SITE INFORMATION

Report Type: Closure Report

General Site Information:

Site:	Loco Hills SWD 35 #001					
Company:	COG Operating LLC					
Section, Township and Range	Unit F	Sec 36	T17S	R30E		
Lease Number:	API-30-015-31635					
County:	Eddy County					
GPS:	32.78561° N			103.91967° W		
Surface Owner:	State					
Mineral Owner:						
Directions:	From Loco Hills travel 5.75 miles east to CR 222 (Shugart Rd). Turn south on CR 222 and travel 2.36 miles turning right traveling west on the caliche lease road. Stay on the main lease road traveling west for approx. 2.29 miles and turn right traveling north for 0.26 miles to the location.					

Release Data:

Date Released:	6/8/2013
Type Release:	Oil and Produced Water
Source of Contamination:	Lightning Struck a Fiberglass Tank
Fluid Released:	300 bbls oil 1200 bbls produced water
Fluids Recovered:	0 bbls oil 0 bbls produced water

Official Communication:

Name:	Robert McNeill		Ike Tavarez
Company:	COG Operating, LLC		Tetra Tech
Address:	One Concho Center		4000 N. Big Spring
	600 W. Illinois Ave.		Suite 401
City:	Midland Texas, 79701		Midland, Texas
Phone number:	(432) 686-3023		(432) 682-4559
Fax:	(432) 684-7137		(432) 682-3946
Email:	rmcneill@concho.com		ike.tavarez@tetratech.com

Ranking Criteria

Depth to Groundwater:	***Ranking Score***	***Site Data***
<50 ft	20	
50-99 ft	10	
>100 ft.	0	0
WellHead Protection:	***Ranking Score***	***Site Data***
Water Source <1,000 ft., Private <200 ft.	*20*	
Water Source >1,000 ft., Private >200 ft.	0	0
Surface Body of Water:	***Ranking Score***	***Site Data***
<200 ft.	*20*	
200 ft - 1,000 ft.	10	
>1,000 ft.	0	0
Total Ranking Score:	**0**	

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

TETRA TECH

January 27, 2014

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

Re: Closure Report for the COG Operating LLC., Loco Hills SWD 35 #1, Unit F, Section 36, Township 17 South, Range 30 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the Loco Hills SWD 35 #1 located in Unit F, Section 36, Township 17 South, Range 30 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.78561°, W 103.91967°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on June 8, 2013, and released approximately 300 barrels of oil and 1200 barrels produced fluid from facility tanks that were struck by lightning during a storm. No fluids were recovered. The spill initiated at the SWD impacting an area of approximately 80' X 160 and migrated into the pasture affecting an area approximately 50' x 330', 70' x 250' and 40' x 245'. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 36. According to the NMOCD groundwater map, the average depth to groundwater in this area is approximately 325' below surface. The groundwater data is shown in Appendix B.

Tetra Tech
4000 North Big Spring, Suite 401, Midland, TX 79705
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

Regulatory

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 5,000 mg/kg.

Soil Assessment and Analytical Results

On August 24 through 26, 2013, Tetra Tech supervised the installation of eighteen (18) soil borings (SB-1 through SB-18) using an air rotary drilling rig to assess the soils. The soil bores were installed in the spill area on the pad and in the pasture to define the vertical extents. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of the laboratory analysis chain-of-custody documentation are included in Appendix C. The soil boring results are summarized in Table 1 and shown on Figure 3.

Referring to Table 1, none of the samples exceeded the RRAL for TPH or BTEX. The soil borings on the pad (SB-1 through SB-6) showed a shallow chloride impact to the soils and were vertically defined at approximately 4-5' to 9-10' below surface. Soil boring (SB-1) did show a chloride spike at 9-10' to 19-20', but declined to 197 mg/kg at 24-25' below surface. After the sampling was performed, COG has constructed a new lined facility, which encompassed the areas of SB-1 through SB-6.

In the pasture, the soil borings (SB-7, SB-9 and SB-11) did not show a significant chloride impact to the soils. The areas of SB-8, SB-14 and SB-15 did not show a significant impact the shallow soil from (0 to 5.0'), but spiked at 6-7' to 9-10' and declined at 14-15' below surface. Based on the groundwater depth, these areas or limited spikes do not appear to an environmental concern.

The areas of SB-10, SB-12, SB-13, SB-16, SB-17 and SB-18 showed elevated chlorides at depths ranging from surface to 3.0' to 10.0' below surface, which all declined with depth and were vertically defined.

Remedial Activities

On January 6, 2014, Tetra Tech supervised the excavation of impacted material as highlighted (green) in Table 1 and shown on Figure 4. After the sampling was performed, COG constructed a new facility in the same area. The new SWD is a lined facility and encompassed the areas of SB-1 through SB-6 on the pad. The impacted soil on the pad will be deferred until the abandonment of the facility.

In the pasture, the areas of SB-12 and SB-13 were excavated to a depth of approximately 3.0' below surface. The areas of SB-10 and SB-16 were excavated to approximately 6.0' below surface, and 7.0' in the areas of SB-17 and SB-18. Once excavated, the area of SB-12 was capped with a 40 mil liner to cap the remaining impact.

Approximately 4,560 cubic yards of impacted soil were transported to the proper disposal. The excavated areas were backfilled with clean soil to grade, ripped, and seeded.

Conclusion

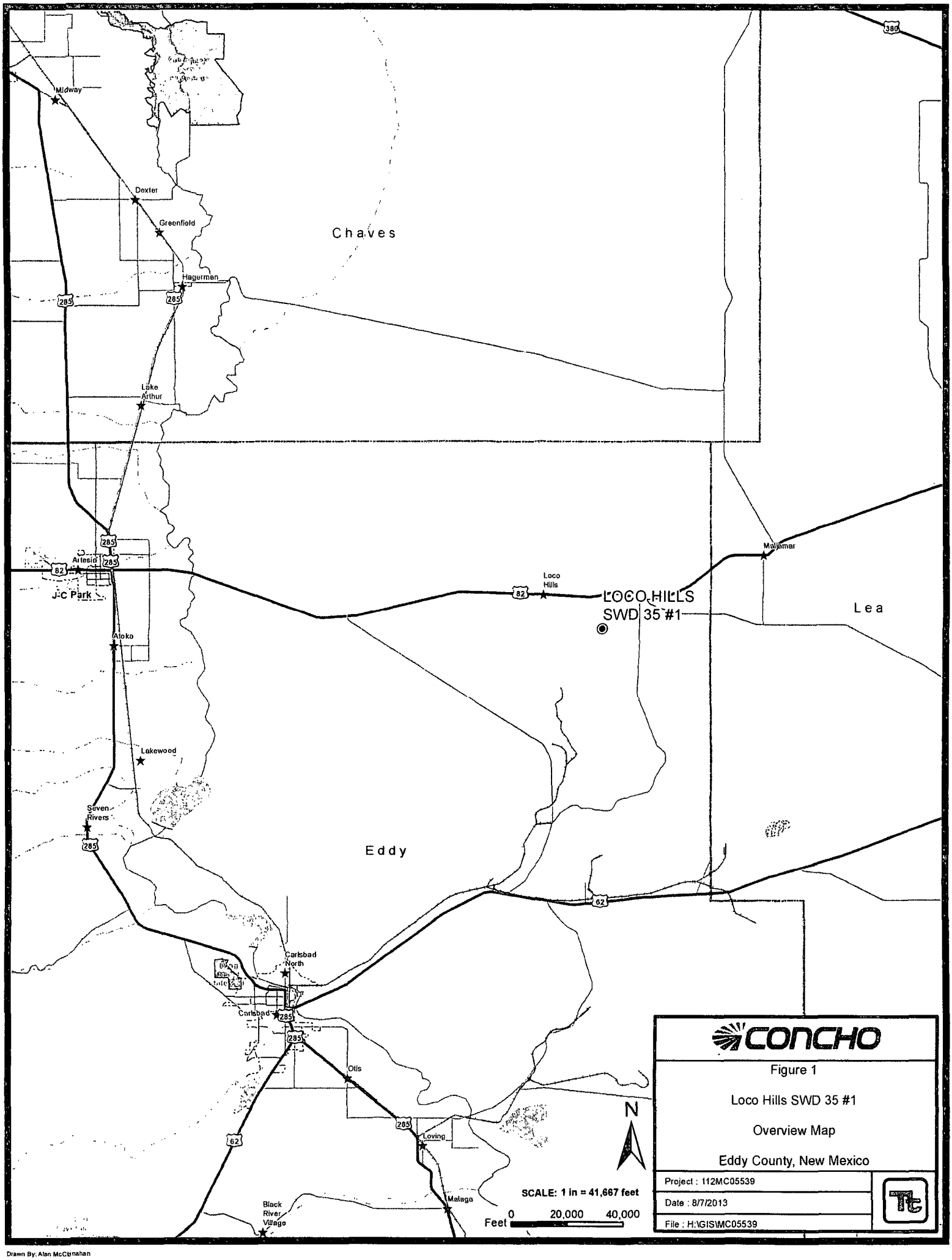
COG requests closure of this site based on the assessment and work performed. A Final C-141 is enclosed in Appendix A. If you have any questions or comments concerning the assessment or the remediation activities for this site, please call me at (432) 682-4559.

Respectfully submitted,
TETRA TECH

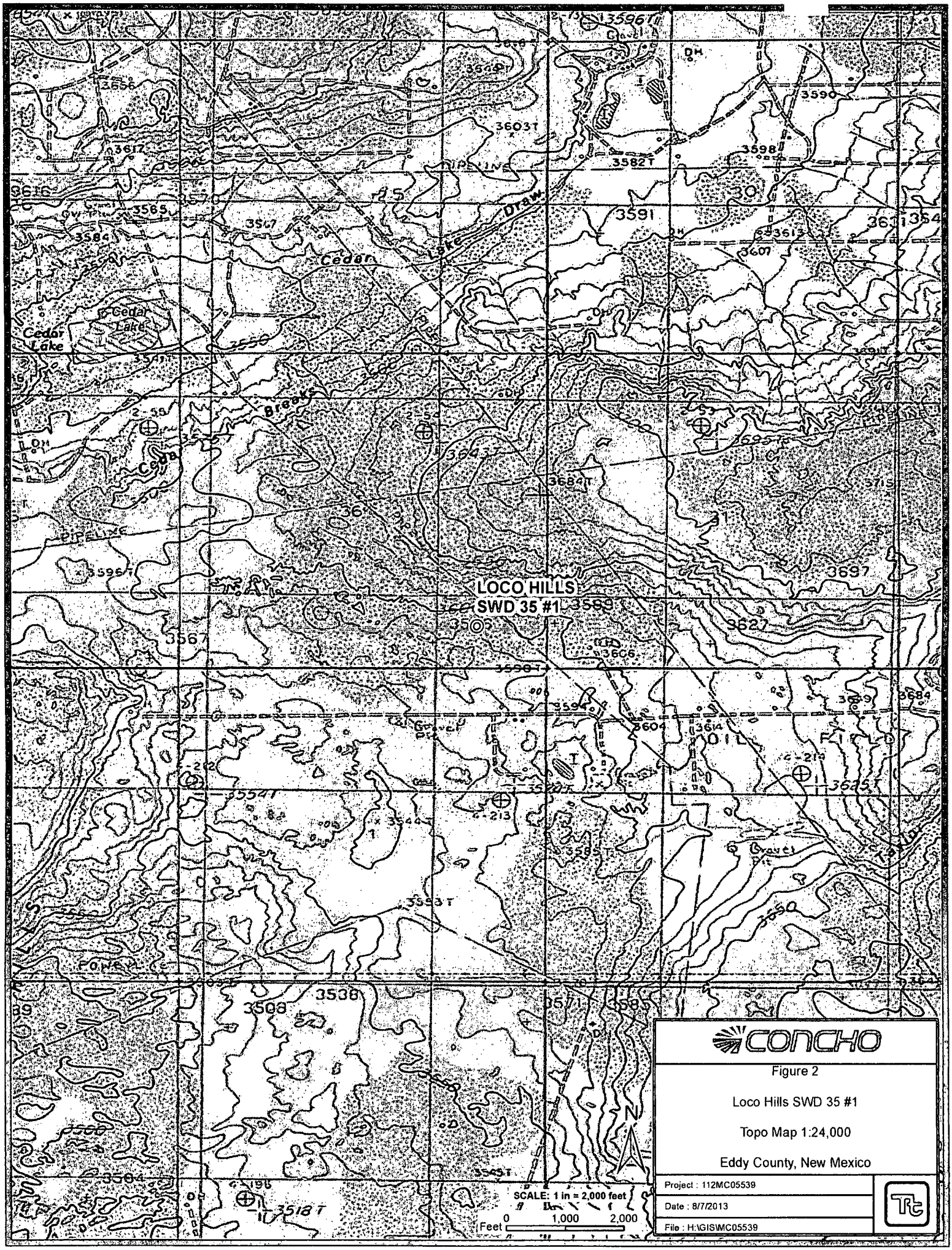
Marcus Kujawski
Technician IV

cc: Robert McNeill – COG

Figures



Drawn By: Alan McClanahan



CONCHO

Figure 2

Loco Hills SWD 35 #1

Topo Map 1:24,000

Eddy County, New Mexico

Project : 112MC05539	
Date : 8/7/2013	
File : H:\GIS\MC05539	

Drawn By: Alan McGlanahan

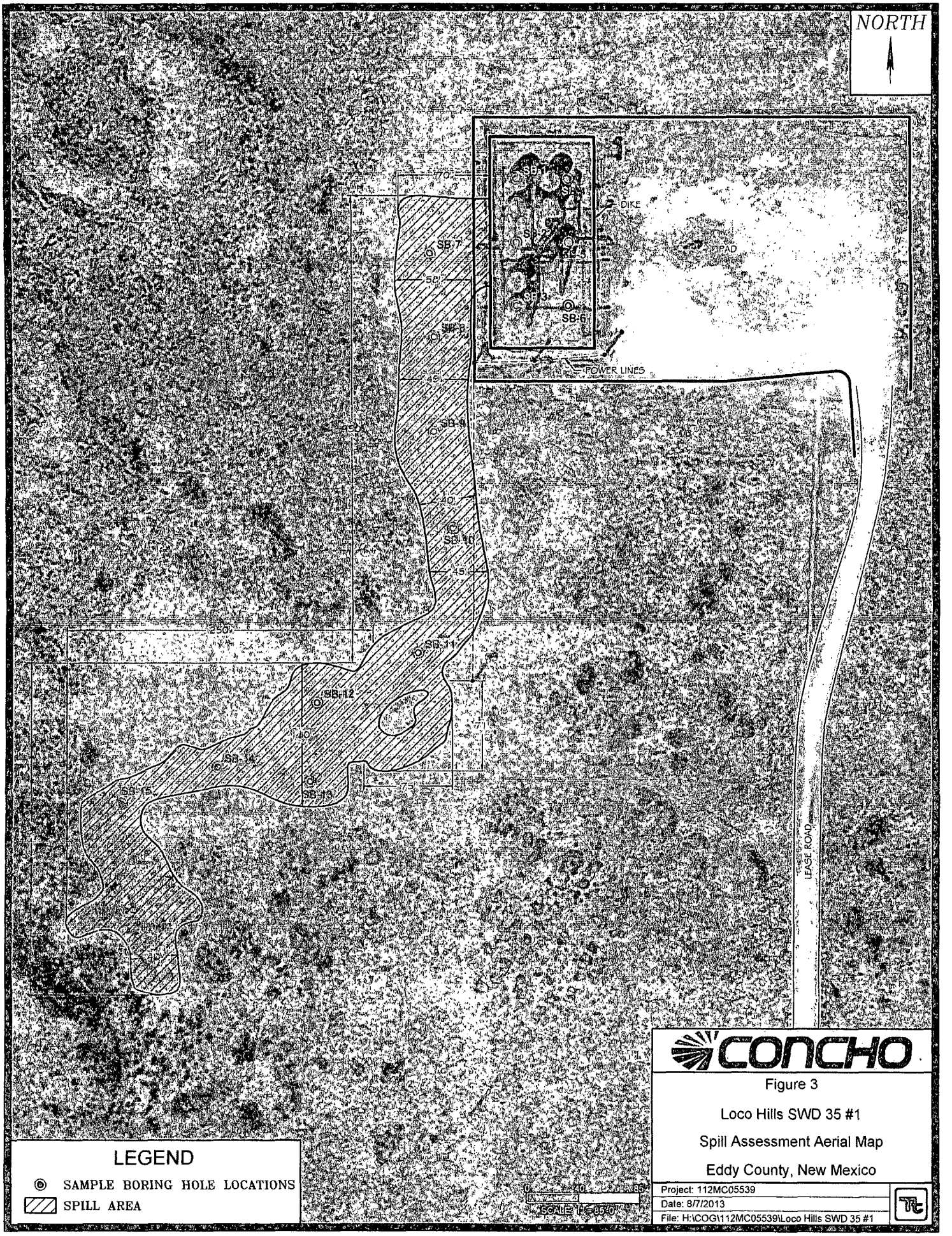


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Figure 3

Loco Hills SWD 35 #1

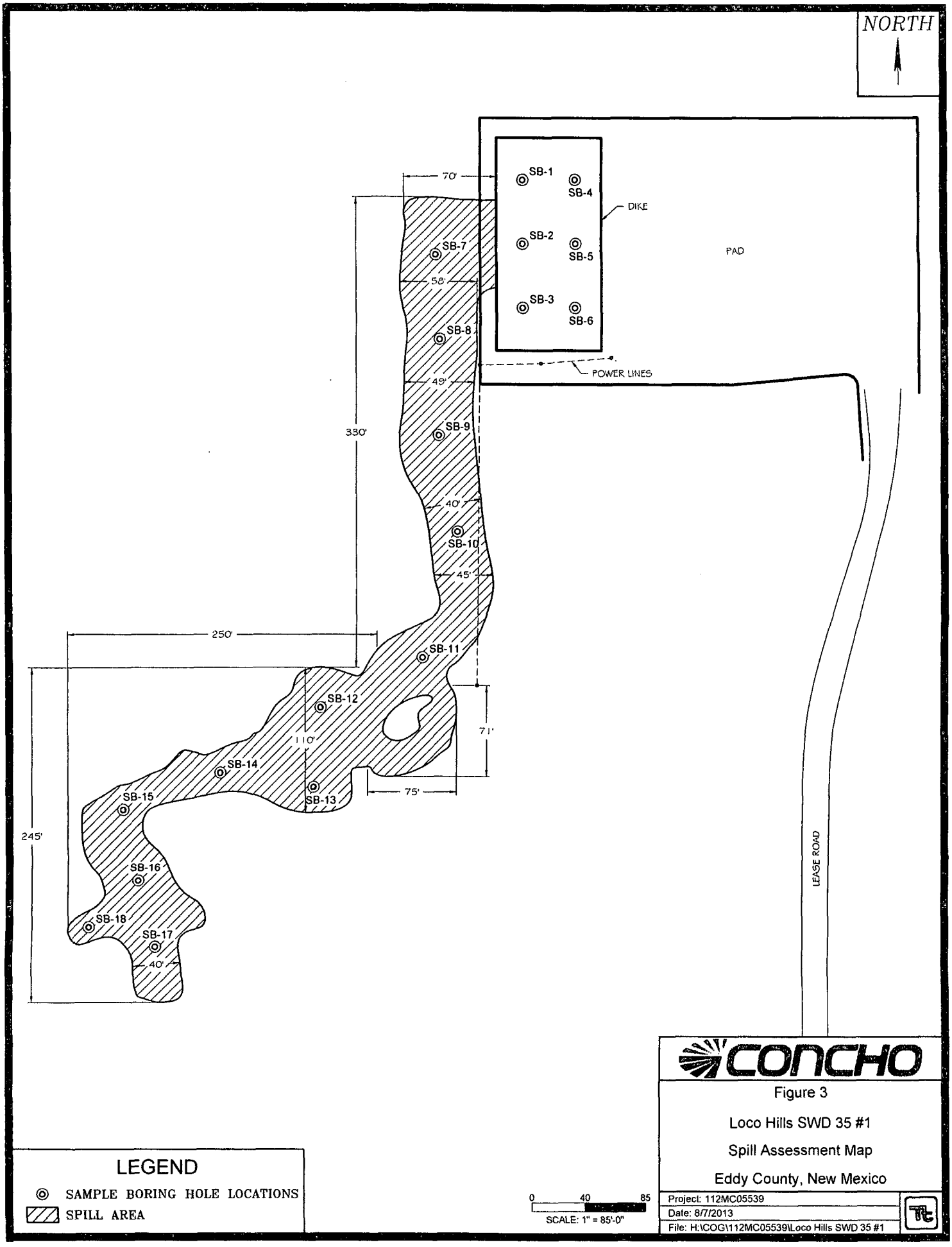
Spill Assessment Aerial Map

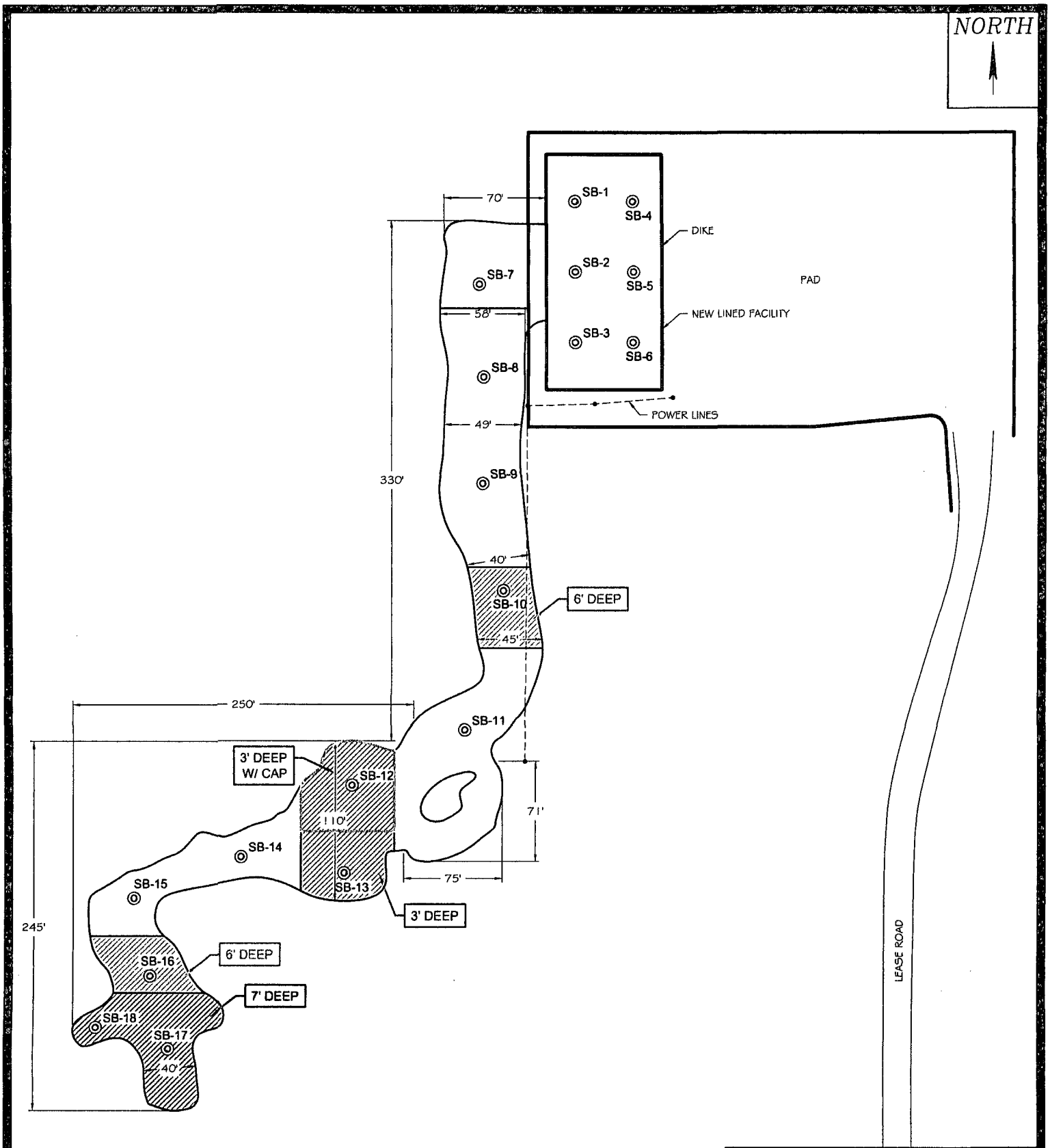
Eddy County, New Mexico

Project: 112MC05539

Date: 8/7/2013

File: H:\COG\112MC05539\Loco Hills SWD 35 #1


NORTH
SB-1
SB-4
SB-2
SB-5
SB-3
SB-6
DIKE
PAD
POWER LINES
70'
58'
49'
330'
40'
45'
250'
110'
71'
75'
245'
SB-7
SB-8
SB-9
SB-10
SB-11
SB-12
SB-13
SB-14
SB-15
SB-16
SB-17
SB-18
LEASE ROAD
LEGEND
SAMPLE BORING HOLE LOCATIONS
SPILL AREA
0 40 85
SCALE: 1" = 85'-0"
CONCHO
Figure 3
Loco Hills SWD 35 #1
Spill Assessment Map
Eddy County, New Mexico
Project: 112MC05539
Date: 8/7/2013
File: H:\COG\112MC05539\Loco Hills SWD 35 #1



LEGEND

- ◎ SAMPLE BORING HOLE LOCATIONS
- CAPPED AREAS
- EXCAVATION AREAS & DEPTHS

0 40 85

SCALE: 1" = 85'-0"

CONCHO

Figure 4

Loco Hills SWD 35 #1

Excavation Areas & Depths Map

Eddy County, New Mexico

Project: 112MC05539

Date: 1/28/2014

File: H:\COG\112MC05539\Loco Hills SWD 35 #1

Tables

Table 1
COG Operating LLC.
Loco Hills SWD 35 #1
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	Total						
SWD Facility Pad - New Lined Facility Constructed													
SB-1	7/24/2013	0-1	X		4.27	<50.0	5.46	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	6,210
	"	2-3	X		-	-	-	-	-	-	-	-	3,370
	"	4-5	X		-	-	-	-	-	-	-	-	329
	"	6-7	X		-	-	-	-	-	-	-	-	881
	"	9-10	X		-	-	-	-	-	-	-	-	1,920
	"	14-15	X		-	-	-	-	-	-	-	-	2,670
	"	19-20	X		-	-	-	-	-	-	-	-	1,310
	"	24-25	X		-	-	-	-	-	-	-	-	197
	"	29-30	X		-	-	-	-	-	-	-	-	236
SB-2	7/24/2013	0-1	X		4.80	<50.0	4.80	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	6,290
	"	2-3	X		-	-	-	-	-	-	-	-	3,190
	"	4-5	X		-	-	-	-	-	-	-	-	63
	"	6-7	X		-	-	-	-	-	-	-	-	861
	"	9-10	X		-	-	-	-	-	-	-	-	254
SB-3	7/24/2013	0-1	X		4.26	<50.0	4.26	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	7,780
	"	2-3	X		-	-	-	-	-	-	-	-	2,650
	"	4-5	X		-	-	-	-	-	-	-	-	1,850
	"	6-7	X		-	-	-	-	-	-	-	-	3,530
	"	9-10	X		-	-	-	-	-	-	-	-	385
	"	14-15	X		-	-	-	-	-	-	-	-	317

Table 1
COG Operating LLC.
Loco Hills SWD 35 #1
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	Total						
SB-4	7/24/2013	0-1	X		4.33	<50.0	4.33	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	3,560
	"	2-3	X		-	-	-	-	-	-	-	-	1,460
	"	4-5	X		-	-	-	-	-	-	-	-	1,080
	"	6-7	X		-	-	-	-	-	-	-	-	2,880
	"	9-10	X		-	-	-	-	-	-	-	-	230
	"	14-15	X		-	-	-	-	-	-	-	-	320
SB-5	7/24/2013	0-1	X		4.58	<50.0	4.58	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	4,150
	"	2-3	X		-	-	-	-	-	-	-	-	3,050
	"	4-5	X		-	-	-	-	-	-	-	-	545
	"	6-7	X		-	-	-	-	-	-	-	-	255
SB-6	7/24/2013	0-1	X		4.38	<50.0	4.38	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	8,910
	"	2-3	X		-	-	-	-	-	-	-	-	700
	"	4-5	X		-	-	-	-	-	-	-	-	740
	"	6-7	X		-	-	-	-	-	-	-	-	2,310
	"	9-10	X		-	-	-	-	-	-	-	-	404
	"	14-15	X		-	-	-	-	-	-	-	-	<20.0

Table 1
COG Operating LLC.
Loco Hills SWD 35 #1
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	Total						
Pasture Area													
SB-7	7/25/2013	0-1	X		4.26	<50.0	4.26	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	250
	"	2-3	X		-	-	-	-	-	-	-	-	1,170
	"	4-5	X		-	-	-	-	-	-	-	-	<20.0
	"	6-7	X		-	-	-	-	-	-	-	-	<20.0
SB-8	7/25/2013	0-1	X		4.39	<50.0	4.39	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	155
	"	2-3	X		-	-	-	-	-	-	-	-	305
	"	4-5	X		-	-	-	-	-	-	-	-	499
	"	6-7	X		-	-	-	-	-	-	-	-	9,140
	"	9-10	X		-	-	-	-	-	-	-	-	8,270
	"	14-15	X		-	-	-	-	-	-	-	-	140
SB-9	7/25/2013	0-1	X		4.37	<50.0	4.37	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	80.0
	"	2-3	X			-	-	-	-	-	-	-	135
	"	4-5	X		-	-	-	-	-	-	-	-	6,370
	"	6-7	X		-	-	-	-	-	-	-	-	315
	"	9-10	X		-	-	-	-	-	-	-	-	105
SB-10	7/25/2013	0-1		X	4.62	<50.0	4.62	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	1,170
	"	2-3		X	-	-	-	-	-	-	-	-	1,620
	"	4-5		X	-	-	-	-	-	-	-	-	9,580
	"	6-7	X		-	-	-	-	-	-	-	-	165
	"	9-10	X		-	-	-	-	-	-	-	-	120

Table 1
COG Operating LLC.
Loco Hills SWD 35 #1
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	Total						
SB-11	7/25/2013	0-1	X		4.34	<50.0	4.34	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	35.0
	"	2-3	X		-	-	-	-	-	-	-	-	925
	"	4-5	X		-	-	-	-	-	-	-	-	85.0
	"	6-7	X		-	-	-	-	-	-	-	-	145
SB-12	7/25/2013	0-1		X	4.07	<50.0	4.07	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	3,410
	"	2-3		X	-	-	-	-	-	-	-	-	1,080.0
	"	4-5	X		-	-	-	-	-	-	-	-	25.0
	"	6-7	X		-	-	-	-	-	-	-	-	3,060.0
	"	9-10	X		-	-	-	-	-	-	-	-	7,410.0
	"	14-15	X		-	-	-	-	-	-	-	-	6,780.0
	"	19-20	X		-	-	-	-	-	-	-	-	1,810
	"	24-25	X		-	-	-	-	-	-	-	-	615
	"	29-30	X		-	-	-	-	-	-	-	-	734
SB-13	7/25/2013	0-1		X	4.16	<50.0	4.16	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	7,410
	"	2-3		X	-	-	-	-	-	-	-	-	13,200
	"	4-5	X		-	-	-	-	-	-	-	-	362
	"	6-7	X		-	-	-	-	-	-	-	-	1,670
	"	9-10	X		-	-	-	-	-	-	-	-	1,530
	"	14-15	X		-	-	-	-	-	-	-	-	264
SB-14	7/25/2013	0-1	X		4.34	<50.0	4.34	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	159
	"	2-3	X		-	-	-	-	-	-	-	-	125
	"	4-5	X		-	-	-	-	-	-	-	-	735
	"	6-7	X		-	-	-	-	-	-	-	-	2,400.0
	"	9-10	X		-	-	-	-	-	-	-	-	3,540.0
	"	14-15	X		-	-	-	-	-	-	-	-	101.0
	"	19-20	X		-	-	-	-	-	-	-	-	72.1

Table 1
COG Operating LLC.
Loco Hills SWD 35 #1
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	Total						
SB-15	7/26/2013	0-1	X		4.25	<50.0	4.25	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	130
	"	2-3	X		-	-	-	-	-	-	-	-	306
	"	4-5	X		-	-	-	-	-	-	-	-	188
	"	6-7	X		-	-	-	-	-	-	-	-	1,800
	"	9-10	X		-	-	-	-	-	-	-	-	1,960.0
	"	14-15	X		-	-	-	-	-	-	-	-	948.0
	"	19-20	X		-	-	-	-	-	-	-	-	262
	"	24-25	X		-	-	-	-	-	-	-	-	88.9
SB-16	7/26/2013	0-1		X	4.20	<50.0	4.20	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	18,200
	"	2-3		X	-	-	-	-	-	-	-	-	14,000
	"	4-5		X	-	-	-	-	-	-	-	-	5,020
	"	6-7	X		-	-	-	-	-	-	-	-	29.7
	"	9-10	X		-	-	-	-	-	-	-	-	307
SB-17	7/26/2013	0-1		X	4.10	<50.0	4.10	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	15,700
	"	2-3		X	-	-	-	-	-	-	-	-	15,400
	"	4-5		X	-	-	-	-	-	-	-	-	10,200
	"	6-7		X	-	-	-	-	-	-	-	-	5,640.0
	"	9-10	X		-	-	-	-	-	-	-	-	2,840.0
	"	14-15	X		-	-	-	-	-	-	-	-	510.0
	"	19-20	X		-	-	-	-	-	-	-	-	<20.0

Table 1
COG Operating LLC.
Loco Hills SWD 35 #1
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	Total						
SB-18	7/26/2013	0-1		X	4.03	82.90	86.93	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	8,040
	"	2-3		X	-	-	-	-	-	-	-	-	10,400
	"	4-5		X	-	-	-	-	-	-	-	-	7,270
	"	6-7		X	-	-	-	-	-	-	-	-	12,800
	"	9-10	X		-	-	-	-	-	-	-	-	3,420
	"	14-15	X		-	-	-	-	-	-	-	-	765
	"	19-20	X		-	-	-	-	-	-	-	-	219

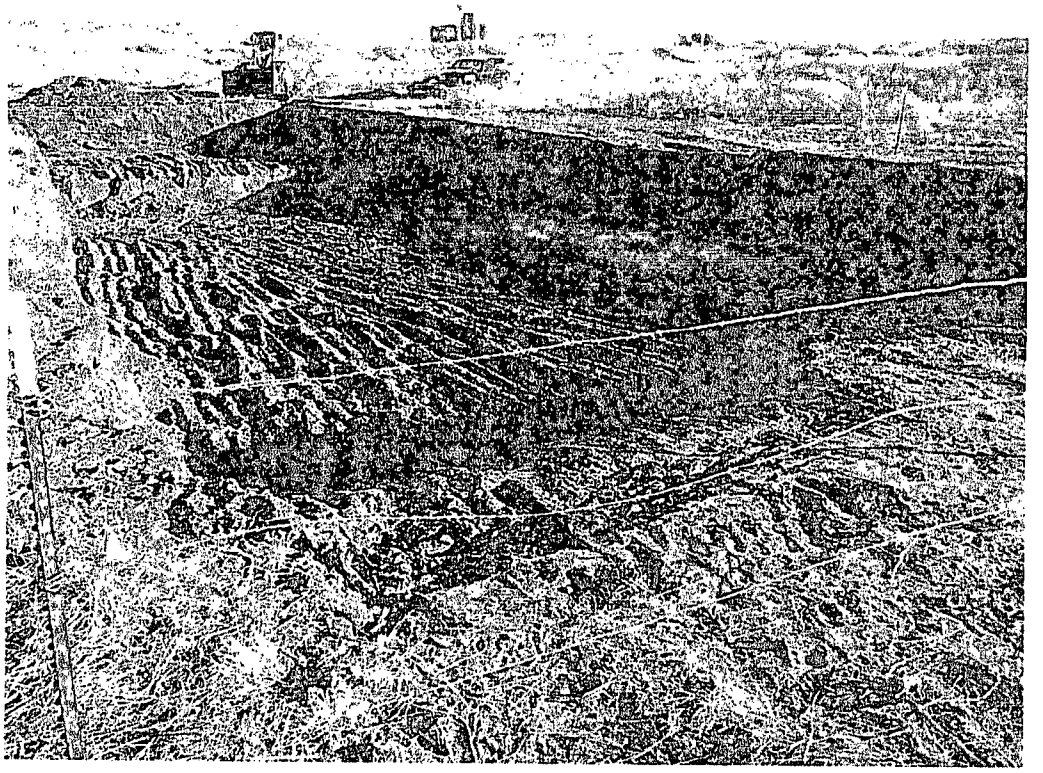
(-) Not Analyzed

Excavated Depths

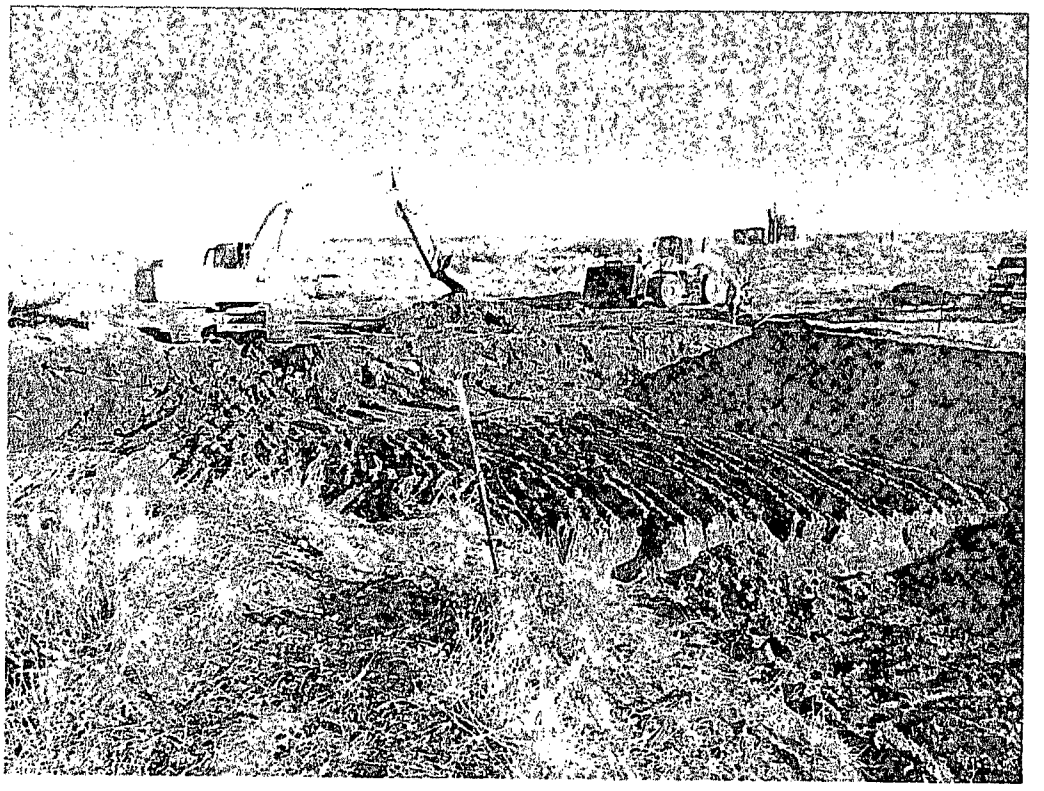
40 Mil Liner Installed

Photos

COG Operating LLC
Loco Hills SWD 35 #1
Eddy County, New Mexico



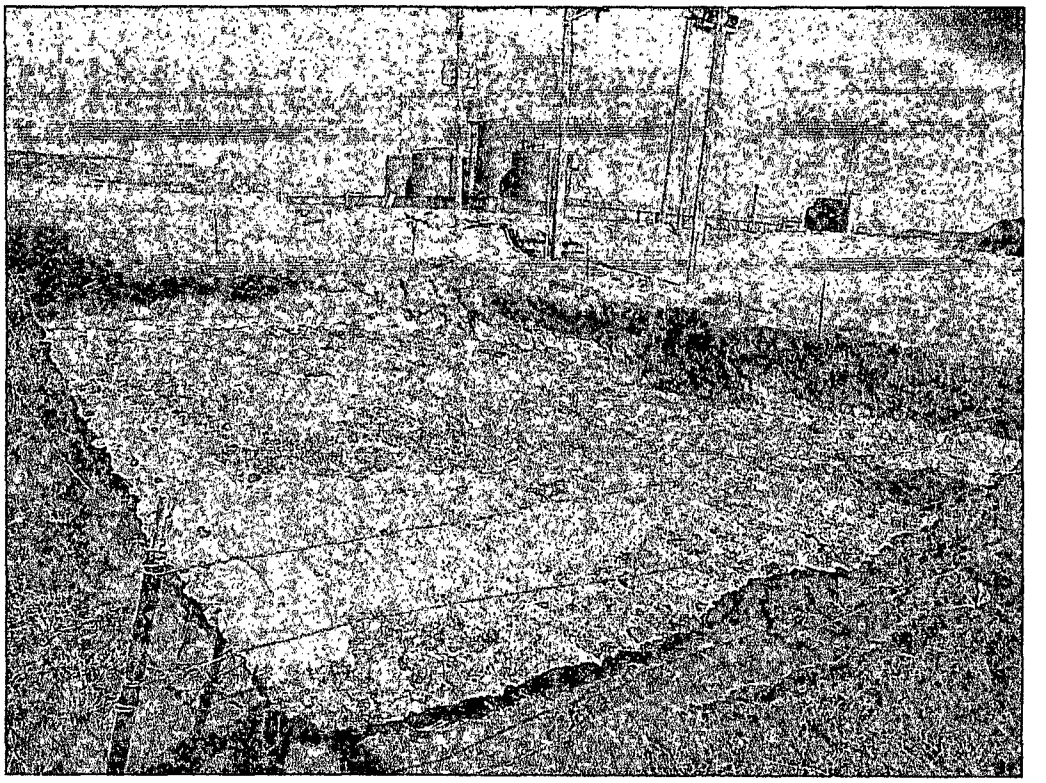
View North – SB-16 and SB-17 at 7.0'



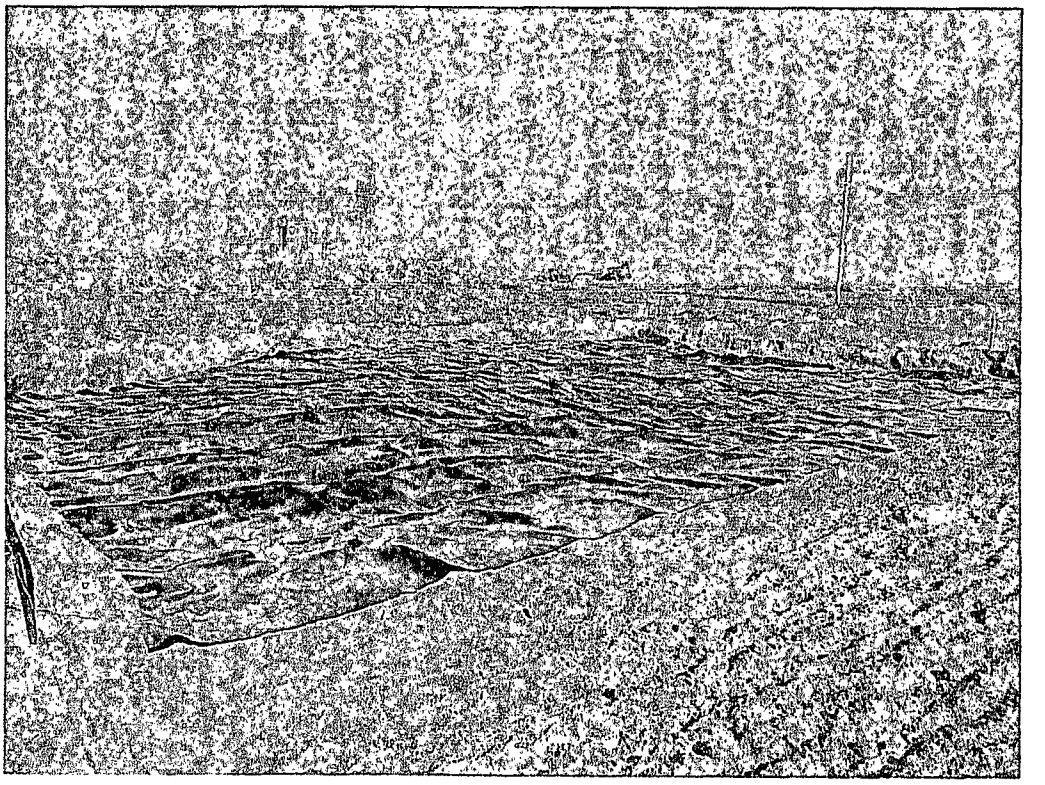
View North – SB-16 at 6.0'

COG Operating LLC
Loco Hills SWD 35 #1
Eddy County, New Mexico

TETRA TECH



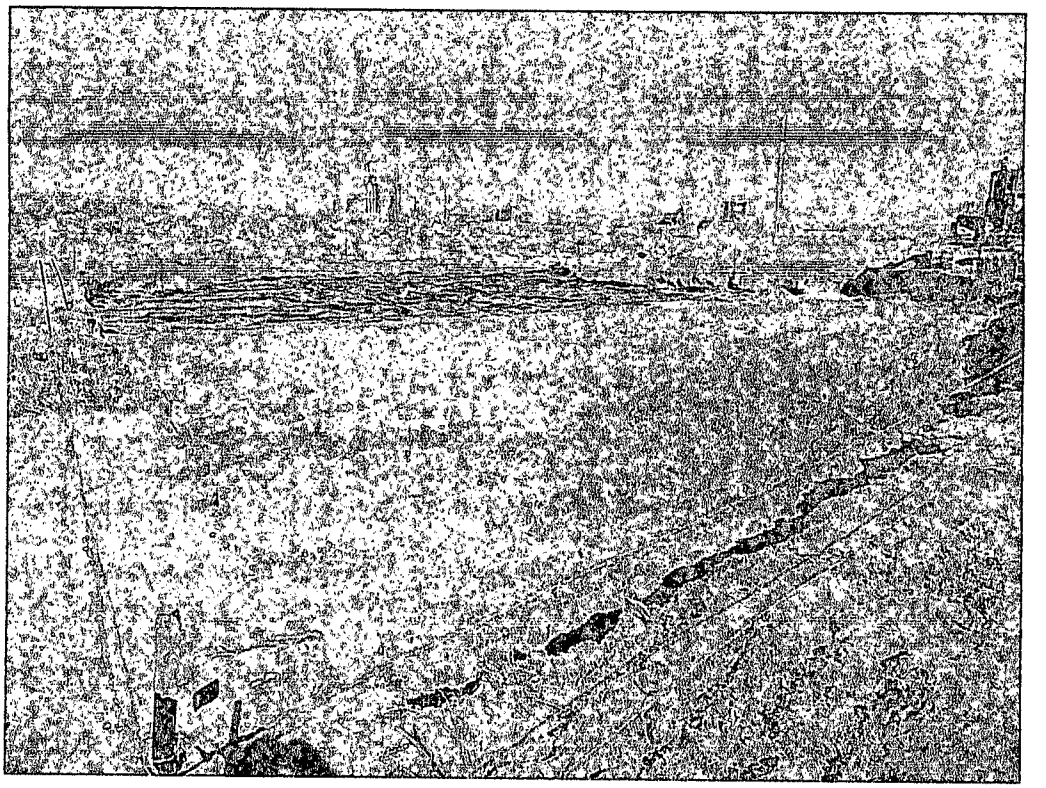
View North – SB-10 at 6.0'



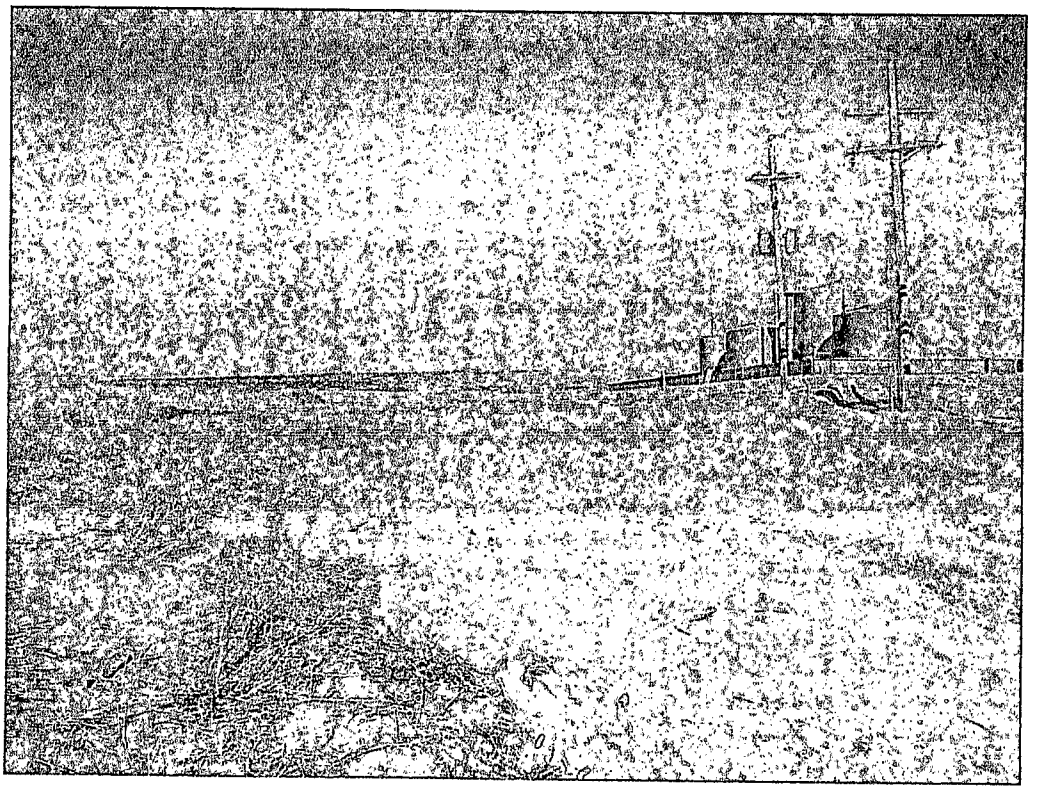
View North – SB-12 at 3.0' with 40 mil liner

COG Operating LLC
Loco Hills SWD 35 #1
Eddy County, New Mexico

TETRA TECH



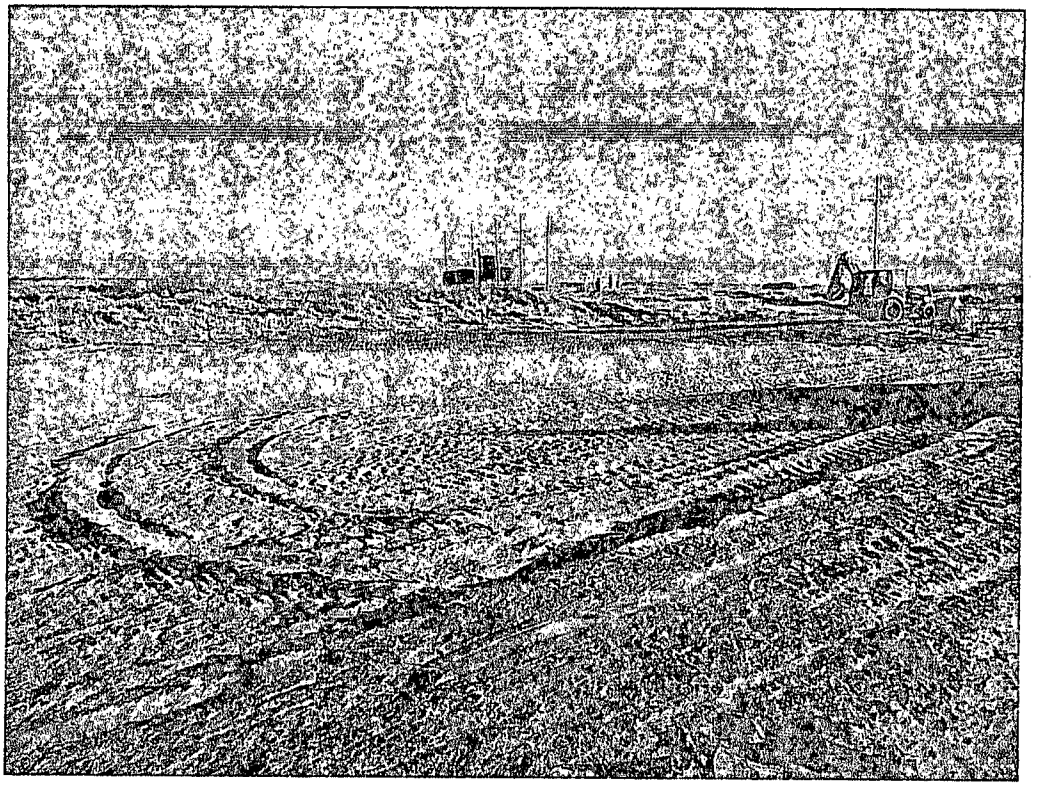
View North – SB-12 and SB-13 at 3.0'



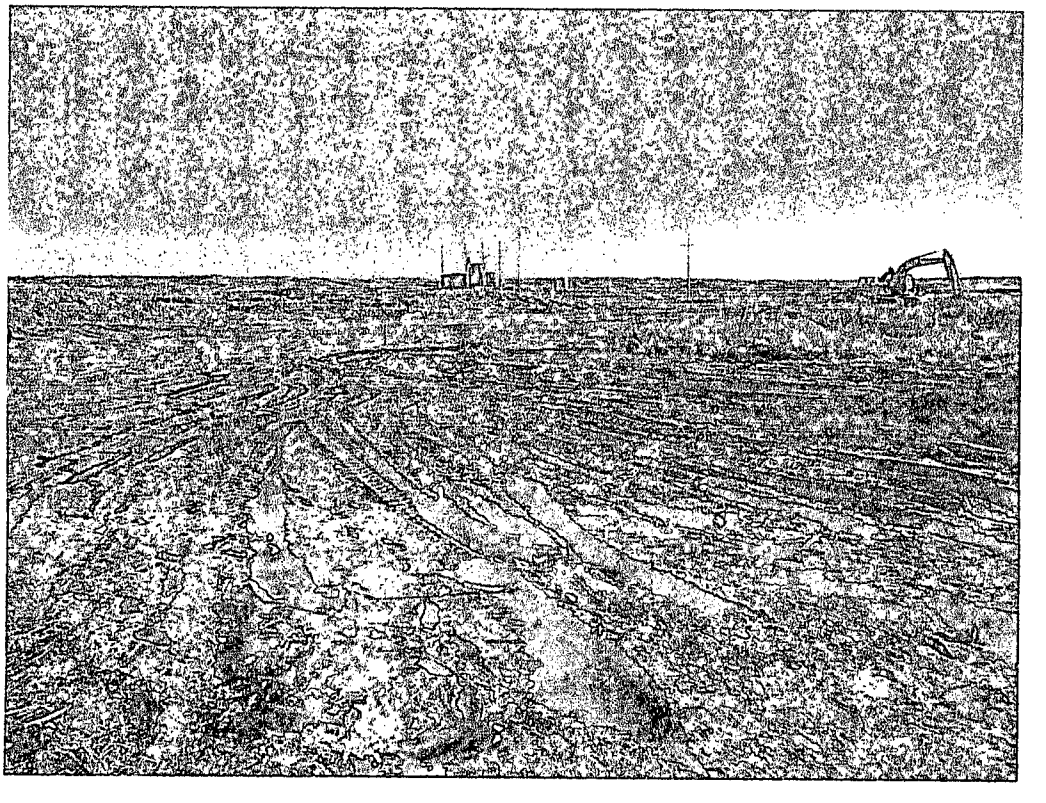
View North – SB-10 backfilled

COG Operating LLC
Loco Hills SWD 35 #1
Eddy County, New Mexico

TETRA TECH



View North – SB-12 and SB-13 backfilled



View North – SB-16, SB-17, and SB-18 backfilled

Appendix A

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	COG OPERATING LLC	Contact	Pat Ellis
Address	600 West Illinois Avenue, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	LOCO HILLS SWD 35 #001	Facility Type	TANK BATTERY

Surface Owner STATE	Mineral Owner	Lease No. (API#) 30-015-31635

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	36	17S	30E					EDDY

Latitude 32.78561 **Longitude** 103.91967

NATURE OF RELEASE

Type of Release Oil and produced water	Volume of Release 300bbls of oil 1200bbls of produced water	Volume Recovered 0bbls oil 0 produced water
Source of Release Lightning struck fiberglass tank.	Date and Hour of Occurrence 06-08-2013	Date and Hour of Discovery 06-08-2013 12:00am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher - NMOCD	
By Whom? Michelle Mullins	Date and Hour 06-08-2013 8:50PM	
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.*

Lightning struck a fiberglass tank during thunder storm. Act of God.

Describe Area Affected and Cleanup Action Taken.*

Initially 300bbls of oil and 1200bbls of produced water were released due to a lightning strike on one of our fiberglass tanks. We were unable to recover any fluids due to the fire consuming all liquids. The spill was on the pad and the pasture. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a work plan to the NMOCD for approval prior to any significant remediation work.

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

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Robert Grubbs Jr.	Approved by District Supervisor:	
Title: Senior Environmental Coordinator	Approval Date:	Expiration Date:
E-mail Address: rgrubbs@concho.com	Conditions of Approval:	Attached ☐
Date: Phone: 432-661-6601		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
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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 **Robert McNeill**
Address **600 W. Illinois Ave, Midland, Texas 79701**	Telephone No. **(432) 685-4332**
Facility Name **Loco Hills SWD 35 #1**	Facility Type **Tank Battery**

Surface Owner: State	Mineral Owner	Lease No. (API#) 30-15-31635

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	36	17S	30E					

Latitude 32.78561° N **Longitude** 103.91967° W

NATURE OF RELEASE

Type of Release: Oil and Produced Water	Volume of Release 300bbls of Oil and 1200bbls of Produced Water	Volume Recovered 0bbls of Oil and 0bbls of Produced Water
Source of Release: Lightning struck fiberglass tank	Date and Hour of Occurrence 06/08/2013	Date and Hour of Discovery 06/08/2013 12:00 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Mike Bratcher - NMOCD**	
By Whom? Michelle Mullins	Date and Hour 06/08/2013 8:50 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

RECEIVED
MAR 05 2014
NMOCD ARTESIA

Describe Cause of Problem and Remedial Action Taken.*

Lightning struck a fiberglass tank during a thunder storm. Act of God.

Describe Area Affected and Cleanup Action Taken.*

Initially 300bbls of oil and 1200bbls of produced water were released due to a lightning strike a fiberglass tank. No fluids were recovered due to the fire consuming all liquids. The spill was on the pad and in the pasture. Tetra Tech inspected site and collected samples to define spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. Site was then brought up to surface grade with clean backfill material. Tetra Tech prepared closure report and submitted to NMOCD for review.

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

Signature:	OIL CONSERVATION DIVISION
Printed Name: Ike Tavarez (Agent for COC)	Approved by District Supervisor:
Title: Project Manager	Approval Date: / Expiration Date:
E-mail Address: Ike.Tavarez@TetraTech.com	Conditions of Approval: / Attached ☐
Date: 01/16/2014 Phone: (432) 682-4559	

Appendix B

Water Well Data
Average Depth to Groundwater (ft)
COG - Loco Hills SWD #1
Eddy County, New Mexico

16 South 29 East

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

16 South 30 East

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

16 South 31 East

6	5	4	3	2 **290**	1
7	8	9	10	11	12 **288**
18	17	16	15	14 **113** **314**	13 299
19	20	21	22	23	24
30	29	28	27	26	25
31 **290**	32	33	34	35	36

17 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22 **76** **80**	23	24
30	29 **210** **208**	28	27	26	25
31	32	33	34	35 153	36

17 South 30 East

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

17 South 31 East

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

18 South 29 East

6	5	4	3	2	1
7	8	9	10 **95**	11	12
18	17	16	15	14	13
19	20	21	22	23	24 **158**
30	29	28	27	26	25
31	32	33	34	35	36

18 South 30 East

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

18 South 31 East

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

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

Appendix C

Summary Report

(Corrected Report)

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

Report Date: August 7, 2013

Work Order: 13072931

Project Location: NM
Project Name: COG/Loco Hills SWD 35 #1
Project Number: 112MC05539

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
336874	SB-1 0-1'	soil	2013-07-24	00:00	2013-07-29
336875	SB-1 2-3'	soil	2013-07-24	00:00	2013-07-29
336876	SB-1 4-5'	soil	2013-07-24	00:00	2013-07-29
336877	SB-1 6-7'	soil	2013-07-24	00:00	2013-07-29
336878	SB-1 9-10'	soil	2013-07-24	00:00	2013-07-29
336879	SB-1 14-15'	soil	2013-07-24	00:00	2013-07-29
336880	SB-1 19-20'	soil	2013-07-24	00:00	2013-07-29
336881	SB-1 24-25'	soil	2013-07-24	00:00	2013-07-29
336882	SB-1 29-30'	soil	2013-07-24	00:00	2013-07-29
336883	SB-2 0-1'	soil	2013-07-24	00:00	2013-07-29
336884	SB-2 2-3'	soil	2013-07-24	00:00	2013-07-29
336885	SB-2 4-5'	soil	2013-07-24	00:00	2013-07-29
336886	SB-2 6-7'	soil	2013-07-24	00:00	2013-07-29
336887	SB-2 9-10'	soil	2013-07-24	00:00	2013-07-29
336888	SB-3 0-1'	soil	2013-07-24	00:00	2013-07-29
336889	SB-4 2-3'	soil	2013-07-24	00:00	2013-07-29
336890	SB-3 4-5'	soil	2013-07-24	00:00	2013-07-29
336891	SB-3 6-7'	soil	2013-07-24	00:00	2013-07-29
336892	SB-3 9-10'	soil	2013-07-24	00:00	2013-07-29
336893	SB-3 14-15'	soil	2013-07-24	00:00	2013-07-29
336894	SB-4 0-1'	soil	2013-07-24	00:00	2013-07-29
336895	SB-3 2-3'	soil	2013-07-24	00:00	2013-07-29
336896	SB-4 4-5'	soil	2013-07-24	00:00	2013-07-29
336897	SB-4 6-7'	soil	2013-07-24	00:00	2013-07-29
336898	SB-4 9-10'	soil	2013-07-24	00:00	2013-07-29
336899	SB-4 14-15'	soil	2013-07-24	00:00	2013-07-29
336900	SB-5 0-1'	soil	2013-07-24	00:00	2013-07-29
336901	SB-5 2-3'	soil	2013-07-24	00:00	2013-07-29

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
336902	SB-5 4-5'	soil	2013-07-24	00:00	2013-07-29
336903	SB-5 6-7'	soil	2013-07-24	00:00	2013-07-29
336904	SB-6 0-1'	soil	2013-07-24	00:00	2013-07-29
336905	SB-6 2-3'	soil	2013-07-24	00:00	2013-07-29
336906	SB-6 4-5'	soil	2013-07-24	00:00	2013-07-29
336907	SB-6 6-7'	soil	2013-07-24	00:00	2013-07-29
336908	SB-6 9-10'	soil	2013-07-24	00:00	2013-07-29
336909	SB-6 14-15'	soil	2013-07-24	00:00	2013-07-29
336910	SB-7 0-1'	soil	2013-07-24	00:00	2013-07-29
336911	SB-7 2-3'	soil	2013-07-24	00:00	2013-07-29
336912	SB-7 4-5'	soil	2013-07-25	00:00	2013-07-29
336913	SB-7 6-7'	soil	2013-07-25	00:00	2013-07-29
336914	SB-8 0-1'	soil	2013-07-25	00:00	2013-07-29
336915	SB-8 2-3'	soil	2013-07-25	00:00	2013-07-29
336916	SB-8 4-5'	soil	2013-07-25	00:00	2013-07-29
336917	SB-8 6-7'	soil	2013-07-25	00:00	2013-07-29
336918	SB-8 9-10'	soil	2013-07-25	00:00	2013-07-29
336919	SS-8 14-15'	soil	2013-07-25	00:00	2013-07-29
336920	SB-9 0-1'	soil	2013-07-25	00:00	2013-07-29
336921	SB-9 2-3'	soil	2013-07-25	00:00	2013-07-29
336922	SB-9 4-5'	soil	2013-07-25	00:00	2013-07-29
336923	SB-9 6-7'	soil	2013-07-25	00:00	2013-07-29
336924	SB-9 9-10'	soil	2013-07-25	00:00	2013-07-29
336925	SB-10 0-1'	soil	2013-07-25	00:00	2013-07-29
336926	SB-10 2-3'	soil	2013-07-25	00:00	2013-07-29
336927	SB-10 4-5'	soil	2013-07-25	00:00	2013-07-29
336928	SB-10 6-7'	soil	2013-07-25	00:00	2013-07-29
336929	SB-10 9-10'	soil	2013-07-25	00:00	2013-07-29
336930	SB-11 0-1'	soil	2013-07-25	00:00	2013-07-29
336931	SB-11 2-3'	soil	2013-07-25	00:00	2013-07-29
336932	SB-11 4-5'	soil	2013-07-25	00:00	2013-07-29
336933	SB-11 6-7'	soil	2013-07-25	00:00	2013-07-29
336934	SB-12 0-1'	soil	2013-07-25	00:00	2013-07-29
336935	SB-12 2-3'	soil	2013-07-25	00:00	2013-07-29
336936	SB-12 4-5'	soil	2013-07-25	00:00	2013-07-29
336937	SB-12 6-7'	soil	2013-07-25	00:00	2013-07-29
336938	SB-12 9-10'	soil	2013-07-25	00:00	2013-07-29
336939	SB-12 14-15'	soil	2013-07-25	00:00	2013-07-29
336940	SB-12 19-20'	soil	2013-07-25	00:00	2013-07-29
336941	SB-12 24-25'	soil	2013-07-25	00:00	2013-07-29
336942	SB-12 29-30'	soil	2013-07-25	00:00	2013-07-29
336943	SB-13 0-1'	soil	2013-07-25	00:00	2013-07-29
336944	SB-13 2-3'	soil	2013-07-25	00:00	2013-07-29
336945	SB-13 4-5'	soil	2013-07-25	00:00	2013-07-29
336946	SB-13 6-7'	soil	2013-07-25	00:00	2013-07-29
336947	SB-13 9-10'	soil	2013-07-25	00:00	2013-07-29
336948	SB-13 14-15'	soil	2013-07-25	00:00	2013-07-29
336949	SB-14 0-1'	soil	2013-07-25	00:00	2013-07-29
336950	SB-14 2-3'	soil	2013-07-25	00:00	2013-07-29

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
336951	SB-14 4-5'	soil	2013-07-25	00:00	2013-07-29
336952	SB-14 6-7'	soil	2013-07-25	00:00	2013-07-29
336953	SB-14 9-10'	soil	2013-07-25	00:00	2013-07-29
336954	SB-14 14-15'	soil	2013-07-25	00:00	2013-07-29
336955	SB-14 19-20'	soil	2013-07-25	00:00	2013-07-29
336956	SB-15 0-1'	soil	2013-07-26	00:00	2013-07-29
336957	SB-15 2-3'	soil	2013-07-26	00:00	2013-07-29
336958	SB-15 4-5'	soil	2013-07-26	00:00	2013-07-29
336959	SB-15 6-7'	soil	2013-07-26	00:00	2013-07-29
336960	SB-15 9-10'	soil	2013-07-26	00:00	2013-07-29
336961	SB-15 14-15'	soil	2013-07-26	00:00	2013-07-29
336962	SB-15 19-20'	soil	2013-07-26	00:00	2013-07-29
336963	SB-15 24-25'	soil	2013-07-26	00:00	2013-07-29
336964	SB-16 0-1'	soil	2013-07-26	00:00	2013-07-29
336965	SB-16 2-3'	soil	2013-07-26	00:00	2013-07-29
336966	SB-16 4-5'	soil	2013-07-26	00:00	2013-07-29
336967	SB-16 6-7'	soil	2013-07-26	00:00	2013-07-29
336968	SB-16 9-10'	soil	2013-07-26	00:00	2013-07-29
336969	SB-17 0-1'	soil	2013-07-26	00:00	2013-07-29
336970	SB-17 2-3'	soil	2013-07-26	00:00	2013-07-29
336971	SB-17 4-5'	soil	2013-07-26	00:00	2013-07-29
336972	SB-17 6-7'	soil	2013-07-26	00:00	2013-07-29
336973	SB-17 9-10'	soil	2013-07-26	00:00	2013-07-29
336974	SB-17 14-15'	soil	2013-07-26	00:00	2013-07-29
336975	SB-17 19-20'	soil	2013-07-26	00:00	2013-07-29
336976	SB-18 0-1'	soil	2013-07-26	00:00	2013-07-29
336977	SB-18 2-3'	soil	2013-07-26	00:00	2013-07-29
336978	SB-18 4-5'	soil	2013-07-26	00:00	2013-07-29
336979	SB-18 6-7'	soil	2013-07-26	00:00	2013-07-29
336980	SB-18 9-10'	soil	2013-07-26	00:00	2013-07-29
336981	SB-18 14-15'	soil	2013-07-26	00:00	2013-07-29
336982	SB-18 19-20'	soil	2013-07-26	00:00	2013-07-29

	BTEX				TPH DRO - NEW	TPH GRO
Sample - Field Code	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
336874 - SB-1 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.27** Qs
336883 - SB-2 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.80** Qs
336888 - SB-3 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.26** Qs
336894 - SB-4 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.33** Qs
336900 - SB-5 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.58** Qs
336904 - SB-6 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.38** Qs
336910 - SB-7 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.26** Qs
336914 - SB-8 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.39** Qs
336920 - SB-9 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.37** Qs
336925 - SB-10 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.62** Qs
336930 - SB-11 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.34** Qs
336934 - SB-12 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.07** Qs
336943 - SB-13 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.16** Qs

continued ...

... continued

Sample - Field Code	BTEX Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
336949 - SB-14 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.34** Qs
336956 - SB-15 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.25** Qs
336964 - SB-16 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.20** Qs
336969 - SB-17 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	**4.10** Qs
336976 - SB-18 0-1'	<0.0200 Qr	<0.0200 Qr	<0.0200 Qr,Qs	<0.0200 Qr,Qs	**82.9**	**4.03** Qs

Sample: 336874 - SB-1 0-1'

Param	Flag	Result	Units	RL
Chloride		**6210**	mg/Kg	4

Sample: 336875 - SB-1 2-3'

Param	Flag	Result	Units	RL
Chloride		**3370**	mg/Kg	4

Sample: 336876 - SB-1 4-5'

Param	Flag	Result	Units	RL
Chloride		**329**	mg/Kg	4

Sample: 336877 - SB-1 6-7'

Param	Flag	Result	Units	RL
Chloride		**881**	mg/Kg	4

Sample: 336878 - SB-1 9-10'

Param	Flag	Result	Units	RL
Chloride		**1920**	mg/Kg	4

Sample: 336879 - SB-1 14-15'

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

Sample: 336880 - SB-1 19-20'

Param	Flag	Result	Units	RL
Chloride		**1310**	mg/Kg	4

Sample: 336881 - SB-1 24-25'

Param	Flag	Result	Units	RL
Chloride		**197**	mg/Kg	4

Sample: 336882 - SB-1 29-30'

Param	Flag	Result	Units	RL
Chloride		**236**	mg/Kg	4

Sample: 336883 - SB-2 0-1'

Param	Flag	Result	Units	RL
Chloride		**6290**	mg/Kg	4

Sample: 336884 - SB-2 2-3'

Param	Flag	Result	Units	RL
Chloride		**3190**	mg/Kg	4

Sample: 336885 - SB-2 4-5'

Param	Flag	Result	Units	RL
Chloride		**62.5**	mg/Kg	4

Sample: 336886 - SB-2 6-7'

Param	Flag	Result	Units	RL
Chloride		**861**	mg/Kg	4

Sample: 336887 - SB-2 9-10'

Param	Flag	Result	Units	RL
Chloride		**254**	mg/Kg	4

Sample: 336888 - SB-3 0-1'

Param	Flag	Result	Units	RL
Chloride		**7780**	mg/Kg	4

Sample: 336889 - SB-4 2-3'

Param	Flag	Result	Units	RL
Chloride		**1460**	mg/Kg	4

Sample: 336890 - SB-3 4-5'

Param	Flag	Result	Units	RL
Chloride		**1850**	mg/Kg	4

Sample: 336891 - SB-3 6-7'

Param	Flag	Result	Units	RL
Chloride		**3530**	mg/Kg	4

Sample: 336892 - SB-3 9-10'

Param	Flag	Result	Units	RL
Chloride		**385**	mg/Kg	4

Sample: 336893 - SB-3 14-15'

Param	Flag	Result	Units	RL
Chloride		**317**	mg/Kg	4

Sample: 336894 - SB-4 0-1'

Param	Flag	Result	Units	RL
Chloride		**3560**	mg/Kg	4

Sample: 336895 - SB-3 2-3'

Param	Flag	Result	Units	RL
Chloride		**2650**	mg/Kg	4

Sample: 336896 - SB-4 4-5'

Param	Flag	Result	Units	RL
Chloride		**1080**	mg/Kg	4

Sample: 336897 - SB-4 6-7'

Param	Flag	Result	Units	RL
Chloride		**2880**	mg/Kg	4

Sample: 336898 - SB-4 9-10'

Param	Flag	Result	Units	RL
Chloride		**230**	mg/Kg	4

Sample: 336899 - SB-4 14-15'

Param	Flag	Result	Units	RL
Chloride		**320**	mg/Kg	4

Sample: 336900 - SB-5 0-1'

Param	Flag	Result	Units	RL
Chloride		**4150**	mg/Kg	4

Sample: 336901 - SB-5 2-3'

Param	Flag	Result	Units	RL
Chloride		**3050**	mg/Kg	4

Sample: 336902 - SB-5 4-5'

Param	Flag	Result	Units	RL
Chloride		**545**	mg/Kg	4

Sample: 336903 - SB-5 6-7'

Param	Flag	Result	Units	RL
Chloride		**255**	mg/Kg	4

Sample: 336904 - SB-6 0-1'

Param	Flag	Result	Units	RL
Chloride		**8910**	mg/Kg	4

Sample: 336905 - SB-6 2-3'

Param	Flag	Result	Units	RL
Chloride		**700**	mg/Kg	4

Sample: 336906 - SB-6 4-5'

Param	Flag	Result	Units	RL
Chloride		**740**	mg/Kg	4

Sample: 336907 - SB-6 6-7'

Param	Flag	Result	Units	RL
Chloride		**2310**	mg/Kg	4

Sample: 336908 - SB-6 9-10'

Param	Flag	Result	Units	RL
Chloride		**404**	mg/Kg	4

Sample: 336909 - SB-6 14-15'

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

Sample: 336910 - SB-7 0-1'

Param	Flag	Result	Units	RL
Chloride		**250**	mg/Kg	4

Sample: 336911 - SB-7 2-3'

Param	Flag	Result	Units	RL
Chloride		**1170**	mg/Kg	4

Sample: 336912 - SB-7 4-5'

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

Sample: 336913 - SB-7 6-7'

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

Sample: 336914 - SB-8 0-1'

Param	Flag	Result	Units	RL
Chloride		**155**	mg/Kg	4

Sample: 336915 - SB-8 2-3'

Param	Flag	Result	Units	RL
Chloride		**305**	mg/Kg	4

Sample: 336916 - SB-8 4-5'

Param	Flag	Result	Units	RL
Chloride		**499**	mg/Kg	4

Sample: 336917 - SB-8 6-7'

Param	Flag	Result	Units	RL
Chloride		**9140**	mg/Kg	4

Sample: 336918 - SB-8 9-10'

Param	Flag	Result	Units	RL
Chloride		**8270**	mg/Kg	4

Sample: 336919 - SS-8 14-15'

Param	Flag	Result	Units	RL
Chloride		**140**	mg/Kg	4

Sample: 336920 - SB-9 0-1'

Param	Flag	Result	Units	RL
Chloride		**80.0**	mg/Kg	4

Sample: 336921 - SB-9 2-3'

Param	Flag	Result	Units	RL
Chloride		**135**	mg/Kg	4

Sample: 336922 - SB-9 4-5'

Param	Flag	Result	Units	RL
Chloride		**6370**	mg/Kg	4

Sample: 336923 - SB-9 6-7'

Param	Flag	Result	Units	RL
Chloride		**315**	mg/Kg	4

Sample: 336924 - SB-9 9-10'

Param	Flag	Result	Units	RL
Chloride		**105**	mg/Kg	4

Sample: 336925 - SB-10 0-1'

Param	Flag	Result	Units	RL
Chloride		**1170**	mg/Kg	4

Sample: 336926 - SB-10 2-3'

Param	Flag	Result	Units	RL
Chloride		**1620**	mg/Kg	4

Sample: 336927 - SB-10 4-5'

Param	Flag	Result	Units	RL
Chloride		**9580**	mg/Kg	4

Sample: 336928 - SB-10 6-7'

Param	Flag	Result	Units	RL
Chloride		**165**	mg/Kg	4

Sample: 336929 - SB-10 9-10'

Param	Flag	Result	Units	RL
Chloride		**120**	mg/Kg	4

Sample: 336930 - SB-11 0-1'

Param	Flag	Result	Units	RL
Chloride		**35.0**	mg/Kg	4

Sample: 336931 - SB-11 2-3'

Param	Flag	Result	Units	RL
Chloride		**925**	mg/Kg	4

Sample: 336932 - SB-11 4-5'

Param	Flag	Result	Units	RL
Chloride		**85.0**	mg/Kg	4

Sample: 336933 - SB-11 6-7'

Param	Flag	Result	Units	RL
Chloride		**145**	mg/Kg	4

Sample: 336934 - SB-12 0-1'

Param	Flag	Result	Units	RL
Chloride		**3410**	mg/Kg	4

Sample: 336935 - SB-12 2-3'

Param	Flag	Result	Units	RL
Chloride		**1080**	mg/Kg	4

Sample: 336936 - SB-12 4-5'

Param	Flag	Result	Units	RL
Chloride		**25.0**	mg/Kg	4

Sample: 336937 - SB-12 6-7'

Param	Flag	Result	Units	RL
Chloride		**3060**	mg/Kg	4

Sample: 336938 - SB-12 9-10'

Param	Flag	Result	Units	RL
Chloride		**7410**	mg/Kg	4

Sample: 336939 - SB-12 14-15'

Param	Flag	Result	Units	RL
Chloride		**6780**	mg/Kg	4

Sample: 336940 - SB-12 19-20'

Param	Flag	Result	Units	RL
Chloride		**1810**	mg/Kg	4

Sample: 336941 - SB-12 24-25'

Param	Flag	Result	Units	RL
Chloride		**615**	mg/Kg	4

Sample: 336942 - SB-12 29-30'

Param	Flag	Result	Units	RL
Chloride		**734**	mg/Kg	4

Sample: 336943 - SB-13 0-1'

Param	Flag	Result	Units	RL
Chloride		**7410**	mg/Kg	4

Sample: 336944 - SB-13 2-3'

Param	Flag	Result	Units	RL
Chloride		**13200**	mg/Kg	4

Sample: 336945 - SB-13 4-5'

Param	Flag	Result	Units	RL
Chloride		**362**	mg/Kg	4

Sample: 336946 - SB-13 6-7'

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

Sample: 336947 - SB-13 9-10'

Param	Flag	Result	Units	RL
Chloride		**1530**	mg/Kg	4

Sample: 336948 - SB-13 14-15'

Param	Flag	Result	Units	RL
Chloride		**264**	mg/Kg	4

Sample: 336949 - SB-14 0-1'

Param	Flag	Result	Units	RL
Chloride		**159**	mg/Kg	4

Sample: 336950 - SB-14 2-3'

Param	Flag	Result	Units	RL
Chloride		**125**	mg/Kg	4

Sample: 336951 - SB-14 4-5'

Param	Flag	Result	Units	RL
Chloride		**735**	mg/Kg	4

Sample: 336952 - SB-14 6-7'

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

Sample: 336953 - SB-14 9-10'

Param	Flag	Result	Units	RL
Chloride		**3540**	mg/Kg	4

Sample: 336954 - SB-14 14-15'

Param	Flag	Result	Units	RL
Chloride		**101**	mg/Kg	4

Sample: 336955 - SB-14 19-20'

Param	Flag	Result	Units	RL
Chloride		**72.1**	mg/Kg	4

Sample: 336956 - SB-15 0-1'

Param	Flag	Result	Units	RL
Chloride		**130**	mg/Kg	4

Sample: 336957 - SB-15 2-3'

Param	Flag	Result	Units	RL
Chloride		**306**	mg/Kg	4

Sample: 336958 - SB-15 4-5'

Param	Flag	Result	Units	RL
Chloride		**188**	mg/Kg	4

Sample: 336959 - SB-15 6-7'

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

Sample: 336960 - SB-15 9-10'

Param	Flag	Result	Units	RL
Chloride		**1960**	mg/Kg	4

Sample: 336961 - SB-15 14-15'

Param	Flag	Result	Units	RL
Chloride		**948**	mg/Kg	4

Sample: 336962 - SB-15 19-20'

Param	Flag	Result	Units	RL
Chloride		**262**	mg/Kg	4

Sample: 336963 - SB-15 24-25'

Param	Flag	Result	Units	RL
Chloride		**88.9**	mg/Kg	4

Sample: 336964 - SB-16 0-1'

Param	Flag	Result	Units	RL
Chloride		**18200**	mg/Kg	4

Sample: 336965 - SB-16 2-3'

Param	Flag	Result	Units	RL
Chloride		**14000**	mg/Kg	4

Sample: 336966 - SB-16 4-5'

Param	Flag	Result	Units	RL
Chloride		**5020**	mg/Kg	4

Sample: 336967 - SB-16 6-7'

Param	Flag	Result	Units	RL
Chloride		**29.7**	mg/Kg	4

Sample: 336968 - SB-16 9-10'

Param	Flag	Result	Units	RL
Chloride		**307**	mg/Kg	4

Sample: 336969 - SB-17 0-1'

Param	Flag	Result	Units	RL
Chloride		**15700**	mg/Kg	4

Sample: 336970 - SB-17 2-3'

Param	Flag	Result	Units	RL
Chloride		**15400**	mg/Kg	4

Sample: 336971 - SB-17 4-5'

Param	Flag	Result	Units	RL
Chloride		**10200**	mg/Kg	4

Sample: 336972 - SB-17 6-7'

Param	Flag	Result	Units	RL
Chloride		**5640**	mg/Kg	4

Sample: 336973 - SB-17 9-10'

Param	Flag	Result	Units	RL
Chloride		**2840**	mg/Kg	4

Sample: 336974 - SB-17 14-15'

Param	Flag	Result	Units	RL
Chloride		**510**	mg/Kg	4

Sample: 336975 - SB-17 19-20'

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

Sample: 336976 - SB-18 0-1'

Param	Flag	Result	Units	RL
Chloride		**8040**	mg/Kg	4

Sample: 336977 - SB-18 2-3'

Param	Flag	Result	Units	RL
Chloride		**10400**	mg/Kg	4

Sample: 336978 - SB-18 4-5'

Param	Flag	Result	Units	RL
Chloride		**7270**	mg/Kg	4

Sample: 336979 - SB-18 6-7'

Param	Flag	Result	Units	RL
Chloride		**12800**	mg/Kg	4

Sample: 336980 - SB-18 9-10'

Param	Flag	Result	Units	RL
Chloride		**3420**	mg/Kg	4

Sample: 336981 - SB-18 14-15'

Param	Flag	Result	Units	RL
Chloride		**765**	mg/Kg	4

Sample: 336982 - SB-18 19-20'

Param	Flag	Result	Units	RL
Chloride		**219**	mg/Kg	4

TRACEANALYSIS, INC.

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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

(Corrected Report)

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

Report Date: August 7, 2013

Work Order: 13072931

Project Location: NM
Project Name: COG/Loco Hills SWD 35 #1
Project Number: 112MC05539

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
336874	SB-1 0-1'	soil	2013-07-24	00:00	2013-07-29
336875	SB-1 2-3'	soil	2013-07-24	00:00	2013-07-29
336876	SB-1 4-5'	soil	2013-07-24	00:00	2013-07-29
336877	SB-1 6-7'	soil	2013-07-24	00:00	2013-07-29
336878	SB-1 9-10'	soil	2013-07-24	00:00	2013-07-29
336879	SB-1 14-15'	soil	2013-07-24	00:00	2013-07-29
336880	SB-1 19-20'	soil	2013-07-24	00:00	2013-07-29
336881	SB-1 24-25'	soil	2013-07-24	00:00	2013-07-29
336882	SB-1 29-30'	soil	2013-07-24	00:00	2013-07-29
336883	SB-2 0-1'	soil	2013-07-24	00:00	2013-07-29
336884	SB-2 2-3'	soil	2013-07-24	00:00	2013-07-29
336885	SB-2 4-5'	soil	2013-07-24	00:00	2013-07-29
336886	SB-2 6-7'	soil	2013-07-24	00:00	2013-07-29
336887	SB-2 9-10'	soil	2013-07-24	00:00	2013-07-29
336888	SB-3 0-1'	soil	2013-07-24	00:00	2013-07-29
336889	SB-4 2-3'	soil	2013-07-24	00:00	2013-07-29

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
336890	SB-3 4-5'	soil	2013-07-24	00:00	2013-07-29
336891	SB-3 6-7'	soil	2013-07-24	00:00	2013-07-29
336892	SB-3 9-10'	soil	2013-07-24	00:00	2013-07-29
336893	SB-3 14-15'	soil	2013-07-24	00:00	2013-07-29
336894	SB-4 0-1'	soil	2013-07-24	00:00	2013-07-29
336895	SB-3 2-3'	soil	2013-07-24	00:00	2013-07-29
336896	SB-4 4-5'	soil	2013-07-24	00:00	2013-07-29
336897	SB-4 6-7'	soil	2013-07-24	00:00	2013-07-29
336898	SB-4 9-10'	soil	2013-07-24	00:00	2013-07-29
336899	SB-4 14-15'	soil	2013-07-24	00:00	2013-07-29
336900	SB-5 0-1'	soil	2013-07-24	00:00	2013-07-29
336901	SB-5 2-3'	soil	2013-07-24	00:00	2013-07-29
336902	SB-5 4-5'	soil	2013-07-24	00:00	2013-07-29
336903	SB-5 6-7'	soil	2013-07-24	00:00	2013-07-29
336904	SB-6 0-1'	soil	2013-07-24	00:00	2013-07-29
336905	SB-6 2-3'	soil	2013-07-24	00:00	2013-07-29
336906	SB-6 4-5'	soil	2013-07-24	00:00	2013-07-29
336907	SB-6 6-7'	soil	2013-07-24	00:00	2013-07-29
336908	SB-6 9-10'	soil	2013-07-24	00:00	2013-07-29
336909	SB-6 14-15'	soil	2013-07-24	00:00	2013-07-29
336910	SB-7 0-1'	soil	2013-07-24	00:00	2013-07-29
336911	SB-7 2-3'	soil	2013-07-24	00:00	2013-07-29
336912	SB-7 4-5'	soil	2013-07-25	00:00	2013-07-29
336913	SB-7 6-7'	soil	2013-07-25	00:00	2013-07-29
336914	SB-8 0-1'	soil	2013-07-25	00:00	2013-07-29
336915	SB-8 2-3'	soil	2013-07-25	00:00	2013-07-29
336916	SB-8 4-5'	soil	2013-07-25	00:00	2013-07-29
336917	SB-8 6-7'	soil	2013-07-25	00:00	2013-07-29
336918	SB-8 9-10'	soil	2013-07-25	00:00	2013-07-29
336919	SS-8 14-15'	soil	2013-07-25	00:00	2013-07-29
336920	SB-9 0-1'	soil	2013-07-25	00:00	2013-07-29
336921	SB-9 2-3'	soil	2013-07-25	00:00	2013-07-29
336922	SB-9 4-5'	soil	2013-07-25	00:00	2013-07-29
336923	SB-9 6-7'	soil	2013-07-25	00:00	2013-07-29
336924	SB-9 9-10'	soil	2013-07-25	00:00	2013-07-29
336925	SB-10 0-1'	soil	2013-07-25	00:00	2013-07-29
336926	SB-10 2-3'	soil	2013-07-25	00:00	2013-07-29
336927	SB-10 4-5'	soil	2013-07-25	00:00	2013-07-29
336928	SB-10 6-7'	soil	2013-07-25	00:00	2013-07-29
336929	SB-10 9-10'	soil	2013-07-25	00:00	2013-07-29
336930	SB-11 0-1'	soil	2013-07-25	00:00	2013-07-29
336931	SB-11 2-3'	soil	2013-07-25	00:00	2013-07-29
336932	SB-11 4-5'	soil	2013-07-25	00:00	2013-07-29
336933	SB-11 6-7'	soil	2013-07-25	00:00	2013-07-29
336934	SB-12 0-1'	soil	2013-07-25	00:00	2013-07-29
336935	SB-12 2-3'	soil	2013-07-25	00:00	2013-07-29

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
336936	SB-12 4-5'	soil	2013-07-25	00:00	2013-07-29
336937	SB-12 6-7'	soil	2013-07-25	00:00	2013-07-29
336938	SB-12 9-10'	soil	2013-07-25	00:00	2013-07-29
336939	SB-12 14-15'	soil	2013-07-25	00:00	2013-07-29
336940	SB-12 19-20'	soil	2013-07-25	00:00	2013-07-29
336941	SB-12 24-25'	soil	2013-07-25	00:00	2013-07-29
336942	SB-12 29-30'	soil	2013-07-25	00:00	2013-07-29
336943	SB-13 0-1'	soil	2013-07-25	00:00	2013-07-29
336944	SB-13 2-3'	soil	2013-07-25	00:00	2013-07-29
336945	SB-13 4-5'	soil	2013-07-25	00:00	2013-07-29
336946	SB-13 6-7'	soil	2013-07-25	00:00	2013-07-29
336947	SB-13 9-10'	soil	2013-07-25	00:00	2013-07-29
336948	SB-13 14-15'	soil	2013-07-25	00:00	2013-07-29
336949	SB-14 0-1'	soil	2013-07-25	00:00	2013-07-29
336950	SB-14 2-3'	soil	2013-07-25	00:00	2013-07-29
336951	SB-14 4-5'	soil	2013-07-25	00:00	2013-07-29
336952	SB-14 6-7'	soil	2013-07-25	00:00	2013-07-29
336953	SB-14 9-10'	soil	2013-07-25	00:00	2013-07-29
336954	SB-14 14-15'	soil	2013-07-25	00:00	2013-07-29
336955	SB-14 19-20'	soil	2013-07-25	00:00	2013-07-29
336956	SB-15 0-1'	soil	2013-07-26	00:00	2013-07-29
336957	SB-15 2-3'	soil	2013-07-26	00:00	2013-07-29
336958	SB-15 4-5'	soil	2013-07-26	00:00	2013-07-29
336959	SB-15 6-7'	soil	2013-07-26	00:00	2013-07-29
336960	SB-15 9-10'	soil	2013-07-26	00:00	2013-07-29
336961	SB-15 14-15'	soil	2013-07-26	00:00	2013-07-29
336962	SB-15 19-20'	soil	2013-07-26	00:00	2013-07-29
336963	SB-15 24-25'	soil	2013-07-26	00:00	2013-07-29
336964	SB-16 0-1'	soil	2013-07-26	00:00	2013-07-29
336965	SB-16 2-3'	soil	2013-07-26	00:00	2013-07-29
336966	SB-16 4-5'	soil	2013-07-26	00:00	2013-07-29
336967	SB-16 6-7'	soil	2013-07-26	00:00	2013-07-29
336968	SB-16 9-10'	soil	2013-07-26	00:00	2013-07-29
336969	SB-17 0-1'	soil	2013-07-26	00:00	2013-07-29
336970	SB-17 2-3'	soil	2013-07-26	00:00	2013-07-29
336971	SB-17 4-5'	soil	2013-07-26	00:00	2013-07-29
336972	SB-17 6-7'	soil	2013-07-26	00:00	2013-07-29
336973	SB-17 9-10'	soil	2013-07-26	00:00	2013-07-29
336974	SB-17 14-15'	soil	2013-07-26	00:00	2013-07-29
336975	SB-17 19-20'	soil	2013-07-26	00:00	2013-07-29
336976	SB-18 0-1'	soil	2013-07-26	00:00	2013-07-29
336977	SB-18 2-3'	soil	2013-07-26	00:00	2013-07-29
336978	SB-18 4-5'	soil	2013-07-26	00:00	2013-07-29
336979	SB-18 6-7'	soil	2013-07-26	00:00	2013-07-29
336980	SB-18 9-10'	soil	2013-07-26	00:00	2013-07-29
336981	SB-18 14-15'	soil	2013-07-26	00:00	2013-07-29

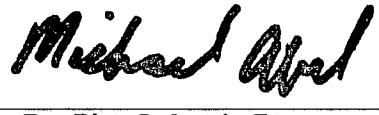
Sample	Description	Matrix	Date Taken	Time Taken	Date Received
336982	SB-18 19-20'	soil	2013-07-26	00:00	2013-07-29

Report Corrections (Work Order 13072931)

- 8/7/13: Corrected field codes of samples on the first four pages of the CoC per client.

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



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

Report Contents

Case Narrative

Samples for project COG/Loco Hills SWD 35 #1 were received by TraceAnalysis, Inc. on 2013-07-29 and assigned to work order 13072931. Samples for work order 13072931 were received damaged at a temperature of 1.5 C. We received 2 containers for B-3 and none for B-4. One set is logged in as B-4 as listed on the CoC. The client will determine which sample is B-4 based on field Cl tests.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	87891	2013-08-04 at 15:15	103735	2013-08-06 at 09:15
Chloride (Titration)	SM 4500-Cl B	87739	2013-07-30 at 12:35	103592	2013-07-31 at 15:49
Chloride (Titration)	SM 4500-Cl B	87749	2013-07-31 at 09:08	103593	2013-07-31 at 15:51
Chloride (Titration)	SM 4500-Cl B	87749	2013-07-31 at 09:08	103594	2013-07-31 at 15:52
Chloride (Titration)	SM 4500-Cl B	87749	2013-07-31 at 09:08	103596	2013-07-31 at 15:53
Chloride (Titration)	SM 4500-Cl B	87749	2013-07-31 at 09:08	103597	2013-07-31 at 15:54
Chloride (Titration)	SM 4500-Cl B	87749	2013-07-31 at 09:08	103598	2013-07-31 at 15:56
Chloride (Titration)	SM 4500-Cl B	87749	2013-07-31 at 09:08	103599	2013-07-31 at 15:57
Chloride (Titration)	SM 4500-Cl B	87786	2013-08-01 at 09:34	103716	2013-08-05 at 14:16
Chloride (Titration)	SM 4500-Cl B	87786	2013-08-01 at 09:34	103717	2013-08-05 at 14:26
Chloride (Titration)	SM 4500-Cl B	87786	2013-08-01 at 09:34	103718	2013-08-05 at 14:35
Chloride (Titration)	SM 4500-Cl B	87786	2013-08-01 at 09:34	103719	2013-08-05 at 14:43
Chloride (Titration)	SM 4500-Cl B	87786	2013-08-01 at 09:34	103721	2013-08-05 at 14:44
TPH DRO - NEW	S 8015 D	87792	2013-07-31 at 14:00	103616	2013-08-01 at 11:05
TPH GRO	S 8015 D	87893	2013-08-04 at 15:15	103737	2013-08-06 at 09:19

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 13072931 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 336874 - SB-1 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	103735	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87891	Sample Preparation:	2013-08-04	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.89	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.95	mg/Kg	1	2.00	98	70 - 130

Sample: 336874 - SB-1 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103592	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87739	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**6210**	mg/Kg	10	4.00

Sample: 336874 - SB-1 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	103616	Date Analyzed:	2013-08-01	Analyzed By:	CW
Prep Batch:	87792	Sample Preparation:	2013-07-31	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			158	mg/Kg	1	100	158	76.3 - 192.6

Sample: 336874 - SB-1 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	103737	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87893	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	B,Qs	1	**4.27**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.77	mg/Kg	1	2.00	88	70 - 130
4-Bromofluorobenzene (4-BFB)			2.14	mg/Kg	1	2.00	107	70 - 130

Sample: 336875 - SB-1 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103592	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87739	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**3370**	mg/Kg	10	4.00

Sample: 336876 - SB-1 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103592	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87739	Sample Preparation:	2013-07-31	Prepared By:	AR

continued ...

sample 336876 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**329**	mg/Kg	5	4.00

Sample: 336877 - SB-1 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103593	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**881**	mg/Kg	5	4.00

Sample: 336878 - SB-1 9-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103593	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1920**	mg/Kg	10	4.00

Sample: 336879 - SB-1 14-15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103593	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2670**	mg/Kg	10	4.00

Sample: 336880 - SB-1 19-20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103593	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1310**	mg/Kg	10	4.00

Sample: 336881 - SB-1 24-25'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103593	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**197**	mg/Kg	5	4.00

Sample: 336882 - SB-1 29-30'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103593	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**236**	mg/Kg	5	4.00

Sample: 336883 - SB-2 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	103735	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87891	Sample Preparation:	2013-08-04	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.82	mg/Kg	1	2.00	91	70 - 130
4-Bromofluorobenzene (4-BFB)			2.06	mg/Kg	1	2.00	103	70 - 130

Sample: 336883 - SB-2 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103593	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**6290**	mg/Kg	10	4.00

Sample: 336883 - SB-2 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	103616	Date Analyzed:	2013-08-01	Analyzed By:	CW
Prep Batch:	87792	Sample Preparation:	2013-07-31	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			134	mg/Kg	1	100	134	76.3 - 192.6

Sample: 336883 - SB-2 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	103737	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87893	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
GRO	B,Q8	1		**4.80**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.72	mg/Kg	1	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			2.73	mg/Kg	1	2.00	137	70 - 130

Sample: 336884 - SB-2 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103593	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
Chloride				**3190**	mg/Kg	10	4.00

Sample: 336885 - SB-2 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103593	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
Chloride				**62.5**	mg/Kg	5	4.00

Sample: 336886 - SB-2 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103593	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**861**	mg/Kg	5	4.00

Sample: 336887 - SB-2 9-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103594	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**254**	mg/Kg	5	4.00

Sample: 336888 - SB-3 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	103735	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87891	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	$Q_{R,U}$	1	<0.0200	mg/Kg	1	0.0200
Toluene	$Q_{R,U}$	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	$Q_{R,Q8,U}$	1	<0.0200	mg/Kg	1	0.0200
Xylene	$Q_{R,Q8,U}$	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.79	mg/Kg	1	2.00	90	70 - 130
4-Bromofluorobenzene (4-BFB)			1.78	mg/Kg	1	2.00	89	70 - 130

Sample: 336888 - SB-3 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103594	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**7780**	mg/Kg	10	4.00

Sample: 336888 - SB-3 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	103616	Date Analyzed:	2013-08-01	Analyzed By:	CW
Prep Batch:	87792	Sample Preparation:	2013-07-31	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			146	mg/Kg	1	100	146	76.3 - 192.6

Sample: 336888 - SB-3 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	103737	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87893	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	B,Qs	1	**4.26**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.70	mg/Kg	1	2.00	85	70 - 130
4-Bromofluorobenzene (4-BFB)			2.25	mg/Kg	1	2.00	112	70 - 130

Sample: 336889 - SB-4 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103594	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1460**	mg/Kg	10	4.00

Sample: 336890 - SB-3 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103594	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1850**	mg/Kg	10	4.00

Sample: 336891 - SB-3 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103594	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3530**	mg/Kg	10	4.00

Sample: 336892 - SB-3 9-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103594	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**385**	mg/Kg	5	4.00

Sample: 336893 - SB-3 14-15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103594	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**317**	mg/Kg	5	4.00

Sample: 336894 - SB-4 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	103735	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87891	Sample Preparation:	2013-08-04	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.86	mg/Kg	1	2.00	93	70 - 130
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	1	2.00	96	70 - 130

Sample: 336894 - SB-4 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103594	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3560**	mg/Kg	10	4.00

Sample: 336894 - SB-4 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	103616	Date Analyzed:	2013-08-01	Analyzed By:	CW
Prep Batch:	87792	Sample Preparation:	2013-07-31	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			144	mg/Kg	1	100	144	76.3 - 192.6

Sample: 336894 - SB-4 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	103737	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87893	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Qs	1	**4.33**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.76	mg/Kg	1	2.00	88	70 - 130
4-Bromofluorobenzene (4-BFB)			2.26	mg/Kg	1	2.00	113	70 - 130

Sample: 336895 - SB-3 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103594	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2650**	mg/Kg	10	4.00

Sample: 336896 - SB-4 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103594	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1080**	mg/Kg	10	4.00

Sample: 336897 - SB-4 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103596	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2880**	mg/Kg	10	4.00

Sample: 336898 - SB-4 9-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103596	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**230**	mg/Kg	5	4.00

Sample: 336899 - SB-4 14-15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103596	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**320**	mg/Kg	5	4.00

Sample: 336900 - SB-5 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	103735	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87891	Sample Preparation:	2013-08-04	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.99	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			2.04	mg/Kg	1	2.00	102	70 - 130

Sample: 336900 - SB-5 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103596	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**4150**	mg/Kg	10	4.00

Sample: 336900 - SB-5 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	103616	Date Analyzed:	2013-08-01	Analyzed By:	CW
Prep Batch:	87792	Sample Preparation:	2013-07-31	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			135	mg/Kg	1	100	135	76.3 - 192.6

Sample: 336900 - SB-5 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	103737	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87893	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	B,Qs	1	**4.58**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.88	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			2.37	mg/Kg	1	2.00	118	70 - 130

Sample: 336901 - SB-5 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103596	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**3050**	mg/Kg	10	4.00

Sample: 336902 - SB-5 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103596	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**545**	mg/Kg	5	4.00

Sample: 336903 - SB-5 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103596	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**255**	mg/Kg	5	4.00

Sample: 336904 - SB-6 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	103735	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87891	Sample Preparation:	2013-08-04	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.92	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	1	2.00	96	70 - 130

Sample: 336904 - SB-6 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103596	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**8910**	mg/Kg	10	4.00

Sample: 336904 - SB-6 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	103616	Date Analyzed:	2013-08-01	Analyzed By:	CW
Prep Batch:	87792	Sample Preparation:	2013-07-31	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			141	mg/Kg	1	100	141	76.3 - 192.6

Sample: 336904 - SB-6 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	103737	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87893	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	B,Qs	1	**4.38**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.82	mg/Kg	1	2.00	91	70 - 130
4-Bromofluorobenzene (4-BFB)			2.23	mg/Kg	1	2.00	112	70 - 130

Sample: 336905 - SB-6 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103596	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**700**	mg/Kg	5	4.00

Sample: 336906 - SB-6 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103596	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**740**	mg/Kg	5	4.00

Sample: 336907 - SB-6 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103597	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**2310**	mg/Kg	10	4.00

Sample: 336908 - SB-6 9-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103597	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**404**	mg/Kg	5	4.00

Sample: 336909 - SB-6 14-15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103597	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

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

Sample: 336910 - SB-7 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	103735	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87891	Sample Preparation:	2013-08-04	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.92	mg/Kg	1	2.00	96	70 - 130

Sample: 336910 - SB-7 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103597	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**250**	mg/Kg	5	4.00

Sample: 336910 - SB-7 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	103616	Date Analyzed:	2013-08-01	Analyzed By:	CW
Prep Batch:	87792	Sample Preparation:	2013-07-31	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			144	mg/Kg	1	100	144	76.3 - 192.6

Sample: 336910 - SB-7 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	103737	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87893	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	B,Q8	1	**4.26**	mg/Kg	1	4.00

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

Sample: 336911 - SB-7 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103597	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1170**	mg/Kg	5	4.00

Sample: 336912 - SB-7 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103597	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

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

Sample: 336913 - SB-7 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103597	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

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

Sample: 336914 - SB-8 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	103735	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87891	Sample Preparation:	2013-08-04	Prepared By:	AH

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

continued . . .

sample 336914 continued . . .

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Xylene	Qr,Qs,U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.99	mg/Kg	1	2.00	100	70 - 130

Sample: 336914 - SB-8 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103597	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**155**	mg/Kg	5	4.00

Sample: 336914 - SB-8 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	103616	Date Analyzed:	2013-08-01	Analyzed By:	CW
Prep Batch:	87792	Sample Preparation:	2013-07-31	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			187	mg/Kg	1	100	187	76.3 - 192.6

Sample: 336914 - SB-8 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	103737	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87893	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Qs	1	**4.39**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.84	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			2.22	mg/Kg	1	2.00	111	70 - 130

Sample: 336915 - SB-8 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103597	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**305**	mg/Kg	5	4.00

Sample: 336916 - SB-8 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103597	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**499**	mg/Kg	5	4.00

Sample: 336917 - SB-8 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103598	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**9140**	mg/Kg	10	4.00

Sample: 336918 - SB-8 9-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103598	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**8270**	mg/Kg	10	4.00

Sample: 336919 - SS-8 14-15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103598	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**140**	mg/Kg	5	4.00

Sample: 336920 - SB-9 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	103735	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87891	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	$Q_{V,U}$	1	<0.0200	mg/Kg	1	0.0200
Toluene	$Q_{R,U}$	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	$Q_{R,Qs,U}$	1	<0.0200	mg/Kg	1	0.0200

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sample 336920 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Xylene	Qr,Qs,U	1	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.01	mg/Kg	1	2.00	100	70 - 130

Sample: 336920 - SB-9 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103598	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**80.0**	mg/Kg	5	4.00

Sample: 336920 - SB-9 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	103616	Date Analyzed:	2013-08-01	Analyzed By:	CW
Prep Batch:	87792	Sample Preparation:	2013-07-31	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			174	mg/Kg	1	100	174	76.3 - 192.6

Sample: 336920 - SB-9 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	103737	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87893	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Qs	1	**4.37**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.83	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			2.20	mg/Kg	1	2.00	110	70 - 130

Sample: 336921 - SB-9 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103598	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**135**	mg/Kg	5	4.00

Sample: 336922 - SB-9 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103598	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**6370**	mg/Kg	10	4.00

Sample: 336923 - SB-9 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103598	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**315**	mg/Kg	5	4.00

Sample: 336924 - SB-9 9-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103598	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**105**	mg/Kg	5	4.00

Sample: 336925 - SB-10 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	103735	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87891	Sample Preparation:	2013-08-04	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.98	mg/Kg	1	2.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)			2.16	mg/Kg	1	2.00	108	70 - 130

Sample: 336925 - SB-10 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103598	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1170**	mg/Kg	5	4.00

Sample: 336925 - SB-10 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	103616	Date Analyzed:	2013-08-01	Analyzed By:	CW
Prep Batch:	87792	Sample Preparation:	2013-07-31	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			133	mg/Kg	1	100	133	76.3 - 192.6

Sample: 336925 - SB-10 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	103737	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87893	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Q8	1	**4.62**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.78	mg/Kg	1	2.00	89	70 - 130
4-Bromofluorobenzene (4-BFB)			2.37	mg/Kg	1	2.00	118	70 - 130

Sample: 336926 - SB-10 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103598	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1620**	mg/Kg	5	4.00

Sample: 336927 - SB-10 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103599	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**9580**	mg/Kg	10	4.00

Sample: 336928 - SB-10 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103599	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**165**	mg/Kg	5	4.00

Sample: 336929 - SB-10 9-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103599	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**120**	mg/Kg	5	4.00

Sample: 336930 - SB-11 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	103735	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87891	Sample Preparation:	2013-08-04	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.00	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			2.02	mg/Kg	1	2.00	101	70 - 130

Sample: 336930 - SB-11 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103599	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**35.0**	mg/Kg	5	4.00

Sample: 336930 - SB-11 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	103616	Date Analyzed:	2013-08-01	Analyzed By:	CW
Prep Batch:	87792	Sample Preparation:	2013-07-31	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			149	mg/Kg	1	100	149	76.3 - 192.6

Sample: 336930 - SB-11 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	103737	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87893	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Qs	1	**4.34**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.82	mg/Kg	1	2.00	91	70 - 130
4-Bromofluorobenzene (4-BFB)			2.15	mg/Kg	1	2.00	108	70 - 130

Sample: 336931 - SB-11 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103599	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**925**	mg/Kg	5	4.00

Sample: 336932 - SB-11 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103599	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**85.0**	mg/Kg	5	4.00

Sample: 336933 - SB-11 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103599	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**145**	mg/Kg	5	4.00

Sample: 336934 - SB-12 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	103735	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87891	Sample Preparation:	2013-08-04	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.90	mg/Kg	1	2.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			1.91	mg/Kg	1	2.00	96	70 - 130

Sample: 336934 - SB-12 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103599	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**3410**	mg/Kg	10	4.00

Sample: 336934 - SB-12 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	103616	Date Analyzed:	2013-08-01	Analyzed By:	CW
Prep Batch:	87792	Sample Preparation:	2013-07-31	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			151	mg/Kg	1	100	151	76.3 - 192.6

Sample: 336934 - SB-12 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	103737	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87893	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Q8	1	**4.07**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.72	mg/Kg	1	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			2.00	mg/Kg	1	2.00	100	70 - 130

Sample: 336935 - SB-12 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103599	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1080**	mg/Kg	10	4.00

Sample: 336936 - SB-12 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103599	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	Sample Preparation:	2013-07-31	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**25.0**	mg/Kg	5	4.00

Sample: 336937 - SB-12 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103716	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**3060**	mg/Kg	10	4.00

Sample: 336938 - SB-12 9-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103716	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**7410**	mg/Kg	10	4.00

Sample: 336939 - SB-12 14-15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103716	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**18200**	mg/Kg	10	4.00

Sample: 336964 - SB-16 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	103616	Date Analyzed:	2013-08-01	Analyzed By:	CW
Prep Batch:	87792	Sample Preparation:	2013-07-31	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			138	mg/Kg	1	100	138	76.3 - 192.6

Sample: 336964 - SB-16 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	103737	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87893	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Q8	1	**4.20**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.80	mg/Kg	1	2.00	90	70 - 130
4-Bromofluorobenzene (4-BFB)			2.08	mg/Kg	1	2.00	104	70 - 130

Sample: 336965 - SB-16 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103718	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**14000**	mg/Kg	10	4.00

Sample: 336966 - SB-16 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103718	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**5020**	mg/Kg	10	4.00

Sample: 336967 - SB-16 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103719	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**29.7**	mg/Kg	5	4.00

Sample: 336968 - SB-16 9-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103719	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**307**	mg/Kg	5	4.00

Sample: 336969 - SB-17 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	103735	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87891	Sample Preparation:	2013-08-04	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.88	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	1	2.00	96	70 - 130

Sample: 336969 - SB-17 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103719	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**15700**	mg/Kg	10	4.00

Sample: 336969 - SB-17 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	103616	Date Analyzed:	2013-08-01	Analyzed By:	CW
Prep Batch:	87792	Sample Preparation:	2013-07-31	Prepared By:	CW

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			126	mg/Kg	1	100	126	76.3 - 192.6

Sample: 336969 - SB-17 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	103737	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87893	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	B,Qs	1	**4.10**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.72	mg/Kg	1	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			2.06	mg/Kg	1	2.00	103	70 - 130

Sample: 336970 - SB-17 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103719	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**15400**	mg/Kg	10	4.00

Sample: 336971 - SB-17 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103719	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**10200**	mg/Kg	10	4.00

Sample: 336972 - SB-17 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103719	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**5640**	mg/Kg	10	4.00

Sample: 336973 - SB-17 9-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103719	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**2840**	mg/Kg	10	4.00

Sample: 336974 - SB-17 14-15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103719	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**510**	mg/Kg	5	4.00

Sample: 336975 - SB-17 19-20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103719	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

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

Sample: 336976 - SB-18 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	103735	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87891	Sample Preparation:	2013-08-04	Prepared By:	AH

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.84	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.89	mg/Kg	1	2.00	94	70 - 130

Sample: 336976 - SB-18 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103719	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**8040**	mg/Kg	10	4.00

Sample: 336976 - SB-18 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	103616	Date Analyzed:	2013-08-01	Analyzed By:	CW
Prep Batch:	87792	Sample Preparation:	2013-07-31	Prepared By:	CW

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	**82.9**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			155	mg/Kg	1	100	155	76.3 - 192.6

Sample: 336976 - SB-18 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	103737	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87893	Sample Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	B,Q8	1	**4.03**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.69	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			2.00	mg/Kg	1	2.00	100	70 - 130

Sample: 336977 - SB-18 2-3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103721	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**10400**	mg/Kg	10	4.00

Sample: 336978 - SB-18 4-5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103721	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**7270**	mg/Kg	10	4.00

Sample: 336979 - SB-18 6-7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103721	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**12800**	mg/Kg	10	4.00

Sample: 336980 - SB-18 9-10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103721	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3420**	mg/Kg	10	4.00

Sample: 336981 - SB-18 14-15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103721	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**765**	mg/Kg	5	4.00

Sample: 336982 - SB-18 19-20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	103721	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	Sample Preparation:	2013-08-01	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**219**	mg/Kg	5	4.00

Method Blanks

Method Blank (1) QC Batch: 103592

QC Batch:	103592	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87739	QC Preparation:	2013-07-30	Prepared By:	AR

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

Method Blank (1) QC Batch: 103593

QC Batch:	103593	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	QC Preparation:	2013-07-31	Prepared By:	AR

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

Method Blank (1) QC Batch: 103594

QC Batch:	103594	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	QC Preparation:	2013-07-31	Prepared By:	AR

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

Method Blank (1) QC Batch: 103596

QC Batch:	103596	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	QC Preparation:	2013-07-31	Prepared By:	AR

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

Method Blank (1) QC Batch: 103597

QC Batch:	103597	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	QC Preparation:	2013-07-31	Prepared By:	AR

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

Method Blank (1) QC Batch: 103598

QC Batch:	103598	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	QC Preparation:	2013-07-31	Prepared By:	AR

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

Method Blank (1) QC Batch: 103599

QC Batch:	103599	Date Analyzed:	2013-07-31	Analyzed By:	AR
Prep Batch:	87749	QC Preparation:	2013-07-31	Prepared By:	AR

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

Method Blank (1) QC Batch: 103616

QC Batch:	103616	Date Analyzed:	2013-08-01	Analyzed By:	CW
Prep Batch:	87792	QC Preparation:	2013-07-31	Prepared By:	CW

Parameter	Flag	Cert	MDL Result	Units	RL
DRO			<10.2	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			126	mg/Kg	1	100	126	64.1 - 164.4

Method Blank (1) QC Batch: 103716

QC Batch:	103716	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	QC Preparation:	2013-08-01	Prepared By:	AR

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

Method Blank (1) QC Batch: 103717

QC Batch:	103717	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	QC Preparation:	2013-08-01	Prepared By:	AR

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

Method Blank (1) QC Batch: 103718

QC Batch:	103718	Date Analyzed:	2013-08-05	Analyzed By:	AR
Prep Batch:	87786	QC Preparation:	2013-08-01	Prepared By:	AR

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

Method Blank (1) QC Batch: 103719

QC Batch: 103719 Date Analyzed: 2013-08-05 Analyzed By: AR
Prep Batch: 87786 QC Preparation: 2013-08-01 Prepared By: AR

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

Method Blank (1) QC Batch: 103721

QC Batch: 103721 Date Analyzed: 2013-08-05 Analyzed By: AR
Prep Batch: 87786 QC Preparation: 2013-08-01 Prepared By: AR

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

Method Blank (1) QC Batch: 103735

QC Batch: 103735 Date Analyzed: 2013-08-06 Analyzed By: AH
Prep Batch: 87891 QC Preparation: 2013-08-04 Prepared By: AH

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00810	mg/Kg	0.02
Toluene		1	<0.00750	mg/Kg	0.02
Ethylbenzene		1	<0.00730	mg/Kg	0.02
Xylene		1	<0.00700	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.98	mg/Kg	1	2.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)			1.90	mg/Kg	1	2.00	95	70 - 130

Method Blank (1) QC Batch: 103737

QC Batch:	103737	Date Analyzed:	2013-08-06	Analyzed By:	AH
Prep Batch:	87893	QC Preparation:	2013-08-04	Prepared By:	AH

Parameter	Flag	Cert	MDL Result	Units	RL
GRO			4.40	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.80	mg/Kg	1	2.00	90	70 - 130
4-Bromofluorobenzene (4-BFB)			2.19	mg/Kg	1	2.00	110	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 103592 | Date Analyzed: 2013-07-31 | Analyzed By: AR
Prep Batch: 87739 | QC Preparation: 2013-07-30 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2510	mg/Kg	1	2500	<3.85	100	89.7 - 115.9

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2440	mg/Kg	1	2500	<3.85	98	89.7 - 115.9	3	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 103593 | Date Analyzed: 2013-07-31 | Analyzed By: AR
Prep Batch: 87749 | QC Preparation: 2013-07-31 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2420	mg/Kg	1	2500	<3.85	97	89.7 - 115.9

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2490	mg/Kg	1	2500	<3.85	100	89.7 - 115.9	3	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 103594 | Date Analyzed: 2013-07-31 | Analyzed By: AR
Prep Batch: 87749 | QC Preparation: 2013-07-31 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2470	mg/Kg	1	2500	<3.85	99	89.7 - 115.9

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2580	mg/Kg	1	2500	<3.85	103	89.7 - 115.9	4	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 103596 | Date Analyzed: 2013-07-31 | Analyzed By: AR
Prep Batch: 87749 | QC Preparation: 2013-07-31 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2500	mg/Kg	1	2500	<3.85	100	89.7 - 115.9

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2440	mg/Kg	1	2500	<3.85	98	89.7 - 115.9	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 103597 | Date Analyzed: 2013-07-31 | Analyzed By: AR
Prep Batch: 87749 | QC Preparation: 2013-07-31 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2390	mg/Kg	1	2500	<3.85	96	89.7 - 115.9

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2520	mg/Kg	1	2500	<3.85	101	89.7 - 115.9	5	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 103598 | Date Analyzed: 2013-07-31 | Analyzed By: AR
Prep Batch: 87749 | QC Preparation: 2013-07-31 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2310	mg/Kg	1	2500	<3.85	92	89.7 - 115.9

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2430	mg/Kg	1	2500	<3.85	97	89.7 - 115.9	5	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 103599 | Date Analyzed: 2013-07-31 | Analyzed By: AR
Prep Batch: 87749 | QC Preparation: 2013-07-31 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2540	mg/Kg	1	2500	<3.85	102	89.7 - 115.9

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2410	mg/Kg	1	2500	<3.85	96	89.7 - 115.9	5	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 103616 | Date Analyzed: 2013-08-01 | Analyzed By: CW
Prep Batch: 87792 | QC Preparation: 2013-07-31 | Prepared By: CW

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		›	269	mg/Kg	1	250	<10.2	108	53.8 - 129

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	288	mg/Kg	1	250	<10.2	115	53.8 - 129	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
n-Tricosane	Qsr	Qsr	184	189	mg/Kg	1	100	184	189	61.3 - 170.4

Laboratory Control Spike (LCS-1)

QC Batch: 103716 | Date Analyzed: 2013-08-05 | Analyzed By: AR
Prep Batch: 87786 | QC Preparation: 2013-08-01 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2510	mg/Kg	1	2500	<3.85	100	89.7 - 115.9

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2430	mg/Kg	1	2500	<3.85	97	89.7 - 115.9	3	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 103717 | Date Analyzed: 2013-08-05 | Analyzed By: AR
Prep Batch: 87786 | QC Preparation: 2013-08-01 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2580	mg/Kg	1	2500	<3.85	103	89.7 - 115.9

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2430	mg/Kg	1	2500	<3.85	97	89.7 - 115.9	6	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 103718 | Date Analyzed: 2013-08-05 | Analyzed By: AR
Prep Batch: 87786 | QC Preparation: 2013-08-01 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2370	mg/Kg	1	2500	<3.85	95	89.7 - 115.9

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2500	mg/Kg	1	2500	<3.85	100	89.7 - 115.9	5	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 103719 | Date Analyzed: 2013-08-05 | Analyzed By: AR
Prep Batch: 87786 | QC Preparation: 2013-08-01 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2320	mg/Kg	1	2500	<3.85	93	89.7 - 115.9

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2470	mg/Kg	1	2500	<3.85	99	89.7 - 115.9	6	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 103721 | Date Analyzed: 2013-08-05 | Analyzed By: AR
Prep Batch: 87786 | QC Preparation: 2013-08-01 | Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2400	mg/Kg	1	2500	<3.85	96	89.7 - 115.9

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2520	mg/Kg	1	2500	<3.85	101	89.7 - 115.9	5	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 103735 | Date Analyzed: 2013-08-06 | Analyzed By: AH
Prep Batch: 87891 | QC Preparation: 2013-08-04 | Prepared By: AH

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.84	mg/Kg	1	2.00	<0.00810	92	70 - 130
Toluene		1	1.89	mg/Kg	1	2.00	<0.00750	94	70 - 130
Ethylbenzene		1	1.94	mg/Kg	1	2.00	<0.00730	97	70 - 130
Xylene		1	5.86	mg/Kg	1	6.00	<0.00700	98	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	[1] Qr	Qr	1	2.52	mg/Kg	1	2.00	<0.00810	126	70 - 130	31	20
Toluene	Qr	Qr	1	2.56	mg/Kg	1	2.00	<0.00750	128	70 - 130	30	20
Ethylbenzene	Qr,Qs	Qr,Qs	1	2.78	mg/Kg	1	2.00	<0.00730	139	70 - 130	36	20
Xylene	Qr,Qs	Qr,Qs	1	8.37	mg/Kg	1	6.00	<0.00700	140	70 - 130	35	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.94	1.84	mg/Kg	1	2.00	97	92	70 - 130
4-Bromofluorobenzene (4-BFB)	2.11	1.91	mg/Kg	1	2.00	106	96	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 103737 | Date Analyzed: 2013-08-06 | Analyzed By: AH
Prep Batch: 87893 | QC Preparation: 2013-08-04 | Prepared By: AH

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	19.2	mg/Kg	1	20.0	4.4	96	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	20.9	mg/Kg	1	20.0	4.4	104	70 - 130	8	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.76	1.81	mg/Kg	1	2.00	88	90	70 - 130
4-Bromofluorobenzene (4-BFB)	2.44	2.54	mg/Kg	1	2.00	122	127	70 - 130

Matrix Spike (MS-1) Spiked Sample: 336876

QC Batch: 103592 | Date Analyzed: 2013-07-31 | Analyzed By: AR
Prep Batch: 87739 | QC Preparation: 2013-07-30 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2920	mg/Kg	5	2500	329	104	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2830	mg/Kg	5	2500	329	100	78.9 - 121	3	20

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

Matrix Spike (MS-1) Spiked Sample: 336886

QC Batch: 103593 | Date Analyzed: 2013-07-31 | Analyzed By: AR
Prep Batch: 87749 | QC Preparation: 2013-07-31 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			3490	mg/Kg	5	2500	861	105	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			3660	mg/Kg	5	2500	861	112	78.9 - 121	5	20

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

Matrix Spike (MS-1) Spiked Sample: 336896

QC Batch: 103594 | Date Analyzed: 2013-07-31 | Analyzed By: AR
Prep Batch: 87749 | QC Preparation: 2013-07-31 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			3480	mg/Kg	10	2500	1080	96	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			3810	mg/Kg	10	2500	1080	109	78.9 - 121	9	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: 336906

QC Batch: 103596 | Date Analyzed: 2013-07-31 | Analyzed By: AR
Prep Batch: 87749 | QC Preparation: 2013-07-31 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			3370	mg/Kg	5	2500	740	105	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			3180	mg/Kg	5	2500	740	98	78.9 - 121	6	20

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

Matrix Spike (MS-1) Spiked Sample: 336916

QC Batch: 103597 | Date Analyzed: 2013-07-31 | Analyzed By: AR
Prep Batch: 87749 | QC Preparation: 2013-07-31 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			3140	mg/Kg	5	2500	499	106	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			3010	mg/Kg	5	2500	499	100	78.9 - 121	4	20

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

Matrix Spike (MS-1) Spiked Sample: 336926

QC Batch: 103598 | Date Analyzed: 2013-07-31 | Analyzed By: AR
Prep Batch: 87749 | QC Preparation: 2013-07-31 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			4200	mg/Kg	5	2500	1620	103	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			4070	mg/Kg	5	2500	1620	98	78.9 - 121	3	20

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

Matrix Spike (MS-1) Spiked Sample: 336936

QC Batch: 103599 | Date Analyzed: 2013-07-31 | Analyzed By: AR
Prep Batch: 87749 | QC Preparation: 2013-07-31 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2690	mg/Kg	5	2500	25	107	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2650	mg/Kg	5	2500	25	105	78.9 - 121	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: 336874

QC Batch: 103616 | Date Analyzed: 2013-08-01 | Analyzed By: CW
Prep Batch: 87792 | QC Preparation: 2013-07-31 | Prepared By: CW

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO			246	mg/Kg	1	250	<10.2	98	29 - 168.5

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO			240	mg/Kg	1	250	<10.2	96	29 - 168.5	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-Tricosane	150	145	mg/Kg	1	100	150	145	59.5 - 168.9

Matrix Spike (MS-1) Spiked Sample: 336946

QC Batch: 103716 | Date Analyzed: 2013-08-05 | Analyzed By: AR
Prep Batch: 87786 | QC Preparation: 2013-08-01 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			4220	mg/Kg	5	2500	1670	102	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			4100	mg/Kg	5	2500	1670	97	78.9 - 121	3	20

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

Matrix Spike (MS-1) Spiked Sample: 336956

QC Batch: 103717 | Date Analyzed: 2013-08-05 | Analyzed By: AR
Prep Batch: 87786 | QC Preparation: 2013-08-01 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2640	mg/Kg	5	2500	130	100	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2800	mg/Kg	5	2500	130	107	78.9 - 121	6	20

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

Matrix Spike (MS-1) Spiked Sample: 336966

QC Batch: 103718 | Date Analyzed: 2013-08-05 | Analyzed By: AR
Prep Batch: 87786 | QC Preparation: 2013-08-01 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			7520	mg/Kg	10	2500	5020	100	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			7290	mg/Kg	10	2500	5020	91	78.9 - 121	3	20

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

Matrix Spike (MS-1) Spiked Sample: 336976

QC Batch: 103719 | Date Analyzed: 2013-08-05 | Analyzed By: AR
Prep Batch: 87786 | QC Preparation: 2013-08-01 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			10300	mg/Kg	10	2500	8040	90	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			10700	mg/Kg	10	2500	8040	106	78.9 - 121	4	20

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

Matrix Spike (MS-1) Spiked Sample: 336982

QC Batch: 103721 | Date Analyzed: 2013-08-05 | Analyzed By: AR
Prep Batch: 87786 | QC Preparation: 2013-08-01 | Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2850	mg/Kg	5	2500	219	105	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2700	mg/Kg	5	2500	219	99	78.9 - 121	5	20

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

Matrix Spike (MS-1) Spiked Sample: 336949

QC Batch: 103735 | Date Analyzed: 2013-08-06 | Analyzed By: AH
Prep Batch: 87891 | QC Preparation: 2013-08-04 | Prepared By: AH

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.82	mg/Kg	1	2.00	<0.00810	91	70 - 130
Toluene		1	1.84	mg/Kg	1	2.00	<0.00750	92	70 - 130
Ethylbenzene		1	1.89	mg/Kg	1	2.00	<0.00730	94	70 - 130
Xylene		1	5.69	mg/Kg	1	6.00	<0.00700	95	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.98	mg/Kg	1	2.00	<0.00810	99	70 - 130	8	20
Toluene		1	1.90	mg/Kg	1	2.00	<0.00750	95	70 - 130	3	20
Ethylbenzene		1	1.94	mg/Kg	1	2.00	<0.00730	97	70 - 130	3	20
Xylene		1	5.87	mg/Kg	1	6.00	<0.00700	98	70 - 130	3	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)	2.00	2.00	mg/Kg	1	2	100	100	70 - 130
4-Bromofluorobenzene (4-BFB)	2.09	2.13	mg/Kg	1	2	104	106	70 - 130

Matrix Spike (MS-1) Spiked Sample: 336949

QC Batch: 103737 | Date Analyzed: 2013-08-06 | Analyzed By: AH
Prep Batch: 87893 | QC Preparation: 2013-08-04 | Prepared By: AH

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	Qs	Qs	1	13.1	mg/Kg	1	20.0	4.34	66	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	Qs	Qs	1	15.8	mg/Kg	1	20.0	4.34	57	70 - 130	19	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)	1.67	1.78	mg/Kg	1	2	84	89	70 - 130
4-Bromofluorobenzene (4-BFB)	2.10	2.46	mg/Kg	1	2	105	123	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 103592 | Date Analyzed: 2013-07-31 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	98.3	98	85 - 115	2013-07-31

Standard (CCV-2)

QC Batch: 103592 | Date Analyzed: 2013-07-31 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	102	102	85 - 115	2013-07-31

Standard (CCV-1)

QC Batch: 103593 | Date Analyzed: 2013-07-31 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2013-07-31

Standard (CCV-2)

QC Batch: 103593 | Date Analyzed: 2013-07-31 | Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	98.7	99	85 - 115	2013-07-31

Standard (CCV-1)

QC Batch: 103594 Date Analyzed: 2013-07-31 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-07-31

Standard (CCV-2)

QC Batch: 103594 Date Analyzed: 2013-07-31 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-07-31

Standard (CCV-1)

QC Batch: 103596 Date Analyzed: 2013-07-31 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-07-31

Standard (CCV-2)

QC Batch: 103596 Date Analyzed: 2013-07-31 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.6	100	85 - 115	2013-07-31

Standard (CCV-1)

QC Batch: 103597 Date Analyzed: 2013-07-31 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.5	100	85 - 115	2013-07-31

Standard (CCV-2)

QC Batch: 103597 Date Analyzed: 2013-07-31 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2013-07-31

Standard (CCV-1)

QC Batch: 103598 Date Analyzed: 2013-07-31 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-07-31

Standard (CCV-2)

QC Batch: 103598 Date Analyzed: 2013-07-31 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.7	100	85 - 115	2013-07-31

Standard (CCV-1)

QC Batch: 103599 Date Analyzed: 2013-07-31 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.7	100	85 - 115	2013-07-31

Standard (CCV-2)

QC Batch: 103599 Date Analyzed: 2013-07-31 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-07-31

Standard (CCV-1)

QC Batch: 103616 Date Analyzed: 2013-08-01 Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	229	92	80 - 120	2013-08-01

Standard (CCV-2)

QC Batch: 103616 Date Analyzed: 2013-08-01 Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	243	97	80 - 120	2013-08-01

Standard (CCV-3)

QC Batch: 103616 Date Analyzed: 2013-08-01 Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO			mg/Kg	250	245	98	80 - 120	2013-08-01

Standard (CCV-4)

QC Batch: 103616 Date Analyzed: 2013-08-01 Analyzed By: CW

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO			mg/Kg	250	264	106	80 - 120	2013-08-01

Standard (CCV-1)

QC Batch: 103716 Date Analyzed: 2013-08-05 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.1	99	85 - 115	2013-08-05

Standard (CCV-2)

QC Batch: 103716 Date Analyzed: 2013-08-05 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2013-08-05

Standard (CCV-1)

QC Batch: 103717 Date Analyzed: 2013-08-05 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	102	102	85 - 115	2013-08-05

Standard (CCV-2)

QC Batch: 103717 Date Analyzed: 2013-08-05 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	98.3	98	85 - 115	2013-08-05

Standard (CCV-1)

QC Batch: 103718 Date Analyzed: 2013-08-05 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-08-05

Standard (CCV-2)

QC Batch: 103718 Date Analyzed: 2013-08-05 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.7	100	85 - 115	2013-08-05

Standard (CCV-1)

QC Batch: 103719 Date Analyzed: 2013-08-05 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-08-05

Standard (CCV-2)

QC Batch: 103719 Date Analyzed: 2013-08-05 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-08-05

Standard (CCV-1)

QC Batch: 103721 Date Analyzed: 2013-08-05 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-08-05

Standard (CCV-2)

QC Batch: 103721 Date Analyzed: 2013-08-05 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2013-08-05

Standard (CCV-1)

QC Batch: 103735 Date Analyzed: 2013-08-06 Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.104	104	80 - 120	2013-08-06
Toluene		1	mg/kg	0.100	0.100	100	80 - 120	2013-08-06
Ethylbenzene		1	mg/kg	0.100	0.0981	98	80 - 120	2013-08-06
Xylene		1	mg/kg	0.300	0.296	99	80 - 120	2013-08-06

Standard (CCV-2)

QC Batch: 103735 Date Analyzed: 2013-08-06 Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0992	99	80 - 120	2013-08-06
Toluene		1	mg/kg	0.100	0.0973	97	80 - 120	2013-08-06
Ethylbenzene		1	mg/kg	0.100	0.0946	95	80 - 120	2013-08-06
Xylene		1	mg/kg	0.300	0.283	94	80 - 120	2013-08-06

Standard (CCV-3)

QC Batch: 103735 Date Analyzed: 2013-08-06 Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.100	100	80 - 120	2013-08-06
Toluene		1	mg/kg	0.100	0.0984	98	80 - 120	2013-08-06
Ethylbenzene		1	mg/kg	0.100	0.0959	96	80 - 120	2013-08-06
Xylene		1	mg/kg	0.300	0.288	96	80 - 120	2013-08-06

Standard (CCV-1)

QC Batch: 103737 Date Analyzed: 2013-08-06 Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.950	95	80 - 120	2013-08-06

Standard (CCV-2)

QC Batch: 103737 | Date Analyzed: 2013-08-06 | Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.04	104	80 - 120	2013-08-06

Standard (CCV-3)

QC Batch: 103737 | Date Analyzed: 2013-08-06 | Analyzed By: AH

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.06	106	80 - 120	2013-08-06

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-12-4	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Result Comments

1 RPD for LCS/LCSD outside of laboratory limits due to prep error, however MS/MSD RPD within limits and shows batch to be under control.

Attachments

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

301 2451

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112MC05539

PROJECT NAME: COG - Loco Hills SWD 35 #1

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
336874	7-24-13				X	Loco Hills B-1 0-1					X		X	X											X				
875	↓				↓	" 2-3					X		↓	↓											↓				
876						4-5					X																		
877						6-7					X																		
878						9-10					X																		
879						14-15					X																		
880						19-20					X																		
881						24-25					X																		
882						29-30					X																		

294H

RELINQUISHED BY: (Signature) Clair Gonzales Date: 7/29/13 Time: 13:20
RECEIVED BY: (Signature) A Hernandez Date: 7-28-13 Time: 13:20

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

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

SAMPLED BY: (Print & Initial) Clair Gonzales Date: 7-24-13 Time:

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

TETRA TECH CONTACT PERSON: Results by:

RUSH Charges Authorized: Yes No

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

~~no samples rec for B-4 - 2 cont~~ for B-3 - ~~log~~ one set as B-4

SAMPLE CONDITION WHEN RECEIVED: 1.5

REMARKS: SB-14 2-3' broken in replaced
IF TPH exceeds 5000, or Benzene exceeds 10, or total BTEX exceeds 50

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

Run chlorides on all samples

run deeper samples

Analysis Request of Chain of Custody Record

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112MC05539

PROJECT NAME: Loco Hills SWD 35 #1

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
883	7-24				X	Loco Hills B-2 0-1					X		X	X											X				
884						" 2-3																							
885						" 4-5																							
886						" 6-7																							
887						" 9-10																							
888						Loco Hills B-3 0-1																							
889						" 2-3																							
890						" 4-5																							
891						" 6-7																							
892					X	" 9-10					↓		↓	↓											↓				

RELINQUISHED BY: (Signature) Alan Gonzales Date: 7/24/13 Time: 13:20

RECEIVED BY: (Signature) [signature] Date: 7-24-13 Time: 13:20

SAMPLED BY: (Print & Initial) Clair Gonzales Date: 7-24-13 Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

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

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

TETRA TECH CONTACT PERSON: Results by:

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

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.5

REMARKS: If TPH exceeds 5000, or Benzene exceeds 10, or total BTEX exceeds 50, run deeper samples & Chlorides on all benzos

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

Analysis Request of Chain of Custody Record

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112WC055539

PROJECT NAME: Loco Hills SWD 35 #1

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TRH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
893	7/24				X	Loco Hills B-3 14-15					X		X	X											X				
894						Loco Hills B-4 0-1																							
895						" 2-3																						
896						" 4-5																						
897						" 6-7																						
898						" 9-10																						
899						" 14-15																						
900						Loco Hills B-5 0-1																						
901						2-3																						
902						4-5					X		X	X										X				

RELINQUISHED BY: (Signature) Glaus Gonzales	Date: 7/24/13 Time: 13:28	RECEIVED BY: (Signature)	Date: 7/24/13 Time: 13:28
SAMPLED BY: (Print & Initial) Glaus Gonzales	Date: 7/24/13 Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
TETRA TECH CONTACT PERSON:	Results by:
RECEIVING LABORATORY: ADDRESS: CITY: STATE: ZIP: CONTACT: PHONE:	RECEIVED BY: (Signature) DATE: TIME:		RUSH Charges Authorized: Yes No
SAMPLE CONDITION WHEN RECEIVED: 15°	REMARKS: If TPH exceeds 5000, or Benzene exceeds 10, or total BTEX exceeds 50, run deeper samples. Chlorides on all horizons

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

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112NC05539

PROJECT NAME: Loco Hills SWD 35 #1

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
903	7/24				X	Loco Hills B-5 6-7					X		X	X											X				
904						Loco Hills B-6 0-1																							
905						" 2-3																						
906						" 4-5																						
907						" 6-7																						
908						" 9-10																						
909						" 14-15																						
~~910~~						"																						
910						SB-7 0-1																						
911	7/24					" 2-3																						

RELINQUISHED BY: (Signature) Clara Gonzales Date: 7/29/13 Time: 13:20

RECEIVED BY: (Signature) [signature] Date: 7-29-13 Time: 13:20

SAMPLED BY: (Print & Initial) Clara Gonzales Date: 7/24 Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

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

TETRA TECH CONTACT PERSON: Results by:

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

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.5

REMARKS: If TPH exceeds 5000, or Benzene exceeds 10, or total BTEX exceeds 50, run deeper samples. Chlorides on all horizons

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

DW 12/1/01

Analysis Request of Chain of Custody Record

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG
SITE MANAGER: Ike Tavarez
PROJECT NO.: 112WC.05539
PROJECT NAME: Loco Hills SWD 35 #1

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
913	7/25				X	SB-7 2-3					X		X	X											X				
912 914						" 4-5																							
913 915						" 6-7																							
914 916						SB-8 0-1																							
915 917						" 2-3																							
916 918						" 4-5																							
917 919						" 6-7																							
918 920						" 9-10																							
919 921						" 14-15																							
920 922	↓				↓	SB-9 0-1					↓		↓	↓											↓				

RELINQUISHED BY: (Signature) Alan Gonzales	Date: 7/29/01 Time: 13:20	RECEIVED BY: (Signature) A Hernandez	Date: 7-29-01 Time: 13:20
SAMPLED BY: (Print & Initial) Alan Gonzales	Date: 7/25/01 Time:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
TETRA TECH CONTACT PERSON:	Results by:		
RECEIVING LABORATORY: ADDRESS: CITY: STATE: ZIP: CONTACT: PHONE:	RECEIVED BY: (Signature) DATE: TIME:		RUSH Charges Authorized: Yes No
SAMPLE CONDITION WHEN RECEIVED: 15	REMARKS: If TPH exceeds 5000, or Benzene exceeds 10, or total BTEX exceeds 50, run deeper samples. Chloride on all		

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

Analysis Request of Chain of Custody Record

PAGE: 6 OF: 12

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112NC05539

PROJECT NAME: Loco Hills SWD 35 #1

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC:MS Vol. 8240/8260/624	GC:MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
921 923	7/25				X	SB-9 2-3					X		X	X											X				
922 924						" 4-5																							
923 925						" 6-7																							
924 926						" 9-10																							
925 927						SB-10 0-1																							
926 928						" 2-3																							
929 929						" 4-5																							
928 930						" 6-7																							
929 931						" 9-10																							
930 932	↓				↓	SB-11 0-1					↓		↓	↓											↓				

RELINQUISHED BY: (Signature) Alan Gonzales	Date: 7/29/13 Time: 13:20	RECEIVED BY: (Signature) A Hernandez	Date: 7-29-13 Time: 13:20
SAMPLED BY: (Print & Initial) Alan Gonzales	Date: 7/25/13 Time:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
TETRA TECH CONTACT PERSON:	Results by:		
RECEIVING LABORATORY: ADDRESS: CITY: STATE: ZIP: CONTACT: PHONE:	RECEIVED BY: (Signature) DATE: TIME:		RUSH Charges Authorized: Yes No
SAMPLE CONDITION WHEN RECEIVED: 1.5	REMARKS: If TPH exceeds 5000, or Benzene exceeds 10, or total BTEX exceeds 50, run deeper samples. Chlorides on all		

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

120107D1

Analysis Request of Chain of Custody Record

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

PAGE: 7 OF: 12

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112NC055539

PROJECT NAME: Loco Hills SWD 35 #1

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
931	7/25				X	SB-11 2-3					X		X	X											X				
932						" 4-5																							
933						" 6-7																							
934						SB-12 0-1																							
935						" 2-3																							
936						" 4-5																							
937						" 6-7																							
938						" 9-10																							
939						" 14-15																							
940					X	" 19-20					X		X	X											X				

RELINQUISHED BY: (Signature) Clay Gonzales	Date: 7/29/13 Time: 13:20	RECEIVED BY: (Signature) D Hernandez	Date: 7.29.13 Time: 13:20
SAMPLED BY: (Print & Initial) Clay Gonzales	Date: 7/25/13 Time:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:

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

TETRA TECH CONTACT PERSON: Results by:

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

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.5

REMARKS: IF TPH exceeds 5000, or Benzene exceeds 10, or total BTEX exceeds 50, run deeper samples. Chlorides on all.

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

ISU 129 13

Analysis Request of Chain of Custody Record

PAGE: 8 OF: 12

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112WC055539

PROJECT NAME: Loco Hills SWD 35 #7

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD: TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
941 943	7/25				X	SB-12 24-25					X		X	X											X				
942 944						" 29-30																						
943 945						SB-13 0-1																						
944 946						" 2-3																						
945 947						" 4-5																						
946 948						" 6-7																						
947 949						" 9-10																						
948 950						" 14-15																						
949 951						SB-14 0-1																						
950 952	↓				↓	" 2-3					↓		↓	↓											↓				

RELINQUISHED BY: (Signature) Clair Gonzales Date: 7/29/13 Time: 13:20

RECEIVED BY: (Signature) Date: 7/29/13 Time: 13:20

SAMPLED BY: (Print & Initial) Clair Gonzales Date: 7/25/13 Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

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

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

TETRA TECH CONTACT PERSON:

Results by:

RECEIVING LABORATORY:

ADDRESS:

CITY: STATE: ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.5

REMARKS: If TPH exceeds 5000, or Benzene exceeds 10 or total BTEX exceeds 50 - add diesel samples. Chlorides on all.

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

1501293

Analysis Request of Chain of Custody Record

PAGE: 9 OF: 12

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG
SITE MANAGER: Ike Tavarez
PROJECT NO.: 112MC05839
PROJECT NAME: Loco Hills SWD 35 #1

Analyses marked: BTEX 8021B, TPH 8015 MOD. (circled), Chloride (circled)

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION		PRESERVATIVE: ICE	BTEX 8021B	TPH 8015 MOD.	Chloride
951 ~~953~~	7/25				X	SB-14	4-5	X	X	X	X
952 ~~954~~	↓				↓	"	6-7	↓	↓	↓	↓
953 ~~955~~	↓				↓	"	9-10	↓	↓	↓	↓
954 ~~956~~	↓				↓	"	14-15	↓	↓	↓	↓
955 ~~957~~	↓				↓	"	19-20	↓	↓	↓	↓
956 ~~958~~	7/26				↓	SB-15	0-1	↓	↓	↓	↓
957 ~~959~~					↓	"	2-3	↓	↓	↓	↓
958 ~~960~~					↓	"	4-5	↓	↓	↓	↓
959 ~~961~~					↓	"	6-7	↓	↓	↓	↓
960 ~~962~~					↓	"	9-10	↓	↓	↓	↓

RELINQUISHED BY: (Signature) Clair Gonzales Date: 7/29/13 Time: 13:20
RECEIVED BY: (Signature) [signature] Date: 7.29.13 Time: 13:20
SAMPLED BY: (Print & Initial) Clair Gonzales Date: 7/26/13 Time:

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

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
TETRA TECH CONTACT PERSON:
Results by:

RECEIVING LABORATORY:
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: TIME:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.5°

REMARKS: If TPH exceeds 5000, or Benzene exceeds 10, or total BTEX exceeds 50 - run deeper samples. Chlorides on all

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

1505129311

Analysis Request of Chain of Custody Record

PAGE: 10 OF: 12

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG
SITE MANAGER: Ike Tavarez
PROJECT NO.: 12MC05539
PROJECT NAME: Loco Hills SWD 35 #1

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD / TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
962 963	7/26				X	SB-15	14-15				X														X				
963 964						"	19-20																						
963 965						"	24-25																						
964 966						SB-16	0-1																						
965 967						"	2-3																						
966 968						"	4-5																						
967 969						"	6-7																						
968 970						"	9-10																						
969 971						SB-17	0-1																						
970 972							2-3																						

RELINQUISHED BY: (Signature) Dan Gonzales	Date: 7/29/13 Time: 13:25	RECEIVED BY: (Signature) A Hernandez	Date: 7.29.13 Time: 13:20
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:

SAMPLED BY: (Print & Initial) Dan Gonzales — Date: 7/26/13 Time:

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

AIRBILL #:
OTHER:

TETRA TECH CONTACT PERSON:

Results by:

RUSH Charges Authorized: Yes No

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

SAMPLE CONDITION WHEN RECEIVED: 1.5

REMARKS: " "

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

150 104931

Analysis Request of Chain of Custody Record

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

PAGE: 11 OF: 12

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112MC05539

PROJECT NAME: Loco Hills SWD 35 #1

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
971 ~~973~~	7/20				X	SB-17 4-5					X	
972 ~~974~~						" 6-7						
973 ~~975~~						" 9-10						
974 ~~976~~						" 14-15						
975 ~~977~~						" 19-20						
976 ~~978~~						SB-18 0-1						
977 ~~979~~						" 2-3						
978 ~~980~~						" 4-5						
979 ~~981~~	✓					" 6-7						
980 ~~982~~					↓	" 9-10					✓	

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
X	X											X				
↓	↓											↓				

RELINQUISHED BY: (Signature) Dan Gonzales	Date: 7/29/13 Time: 13:28	RECEIVED BY: (Signature) [illegible]	Date: 7.29.13 Time: 13:20
SAMPLED BY: (Print & Initial) Clair Gonzales	Date: 7/20/13 Time:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
TETRA TECH CONTACT PERSON:	Results by:		
RECEIVING LABORATORY: ADDRESS: CITY: STATE: ZIP: CONTACT: PHONE:	RECEIVED BY: (Signature) DATE: TIME:		RUSH Charges Authorized: Yes No
SAMPLE CONDITION WHEN RECEIVED: 1.5	REMARKS: 4 "		

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

1301431

Analysis Request of Chain of Custody Record

PAGE: 12 OF: 12

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112NC055539

PROJECT NAME: Loco Hills SWD 35 #1

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 Mod. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
981-4989	7/24				X	SB-18 14-15					X		X	X										X				
982-4989	"				"	" 19-20					"		X	X										X				

RELINQUISHED BY: (Signature) John Gonzales	Date: 7/29/13 Time: 13:22	RECEIVED BY: (Signature) A Hinojos	Date: 7-29-13 Time: 13:20
SAMPLED BY: (Print & Initial) Mary Gonzales	Date: 7/24/13 Time:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
TETRA TECH CONTACT PERSON:	Results by:		
RECEIVING LABORATORY: ADDRESS: CITY: STATE: ZIP: CONTACT: PHONE:	RECEIVED BY: (Signature) DATE: TIME:		RUSH Charges Authorized: Yes No
SAMPLE CONDITION WHEN RECEIVED: 1.5	REMARKS: " "		

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

507 2931

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 12

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

CLIENT NAME: COG
SITE MANAGER: Ike Tavarez
PROJECT NO.: 112MC05539
PROJECT NAME: COG - Loco Hills SWD 35 #1

ANALYSIS REQUEST (*Circle or Specify Method No.*)

PRESERVATIVE METHOD

SB per C.E. 8/7

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE	BTEX 8021B	TPH TX1005 (Ext. to C35) / TPH 8015 MOD	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
336874	7-24-13				X	~~LocoHills B-1~~ 0-1					X		X	X											X				
875	↓				↓	" 2-3					X		↓	↓											↓				
876						4-5					X																		
877						6-7					X																		
878						9-10					X																		
879						14-15					X																		
880						19-20					X																		
881						24-25					X																		
882						29-30					X																		

RELINQUISHED BY: (Signature) Clair Gonzales Date: 7/29/13 Time: 13:20
RECEIVED BY: (Signature) A Hernandez Date: 7-29-13 Time: 13:20
SAMPLED BY: (Print & Initial) Clair Gonzales Date: 7-24-13 Time:

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

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
TETRA TECH CONTACT PERSON:
Results by:

RECEIVING LABORATORY:
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: TIME:
RUSH Charges Authorized: Yes No

~~no samples rec for B-4 - 1 cont for B-3-~~ logged one set as B-4
SB-14 2-3' broken, is replaced

SAMPLE CONDITION WHEN RECEIVED: 1.5

REMARKS: IF TPH exceeds 5000, or Benzene exceeds 10, or total BTEX exceeds 50

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 chlorides on all samples AUG -6 2013 EPL run deeper samples AR

1307293

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112MC05539

PROJECT NAME: Loco Hills SWD 35 #1

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
883	7-24				X	~~Loco Hills~~ SB per CG. 8/7 B-2 0-1					X		X	X											X				
884						" 2-3																							
885						" 4-5																							
886						" 6-7																							
887						" 9-10																							
888						~~Loco Hills~~ B-3 0-1																								
889						" B-4 2-3 per CG																							
890						" B-3 4-5																							
891						" B-3 6-7																							
892						" B-3 9-10																							

RELINQUISHED BY: (Signature) Alan Gonzales Date: 7/29/13 Time: 12:25

RECEIVED BY: (Signature) [signature] Date: 7-29-13 Time: 13:20

SAMPLED BY: (Print & Initial) Clair Gonzales Date: 7-24-13 Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

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

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

TETRA TECH CONTACT PERSON: Results by:

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

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.5

REMARKS: If TPH exceeds 5000, or Benzene exceeds 10, or total BTEX exceeds 50, run chaser samples Chlorides on all benzene

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

AR

Analysis Request of Chain of Custody Record

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112WC055539

PROJECT NAME: Loco Hills SWD 35 #1

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TRH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations; pH, TDS
893	7/24				X	~~Loco Hills B-3~~ SB per CG. 8/7 14-15					X		X	X											X				
894						~~Loco Hills B-4~~ " 0-1																				X				
895						" B-3 2-3 PAH CG																				X				
896						" B4 4-5																				X				
897						" B4 6-7																				X				
898						" " 9-10																				X				
899						" " 14-15																				X				
900						~~Loco Hills B-5~~ 0-1																				X				
901	↓					2-3																				X				
902						4-5					↓		↓	↓												X				

RELINQUISHED BY: (Signature) Elias Gonzales Date: 7/29/13 Time: 13:20

RECEIVED BY: (Signature) Hernandez Date: 7-29-13 Time: 13:20

SAMPLED BY: (Print & Initial) Elias Gonzales Date: 7/24/13 Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

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

RECEIVING LABORATORY:

ADDRESS:

CITY: STATE: ZIP:

CONTACT: PHONE: DATE: TIME:

RECEIVED BY: (Signature)

TETRA TECH CONTACT PERSON:

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.5°

REMARKS: If TPH exceeds 5000, or Benzene exceeds 10, or total BTEX exceeds 50, run deeper samples. Chlorides on all horizons

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

No Samples Received for B-4. Two containers received for B-3.

PAH

1507293)

Analysis Request of Chain of Custody Record

PAGE: 4 OF: 12

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112NC05839

PROJECT NAME: Loco Hills SWD 35 #1

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
						SB per CG 8/1																						
903	7/24				X	~~Loco Hills B-5~~ 6-7					X		X	X											X				
904						~~Loco Hills B-6~~ 0-1																								
905						" 2-3																							
906						" 4-5																							
907						" 6-7																							
908						" 9-10																							
909						" 14-15																							
~~910~~																													
910						SB-7 0-1																							
911	7/24				X	" 2-3					X		X	X											X				

RELINQUISHED BY: (Signature) Chris Gonzales	Date: 7/29/13 Time: 13:20	RECEIVED BY: (Signature) [illegible] Hernandez	Date: 7-29-13 Time: 13:20
SAMPLED BY: (Print & Initial) Chris Gonzales	Date: 7/24 Time:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
TETRA TECH CONTACT PERSON:	Results by:		
RECEIVING LABORATORY: ADDRESS: CITY: STATE: ZIP: CONTACT: PHONE:	RECEIVED BY: (Signature) DATE: TIME:		RUSH Charges Authorized: Yes No
SAMPLE CONDITION WHEN RECEIVED: 1.5	REMARKS: IF TPH exceeds 5000, or Benzene exceeds 10, or total BTEX exceeds 50, run deeper samples. Chlorides on all horizons		

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

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 **Robert McNeill**
Address **600 W. Illinois Ave, Midland, Texas 79701**	Telephone No. **(432) 685-4332**
Facility Name **Loco Hills SWD 35 #1**	Facility Type **Tank Battery**

Surface Owner: State	Mineral Owner	Lease No. (API#) 30-15-31635

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	36	17S	30E					

Latitude 32.78561° N **Longitude** 103.91967° W

NATURE OF RELEASE

Type of Release: Oil and Produced Water	Volume of Release 300bbls of Oil and 1200bbls of Produced Water	Volume Recovered 0bbls of Oil and 0bbls of Produced Water
Source of Release: Lightning struck fiberglass tank	Date and Hour of Occurrence 06/08/2013	Date and Hour of Discovery 06/08/2013 12:00 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Mike Bratcher - NMOCD**	
By Whom? Michelle Mullins	Date and Hour 06/08/2013 8:50 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

RECEIVED
MAR 05 2014
NMOCD ARTESIA

Describe Cause of Problem and Remedial Action Taken.*

Lightning struck a fiberglass tank during a thunder storm. Act of God.

Describe Area Affected and Cleanup Action Taken.*

Initially 300bbls of oil and 1200bbls of produced water were released due to a lightning strike a fiberglass tank. No fluids were recovered due to the fire consuming all liquids. The spill was on the pad and in the pasture. Tetra Tech inspected site and collected samples to define spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. Site was then brought up to surface grade with clean backfill material. Tetra Tech prepared closure report and submitted to NMOCD for review.

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

Signature:	OIL CONSERVATION DIVISION
Printed Name: Ike Tavarez (Agent for COC)	Approved by District Supervisor:
Title: Project Manager	Approval Date: / Expiration Date:
E-mail Address: Ike.Tavarez@TetraTech.com	Conditions of Approval: / Attached ☐
Date: 01/16/2014 Phone: (432) 682-4559	

2RP-1695