Highlander Environmental Corp.

Midland, Texas

August 10, 2007

RP#1591

Mr. Larry Johnson
Environmental Engineer Specialist
Oil Conservation Division- District I
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Assessment and Closure Report for the Cimarex Energy Company of Colorado (Gruy), Cooper 4-1 SWD, Located in Unit Letter C, Section 4, Township 20 South, Range 37 East, Lea County, New Mexico.

30-025-35744

Dear Mr. Johnson:

Highlander Environmental Corp. (Highlander) was contacted by Cimarex Energy Company of Colorado (Cimarex) to investigate a spill at the Cooper 4-1 SWD (Site) located in Unit Letter C, Section 4, Township 20 South, Range 37 East, Lea County, New Mexico. The Site is shown on Figure 1.

Background

The spill occurred on February 12, 2007, when the gun barrel leg plugged, causing the tank to overflow and spilled approximately 43 barrels of oil and produced water. A total of 43 barrels was recovered with a vacuum truck. The spill ran east on and off the tank battery pad. Copies of the New Mexico Oil Conservation Division (NMOCD) Forms C-141 (Initial and Final) are included in Appendix C. The spill area is shown on Figure 2.

Groundwater and Regulatory

According to the New Mexico Office of the State Engineer, WATERS database, the reported average depth to groundwater in Sections 4 and 5, T-20-S, R-37-E is 22' and 38', respectively. In T-19-S, R-37-E, the reported depths to groundwater is 29' (Section 32), 32' (Section 33) and 22 (Section 34.) The State of New Mexico Well Reports are included in Appendix A.

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 mg/kg and 50 mg/kg for total BTEX (sum of benzene, toluene, ethylbenzene and xylene). Based upon the apparent regional depth to groundwater, the proposed RRAL for TPH is 100 mg/kg.

Assessment

On February 28, 2007, Highlander personnel inspected the facility. A total of five (5) auger holes (AH) were installed in the spill area. One auger hole (AH-5) was installed on the tank battery pad and advanced to a depth of 5.5' below surface. This area of the spill measured approximately 10'x 30'. The remaining auger holes (AH-1, AH-2, AH-3 and AH-4) were placed off the tank battery pad in areas where the water and oil had runoff, which measured approximately 25' x 120'. Prior to sampling, the area off the pad had been excavated to a depth of approximately 8" and stockpiled onsite on plastic. Selected samples were analyzed for TPH by method EPA 8015 Modified, BTEX by method 8021B and chloride by method EPA 300.0. The sample locations are shown on Figure 2. The results of the sampling are summarized in Table 1.

Referring to Table 1, no impact was noted in AH-1. The TPH concentrations in the samples from 0-1' from all AH-2, AH-3, AH-4 and AH-5 were above the RRAL of 100 mg/kg. The deeper samples at 1-1.5' were all below the TPH RRAL. Two (2) samples (AH-4 and AH-5) with the highest TPH were selected for BTEX analyses. AH-5 exceeded the total BTEX RRAL at 0-1', but decreased below the RRAL at 1-1.5' below surface. Elevated chloride concentrations were detected in the AH-5, showing declining concentrations with depth from a high of 3,960 mg/kg (1-1.5') to 217 mg/kg (5-5.5') below surface.

Remediation Activities

Based on the results, the area of AH-5 was excavated to a depth of 7.0' below surface. The remaining areas of (AH-2, AH-3 and AH-4) were also excavated to a depth of 1.0' to 1.5' below surface. On June 14, 2007, Highlander collected confirmation samples and stockpile samples. The four sample points (SP-1 through SP-4) were all below the RRAL for TPH and below 250 mg/kg chlorides. The sample points are shown on Figure 3. The results of sampling are summarized in Table 2. Copies of the laboratory reports are included in Appendix B.

Conclusion

Based on the analytical data, the hydrocarbon and chloride impact at the Site has been removed below the RRAL. The excavation will be backfilled with clean fill material. The excavated soil (stockpiles) will be hauled to proper disposal. Based upon the work performed and results of sampling, Cimarex requests closure of this site.

If you have any question or comments concerning the assessment activities performed or work plan at the Site, please call me at (432) 682-4559.

Respectfully submitted,
Highlander Environmental Corp.

Tim Reed

Timothy M. Reed, P.G.
Vice President

cc: Evan Wauhob - Cimarex
Bob Jennings - Cimarex

SITE INFORMATION

REPORT TYPE: Closure Report

Report Date: August 10, 2007

General Site Information:

Site:	**Cooper 4-1 SWD**
Company:	**Cimarex Energy Company**
Section, Township and Range	**Section 4, T20S, R37E**
Unit Letter:	C
Lease Number:	-
County:	Lea
GPS:	32° 36'.447", 103° 57'.539"
Surface Owner:	Jimmy Cooper
Mineral Owner:	-
Directions:	From Monument, New Mexico go 1.2 miles south on 18, turn left (east) into lease and
	go 0.3 miles, turn left (north) go 1.0 miles to facility.

Release Data:

Date Released:	2/12/2007
Type Release:	Oil and produced water
Source of Contamination:	SWD - tank overflow
Fluid Released:	43 barrels
Fluids Recovered:	43 barrels

Official Communication

Name:	Evans Wauhob	Hugo Naegele	Ike Tavarez
Company:	Cimarex (Gruy)	Cimarex Energy Company	Highlander Environmental Corp.
Address:	508 W. Wall St. Suite 600	300 Texas Ave.	1910 N. Big Spring
P.O. Box		P.O. Box 1237	
City:	Midland, Texas	Eunice, New Mexico	Midland, Texas
Phone number:	(505) 571-7800	(505) 394- 0617	(432) 692- 4559
Fax:	(505) 571-7832	(505) 394-0613	(432) 682-3946
Email:	ewauhob@cimarex.com	hnaegele@cimarex.com	itavarez@hec-enviro.com

Ranking Criteria

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

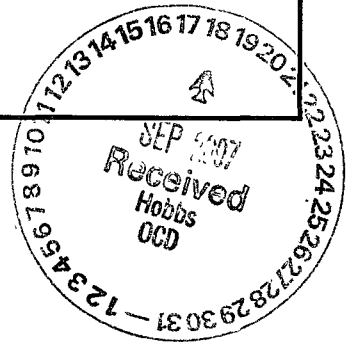
WellHead Protection:	***Ranking Score***	***Site Data***
Water Source <1,000 ft., Private <200 ft.	*20*	*None*
Water Source >1,000 ft., Private >200 ft.	***0***	

Surface Body of Water:	***Ranking Score***	***Site Data***
<200 ft.	*20*	*None*
200 ft - 1,000 ft.	10	*None*
>1,000 ft.	**0**	

Total Ranking Score:	**20**

Acceptable Soil RRAL (mg/kg)

Benzene	*Total BTEX*	*TPH*
10	**50**	**100**



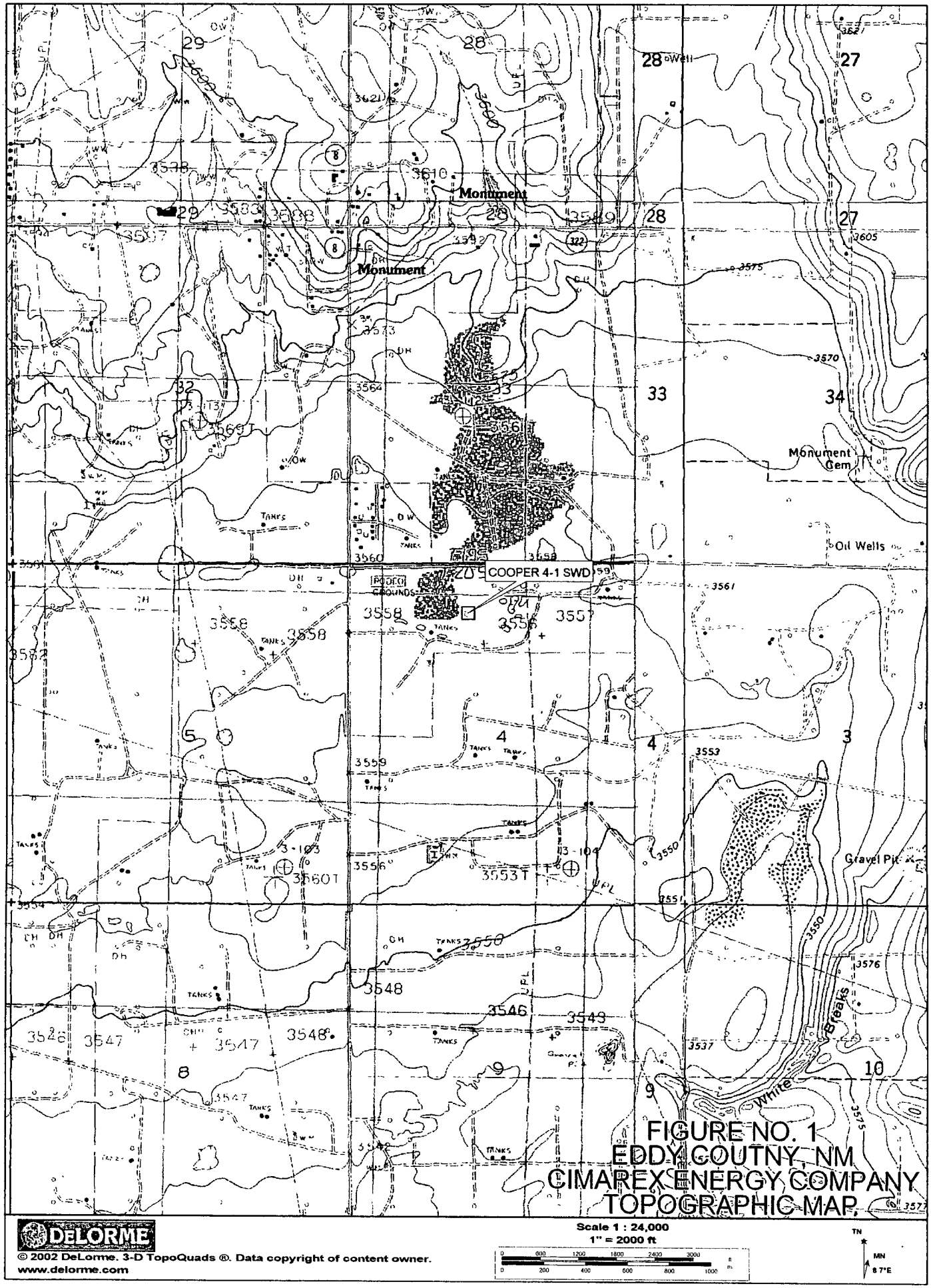
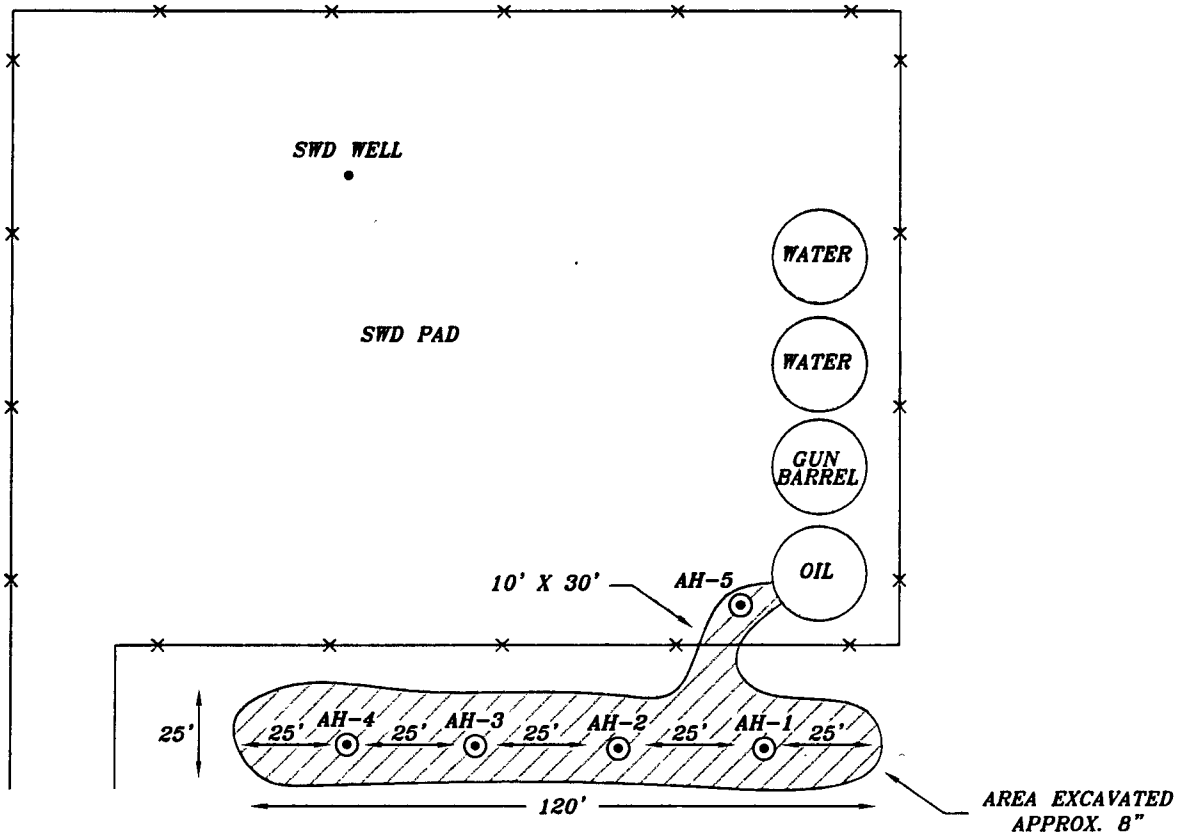


FIGURE NO. 1
EDDY COUTNY, NM
CIMAREX ENERGY COMPANY
TOPOGRAPHIC MAP



SPILL & EXCAVATED AREA

SAMPLE LOCATION

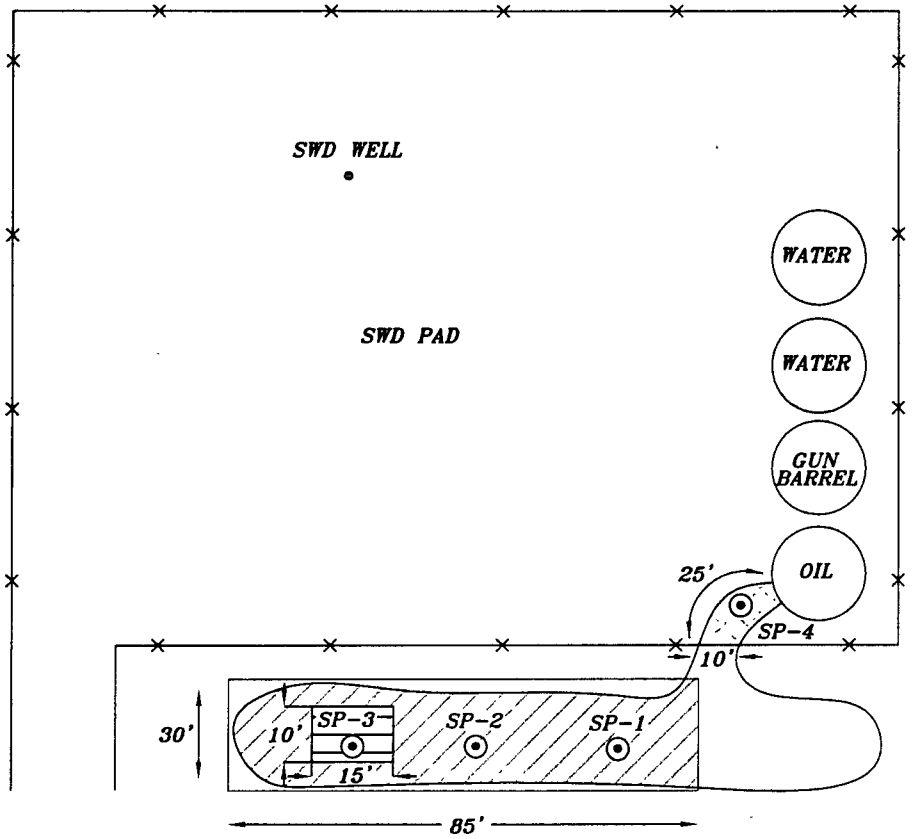
FIGURE NO. 2

LEA COUNTY, NEW MEXICO

CIMAREX ENERGY COMPANY
COOPER 4-1 SWD

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

DATE: 3/23/07
DWN. BY. JJ
FILE. C:\CIMAREX\2878\NESTE WILLIAMS



EXCAVATED AREA 1.5'

EXCAVATED AREA 1'

EXCAVATED AREA 7'

SAMPLE POINT

FIGURE NO. 3

LEA COUNTY, NEW MEXICO

CIMAREX ENERGY COMPANY
COOPER 4-1 SWD

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

DATE: 7/27/07

DWN. BY. RC

FILE: C:\CIMAREX\2955\COOPER 4-1

Table 1
Cimarex Energy - Cooper 4-1 SWD
Lea County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			DRO	GRO	Total					
AH-1	2/28/2007	0-1	<50.0	3.39	3.39	-	-	-	-	21.6
		1-1.5	-	-	-	-	-	-	-	17.7
AH-2	2/28/2007	0-1	<50.0	164	164	-	-	-	-	116
		1-1.5	<50.0	<1.0	<50.0	-	-	-	-	23.4
AH-3	2/28/2007	0-1	88.5	335	**423.5**	-	-	-	-	104
		1-1.5	<50.0	<1.0	<50.0	-	-	-	-	12.8
AH-4	2/28/2007	0-1	553	428	**981**	<0.05	0.757	1.49	5.53	**680**
		1-1.5	<50.0	1.16	1.16	-	-	-	-	40.7
AH-5	2/28/2007	0-1	1,590	1,370	**2,960**	**9.39**	**139**	**76.2**	**368**	**2,350**
		1-1.5	<50.0	11.7	11.7	<0.01	<0.01	<0.01	0.0452	**3,960**
		2-2.5	-	-	-	-	-	-	-	**2,090**
		3-3.5	-	-	-	-	-	-	-	**2,340**
		4-4.5	-	-	-	-	-	-	-	**1,050**
		5-5.5	-	-	-	-	-	-	-	217
Stockpile (east)	2/28/2007	composite	3,980	2,000	**5,980**	-	-	-	-	**2,950**
Stockpile (west)	2/28/2007	composite	4,230	728	**4,958**	-	-	-	-	**4,090**

Table 2
Cimarex Energy - Cooper 4-1 SWD
Lea County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			DRO	GRO	Total					
SP#1 0-1.0' BEB	6/14/2007	1.0'	<50.0	1.51	1.51	<0.0100	<0.0100	<0.0100	<0.0100	93.4
SP#2 0-1.0' BEB	6/14/2007	1.0'	<50.0	<1.00	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	147
SP#3 0-1.0' BEB	6/14/2007	1.5'	<50.0	<1.00	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	95.8
SP#4 0-1.0' BEB	6/14/2007	7.0'	<50.0	19.4	19.4	<0.0100	<0.0100	0.127	0.132	103
Stockpile Pasture #1	6/14/2007	Composite	682	26.5	708.5	-	-	-	-	1,520
Stockpile Pasture #2	6/14/2007	Composite	1,270	38.1	1,308.1	-	-	-	-	1,250
Stockpile Pad #1	6/14/2007	Composite	503	14.2	517.2	-	-	-	-	785
Stockpile Pad #2	6/14/2007	Composite	50.1	11.5	61.6	-	-	-	-	636
Stockpile Pad #3	6/14/2007	Composite	161	10.4	171.4	-	-	-	-	664

(-) Did not Analyze

Water Well Data
Average Depth to Groundwater (ft)
Cimarex - Cooper 4-1 SWD, Lea County, New Mexico

19 South 36 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

19 South 37 East

6 **50**	5	4 **39**	3 **41**	2	1 **34**
7 **43**	8 **42**	9	10 **43**	11 **22**	12 **63**
18 **53**	17 **65**	16 **39**	15 **46**	14 **20**	13 **46**
19 **48**	20	21 **33**	22 **38**	23	24 **48**
30 **20**	29 Monument	28 **30**	27 **29**	26	25
31 **24**	32 **29**	33 **32**	34 **22**	35	36

19 South 38 East

6	5	4	3 Hobbs	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

20 South 36 East

6 **32**	5 **28**	4	3	2 **92**	1 **40**
7	8 **33**	9 **38**	10	11 **32**	12 **29**
18 **34**	17	16	15	14 **45**	13
19	20	21	22	23	24
30	29	28	27	26 **106** **170**	25
31	32 **170**	33	34	35 **122**	36

20 South 37 East

6 **37**	5 **38**	4 **22** SITE	3	2	1
7 **36**	8 **35**	9	10	11	12
18	17	16	15	14	13 **78**
19 **35**	20	21	22	23	24
30	29	28 **40**	27	26	25
31	32	33 **198**	34	35	36

20 South 38 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

21 South 35 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

21 South 36 East

6	5	4	3	2	1
7	8	9	10 **200**	11	12
18 **106**	17	16 **195**	15	14	13
19	20	21	22	23 **130** **150**	24
30	29	28	27	26 **150**	25 **148**
31	32	33	34	35	36

21 South 37 East

6 **73**	5	4 **75**	3	2	1
7	8	9	10	11	12
18	17 **71**	16 **70**	15	14	13
19	20 **98**	21	22 **53**	23	24
30	29 **85**	28 **71**	27 **76**	26	25
31	32	33 **100**	34 Eunice	35	36

88 New Mexico State Engineers Well Reports
105 USGS Well Reports
90 Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)
Geology and Groundwater Resources of Eddy County, NM (Report 3)

34 NMOCD - Groundwater Data

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 20S Range: 37E Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic
◉ All

POD / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 03/09/2007

							(Depth Water in Feet)		
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
L	20S	37E	04				1	22	22	22
L	20S	37E	05				7	32	46	38
L	20S	37E	06				8	35	40	37
L	20S	37E	07				4	34	38	36
L	20S	37E	08				10	30	38	35
L	20S	37E	13				2	70	85	78
L	20S	37E	19				6	35	35	35
L	20S	37E	28				2	40	40	40
L	20S	37E	33				2	120	275	198

Record Count: 42

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 19S Range: 37E Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○Non-Domestic ○Domestic
◉All

POD / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 03/09/2007

								(Depth Water in Feet)		
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
L	19S	37E	01				4	32	35	34
L	19S	37E	03				3	40	42	41
L	19S	37E	04				7	23	65	39
L	19S	37E	06				2	50	50	50
L	19S	37E	07				6	35	50	43
L	19S	37E	08				2	42	42	42
L	19S	37E	10				8	26	35	33
L	19S	37E	11				1	22	22	22
L	19S	37E	12				2	63	63	63
L	19S	37E	13				2	27	65	46
L	19S	37E	14				2	20	20	20
L	19S	37E	15				6	44	50	46
L	19S	37E	16				5	20	45	39
L	19S	37E	17				1	65	65	65
L	19S	37E	18				2	35	70	53
L	19S	37E	19				3	40	52	48
L	19S	37E	21				8	22	47	33
L	19S	37E	22				4	35	40	38
L	19S	37E	24				2	48	48	48
L	19S	37E	27				3	18	35	29
L	19S	37E	28				3	30	31	30
L	19S	37E	29				8	18	22	20
L	19S	37E	30				9	20	23	20
L	19S	37E	31				2	20	27	24
L	19S	37E	32				6	25	35	29
L	19S	37E	33				20	13	43	32
L	19S	37E	34				5	20	25	22

Record Count: 126

Summary Report

Ike Tavarez
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: March 9, 2007

Work Order: 7030135

Project Location: Lea County, NM
Project Name: Cooper 4-1 SWD
Project Number: 2955

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
117856	AH-1 0-1	soil	2007-02-28	00:00	2007-03-01
117857	AH-1 1-1.5	soil	2007-02-28	00:00	2007-03-01
117859	AH-2 0-1	soil	2007-02-28	00:00	2007-03-01
117860	AH-2 1-1.5	soil	2007-02-28	00:00	2007-03-01
117862	AH-3 0-1	soil	2007-02-28	00:00	2007-03-01
117863	AH-3 1-1.5	soil	2007-02-28	00:00	2007-03-01
117865	AH-4 0-1	soil	2007-02-28	00:00	2007-03-01
117866	AH-4 1-1.5	soil	2007-02-28	00:00	2007-03-01
117868	AH-5 0-1	soil	2007-02-28	00:00	2007-03-01
117869	AH-5 1-1.5	soil	2007-02-28	00:00	2007-03-01
117870	AH-5 2-2.5	soil	2007-02-28	00:00	2007-03-01
117871	AH-5 3-3.5	soil	2007-02-28	00:00	2007-03-01
117872	AH-5 4-4.5	soil	2007-02-28	00:00	2007-03-01
117873	AH-5 5-5.5	soil	2007-02-28	00:00	2007-03-01
117874	Stockpile East	soil	2007-02-28	00:00	2007-03-01
117875	Stockpile West	soil	2007-02-28	00:00	2007-03-01

	BTEX				MTBE	TPH DRO	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
117856 - AH-1 0-1						<50.0	**3.39**
117859 - AH-2 0-1						<50.0	**164**
117862 - AH-3 0-1						**88.5**	**335**
117865 - AH-4 0-1	<0.0500	**0.757**	**1.49**	**5.53**		**553**	**428**
117868 - AH-5 0-1	**9.39**	**139**	**76.2**	**368**		**1590**	**1370**
117869 - AH-5 1-1.5						<50.0	**11.7**
117874 - Stockpile East						**3980**	**2000**
117875 - Stockpile West						**4230**	**728**

Sample: 117856 - AH-1 0-1

Param	Flag	Result	Units	RL
Chloride		**21.6**	mg/Kg	1.00

Sample: 117857 - AH-1 1-1.5

Param	Flag	Result	Units	RL
Chloride		**17.7**	mg/Kg	1.00

Sample: 117859 - AH-2 0-1

Param	Flag	Result	Units	RL
Chloride		**116**	mg/Kg	1.00

Sample: 117860 - AH-2 1-1.5

Param	Flag	Result	Units	RL
Chloride		**23.4**	mg/Kg	1.00

Sample: 117862 - AH-3 0-1

Param	Flag	Result	Units	RL
Chloride		**104**	mg/Kg	1.00

Sample: 117863 - AH-3 1-1.5

Param	Flag	Result	Units	RL
Chloride		**12.8**	mg/Kg	1.00

Sample: 117865 - AH-4 0-1

Param	Flag	Result	Units	RL
Chloride		**680**	mg/Kg	1.00

Sample: 117866 - AH-4 1-1.5

Param	Flag	Result	Units	RL
Chloride		**40.7**	mg/Kg	1.00

Sample: 117868 - AH-5 0-1

Param	Flag	Result	Units	RL
Chloride		**2350**	mg/Kg	1.00

Sample: 117869 - AH-5 1-1.5

Param	Flag	Result	Units	RL
Chloride		**3960**	mg/Kg	1.00

Sample: 117870 - AH-5 2-2.5

Param	Flag	Result	Units	RL
Chloride		**2090**	mg/Kg	1.00

Sample: 117871 - AH-5 3-3.5

Param	Flag	Result	Units	RL
Chloride		**2340**	mg/Kg	1.00

Sample: 117872 - AH-5 4-4.5

Param	Flag	Result	Units	RL
Chloride		**1050**	mg/Kg	1.00

Sample: 117873 - AH-5 5-5.5

Param	Flag	Result	Units	RL
Chloride		**217**	mg/Kg	1.00

Sample: 117874 - Stockpile East

Param	Flag	Result	Units	RL
Chloride		**2950**	mg/Kg	1.00

Sample: 117875 - Stockpile West

Param	Flag	Result	Units	RL
Chloride		**4090**	mg/Kg	1.00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1299
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway Suite 110 Ft Worth Texas 76132 817•201•5260
E-Mail lab@traceanalysis.com

Analytical and Quality Control Report

Ike Tavarez
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: March 9, 2007

Work Order: 7030135

Project Location: Lea County, NM
Project Name: Cooper 4-1 SWD
Project Number: 2955

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
117856	AH-1 0-1	soil	2007-02-28	00:00	2007-03-01
117857	AH-1 1-1.5	soil	2007-02-28	00:00	2007-03-01
117859	AH-2 0-1	soil	2007-02-28	00:00	2007-03-01
117860	AH-2 1-1.5	soil	2007-02-28	00:00	2007-03-01
117862	AH-3 0-1	soil	2007-02-28	00:00	2007-03-01
117863	AH-3 1-1.5	soil	2007-02-28	00:00	2007-03-01
117865	AH-4 0-1	soil	2007-02-28	00:00	2007-03-01
117866	AH-4 1-1.5	soil	2007-02-28	00:00	2007-03-01
117868	AH-5 0-1	soil	2007-02-28	00:00	2007-03-01
117869	AH-5 1-1.5	soil	2007-02-28	00:00	2007-03-01
117870	AH-5 2-2.5	soil	2007-02-28	00:00	2007-03-01
117871	AH-5 3-3.5	soil	2007-02-28	00:00	2007-03-01
117872	AH-5 4-4.5	soil	2007-02-28	00:00	2007-03-01
117873	AH-5 5-5.5	soil	2007-02-28	00:00	2007-03-01
117874	Stockpile East	soil	2007-02-28	00:00	2007-03-01
117875	Stockpile West	soil	2007-02-28	00:00	2007-03-01

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

Michael Abel

Dr. Blair Leftwich, Director

Standard Flags

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

Analytical Report

Sample: 117856 - AH-1 0-1

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	35318	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30650	Sample Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**21.6**		mg/Kg	5	1.00

Sample: 117856 - AH-1 0-1

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	35177	Date Analyzed:	2007-03-02	Analyzed By:	WR
Prep Batch:	30530	Sample Preparation:	2007-03-01	Prepared By:	WR

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		217	mg/Kg	1	150	145	32.9 - 167

Sample: 117856 - AH-1 0-1

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	35184	Date Analyzed:	2007-03-02	Analyzed By:	ss
Prep Batch:	30535	Sample Preparation:	2007-03-02	Prepared By:	ss

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		**3.39**		mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.833	mg/Kg	1	1.00	83	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.18	mg/Kg	1	1.00	118	67.5 - 140.3

Sample: 117857 - AH-1 1-1.5

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	35318	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30650	Sample Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**17.7**		mg/Kg	5	1.00

Sample: 117859 - AH-2 0-1

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	35318	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30650	Sample Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	Result	RL Result	Units	Dilution	RL
Chloride		**116**		mg/Kg	5	1.00

Sample: 117859 - AH-2 0-1

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	35177	Date Analyzed:	2007-03-02	Analyzed By:	WR
Prep Batch:	30530	Sample Preparation:	2007-03-01	Prepared By:	WR

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		186	mg/Kg	1	150	124	32.9 - 167

Sample: 117859 - AH-2 0-1

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	35248	Date Analyzed:	2007-03-05	Analyzed By:	ss
Prep Batch:	30595	Sample Preparation:	2007-03-05	Prepared By:	ss

Parameter	Flag	Result	RL Result	Units	Dilution	RL
GRO			**164**	mg/Kg	5	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4.36	mg/Kg	5	5.00	87	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		6.81	mg/Kg	5	5.00	136	67.5 - 140.3

Sample: 117860 - AH-2 1-1.5

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	35318	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30650	Sample Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	Result	RL Result	Units	Dilution	RL
Chloride		**23.4**		mg/Kg	5	1.00

Sample: 117862 - AH-3 0-1

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	35318	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30650	Sample Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		104	mg/Kg	5	1.00

Sample: 117862 - AH-3 0-1

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	35177	Date Analyzed:	2007-03-02	Analyzed By:	WR
Prep Batch:	30530	Sample Preparation:	2007-03-01	Prepared By:	WR

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		197	mg/Kg	1	150	131	32.9 - 167

Sample: 117862 - AH-3 0-1

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	35248	Date Analyzed:	2007-03-05	Analyzed By:	ss
Prep Batch:	30595	Sample Preparation:	2007-03-05	Prepared By:	ss

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		335	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		8.86	mg/Kg	10	10.0	89	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)	[1]	14.2	mg/Kg	10	10.0	142	67.5 - 140.3

Sample: 117863 - AH-3 1-1.5

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	35319	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30652	Sample Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride	*B*	12.8	mg/Kg	5	1.00

[1] High surrogate recovery due to peak interference.

Sample: 117865 - AH-4 0-1

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	35249	Date Analyzed:	2007-03-05	Analyzed By:	ss
Prep Batch:	30597	Sample Preparation:	2007-03-05	Prepared By:	ss

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene	[2]	<0.0500		mg/Kg	5	0.0100
Toluene		**0.757**		mg/Kg	5	0.0100
Ethylbenzene		**1.49**		mg/Kg	5	0.0100
Xylene		**5.53**		mg/Kg	5	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5.03	mg/Kg	5	5.00	101	26 - 117.8
4-Bromofluorobenzene (4-BFB)	[3]	6.22	mg/Kg	5	5.00	124	51.1 - 119.1

Sample: 117865 - AH-4 0-1

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	35364	Date Analyzed:	2007-03-08	Analyzed By:	AR
Prep Batch:	30694	Sample Preparation:	2007-03-07	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**680**		mg/Kg	50	1.00

Sample: 117865 - AH-4 0-1

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	35177	Date Analyzed:	2007-03-02	Analyzed By:	WR
Prep Batch:	30530	Sample Preparation:	2007-03-01	Prepared By:	WR

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		**553**		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		203	mg/Kg	1	150	135	32.9 - 167

Sample: 117865 - AH-4 0-1

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	35291	Date Analyzed:	2007-03-06	Analyzed By:	ss
Prep Batch:	30630	Sample Preparation:	2007-03-06	Prepared By:	ss

continued ...

[2]Sample ran at dilution due to hydrocarbons with a retention time greater than xylene
[3]High surrogate recovery due to peak interference.

sample 117865 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**428**	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		6.82	mg/Kg	10	10.0	68	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)	[4]	17.9	mg/Kg	10	10.0	179	67.5 - 140.3

Sample: 117866 - AH-4 1-1.5

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	35319	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30652	Sample Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**40.7**	mg/Kg	5	1.00

Sample: 117868 - AH-5 0-1

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	35249	Date Analyzed:	2007-03-05	Analyzed By:	ss
Prep Batch:	30597	Sample Preparation:	2007-03-05	Prepared By:	ss

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		**9.39**	mg/Kg	10	0.0100
Toluene		**139**	mg/Kg	10	0.0100
Ethylbenzene		**76.2**	mg/Kg	10	0.0100
Xylene		**368**	mg/Kg	10	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		7.11	mg/Kg	10	10.0	71	26 - 117.8
4-Bromofluorobenzene (4-BFB)	[5]	26.6	mg/Kg	10	10.0	266	51.1 - 119.1

Sample: 117868 - AH-5 0-1

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	35319	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30652	Sample Preparation:	2007-03-06	Prepared By:	AR

continued ..

[4]High surrogate recovery due to peak interference.
[5]High surrogate recovery due to peak interference

sample 117868 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2350**	mg/Kg	100	1.00

Sample: 117868 - AH-5 0-1

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	35179	Date Analyzed:	2007-03-02	Analyzed By:	WR
Prep Batch:	30530	Sample Preparation:	2007-03-01	Prepared By:	WR

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**1590**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[6]	471	mg/Kg	1	150	314	32.9 - 167

Sample: 117868 - AH-5 0-1

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	35291	Date Analyzed:	2007-03-06	Analyzed By:	ss
Prep Batch:	30630	Sample Preparation:	2007-03-06	Prepared By:	ss

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**1370**	mg/Kg	50	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		43.1	mg/Kg	50	50.0	86	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		58.5	mg/Kg	50	50.0	117	67.5 - 140.3

Sample: 117869 - AH-5 1-1.5

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	35319	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30652	Sample Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**3960**	mg/Kg	500	1.00

[6]High surrogate recovery. Sample non-detect, result bias high.

Sample: 117869 - AH-5 1-1.5

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	35179	Date Analyzed:	2007-03-02	Analyzed By:	WR
Prep Batch:	30530	Sample Preparation:	2007-03-01	Prepared By:	WR

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		197	mg/Kg	1	150	131	32.9 - 167

Sample: 117869 - AH-5 1-1.5

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	35185	Date Analyzed:	2007-03-02	Analyzed By:	ss
Prep Batch:	30536	Sample Preparation:	2007-03-02	Prepared By:	ss

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO	B	**11.7**		mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.838	mg/Kg	1	1.00	84	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.30	mg/Kg	1	1.00	130	67.5 - 140.3

Sample: 117870 - AH-5 2-2.5

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	35319	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30652	Sample Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**2090**		mg/Kg	100	1.00

Sample: 117871 - AH-5 3-3.5

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	35321	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30653	Sample Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**2340**		mg/Kg	100	1.00

Sample: 117872 - AH-5 4-4.5

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	35321	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30653	Sample Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**1050**	mg/Kg	50	1.00

Sample: 117873 - AH-5 5-5.5

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	35321	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30653	Sample Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**217**	mg/Kg	10	1.00

Sample: 117874 - Stockpile East

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	35321	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30653	Sample Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**2950**	mg/Kg	100	1.00

Sample: 117874 - Stockpile East

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	35179	Date Analyzed:	2007-03-02	Analyzed By:	WR
Prep Batch:	30530	Sample Preparation:	2007-03-01	Prepared By:	WR

Parameter	Flag	Result	RL Units	Dilution	RL
DRO		**3980**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[7]	758	mg/Kg	1	150	505	32.9 - 167

Sample: 117874 - Stockpile East

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	35248	Date Analyzed:	2007-03-05	Analyzed By:	ss
Prep Batch:	30595	Sample Preparation:	2007-03-05	Prepared By:	ss

[7] High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**2000**	mg/Kg	50	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		40.0	mg/Kg	50	50.0	80	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)	[8]	83.4	mg/Kg	50	50.0	167	67.5 - 140.3

Sample: 117875 - Stockpile West

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	35321	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30653	Sample Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4090**	mg/Kg	500	1.00

Sample: 117875 - Stockpile West

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	35179	Date Analyzed:	2007-03-02	Analyzed By:	WR
Prep Batch:	30530	Sample Preparation:	2007-03-01	Prepared By:	WR

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**4230**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[9]	769	mg/Kg	1	150	513	32.9 - 167

Sample: 117875 - Stockpile West

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	35291	Date Analyzed:	2007-03-06	Analyzed By:	ss
Prep Batch:	30630	Sample Preparation:	2007-03-06	Prepared By:	ss

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**728**	mg/Kg	20	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		15.6	mg/Kg	20	20.0	78	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)	[10]	30.1	mg/Kg	20	20.0	150	67.5 - 140.3

[8] High surrogate recovery due to peak interference.
[9] High surrogate recovery due to peak interference.
[10] High surrogate recovery due to peak interference.

Method Blank (1) QC Batch: 35177

QC Batch: 35177 | Date Analyzed: 2007-03-02 | Analyzed By: WR
Prep Batch: 30530 | QC Preparation: 2007-03-01 | Prepared By: WR

Parameter	Flag	MDL Result	Units	RL
DRO		<9.07	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		186	mg/Kg	1	150	124	44.7 - 133.6

Method Blank (1) QC Batch: 35179

QC Batch: 35179 | Date Analyzed: 2007-03-02 | Analyzed By: WR
Prep Batch: 30530 | QC Preparation: 2007-03-01 | Prepared By: WR

Parameter	Flag	MDL Result	Units	RL
DRO		<9.07	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		181	mg/Kg	1	150	121	44.7 - 133.6

Method Blank (1) QC Batch: 35184

QC Batch: 35184 | Date Analyzed: 2007-03-02 | Analyzed By: ss
Prep Batch: 30535 | QC Preparation: 2007-03-02 | Prepared By: ss

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.926	mg/Kg	1	1.00	93	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		0.895	mg/Kg	1	1.00	90	67.5 - 140.3

Method Blank (1) QC Batch: 35185

QC Batch: 35185 | Date Analyzed: 2007-03-02 | Analyzed By: ss
Prep Batch: 30536 | QC Preparation: 2007-03-02 | Prepared By: ss

Parameter	Flag	MDL Result	Units	RL
GRO		1.25	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.953	mg/Kg	1	1.00	95	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		0.990	mg/Kg	1	1.00	99	67.5 - 140.3

Method Blank (1) QC Batch: 35248

QC Batch: 35248 | Date Analyzed: 2007-03-05 | Analyzed By: ss
Prep Batch: 30595 | QC Preparation: 2007-03-05 | Prepared By: ss

Parameter	Flag	MDL Result	Units	RL
GRO		1.04	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.929	mg/Kg	1	1.00	93	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		0.999	mg/Kg	1	1.00	100	67.5 - 140.3

Method Blank (1) QC Batch: 35249

QC Batch: 35249 | Date Analyzed: 2007-03-05 | Analyzed By: ss
Prep Batch: 30597 | QC Preparation: 2007-03-05 | Prepared By: ss

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00110	mg/Kg	0.01
Toluene		<0.00150	mg/Kg	0.01
Ethylbenzene		<0.00160	mg/Kg	0.01
Xylene		<0.00410	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.947	mg/Kg	1	1.00	95	62.6 - 117.6
4-Bromofluorobenzene (4-BFB)		0.899	mg/Kg	1	1.00	90	53.9 - 125.1

Method Blank (1) QC Batch: 35291

QC Batch: 35291 | Date Analyzed: 2007-03-06 | Analyzed By: ss
Prep Batch: 30630 | QC Preparation: 2007-03-06 | Prepared By: ss

Parameter	Flag	MDL Result	Units	RL
GRO		2.56	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.897	mg/Kg	1	1.00	90	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.08	mg/Kg	1	1.00	108	67.5 - 140.3

Matrix Blank (1) QC Batch: 35318

QC Batch:	35318	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30650	QC Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		2.24	mg/Kg	1

Matrix Blank (1) QC Batch: 35319

QC Batch:	35319	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30652	QC Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		2.26	mg/Kg	1

Matrix Blank (1) QC Batch: 35321

QC Batch:	35321	Date Analyzed:	2007-03-07	Analyzed By:	AR
Prep Batch:	30653	QC Preparation:	2007-03-06	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		2.32	mg/Kg	1

Matrix Blank (1) QC Batch: 35364

QC Batch:	35364	Date Analyzed:	2007-03-08	Analyzed By:	AR
Prep Batch:	30694	QC Preparation:	2007-03-07	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		2.32	mg/Kg	1

Laboratory Control Spike (LCS-1)

QC Batch:	35177	Date Analyzed:	2007-03-02	Analyzed By:	WR
Prep Batch:	30530	QC Preparation:	2007-03-01	Prepared By:	WR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	181	mg/Kg	1	250	<9.07	72	47.5 - 144.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	192	mg/Kg	1	250	<9.07	77	47.5 - 144.1	6	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	196	180	mg/Kg	1	150	131	120	57.3 - 131.6

Laboratory Control Spike (LCS-1)

QC Batch: 35179 | Date Analyzed: 2007-03-02 | Analyzed By: WR
Prep Batch: 30530 | QC Preparation: 2007-03-01 | Prepared By: WR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	224	mg/Kg	1	250	<9.07	90	47.5 - 144.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	235	mg/Kg	1	250	<9.07	94	47.5 - 144.1	5	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	176	174	mg/Kg	1	150	117	116	57.3 - 131.6

Laboratory Control Spike (LCS-1)

QC Batch: 35184 | Date Analyzed: 2007-03-02 | Analyzed By: ss
Prep Batch: 30535 | QC Preparation: 2007-03-02 | Prepared By: ss

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	7.34	mg/Kg	1	10.0	<0.739	73	57.7 - 102.5

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	7.66	mg/Kg	1	10.0	<0.739	77	57.7 - 102.5	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.18	1.20	mg/Kg	1	1.00	118	120	36.8 - 152.5
4-Bromofluorobenzene (4-BFB)	0.981	0.990	mg/Kg	1	1.00	98	99	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 35185 | Date Analyzed: 2007-03-02 | Analyzed By: ss
Prep Batch: 30536 | QC Preparation: 2007-03-02 | Prepared By: ss

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.46	mg/Kg	1	10.0	1.25	72	57.7 - 102.5

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	7.60	mg/Kg	1	10.0	1.25	64	57.7 - 102.5	11	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)	1.27	1.17	mg/Kg	1	1.00	127	117	36.8 - 152.5
4-Bromofluorobenzene (4-BFB)	1.10	1.03	mg/Kg	1	1.00	110	103	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 35248 | Date Analyzed: 2007-03-05 | Analyzed By: ss
Prep Batch: 30595 | QC Preparation: 2007-03-05 | Prepared By: ss

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	7.76	mg/Kg	1	10.0	1.04	67	57.7 - 102.5

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	7.08	mg/Kg	1	10.0	1.04	60	57.7 - 102.5	9	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.17	0.839	mg/Kg	1	1.00	117	84	36.8 - 152.5
4-Bromofluorobenzene (4-BFB)	1.05	1.07	mg/Kg	1	1.00	105	107	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 35249 | Date Analyzed: 2007-03-05 | Analyzed By: ss
Prep Batch: 30597 | QC Preparation: 2007-03-05 | Prepared By: ss

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.952	mg/Kg	1	1.00	<0.00110	95	68.6 - 123.4
Toluene	0.968	mg/Kg	1	1.00	<0.00150	97	74.6 - 119.3
Ethylbenzene	0.972	mg/Kg	1	1.00	<0.00160	97	72.3 - 126.2

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	2.95	mg/Kg	1	3.00	<0.00410	98	76.5 - 121.6

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.981	mg/Kg	1	1.00	<0.00110	98	68.6 - 123.4	3	20
Toluene	0.998	mg/Kg	1	1.00	<0.00150	100	74.6 - 119.3	3	20
Ethylbenzene	1.01	mg/Kg	1	1.00	<0.00160	101	72.3 - 126.2	4	20
Xylene	3.08	mg/Kg	1	3.00	<0.00410	103	76.5 - 121.6	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.900	0.900	mg/Kg	1	1.00	90	90	64.1 - 118.2
4-Bromofluorobenzene (4-BFB)	0.945	0.963	mg/Kg	1	1.00	94	96	68.7 - 125.8

Laboratory Control Spike (LCS-1)

QC Batch: 35291 | Date Analyzed: 2007-03-06 | Analyzed By: ss
Prep Batch: 30630 | QC Preparation: 2007-03-06 | Prepared By: ss

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	9.39	mg/Kg	1	10.0	2.56	68	57.7 - 102.5

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.17	mg/Kg	1	10.0	2.56	66	57.7 - 102.5	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.26	1.09	mg/Kg	1	1.00	126	109	36.8 - 152.5
4-Bromofluorobenzene (4-BFB)	1.14	1.10	mg/Kg	1	1.00	114	110	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 35318 | Date Analyzed: 2007-03-07 | Analyzed By: AR
Prep Batch: 30650 | QC Preparation: 2007-03-06 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	13.8	mg/Kg	1	12.5	1.3013	100	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	14.0	mg/Kg	1	12.5	1.3013	102	90 - 110	1	

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: 35319 | Date Analyzed: 2007-03-07 | Analyzed By: AR
Prep Batch: 30652 | QC Preparation: 2007-03-06 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	13.8	mg/Kg	1	12.5	1.2944	100	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	14.0	mg/Kg	1	12.5	1.2944	102	90 - 110	1	

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: 35321 | Date Analyzed: 2007-03-07 | Analyzed By: AR
Prep Batch: 30653 | QC Preparation: 2007-03-06 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	14.4	mg/Kg	1	12.5	1.3423	104	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	15.0	mg/Kg	1	12.5	1.3423	109	90 - 110	4	

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: 35364 | Date Analyzed: 2007-03-08 | Analyzed By: AR
Prep Batch: 30694 | QC Preparation: 2007-03-07 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	13.7	mg/Kg	1	12.5	1.3521	99	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec..	Rec. Limit	RPD	RPD Limit
Chloride	14.3	mg/Kg	1	12.5	1.3521	104	90 - 110	4	

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

Matrix Spike (MS-1) Spiked Sample: 117845

QC Batch: 35177 | Date Analyzed: 2007-03-02 | Analyzed By: WR
Prep Batch: 30530 | QC Preparation: 2007-03-01 | Prepared By: WR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	122	mg/Kg	1	250	<9.07	49	11.7 - 152.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	134	mg/Kg	1	250	<9.07	54	11.7 - 152.3	9	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	172	172	mg/Kg	1	150	115	115	17 - 163.1

Matrix Spike (MS-1) Spiked Sample: 117869

QC Batch: 35179 | Date Analyzed: 2007-03-02 | Analyzed By: WR
Prep Batch: 30530 | QC Preparation: 2007-03-01 | Prepared By: WR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	242	mg/Kg	1	250	<9.07	97	11.7 - 152.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	246	mg/Kg	1	250	<9.07	98	11.7 - 152.3	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	188	185	mg/Kg	1	150	125	123	17 - 163.1

Matrix Spike (MS-1) Spiked Sample: 117844

QC Batch: 35184 | Date Analyzed: 2007-03-02 | Analyzed By: ss
Prep Batch: 30535 | QC Preparation: 2007-03-02 | Prepared By: ss

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	11.3	mg/Kg	1	10.0	<0.739	113	10 - 141.5

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	11.1	mg/Kg	1	10.0	<0.739	111	10 - 141.5	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
Trifluorotoluene (TFT)	0.659	0.660	mg/Kg	1	1	66	66	40 - 125.3
4-Bromofluorobenzene (4-BFB)	1.42	1.39	mg/Kg	1	1	142	139	86.7 - 144.5

Matrix Spike (MS-1) Spiked Sample: 117854

QC Batch: 35185 | Date Analyzed: 2007-03-02 | Analyzed By: ss
Prep Batch: 30536 | QC Preparation: 2007-03-02 | Prepared By: ss

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	6.58	mg/Kg	1	10.0	<0.739	66	10 - 141.5

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	7.98	mg/Kg	1	10.0	<0.739	80	10 - 141.5	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)	0.773	0.670	mg/Kg	1	1	77	67	40 - 125.3
4-Bromofluorobenzene (4-BFB)	1.14	1.15	mg/Kg	1	1	114	115	86.7 - 144.5

Matrix Spike (MS-1) Spiked Sample: 118076

QC Batch: 35248 | Date Analyzed: 2007-03-05 | Analyzed By: ss
Prep Batch: 30595 | QC Preparation: 2007-03-05 | Prepared By: ss

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO [11]	7.58	mg/Kg	1	10.0	7.58	0	10 - 141.5

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO [12]	7.64	mg/Kg	1	10.0	7.58	0	10 - 141.5	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.696	0.688	mg/Kg	1	1	70	69	40 - 125.3

continued ...

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

matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	1.24	1.20	mg/Kg	1	1	124	120	86.7 - 144.5

Matrix Spike (MS-1) Spiked Sample: 118076

QC Batch: 35249 | Date Analyzed: 2007-03-05 | Analyzed By: ss
Prep Batch: 30597 | QC Preparation: 2007-03-05 | Prepared By: ss

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	[13]	1.17	mg/Kg	1	1.00	<0.00110	117	64.4 - 115.7
Toluene		1.21	mg/Kg	1	1.00	<0.00150	121	57.8 - 124.4
Ethylbenzene		1.24	mg/Kg	1	1.00	<0.00160	124	64.8 - 125.8
Xylene	[14]	3.81	mg/Kg	1	3.00	0.1083	123	65.2 - 121.8

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.01	mg/Kg	1	1.00	<0.00110	101	64.4 - 115.7	15	20
Toluene	1.07	mg/Kg	1	1.00	<0.00150	107	57.8 - 124.4	12	20
Ethylbenzene	1.10	mg/Kg	1	1.00	<0.00160	110	64.8 - 125.8	12	20
Xylene	3.36	mg/Kg	1	3.00	0.1083	108	65.2 - 121.8	13	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)	0.888	0.883	mg/Kg	1	1	89	88	52.8 - 121.7
4-Bromofluorobenzene (4-BFB)	0.970	0.939	mg/Kg	1	1	97	94	66.7 - 131.9

Matrix Spike (MS-1) Spiked Sample: 118078

QC Batch: 35291 | Date Analyzed: 2007-03-06 | Analyzed By: ss
Prep Batch: 30630 | QC Preparation: 2007-03-06 | Prepared By: ss

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	[15]	258	mg/Kg	10	100	258	0	10 - 141.5

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	[16]	322	mg/Kg	10	100	258	0	10 - 141.5	22	20

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

[13] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[14] Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[15] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[16] Matrix spike recovery out of control limits due to matrix interference Use LCS/LCSD to demonstrate analysis is under control.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	8.08	7.61	mg/Kg	10	10	81	76	40 - 125.3
4-Bromofluorobenzene (4-BFB) [17]	12.2	16.9	mg/Kg	10	10	122	169	86.7 - 144.5

Matrix Spike (MS-1) Spiked Sample: 117862

QC Batch: 35318 | Date Analyzed: 2007-03-07 | Analyzed By: AR
Prep Batch: 30650 | QC Preparation: 2007-03-06 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	166	mg/Kg	5	62.5	103.909	99	90 - 110

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	162	mg/Kg	5	62.5	103.909	93	90 - 110	2	

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

Matrix Spike (MS-1) Spiked Sample: 117863

QC Batch: 35319 | Date Analyzed: 2007-03-07 | Analyzed By: AR
Prep Batch: 30652 | QC Preparation: 2007-03-06 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	71.5	mg/Kg	5	62.5	12.7768	94	90 - 110

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	70.9	mg/Kg	5	62.5	12.7768	93	90 - 110	1	

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

Matrix Spike (MS-1) Spiked Sample: 117874

QC Batch: 35321 | Date Analyzed: 2007-03-07 | Analyzed By: AR
Prep Batch: 30653 | QC Preparation: 2007-03-06 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride [18]	3180	mg/Kg	5	62.5	3492.94	-499	90 - 110

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

[17] High surrogate recovery due to peak interference.
[18] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	[19]	3210	mg/Kg	5	62.5	3492.94	-451	90 - 110	1	

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

Matrix Spike (MS-1) Spiked Sample: 118083

QC Batch: 35364 | Date Analyzed: 2007-03-08 | Analyzed By: AR
Prep Batch: 30694 | QC Preparation: 2007-03-07 | Prepared By: AR

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	[20]	182	mg/Kg	5	62.5	29.0917	245	90 - 110

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	[21]	81.0	mg/Kg	5	62.5	29.0917	83	90 - 110	77	

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

Standard (CCV-2)

QC Batch: 35177 | Date Analyzed: 2007-03-02 | Analyzed By: WR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	245	98	85 - 115	2007-03-02

Standard (CCV-3)

QC Batch: 35177 | Date Analyzed: 2007-03-02 | Analyzed By: WR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	215	86	85 - 115	2007-03-02

Standard (ICV-1)

QC Batch: 35179 | Date Analyzed: 2007-03-02 | Analyzed By: WR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	219	88	85 - 115	2007-03-02

[19]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[20]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[21]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control

Standard (CCV-1)

QC Batch: 35179 Date Analyzed: 2007-03-02 Analyzed By: WR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	224	90	85 - 115	2007-03-02

Standard (ICV-1)

QC Batch: 35184 Date Analyzed: 2007-03-02 Analyzed By: ss

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.14	114	85 - 115	2007-03-02

Standard (CCV-1)

QC Batch: 35184 Date Analyzed: 2007-03-02 Analyzed By: ss

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.07	107	85 - 115	2007-03-02

Standard (ICV-1)

QC Batch: 35185 Date Analyzed: 2007-03-02 Analyzed By: ss

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.06	106	85 - 115	2007-03-02

Standard (CCV-1)

QC Batch: 35185 Date Analyzed: 2007-03-02 Analyzed By: ss

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.02	102	85 - 115	2007-03-02

Standard (ICV-1)

QC Batch: 35248 Date Analyzed: 2007-03-05 Analyzed By: ss

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.01	101	85 - 115	2007-03-05

Standard (CCV-1)

QC Batch: 35248 Date Analyzed: 2007-03-05 Analyzed By: ss

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.00	100	85 - 115	2007-03-05

Standard (ICV-1)

QC Batch: 35249 Date Analyzed: 2007-03-05 Analyzed By: ss

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0961	96	85 - 115	2007-03-05
Toluene		mg/Kg	0.100	0.0978	98	85 - 115	2007-03-05
Ethylbenzene		mg/Kg	0.100	0.0980	98	85 - 115	2007-03-05
Xylene		mg/Kg	0.300	0.298	99	85 - 115	2007-03-05

Standard (CCV-1)

QC Batch: 35249 Date Analyzed: 2007-03-05 Analyzed By: ss

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0954	95	85 - 115	2007-03-05
Toluene		mg/Kg	0.100	0.0979	98	85 - 115	2007-03-05
Ethylbenzene		mg/Kg	0.100	0.0965	96	85 - 115	2007-03-05
Xylene		mg/Kg	0.300	0.293	98	85 - 115	2007-03-05

Standard (ICV-1)

QC Batch: 35291 Date Analyzed: 2007-03-06 Analyzed By: ss

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.06	106	85 - 115	2007-03-06

Standard (CCV-1)

QC Batch: 35291 Date Analyzed: 2007-03-06 Analyzed By: ss

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.07	107	85 - 115	2007-03-06

Standard (ICV-1)

QC Batch: 35318 Date Analyzed: 2007-03-07 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	11.8	95	90 - 110	2007-03-07

Standard (CCV-1)

QC Batch: 35318 Date Analyzed: 2007-03-07 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	11.8	94	90 - 110	2007-03-07

Standard (ICV-1)

QC Batch: 35319 Date Analyzed: 2007-03-07 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	11.8	94	90 - 110	2007-03-07

Standard (CCV-1)

QC Batch: 35319 Date Analyzed: 2007-03-07 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	11.8	94	90 - 110	2007-03-07

Standard (ICV-1)

QC Batch: 35321 Date Analyzed: 2007-03-07 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	11.8	94	90 - 110	2007-03-07

Standard (CCV-1)

QC Batch: 35321 | Date Analyzed: 2007-03-07 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	12.0	96	90 - 110	2007-03-07

Standard (ICV-1)

QC Batch: 35364 | Date Analyzed: 2007-03-08 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	12.0	96	90 - 110	2007-03-08

Standard (CCV-1)

QC Batch: 35364 | Date Analyzed: 2007-03-08 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	11.4	91	90 - 110	2007-03-08

7030135

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: Cimarex | SITE MANAGER: Ike Tavarez

PROJECT NO.: 2955 | PROJECT NAME: Cimarex / Cooper 4-1 SWD Lea county, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	ANALYSIS REQUEST (Circle or Specify Method No.): BTEX 8020/602	MTBE 8020/802	TPH 8015 MOD. TX1005	TPH 418.1	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. 608/608	BOD, TSS, pH, TDS, Chlorides	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
117866	2/28/07		S		X	AH-4 1'-1.5'	1				X																X			
867			S		X	AH-4 2'-2.5'	1				X																				
868			S		X	AH-5 0-1.0'	1				X				X												X			
869			S		X	AH-5 1'-1.5'	1				X				X												X			
870			S		X	AH-5 2'-2.5'	1				X																X			
871			S		X	AH-5 3'-3.5'	1				X																X			
872			S		X	AH-5 4'-4.5'	1				X																X			
873			S		X	AH-5 5'-5.5'	1				X																X			
874			S	X		Stockpile East	1				X				X												X			
875			S	X		Stockpile West	1				X				X												X			

RELINQUISHED BY: (Signature) Date: 3/1/07 Time: 1:45 | RECEIVED BY: (Signature) Date: Time: | SAMPLED BY: (Print & Sign) Ray Taylor & Kolt Harrison Date: 3/1/07 Time:

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

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

RECEIVING LABORATORY: Xenco Lab ADDRESS: Odessa Midland CITY: STATE: TX ZIP: CONTACT: PHONE:

RECEIVED BY: (Signature) Jacob London DATE: 3-1-07 TIME: 1:45

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 4° NO

MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other

REMARKS: all tests - Midland

Please Fill out all copies – Laboratory retains yellow copy – Return original copy to Highlander Enviromental Corp. – Project Manager retains pink copy – Accounting receives Gold copy.

7030135

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: 1 OF: 2

CLIENT NAME: Cimarex SITE MANAGER: Ike Tavarez

PROJECT NO.: 2955 PROJECT NAME: Cimarex / Cooper 4-1 SWD Lea County, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8020/602	MTBE 8020/602	TPH 418.1 / 8015 MOD. TX1005	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	PCT	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 608/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
	2/28/07		S		X	AH-1 0-1.0'	1				X				X											X			
			S		X	AH-1 1'-1.5'	1				X															X			
			S		X	AH-1 2'-2.5'	1				X																		
			S		X	AH-2 0-1.0'	1				X				X											X			
			S		X	AH-2 1'-1.5'	1				X															X			
			S		X	AH-2 2'-2.5'	1				X																		
			S		X	AH-3 0-1.0'	1				X				X											X			
			S		X	AH-3 1'-1.5'	1				X															X			
			S		X	AH-3 2'-2.5'	1				X																		
			S		X	AH-4 0-1.0'	1				X				X											X			

RELINQUISHED BY: (Signature) Date: 3/1/07 Time: 1:45
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Sign) Meg Taylor / Matt Harrison Date: 3/1/07 Time:

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

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

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Odessa Midland STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Jacob Jaquillon
DATE: 3-1-07 TIME: 1145

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 4°

MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other

REMARKS: Run 3 BTEX on highest TPH

Please Fill out all copies – Laboratory retains yellow copy – Return original copy to Highlander Environmental Corp. – Project Manager retains pink copy – Accounting receives Gold copy.

7030135

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: 2 OF: 2

CLIENT NAME: Cimarex SITE MANAGER: Ike Tavarez

PROJECT NO.: 2955 PROJECT NAME: Cimarex / Cooper 4-1 SWD Lea County, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	ANALYSIS REQUEST (Circle or Specify Method No.): BTEX 8020/602	MTBE 8020/602	TPH 418.1 / 8015 MOD. / TX1005	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. 608/808	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
	2/28/07		S		X	AH-4 1'-1.5'	1				X															X			
			S		X	AH-4 2'-2.5'	1				X																		
			S		X	AH-5 0-1.0'	1				X				X											X			
			S		X	AH-5 1'-1.5'	1				X				X											X			
			S		X	AH-5 2'-2.5'	1				X															X			
			S		X	AH-5 3'-3.5'	1				X															X			
			S		X	AH-5 4'-4.5'	1				X															X			
			S		X	AH-5 5'-5.5'	1				X															X			
			S	X		Stockpile East	1				X				X											X			
			S	X		Stockpile West	1				X				X											X			

RELINQUISHED BY: (Signature) Date: 3/1/07 Time: 1:45 RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Sign) Ray Taylor & Kolt Harrison Date: 3/1/07 Time:

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

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

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

RECEIVING LABORATORY: Xenco Lab ADDRESS: Odessa Midland CITY: STATE: TX ZIP: CONTACT: PHONE:

RECEIVED BY: (Signature) DATE: 3-1-07 TIME: 1:45

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 4°

MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other

REMARKS:

Please Fill out all copies – Laboratory retains yellow copy – Return original copy to Highlander Environmental Corp. – Project Manager retains pink copy – Accounting receives Gold copy.

7030134

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: 1 OF: 1

CLIENT NAME: Cimarex

SITE MANAGER: Ike Tavarez

PROJECT NO.: 2956

PROJECT NAME: Cimarex / Cooper 5-8 well
Lea county, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8020/602	MTBE 8020/602	TPH 418.1 / 8015 MOD. / TX1005	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. 608/609	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
117852	2/28/07		S		X	AH-1 0-1.0'	1				X		X		X											X			
853	↓		S		X	AH-1 1'-1.5'	1				X															X			
854			S		X	AH-2 0-1.0'	1				X		X		X											X			
855			S		X	AH-2 1'-1.5'	1				X															X			

RELINQUISHED BY: (Signature) Date: 3/1/07 Time: 1:45
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Sign) Roy Taylor Kelt Harrison Date: 3/1/07 Time:

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

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

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) Josh Tarpley
DATE: 3-1-07 TIME: 1:45

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 4°

MATRIX: W-Water A-Air SD-Solid (S-Soil) SL-Sludge O-Other

REMARKS:

Please Fill out all copies – Laboratory retains yellow copy – Return original copy to Highlander Enviromental Corp. – Project Manager retains pink copy – Accounting receives Gold copy.

7030133

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: 1 OF: 2

CLIENT NAME: Duke | SITE MANAGER: Ike Tavarez

PROJECT NO.: 2883 | PROJECT NAME: Duke / SS-2 Line Lea County, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8020/602	MTBE 8060/602	TPH 418.1	8015 MOD. TX1005	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	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
117838	2/27/07		S		X	AH-1 0-1.0'	1				X				X												X			
839			S		X	AH-1 1'-1.5'	1				X				X															
840			S		X	AH-1 2'-2.5'	1				X				X															
841			S		X	AH-1 4'-4.5'	1				X				X												X			
842			S		X	AH-1 6'-6.5'	1				X				X												X			
843			S		X	AH-2 0-1.0'	1				X				X												X			
844			S		X	AH-2 1'-1.5'	1				X				X												X			
845			S		X	AH-2 2'-2.5'	1				X				X															
846			S		X	AH-2 3'-3.5'	1				X				X															
847	↓		S		X	AH-3 0-1.0'	1				X				X												X			

RELINQUISHED BY: (Signature) — Date: 3/1/07 Time: 1:45
RECEIVED BY: (Signature) — Date: — Time:
SAMPLED BY: (Print & Sign) Ray Taylor — Date: 2/27/07 Time:

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

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

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature) Sarah Sampson
DATE: 3-1-07 TIME: 1:45

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 4°

MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other

REMARKS: Req 2 BTEX on highest TPH

Please Fill out all copies – Laboratory retains yellow copy – Return original copy to Highlander Environmental Corp. – Project Manager retains pink copy – Accounting receives Gold copy.

7030133

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: 2 OF: 2

CLIENT NAME: Duke

SITE MANAGER: Ike Tavarez

PROJECT NO.: 2883

PROJECT NAME: Duke / SS-2 Line
Lea county, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8020/602	MTBE 8020/602	8015 MOD. TPH 418.1 TX1005 TPH	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. 608/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
117848	2/27/07		S		X	AH-3 1'-1.5'	1				X				X											X			
849	↓		S		X	AH-3 2'-2.5'	1				X				X														
850	↓		S		X	AH-3 3'-3.5'	1				X				X														
851	↓		S		X	AH-3 4'-4.5'	1				X				X														

RELINQUISHED BY: (Signature) — Date: 2/27/07 Time: 1:45
RECEIVED BY: (Signature) — Date: Time:

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

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

SAMPLED BY: (Print & Sign) Ray Taylor — Date: 2/27/07 Time:

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

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONES:

RECEIVED BY: (Signature) Jana Langdon
DATE: 3-1-07 TIME: 1:45

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 4°

MATRIX: W—Water A—Air SD—Solid (S—Soil) SL—Sludge O—Other

REMARKS:

Please Fill out all copies — Laboratory retains yellow copy — Return original copy to Highlander Enviromental Corp. — Project Manager retains pink copy — Accounting receives Gold copy.

Summary Report

Ike Tavarez
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: March 9, 2007

Work Order: 7030135

Project Location: Lea County, NM
Project Name: Cooper 4-1 SWD
Project Number: 2955

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
117860	AH-2 1-1.5	soil	2007-02-28	00:00	2007-03-01
117863	AH-3 1-1.5	soil	2007-02-28	00:00	2007-03-01
117866	AH-4 1-1.5	soil	2007-02-28	00:00	2007-03-01

Sample - Field Code	TPH DRO DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
117860 - AH-2 1-1.5	<50.0	<1.00
117863 - AH-3 1-1.5	<50.0	<1.00
117866 - AH-4 1-1.5	<50.0	**1.16**

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
500 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Ike Tavarez
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: March 9, 2007

Work Order: 7030135

Project Location: Lea County, NM
Project Name: Cooper 4-1 SWD
Project Number: 2955

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
117860	AH-2 1-1.5	soil	2007-02-28	00:00	2007-03-01
117863	AH-3 1-1.5	soil	2007-02-28	00:00	2007-03-01
117866	AH-4 1-1.5	soil	2007-02-28	00:00	2007-03-01

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

Blair Leftwich

Dr. Blair Leftwich, Director

Standard Flags

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

Analytical Report

Sample: 117860 - AH-2 1-1.5

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	35587	Date Analyzed:	2007-03-15	Analyzed By:	SE
Prep Batch:	30869	Sample Preparation:	2007-03-14	Prepared By:	SE

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		182	mg/Kg	1	150	121	62.5 - 164

Sample: 117860 - AH-2 1-1.5

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	35511	Date Analyzed:	2007-03-12	Analyzed By:	AG
Prep Batch:	30812	Sample Preparation:	2007-03-12	Prepared By:	AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.812	mg/Kg	1	1.00	81	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.13	mg/Kg	1	1.00	113	67.5 - 140.3

Sample: 117863 - AH-3 1-1.5

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	35587	Date Analyzed:	2007-03-15	Analyzed By:	SE
Prep Batch:	30869	Sample Preparation:	2007-03-14	Prepared By:	SE

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		196	mg/Kg	1	150	131	62.5 - 164

Sample: 117863 - AH-3 1-1.5

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	35511	Date Analyzed:	2007-03-12	Analyzed By:	AG
Prep Batch:	30812	Sample Preparation:	2007-03-12	Prepared By:	AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.804	mg/Kg	1	1.00	80	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.09	mg/Kg	1	1.00	109	67.5 - 140.3

Sample: 117866 - AH-4 1-1.5

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	35587	Date Analyzed:	2007-03-15	Analyzed By:	SE
Prep Batch:	30869	Sample Preparation:	2007-03-14	Prepared By:	SE

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		180	mg/Kg	1	150	120	62.5 - 164

Sample: 117866 - AH-4 1-1.5

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	35511	Date Analyzed:	2007-03-12	Analyzed By:	AG
Prep Batch:	30812	Sample Preparation:	2007-03-12	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**1.16**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.809	mg/Kg	1	1.00	81	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.10	mg/Kg	1	1.00	110	67.5 - 140.3

Method Blank (1) QC Batch: 35511

QC Batch:	35511	Date Analyzed:	2007-03-12	Analyzed By:	AG
Prep Batch:	30812	QC Preparation:	2007-03-12	Prepared By:	AG

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.928	mg/Kg	1	1.00	93	52.4 - 123.7

continued ...

method blank continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)		0.961	mg/Kg	1	1.00	96	67.5 - 140.3

Method Blank (1) QC Batch: 35587

QC Batch: 35587 | Date Analyzed: 2007-03-15 | Analyzed By: SE
Prep Batch: 30869 | QC Preparation: 2007-03-15 | Prepared By: SE

Parameter	Flag	MDL Result	Units	RL
DRO		<10.7	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		193	mg/Kg	1	150	129	62.5 - 164

Laboratory Control Spike (LCS-1)

QC Batch: 35511 | Date Analyzed: 2007-03-12 | Analyzed By: AG
Prep Batch: 30812 | QC Preparation: 2007-03-12 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.91	mg/Kg	1	10.0	<0.739	89	57.7 - 102.5

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	8.73	mg/Kg	1	10.0	<0.739	87	57.7 - 102.5	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.26	1.12	mg/Kg	1	1.00	126	112	36.8 - 152.5
4-Bromofluorobenzene (4-BFB)	1.09	1.10	mg/Kg	1	1.00	109	110	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 35587 | Date Analyzed: 2007-03-15 | Analyzed By: SE
Prep Batch: 30869 | QC Preparation: 2007-03-15 | Prepared By: SE

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	273	mg/Kg	1	250	<10.7	109	64.1 - 124

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	242	mg/Kg	1	250	<10.7	97	64.1 - 124	12	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	205	196	mg/Kg	1	150	137	131	62.5 - 164

Matrix Spike (MS-1) Spiked Sample: 117866

QC Batch: 35511 | Date Analyzed: 2007-03-12 | Analyzed By: AG
Prep Batch: 30812 | QC Preparation: 2007-03-12 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	7.67	mg/Kg	1	10.0	1.16	65	10 - 141.5

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	7.54	mg/Kg	1	10.0	1.16	64	10 - 141.5	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
Trifluorotoluene (TFT)	0.655	0.720	mg/Kg	1	1	66	72	40 - 125.3
4-Bromofluorobenzene (4-BFB)	1.16	1.15	mg/Kg	1	1	116	115	86.7 - 144.5

Matrix Spike (MS-1) Spiked Sample: 117863

QC Batch: 35587 | Date Analyzed: 2007-03-15 | Analyzed By: SE
Prep Batch: 30869 | QC Preparation: 2007-03-15 | Prepared By: SE

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	261	mg/Kg	1	250	<10.7	104	47.5 - 127

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	258	mg/Kg	1	250	<10.7	103	47.5 - 127	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	197	191	mg/Kg	1	150	131	127	62.5 - 164

Standard (ICV-1)

QC Batch: 35511 Date Analyzed: 2007-03-12 Analyzed By: AG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.14	114	85 - 115	2007-03-12

Standard (CCV-1)

QC Batch: 35511 Date Analyzed: 2007-03-12 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.15	115	85 - 115	2007-03-12

Standard (ICV-1)

QC Batch: 35587 Date Analyzed: 2007-03-15 Analyzed By: SE

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	246	98	85 - 115	2007-03-15

Standard (CCV-1)

QC Batch: 35587 Date Analyzed: 2007-03-15 Analyzed By: SE

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	257	103	85 - 115	2007-03-15

7030135

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: Cimarex | SITE MANAGER: Ike Tavarez

PROJECT NO.: 2955 | PROJECT NAME: Cimarex / Cooper 4-1 SWD Lea county, NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8020/602	MTBE 8020/602	8015 MOD. TX1005	418.1 TPH	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. 608/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
117866	2/28/07		S		X	AH-4 1'-1.5'	1				X																X			
867			S		X	AH-4 2'-2.5'	1				X																				
868			S		X	AH-5 0-1.0'	1				X					X											X			
869			S		X	AH-5 1'-1.5'	1				X					X											X			
870			S		X	AH-5 2'-2.5'	1				X																X			
871			S		X	AH-5 3'-3.5'	1				X																X			
872			S		X	AH-5 4'-4.5'	1				X																X			
873			S		X	AH-5 5'-5.5'	1				X																X			
874			S	X		Stockpile East	1				X					X											X			
875			S	X		Stockpile West	1				X					X											X			

RELINQUISHED BY: (Signature) [signature] Date: 3/1/07 Time: 1:45 | RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Sign) Ray Taylor & Kolt Harrison Date: 3/1/07 Time:

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

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

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

RECEIVING LABORATORY: Best Rate
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature) [signature]
DATE: 3-1-07 TIME: 1:45

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 4°

MATRIX: W-Water A-Air SD-Solid (S-Soil) SL-Sludge O-Other

REMARKS: all tests - Midland

Please Fill out all copies – Laboratory retains yellow copy – Return original copy to Highlander Enviromental Corp. – Project Manager retains pink copy – Accounting receives Gold copy.

7030135

Analysis Request and Chain of Custody Record

PAGE: 1 OF: 2

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: Cinarex SITE MANAGER: Ike Tavarez

PROJECT NO.: 2955 PROJECT NAME: Cinarex / Cooper 4-1 SWD

Lea County, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8020/602	MTBE 8020/602	8015 MOD. TX1005	418.1	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	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
	2/28/07		S		X	AH-1 0-1.0'	1				X				X	X											X			
			S		X	AH-1 1'-1.5'	1				X																X			
			S		X	AH-1 2'-2.5'	1				X																			
			S		X	AH-2 0-1.0'	1				X				X	X											X			
			S		X	AH-2 1'-1.5'	1				X																X			
			S		X	AH-2 2'-2.5'	1				X																			
			S		X	AH-3 0-1.0'	1				X				X	X											X			
			S		X	AH-3 1'-1.5'	1				X																X			
			S		X	AH-3 2'-2.5'	1				X																			
			S		X	AH-4 0-1.0'	1				X				X	X											X			

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature)	Date: 3/1/07 Time: 1:45	RECEIVED BY: (Signature)	Date: Time:	SAMPLED BY: (Print & Sign) Reg Taylor / Kolt Harrison	Date: 3/1/07 Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:	SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #	
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:	HAND DELIVERED UPS OTHER:	

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Odessa STATE: TX ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature) Jacob Jacobson
DATE: 3-1-07 TIME: 1145

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: Cool

MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other

REMARKS: Run 3 BTEX on highest TPH

Please Fill out all copies – Laboratory retains yellow copy – Return original copy to Highlander Enviromental Corp. – Project Manager retains pink copy – Accounting receives Gold copy.

7030135

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: 2 OF: 2

CLIENT NAME: Cimarex | SITE MANAGER: Ike Tavarez

PROJECT NO.: 2955 | PROJECT NAME: Cimarex / Cooper 4-1 SWD Lea County, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	ANALYSIS REQUEST (Circle or Specify Method No.): SETEK 8020/602	MTBE 8020/602	8015 MOD. TX1005 (GRO / DRO)	418.1	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. 608/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
	2/28/07		S		X	AH-4 1'-1.5'	1				X																X			
			S		X	AH-4 2'-2.5'	1				X																			
			S		X	AH-5 0-1.0'	1				X				X												X			
			S		X	AH-5 1'-1.5'	1				X				X												X			
			S		X	AH-5 2'-2.5'	1				X																X			
			S		X	AH-5 3'-3.5'	1				X																X			
			S		X	AH-5 4'-4.5'	1				X																X			
			S		X	AH-5 5'-5.5'	1				X																X			
			S	X		Stockpile East	1				X				X												X			
			S	X		Stockpile West	1				X				X												X			

RELINQUISHED BY: (Signature) Date: 3/1/07 Time: 1:45 | RECEIVED BY: (Signature) Date: Time:

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

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

SAMPLED BY: (Print & Sign) Ray Taylor & Kolt Harrison Date: 3/1/07 Time:

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

RECEIVING LABORATORY: Xenco Midland
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature) Jacob Tompkins
DATE: 3-1-07 TIME: 1:45

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 4°

MATRIX: W-Water A-Air SD-Solid (S-Soil) SL-Sludge O-Other

REMARKS:

Please Fill out all copies – Laboratory retains yellow copy – Return original copy to Highlander Environmental Corp. – Project Manager retains pink copy – Accounting receives Gold copy.

7030134

Analysis Request and Chain of Custody Record

PAGE: 1 OF: 1

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: Cimarex | SITE MANAGER: Ike Tavarez

PROJECT NO.: 2956 | PROJECT NAME: Cimarex / Cooper 5-8 well Lea county, NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8020/602	MTBE 8020/602	TPH 418.1 / 8015 MOD. / TX1005	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. 608/609	BOD, TSS, pH, TDS, Chlorides	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
117852	2/28/07		S		X	AH-1 0-1.0'	1				X		X		X											X			
853	↓		S		X	AH-1 1'-1.5'	1				X															X			
854			S		X	AH-2 0-1.0'	1				X		X		X											X			
855			S		X	AH-2 1'-1.5'	1				X															X			

RELINQUISHED BY: (Signature) Date: 3/1/07 Time: 1:45 | RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Sign) Ray Taylor Kurt Harrison Date: 3/1/07 Time:

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

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

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

RECEIVING LABORATORY: Trace | RECEIVED BY: (Signature) Jack Jaggers

ADDRESS: CITY: Midland STATE: TX ZIP:

CONTACT: PHONE: | DATE: 3-1-07 TIME: 1:45

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 4°

MATRIX: W-Water A-Air SD-Solid (S-Soil) SL-Sludge O-Other

REMARKS:

Please Fill out all copies – Laboratory retains yellow copy – Return original copy to Highlander Enviromental Corp. – Project Manager retains pink copy – Accounting receives Gold copy.

7030133

Analysis Request and Chain of Custody Record

PAGE: 1 OF: 2

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: Duke SITE MANAGER: Ike Tavarez

PROJECT NO.: 2883 PROJECT NAME: Duke / SS-2 Line

Lea County, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
117838	2/27/07		S		X	AH-1 0-1.0'	1				X	
839			S		X	AH-1 1'-1.5'	1				X	
840			S		X	AH-1 2'-2.5'	1				X	
841			S		X	AH-1 4'-4.5'	1				X	
842			S		X	AH-1 6'-6.5'	1				X	
843			S		X	AH-2 0-1.0'	1				X	
844			S		X	AH-2 1'-1.5'	1				X	
845			S		X	AH-2 2'-2.5'	1				X	
846			S		X	AH-2 3'-3.5'	1				X	
847	↓		S		X	AH-3 0-1.0'	1				X	

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8020/602	MTBE 8020/602	TPH 418.1 (8015 MOD. TX1005)	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	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
		X														
		X														
		X														
		X											X			
		X											X			
		X											X			
		X											X			
		X														
		X														
		X											X			

RELINQUISHED BY: (Signature) Date: 3/1/07 Time: 1:45
RECEIVED BY: (Signature) Sandra Date: Time:

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

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

SAMPLED BY: (Print & Sign) Ray Taylor Date: 2/27/07 Time:

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

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature) Sarah Jamison
DATE: 3-1-07 TIME: 1:45

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 4°

MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other

REMARKS: Req 2 BTEX on highest TPH

Please Fill out all copies – Laboratory retains yellow copy – Return original copy to Highlander Enviromental Corp. – Project Manager retains pink copy – Accounting receives Gold copy.

7030133

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: 2 OF: 2

CLIENT NAME: Duke

SITE MANAGER: Ike Tavarez

PROJECT NO.: 2883

PROJECT NAME: Duke / SS-2 Line
Lea county, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	ANALYSIS REQUEST (Circle or Specify Method No.): BTEX 8020/602	MTBE 8020/602	TPH 8015 MOD. TX1005	TEH 418.1	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. 608/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
117848	2/27/07		S		X	AH-3 1'-1.5'	1				X				X												X			
849	"		S		X	AH-3 2'-2.5'	1				X				X																
850	"		S		X	AH-3 3'-3.5'	1				X				X																
851	↓		S		X	AH-3 4'-4.5'	1				X				X																

RELINQUISHED BY: (Signature) Date: 2/1/07 Time: 1:45 — RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Sign) Ray Tuyk Date: 2/27/07 Time:

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

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

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

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature) Jack Langdon
DATE: 3-1-07 TIME: 1:45

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 4°

MATRIX: W-Water A-Air SD-Solid (S-Soil) SL-Sludge O-Other

REMARKS:

Please Fill out all copies – Laboratory retains yellow copy – Return original copy to Highlander Enviromental Corp. – Project Manager retains pink copy – Accounting receives Gold copy.

Summary Report

Ike Tavarez
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: June 25, 2007

Work Order: 7061523

Project Location: Lea County, NM
Project Name: Cimarex/ Cooper 4-1 SWD
Project Number: 2955

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
127573	SP #1 0-1.0' BEB (1.0)	soil	2007-06-14	00:00	2007-06-15
127574	SP #2 0-1.0' BEB (1.0)	soil	2007-06-14	00:00	2007-06-15
127575	SP #3 0-1.0' BEB (1.5)	soil	2007-06-14	00:00	2007-06-15
127576	SP #4 0-1.0' BEB (7.0)	soil	2007-06-14	00:00	2007-06-15
127577	Stockpile Pasture #1	soil	2007-06-14	00:00	2007-06-15
127578	Stockpile Pasture #2	soil	2007-06-14	00:00	2007-06-15
127579	Stockpile Pad #1	soil	2007-06-14	00:00	2007-06-15
127580	Stockpile Pad #2	soil	2007-06-14	00:00	2007-06-15
127581	Stockpile Pad #3	soil	2007-06-14	00:00	2007-06-15

Sample - Field Code	BTEX Benzene (mg/Kg)	BTEX Toluene (mg/Kg)	BTEX Ethylbenzene (mg/Kg)	BTEX Xylene (mg/Kg)	MTBE MTBE (mg/Kg)	TPH DRO DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
127573 - SP #1 0-1.0' BEB (1.0)	<0.0100	<0.0100	<0.0100	<0.0100		<50.0	**1.51**
127574 - SP #2 0-1.0' BEB (1.0)	<0.0100	<0.0100	<0.0100	<0.0100		<50.0	<1.00
127575 - SP #3 0-1.0' BEB (1.5)	<0.0100	<0.0100	<0.0100	<0.0100		<50.0	<1.00
127576 - SP #4 0-1.0' BEB (7.0)	<0.0100	<0.0100	**0.127**	**0.132**		<50.0	**19.4**
127577 - Stockpile Pasture #1						**682**	**26.5**
127578 - Stockpile Pasture #2						**1270**	**38.1**
127579 - Stockpile Pad #1						**503**	**14.2**
127580 - Stockpile Pad #2						**50.1**	**11.5**
127581 - Stockpile Pad #3						**161**	**10.4**

Sample: 127573 - SP #1 0-1.0' BEB (1.0)

Param	Flag	Result	Units	RL
Chloride		**93.4**	mg/Kg	2.00

Sample: 127574 - SP #2 0-1.0' BEB (1.0)

Param	Flag	Result	Units	RL
Chloride		**147**	mg/Kg	2.00

Sample: 127575 - SP #3 0-1.0' BEB (1.5)

Param	Flag	Result	Units	RL
Chloride		**95.8**	mg/Kg	2.00

Sample: 127576 - SP #4 0-1.0' BEB (7.0)

Param	Flag	Result	Units	RL
Chloride		**103**	mg/Kg	2.00

Sample: 127577 - Stockpile Pasture #1

Param	Flag	Result	Units	RL
Chloride		**1520**	mg/Kg	2.00

Sample: 127578 - Stockpile Pasture #2

Param	Flag	Result	Units	RL
Chloride		**1250**	mg/Kg	2.00

Sample: 127579 - Stockpile Pad #1

Param	Flag	Result	Units	RL
Chloride		**785**	mg/Kg	2.00

Sample: 127580 - Stockpile Pad #2

Param	Flag	Result	Units	RL
Chloride		**636**	mg/Kg	2.00

Sample: 127581 - Stockpile Pad #3

Param	Flag	Result	Units	RL
Chloride		**664**	mg/Kg	2.00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail lab@traceanalysis.com

Analytical and Quality Control Report

Ike Tavarez
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: June 25, 2007

Work Order: 7061523

Project Location: Lea County, NM
Project Name: Cimarex/ Cooper 4-1 SWD
Project Number: 2955

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
127573	SP #1 0-1.0' BEB (1.0)	soil	2007-06-14	00:00	2007-06-15
127574	SP #2 0-1.0' BEB (1.0)	soil	2007-06-14	00:00	2007-06-15
127575	SP #3 0-1.0' BEB (1.5)	soil	2007-06-14	00:00	2007-06-15
127576	SP #4 0-1.0' BEB (7.0)	soil	2007-06-14	00:00	2007-06-15
127577	Stockpile Pasture #1	soil	2007-06-14	00:00	2007-06-15
127578	Stockpile Pasture #2	soil	2007-06-14	00:00	2007-06-15
127579	Stockpile Pad #1	soil	2007-06-14	00:00	2007-06-15
127580	Stockpile Pad #2	soil	2007-06-14	00:00	2007-06-15
127581	Stockpile Pad #3	soil	2007-06-14	00:00	2007-06-15

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

Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project Cimarex/ Cooper 4-1 SWD were received by TraceAnalysis, Inc. on 2007-06-15 and assigned to work order 7061523. Samples for work order 7061523 were received intact at a temperature of 2.5 deg C.

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

Test	Method
BTEX	S 8021B
Chloride (Titration)	SM 4500-Cl B
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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 7061523 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: 127573 - SP #1 0-1.0' BEB (1.0)

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	38402	Date Analyzed:	2007-06-21	Analyzed By:	JW
Prep Batch:	33238	Sample Preparation:		Prepared By:	JW

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.896	mg/Kg	1	1.00	90	26 - 117.8
4-Bromofluorobenzene (4-BFB)		0.982	mg/Kg	1	1.00	98	51.1 - 119.1

Sample: 127573 - SP #1 0-1.0' BEB (1.0)

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	38276	Date Analyzed:	2007-06-18	Analyzed By:	AR
Prep Batch:	33139	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		93.4	mg/Kg	25	2.00

Sample: 127573 - SP #1 0-1.0' BEB (1.0)

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	38384	Date Analyzed:	2007-06-20	Analyzed By:	
Prep Batch:	33157	Sample Preparation:	2007-06-18	Prepared By:	

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		160	mg/Kg	1	150	107	32.9 - 167

Sample: 127573 - SP #1 0-1.0' BEB (1.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	38457	Date Analyzed:	2007-06-21	Analyzed By:	JW
Prep Batch:	33281	Sample Preparation:	2007-06-21	Prepared By:	JW

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.51	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.804	mg/Kg	1	1.00	80	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		0.978	mg/Kg	1	1.00	98	67.5 - 140.3

Sample: 127574 - SP #2 0-1.0' BEB (1.0)

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	38387	Date Analyzed:	2007-06-21	Analyzed By:	JW
Prep Batch:	33227	Sample Preparation:		Prepared By:	JW

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0 0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0 0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.879	mg/Kg	1	1.00	88	26 - 117.8
4-Bromofluorobenzene (4-BFB)		1.01	mg/Kg	1	1.00	101	51.1 - 119.1

Sample: 127574 - SP #2 0-1.0' BEB (1.0)

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	38276	Date Analyzed:	2007-06-18	Analyzed By:	AR
Prep Batch:	33139	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		147	mg/Kg	25	2.00

Sample: 127574 - SP #2 0-1.0' BEB (1.0)

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	38384	Date Analyzed:	2007-06-20	Analyzed By:	
Prep Batch:	33157	Sample Preparation:	2007-06-18	Prepared By:	

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		239	mg/Kg	1	150	159	32.9 - 167

Sample: 127574 - SP #2 0-1.0' BEB (1.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	38447	Date Analyzed:	2007-06-21	Analyzed By:	JW
Prep Batch:	33227	Sample Preparation:		Prepared By:	JW

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.795	mg/Kg	1	1.00	80	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		0.992	mg/Kg	1	1.00	99	67.5 - 140.3

Sample: 127575 - SP #3 0-1.0' BEB (1.5)

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	38387	Date Analyzed:	2007-06-21	Analyzed By:	JW
Prep Batch:	33227	Sample Preparation:		Prepared By:	JW

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.901	mg/Kg	1	1.00	90	26 - 117.8
4-Bromofluorobenzene (4-BFB)		0.980	mg/Kg	1	1.00	98	51.1 - 119.1

Sample: 127575 - SP #3 0-1.0' BEB (1.5)

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	38276	Date Analyzed:	2007-06-18	Analyzed By:	AR
Prep Batch:	33139	Sample Preparation:		Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**95.8**		mg/Kg	25	2.00

Sample: 127575 - SP #3 0-1.0' BEB (1.5)

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	38384	Date Analyzed:	2007-06-20	Analyzed By:	
Prep Batch:	33157	Sample Preparation:	2007-06-18	Prepared By:	

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		136	mg/Kg	1	150	91	32.9 - 167

Sample: 127575 - SP #3 0-1.0' BEB (1.5)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	38447	Date Analyzed:	2007-06-21	Analyzed By:	JW
Prep Batch:	33227	Sample Preparation:		Prepared By:	JW

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.827	mg/Kg	1	1.00	83	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		0.948	mg/Kg	1	1.00	95	67.5 - 140.3

Sample: 127576 - SP #4 0-1.0' BEB (7.0)

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	38402	Date Analyzed:	2007-06-21	Analyzed By:	JW
Prep Batch:	33238	Sample Preparation:		Prepared By:	JW

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		**0.127**	mg/Kg	1	0.0100
Xylene		**0.132**	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.804	mg/Kg	1	1.00	80	26 - 117.8
4-Bromofluorobenzene (4-BFB)		1.00	mg/Kg	1	1.00	100	51.1 - 119.1

Sample: 127576 - SP #4 0-1.0' BEB (7.0)

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	38276	Date Analyzed:	2007-06-18	Analyzed By:	AR
Prep Batch:	33139	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**103**	mg/Kg	25	2.00

Sample: 127576 - SP #4 0-1.0' BEB (7.0)

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	38384	Date Analyzed:	2007-06-20	Analyzed By:	
Prep Batch:	33157	Sample Preparation:	2007-06-18	Prepared By:	

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		168	mg/Kg	1	150	112	32.9 - 167

Sample: 127576 - SP #4 0-1.0' BEB (7.0)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	38457	Date Analyzed:	2007-06-21	Analyzed By:	JW
Prep Batch:	33281	Sample Preparation:	2007-06-21	Prepared By:	JW

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.675	mg/Kg	1	1.00	68	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.06	mg/Kg	1	1.00	106	67.5 - 140 3

Sample: 127577 - Stockpile Pasture #1

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	38276	Date Analyzed:	2007-06-18	Analyzed By:	AR
Prep Batch:	33139	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1520**	mg/Kg	25	2.00

Sample: 127577 - Stockpile Pasture #1

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	38384	Date Analyzed:	2007-06-20	Analyzed By:	
Prep Batch:	33157	Sample Preparation:	2007-06-18	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**682**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		166	mg/Kg	1	150	111	32.9 - 167

Sample: 127577 - Stockpile Pasture #1

Analysis	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch	38457	Date Analyzed:	2007-06-21	Analyzed By:	JW
Prep Batch:	33281	Sample Preparation:	2007-06-21	Prepared By:	JW

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**26.5**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.790	mg/Kg	1	1.00	79	52.4 - 123 7
4-Bromofluorobenzene (4-BFB)		1.18	mg/Kg	1	1.00	118	67.5 - 140.3

Sample: 127578 - Stockpile Pasture #2

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	38276	Date Analyzed:	2007-06-18	Analyzed By:	AR
Prep Batch:	33139	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1250**	mg/Kg	25	2.00

Sample: 127578 - Stockpile Pasture #2

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	38384	Date Analyzed:	2007-06-20	Analyzed By:	
Prep Batch.	33157	Sample Preparation:	2007-06-18	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**1270**	mg/Kg	1	50 0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		185	mg/Kg	1	150	123	32.9 - 167

Sample: 127578 - Stockpile Pasture #2

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	38457	Date Analyzed:	2007-06-21	Analyzed By:	JW
Prep Batch	33281	Sample Preparation:	2007-06-21	Prepared By:	JW

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		38.1	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.818	mg/Kg	1	1.00	82	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.35	mg/Kg	1	1.00	135	67.5 - 140.3

Sample: 127579 - Stockpile Pad #1

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	38276	Date Analyzed:	2007-06-18	Analyzed By:	AR
Prep Batch:	33139	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		785	mg/Kg	25	2.00

Sample: 127579 - Stockpile Pad #1

Analysis:	TPH DRO	Analytical Method	Mod. 8015B	Prep Method:	N/A
QC Batch:	38384	Date Analyzed:	2007-06-20	Analyzed By:	
Prep Batch:	33157	Sample Preparation:	2007-06-18	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		503	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		164	mg/Kg	1	150	109	32.9 - 167

Sample: 127579 - Stockpile Pad #1

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	38457	Date Analyzed:	2007-06-21	Analyzed By:	JW
Prep Batch:	33281	Sample Preparation:	2007-06-21	Prepared By:	JW

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		14.2	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.798	mg/Kg	1	1.00	80	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		0.941	mg/Kg	1	1.00	94	67.5 - 140.3

Sample: 127580 - Stockpile Pad #2

Analysis	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	38276	Date Analyzed:	2007-06-18	Analyzed By:	AR
Prep Batch:	33139	Sample Preparation:		Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**636**	mg/Kg	25	2.00

Sample: 127580 - Stockpile Pad #2

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	38384	Date Analyzed:	2007-06-20	Analyzed By:	
Prep Batch:	33157	Sample Preparation:	2007-06-18	Prepared By:	

Parameter	Flag	Result	RL Units	Dilution	RL
DRO		**50.1**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		183	mg/Kg	1	150	122	32.9 - 167

Sample: 127580 - Stockpile Pad #2

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	38457	Date Analyzed:	2007-06-21	Analyzed By:	JW
Prep Batch:	33281	Sample Preparation:	2007-06-21	Prepared By:	JW

Parameter	Flag	Result	RL Units	Dilution	RL
GRO		**11.5**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.799	mg/Kg	1	1.00	80	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.06	mg/Kg	1	1.00	106	67.5 - 140.3

Sample: 127581 - Stockpile Pad #3

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	38276	Date Analyzed:	2007-06-18	Analyzed By:	AR
Prep Batch:	33139	Sample Preparation:		Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**664**	mg/Kg	25	2.00

Sample: 127581 - Stockpile Pad #3

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	38384	Date Analyzed:	2007-06-20	Analyzed By:	
Prep Batch:	33157	Sample Preparation:	2007-06-18	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**161**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		198	mg/Kg	1	150	132	32.9 - 167

Sample: 127581 - Stockpile Pad #3

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	38457	Date Analyzed:	2007-06-21	Analyzed By:	JW
Prep Batch:	33281	Sample Preparation:	2007-06-21	Prepared By:	JW

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**10.4**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.806	mg/Kg	1	1.00	81	52 4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.05	mg/Kg	1	1.00	105	67.5 - 140.3

Method Blank (1) QC Batch: 38276

QC Batch:	38276	Date Analyzed:	2007-06-18	Analyzed By:	AR
Prep Batch:	33139	QC Preparation:	2007-06-18	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Method Blank (1) QC Batch: 38384

QC Batch:	38384	Date Analyzed:	2007-06-20	Analyzed By:	
Prep Batch:	33157	QC Preparation:	2007-06-18	Prepared By:	

Parameter	Flag	MDL Result	Units	RL
DRO		<14.6	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		116	mg/Kg	1	150	77	44.7 - 133.6

Method Blank (1) QC Batch: 38387

QC Batch:	38387	Date Analyzed	2007-06-21	Analyzed By:	JW
Prep Batch:	33227	QC Preparation:	2007-06-21	Prepared By:	JW

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00110	mg/Kg	0.01
Toluene		<0.00150	mg/Kg	0.01
Ethylbenzene		<0.00160	mg/Kg	0.01
Xylene		<0.00410	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.891	mg/Kg	1	1.00	89	62.6 - 117.6
4-Bromofluorobenzene (4-BFB)		0.874	mg/Kg	1	1.00	87	53.9 - 125.1

Method Blank (1) QC Batch: 38402

QC Batch:	38402	Date Analyzed:	2007-06-21	Analyzed By:	JW
Prep Batch:	33238	QC Preparation:	2007-06-21	Prepared By:	JW

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00110	mg/Kg	0.01
Toluene		<0.00150	mg/Kg	0.01
Ethylbenzene		<0.00160	mg/Kg	0.01
Xylene		<0.00410	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.904	mg/Kg	1	1.00	90	62.6 - 117.6
4-Bromofluorobenzene (4-BFB)		0.854	mg/Kg	1	1.00	85	53.9 - 125.1

Method Blank (1) QC Batch: 38447

QC Batch:	38447	Date Analyzed:	2007-06-21	Analyzed By	JW
Prep Batch:	33227	QC Preparation:	2007-06-21	Prepared By:	JW

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.893	mg/Kg	1	1.00	89	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		0.841	mg/Kg	1	1.00	84	67.5 - 140.3

Method Blank (1) QC Batch: 38457

QC Batch: 38457 | Date Analyzed: 2007-06-21 | Analyzed By: JW
Prep Batch: 33281 | QC Preparation: 2007-06-21 | Prepared By: JW

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.929	mg/Kg	1	1.00	93	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		0.835	mg/Kg	1	1.00	84	67.5 - 140.3

Laboratory Control Spike (LCS-1)

QC Batch: 38276 | Date Analyzed: 2007-06-18 | Analyzed By: AR
Prep Batch: 33139 | QC Preparation: 2007-06-18 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec Limit
Chloride	97.0	mg/Kg	1	100	<0.500	97	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	97.9	mg/Kg	1	100	<0.500	98	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 38384 | Date Analyzed: 2007-06-20 | Analyzed By:
Prep Batch: 33157 | QC Preparation: 2007-06-18 | Prepared By:

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	250	mg/Kg	1	250	<14.6	100	47.5 - 144.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	263	mg/Kg	1	250	<14.6	105	47.5 - 144.1	5	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	153	166	mg/Kg	1	150	102	111	57.3 - 131.6

Laboratory Control Spike (LCS-1)

QC Batch: 38387 | Date Analyzed: 2007-06-21 | Analyzed By: JW
Prep Batch: 33227 | QC Preparation: 2007-06-21 | Prepared By: JW

Param	LCS Result	Units	Dil	Spike Amount	Matrix Result	Rec.	Rec Limit
Benzene	0.930	mg/Kg	1	1.00	<0.00110	93	68 6 - 123.4
Toluene	0.952	mg/Kg	1	1.00	<0.00150	95	74.6 - 119.3
Ethylbenzene	0.925	mg/Kg	1	1.00	<0.00160	92	72.3 - 126.2
Xylene	2.78	mg/Kg	1	3.00	<0.00410	93	76.5 - 121.6

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec Limit	RPD	RPD Limit
Benzene	0.940	mg/Kg	1	1.00	<0.00110	94	68.6 - 123.4	1	20
Toluene	0.949	mg/Kg	1	1.00	<0.00150	95	74.6 - 119.3	0	20
Ethylbenzene	0.923	mg/Kg	1	1.00	<0.00160	92	72.3 - 126 2	0	20
Xylene	2.79	mg/Kg	1	3.00	<0.00410	93	76.5 - 121.6	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec	Rec. Limit
Trifluorotoluene (TFT)	0.804	0.813	mg/Kg	1	1.00	80	81	64.1 - 118.2
4-Bromofluorobenzene (4-BFB)	0.925	0.930	mg/Kg	1	1.00	92	93	68.7 - 125.8

Laboratory Control Spike (LCS-1)

QC Batch: 38402 | Date Analyzed: 2007-06-21 | Analyzed By: JW
Prep Batch: 33238 | QC Preparation: 2007-06-21 | Prepared By: JW

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.939	mg/Kg	1	1.00	<0.00110	94	68.6 - 123.4
Toluene	0.961	mg/Kg	1	1.00	<0.00150	96	74.6 - 119.3
Ethylbenzene	0.933	mg/Kg	1	1.00	<0.00160	93	72.3 - 126.2
Xylene	2.82	mg/Kg	1	3.00	<0.00410	94	76.5 - 121.6

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.786	mg/Kg	1	1.00	<0.00110	79	68.6 - 123.4	18	20
Toluene	0.926	mg/Kg	1	1.00	<0.00150	93	74.6 - 119.3	4	20
Ethylbenzene	0.925	mg/Kg	1	1.00	<0.00160	92	72.3 - 126.2	1	20
Xylene	2.79	mg/Kg	1	3.00	<0.00410	93	76.5 - 121.6	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec	Rec. Limit
Trifluorotoluene (TFT)	0.815	0.817	mg/Kg	1	1.00	82	82	64.1 - 118.2
4-Bromofluorobenzene (4-BFB)	0.920	0.913	mg/Kg	1	1.00	92	91	68.7 - 125.8

Laboratory Control Spike (LCS-1)

QC Batch: 38447 | Date Analyzed: 2007-06-21 | Analyzed By: JW
Prep Batch: 33227 | QC Preparation: 2007-06-21 | Prepared By: JW

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec Limit
GRO	8.90	mg/Kg	1	10.0	<0.739	89	57.7 - 102.5

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.04	mg/Kg	1	10.0	<0.739	90	57.7 - 102.5	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec	Rec Limit
Trifluorotoluene (TFT)	1.26	1.13	mg/Kg	1	1.00	126	113	36.8 - 152.5
4-Bromofluorobenzene (4-BFB)	1.01	1.01	mg/Kg	1	1.00	101	101	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 38457 | Date Analyzed: 2007-06-21 | Analyzed By: JW
Prep Batch: 33281 | QC Preparation: 2007-06-21 | Prepared By: JW

Param	LCS Result	Units	Dil	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	9.23	mg/Kg	1	10.0	<0.739	92	57.7 - 102.5

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.60	mg/Kg	1	10.0	<0.739	96	57.7 - 102.5	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.16	1.14	mg/Kg	1	1.00	116	114	36.8 - 152.5
4-Bromofluorobenzene (4-BFB)	0.998	1.00	mg/Kg	1	1.00	100	100	70 - 130

Matrix Spike (MS-1) Spiked Sample: 127582

QC Batch: 38276 | Date Analyzed: 2007-06-18 | Analyzed By: AR
Prep Batch: 33139 | QC Preparation: 2007-06-18 | Prepared By: AR

Param	MS Result	Units	Dil	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	2660	mg/Kg	25	2500	271.028	96	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec	Rec. Limit	RPD	RPD Limit
Chloride	2680	mg/Kg	25	2500	271.028	96	85 - 115	1	20

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

Matrix Spike (MS-1) Spiked Sample: 127573

QC Batch: 38384 | Date Analyzed: 2007-06-20 | Analyzed By:
Prep Batch: 33157 | QC Preparation: 2007-06-18 | Prepared By:

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec Limit
DRO	251	mg/Kg	1	250	<14.6	100	11.7 - 152.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec	Rec. Limit	RPD	RPD Limit
DRO	276	mg/Kg	1	250	<14.6	110	11.7 - 152.3	10	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec Limit
n-Triacontane	136	145	mg/Kg	1	150	91	97	17 - 163.1

Matrix Spike (MS-1) Spiked Sample: 127575

QC Batch: 38387 | Date Analyzed: 2007-06-21 | Analyzed By: JW
Prep Batch: 33227 | QC Preparation: 2007-06-21 | Prepared By: JW

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.851	mg/Kg	1	1.00	<0.00110	85	64.4 - 115.7
Toluene	0.886	mg/Kg	1	1.00	<0.00150	89	57.8 - 124.4
Ethylbenzene	0.888	mg/Kg	1	1.00	<0.00160	89	64.8 - 125.8
Xylene	2.67	mg/Kg	1	3.00	<0.00410	89	65.2 - 121.8

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.968	mg/Kg	1	1.00	<0.00110	97	64.4 - 115.7	13	20
Toluene	1.02	mg/Kg	1	1.00	<0.00150	102	57.8 - 124.4	14	20
Ethylbenzene	1.04	mg/Kg	1	1.00	<0.00160	104	64.8 - 125.8	16	20
Xylene	3.14	mg/Kg	1	3.00	<0.00410	105	65.2 - 121.8	16	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.803	0.800	mg/Kg	1	1	80	80	52.8 - 121.7
4-Bromofluorobenzene (4-BFB)	0.965	0.956	mg/Kg	1	1	96	96	66.7 - 131.9

Matrix Spike (MS-1) Spiked Sample: 127642

QC Batch: 38402 | Date Analyzed: 2007-06-21 | Analyzed By: JW
Prep Batch: 33238 | QC Preparation: 2007-06-21 | Prepared By: JW

Param	MS Result	Units	Dil	Spike Amount	Matrix Result	Rec.	Rec Limit
Benzene	1.10	mg/Kg	1	1.00	<0.00110	110	64.4 - 115.7
Toluene	1.16	mg/Kg	1	1.00	<0.00150	116	57.8 - 124.4
Ethylbenzene	1.18	mg/Kg	1	1.00	<0.00160	118	64.8 - 125.8
Xylene	3.59	mg/Kg	1	3.00	<0.00410	120	65.2 - 121.8

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

Param	MSD Result	Units	Dil	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.973	mg/Kg	1	1.00	<0.00110	97	64.4 - 115.7	12	20
Toluene	1.03	mg/Kg	1	1.00	<0.00150	103	57.8 - 124.4	12	20
Ethylbenzene	1.03	mg/Kg	1	1.00	<0.00160	103	64.8 - 125.8	14	20
Xylene	3.26	mg/Kg	1	3.00	<0.00410	109	65.2 - 121.8	10	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec	Rec. Limit
Trifluorotoluene (TFT)	0.791	0.797	mg/Kg	1	1	79	80	52.8 - 121.7
4-Bromofluorobenzene (4-BFB)	0.950	0.972	mg/Kg	1	1	95	97	66.7 - 131.9

Matrix Spike (MS-1) Spiked Sample: 127575

QC Batch: 38447 | Date Analyzed: 2007-06-21 | Analyzed By: JW
Prep Batch: 33227 | QC Preparation: 2007-06-21 | Prepared By: JW

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	6.83	mg/Kg	1	10.0	<0.739	68	10 - 141.5

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	7.14	mg/Kg	1	10.0	<0.739	71	10 - 141.5	4	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.744	0.703	mg/Kg	1	1	74	70	40 - 125.3
4-Bromofluorobenzene (4-BFB)	1.01	1.02	mg/Kg	1	1	101	102	86.7 - 144.5

Matrix Spike (MS-1) Spiked Sample: 127642

QC Batch: 38457 | Date Analyzed: 2007-06-21 | Analyzed By: JW
Prep Batch: 33281 | QC Preparation: 2007-06-21 | Prepared By: JW

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	41.4	mg/Kg	1	10.0	36.6192	48	10 - 141.5

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

Param	MSD Result	Units	Dil	Spike Amount	Matrix Result	Rec.	Rec Limit	RPD	RPD Limit
GRO	43.4	mg/Kg	1	10.0	36.6192	68	10 - 141.5	5	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec	MSD Rec	Rec. Limit
Trifluorotoluene (TFT)	0.666	0.616	mg/Kg	1	1	67	62	40 - 125.3
4-Bromofluorobenzene (4-BFB) [1,2]	1.49	1.52	mg/Kg	1	1	149	152	86.7 - 144.5

Standard (ICV-1)

QC Batch: 38276 Date Analyzed: 2007-06-18 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98 1	98	85 - 115	2007-06-18

Standard (CCV-1)

QC Batch: 38276 Date Analyzed: 2007-06-18 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2007-06-18

Standard (ICV-1)

QC Batch: 38384 Date Analyzed: 2007-06-20 Analyzed By:

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	250	100	85 - 115	2007-06-20

Standard (CCV-1)

QC Batch: 38384 Date Analyzed: 2007-06-20 Analyzed By:

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

Param	Flag	Units	CCVs True Conc	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	272	109	85 - 115	2007-06-20

Standard (CCV-2)

QC Batch: 38384 Date Analyzed: 2007-06-20 Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	250	100	85 - 115	2007-06-20

Standard (ICV-1)

QC Batch: 38387 Date Analyzed: 2007-06-21 Analyzed By: JW

Param	Flag	Units	ICVs True Conc	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	1.00	0.901	90	85 - 115	2007-06-21
Toluene		mg/Kg	1.00	0.910	91	85 - 115	2007-06-21
Ethylbenzene		mg/Kg	1.00	0.891	89	85 - 115	2007-06-21
Xylene		mg/Kg	3.00	2.68	89	85 - 115	2007-06-21

Standard (CCV-1)

QC Batch: 38387 Date Analyzed: 2007-06-21 Analyzed By: JW

Param	Flag	Units	CCVs True Conc	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	1.00	0.905	90	85 - 115	2007-06-21
Toluene		mg/Kg	1.00	0.911	91	85 - 115	2007-06-21
Ethylbenzene		mg/Kg	1.00	0.878	88	85 - 115	2007-06-21
Xylene		mg/Kg	3.00	2.64	88	85 - 115	2007-06-21

Standard (ICV-1)

QC Batch: 38402 Date Analyzed: 2007-06-21 Analyzed By: JW

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	[3]	mg/Kg	1.00	0.767	77	85 - 115	2007-06-21
Toluene		mg/Kg	1.00	0.906	91	85 - 115	2007-06-21
Ethylbenzene		mg/Kg	1.00	0.879	88	85 - 115	2007-06-21
Xylene		mg/Kg	3.00	2.64	88	85 - 115	2007-06-21

[3]Benzene outside of control limits on CCV(ICV) CCV(ICV) component average is 0.85 which is within acceptable range This is acceptable by Method 8000

Standard (CCV-1)

QC Batch 38402 Date Analyzed: 2007-06-21 Analyzed By: JW

Param	Flag	Units	CCVs True Conc	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	1.00	0.867	87	85 - 115	2007-06-21
Toluene		mg/Kg	1.00	0.882	88	85 - 115	2007-06-21
Ethylbenzene		mg/Kg	1.00	0.847	85	85 - 115	2007-06-21
Xylene		mg/Kg	3.00	2.55	85	85 - 115	2007-06-21

Standard (ICV-1)

QC Batch: 38447 Date Analyzed: 2007-06-21 Analyzed By: JW

Param	Flag	Units	ICVs True Conc	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.12	112	85 - 115	2007-06-21

Standard (CCV-1)

QC Batch: 38447 Date Analyzed: 2007-06-21 Analyzed By: JW

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.02	102	85 - 115	2007-06-21

Standard (ICV-1)

QC Batch: 38457 Date Analyzed: 2007-06-21 Analyzed By: JW

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.874	87	85 - 115	2007-06-21

Standard (CCV-1)

QC Batch 38457 Date Analyzed: 2007-06-21 Analyzed By: JW

Param	Flag	Units	CCVs True Conc	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.971	97	85 - 115	2007-06-21

work order: 7061523

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: OF:

CLIENT NAME: Cimarex SITE MANAGER: Ike Tavarez

PROJECT NO.: 2955 PROJECT NAME: Cimarex / Cooper 4-1 SWD Lea County, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
127573	6/14/07		S		X	SP #1 0-1.0' BEB (1.0')	1				X	
574			S		X	SP #2 0-1.0' BEB (1.0')	1				X	
575			S		X	SP #3 0-1.0' BEB (1.5')	1				X	
576			S		X	SP #4 0-0.5' BEB (7.0')	1				X	
577			S	X		Stockpile Pasture #1	1				X	
578			S	X		Stockpile Pasture #2	1				X	
579			S	X		Stockpile Pad #1	1				X	
580			S	X		Stockpile Pad #2	1				X	
581			S	X		Stockpile Pad #3	1				X	

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8020/602	MTBE 8020/602	TPH 418.1 (8015 Mod.) TX1005	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GCMS Vol. 8240/8260/624	GCMS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chlorides	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
X	X	X											X			
X	X	X											X			
X	X	X											X			
X	X	X											X			
		X											X			
		X											X			
		X											X			
		X											X			
		X											X			

RELINQUISHED BY: (Signature) Date: 6/15/07 Time: 11:35

RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Sign) Joy Taylor / Lott Harrison Date: 6/15/07 Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

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

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature)
DATE: 6-15-07 TIME: 11:35

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 2.5C

MATRIX: W-Water A-Air SD-Solid (S-Soil) SL-Sludge O-Other

REMARKS:

Please Fill out all copies – Laboratory retains yellow copy – Return original copy to Highlander Environmental Corp. – Project Manager retains pink copy – Accounting receives Gold copy.

work order: 7061523

Analysis Request and Chain of Custody Record

PAGE: 1 OF: 1

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: Cimarex | SITE MANAGER: Ike Tavarez

PROJECT NO.: 2955 | PROJECT NAME: Cimarex / Cooper 4-1 SWD Lea County, NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8020/602	MTBE 8020/602	TPH 8015 MOD. TX1005 / 418.1	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	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
127573	6/14/07		S		X	SP#1 0-1.0' BEB (1.0')	1				X		X		X											X			
574			S		X	SP#2 0-1.0' BEB (1.0')	1				X		X		X											X			
575			S		X	SP#3 0-1.0' BEB (1.5')	1				X		X		X											X			
576			S		X	SP#4 0-0.5' BEB (7.0')	1				X		X		X											X			
577			S	X		Stockpile Pasture #1	1				X				X											X			
578			S	X		Stockpile Pasture #2	1				X				X											X			
579			S	X		Stockpile Pad #1	1				X				X											X			
580			S	X		Stockpile Pad #2	1				X				X											X			
581			S	X		Stockpile Pad #3	1				X				X											X			

RELINQUISHED BY: (Signature) Date: 6/15/07 Time: 11:35
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Sign) Roy Taylor / Cliff Harrison Date: 6/15/07 Time:

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

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

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature)
DATE: 6-15-07 TIME: 11:35

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 2.5C

MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other

REMARKS: all tests - Midland

Please Fill out all copies – Laboratory retains yellow copy – Return original copy to Highlander Enviromental Corp. – Project Manager retains pink copy – Accounting receives Gold copy.

6/15 GP

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 June 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 : Cimarex Energy Co. of Colorado	Contact: Hugo Naegele, Jr.
Address: 300 Texas Ave. Box 1237, Eunice, NM	Telephone No.: (505) 394-9394
Facility Name: Cooper 4-1 SWD	Facility Type: SWD (salt water disposal)

Surface Owner: Jimmy Cooper	Mineral Owner:

~~Lease~~ No. ~~API 30-025-35794~~

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	4	20S	37E	660'	North	1845'	West	Lea

NATURE OF RELEASE

Type of Release: Oil and Water	Volume of Release: 43 barrels	Volume Recovered: 43 barrels
Source of Release: Tank ran over	Date and Hour of Occurrence	Date and Hour of Discovery 2/12/07
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD – Gary Wink, left message with Larry Johnson	
By Whom? : Hugo Naegele, Jr.	Date and Hour: 2/ 23/07 4:45 PM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* (See Attached Initial C-141)
Tank overflow – Fluids were immediately pickup and impacted soil was excavated and placed on plastic onsite.

Describe Area Affected and Cleanup Action Taken.*
The release impacted an area on the pad approximately 10' x 30' and area off the pad approximately 25' x 120'. The impacted areas were assessed by collected soil samples. The impacted areas exceeding the NMOCD RRAL were excavated to below regulatory levels. A Closure Report was submitted the 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: Evan L Waubob	OIL CONSERVATION DIVISION
Printed Name: Evan L Waubob	Approved by District Supervisor: Johnson ENVIRONMENTAL ENGINEER
Title: Prod. Superintendent	Approval Date: 9.26.07 Expiration Date: —
E-mail Address: ewaubob@cimarex.com	Conditions of Approval: — Attached ☐
Date: 5/6/07 Phone: 432-571-7848	

* Attach Additional Sheets If Necessary

RP # 1591

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 Cimarex Energy Co of Colorado	Contact Hugo Naegele Jr.
Address 302 Texas Ave, PO Box 1237, Eunice, NM 88231	Telephone No. 505-394-0613 / 505-390-4394
Facility Name Cooper 4-1 SWD	Facility Type SWD (Salt Water Disposal)

Surface Owner Jimmy Cooper	Mineral Owner	Lease No. API 30-025-35794

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	4	20S	37E	660'	North	1845'	West	Lea

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release oil + water	Volume of Release 43 bbls	Volume Recovered 43 bbls
Source of Release Tank Ran Over	Date and Hour of Occurrence	Date and Hour of Discovery 2/12/07
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Gary Wink, OCD + Left message w/ Larry Johnson, OCD	
By Whom? Hugo Naegele Jr	Date and Hour 2/13/07 4:45 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Received Hobbs OCD

Describe Cause of Problem and Remedial Action Taken.* The grasshopper leg on the gun barrel tank plugged causing the tank to run over. Action taken 1) got a load(20 bbls) from the tank running over, 2) called for a vacuum truck to pick up spill, 3) called backhoe to pick up contaminated soil & put it on plastic on our location, 4) called Evan (Cimarex Supt) 5) called Gary Wink OCD 6) called land owner & 7) called Highlander Environment group.

Describe Area Affected and Cleanup Action Taken.*
The area affected was sandy terrain, A few mesquites, broom weed & grass.
Action taken: 1) Vacuum truck to pick up spill, 2) Backhoe & gang to pick up contaminated soil & put on plastic. 3) called Highlander Environmental.

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: Hnaegele Jr	OIL CONSERVATION DIVISION
Printed Name: Hugo Naegele Jr	Approved by District Supervisor:
Title: Production Foreman	Approval Date: / Expiration Date:
E-mail Address: hnaegele@cimarex.com	Conditions of Approval: / Attached ☐
Date: 2-13-07 Phone: 505-394-0613	

* Attach Additional Sheets If Necessary