/Kg	1	6.00	<0.0170	110	70.8 - 159.8	4	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
Trifluorotoluene (TFT)	1.78	2.05	mg/Kg	1	2	89	102	71.4 - 133.9
4-Bromofluorobenzene (4-BFB)	1.74	2.01	mg/Kg	1	2	87	100	72.6 - 144.1

Matrix Spike (MS-1) Spiked Sample: 293073

QC Batch: 89956 | Date Analyzed: 2012-04-04 | Analyzed By: AR
Prep Batch: 76336 | QC Preparation: 2012-04-03 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			10300	mg/Kg	100	10000	655	96	79.4 - 120.6

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			10800	mg/Kg	100	10000	655	101	79.4 - 120.6	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: 293093

QC Batch: 89977 | Date Analyzed: 2012-04-04 | Analyzed By: DA
Prep Batch: 76359 | QC Preparation: 2012-04-04 | Prepared By: DA

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	Q*	Q*	1	627	mg/Kg	1	250	194	173	45.5 - 127

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	Q*	Q*	1	709	mg/Kg	1	250	194	206	45.5 - 127	12	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
n-Tricosane	Qsr	Qsr	220	241	mg/Kg	1	100	220	241	45.4 - 145.8

Matrix Spike (MS-1) Spiked Sample: 293116

QC Batch: 89994 | Date Analyzed: 2012-04-04 | Analyzed By: tc
Prep Batch: 76371 | QC Preparation: 2012-04-04 | Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	1470	mg/Kg	50	500	870.943	120	28.2 - 157.2

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	1360	mg/Kg	50	500	870.943	98	28.2 - 157.2	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)	Qsr	Qsr	35.6	44.2	mg/Kg	50	50	71	88	75.5 - 122.3
4-Bromofluorobenzene (4-BFB)			39.2	45.1	mg/Kg	50	50	78	90	77.9 - 122.4

Matrix Spike (MS-1) Spiked Sample: 291980

QC Batch: 89995 | Date Analyzed: 2012-04-04 | Analyzed By: tc
Prep Batch: 76371 | QC Preparation: 2012-04-04 | Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	111	mg/Kg	100	100	5.7782	105	69.3 - 159.2
Toluene		1	137	mg/Kg	100	100	33.704	103	68.7 - 157
Ethylbenzene		1	134	mg/Kg	100	100	31.288	103	71.6 - 158.2
Xylene		1	363	mg/Kg	100	300	51.0769	104	70.8 - 159.8

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	108	mg/Kg	100	100	5.7782	102	69.3 - 159.2	3	20
Toluene		1	135	mg/Kg	100	100	33.704	101	68.7 - 157	2	20
Ethylbenzene		1	133	mg/Kg	100	100	31.288	102	71.6 - 158.2	1	20
Xylene		1	358	mg/Kg	100	300	51.0769	102	70.8 - 159.8	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	94.2	92.4	mg/Kg	100	100	94	92	71.4 - 133.9
4-Bromofluorobenzene (4-BFB)	99.6	97.1	mg/Kg	100	100	100	97	72.6 - 144.1

Matrix Spike (MS-1) Spiked Sample: 293083

QC Batch: 90006 | Date Analyzed: 2012-04-05 | Analyzed By: AR
Prep Batch: 76336 | QC Preparation: 2012-04-03 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			12200	mg/Kg	100	10000	2350	98	79.4 - 120.6

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			12900	mg/Kg	100	10000	2350	106	79.4 - 120.6	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: 293093

QC Batch: 90007 | Date Analyzed: 2012-04-05 | Analyzed By: AR
Prep Batch: 76336 | QC Preparation: 2012-04-03 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			13200	mg/Kg	100	10000	2770	104	79.4 - 120.6

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			13800	mg/Kg	100	10000	2770	110	79.4 - 120.6	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: 293101

QC Batch: 90008 | Date Analyzed: 2012-04-05 | Analyzed By: AR
Prep Batch: 76336 | QC Preparation: 2012-04-03 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			11700	mg/Kg	100	10000	1900	98	79.4 - 120.6

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			12300	mg/Kg	100	10000	1900	104	79.4 - 120.6	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: 291984

QC Batch: 90014 | Date Analyzed: 2012-04-05 | Analyzed By: DA
Prep Batch: 76385 | QC Preparation: 2012-04-05 | Prepared By: DA

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	603	mg/Kg	1	250	371	93	45.5 - 127

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	639	mg/Kg	1	250	371	107	45.5 - 127	6	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	148	172	mg/Kg	1	100	148	172	45.4 - 145.8

Matrix Spike (MS-1) Spiked Sample: 293112

QC Batch: 90033 | Date Analyzed: 2012-04-05 | Analyzed By: tc
Prep Batch: 76405 | QC Preparation: 2012-04-05 | Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	628	mg/Kg	500	500	128.788	100	69.3 - 159.2
Toluene		1	773	mg/Kg	500	500	334.302	88	68.7 - 157
Ethylbenzene		1	634	mg/Kg	500	500	182.072	90	71.6 - 158.2
Xylene		1	1770	mg/Kg	500	1500	286.25	99	70.8 - 159.8

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	672	mg/Kg	500	500	128.788	109	69.3 - 159.2	7	20
Toluene		1	873	mg/Kg	500	500	334.302	108	68.7 - 157	12	20
Ethylbenzene		1	698	mg/Kg	500	500	182.072	103	71.6 - 158.2	10	20
Xylene		1	1900	mg/Kg	500	1500	286.25	108	70.8 - 159.8	7	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	488	482	mg/Kg	500	500	98	96	71.4 - 133.9
4-Bromofluorobenzene (4-BFB)	492	506	mg/Kg	500	500	98	101	72.6 - 144.1

Matrix Spike (MS-1) Spiked Sample: 291979

QC Batch: 90034 | Date Analyzed: 2012-04-05 | Analyzed By: tc
Prep Batch: 76405 | QC Preparation: 2012-04-05 | Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	27.8	mg/Kg	1	20.0	15.4577	62	28.2 - 157.2

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	24.5	mg/Kg	1	20.0	15.4577	45	28.2 - 157.2	13	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)	1.72	2.02	mg/Kg	1	2	86	101	75.5 - 122.3
4-Bromofluorobenzene (4-BFB)	1.63	1.93	mg/Kg	1	2	82	96	77.9 - 122.4

Matrix Spike (MS-1) Spiked Sample: 293084

QC Batch: 90036 | Date Analyzed: 2012-04-06 | Analyzed By: DA
Prep Batch: 76407 | QC Preparation: 2012-04-06 | Prepared By: DA

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	306	mg/Kg	1	250	88.5	87	45.5 - 127

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	88.5	89	45.5 - 127	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	133	131	mg/Kg	1	100	133	131	45.4 - 145.8

Matrix Spike (MS-1) Spiked Sample: 293085

QC Batch: 90067 | Date Analyzed: 2012-04-06 | Analyzed By: AG
Prep Batch: 76426 | QC Preparation: 2012-04-06 | Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	5.78	mg/Kg	5	5.00	<0.0235	116	69.3 - 159.2
Toluene		1	5.77	mg/Kg	5	5.00	<0.0490	115	68.7 - 157
Ethylbenzene		1	5.92	mg/Kg	5	5.00	<0.0250	118	71.6 - 158.2
Xylene		1	17.7	mg/Kg	5	15.0	<0.0850	118	70.8 - 159.8

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	5.38	mg/Kg	5	5.00	<0.0235	108	69.3 - 159.2	7	20
Toluene		1	5.43	mg/Kg	5	5.00	<0.0490	109	68.7 - 157	6	20
Ethylbenzene		1	5.56	mg/Kg	5	5.00	<0.0250	111	71.6 - 158.2	6	20
Xylene		1	16.6	mg/Kg	5	15.0	<0.0850	111	70.8 - 159.8	6	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)	5.42	5.33	mg/Kg	5	5	108	107	71.4 - 133.9
4-Bromofluorobenzene (4-BFB)	5.38	5.31	mg/Kg	5	5	108	106	72.6 - 144.1

Matrix Spike (MS-1) Spiked Sample: 293117

QC Batch: 90068 | Date Analyzed: 2012-04-06 | Analyzed By: AG
Prep Batch: 76426 | QC Preparation: 2012-04-06 | Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	46.0	mg/Kg	5	50.0	6.82	78	28.2 - 157.2

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	48.0	mg/Kg	5	50.0	6.82	96	28.2 - 157.2	4	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	4.94	4.92	mg/Kg	5	5	99	98	75.5 - 122.3
4-Bromofluorobenzene (4-BFB)	4.75	4.77	mg/Kg	5	5	95	95	77.9 - 122.4

Calibration Standards

Standard (CCV-2)

QC Batch: 89888 | Date Analyzed: 2012-04-02 | Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	258	103	80 - 120	2012-04-02

Standard (CCV-3)

QC Batch: 89888 | Date Analyzed: 2012-04-02 | Analyzed By: DA

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	2012-04-02

Standard (CCV-4)

QC Batch: 89888 | Date Analyzed: 2012-04-02 | Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	244	98	80 - 120	2012-04-02

Standard (CCV-1)

QC Batch: 89908 | Date Analyzed: 2012-04-03 | Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.17	117	80 - 120	2012-04-03

Standard (CCV-2)

QC Batch: 89908 Date Analyzed: 2012-04-03 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.15	115	80 - 120	2012-04-03

Standard (CCV-1)

QC Batch: 89915 Date Analyzed: 2012-04-02 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.105	105	80 - 120	2012-04-02
Toluene		1	mg/kg	0.100	0.106	106	80 - 120	2012-04-02
Ethylbenzene		1	mg/kg	0.100	0.106	106	80 - 120	2012-04-02
Xylene		1	mg/kg	0.300	0.318	106	80 - 120	2012-04-02

Standard (CCV-2)

QC Batch: 89915 Date Analyzed: 2012-04-02 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.109	109	80 - 120	2012-04-02
Toluene		1	mg/kg	0.100	0.108	108	80 - 120	2012-04-02
Ethylbenzene		1	mg/kg	0.100	0.106	106	80 - 120	2012-04-02
Xylene		1	mg/kg	0.300	0.315	105	80 - 120	2012-04-02

Standard (CCV-3)

QC Batch: 89915 Date Analyzed: 2012-04-02 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.109	109	80 - 120	2012-04-02

continued ...

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		1	mg/kg	0.100	0.109	109	80 - 120	2012-04-02
Ethylbenzene		1	mg/kg	0.100	0.106	106	80 - 120	2012-04-02
Xylene		1	mg/kg	0.300	0.316	105	80 - 120	2012-04-02

Standard (CCV-1)

QC Batch: 89939 Date Analyzed: 2012-04-03 Analyzed By: tc

Param	*Flag*	*Cert*	*Units*	CCVs True *Conc.*	CCVs Found *Conc.*	CCVs Percent *Recovery*	Percent Recovery *Limits*	Date *Analyzed*
GRO		1	mg/Kg	1.00	1.03	103	80 - 120	2012-04-03

Standard (CCV-2)

QC Batch: 89939 Date Analyzed: 2012-04-03 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.03	103	80 - 120	2012-04-03

Standard (CCV-3)

QC Batch: 89939 Date Analyzed: 2012-04-03 Analyzed By: tc

Param	Flag	Cert	Units	*CCVs* True Conc.	CCVs Found Conc.	*CCVs* Percent Recovery	*Percent* Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.01	101	80 - 120	2012-04-03

Standard (CCV-2)

QC Batch: 89940 Date Analyzed: 2012-04-03 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.104	104	80 - 120	2012-04-03
Toluene		1	mg/kg	0.100	0.106	106	80 - 120	2012-04-03
Ethylbenzene		1	mg/kg	0.100	0.102	102	80 - 120	2012-04-03
Xylene		1	mg/kg	0.300	0.303	101	80 - 120	2012-04-03

Standard (CCV-3)

QC Batch: 89940 Date Analyzed: 2012-04-03 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.107	107	80 - 120	2012-04-03
Toluene		1	mg/kg	0.100	0.108	108	80 - 120	2012-04-03
Ethylbenzene		1	mg/kg	0.100	0.106	106	80 - 120	2012-04-03
Xylene		1	mg/kg	0.300	0.317	106	80 - 120	2012-04-03

Standard (ICV-1)

QC Batch: 89956 Date Analyzed: 2012-04-04 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	103	103	85 - 115	2012-04-04

Standard (CCV-1)

QC Batch: 89956 Date Analyzed: 2012-04-04 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	97.5	98	85 - 115	2012-04-04

Standard (CCV-1)

QC Batch: 89977 | Date Analyzed: 2012-04-04 | Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	254	102	80 - 120	2012-04-04

Standard (CCV-2)

QC Batch: 89977 | Date Analyzed: 2012-04-04 | Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	236	94	80 - 120	2012-04-04

Standard (CCV-3)

QC Batch: 89977 | Date Analyzed: 2012-04-04 | Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	220	88	80 - 120	2012-04-04

Standard (CCV-1)

QC Batch: 89994 | Date Analyzed: 2012-04-04 | Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.03	103	80 - 120	2012-04-04

Standard (CCV-2)

QC Batch: 89994 | Date Analyzed: 2012-04-04 | Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.17	117	80 - 120	2012-04-04

Standard (CCV-1)

QC Batch: 89995 Date Analyzed: 2012-04-04 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0868	87	80 - 120	2012-04-04
Toluene		1	mg/kg	0.100	0.0879	88	80 - 120	2012-04-04
Ethylbenzene		1	mg/kg	0.100	0.0878	88	80 - 120	2012-04-04
Xylene		1	mg/kg	0.300	0.264	88	80 - 120	2012-04-04

Standard (CCV-2)

QC Batch: 89995 Date Analyzed: 2012-04-04 Analyzed By: tc

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	2012-04-04
Toluene		1	mg/kg	0.100	0.0996	100	80 - 120	2012-04-04
Ethylbenzene		1	mg/kg	0.100	0.0983	98	80 - 120	2012-04-04
Xylene		1	mg/kg	0.300	0.296	99	80 - 120	2012-04-04

Standard (ICV-1)

QC Batch: 90006 Date Analyzed: 2012-04-05 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	98.6	99	85 - 115	2012-04-05

Standard (CCV-1)

QC Batch: 90006 | Date Analyzed: 2012-04-05 | 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	2012-04-05

Standard (ICV-1)

QC Batch: 90007 | Date Analyzed: 2012-04-05 | Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	103	103	85 - 115	2012-04-05

Standard (CCV-1)

QC Batch: 90007 | Date Analyzed: 2012-04-05 | 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	97.5	98	85 - 115	2012-04-05

Standard (ICV-1)

QC Batch: 90008 | Date Analyzed: 2012-04-05 | Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	97.5	98	85 - 115	2012-04-05

Standard (CCV-1)

QC Batch: 90008 | Date Analyzed: 2012-04-05 | 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	103	103	85 - 115	2012-04-05

Standard (CCV-2)

QC Batch: 90014 Date Analyzed: 2012-04-05 Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	248	99	80 - 120	2012-04-05

Standard (CCV-3)

QC Batch: 90014 Date Analyzed: 2012-04-05 Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	228	91	80 - 120	2012-04-05

Standard (CCV-1)

QC Batch: 90033 Date Analyzed: 2012-04-05 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0942	94	80 - 120	2012-04-05
Toluene		1	mg/kg	0.100	0.0948	95	80 - 120	2012-04-05
Ethylbenzene		1	mg/kg	0.100	0.0956	96	80 - 120	2012-04-05
Xylene		1	mg/kg	0.300	0.292	97	80 - 120	2012-04-05

Standard (CCV-2)

QC Batch: 90033 Date Analyzed: 2012-04-05 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.112	112	80 - 120	2012-04-05
Toluene		1	mg/kg	0.100	0.113	113	80 - 120	2012-04-05
Ethylbenzene		1	mg/kg	0.100	0.113	113	80 - 120	2012-04-05
Xylene		1	mg/kg	0.300	0.337	112	80 - 120	2012-04-05

Standard (CCV-1)

QC Batch: 90034 Date Analyzed: 2012-04-05 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.11	111	80 - 120	2012-04-05

Standard (CCV-2)

QC Batch: 90034 Date Analyzed: 2012-04-05 Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.09	109	80 - 120	2012-04-05

Standard (CCV-1)

QC Batch: 90036 Date Analyzed: 2012-04-06 Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	239	96	80 - 120	2012-04-06

Standard (CCV-2)

QC Batch: 90036 Date Analyzed: 2012-04-06 Analyzed By: DA

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	2012-04-06

Standard (CCV-1)

QC Batch: 90067 Date Analyzed: 2012-04-06 Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.106	106	80 - 120	2012-04-06
Toluene		1	mg/kg	0.100	0.106	106	80 - 120	2012-04-06
Ethylbenzene		1	mg/kg	0.100	0.107	107	80 - 120	2012-04-06
Xylene		1	mg/kg	0.300	0.321	107	80 - 120	2012-04-06

Standard (CCV-2)

QC Batch: 90067 Date Analyzed: 2012-04-06 Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.115	115	80 - 120	2012-04-06
Toluene		1	mg/kg	0.100	0.113	113	80 - 120	2012-04-06
Ethylbenzene		1	mg/kg	0.100	0.113	113	80 - 120	2012-04-06
Xylene		1	mg/kg	0.300	0.336	112	80 - 120	2012-04-06

Standard (CCV-1)

QC Batch: 90068 Date Analyzed: 2012-04-06 Analyzed By: AG

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	2012-04-06

Standard (CCV-2)

QC Batch: 90068 | Date Analyzed: 2012-04-06 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.06	106	80 - 120	2012-04-06

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	T104704392-11-3	Midland

Standard Flags

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

Attachments

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

100320 34

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.: 114-6401353
PROJECT NAME: Foster Eddy Tank Battery
Eddy Co NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE 2012	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS	FILTERED (Y/N)	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
273072	3/29		S		X	AH-1 0.5' BEB	0-1'	1				X		X	X											X				
073	↓		↓		↓		1-1.5'	↓				↓														X				
074							2-2.5'																			X				
075							3-3.5'																			X				
076							4-4.5'																			X				
078							5-5.5'																			X				
078							6-6.5'																			X				
079							7-7.5'																			X				
080							8-8.5'																			X				
081	↓		↓		↓		9-9.5'	↓				↓														X				

RELINQUISHED BY: (Signature) [signature] Date: 3/30/12 Time: 2:40 Pm
RECEIVED BY: (Signature) [signature] Date: 3/30/12 Time: 1540

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

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

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

SAMPLED BY: (Print & Initial) TF Date: 3-29-12 Time:

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 0.9° wht

REMARKS: Run deeper samples if TPH exceeds 5,000 mg/kg. All tests Midland

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

Run deeper samples if Benzene exceed 10 mg/kg or total BTEX exceed 50 mg/kg.

12033034

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.: 114-6401353

PROJECT NAME: Foster Eddy Tank Battery Eddy Co NM

LAB I.D. NUMBER	DATE 2012	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. 8081/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
082	3/29		S		X	AH-2 0.5' BEB	1				X		X	X											X				
083						1-1.5'																			X				
084						2-2.5'																			X				
085						3-3.5'																			X				
086						4-4.5'																			X				
087						5-5.5'																			X				
088						6-6.5'																			X				
089						7-7.5'																			X				
090						8-8.5'																			X				
091						9-9.5'																			X				

RELINQUISHED BY: (Signature)	Date: 3/30/12 Time: 3:40 PM	RECEIVED BY: (Signature)	Date: 3/30/12 Time: 1540
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:

SAMPLED BY: (Print & Initial) TT — Date: 3-29-12 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: Good

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.

1203303034

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:	SITE MANAGER:
COG	Ike Tavarez

PROJECT NO.:	PROJECT NAME:
114-6401353	Foster Eddy Tank Battery Eddy Co NM

LAB I.D. NUMBER	DATE 2012	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. 8081/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
092	3/29		S	X		AH-3	0-1'	1				X		X	X										X				
093							1-1.5'																		X				
094							2-2.5'																		X				
095							3-3.5'																		X				
096							4-4.5'																		X				
097							5-5.5'																		X				
098							6-6.5'																		X				
099							7-7.5'																		X				
100							8-8.5'																		X				
101							9-9.5'																		X				

RELINQUISHED BY: (Signature)	Date: 3/30/12 Time: 3:30 PM	RECEIVED BY: (Signature)	Date: 3/30/12 Time: 15:40
SAMPLED BY: (Print & Initial) TF	Date: 3-29-12 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: 1.9° 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.