



TETRA TECH

RECEIVED OCT 01 2009

August 31, 2009

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

Re: Assessment and Closure Report – for the COG Operating, LLC, Skelly #942 Tank Battery Facility, Located in Unit Letter B, Section 22, Township 17 South, Range 31 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. was contacted by COG Operating, LLC to investigate a spill that occurred at the Skelly #942 Tank Battery. The tank battery is located in Unit Letter B, Section 22, Township 17 South, Range 31 East, Eddy County, New Mexico. The site coordinates are N 32° 49.482', W 103° 51.340. The Site is shown on Figures 1 and 2.

Background

The spill occurred on June 8, 2009, when a water tank overflowed due to too much volume entering the facility. An estimated 30 barrels of water were spilled with 26 barrels recovered with a vacuum truck. The spill was fully contained within the facility firewall. The spill location is shown on Figure 3. The C-141 (initial) is included in Appendix A.

Groundwater and Regulatory

A water well located in Section 22, Township 18 South, Range 29 East, was measured using a steel tape to gauge the depth to water. The water well was not in use at the time and the static depth to water was measured at approximately 82.0' below ground surface (bgs).

A risk-based evaluation was performed for the Site in accordance with the NMOCDC Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil.

Tetra Tech

1910 North Big Spring, Midland, TX 79705

Tel 432.682.4559

Fax 432.682.3946 www.tetratech.com

S,

2AP RP-347



TETRA TECH

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 on the regional groundwater data, the proposed RRAL for TPH is 1,000 mg/kg.

Assessment and Corrective Action

On June 12, 2009, Tetra Tech personnel inspected the facility. A total of six (6) auger holes were installed using a stainless steel hand auger. Select samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chlorides by EPA method 300.0. All of the 0-1' samples, as well as the 1'-1.5' sample in AH-6 exceeded the RRAL for TPH and BTEX. Elevated chloride concentrations were essentially limited to the 0-1' surface samples from AH-2, AH-3, AH-4, AH-5 and AH-7. AH-6 had elevated chloride concentrations to a depth of 1.5'. AH-9 had elevated chloride concentrations to a depth of 2.5'. AH-8 had elevated chloride concentrations to a depth of 3.5' and AH-1 to a depth of 4.5'. The concentrations decreased with depth to below 400 mg/kg. On July 21, 2009, Tetra Tech supervised the excavation of these soils to depths ranging from 1' - 4.5' as shown in Table 1. The sample locations and spill area are shown on Figure 3.

Additionally, a second area was identified by the NMOCD along a pipeline road, and was excavated to a depth of 1' - 2' and sampled. The samples were below the RRAL for TPH and chloride concentrations ranged from <200 mg/kg to 461 mg/kg. The sample locations and spill area are shown on Figure 4. The sample analyses from the pipeline road are also summarized in Table 1. Copies of the laboratory reports and chain of custody documents are included in Appendix B.

Closure Request

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

Respectfully submitted,
Tetra Tech Inc.

Tim Reed, P.G.
Senior Project Manager

cc: Pat Ellis - COG

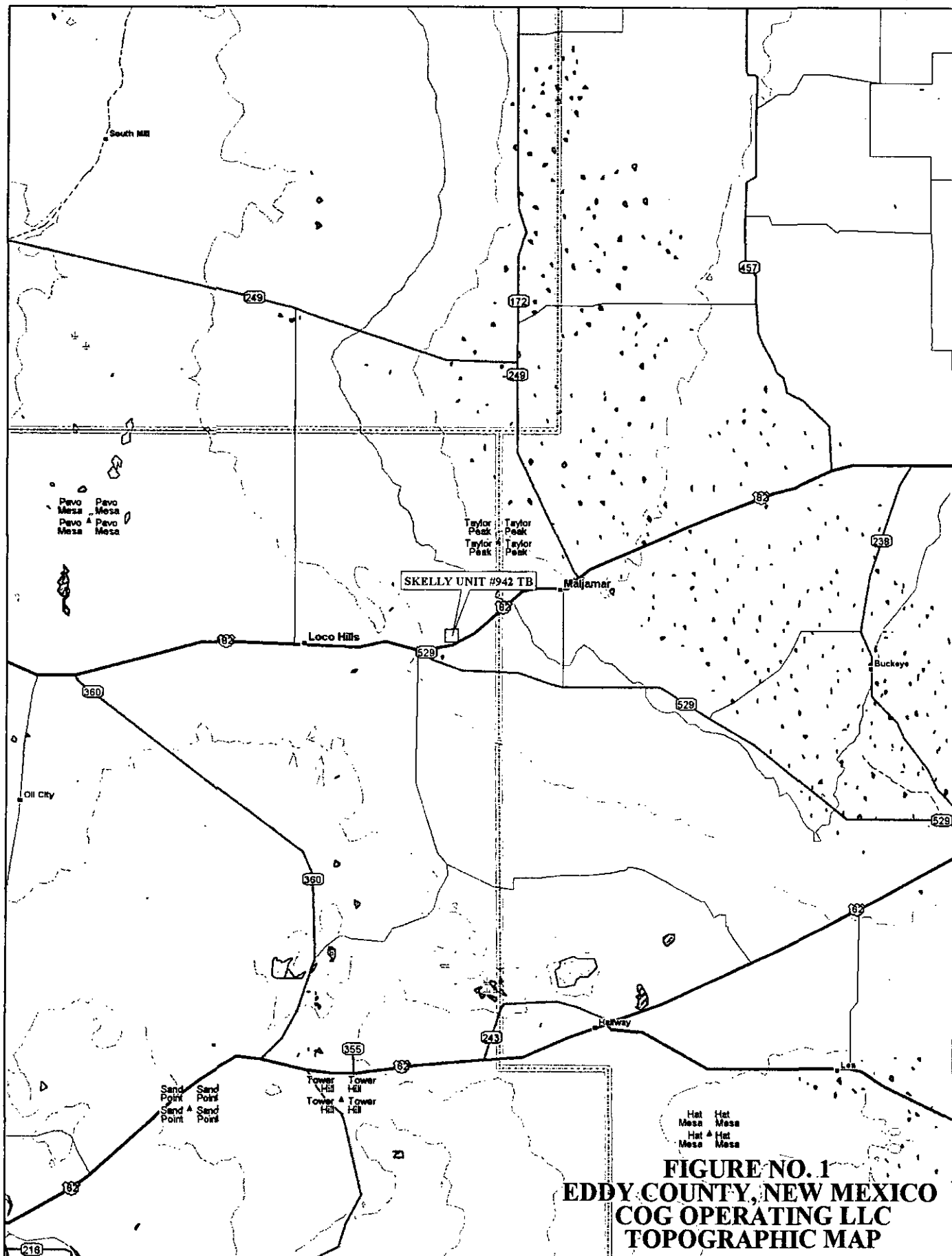


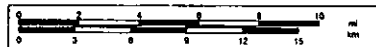
FIGURE NO. 1
EDDY COUNTY, NEW MEXICO
COG OPERATING LLC
TOPOGRAPHIC MAP

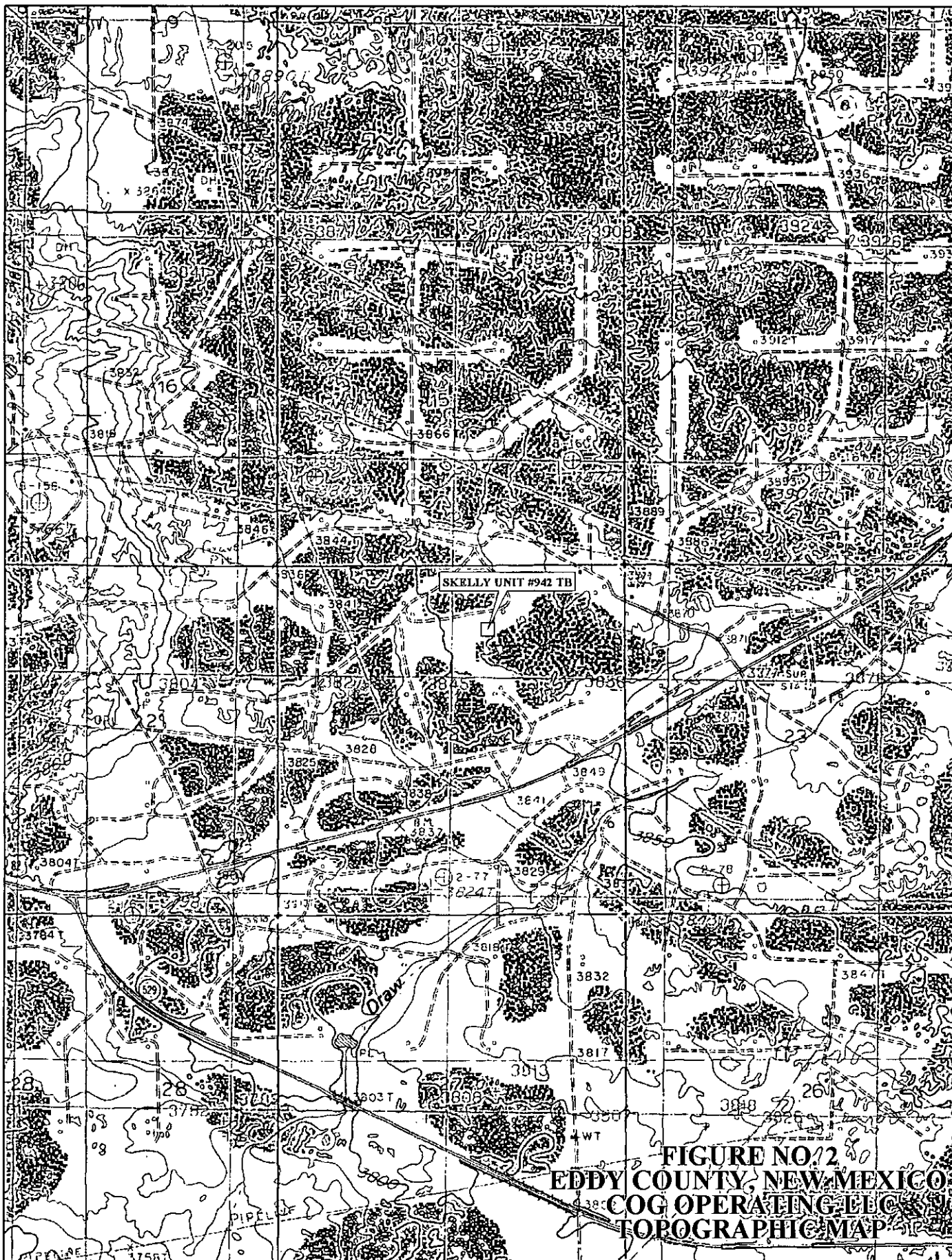


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Scale 1 : 400,000

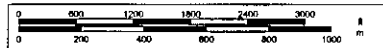
1" = 6.31 mi





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Scale 1 : 24,000
1" = 2000 ft



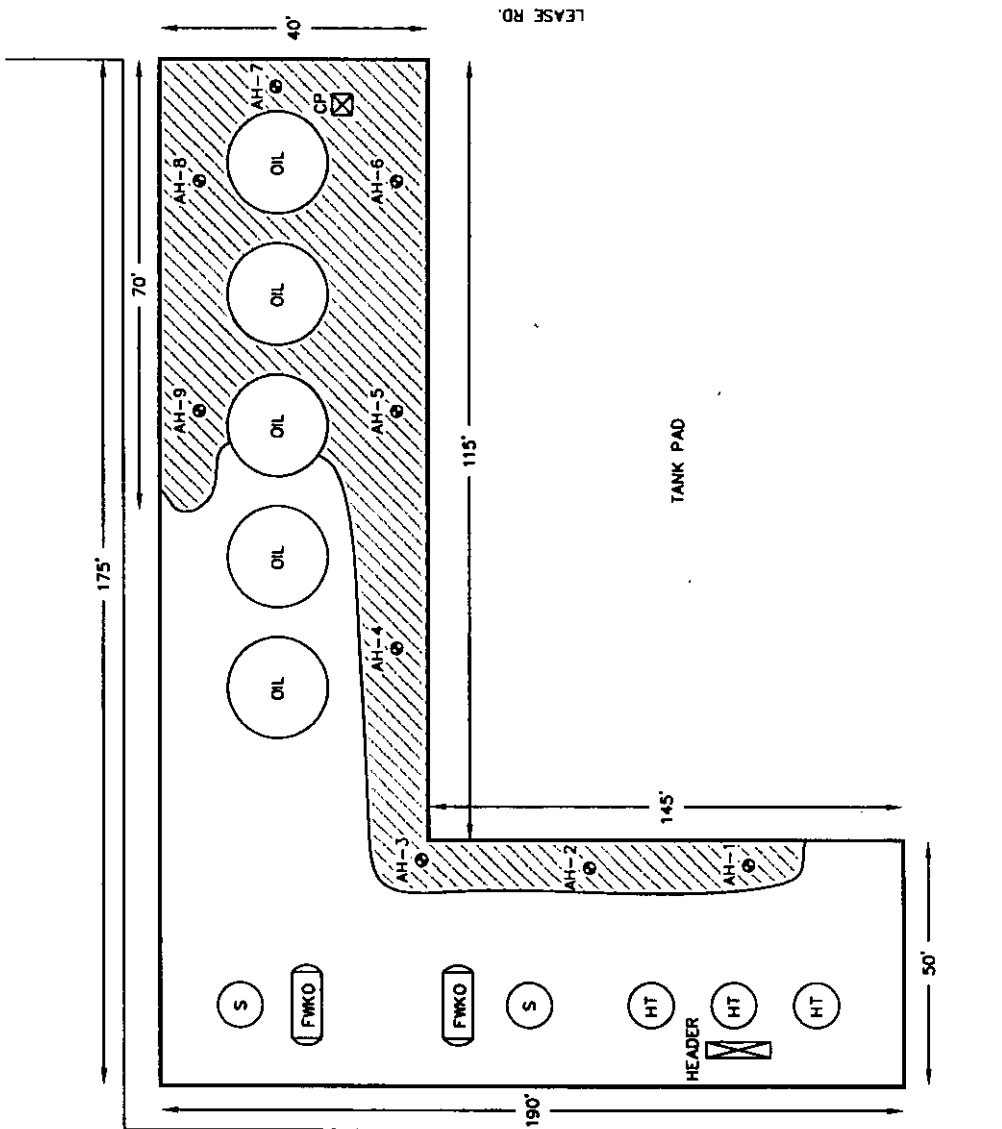


FIGURE NO. 3

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

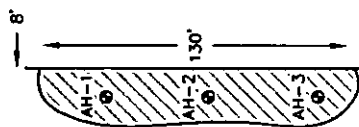
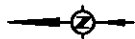
SKELLY UNIT #942 TB

TETRA TECH, INC.
MIDLAND, TEXAS

DATE:	6/12/09
DRAWN BY:	JJ
FILE:	14 COV 440222
	SKELLY UNIT PAD TB

NOT TO SCALE

☒ SPILL AREA
☐ SAMPLE LOCATIONS



LEASE RD.

LEASE RD.

FRONTIER GAS LINES

TANK BATTERY

FIGURE NO. 4

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

SKELLY UNIT #942

TETRA TECH, INC.
MIDLAND, TEXAS

DATE: 6/12/09
DRAWN BY: JJ
FILE: MEX00400022
SKELLY UNIT #942 1B

☒ SPILL AREA
☐ SAMPLE LOCATIONS

NOT TO SCALE

Table 1
COG Operating LLC
Skelly 942
Eddy County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		DRO	TPH (mg/kg)		Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed		GRO	Total					
AH-1	6/12/2009	0-1		X	7130	1390	8520	-	-	-	-	<400
	6/12/2009	1-1.5		X	905	204	1109	-	-	-	-	597
	6/12/2009	2-2.5		X	<50.0	<1.00	<50.0	-	-	-	-	3,080
	6/12/2009	3-3.5		X	-	-	-	-	-	-	-	3,570
	6/12/2009	4-4.5		X	-	-	-	-	-	-	-	1,950
	6/12/2009	6-6.5	X		-	-	-	-	-	-	-	<400
	6/12/2009	7-7.5	X		-	-	-	-	-	-	-	<400
AH-2												
	6/12/2009	0-1		X	13100	2060	15160	-	-	-	-	3,660
	6/12/2009	1-1.5	X		<50.0	5.40	5.40	-	-	-	-	<400
	6/12/2009	2-2.5	X		<50.0	6.56	6.56	-	-	-	-	571
	6/12/2009	3-3.5	X		-	-	-	-	-	-	-	550
	6/12/2009	4-4.5	X		-	-	-	-	-	-	-	734
	6/12/2009	5-5.5	X		-	-	-	-	-	-	-	550
AH-3	6/12/2009	6-6.5	X		-	-	-	-	-	-	-	<400
	6/12/2009	0-1		X	4940	1260	6200	-	-	-	-	2,850
	6/12/2009	1-1.5	X		2420	745	3165	-	-	-	-	<400
	6/12/2009	2-2.5	X		-	-	-	-	-	-	-	<400
	6/12/2009	3-3.5	X		-	-	-	-	-	-	-	<400
	6/12/2009	4-4.5	X		-	-	-	-	-	-	-	475
	6/12/2009	5-5.5	X		-	-	-	-	-	-	-	556
	6/12/2009	6-6.5	X		-	-	-	-	-	-	-	586

Table 1
COG Operating LLC
Skelly 942
Eddy County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	DRO	GRO	Total					
AH-4	6/11/2009	0-1		X	9980	3220	13200	2.15	156	154	171	4,040
	6/12/2009	1-1.5	X		99.5	41.5	141	-	-	-	-	<400
	6/12/2009	2-2.5	X		<50.0	14.7	14.7	-	-	-	-	<400
	6/12/2009	3-3.5	X		-	-	-	-	-	-	-	<400
	6/12/2009	4-4.5	X		-	-	-	-	-	-	-	<400
	6/12/2009	6-6.5	X		-	-	-	-	-	-	-	<400
AH-5	6/12/2009	0-1		X	6430	2810	9240	18.6	136	99.9	126	2,410
	6/12/2009	1-1.5	X		1490	1800	3290	8.79	65.9	49.8	63.5	<400
	6/12/2009	2-2.5	X		-	-	-	<0.200	49.7	88.4	107	<400
	6/12/2009	3-3.5	X		-	-	-	-	-	-	-	<400
	6/12/2009	4-4.5	X		-	-	-	-	-	-	-	<400
	6/12/2009	5-5.5	X		-	-	-	-	-	-	-	<400
AH-6	6/12/2009	0-1		X	7170	3210	10380	-	-	-	-	3,530
	6/12/2009	1-1.5		X	10600	5310	15910	33.2	197	137	185	2,120
	6/12/2009	2-2.5	X		<50.0	11.6	11.6	<0.0100	<0.0100	<0.0100	<0.0100	<400
	6/12/2009	3-3.5	X		-	-	-	-	-	-	-	<400
	6/12/2009	4-4.5	X		-	-	-	-	-	-	-	<400
	6/12/2009	5-5.5	X		-	-	-	-	-	-	-	<400

187.44
245.1

Table 1
COG Operating LLC
Skelly 942
Eddy County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	DRO	GRO	Total					
AH-7	6/12/2009	0-1		X	12800	1800	14600	-	-	-	-	9,150
	6/12/2009	1-1.5	X		394	198	592	-	-	-	-	933
	6/12/2009	2-2.5	X		<50.0	19.4	19.4	-	-	-	-	<400
	6/12/2009	3-3.5	X		-	-	-	-	-	-	-	<400
	6/12/2009	4-4.5	X		-	-	-	-	-	-	-	<200
	6/12/2009	5-5.5	X		-	-	-	-	-	-	-	<200
AH-8	6/12/2009	0-1		X	10000	3920	13920	22.1	141	122	129	8,910
	6/12/2009	1-1.5		X	2480	1300	3700	4.42	30.2	11.3	43.6	9,380
	6/12/2009	2-2.5		X	<50.0	13.1	13.1	<0.0100	<0.0100	<0.0100	0.170	645
	6/12/2009	3-3.5		X	-	-	-	-	-	-	-	2,560
	6/12/2009	4-4.5	X		-	-	-	-	-	-	-	277
	6/12/2009	6-6.5	X		-	-	-	-	-	-	-	<200
AH-9	6/11/2009	0-1		X	10200	2180	12380	12.7	115	89.9	154	5,870
	6/12/2009	1-1.5		X	1740	1390	3130	13.5	65.5	53.3	54.1	1,970
	6/12/2009	2-2.5		X	<50.0	10.1	10.1	<0.0100	0.0940	<0.0100	0.158	1,940
	6/12/2009	3-3.5	X		-	-	-	-	-	-	-	<200
	6/12/2009	4-4.5	X		-	-	-	-	-	-	-	<200
	6/12/2009	5-5.5	X		-	-	-	-	-	-	-	<200
Pipeline Road CS-1	7/27/2009	0-1 BEB	X		99.6	23.4	123.0	-	-	-	-	461
Pipeline Road CS-2	7/27/2009	0-1 BEB	X		<50	4.92	4.92	-	-	-	-	<200
Pipeline Road CS-2	7/27/2009	0-1 BEB	X		<50	<1.00	<50	-	-	-	-	<200

(-) Not Analyzed

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	COG OPERATING LLC	Contact	Chasity Jackson
Address	550 W. Texas, Suite 1300 Midland, TX 79701	Telephone No.	432-686-3087
Facility Name	Skelly Unit 942	Facility Type	Battery
Surface Owner	Federal	Mineral Owner	
		Lease No.	30-015-34645

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	22	17S	31E	1210	North	2195	East	Eddy

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release-Produced Water	Volume of Release-30bbbls	Volume Recovered-26bbbls
Source of Release- Water Tank	Date and Hour of Occurrence- 6/8/09- 7:00 am	Date and Hour of Discovery 6/8/09-7:00am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bracher NMOCD District 2, Eddy Co. Terry Gregston BLM	
By Whom? Pat Ellis	Date and Hour 6/9/09 @ 1:00pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Water Tank ran over due to too much volume entering facility. Decrease volume by rerouting water to SWD.

Describe Area Affected and Cleanup Action Taken.*

All water was contained inside firewall at facility. All standing fluid was removed; all contaminated soil will be removed.

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.

OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor:		
Printed Name: Chasity Jackson			
Title: Agent for COG	Approval Date:	Expiration Date:	
E-mail Address: cjackson@conchoresources.com	Conditions of Approval:		Attached ☐
Date: 06/10/09	Phone: 432-686-3087		

* Attach Additional Sheets If Necessary

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

State of New Mexico
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RECEIVED OCT 01 2009 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	Chasity Jackson
Address	550 W. Texas, Suite 1300 Midland, TX 79701	Telephone No.	432-686-3087
Facility Name	Skelly Unit 942	Facility Type	Battery

Surface Owner	BLM	Mineral Owner		Lease No.	API# 30-015-34645
---------------	-----	---------------	--	-----------	-------------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	22	17S	31E	1210	North	2195	East	Eddy

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	30 bbls	Volume Recovered	26 bbls
Source of Release	Water Tank	Date and Hour of Occurrence	6/8/09 - 7:00 am	Date and Hour of Discovery	10/30/08-6/8/2009 - 7:00am
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required	If YES, To Whom?	Mike Bratcher, NMOCD District 2, Eddy Co. Terry Gregston, BLM		
By Whom?	Pat Ellis	Date and Hour	6/9/09 @ 1:00 pm		
Was a Watercourse Reached?	☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

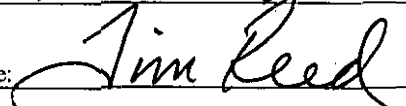
Describe Cause of Problem and Remedial Action Taken.*

Water Tank ran over due to too much volume entering facility. Decrease volume by rerouting water to SWD.

Describe Area Affected and Cleanup Action Taken.*

Site was assessed by Tetra Tech Inc. and impacted soils were removed.

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: Timothy Reed (Agent for COG)	Approved by District Supervisor:		
Title: Senior Project Manager	Approval Date:	Expiration Date:	
E-mail Address: timothy.reed@tetrattech.com	Conditions of Approval:		Attached ☐
Date: 8/31/2009	Phone: (432) 682-4559		

* Attach Additional Sheets If Necessary

Summary Report

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

Report Date: July 1, 2009

Work Order: 9061607



Project Location: Eddy Co., NM
Project Name: COG/Skelley 942
Project Number: 114-6400222

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
198979	AH-1 0-1'	soil	2009-06-12	00:00	2009-06-16
198980	AH-1 1-1.5'	soil	2009-06-12	00:00	2009-06-16
198981	AH-1 2-2.5'	soil	2009-06-12	00:00	2009-06-16
198982	AH-1 3-3.5'	soil	2009-06-12	00:00	2009-06-16
198983	AH-1 4-4.5'	soil	2009-06-12	00:00	2009-06-16
198984	AH-1 6-6.5'	soil	2009-06-12	00:00	2009-06-16
198985	AH-1 7-7.5'	soil	2009-06-12	00:00	2009-06-16
198986	AH-2 0-1'	soil	2009-06-12	00:00	2009-06-16
198987	AH-2 1-1.5'	soil	2009-06-12	00:00	2009-06-16
198988	AH-2 2-2.5'	soil	2009-06-12	00:00	2009-06-16
198989	AH-2 3-3.5'	soil	2009-06-12	00:00	2009-06-16
198990	AH-2 4-4.5'	soil	2009-06-12	00:00	2009-06-16
198991	AH-2 5-5.5'	soil	2009-06-12	00:00	2009-06-16
198992	AH-2 6-6.5'	soil	2009-06-12	00:00	2009-06-16
198993	AH-3 0-1'	soil	2009-06-12	00:00	2009-06-16
198994	AH-3 1-1.5'	soil	2009-06-12	00:00	2009-06-16
198995	AH-3 2-2.5'	soil	2009-06-12	00:00	2009-06-16
198996	AH-3 3-3.5'	soil	2009-06-12	00:00	2009-06-16
198997	AH-3 4-4.5'	soil	2009-06-12	00:00	2009-06-16
198998	AH-3 5-5.5'	soil	2009-06-12	00:00	2009-06-16
198999	AH-3 6-6.5'	soil	2009-06-12	00:00	2009-06-16
199000	AH-4 0-1'	soil	2009-06-12	00:00	2009-06-16
199001	AH-4 1-1.5'	soil	2009-06-12	00:00	2009-06-16
199002	AH-4 2-2.5'	soil	2009-06-12	00:00	2009-06-16
199003	AH-4 3-3.5'	soil	2009-06-12	00:00	2009-06-16
199004	AH-4 4-4.5'	soil	2009-06-12	00:00	2009-06-16
199005	AH-4 6-6.5'	soil	2009-06-12	00:00	2009-06-16
199006	AH-5 0-1'	soil	2009-06-12	00:00	2009-06-16
199007	AH-5 1-1.5'	soil	2009-06-12	00:00	2009-06-16
199008	AH-5 2-2.5'	soil	2009-06-12	00:00	2009-06-16

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
199009	AH-5 3-3.5'	soil	2009-06-12	00:00	2009-06-16
199010	AH-5 4-4.5'	soil	2009-06-12	00:00	2009-06-16
199011	AH-5 5-5.5'	soil	2009-06-12	00:00	2009-06-16
199012	AH-6 0-1'	soil	2009-06-12	00:00	2009-06-16
199013	AH-6 1-1.5'	soil	2009-06-12	00:00	2009-06-16
199014	AH-6 2-2.5'	soil	2009-06-12	00:00	2009-06-16
199015	AH-6 3-3.5'	soil	2009-06-12	00:00	2009-06-16
199016	AH-6 4-4.5'	soil	2009-06-12	00:00	2009-06-16
199017	AH-6 5-5.5'	soil	2009-06-12	00:00	2009-06-16
199018	AH-7 0-1'	soil	2009-06-12	00:00	2009-06-16
199019	AH-7 1-1.5'	soil	2009-06-12	00:00	2009-06-16
199020	AH-7 2-2.5'	soil	2009-06-12	00:00	2009-06-16
199021	AH-7 3-3.5'	soil	2009-06-12	00:00	2009-06-16
199022	AH-7 4-4.5'	soil	2009-06-12	00:00	2009-06-16
199023	AH-7 5-5.5'	soil	2009-06-12	00:00	2009-06-16
199024	AH-8 0-1'	soil	2009-06-12	00:00	2009-06-16
199025	AH-8 1-1.5'	soil	2009-06-12	00:00	2009-06-16
199026	AH-8 2-2.5'	soil	2009-06-12	00:00	2009-06-16
199027	AH-8 3-3.5'	soil	2009-06-12	00:00	2009-06-16
199028	AH-8 4-4.5'	soil	2009-06-12	00:00	2009-06-16
199029	AH-8 6-6.5'	soil	2009-06-12	00:00	2009-06-16
199030	AH-9 0-1'	soil	2009-06-12	00:00	2009-06-16
199031	AH-9 1-1.5'	soil	2009-06-12	00:00	2009-06-16
199032	AH-9 2-2.5'	soil	2009-06-12	00:00	2009-06-16
199033	AH-9 3-3.5'	soil	2009-06-12	00:00	2009-06-16
199034	AH-9 4-4.5'	soil	2009-06-12	00:00	2009-06-16
199035	AH-9 5-5.5'	soil	2009-06-12	00:00	2009-06-16

Sample - Field Code	BTEX				TPH DRO	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
198979 - AH-1 0-1'					7130	1390
198980 - AH-1 1-1.5'					905	204
198981 - AH-1 2-2.5'					<50.0	<1.00
198986 - AH-2 0-1'					13100	2060
198987 - AH-2 1-1.5'					<50.0	5.40
198988 - AH-2 2-2.5'					<50.0	6.56
198993 - AH-3 0-1'					4940	1260
198994 - AH-3 1-1.5'					2420	745
199000 - AH-4 0-1'	2.15	156	154	171	9980	3220
199001 - AH-4 1-1.5'	<0.0100	<0.0100	<0.0100	<0.0100	99.5	41.5
199002 - AH-4 2-2.5'					<50.0	14.7
199006 - AH-5 0-1'	18.6	136	99.9	126	6430	2810
199007 - AH-5 1-1.5'	8.79	65.9	49.8	63.5	1490	1800
199008 - AH-5 2-2.5'	<0.200	49.7	88.4	107		
199012 - AH-6 0-1'					7170	3210
199013 - AH-6 1-1.5'	33.2	197	137	185	10600	5310
199014 - AH-6 2-2.5'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	11.6
199018 - AH-7 0-1'					12800	1800

continued ...

... continued

Sample - Field Code	BTEX				TPH DRO	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
199019 - AH-7 1-1.5'					394	198
199020 - AH-7 2-2.5'					<50.0	19.4
199024 - AH-8 0-1'	22.1	141	122	129	10000	3920
199025 - AH-8 1-1.5'	4.42	30.2	11.3	43.6	2480	1300
199026 - AH-8 2-2.5'	<0.0100	<0.0100	<0.0100	0.170	<50.0	13.1
199030 - AH-9 0-1'	12.7	115	89.9	154	10200	2180
199031 - AH-9 1-1.5'	13.5	65.5	53.3	54.1	1740	1390
199032 - AH-9 2-2.5'	<0.0100	0.0940	<0.0100	0.158	<50.0	10.1

Sample: 198979 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 198980 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		597	mg/Kg	4.00

Sample: 198981 - AH-1 2-2.5'

Param	Flag	Result	Units	RL
Chloride		3080	mg/Kg	4.00

Sample: 198982 - AH-1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		3570	mg/Kg	4.00

Sample: 198983 - AH-1 4-4.5'

Param	Flag	Result	Units	RL
Chloride		1950	mg/Kg	4.00

Sample: 198984 - AH-1 6-6.5'

continued ...

sample 198984 continued ...

Param	Flag	Result	Units	RL
Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 198985 - AH-1 7-7.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 198986 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		3660	mg/Kg	4.00

Sample: 198987 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 198988 - AH-2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		571	mg/Kg	4.00

Sample: 198989 - AH-2 3-3.5'

Param	Flag	Result	Units	RL
Chloride		550	mg/Kg	4.00

Sample: 198990 - AH-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		734	mg/Kg	4.00

Sample: 198991 - AH-2 5-5.5'

Param	Flag	Result	Units	RL
Chloride		550	mg/Kg	4.00

Sample: 198992 - AH-2 6-6.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 198993 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		2850	mg/Kg	4.00

Sample: 198994 - AH-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 198995 - AH-3 2-2.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 198996 - AH-3 3-3.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 198997 - AH-3 4-4.5'

Param	Flag	Result	Units	RL
Chloride		475	mg/Kg	4.00

Sample: 198998 - AH-3 5-5.5'

Param	Flag	Result	Units	RL
Chloride		556	mg/Kg	4.00

Sample: 198999 - AH-3 6-6.5'

Param	Flag	Result	Units	RL
Chloride		586	mg/Kg	4.00

Sample: 199000 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		4040	mg/Kg	4.00

Sample: 199001 - AH-4 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 199002 - AH-4 2-2.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 199003 - AH-4 3-3.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 199004 - AH-4 4-4.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 199005 - AH-4 6-6.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 199006 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		2410	mg/Kg	4.00

Sample: 199007 - AH-5 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 199008 - AH-5 2-2.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 199009 - AH-5 3-3.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 199010 - AH-5 4-4.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 199011 - AH-5 5-5.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 199012 - AH-6 0-1'

Param	Flag	Result	Units	RL
Chloride		3530	mg/Kg	4.00

Sample: 199013 - AH-6 1-1.5'

Param	Flag	Result	Units	RL
Chloride		2120	mg/Kg	4.00

Sample: 199014 - AH-6 2-2.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 199015 - AH-6 3-3.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 199016 - AH-6 4-4.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 199017 - AH-6 5-5.5

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 199018 - AH-7 0-1'

Param	Flag	Result	Units	RL
Chloride		9150	mg/Kg	4.00

Sample: 199019 - AH-7 1-1.5'

Param	Flag	Result	Units	RL
Chloride		933	mg/Kg	4.00

Sample: 199020 - AH-7 2-2.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 199021 - AH-7 3-3.5'

Param	Flag	Result	Units	RL
Chloride		<400	mg/Kg	4.00

Sample: 199022 - AH-7 4-4.5'

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

Sample: 199023 - AH-7 5-5.5'

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

Sample: 199024 - AH-8 0-1'

Param	Flag	Result	Units	RL
Chloride		8910	mg/Kg	4.00

Sample: 199025 - AH-8 1-1.5'

Param	Flag	Result	Units	RL
Chloride		9380	mg/Kg	4.00

Sample: 199026 - AH-8 2-2.5'

Param	Flag	Result	Units	RL
Chloride		645	mg/Kg	4.00

Sample: 199027 - AH-8 3-3.5'

Param	Flag	Result	Units	RL
Chloride		2560	mg/Kg	4.00

Sample: 199028 - AH-8 4-4.5'

Param	Flag	Result	Units	RL
Chloride		277	mg/Kg	4.00

Sample: 199029 - AH-8 6-6.5'

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

Sample: 199030 - AH-9 0-1'

Param	Flag	Result	Units	RL
Chloride		5870	mg/Kg	4.00

Sample: 199031 - AH-9 1-1.5'

Param	Flag	Result	Units	RL
Chloride		1970	mg/Kg	4.00

Sample: 199032 - AH-9 2-2.5'

Param	Flag	Result	Units	RL
Chloride		1940	mg/Kg	4.00

Sample: 199033 - AH-9 3-3.5'

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

Sample: 199034 - AH-9 4-4.5'

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

Sample: 199035 - AH-9 5-5.5'

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



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6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

Lubbock: T104704219-08-TX
LELAP-02003
Kansas E-10317

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: July 1, 2009

Work Order: 9061607



Project Location: Eddy Co., NM
Project Name: COG/Skelly 942
Project Number: 114-6400222

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

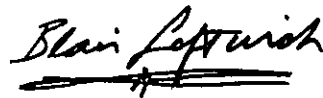
Sample	Description	Matrix	Date Taken	Time Taken	Date Received
198979	AH-1 0-1'	soil	2009-06-12	00:00	2009-06-16
198980	AH-1 1-1.5'	soil	2009-06-12	00:00	2009-06-16
198981	AH-1 2-2.5'	soil	2009-06-12	00:00	2009-06-16
198982	AH-1 3-3.5'	soil	2009-06-12	00:00	2009-06-16
198983	AH-1 4-4.5'	soil	2009-06-12	00:00	2009-06-16
198984	AH-1 6-6.5'	soil	2009-06-12	00:00	2009-06-16
198985	AH-1 7-7.5'	soil	2009-06-12	00:00	2009-06-16
198986	AH-2 0-1'	soil	2009-06-12	00:00	2009-06-16
198987	AH-2 1-1.5'	soil	2009-06-12	00:00	2009-06-16
198988	AH-2 2-2.5'	soil	2009-06-12	00:00	2009-06-16

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
198989	AH-2 3-3.5'	soil	2009-06-12	00:00	2009-06-16
198990	AH-2 4-4.5'	soil	2009-06-12	00:00	2009-06-16
198991	AH-2 5-5.5'	soil	2009-06-12	00:00	2009-06-16
198992	AH-2 6-6.5'	soil	2009-06-12	00:00	2009-06-16
198993	AH-3 0-1'	soil	2009-06-12	00:00	2009-06-16
198994	AH-3 1-1.5'	soil	2009-06-12	00:00	2009-06-16
198995	AH-3 2-2.5'	soil	2009-06-12	00:00	2009-06-16
198996	AH-3 3-3.5'	soil	2009-06-12	00:00	2009-06-16
198997	AH-3 4-4.5'	soil	2009-06-12	00:00	2009-06-16
198998	AH-3 5-5.5'	soil	2009-06-12	00:00	2009-06-16
198999	AH-3 6-6.5'	soil	2009-06-12	00:00	2009-06-16
199000	AH-4 0-1'	soil	2009-06-12	00:00	2009-06-16
199001	AH-4 1-1.5'	soil	2009-06-12	00:00	2009-06-16
199002	AH-4 2-2.5'	soil	2009-06-12	00:00	2009-06-16
199003	AH-4 3-3.5'	soil	2009-06-12	00:00	2009-06-16
199004	AH-4 4-4.5'	soil	2009-06-12	00:00	2009-06-16
199005	AH-4 6-6.5'	soil	2009-06-12	00:00	2009-06-16
199006	AH-5 0-1'	soil	2009-06-12	00:00	2009-06-16
199007	AH-5 1-1.5'	soil	2009-06-12	00:00	2009-06-16
199008	AH-5 2-2.5'	soil	2009-06-12	00:00	2009-06-16
199009	AH-5 3-3.5'	soil	2009-06-12	00:00	2009-06-16
199010	AH-5 4-4.5'	soil	2009-06-12	00:00	2009-06-16
199011	AH-5 5-5.5'	soil	2009-06-12	00:00	2009-06-16
199012	AH-6 0-1'	soil	2009-06-12	00:00	2009-06-16
199013	AH-6 1-1.5'	soil	2009-06-12	00:00	2009-06-16
199014	AH-6 2-2.5'	soil	2009-06-12	00:00	2009-06-16
199015	AH-6 3-3.5'	soil	2009-06-12	00:00	2009-06-16
199016	AH-6 4-4.5'	soil	2009-06-12	00:00	2009-06-16
199017	AH-6 5-5.5'	soil	2009-06-12	00:00	2009-06-16
199018	AH-7 0-1'	soil	2009-06-12	00:00	2009-06-16
199019	AH-7 1-1.5'	soil	2009-06-12	00:00	2009-06-16
199020	AH-7 2-2.5'	soil	2009-06-12	00:00	2009-06-16
199021	AH-7 3-3.5'	soil	2009-06-12	00:00	2009-06-16
199022	AH-7 4-4.5'	soil	2009-06-12	00:00	2009-06-16
199023	AH-7 5-5.5'	soil	2009-06-12	00:00	2009-06-16
199024	AH-8 0-1'	soil	2009-06-12	00:00	2009-06-16
199025	AH-8 1-1.5'	soil	2009-06-12	00:00	2009-06-16
199026	AH-8 2-2.5'	soil	2009-06-12	00:00	2009-06-16
199027	AH-8 3-3.5'	soil	2009-06-12	00:00	2009-06-16
199028	AH-8 4-4.5'	soil	2009-06-12	00:00	2009-06-16
199029	AH-8 6-6.5'	soil	2009-06-12	00:00	2009-06-16
199030	AH-9 0-1'	soil	2009-06-12	00:00	2009-06-16
199031	AH-9 1-1.5'	soil	2009-06-12	00:00	2009-06-16
199032	AH-9 2-2.5'	soil	2009-06-12	00:00	2009-06-16
199033	AH-9 3-3.5'	soil	2009-06-12	00:00	2009-06-16
199034	AH-9 4-4.5'	soil	2009-06-12	00:00	2009-06-16

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
199035	AH-9 5-5.5'	soil	2009-06-12	00:00	2009-06-16

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 73 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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

Standard Flags

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

Case Narrative

Samples for project COG/Skelly 942 were received by TraceAnalysis, Inc. on 2009-06-16 and assigned to work order 9061607. Samples for work order 9061607 were received intact at a temperature of 6.1 deg. 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	51617	2009-06-16 at 10:11	60571	2009-06-16 at 10:11
BTEX	S 8021B	51692	2009-06-18 at 15:32	60595	2009-06-18 at 15:32
BTEX	S 8021B	51822	2009-06-23 at 09:00	60742	2009-06-23 at 09:00
BTEX	S 8021B	51867	2009-06-26 at 11:16	60878	2009-06-27 at 19:38
BTEX	S 8021B	52038	2009-06-30 at 16:22	61005	2009-06-30 at 16:22
Chloride (Titration)	SM 4500-Cl B	51602	2009-06-16 at 10:41	60514	2009-06-17 at 15:45
Chloride (Titration)	SM 4500-Cl B	51604	2009-06-16 at 10:43	60573	2009-06-18 at 15:22
Chloride (Titration)	SM 4500-Cl B	51605	2009-06-16 at 10:43	60574	2009-06-18 at 15:23
Chloride (Titration)	SM 4500-Cl B	51607	2009-06-16 at 10:46	60575	2009-06-18 at 15:24
Chloride (Titration)	SM 4500-Cl B	51608	2009-06-16 at 10:46	60576	2009-06-18 at 15:25
Chloride (Titration)	SM 4500-Cl B	51609	2009-06-16 at 10:47	60605	2009-06-19 at 10:57
Chloride (Titration)	SM 4500-Cl B	51610	2009-06-16 at 10:47	60606	2009-06-19 at 10:58
TPH DRO	Mod. 8015B	51574	2009-06-16 at 12:00	60485	2009-06-16 at 13:08
TPH DRO	Mod. 8015B	51574	2009-06-16 at 12:00	60486	2009-06-16 at 21:12
TPH DRO	Mod. 8015B	51624	2009-06-17 at 09:15	60494	2009-06-17 at 10:17
TPH GRO	S 8015B	51617	2009-06-16 at 10:11	60487	2009-06-16 at 10:11
TPH GRO	S 8015B	51643	2009-06-17 at 09:14	60525	2009-06-17 at 09:14
TPH GRO	S 8015B	51692	2009-06-18 at 15:32	60596	2009-06-18 at 15:32

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 9061607 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.

Report Date: July 1, 2009
114-6400222

Work Order: 9061607
COG/Skelly 942

Page Number: 5 of 73
Eddy Co., NM

Analytical Report

Sample: 198979 - AH-1 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-06-17	Analyzed By:	AR
QC Batch:	60514	Sample Preparation:	2009-06-16	Prepared By:	AR
Prep Batch:	51602				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 198979 - AH-1 0-1'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2009-06-16	Analyzed By:	AG
QC Batch:	60485	Sample Preparation:	2009-06-16	Prepared By:	AG
Prep Batch:	51574				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		7130	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	1	436	mg/Kg	5	100	436	13.2 - 219.3

Sample: 198979 - AH-1 0-1'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2009-06-16	Analyzed By:	ME
QC Batch:	60487	Sample Preparation:	2009-06-16	Prepared By:	ME
Prep Batch:	51617				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1390	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		20.5	mg/Kg	10	20.0	102	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	2	34.4	mg/Kg	10	20.0	172	52 - 117

¹High surrogate recovery due to peak interference.

²High surrogate recovery due to peak interference.

Report Date: July 1, 2009
114-6400222

Work Order: 9061607
COG/Skelly 942

Page Number: 6 of 73
Eddy Co., NM

Sample: 198980 - AH-1 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-06-17	Analyzed By:	AR
QC Batch:	60514	Sample Preparation:	2009-06-16	Prepared By:	AR
Prep Batch:	51602				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		597	mg/Kg	100	4.00

Sample: 198980 - AH-1 1-1.5'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2009-06-17	Analyzed By:	AG
QC Batch:	60494	Sample Preparation:	2009-06-17	Prepared By:	AG
Prep Batch:	51624				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		905	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		133	mg/Kg	1	100	133	13.2 - 219.3

Sample: 198980 - AH-1 1-1.5'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2009-06-17	Analyzed By:	ME
QC Batch:	60525	Sample Preparation:	2009-06-17	Prepared By:	ME
Prep Batch:	51643				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		204	mg/Kg	2	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4.18	mg/Kg	2	4.00	104	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	³	6.92	mg/Kg	2	4.00	173	52 - 117

³High surrogate recovery due to peak interference.

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Sample: 198981 - AH-1 2-2.5'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 60514

Prep Batch: 51602

Analytical Method: SM 4500-Cl B

Date Analyzed: 2009-06-17

Sample Preparation: 2009-06-16

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3080	mg/Kg	100	4.00

Sample: 198981 - AH-1 2-2.5'

Laboratory: Midland

Analysis: TPH DRO

QC Batch: 60494

Prep Batch: 51624

Analytical Method: Mod. 8015B

Date Analyzed: 2009-06-17

Sample Preparation: 2009-06-17

Prep Method: N/A

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		88.3	mg/Kg	1	100	88	13.2 - 219.3

Sample: 198981 - AH-1 2-2.5'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 60525

Prep Batch: 51643

Analytical Method: S 8015B

Date Analyzed: 2009-06-17

Sample Preparation: 2009-06-17

Prep Method: S 5035

Analyzed By: ME

Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.12	mg/Kg	1	2.00	106	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.23	mg/Kg	1	2.00	62	52 - 117

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Sample: 198982 - AH-1 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-06-18	Analyzed By:	AR
QC Batch:	60573	Sample Preparation:	2009-06-16	Prepared By:	AR
Prep Batch:	51604				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3570	mg/Kg	100	4.00

Sample: 198983 - AH-1 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-06-18	Analyzed By:	AR
QC Batch:	60573	Sample Preparation:	2009-06-16	Prepared By:	AR
Prep Batch:	51604				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1950	mg/Kg	100	4.00

Sample: 198984 - AH-1 6-6.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-06-18	Analyzed By:	AR
QC Batch:	60573	Sample Preparation:	2009-06-16	Prepared By:	AR
Prep Batch:	51604				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 198985 - AH-1 7-7.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-06-18	Analyzed By:	AR
QC Batch:	60573	Sample Preparation:	2009-06-16	Prepared By:	AR
Prep Batch:	51604				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

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Sample: 198986 - AH-2 0-1'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 60573 Date Analyzed: 2009-06-18 Analyzed By: AR
Prep Batch: 51604 Sample Preparation: 2009-06-16 Prepared By: AR

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

Sample: 198986 - AH-2 0-1'

Laboratory: Midland
Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 60485 Date Analyzed: 2009-06-16 Analyzed By: AG
Prep Batch: 51574 Sample Preparation: 2009-06-16 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		13100	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	⁴	786	mg/Kg	5	100	786	13.2 - 219.3

Sample: 198986 - AH-2 0-1'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 60487 Date Analyzed: 2009-06-16 Analyzed By: ME
Prep Batch: 51617 Sample Preparation: 2009-06-16 Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		2060	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		20.8	mg/Kg	10	20.0	104	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	⁵	59.5	mg/Kg	10	20.0	298	52 - 117

⁴High surrogate recovery due to peak interference.

⁵High surrogate recovery due to peak interference.

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Sample: 198987 - AH-2 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-06-18	Analyzed By:	AR
QC Batch:	60573	Sample Preparation:	2009-06-16	Prepared By:	AR
Prep Batch:	51604				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 198987 - AH-2 1-1.5'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2009-06-17	Analyzed By:	AG
QC Batch:	60494	Sample Preparation:	2009-06-17	Prepared By:	AG
Prep Batch:	51624				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		108	mg/Kg	1	100	108	13.2 - 219.3

Sample: 198987 - AH-2 1-1.5'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2009-06-17	Analyzed By:	ME
QC Batch:	60525	Sample Preparation:	2009-06-17	Prepared By:	ME
Prep Batch:	51643				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		5.40	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.03	mg/Kg	1	2.00	102	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.29	mg/Kg	1	2.00	64	52 - 117

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Sample: 198988 - AH-2 2-2.5'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 60573

Prep Batch: 51604

Analytical Method: SM 4500-Cl B

Date Analyzed: 2009-06-18

Sample Preparation: 2009-06-16

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		571	mg/Kg	100	4.00

Sample: 198988 - AH-2 2-2.5'

Laboratory: Midland

Analysis: TPH DRO

QC Batch: 60494

Prep Batch: 51624

Analytical Method: Mod. 8015B

Date Analyzed: 2009-06-17

Sample Preparation: 2009-06-17

Prep Method: N/A

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		87.7	mg/Kg	1	100	88	13.2 - 219.3

Sample: 198988 - AH-2 2-2.5'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 60525

Prep Batch: 51643

Analytical Method: S 8015B

Date Analyzed: 2009-06-17

Sample Preparation: 2009-06-17

Prep Method: S 5035

Analyzed By: ME

Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		6.56	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.06	mg/Kg	1	2.00	103	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.26	mg/Kg	1	2.00	63	52 - 117

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Sample: 198989 - AH-2 3-3.5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	60573	Date Analyzed:	2009-06-18
Prep Batch:	51604	Sample Preparation:	2009-06-16
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		550	mg/Kg	100	4.00

Sample: 198990 - AH-2 4-4.5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	60573	Date Analyzed:	2009-06-18
Prep Batch:	51604	Sample Preparation:	2009-06-16
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		734	mg/Kg	100	4.00

Sample: 198991 - AH-2 5-5.5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	60573	Date Analyzed:	2009-06-18
Prep Batch:	51604	Sample Preparation:	2009-06-16
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		550	mg/Kg	100	4.00

Sample: 198992 - AH-2 6-6.5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	60574	Date Analyzed:	2009-06-18
Prep Batch:	51605	Sample Preparation:	2009-06-16
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

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Sample: 198993 - AH-3 0-1'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 60574 Date Analyzed: 2009-06-18 Analyzed By: AR
Prep Batch: 51605 Sample Preparation: 2009-06-16 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2850	mg/Kg	100	4.00

Sample: 198993 - AH-3 0-1'

Laboratory: Midland
Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 60485 Date Analyzed: 2009-06-16 Analyzed By: AG
Prep Batch: 51574 Sample Preparation: 2009-06-16 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		4940	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	⁶	340	mg/Kg	5	100	340	13.2 - 219.3

Sample: 198993 - AH-3 0-1'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 60487 Date Analyzed: 2009-06-16 Analyzed By: ME
Prep Batch: 51617 Sample Preparation: 2009-06-16 Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1260	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		20.7	mg/Kg	10	20.0	104	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	⁷	40.3	mg/Kg	10	20.0	202	52 - 117

⁶High surrogate recovery due to peak interference.

⁷High surrogate recovery due to peak interference.

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Sample: 198994 - AH-3 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-06-18	Analyzed By:	AR
QC Batch:	60574	Sample Preparation:	2009-06-16	Prepared By:	AR
Prep Batch:	51605				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 198994 - AH-3 1-1.5'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2009-06-17	Analyzed By:	AG
QC Batch:	60494	Sample Preparation:	2009-06-17	Prepared By:	AG
Prep Batch:	51624				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		2420	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	⁸	241	mg/Kg	1	100	241	13.2 - 219.3

Sample: 198994 - AH-3 1-1.5'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2009-06-17	Analyzed By:	ME
QC Batch:	60525	Sample Preparation:	2009-06-17	Prepared By:	ME
Prep Batch:	51643				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		745	mg/Kg	5	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		10.5	mg/Kg	5	10.0	105	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	⁹	20.5	mg/Kg	5	10.0	205	52 - 117

⁸High surrogate recovery due to peak interference.

⁹High surrogate recovery due to peak interference.

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Sample: 198995 - AH-3 2-2.5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	60574	Date Analyzed:	2009-06-18
Prep Batch:	51605	Sample Preparation:	2009-06-16
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 198996 - AH-3 3-3.5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	60574	Date Analyzed:	2009-06-18
Prep Batch:	51605	Sample Preparation:	2009-06-16
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 198997 - AH-3 4-4.5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	60574	Date Analyzed:	2009-06-18
Prep Batch:	51605	Sample Preparation:	2009-06-16
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		475	mg/Kg	100	4.00

Sample: 198998 - AH-3 5-5.5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	60574	Date Analyzed:	2009-06-18
Prep Batch:	51605	Sample Preparation:	2009-06-16
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		556	mg/Kg	100	4.00

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Sample: 198999 - AH-3 6-6.5'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 60574

Prep Batch: 51605

Analytical Method: SM 4500-Cl B

Date Analyzed: 2009-06-18

Sample Preparation: 2009-06-16

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		586	mg/Kg	100	4.00

Sample: 199000 - AH-4 0-1'

Laboratory: Midland

Analysis: BTEX

QC Batch: 60571

Prep Batch: 51617

Analytical Method: S 8021B

Date Analyzed: 2009-06-16

Sample Preparation: 2009-06-16

Prep Method: S 5035

Analyzed By: ME

Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		2.15	mg/Kg	20	0.0100
Toluene		156	mg/Kg	20	0.0100
Ethylbenzene		154	mg/Kg	20	0.0100
Xylene		171	mg/Kg	20	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		37.9	mg/Kg	20	40.0	95	49 - 129.7
4-Bromofluorobenzene (4-BFB)	¹⁰	67.7	mg/Kg	20	40.0	169	45.2 - 144.3

Sample: 199000 - AH-4 0-1'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 60574

Prep Batch: 51605

Analytical Method: SM 4500-Cl B

Date Analyzed: 2009-06-18

Sample Preparation: 2009-06-16

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4040	mg/Kg	100	4.00

¹⁰High surrogate recovery due to peak interference.

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Sample: 199000 - AH-4 0-1'

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 60485
Prep Batch: 51574

Analytical Method: Mod. 8015B
Date Analyzed: 2009-06-16
Sample Preparation: 2009-06-16

Prep Method: N/A
Analyzed By: AG
Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		9980	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	¹¹	603	mg/Kg	5	100	603	13.2 - 219.3

Sample: 199000 - AH-4 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 60487
Prep Batch: 51617

Analytical Method: S 8015B
Date Analyzed: 2009-06-16
Sample Preparation: 2009-06-16

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		3220	mg/Kg	20	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		41.8	mg/Kg	20	40.0	104	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	¹²	89.2	mg/Kg	20	40.0	223	52 - 117

Sample: 199001 - AH-4 1-1.5'

Laboratory: Midland
Analysis: BTEX
QC Batch: 61005
Prep Batch: 52038

Analytical Method: S 8021B
Date Analyzed: 2009-06-30
Sample Preparation: 2009-06-30

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

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

¹¹High surrogate recovery due to peak interference.

¹²High surrogate recovery due to peak interference.

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.91	mg/Kg	1	2.00	96	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.35	mg/Kg	1	2.00	68	45.2 - 144.3

Sample: 199001 - AH-4 1-1.5'

Laboratory: Midland	Analytical Method: SM 4500-Cl B	Prep Method: N/A
Analysis: Chloride (Titration)	Date Analyzed: 2009-06-18	Analyzed By: AR
QC Batch: 60574	Sample Preparation: 2009-06-16	Prepared By: AR
Prep Batch: 51605		

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 199001 - AH-4 1-1.5'

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO	Date Analyzed: 2009-06-17	Analyzed By: AG
QC Batch: 60494	Sample Preparation: 2009-06-17	Prepared By: AG
Prep Batch: 51624		

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		99.5	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		94.1	mg/Kg	1	100	94	13.2 - 219.3

Sample: 199001 - AH-4 1-1.5'

Laboratory: Midland	Analytical Method: S 8015B	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2009-06-17	Analyzed By: ME
QC Batch: 60525	Sample Preparation: 2009-06-17	Prepared By: ME
Prep Batch: 51643		

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		41.5	mg/Kg	1	1.00

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.09	mg/Kg	1	2.00	104	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	¹³	2.81	mg/Kg	1	2.00	140	52 - 117

Sample: 199002 - AH-4 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 60575 Date Analyzed: 2009-06-18 Analyzed By: AR
Prep Batch: 51607 Sample Preparation: 2009-06-16 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 199002 - AH-4 2-2.5'

Laboratory: Midland
Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 60494 Date Analyzed: 2009-06-17 Analyzed By: AG
Prep Batch: 51624 Sample Preparation: 2009-06-17 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		99.2	mg/Kg	1	100	99	13.2 - 219.3

Sample: 199002 - AH-4 2-2.5'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 60525 Date Analyzed: 2009-06-17 Analyzed By: ME
Prep Batch: 51643 Sample Preparation: 2009-06-17 Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		14.7	mg/Kg	1	1.00

¹³High surrogate recovery due to peak interference.

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.05	mg/Kg	1	2.00	102	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.34	mg/Kg	1	2.00	67	52 - 117

Sample: 199003 - AH-4 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-06-18	Analyzed By:	AR
QC Batch:	60575	Sample Preparation:	2009-06-16	Prepared By:	AR
Prep Batch:	51607				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 199004 - AH-4 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-06-18	Analyzed By:	AR
QC Batch:	60575	Sample Preparation:	2009-06-16	Prepared By:	AR
Prep Batch:	51607				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 199005 - AH-4 6-6.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-06-18	Analyzed By:	AR
QC Batch:	60575	Sample Preparation:	2009-06-16	Prepared By:	AR
Prep Batch:	51607				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

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Sample: 199006 - AH-5 0-1'

Laboratory: Midland
Analysis: BTEX
QC Batch: 60571
Prep Batch: 51617

Analytical Method: S 8021B
Date Analyzed: 2009-06-16
Sample Preparation: 2009-06-16

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		18.6	mg/Kg	20	0.0100
Toluene		136	mg/Kg	20	0.0100
Ethylbenzene		99.9	mg/Kg	20	0.0100
Xylene		126	mg/Kg	20	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		38.6	mg/Kg	20	40.0	96	49 - 129.7
4-Bromofluorobenzene (4-BFB)		57.1	mg/Kg	20	40.0	143	45.2 - 144.3

Sample: 199006 - AH-5 0-1'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 60575
Prep Batch: 51607

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-16

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2410	mg/Kg	100	4.00

Sample: 199006 - AH-5 0-1'

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 60485
Prep Batch: 51574

Analytical Method: Mod. 8015B
Date Analyzed: 2009-06-16
Sample Preparation: 2009-06-16

Prep Method: N/A
Analyzed By: AG
Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		6430	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	¹⁴	515	mg/Kg	5	100	515	13.2 - 219.3

¹⁴High surrogate recovery due to peak interference.

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Sample: 199006 - AH-5 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 60487
Prep Batch: 51617

Analytical Method: S 8015B
Date Analyzed: 2009-06-16
Sample Preparation: 2009-06-16

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		2810	mg/Kg	20	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		42.1	mg/Kg	20	40.0	105	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	15	71.0	mg/Kg	20	40.0	178	52 - 117

Sample: 199007 - AH-5 1-1.5'

Laboratory: Midland
Analysis: BTEX
QC Batch: 60595
Prep Batch: 51692

Analytical Method: S 8021B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-18

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		8.79	mg/Kg	20	0.0100
Toluene		65.9	mg/Kg	20	0.0100
Ethylbenzene		49.8	mg/Kg	20	0.0100
Xylene		63.5	mg/Kg	20	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		39.3	mg/Kg	20	40.0	98	49 - 129.7
4-Bromofluorobenzene (4-BFB)		48.7	mg/Kg	20	40.0	122	45.2 - 144.3

Sample: 199007 - AH-5 1-1.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 60575
Prep Batch: 51607

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-16

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

¹⁵High surrogate recovery due to peak interference.

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Sample: 199007 - AH-5 1-1.5'

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 60494
Prep Batch: 51624

Analytical Method: Mod. 8015B
Date Analyzed: 2009-06-17
Sample Preparation: 2009-06-17

Prep Method: N/A
Analyzed By: AG
Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		1490	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		148	mg/Kg	1	100	148	13.2 - 219.3

Sample: 199007 - AH-5 1-1.5'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 60596
Prep Batch: 51692

Analytical Method: S 8015B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-18

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1800	mg/Kg	20	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		42.4	mg/Kg	20	40.0	106	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	¹⁶	82.1	mg/Kg	20	40.0	205	52 - 117

Sample: 199008 - AH-5 2-2.5'

Laboratory: Midland
Analysis: BTEX
QC Batch: 61005
Prep Batch: 52038

Analytical Method: S 8021B
Date Analyzed: 2009-06-30
Sample Preparation: 2009-06-30

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.200	mg/Kg	20	0.0100
Toluene		49.7	mg/Kg	20	0.0100
Ethylbenzene		88.4	mg/Kg	20	0.0100
Xylene		107	mg/Kg	20	0.0100

¹⁶High surrogate recovery due to peak interference.

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		37.5	mg/Kg	20	40.0	94	49 - 129.7
4-Bromofluorobenzene (4-BFB)	¹⁷	64.0	mg/Kg	20	40.0	160	45.2 - 144.3

Sample: 199008 - AH-5 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 60575 Date Analyzed: 2009-06-18 Analyzed By: AR
Prep Batch: 51607 Sample Preparation: 2009-06-16 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 199009 - AH-5 3-3.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 60575 Date Analyzed: 2009-06-18 Analyzed By: AR
Prep Batch: 51607 Sample Preparation: 2009-06-16 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 199010 - AH-5 4-4.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 60575 Date Analyzed: 2009-06-18 Analyzed By: AR
Prep Batch: 51607 Sample Preparation: 2009-06-16 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

¹⁷High surrogate recovery due to peak interference.

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Sample: 199011 - AH-5 5-5.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 60575 Date Analyzed: 2009-06-18 Analyzed By: AR
Prep Batch: 51607 Sample Preparation: 2009-06-16 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 199012 - AH-6 0-1'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 60576 Date Analyzed: 2009-06-18 Analyzed By: AR
Prep Batch: 51608 Sample Preparation: 2009-06-16 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3530	mg/Kg	100	4.00

Sample: 199012 - AH-6 0-1'

Laboratory: Midland
Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 60485 Date Analyzed: 2009-06-16 Analyzed By: AG
Prep Batch: 51574 Sample Preparation: 2009-06-16 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		7170	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	¹⁸	542	mg/Kg	5	100	542	13.2 - 219.3

Sample: 199012 - AH-6 0-1'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 60487 Date Analyzed: 2009-06-16 Analyzed By: ME
Prep Batch: 51617 Sample Preparation: 2009-06-16 Prepared By: ME

¹⁸High surrogate recovery due to peak interference.

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Parameter	Flag	RL Result	Units	Dilution	RL
GRO		3210	mg/Kg	20	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		40.8	mg/Kg	20	40.0	102	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	¹⁹	85.4	mg/Kg	20	40.0	214	52 - 117

Sample: 199013 - AH-6 1-1.5'

Laboratory: Midland
Analysis: BTEX
QC Batch: 60595
Prep Batch: 51692

Analytical Method: S 8021B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-18

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		33.2	mg/Kg	50	0.0100
Toluene		197	mg/Kg	50	0.0100
Ethylbenzene		137	mg/Kg	50	0.0100
Xylene		185	mg/Kg	50	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		96.0	mg/Kg	50	100	96	49 - 129.7
4-Bromofluorobenzene (4-BFB)		120	mg/Kg	50	100	120	45.2 - 144.3

Sample: 199013 - AH-6 1-1.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 60576
Prep Batch: 51608

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-16

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2120	mg/Kg	100	4.00

Sample: 199013 - AH-6 1-1.5'

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 60494
Prep Batch: 51624

Analytical Method: Mod. 8015B
Date Analyzed: 2009-06-17
Sample Preparation: 2009-06-17

Prep Method: N/A
Analyzed By: AG
Prepared By: AG

¹⁹High surrogate recovery due to peak interference.

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Parameter	Flag	RL Result	Units	Dilution	RL
DRO		10600	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	²⁰	893	mg/Kg	5	100	893	13.2 - 219.3

Sample: 199013 - AH-6 1-1.5'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 60596
Prep Batch: 51692

Analytical Method: S 8015B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-18

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		5310	mg/Kg	50	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		101	mg/Kg	50	100	101	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	²¹	221	mg/Kg	50	100	221	52 - 117

Sample: 199014 - AH-6 2-2.5'

Laboratory: Midland
Analysis: BTEX
QC Batch: 60878
Prep Batch: 51867

Analytical Method: S 8021B
Date Analyzed: 2009-06-27
Sample Preparation: 2009-06-26

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.93	mg/Kg	1	2.00	96	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.14	mg/Kg	1	2.00	57	45.2 - 144.3

²⁰High surrogate recovery due to peak interference.

²¹High surrogate recovery due to peak interference.

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Sample: 199014 - AH-6 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 60576 Date Analyzed: 2009-06-18 Analyzed By: AR
Prep Batch: 51608 Sample Preparation: 2009-06-16 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 199014 - AH-6 2-2.5'

Laboratory: Midland
Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 60494 Date Analyzed: 2009-06-17 Analyzed By: AG
Prep Batch: 51624 Sample Preparation: 2009-06-17 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		99.3	mg/Kg	1	100	99	13.2 - 219.3

Sample: 199014 - AH-6 2-2.5'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 60525 Date Analyzed: 2009-06-17 Analyzed By: ME
Prep Batch: 51643 Sample Preparation: 2009-06-17 Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		11.6	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.09	mg/Kg	1	2.00	104	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.47	mg/Kg	1	2.00	74	52 - 117

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Sample: 199015 - AH-6 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-06-18	Analyzed By:	AR
QC Batch:	60576	Sample Preparation:	2009-06-16	Prepared By:	AR
Prep Batch:	51608				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 199016 - AH-6 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-06-18	Analyzed By:	AR
QC Batch:	60576	Sample Preparation:	2009-06-16	Prepared By:	AR
Prep Batch:	51608				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 199017 - AH-6 5-5.5

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-06-18	Analyzed By:	AR
QC Batch:	60576	Sample Preparation:	2009-06-16	Prepared By:	AR
Prep Batch:	51608				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 199018 - AH-7 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-06-18	Analyzed By:	AR
QC Batch:	60576	Sample Preparation:	2009-06-16	Prepared By:	AR
Prep Batch:	51608				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9150	mg/Kg	100	4.00

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Sample: 199018 - AH-7 0-1'

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 60486
Prep Batch: 51574

Analytical Method: Mod. 8015B
Date Analyzed: 2009-06-16
Sample Preparation: 2009-06-16

Prep Method: N/A
Analyzed By: AG
Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		12800	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	²²	1070	mg/Kg	5	100	1070	13.2 - 219.3

Sample: 199018 - AH-7 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 60525
Prep Batch: 51643

Analytical Method: S 8015B
Date Analyzed: 2009-06-17
Sample Preparation: 2009-06-17

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1800	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		20.2	mg/Kg	10	20.0	101	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	²³	49.7	mg/Kg	10	20.0	248	52 - 117

Sample: 199019 - AH-7 1-1.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 60576
Prep Batch: 51608

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-16

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		933	mg/Kg	100	4.00

²²High surrogate recovery due to peak interference.

²³High surrogate recovery due to peak interference.

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Sample: 199019 - AH-7 1-1.5'

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 60494
Prep Batch: 51624

Analytical Method: Mod. 8015B
Date Analyzed: 2009-06-17
Sample Preparation: 2009-06-17

Prep Method: N/A
Analyzed By: AG
Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		394	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		112	mg/Kg	1	100	112	13.2 - 219.3

Sample: 199019 - AH-7 1-1.5'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 60525
Prep Batch: 51643

Analytical Method: S 8015B
Date Analyzed: 2009-06-17
Sample Preparation: 2009-06-17

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		198	mg/Kg	2	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		3.97	mg/Kg	2	4.00	99	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	²⁴	6.17	mg/Kg	2	4.00	154	52 - 117

Sample: 199020 - AH-7 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 60576
Prep Batch: 51608

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-16

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

²⁴High surrogate recovery due to peak interference.

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Sample: 199020 - AH-7 2-2.5'

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 60494
Prep Batch: 51624

Analytical Method: Mod. 8015B
Date Analyzed: 2009-06-17
Sample Preparation: 2009-06-17

Prep Method: N/A
Analyzed By: AG
Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		95.6	mg/Kg	1	100	96	13.2 - 219.3

Sample: 199020 - AH-7 2-2.5'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 60596
Prep Batch: 51692

Analytical Method: S 8015B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-18

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		19.4	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.05	mg/Kg	1	2.00	102	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.59	mg/Kg	1	2.00	80	52 - 117

Sample: 199021 - AH-7 3-3.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 60576
Prep Batch: 51608

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-16

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

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Sample: 199022 - AH-7 4-4.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 60605 Date Analyzed: 2009-06-19 Analyzed By: AR
Prep Batch: 51609 Sample Preparation: 2009-06-16 Prepared By: AR

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

Sample: 199023 - AH-7 5-5.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 60605 Date Analyzed: 2009-06-19 Analyzed By: AR
Prep Batch: 51609 Sample Preparation: 2009-06-16 Prepared By: AR

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

Sample: 199024 - AH-8 0-1'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 60595 Date Analyzed: 2009-06-18 Analyzed By: ME
Prep Batch: 51692 Sample Preparation: 2009-06-18 Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		22.1	mg/Kg	50	0.0100
Toluene		141	mg/Kg	50	0.0100
Ethylbenzene		122	mg/Kg	50	0.0100
Xylene		129	mg/Kg	50	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		95.5	mg/Kg	50	100	96	49 - 129.7
4-Bromofluorobenzene (4-BFB)		126	mg/Kg	50	100	126	45.2 - 144.3

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Sample: 199024 - AH-8 0-1'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 60605 Date Analyzed: 2009-06-19 Analyzed By: AR
Prep Batch: 51609 Sample Preparation: 2009-06-16 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8910	mg/Kg	50	4.00

Sample: 199024 - AH-8 0-1'

Laboratory: Midland
Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 60486 Date Analyzed: 2009-06-16 Analyzed By: AG
Prep Batch: 51574 Sample Preparation: 2009-06-16 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		10000	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	²⁵	814	mg/Kg	5	100	814	13.2 - 219.3

Sample: 199024 - AH-8 0-1'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 60596 Date Analyzed: 2009-06-18 Analyzed By: ME
Prep Batch: 51692 Sample Preparation: 2009-06-18 Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		3920	mg/Kg	50	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		100	mg/Kg	50	100	100	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	²⁶	181	mg/Kg	50	100	181	52 - 117

²⁵High surrogate recovery due to peak interference.

²⁶High surrogate recovery due to peak interference.

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Sample: 199025 - AH-8 1-1.5'

Laboratory: Midland
Analysis: BTEX
QC Batch: 60595
Prep Batch: 51692

Analytical Method: S 8021B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-18

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		4.42	mg/Kg	20	0.0100
Toluene		30.2	mg/Kg	20	0.0100
Ethylbenzene		11.3	mg/Kg	20	0.0100
Xylene		43.6	mg/Kg	20	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		38.4	mg/Kg	20	40.0	96	49 - 129.7
4-Bromofluorobenzene (4-BFB)		46.4	mg/Kg	20	40.0	116	45.2 - 144.3

Sample: 199025 - AH-8 1-1.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 60605
Prep Batch: 51609

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-06-19
Sample Preparation: 2009-06-16

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9380	mg/Kg	50	4.00

Sample: 199025 - AH-8 1-1.5'

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 60494
Prep Batch: 51624

Analytical Method: Mod. 8015B
Date Analyzed: 2009-06-17
Sample Preparation: 2009-06-17

Prep Method: N/A
Analyzed By: AG
Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		2480	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	²⁷	228	mg/Kg	5	100	228	13.2 - 219.3

²⁷High surrogate recovery due to peak interference.

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Sample: 199025 - AH-8 1-1.5'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 60596
Prep Batch: 51692

Analytical Method: S 8015B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-18

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1300	mg/Kg	20	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		40.7	mg/Kg	20	40.0	102	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	28	68.6	mg/Kg	20	40.0	172	52 - 117

Sample: 199026 - AH-8 2-2.5'

Laboratory: Midland
Analysis: BTEX
QC Batch: 60595
Prep Batch: 51692

Analytical Method: S 8021B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-18

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		0.170	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.93	mg/Kg	1	2.00	96	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.68	mg/Kg	1	2.00	84	45.2 - 144.3

Sample: 199026 - AH-8 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 60605
Prep Batch: 51609

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-06-19
Sample Preparation: 2009-06-16

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		645	mg/Kg	50	4.00

²⁸High surrogate recovery due to peak interference.

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Sample: 199026 - AH-8 2-2.5'

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 60494
Prep Batch: 51624

Analytical Method: Mod. 8015B
Date Analyzed: 2009-06-17
Sample Preparation: 2009-06-17

Prep Method: N/A
Analyzed By: AG
Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		103	mg/Kg	1	100	103	13.2 - 219.3

Sample: 199026 - AH-8 2-2.5'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 60596
Prep Batch: 51692

Analytical Method: S 8015B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-18

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		13.1	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.09	mg/Kg	1	2.00	104	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.51	mg/Kg	1	2.00	76	52 - 117

Sample: 199027 - AH-8 3-3.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 60605
Prep Batch: 51609

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-06-19
Sample Preparation: 2009-06-16

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2560	mg/Kg	50	4.00

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Sample: 199028 - AH-8 4-4.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 60605 Date Analyzed: 2009-06-19 Analyzed By: AR
Prep Batch: 51609 Sample Preparation: 2009-06-16 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		277	mg/Kg	50	4.00

Sample: 199029 - AH-8 6-6.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 60605 Date Analyzed: 2009-06-19 Analyzed By: AR
Prep Batch: 51609 Sample Preparation: 2009-06-16 Prepared By: AR

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

Sample: 199030 - AH-9 0-1'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 60742 Date Analyzed: 2009-06-23 Analyzed By: ME
Prep Batch: 51822 Sample Preparation: 2009-06-23 Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		12.7	mg/Kg	20	0.0100
Toluene		115	mg/Kg	20	0.0100
Ethylbenzene		89.9	mg/Kg	20	0.0100
Xylene		154	mg/Kg	20	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		39.4	mg/Kg	20	40.0	98	49 - 129.7
4-Bromofluorobenzene (4-BFB)	²⁹	71.5	mg/Kg	20	40.0	179	45.2 - 144.3

²⁹High surrogate recovery due to peak interference.

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Sample: 199030 - AH-9 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-06-19	Analyzed By:	AR
QC Batch:	60605	Sample Preparation:	2009-06-16	Prepared By:	AR
Prep Batch:	51609				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5870	mg/Kg	50	4.00

Sample: 199030 - AH-9 0-1'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2009-06-16	Analyzed By:	AG
QC Batch:	60486	Sample Preparation:	2009-06-16	Prepared By:	AG
Prep Batch:	51574				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		10200	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	³⁰	892	mg/Kg	5	100	892	13.2 - 219.3

Sample: 199030 - AH-9 0-1'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2009-06-17	Analyzed By:	ME
QC Batch:	60525	Sample Preparation:	2009-06-17	Prepared By:	ME
Prep Batch:	51643				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		2180	mg/Kg	20	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		42.4	mg/Kg	20	40.0	106	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		36.7	mg/Kg	20	40.0	92	52 - 117

³⁰High surrogate recovery due to peak interference.

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Sample: 199031 - AH-9 1-1.5'

Laboratory: Midland

Analysis: BTEX

QC Batch: 60595

Prep Batch: 51692

Analytical Method: S 8021B

Date Analyzed: 2009-06-18

Sample Preparation: 2009-06-18

Prep Method: S 5035

Analyzed By: ME

Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		13.5	mg/Kg	20	0.0100
Toluene		65.5	mg/Kg	20	0.0100
Ethylbenzene		53.3	mg/Kg	20	0.0100
Xylene		54.1	mg/Kg	20	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		39.1	mg/Kg	20	40.0	98	49 - 129.7
4-Bromofluorobenzene (4-BFB)		49.6	mg/Kg	20	40.0	124	45.2 - 144.3

Sample: 199031 - AH-9 1-1.5'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 60605

Prep Batch: 51609

Analytical Method: SM 4500-Cl B

Date Analyzed: 2009-06-19

Sample Preparation: 2009-06-16

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1970	mg/Kg	50	4.00

Sample: 199031 - AH-9 1-1.5'

Laboratory: Midland

Analysis: TPH DRO

QC Batch: 60494

Prep Batch: 51624

Analytical Method: Mod. 8015B

Date Analyzed: 2009-06-17

Sample Preparation: 2009-06-17

Prep Method: N/A

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		1740	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		205	mg/Kg	1	100	205	13.2 - 219.3

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Sample: 199031 - AH-9 1-1.5'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 60596
Prep Batch: 51692

Analytical Method: S 8015B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-18

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1390	mg/Kg	20	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		40.0	mg/Kg	20	40.0	100	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	31	69.0	mg/Kg	20	40.0	172	52 - 117

Sample: 199032 - AH-9 2-2.5'

Laboratory: Midland
Analysis: BTEX
QC Batch: 60595
Prep Batch: 51692

Analytical Method: S 8021B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-18

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0940	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		0.158	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/Kg	1	2.00	97	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.73	mg/Kg	1	2.00	86	45.2 - 144.3

Sample: 199032 - AH-9 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 60606
Prep Batch: 51610

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-06-19
Sample Preparation: 2009-06-16

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1940	mg/Kg	50	4.00

³¹High surrogate recovery due to peak interference.

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Sample: 199032 - AH-9 2-2.5'

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 60494
Prep Batch: 51624

Analytical Method: Mod. 8015B
Date Analyzed: 2009-06-17
Sample Preparation: 2009-06-17

Prep Method: N/A
Analyzed By: AG
Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		103	mg/Kg	1	100	103	13.2 - 219.3

Sample: 199032 - AH-9 2-2.5'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 60596
Prep Batch: 51692

Analytical Method: S 8015B
Date Analyzed: 2009-06-18
Sample Preparation: 2009-06-18

Prep Method: S 5035
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		10.1	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.07	mg/Kg	1	2.00	104	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.50	mg/Kg	1	2.00	75	52 - 117

Sample: 199033 - AH-9 3-3.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 60606
Prep Batch: 51610

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-06-19
Sample Preparation: 2009-06-16

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

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

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Sample: 199034 - AH-9 4-4.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 60606 Date Analyzed: 2009-06-19 Analyzed By: AR
Prep Batch: 51610 Sample Preparation: 2009-06-16 Prepared By: AR

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

Sample: 199035 - AH-9 5-5.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 60606 Date Analyzed: 2009-06-19 Analyzed By: AR
Prep Batch: 51610 Sample Preparation: 2009-06-16 Prepared By: AR

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

Method Blank (1) QC Batch: 60485

QC Batch: 60485 Date Analyzed: 2009-06-16 Analyzed By: AG
Prep Batch: 51574 QC Preparation: 2009-06-16 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		100	mg/Kg	1	100	100	13 - 178.5

Method Blank (1) QC Batch: 60486

QC Batch: 60486 Date Analyzed: 2009-06-16 Analyzed By: AG
Prep Batch: 51574 QC Preparation: 2009-06-16 Prepared By: AG

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

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		132	mg/Kg	1	100	132	13 - 178.5

Method Blank (1) QC Batch: 60487

QC Batch: 60487
Prep Batch: 51617

Date Analyzed: 2009-06-16
QC Preparation: 2009-06-16

Analyzed By: ME
Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.01	mg/Kg	1	2.00	100	71.9 - 115
4-Bromofluorobenzene (4-BFB)		1.65	mg/Kg	1	2.00	82	45.7 - 118.9

Method Blank (1) QC Batch: 60494

QC Batch: 60494
Prep Batch: 51624

Date Analyzed: 2009-06-17
QC Preparation: 2009-06-17

Analyzed By: AG
Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		164	mg/Kg	1	100	164	13 - 178.5

Method Blank (1) QC Batch: 60514

QC Batch: 60514
Prep Batch: 51602

Date Analyzed: 2009-06-17
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

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

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Method Blank (1) QC Batch: 60525

QC Batch: 60525
Prep Batch: 51643

Date Analyzed: 2009-06-17
QC Preparation: 2009-06-17

Analyzed By: ME
Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.07	mg/Kg	1	2.00	104	71.9 - 115
4-Bromofluorobenzene (4-BFB)		1.48	mg/Kg	1	2.00	74	45.7 - 118.9

Method Blank (1) QC Batch: 60571

QC Batch: 60571
Prep Batch: 51617

Date Analyzed: 2009-06-16
QC Preparation: 2009-06-16

Analyzed By: ME
Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.92	mg/Kg	1	2.00	96	65.6 - 130.6
4-Bromofluorobenzene (4-BFB)		2.07	mg/Kg	1	2.00	104	51.9 - 128.1

Method Blank (1) QC Batch: 60573

QC Batch: 60573
Prep Batch: 51604

Date Analyzed: 2009-06-18
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

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

Method Blank (1) QC Batch: 60574

QC Batch: 60574
Prep Batch: 51605

Date Analyzed: 2009-06-18
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

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

Method Blank (1) QC Batch: 60575

QC Batch: 60575 Date Analyzed: 2009-06-18 Analyzed By: AR
Prep Batch: 51607 QC Preparation: 2009-06-16 Prepared By: AR

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

Method Blank (1) QC Batch: 60576

QC Batch: 60576 Date Analyzed: 2009-06-18 Analyzed By: AR
Prep Batch: 51608 QC Preparation: 2009-06-16 Prepared By: AR

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

Method Blank (1) QC Batch: 60595

QC Batch: 60595 Date Analyzed: 2009-06-18 Analyzed By: ME
Prep Batch: 51692 QC Preparation: 2009-06-18 Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.97	mg/Kg	1	2.00	98	65.6 - 130.6
4-Bromofluorobenzene (4-BFB)		1.98	mg/Kg	1	2.00	99	51.9 - 128.1

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Method Blank (1) QC Batch: 60596

QC Batch: 60596 Date Analyzed: 2009-06-18 Analyzed By: ME
Prep Batch: 51692 QC Preparation: 2009-06-18 Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.08	mg/Kg	1	2.00	104	71.9 - 115
4-Bromofluorobenzene (4-BFB)		1.61	mg/Kg	1	2.00	80	45.7 - 118.9

Method Blank (1) QC Batch: 60605

QC Batch: 60605 Date Analyzed: 2009-06-19 Analyzed By: AR
Prep Batch: 51609 QC Preparation: 2009-06-16 Prepared By: AR

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

Method Blank (1) QC Batch: 60606

QC Batch: 60606 Date Analyzed: 2009-06-19 Analyzed By: AR
Prep Batch: 51610 QC Preparation: 2009-06-16 Prepared By: AR

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

Method Blank (1) QC Batch: 60742

QC Batch: 60742 Date Analyzed: 2009-06-23 Analyzed By: ME
Prep Batch: 51822 QC Preparation: 2009-06-23 Prepared By: ME

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

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.86	mg/Kg	1	2.00	93	65.6 - 130.6
4-Bromofluorobenzene (4-BFB)		1.88	mg/Kg	1	2.00	94	51.9 - 128.1

Method Blank (1) QC Batch: 60878

QC Batch: 60878 Date Analyzed: 2009-06-27 Analyzed By: ME
Prep Batch: 51867 QC Preparation: 2009-06-26 Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.92	mg/Kg	1	2.00	96	65.6 - 130.6
4-Bromofluorobenzene (4-BFB)		1.39	mg/Kg	1	2.00	70	51.9 - 128.1

Method Blank (1) QC Batch: 61005

QC Batch: 61005 Date Analyzed: 2009-06-30 Analyzed By: ME
Prep Batch: 52038 QC Preparation: 2009-06-30 Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.83	mg/Kg	1	2.00	92	65.6 - 130.6
4-Bromofluorobenzene (4-BFB)		1.52	mg/Kg	1	2.00	76	51.9 - 128.1

Laboratory Control Spike (LCS-1)

QC Batch: 60485 Date Analyzed: 2009-06-16 Analyzed By: AG
Prep Batch: 51574 QC Preparation: 2009-06-16 Prepared By: AG

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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	262	mg/Kg	1	250	<5.86	105	57.4 - 133.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	223	mg/Kg	1	250	<5.86	89	57.4 - 133.4	16	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-Triacontane	107	102	mg/Kg	1	100	107	102	48.5 - 146.7

Laboratory Control Spike (LCS-1)

QC Batch: 60486
Prep Batch: 51574

Date Analyzed: 2009-06-16
QC Preparation: 2009-06-16

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	287	mg/Kg	1	250	<5.86	115	57.4 - 133.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	254	mg/Kg	1	250	<5.86	102	57.4 - 133.4	12	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-Triacontane	109	102	mg/Kg	1	100	109	102	48.5 - 146.7

Laboratory Control Spike (LCS-1)

QC Batch: 60487
Prep Batch: 51617

Date Analyzed: 2009-06-16
QC Preparation: 2009-06-16

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.4	mg/Kg	1	20.0	<0.482	77	60.5 - 100.1

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

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Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	14.3	mg/Kg	1	20.0	<0.482	72	60.5 - 100.1	7	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.06	2.07	mg/Kg	1	2.00	103	104	78.8 - 104.7
4-Bromofluorobenzene (4-BFB)	1.59	1.57	mg/Kg	1	2.00	80	78	66.1 - 108.3

Laboratory Control Spike (LCS-1)

QC Batch: 60494
Prep Batch: 51624

Date Analyzed: 2009-06-17
QC Preparation: 2009-06-17

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	266	mg/Kg	1	250	<5.86	106	57.4 - 133.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	241	mg/Kg	1	250	<5.86	96	57.4 - 133.4	10	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-Triacontane	94.9	89.7	mg/Kg	1	100	95	90	48.5 - 146.7

Laboratory Control Spike (LCS-1)

QC Batch: 60514
Prep Batch: 51602

Date Analyzed: 2009-06-17
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

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

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	99.6	mg/Kg	1	100	<2.18	100	85 - 115	1	20

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

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Laboratory Control Spike (LCS-1)

QC Batch: 60525
Prep Batch: 51643

Date Analyzed: 2009-06-17
QC Preparation: 2009-06-17

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.3	mg/Kg	1	20.0	<0.482	76	60.5 - 100.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.8	mg/Kg	1	20.0	<0.482	84	60.5 - 100.1	9	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.05	2.06	mg/Kg	1	2.00	102	103	78.8 - 104.7
4-Bromofluorobenzene (4-BFB)	1.50	1.58	mg/Kg	1	2.00	75	79	66.1 - 108.3

Laboratory Control Spike (LCS-1)

QC Batch: 60571
Prep Batch: 51617

Date Analyzed: 2009-06-16
QC Preparation: 2009-06-16

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.96	mg/Kg	1	2.00	<0.00100	98	72.7 - 129.8
Toluene	1.97	mg/Kg	1	2.00	<0.00100	98	71.6 - 129.6
Ethylbenzene	1.92	mg/Kg	1	2.00	<0.00110	96	70.8 - 129.7
Xylene	5.86	mg/Kg	1	6.00	<0.00360	98	70.9 - 129.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.04	mg/Kg	1	2.00	<0.00100	102	72.7 - 129.8	4	20
Toluene	2.06	mg/Kg	1	2.00	<0.00100	103	71.6 - 129.6	4	20
Ethylbenzene	2.07	mg/Kg	1	2.00	<0.00110	104	70.8 - 129.7	8	20
Xylene	6.42	mg/Kg	1	6.00	<0.00360	107	70.9 - 129.4	9	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.90	1.92	mg/Kg	1	2.00	95	96	65.9 - 132
4-Bromofluorobenzene (4-BFB)	1.80	1.87	mg/Kg	1	2.00	90	94	55.2 - 128.9

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Laboratory Control Spike (LCS-1)

QC Batch: 60573
Prep Batch: 51604

Date Analyzed: 2009-06-18
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.5	mg/Kg	1	100	<2.18	100	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	100	mg/Kg	1	100	<2.18	100	85 - 115	0	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: 60574
Prep Batch: 51605

Date Analyzed: 2009-06-18
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.8	mg/Kg	1	100	<2.18	99	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	99.4	mg/Kg	1	100	<2.18	99	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 60575
Prep Batch: 51607

Date Analyzed: 2009-06-18
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

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

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

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

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

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Laboratory Control Spike (LCS-1)

QC Batch: 60576
Prep Batch: 51608

Date Analyzed: 2009-06-18
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

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

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	99.5	mg/Kg	1	100	<2.18	100	85 - 115	0	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: 60595
Prep Batch: 51692

Date Analyzed: 2009-06-18
QC Preparation: 2009-06-18

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.10	mg/Kg	1	2.00	<0.00100	105	72.7 - 129.8
Toluene	2.09	mg/Kg	1	2.00	<0.00100	104	71.6 - 129.6
Ethylbenzene	2.04	mg/Kg	1	2.00	<0.00110	102	70.8 - 129.7
Xylene	6.20	mg/Kg	1	6.00	<0.00360	103	70.9 - 129.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.06	mg/Kg	1	2.00	<0.00100	103	72.7 - 129.8	2	20
Toluene	2.05	mg/Kg	1	2.00	<0.00100	102	71.6 - 129.6	2	20
Ethylbenzene	2.08	mg/Kg	1	2.00	<0.00110	104	70.8 - 129.7	2	20
Xylene	6.36	mg/Kg	1	6.00	<0.00360	106	70.9 - 129.4	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)	1.97	1.97	mg/Kg	1	2.00	98	98	65.9 - 132
4-Bromofluorobenzene (4-BFB)	2.00	1.93	mg/Kg	1	2.00	100	96	55.2 - 128.9

Laboratory Control Spike (LCS-1)

QC Batch: 60596
Prep Batch: 51692

Date Analyzed: 2009-06-18
QC Preparation: 2009-06-18

Analyzed By: ME
Prepared By: ME

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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.1	mg/Kg	1	20.0	<0.482	70	60.5 - 100.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	17.0	mg/Kg	1	20.0	<0.482	85	60.5 - 100.1	19	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)	1.97	2.08	mg/Kg	1	2.00	98	104	78.8 - 104.7
4-Bromofluorobenzene (4-BFB)	1.58	1.70	mg/Kg	1	2.00	79	85	66.1 - 108.3

Laboratory Control Spike (LCS-1)

QC Batch: 60605
Prep Batch: 51609

Date Analyzed: 2009-06-19
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.2	mg/Kg	1	100	<2.18	99	85 - 115

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

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

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

Laboratory Control Spike (LCS-1)

QC Batch: 60606
Prep Batch: 51610

Date Analyzed: 2009-06-19
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.2	mg/Kg	1	100	<2.18	99	85 - 115

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

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

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

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Laboratory Control Spike (LCS-1)

QC Batch: 60742
Prep Batch: 51822

Date Analyzed: 2009-06-23
QC Preparation: 2009-06-23

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.06	mg/Kg	1	2.00	<0.00100	103	72.7 - 129.8
Toluene	2.08	mg/Kg	1	2.00	<0.00100	104	71.6 - 129.6
Ethylbenzene	2.05	mg/Kg	1	2.00	<0.00110	102	70.8 - 129.7
Xylene	6.22	mg/Kg	1	6.00	<0.00360	104	70.9 - 129.4

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.05	mg/Kg	1	2.00	<0.00100	102	72.7 - 129.8	0	20
Toluene	2.10	mg/Kg	1	2.00	<0.00100	105	71.6 - 129.6	1	20
Ethylbenzene	2.14	mg/Kg	1	2.00	<0.00110	107	70.8 - 129.7	4	20
Xylene	6.52	mg/Kg	1	6.00	<0.00360	109	70.9 - 129.4	5	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.91	1.89	mg/Kg	1	2.00	96	94	65.9 - 132
4-Bromofluorobenzene (4-BFB)	1.95	1.94	mg/Kg	1	2.00	98	97	55.2 - 128.9

Laboratory Control Spike (LCS-1)

QC Batch: 60878
Prep Batch: 51867

Date Analyzed: 2009-06-27
QC Preparation: 2009-06-26

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.02	mg/Kg	1	2.00	<0.00100	101	72.7 - 129.8
Toluene	2.00	mg/Kg	1	2.00	<0.00100	100	71.6 - 129.6
Ethylbenzene	1.92	mg/Kg	1	2.00	<0.00110	96	70.8 - 129.7
Xylene	5.54	mg/Kg	1	6.00	<0.00360	92	70.9 - 129.4

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.10	mg/Kg	1	2.00	<0.00100	105	72.7 - 129.8	4	20
Toluene	2.09	mg/Kg	1	2.00	<0.00100	104	71.6 - 129.6	4	20
Ethylbenzene	2.03	mg/Kg	1	2.00	<0.00110	102	70.8 - 129.7	6	20
Xylene	5.90	mg/Kg	1	6.00	<0.00360	98	70.9 - 129.4	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)	1.90	1.93	mg/Kg	1	2.00	95	96	65.9 - 132
4-Bromofluorobenzene (4-BFB)	1.38	1.41	mg/Kg	1	2.00	69	70	55.2 - 128.9

Laboratory Control Spike (LCS-1)

QC Batch: 61005 Date Analyzed: 2009-06-30 Analyzed By: ME
Prep Batch: 52038 QC Preparation: 2009-06-30 Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.78	mg/Kg	1	2.00	<0.00100	89	72.7 - 129.8
Toluene	1.73	mg/Kg	1	2.00	<0.00100	86	71.6 - 129.6
Ethylbenzene	1.73	mg/Kg	1	2.00	<0.00110	86	70.8 - 129.7
Xylene	5.13	mg/Kg	1	6.00	<0.00360	86	70.9 - 129.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.77	mg/Kg	1	2.00	<0.00100	88	72.7 - 129.8	1	20
Toluene	1.75	mg/Kg	1	2.00	<0.00100	88	71.6 - 129.6	1	20
Ethylbenzene	1.79	mg/Kg	1	2.00	<0.00110	90	70.8 - 129.7	3	20
Xylene	5.34	mg/Kg	1	6.00	<0.00360	89	70.9 - 129.4	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.88	1.88	mg/Kg	1	2.00	94	94	65.9 - 132
4-Bromofluorobenzene (4-BFB)	1.62	1.57	mg/Kg	1	2.00	81	78	55.2 - 128.9

Matrix Spike (MS-1) Spiked Sample: 199012

QC Batch: 60485 Date Analyzed: 2009-06-16 Analyzed By: AG
Prep Batch: 51574 QC Preparation: 2009-06-16 Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	³² 6170	mg/Kg	5	250	6171	0	35.2 - 167.1

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

³²Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

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Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	³³	6700	mg/Kg	5	250	6171	0	35.2 - 167.1	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
n-Triacontane	³⁴ ³⁵	450	440	mg/Kg	5	100	450	440	34.5 - 178.4

Matrix Spike (MS-1) Spiked Sample: 199052

QC Batch: 60486
Prep Batch: 51574

Date Analyzed: 2009-06-16
QC Preparation: 2009-06-16

Analyzed By: AG
Prepared By: AG

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		228	mg/Kg	1	250	<5.86	91	35.2 - 167.1

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	³⁶	292	mg/Kg	1	250	<5.86	117	35.2 - 167.1	25	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-Triacontane		89.7	105	mg/Kg	1	100	90	105	34.5 - 178.4

Matrix Spike (MS-1) Spiked Sample:

QC Batch: 60487
Prep Batch: 51617

Date Analyzed: 2009-06-16
QC Preparation: 2009-06-16

Analyzed By: ME
Prepared By: ME

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		31.6	mg/Kg	1	20.0	<0.482	157	12.8 - 175.2

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

continued ...

³³MSD analyte out of range. MS/MSD has a RPD within limits. Therefore, MS shows extraction occurred properly.

³⁴High surrogate recovery due to peak interference.

³⁵High surrogate recovery due to peak interference.

³⁶MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

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Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	35.0	mg/Kg	1	20.0	<0.482	174	12.8 - 175.2	10	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.13	2.18	mg/Kg	1	2	106	109	60.8 - 132.1
4-Bromofluorobenzene (4-BFB)	1.28	1.36	mg/Kg	1	2	64	68	31.3 - 161.7

Matrix Spike (MS-1) Spiked Sample: 199002

QC Batch: 60494
Prep Batch: 51624

Date Analyzed: 2009-06-17
QC Preparation: 2009-06-17

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	256	mg/Kg	1	250	<5.86	102	35.2 - 167.1

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	251	mg/Kg	1	250	<5.86	100	35.2 - 167.1	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	89.1	87.7	mg/Kg	1	100	89	88	34.5 - 178.4

Matrix Spike (MS-1) Spiked Sample: 198981

QC Batch: 60514
Prep Batch: 51602

Date Analyzed: 2009-06-17
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	13000	mg/Kg	100	10000	3080	99	85 - 115

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

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Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	13300	mg/Kg	100	10000	3080	102	85 - 115	2	20

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

Matrix Spike (MS-1) Spiked Sample: 199040

QC Batch: 60525
Prep Batch: 51643

Date Analyzed: 2009-06-17
QC Preparation: 2009-06-17

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	³⁷ 66.1	mg/Kg	1	20.0	22.5524	218	12.8 - 175.2

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	³⁸ 68.6	mg/Kg	1	20.0	22.5524	230	12.8 - 175.2	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)	2.24	2.24	mg/Kg	1	2	112	112	60.8 - 132.1
4-Bromofluorobenzene (4-BFB)	2.14	2.04	mg/Kg	1	2	107	102	31.3 - 161.7

Matrix Spike (MS-1) Spiked Sample: 198991

QC Batch: 60573
Prep Batch: 51604

Date Analyzed: 2009-06-18
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10700	mg/Kg	100	10000	550	102	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10800	mg/Kg	100	10000	550	102	85 - 115	1	20

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

³⁷Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

³⁸Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

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Matrix Spike (MS-1) Spiked Sample: 199001

QC Batch: 60574
Prep Batch: 51605

Date Analyzed: 2009-06-18
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10000	mg/Kg	100	10000	<218	98	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10200	mg/Kg	100	10000	<218	100	85 - 115	2	20

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

Matrix Spike (MS-1) Spiked Sample: 199011

QC Batch: 60575
Prep Batch: 51607

Date Analyzed: 2009-06-18
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10100	mg/Kg	100	10000	313	98	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10300	mg/Kg	100	10000	313	100	85 - 115	2	20

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

Matrix Spike (MS-1) Spiked Sample: 199021

QC Batch: 60576
Prep Batch: 51608

Date Analyzed: 2009-06-18
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

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

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10200	mg/Kg	100	10000	<218	102	85 - 115	2	20

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

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Matrix Spike (MS-1) Spiked Sample: 199203

QC Batch: 60595
Prep Batch: 51692

Date Analyzed: 2009-06-18
QC Preparation: 2009-06-18

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.08	mg/Kg	1	2.00	<0.00100	104	58.6 - 165.2
Toluene	2.08	mg/Kg	1	2.00	<0.00100	104	64.2 - 153.8
Ethylbenzene	2.03	mg/Kg	1	2.00	<0.00110	102	61.6 - 159.4
Xylene	6.13	mg/Kg	1	6.00	<0.00360	102	64.4 - 155.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.01	mg/Kg	1	2.00	<0.00100	100	58.6 - 165.2	3	20
Toluene	2.00	mg/Kg	1	2.00	<0.00100	100	64.2 - 153.8	4	20
Ethylbenzene	2.02	mg/Kg	1	2.00	<0.00110	101	61.6 - 159.4	0	20
Xylene	6.11	mg/Kg	1	6.00	<0.00360	102	64.4 - 155.3	0	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.07	1.99	mg/Kg	1	2	104	100	76 - 127.9
4-Bromofluorobenzene (4-BFB)	1.81	1.70	mg/Kg	1	2	90	85	72 - 127.8

Matrix Spike (MS-1) Spiked Sample: 199226

QC Batch: 60596
Prep Batch: 51692

Date Analyzed: 2009-06-18
QC Preparation: 2009-06-18

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	20.2	mg/Kg	1	20.0	4.794	77	12.8 - 175.2

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	³⁹ 35.6	mg/Kg	1	20.0	4.794	154	12.8 - 175.2	55	20

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

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³⁹MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

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Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.06	2.27	mg/Kg	1	2	103	114	60.8 - 132.1
4-Bromofluorobenzene (4-BFB)	1.43	1.50	mg/Kg	1	2	72	75	31.3 - 161.7

Matrix Spike (MS-1) Spiked Sample: 199031

QC Batch: 60605
Prep Batch: 51609

Date Analyzed: 2009-06-19
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	6970	mg/Kg	50	5000	1970	100	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	7080	mg/Kg	50	5000	1970	102	85 - 115	2	20

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

Matrix Spike (MS-1) Spiked Sample: 199044

QC Batch: 60606
Prep Batch: 51610

Date Analyzed: 2009-06-19
QC Preparation: 2009-06-16

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	16800	mg/Kg	50	5000	11900	98	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	16900	mg/Kg	50	5000	11900	100	85 - 115	1	20

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

Matrix Spike (MS-1) Spiked Sample: 199040

QC Batch: 60742
Prep Batch: 51822

Date Analyzed: 2009-06-23
QC Preparation: 2009-06-23

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.93	mg/Kg	1	2.00	<0.00100	96	58.6 - 165.2
Toluene	1.88	mg/Kg	1	2.00	0.1534	86	64.2 - 153.8
Ethylbenzene	1.95	mg/Kg	1	2.00	0.216	87	61.6 - 159.4
Xylene	5.78	mg/Kg	1	6.00	0.5249	88	64.4 - 155.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.93	mg/Kg	1	2.00	<0.00100	96	58.6 - 165.2	0	20
Toluene	1.88	mg/Kg	1	2.00	0.1534	86	64.2 - 153.8	0	20
Ethylbenzene	1.96	mg/Kg	1	2.00	0.216	87	61.6 - 159.4	0	20
Xylene	5.91	mg/Kg	1	6.00	0.5249	90	64.4 - 155.3	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.84	1.92	mg/Kg	1	2	92	96	76 - 127.9
4-Bromofluorobenzene (4-BFB)	1.59	1.52	mg/Kg	1	2	80	76	72 - 127.8

Matrix Spike (MS-1) Spiked Sample: 200209

QC Batch: 60878
Prep Batch: 51867

Date Analyzed: 2009-06-27
QC Preparation: 2009-06-26

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.88	mg/Kg	1	2.00	<0.00100	94	58.6 - 165.2
Toluene	1.89	mg/Kg	1	2.00	<0.00100	94	64.2 - 153.8
Ethylbenzene	1.84	mg/Kg	1	2.00	<0.00110	92	61.6 - 159.4
Xylene	5.24	mg/Kg	1	6.00	<0.00360	87	64.4 - 155.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	⁴⁰ 0.122	mg/Kg	1	2.00	<0.00100	6	58.6 - 165.2	176	20
Toluene	<0.00100	mg/Kg	1	2.00	<0.00100	0	64.2 - 153.8	200	20
Ethylbenzene	0.178	mg/Kg	1	2.00	<0.00110	9	61.6 - 159.4	165	20
Xylene	0.552	mg/Kg	1	6.00	<0.00360	9	64.4 - 155.3	162	20

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

continued ...

⁴⁰SPECIAL - MSD was not spiked for all compounds. •

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Work Order: 9061607
COG/Skelly 942

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Eddy Co., NM

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)	1.96	1.96	mg/Kg	1	2	98	98	76 - 127.9
4-Bromofluorobenzene (4-BFB) ⁴¹	1.20	1.28	mg/Kg	1	2	60	64	72 - 127.8

Matrix Spike (MS-1) Spiked Sample: 200688

QC Batch: 61005
Prep Batch: 52038

Date Analyzed: 2009-06-30
QC Preparation: 2009-06-30

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene ⁴²	18.1	mg/Kg	10	20.0	<0.0100	90	58.6 - 165.2
Toluene	18.1	mg/Kg	10	20.0	<0.0100	90	64.2 - 153.8
Ethylbenzene	17.8	mg/Kg	10	20.0	<0.0110	89	61.6 - 159.4
Xylene	51.6	mg/Kg	10	60.0	<0.0360	86	64.4 - 155.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene ⁴³	20.3	mg/Kg	10	20.0	<0.0100	102	58.6 - 165.2	11	20
Toluene	20.2	mg/Kg	10	20.0	<0.0100	101	64.2 - 153.8	11	20
Ethylbenzene	19.9	mg/Kg	10	20.0	<0.0110	100	61.6 - 159.4	11	20
Xylene	60.1	mg/Kg	10	60.0	<0.0360	100	64.4 - 155.3	15	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)	19.5	18.9	mg/Kg	10	20	98	94	76 - 127.9
4-Bromofluorobenzene (4-BFB)	16.3	16.2	mg/Kg	10	20	82	81	72 - 127.8

Standard (CCV-2)

QC Batch: 60485

Date Analyzed: 2009-06-16

Analyzed By: AG

⁴¹Surrogate out due to peak interference.

⁴²SPECIAL - Spiked Sample # 200688 •

⁴³SPECIAL - Spiked Sample # 200688 •

Report Date: July 1, 2009
114-6400222

Work Order: 9061607
COG/Skelly 942

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Eddy Co., NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	238	95	80 - 120	2009-06-16

Standard (CCV-3)

QC Batch: 60485

Date Analyzed: 2009-06-16

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	239	96	80 - 120	2009-06-16

Standard (CCV-4)

QC Batch: 60485

Date Analyzed: 2009-06-16

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	254	102	80 - 120	2009-06-16

Standard (CCV-1)

QC Batch: 60486

Date Analyzed: 2009-06-16

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	285	114	80 - 120	2009-06-16

Standard (CCV-2)

QC Batch: 60486

Date Analyzed: 2009-06-16

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	288	115	80 - 120	2009-06-16

Standard (CCV-2)

QC Batch: 60487

Date Analyzed: 2009-06-16

Analyzed By: ME

Report Date: July 1, 2009
114-6400222

Work Order: 9061607
COG/Skelly 942

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Eddy Co., NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.919	92	80 - 120	2009-06-16

Standard (CCV-3)

QC Batch: 60487

Date Analyzed: 2009-06-16

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.04	104	80 - 120	2009-06-16

Standard (CCV-1)

QC Batch: 60494

Date Analyzed: 2009-06-17

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	201	80	80 - 120	2009-06-17

Standard (CCV-2)

QC Batch: 60494

Date Analyzed: 2009-06-17

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	261	104	80 - 120	2009-06-17

Standard (CCV-3)

QC Batch: 60494

Date Analyzed: 2009-06-17

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	287	115	80 - 120	2009-06-17

Standard (CCV-4)

QC Batch: 60494

Date Analyzed: 2009-06-17

Analyzed By: AG

Report Date: July 1, 2009
114-6400222

Work Order: 9061607
COG/Skelly 942

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Eddy Co., NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	257	103	80 - 120	2009-06-17

Standard (ICV-1)

QC Batch: 60514

Date Analyzed: 2009-06-17

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2009-06-17

Standard (CCV-1)

QC Batch: 60514

Date Analyzed: 2009-06-17

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.4	98	85 - 115	2009-06-17

Standard (CCV-1)

QC Batch: 60525

Date Analyzed: 2009-06-17

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.951	95	80 - 120	2009-06-17

Standard (CCV-2)

QC Batch: 60525

Date Analyzed: 2009-06-17

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.904	90	80 - 120	2009-06-17

Standard (CCV-3)

QC Batch: 60525

Date Analyzed: 2009-06-17

Analyzed By: ME

Report Date: July 1, 2009
114-6400222

Work Order: 9061607
COG/Skelly 942

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Eddy Co., NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.14	114	80 - 120	2009-06-17

Standard (CCV-1)

QC Batch: 60571

Date Analyzed: 2009-06-16

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0997	100	80 - 120	2009-06-16
Toluene		mg/Kg	0.100	0.100	100	80 - 120	2009-06-16
Ethylbenzene		mg/Kg	0.100	0.102	102	80 - 120	2009-06-16
Xylene		mg/Kg	0.300	0.316	105	80 - 120	2009-06-16

Standard (CCV-2)

QC Batch: 60571

Date Analyzed: 2009-06-16

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.109	109	80 - 120	2009-06-16
Toluene		mg/Kg	0.100	0.107	107	80 - 120	2009-06-16
Ethylbenzene		mg/Kg	0.100	0.104	104	80 - 120	2009-06-16
Xylene		mg/Kg	0.300	0.319	106	80 - 120	2009-06-16

Standard (ICV-1)

QC Batch: 60573

Date Analyzed: 2009-06-18

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.0	99	85 - 115	2009-06-18

Standard (CCV-1)

QC Batch: 60573

Date Analyzed: 2009-06-18

Analyzed By: AR

Report Date: July 1, 2009
114-6400222

Work Order: 9061607
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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2009-06-18

Standard (ICV-1)

QC Batch: 60574

Date Analyzed: 2009-06-18

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2009-06-18

Standard (CCV-1)

QC Batch: 60574

Date Analyzed: 2009-06-18

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.8	100	85 - 115	2009-06-18

Standard (ICV-1)

QC Batch: 60575

Date Analyzed: 2009-06-18

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.8	100	85 - 115	2009-06-18

Standard (CCV-1)

QC Batch: 60575

Date Analyzed: 2009-06-18

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2009-06-18

Standard (ICV-1)

QC Batch: 60576

Date Analyzed: 2009-06-18

Analyzed By: AR

Report Date: July 1, 2009
114-6400222

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Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2009-06-18

Standard (CCV-1)

QC Batch: 60576

Date Analyzed: 2009-06-18

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.3	98	85 - 115	2009-06-18

Standard (CCV-1)

QC Batch: 60595

Date Analyzed: 2009-06-18

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.102	102	80 - 120	2009-06-18
Toluene		mg/Kg	0.100	0.107	107	80 - 120	2009-06-18
Ethylbenzene		mg/Kg	0.100	0.103	103	80 - 120	2009-06-18
Xylene		mg/Kg	0.300	0.319	106	80 - 120	2009-06-18

Standard (CCV-2)

QC Batch: 60595

Date Analyzed: 2009-06-18

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.108	108	80 - 120	2009-06-18
Toluene		mg/Kg	0.100	0.109	109	80 - 120	2009-06-18
Ethylbenzene		mg/Kg	0.100	0.102	102	80 - 120	2009-06-18
Xylene		mg/Kg	0.300	0.314	105	80 - 120	2009-06-18

Standard (CCV-1)

QC Batch: 60596

Date Analyzed: 2009-06-18

Analyzed By: ME

Report Date: July 1, 2009
114-6400222

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.02	102	80 - 120	2009-06-18

Standard (CCV-2)

QC Batch: 60596

Date Analyzed: 2009-06-18

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.00	100	80 - 120	2009-06-18

Standard (ICV-1)

QC Batch: 60605

Date Analyzed: 2009-06-19

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.3	98	85 - 115	2009-06-19

Standard (CCV-1)

QC Batch: 60605

Date Analyzed: 2009-06-19

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2009-06-19

Standard (ICV-1)

QC Batch: 60606

Date Analyzed: 2009-06-19

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2009-06-19

Standard (CCV-1)

QC Batch: 60606

Date Analyzed: 2009-06-19

Analyzed By: AR

Report Date: July 1, 2009
114-6400222

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.7	99	85 - 115	2009-06-19

Standard (CCV-1)

QC Batch: 60742

Date Analyzed: 2009-06-23

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.106	106	80 - 120	2009-06-23
Toluene		mg/Kg	0.100	0.109	109	80 - 120	2009-06-23
Ethylbenzene		mg/Kg	0.100	0.108	108	80 - 120	2009-06-23
Xylene		mg/Kg	0.300	0.332	111	80 - 120	2009-06-23

Standard (CCV-2)

QC Batch: 60742

Date Analyzed: 2009-06-23

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.101	101	80 - 120	2009-06-23
Toluene		mg/Kg	0.100	0.102	102	80 - 120	2009-06-23
Ethylbenzene		mg/Kg	0.100	0.0969	97	80 - 120	2009-06-23
Xylene		mg/Kg	0.300	0.298	99	80 - 120	2009-06-23

Standard (CCV-1)

QC Batch: 60878

Date Analyzed: 2009-06-27

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.104	104	80 - 120	2009-06-27
Toluene		mg/Kg	0.100	0.104	104	80 - 120	2009-06-27
Ethylbenzene		mg/Kg	0.100	0.105	105	80 - 120	2009-06-27
Xylene		mg/Kg	0.300	0.304	101	80 - 120	2009-06-27

Standard (CCV-2)

QC Batch: 60878

Date Analyzed: 2009-06-27

Analyzed By: ME

Report Date: July 1, 2009
114-6400222

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COG/Skelly 942

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Eddy Co., NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.110	110	80 - 120	2009-06-27
Toluene		mg/Kg	0.100	0.108	108	80 - 120	2009-06-27
Ethylbenzene		mg/Kg	0.100	0.102	102	80 - 120	2009-06-27
Xylene		mg/Kg	0.300	0.294	98	80 - 120	2009-06-27

Standard (CCV-1)

QC Batch: 61005

Date Analyzed: 2009-06-30

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0876	88	80 - 120	2009-06-30
Toluene		mg/Kg	0.100	0.0871	87	80 - 120	2009-06-30
Ethylbenzene		mg/Kg	0.100	0.0902	90	80 - 120	2009-06-30
Xylene		mg/Kg	0.300	0.266	89	80 - 120	2009-06-30

Standard (CCV-2)

QC Batch: 61005

Date Analyzed: 2009-06-30

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0902	90	80 - 120	2009-06-30
Toluene		mg/Kg	0.100	0.0890	89	80 - 120	2009-06-30
Ethylbenzene		mg/Kg	0.100	0.0880	88	80 - 120	2009-06-30
Xylene		mg/Kg	0.300	0.259	86	80 - 120	2009-06-30

work order 4061607

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 Tavaraz	
PROJECT NO.: 114-6400222		PROJECT NAME: COG / Skelly 942	
LAB I.D. NUMBER	DATE	TIME	SAMPLE IDENTIFICATION
	2009	6/12	
198999			GAH-3 6-6.5
199000			GAH-4 0-1
001			GAH-4 1-1.5
002			GAH-4 2-2.5
003			GAH-4 3-3.5
004			GAH-4 4-4.5
005			GAH-4 6-6.5
006			GAH-5 0-1
007			GAH-5 1-1.5
008			GAH-5 2-2.5

RELINQUISHED BY: (Signature)	Date: 6/15/09	RECEIVED BY: (Signature)	Date: 6/16/09
RELINQUISHED BY: (Signature)	Date: 6/15/09	RECEIVED BY: (Signature)	Date: 6/16/09
RELINQUISHED BY: (Signature)	Date: 6/15/09	RECEIVED BY: (Signature)	Date: 6/16/09
RECEIVING LABORATORY: IRACE	Date: 6/15/09	RECEIVED BY: (Signature)	Date: 6/16/09
ADDRESS:	CITY:	STATE:	ZIP:
CONTACT:	PHONE:	DATE:	

SAMPLE CONDITION WHEN RECEIVED: **C.1**

REMARKS: **If TPH exceeds 5000 mlyg run deeper samples**
Run (5) BTEX w/ Samples highest TPH

PAGE: 3 OF: 6	
ANALYSIS REQUEST (Circle or Specify Method No.)	
BTX 8021B	
TPH 8015 MOD TX1005 (Ext. to C35)	
PAH 8270	
HCRA 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 8080/808	
Pest. 808/608	
Chloride	
Gamma Spec.	
Alpha Beta (Alr)	
PLM (Asbestos)	
Major Anions/Cations, pH, TDS	

SAMPLED BY: (Print & Initial)	Date: 6/12/09
SAMPLE SHIPPED BY: (Circle)	FEDEX
	BUS
	UPS
TETRA TECH CONTACT PERSON: Ike Tavaraz	
Results by:	
RUSH Charges Authorized:	
Yes No	

Work order 9061607

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 Tavaraz	
PROJECT NO.: 114-6400222		PROJECT NAME: COG / Skelly 942	
LAB I.D. NUMBER	DATE	TIME	MATRIX
199009	2009	6/12	X
010			
011			
012			
013			
014			
015			
016			
017			
018			

DATE	TIME	SIGNATURE
6/12/09	8:50	[Signature]
DATE	TIME	SIGNATURE
DATE	TIME	SIGNATURE
DATE	TIME	SIGNATURE
DATE	TIME	SIGNATURE

REMARKS: If TPH exceeds 5,000 m/kg run deeper samples.
Run (5) BTEX w/ samples highest BTEX TPH
Run deeper BTEX - Benzene > 10 m/kg or Total BTEX > 50 m/kg

ANALYSIS REQUEST (Circle or Specify Method No.)

GC/MS Vol. 8240/8260/824	GC/MS Sem. Vol. 8270/826	PCB's 8080/808	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
RCI								
TCLP Semi Volatiles								
TCLP Volatiles								
TCRA Metals Ag As Ba Cd Cr Pb Hg Se								
TCRP Metals Ag As Ba Cd Cr Pb Hg Se								
PAH 8270								
TPH 8015 MOD								
BTX 8021B								

SAMPLED BY: (Print & Initial)	DATE: 6/12/09
JK, KD, JT, RG	
SAMPLE SHIPPED BY: (Circle)	AIRBILL #:
EDX	
HAND DELIVERED	OTHER:
BUS	
UPS	
TETRA TECH CONTACT PERSON:	Results by:
Ike Tavaraz	
RUSH Charges Authorized:	Yes No

Work order 9011007

Analysis Request of Chain of Custody Record

PAGE: 5 OF: 6



TETRA TECH

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

CLIENT NAME: COG		SITE MANAGER: Ilc Tavaraz	
PROJECT NO.: 114-6400222		PROJECT NAME: COG / Skelly 942	
LAB I.D. NUMBER	DATE	TIME	SAMPLE IDENTIFICATION
	2009		
1990R	6/12		CO, NM
020			
021			
022			
023			
024			
025			
026			
027			
028			

ANALYSIS REQUEST (Circle or Specify Method No.)

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

RELINQUISHED BY: (Signature)	Date: 6/16/09	RECEIVED BY: (Signature)	Date: 6/16/09
RELINQUISHED BY: (Signature)	Date: 6/16/09	RECEIVED BY: (Signature)	Date: 6/16/09
RELINQUISHED BY: (Signature)	Date: 6/16/09	RECEIVED BY: (Signature)	Date: 6/16/09
RECEIVING LABORATORY:	DATE: 6/16/09		
ADDRESS:	TIME: 5:50		
CITY:	AIRBILL #:		
STATE:	OTHER:		
ZIP:	SAMPLE SHIPPED BY: (Circle) FEDEX BUS UPS		
PHONE:	TETRA TECH CONTACT PERSON: Ilc Tavaraz		
RUSH CHARGES AUTHORIZED: Yes No			

REMARKS: **TPH exceeds 5000 mg/kg run deeper samples**
Run (5) BTEX w/ samples highest TPH

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

Run deeper BTEX - Benzene > 10 mg/kg or Total BTEX > 50 mg/kg

work order 9061607

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.)

Major Anions/Cations, pH, TDS	
PLM (Asbestos)	
Alpha Beta (Air)	
Gamma Spec.	
Chloride	X
Post. 808/608	
PCBs 8080/608	
GC/MS Semi. Vol. 8270/625	
GC/MS Vol. 8240/8260/824	
RCI	
TCLP Semi Volatiles	
TCLP Volatiles	
TCLP Metals Ag As Ba Cd Cr Pb Hg Se	
RCRA Metals Ag As Ba Cd Cr Pb Hg Se	
PAH 8270	
TPH 8015 MOD. TX1005 (Ext. to C35)	X
BTEX 8021B	

PRESERVATIVE METHOD			
HCL			
HN03			
ICE	X		
NONE			

CLIENT NAME:		SITE MANAGER:	
COG		Ike Tavares	
PROJECT NO.:		PROJECT NAME:	
114-6400222		COG / Skelly 942	
LAB I.D. NUMBER	DATE	TIME	SAMPLE IDENTIFICATION
199029	6/12		6-6.5
030			0-1
031			1-1.5
032			2-2.5
033			3-3.5
034			4-4.5
035	6/12		5-5.5

RELINQUISHED BY: (Signature)	Date: 6/16/09	RECEIVED BY: (Signature)	Date: 6/16/09
RELINQUISHED BY: (Signature)	Date: 6/16/09	RECEIVED BY: (Signature)	Date: 6/16/09
RELINQUISHED BY: (Signature)	Date: 6/16/09	RECEIVED BY: (Signature)	Date: 6/16/09
RECEIVING LABORATORY: TETRA		RECEIVED BY: (Signature)	Date: 6/16/09
ADDRESS:		DATE:	
CITY:		STATE:	
CONTACT:		PHONE:	
SAMPLE CONDITION WHEN RECEIVED:		REMARKS:	
C.1		Run 114 exceeds 5,000 m/L kg run doper samples Run (5) BTEX w/ samples highest TPH Run doper BTEX - Benzene > 10 m/L kg or Total BTEX > 50 m/L kg	

Summary Report

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

Report Date: August 6, 2009

Work Order: 9072925



Project Location: Eddy Co., NM
Project Name: COG/Skelly 942
Project Number: 114-6400222

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
204001	Pipeline Road, CS-1 (0-1') BEB	Soil	2009-07-27	00:00	2009-07-29
204003	Pipeline Road, CS-2 (0-1') BEB	Soil	2009-07-27	00:00	2009-07-29
204005	Pipeline Road, CS-3 (0-1') BEB	Soil	2009-07-27	00:00	2009-07-29

Sample - Field Code	TPH DRO DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
204001 - Pipeline Road, CS-1 (0-1') BEB	99.6	23.4
204003 - Pipeline Road, CS-2 (0-1') BEB	<50.0	4.92
204005 - Pipeline Road, CS-3 (0-1') BEB	<50.0	<1.00

Sample: 204001 - Pipeline Road, CS-1 (0-1') BEB

Param	Flag	Result	Units	RL
Chloride		461	mg/Kg	4.00

Sample: 204003 - Pipeline Road, CS-2 (0-1') BEB

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

Sample: 204005 - Pipeline Road, CS-3 (0-1') BEB*continued ...*

sample 204005 continued ...

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



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1296
209 East Sunset Road, Suite E El Paso, Texas 79922 988•588•3443 915•585•3443 FAX 915•585•4944
5092 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019

HUB: 1752439743100-86536

DBE: VN 20657

NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX
LELAP-02003
Kansas E-10317

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: August 6, 2009

Work Order: 9072925



Project Location: Eddy Co., NM
Project Name: COG/Skelly 942
Project Number: 114-6400222

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
204001	Pipeline Road, CS-1 (0-1') BEB	Soil	2009-07-27	00:00	2009-07-29
204003	Pipeline Road, CS-2 (0-1') BEB	Soil	2009-07-27	00:00	2009-07-29
204005	Pipeline Road, CS-3 (0-1') BEB	Soil	2009-07-27	00:00	2009-07-29

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 11 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

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

Standard Flags

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

Case Narrative

Samples for project COG/Skelly 942 were received by TraceAnalysis, Inc. on 2009-07-29 and assigned to work order 9072925. Samples for work order 9072925 were received intact at a temperature of 4.4 deg. 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	52965	2009-08-03 at 12:02	62140	2009-08-04 at 16:11
TPH DRO	Mod. 8015B	52947	2009-07-31 at 15:58	62072	2009-07-31 at 15:58
TPH GRO	S 8015B	52914	2009-07-30 at 14:24	62031	2009-07-30 at 14:24

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 9072925 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.

Report Date: August 6, 2009
114-6400222

Work Order: 9072925
COG/Skelly 942

Page Number: 4 of 11
Eddy Co., NM

Analytical Report

Sample: 204001 - Pipeline Road, CS-1 (0-1') BEB

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-04	Analyzed By:	AR
QC Batch:	62140	Sample Preparation:	2009-08-03	Prepared By:	AR
Prep Batch:	52965				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		461	mg/Kg	50	4.00

Sample: 204001 - Pipeline Road, CS-1 (0-1') BEB

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2009-07-31	Analyzed By:	kg
QC Batch:	62072	Sample Preparation:	2009-07-31	Prepared By:	kg
Prep Batch:	52947				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		99.6	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		101	mg/Kg	1	100	101	13.2 - 219.3

Sample: 204001 - Pipeline Road, CS-1 (0-1') BEB

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2009-07-30	Analyzed By:	ME
QC Batch:	62031	Sample Preparation:	2009-07-30	Prepared By:	ME
Prep Batch:	52914				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		23.4	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/Kg	1	2.00	97	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.92	mg/Kg	1	2.00	96	52 - 117

Report Date: August 6, 2009
114-6400222

Work Order: 9072925
COG/Skelly 942

Page Number: 5 of 11
Eddy Co., NM

Sample: 204003 - Pipeline Road, CS-2 (0-1') BEB

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 62140 Date Analyzed: 2009-08-04 Analyzed By: AR
Prep Batch: 52965 Sample Preparation: 2009-08-03 Prepared By: AR

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

Sample: 204003 - Pipeline Road, CS-2 (0-1') BEB

Laboratory: Midland
Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 62072 Date Analyzed: 2009-07-31 Analyzed By: kg
Prep Batch: 52947 Sample Preparation: 2009-07-31 Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		96.5	mg/Kg	1	100	96	13.2 - 219.3

Sample: 204003 - Pipeline Road, CS-2 (0-1') BEB

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 62031 Date Analyzed: 2009-07-30 Analyzed By: ME
Prep Batch: 52914 Sample Preparation: 2009-07-30 Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		4.92	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/Kg	1	2.00	97	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.84	mg/Kg	1	2.00	92	52 - 117

Report Date: August 6, 2009
114-6400222

Work Order: 9072925
COG/Skelly 942

Page Number: 6 of 11
Eddy Co., NM

Sample: 204005 - Pipeline Road, CS-3 (0-1') BEB

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 62140 Date Analyzed: 2009-08-04 Analyzed By: AR
Prep Batch: 52965 Sample Preparation: 2009-08-03 Prepared By: AR

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

Sample: 204005 - Pipeline Road, CS-3 (0-1') BEB

Laboratory: Midland
Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 62072 Date Analyzed: 2009-07-31 Analyzed By: kg
Prep Batch: 52947 Sample Preparation: 2009-07-31 Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		66.7	mg/Kg	1	100	67	13.2 - 219.3

Sample: 204005 - Pipeline Road, CS-3 (0-1') BEB

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 62031 Date Analyzed: 2009-07-30 Analyzed By: ME
Prep Batch: 52914 Sample Preparation: 2009-07-30 Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/Kg	1	2.00	97	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.91	mg/Kg	1	2.00	96	52 - 117

Report Date: August 6, 2009
114-6400222

Work Order: 9072925
COG/Skelly 942

Page Number: 7 of 11
Eddy Co., NM

Method Blank (1) QC Batch: 62031

QC Batch: 62031
Prep Batch: 52914

Date Analyzed: 2009-07-30
QC Preparation: 2009-07-30

Analyzed By: ME
Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.97	mg/Kg	1	2.00	98	71.9 - 115
4-Bromofluorobenzene (4-BFB)		2.10	mg/Kg	1	2.00	105	45.7 - 118.9

Method Blank (1) QC Batch: 62072

QC Batch: 62072
Prep Batch: 52947

Date Analyzed: 2009-07-31
QC Preparation: 2009-07-31

Analyzed By: kg
Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		113	mg/Kg	1	100	113	13 - 178.5

Method Blank (1) QC Batch: 62140

QC Batch: 62140
Prep Batch: 52965

Date Analyzed: 2009-08-04
QC Preparation: 2009-08-03

Analyzed By: AR
Prepared By: AR

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

Laboratory Control Spike (LCS-1)

QC Batch: 62031
Prep Batch: 52914

Date Analyzed: 2009-07-30
QC Preparation: 2009-07-30

Analyzed By: ME
Prepared By: ME

Report Date: August 6, 2009
114-6400222

Work Order: 9072925
COG/Skelly 942

Page Number: 8 of 11
Eddy Co., NM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.6	mg/Kg	1	20.0	<0.482	83	60.5 - 120.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	17.0	mg/Kg	1	20.0	<0.482	85	60.5 - 120.1	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)	1.99	2.01	mg/Kg	1	2.00	100	100	78.8 - 124.7
4-Bromofluorobenzene (4-BFB)	2.17	2.32	mg/Kg	1	2.00	108	116	66.1 - 128.3

Laboratory Control Spike (LCS-1)

QC Batch: 62072
Prep Batch: 52947

Date Analyzed: 2009-07-31
QC Preparation: 2009-07-31

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	168	mg/Kg	1	250	<5.86	67	57.4 - 133.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	168	mg/Kg	1	250	<5.86	67	57.4 - 133.4	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	89.0	89.8	mg/Kg	1	100	89	90	48.5 - 146.7

Laboratory Control Spike (LCS-1)

QC Batch: 62140
Prep Batch: 52965

Date Analyzed: 2009-08-04
QC Preparation: 2009-08-03

Analyzed By: AR
Prepared By: AR

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

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

Report Date: August 6, 2009
114-6400222

Work Order: 9072925
COG/Skelly 942

Page Number: 9 of 11
Eddy Co., NM

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	101	mg/Kg	1	100	<2.18	101	85 - 115	0	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: 204003

QC Batch: 62031
Prep Batch: 52914

Date Analyzed: 2009-07-30
QC Preparation: 2009-07-30

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	22.2	mg/Kg	1	20.0	4.9206	86	12.8 - 175.2

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	¹ 29.6	mg/Kg	1	20.0	4.9206	123	12.8 - 175.2	29	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.10	2.05	mg/Kg	1	2	105	102	60.8 - 132.1
4-Bromofluorobenzene (4-BFB)	1.86	1.92	mg/Kg	1	2	93	96	31.3 - 161.7

Matrix Spike (MS-1) Spiked Sample: 204005

QC Batch: 62072
Prep Batch: 52947

Date Analyzed: 2009-07-31
QC Preparation: 2009-07-31

Analyzed By: kg
Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	189	mg/Kg	1	250	<5.86	76	35.2 - 167.1

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	187	mg/Kg	1	250	<5.86	75	35.2 - 167.1	1	20

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

continued ...

¹MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: August 6, 2009
114-6400222

Work Order: 9072925
COG/Skelly 942

Page Number: 10 of 11
Eddy Co., NM

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-Triacontane	92.7	93.9	mg/Kg	1	100	93	94	34.5 - 178.4

Matrix Spike (MS-1) Spiked Sample: 204019

QC Batch: 62140
Prep Batch: 52965

Date Analyzed: 2009-08-04
QC Preparation: 2009-08-03

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10400	mg/Kg	100	10000	<218	104	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10400	mg/Kg	100	10000	<218	104	85 - 115	0	20

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

Standard (CCV-1)

QC Batch: 62031

Date Analyzed: 2009-07-30

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.990	99	80 - 120	2009-07-30

Standard (CCV-2)

QC Batch: 62031

Date Analyzed: 2009-07-30

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.13	113	80 - 120	2009-07-30

Standard (CCV-1)

QC Batch: 62072

Date Analyzed: 2009-07-31

Analyzed By: kg

Report Date: August 6, 2009
114-6400222

Work Order: 9072925
COG/Skelly 942

Page Number: 11 of 11
Eddy Co., NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	219	88	80 - 120	2009-07-31

Standard (CCV-2)

QC Batch: 62072

Date Analyzed: 2009-07-31

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	200	80	80 - 120	2009-07-31

Standard (ICV-1)

QC Batch: 62140

Date Analyzed: 2009-08-04

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.8	99	85 - 115	2009-08-04

Standard (CCV-1)

QC Batch: 62140

Date Analyzed: 2009-08-04

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2009-08-04

7:30

ANALYSIS REQUEST

(Circle or Specify Method No.)



TETRA TECH

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

[illegible]

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