November 16, 2005

City of Livermore
City Hall, Engineering Division
1052 South Livermore Avenue
Livermore, California 94550-4899

Attention: Robert Tingley, Associate Engineering Technician

Subject: **Environmental Sampling, Testing and Evaluation of Soil**
Livermore Airport Jet Fuel Line Replacement
Livermore, California
CEL Proposal No. 81-01824-PW (10-00431-PW-CS)

Dear Mr. Tingley:

Pursuant to your request, Consolidated Engineering Laboratories (CEL) has provided environmental testing services for onsite soil at the subject site. Our representative visited the site on November 10, 2005, and collected 15 individual soil samples at various locations within and near a jet fuel line excavation located at the airport of Livermore, California. Soil samples were collected by hand near the surface of the excavations and nearby stockpiles. Sampling was performed at the site under the direction of the local Fire Department. The sample locations are shown on the attached Figure 1.

The soil samples were transported to a California state-certified laboratory for testing. Proper chain-of-custody procedures were followed. The six soil samples were analyzed for the presence of Volatile Organic Compounds (EPA 8260B), Nonhalogenated Organics (EPA8015B), and Inductively Coupled Plasma – Atomic Emission Spectrometry (EPA 6010B/7471A).

Analytical results are compared to pertinent Soluble Threshold Limit Concentration (STLC), Total Threshold Limit Concentration (TTLC), Environmental Screening Levels (ESL's) for surface soil, and Preliminary Remediation Goals (PRG). Copies of the laboratory reports are attached.

Contaminant concentrations in soil are generally considered to be nonhazardous if they are equal or less than the TTLC, and less than 10 times the STLC as defined by the State of California in Title 22. Two other screening tools used to assess the acceptability of soils are the Preliminary Remediation Goals (PRGs) for industrial soil provided by the US EPA, and the Environmental Screening Levels provided by the San Francisco Bay Regional Water Quality Control Board for shallow soils where groundwater is not a current or potential source of drinking water (commercial/industrial land use area).

Gasoline concentrations in Samples 1-1, 1-8, 1-9, 1-10 and 1-11 were high. Concentrations ranged from 6,000 ppm to 360,000 ppm. Toluene was detected over the ESL limit in Samples 1-1, 1-9, and 1-11. In particular, the concentration of Toluene in Sample 1-11 was almost 420% higher than the ESL limit. The concentration of Total Xylenes in Sample 1-1 well exceeded the ESL. Motor oil was non-detectable in all the samples, however, Diesel Range Organics were detectable above the ESL limit. The ESL for DRO is 500 ppm, and concentrations reported in Samples 1-7, 1-8, 1-9, 1-10, and 1-11 ranged from 710 to 1,100 ppm. The soil in these locations can be considered highly contaminated and remediation is probable.

Concentrations of metals were generally below the screening levels. However, the concentration of Cobalt was above the ESL of 10 ppm in Samples 1-1, 1-2, 1-3, 1-5, 1-13, 1-14, and 1-15. High Chromium levels were detected in Samples 1-1 and 1-14. The STLC limit for Chromium is 50 ppm, and concentrations were detected at 54 and 55 ppm in the two high samples

It should be noted that the above screening tools are generally for action levels for contaminants in soil that is to remain in place, and different criteria may apply for soil that is to be transferred to or from a site. The local landfill or other location of proposed exported soil should be contacted to determine their requirements for accepting this material. The reported results are from representative samples of the soil, and do not necessarily represent the cleanliness of the entire site. These results should not be considered a clean bill of health, or prognosis of soil cleanliness. Local governing agencies may have stricter guideline standards that will govern this disposal of the soil.

It is our pleasure to be of service to you. If you should have any questions regarding this letter, please contact the undersigned at (925) 314-7100.

Sincerely,
CONSOLIDATED ENGINEERING LABORATORIES

William R. Stevens, PE 43010, GE 2339
Principal Geotechnical Engineer

Marc Hachey, P.G. 7833
Project Geologist

Attachments: Figure 1 Site plan
STL San Francisco lab report

Distributions: 4 plus email to Addressee, (925/960-4551, Fax 925/960-4504, rctingley@ci.livermore.ca.us)

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TABLE 1 (Sample 1)
SUMMARY OF ANALYTICAL DATA

Constituent	Reported Concentration (ppm)	California Title 22 STLC (ppm)	SFBRWQCB Environmental Screening Levels --ESLs (ppm)	California Title 22 TTLC (ppm)	US EPA Residential PRG (ppm)
Gasoline Range Organic		NA	**400**	NA	NA
1-1 (2)	**8,000**				
1-2	ND				
1-3	ND				
1-4	ND				
1-5	ND				
1-6	ND				
1-7	ND				
1-8 (2)	**260,000**				
1-9 (2)	**6,000**				
1-10 (2)	**310,000**				
1-11 (2)	**360,000**				
1-12	ND				
1-13	ND				
1-14	ND				
1-15	ND				
Benzene		NA	0.38	NA	NA
1-1	ND				
1-2	ND				
1-3	ND				
1-4	ND				
1-5	ND				
1-6	ND				
1-7	ND				
1-8	ND				
1-9	ND				
1-10	ND				
1-11	ND				
1-12	ND				
1-13	ND				
1-14	ND				
1-15	ND				
Toluene		NA	**9.3**	NA	NA
1-1 (2)	**59**				
1-2	ND				
1-3	ND				
1-4	ND				
1-5	ND				
1-6	ND				
1-7	ND				
1-8	ND				
1-9 (2)	**12**				
1-10	ND				
1-11 (2)	**3,900**				
1-12	ND				
1-13	8.3				
1-14	5.6				
1-15	ND				

Constituent	Reported Concentration (ppm)	California Title 22 STLC (ppm)	SFBRWQCB Environmental Screening Levels –ESLs (ppm)	California Title 22 TTLC (ppm)	US EPA Residential PRG (ppm)
Ethyl Benzene		NA	32	NA	NA
1-1	17				
1-2	ND				
1-3	ND				
1-4	ND				
1-5	ND				
1-6	ND				
1-7	ND				
1-8	ND				
1-9	ND				
1-10	ND				
1-11	ND				
1-12	ND				
1-13	ND				
1-14	ND				
1-15	ND				
Total Xylenes		NA	**2.3**	NA	NA
1-1 (2)	**210**				
1-2	ND				
1-3	ND				
1-4	ND				
1-5	ND				
1-6	ND				
1-7	ND				
1-8	ND				
1-9	ND				
1-10	ND				
1-11	ND				
1-12	ND				
1-13	ND				
1-14	ND				
1-15	ND				
Diesel Range Organics		NA	500	NA	NA
1-1	200				
1-2	ND				
1-3	ND				
1-4	6.1				
1-5	61				
1-6	ND				
1-7	ND				
1-8 (2)	**1,100**				
1-9 (2)	**710**				
1-10 (2)	**750**				
1-11 (2)	**800**				
1-12	16				
1-13	15				
1-14	7.5				
1-15	3				

Constituent	Reported Concentration (ppm)	California Title 22 STLC (ppm)	SFBRWQCB Environmental Screening Levels –ESLs (ppm)	California Title 22 TTLC (ppm)	US EPA Residential PRG (ppm)
Motor Oil Range Organics		NA	1,000	NA	NA
1-1	ND				
1-2	ND				
1-3	ND				
1-4	ND				
1-5	ND				
1-6	ND				
1-7	ND				
1-8	ND				
1-9	ND				
1-10	ND				
1-11	ND				
1-12	65				
1-13	68				
1-14	ND				
1-15	ND				
MTBE		NA	5.6	NA	620
1-1	ND				
1-2	ND				
1-3	ND				
1-4	ND				
1-5	ND				
1-6	ND				
1-7	ND				
1-8	NA				
1-9	ND				
1-10	NA				
1-11	NA				
1-12	ND				
1-13	ND				
1-14	ND				
1-15	ND				
Antimony		15	40	500	31
1-1	3.8				
1-2	ND				
1-3	ND				
1-4	ND				
1-5	ND				
1-6	ND				
1-7	ND				
1-8	ND				
1-9	ND				
1-10	ND				
1-11	ND				
1-12	ND				
1-13	ND				
1-14	ND				
1-15	ND				

Constituent	Reported Concentration (ppm)	California Title 22 STLC (ppm)	SFBRWQCB Environmental Screening Levels –ESLs (ppm)	California Title 22 TTLC (ppm)	US EPA Residential PRG (ppm)
Arsenic		5	5.5	500	39
1-1	5.5				
1-2	3.9				
1-3	4.1				
1-4	2.1				
1-5	3.1				
1-6	2.7				
1-7	1.6				
1-8	ND				
1-9	1.2				
1-10	1.4				
1-11	1.3				
1-12	1.7				
1-13	4.2				
1-14	4.1				
1-15	4.1				
Barium		100	1,500	10,000	5,400
1-1	170				
1-2	190				
1-3	180				
1-4	35				
1-5	140				
1-6	45				
1-7	26				
1-8	35				
1-9	27				
1-10	46				
1-11	46				
1-12	49				
1-13	160				
1-14	170				
1-15	150				
Beryllium		0.75	8.0	75	150
1-1	ND				
1-2	ND				
1-3	ND				
1-4	ND				
1-5	ND				
1-6	ND				
1-7	ND				
1-8	ND				
1-9	ND				
1-10	ND				
1-11	ND				
1-12	ND				
1-13	ND				
1-14	ND				
1-15	ND				

Constituent	Reported Concentration (ppm)	California Title 22 STLC (ppm)	SFBRWQCB Environmental Screening Levels –ESLs (ppm)	California Title 22 TTLC (ppm)	US EPA Residential PRG (ppm)
Cadmium		1	7.4	100	3.7
1-1	1.6				
1-2	1.5				
1-3	1.5				
1-4	1.0				
1-5	1.3				
1-6	1.2				
1-7	0.8				
1-8	0.5				
1-9	0.5				
1-10	0.8				
1-11	1.2				
1-12	0.9				
1-13	1.5				
1-14	1.5				
1-15	1.4				
Chromium – Total		**5**	58	NA	210
1-1 (1)	**54**				
1-2	50				
1-3	48				
1-4	15				
1-5	41				
1-6	15				
1-7	14				
1-8	11				
1-9	11				
1-10	19				
1-11	41				
1-12	18				
1-13	48				
1-14 (1)	**55**				
1-15	50				
Cobalt		80	**10**	8,000	4,700
1-1 (2)	**14**				
1-2 (2)	**14**				
1-3 (2)	**14**				
1-4	4.7				
1-5 (2)	**11**				
1-6	7.8				
1-7	3.4				
1-8	3.9				
1-9	3.5				
1-10	5.9				
1-11	8.2				
1-12	9.7				
1-13 (2)	**13**				
1-14 (2)	**14**				
1-15 (2)	**13**				

Constituent	Reported Concentration (ppm)	California Title 22 STLC (ppm)	SFBRWQCB Environmental Screening Levels --ESLs (ppm)	California Title 22 TTLC (ppm)	US EPA Residential PRG (ppm)
Copper		25	230	2,500	2,900
1-1	35				
1-2	30				
1-3	31				
1-4	11				
1-5	26				
1-6	15				
1-7	8.3				
1-8	9.1				
1-9	7.5				
1-10	13				
1-11	17				
1-12	19				
1-13	27				
1-14	29				
1-15	27				
Lead - Total		5	750	1,000	400
1-1	7.5				
1-2	6.6				
1-3	6.9				
1-4	4.0				
1-5	6.1				
1-6	4.4				
1-7	3.0				
1-8	10				
1-9	8.7				
1-10	10				
1-11	5.2				
1-12	2.6				
1-13	7.3				
1-14	7.4				
1-15	7.8				
Molybdenum		350	40	3,500	390
1-1	ND				
1-2	ND				
1-3	ND				
1-4	ND				
1-5	ND				
1-6	ND				
1-7	ND				
1-8	ND				
1-9	ND				
1-10	ND				
1-11	ND				
1-12	ND				
1-13	ND				
1-14	ND				
1-15	ND				

Constituent	Reported Concentration (ppm)	California Title 22 STLC (ppm)	SFBRWQCB Environmental Screening Levels –ESLs (ppm)	California Title 22 TTLC (ppm)	US EPA Residential PRG (ppm)
Nickel		20	150	2,000	1,600
1-1	100				
1-2	93				
1-3	92				
1-4	28				
1-5	73				
1-6	28				
1-7	19				
1-8	16				
1-9	22				
1-10	32				
1-11	28				
1-12	40				
1-13	100				
1-14	110				
1-15	98				
Selenium		1	10	100	390
1-1	ND				
1-2	ND				
1-3	ND				
1-4	ND				
1-5	ND				
1-6	ND				
1-7	ND				
1-8	ND				
1-9	ND				
1-10	ND				
1-11	ND				
1-12	ND				
1-13	ND				
1-14	ND				
1-15	ND				
Silver		5	40	500	390
1-1	ND				
1-2	ND				
1-3	ND				
1-4	ND				
1-5	ND				
1-6	ND				
1-7	ND				
1-8	ND				
1-9	ND				
1-10	ND				
1-11	ND				
1-12	ND				
1-13	ND				
1-14	ND				
1-15	ND				

Constituent	Reported Concentration (ppm)	California Title 22 STLC (ppm)	SFBRWQCB Environmental Screening Levels –ESLs (ppm)	California Title 22 TTLC (ppm)	US EPA Residential PRG (ppm)
Thallium		7	13	700	5.2
1-1	ND				
1-2	ND				
1-3	ND				
1-4	ND				
1-5	ND				
1-6	ND				
1-7	ND				
1-8	ND				
1-9	ND				
1-10	ND				
1-11	ND				
1-12	ND				
1-13	ND				
1-14	ND				
1-15	ND				
Vanadium		24	200	2,400	550
1-1	25				
1-2	25				
1-3	25				
1-4	12				
1-5	22				
1-6	28				
1-7	11				
1-8	11				
1-9	6.7				
1-10	12				
1-11	28				
1-12	13				
1-13	22				
1-14	22				
1-15	23				
Zinc		250	600	5,000	23,000
1-1	47				
1-2	42				
1-3	45				
1-4	72				
1-5	39				
1-6	31				
1-7	20				
1-8	17				
1-9	22				
1-10	24				
1-11	26				
1-12	30				
1-13	43				
1-14	44				
1-15	41				

Mercury		0.2	10	20	2.3
1-1	0.06				
1-2	0.06				
1-3	ND				
1-4	ND				
1-5	ND				
1-6	ND				
1-7	ND				
1-8	ND				
1-9	ND				
1-10	ND				
1-11	ND				
1-12	ND				
1-13	0.06				
1-14	0.05				
1-15	0.05				

ND Non Detectable NA Not Applicable/Available

(1) More than 10 times the California STLC. However, the test results are below the California TTLC, San Francisco Bay Regional Water Quality Board ESLs, and the US EPA PRG.

(2) More than the San Francisco Bay Regional Water Quality Board ESLs. However, the test results are below the California TTLC, STLC and US EPA PRG.

Analytical Data

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: 1-9

Lab Sample ID: 720-385-9
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 11/11/2005 1443
Date Prepared: 11/11/2005 1443

Analysis Batch: 720-1694

Instrument ID: Varian 3900E
Lab File ID: c:\varianws\data\200511\11
Initial Weight/Volume: 5 g
Final Weight/Volume: 10 mL

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Benzene		ND		5.0
Ethylbenzene		ND		5.0
Toluene		12		5.0
MTBE		ND		5.0
Xylenes, Total		ND		10
Gasoline Range Organics (GRO)-C5-C12		6000		1000

Surrogate	%Rec	Acceptance Limits
Toluene-d8	96	70 - 130
1,2-Dichloroethane-d4	103	60 - 140

Analytical Data

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: 1-1

Lab Sample ID: 720-385-1
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 11/11/2005 1304
Date Prepared: 11/10/2005 1534

Analysis Batch: 720-1698
Prep Batch: 720-1643

Instrument ID: HP DRO3
Lab File ID: N/A
Initial Weight/Volume: 30.23 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		200		0.99
Motor Oil Range Organics [C24-C36]		ND		50

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	91	60 - 130

Analytical Data

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: **1-2**

Lab Sample ID: 720-385-2
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 11/11/2005 1332
Date Prepared: 11/10/2005 1534

Analysis Batch: 720-1698
Prep Batch: 720-1643

Instrument ID: HP DRO3
Lab File ID: N/A
Initial Weight/Volume: 30.02 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		ND		1.0
Motor Oil Range Organics [C24-C36]		ND		50

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	91	60 - 130

Analytical Data

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: 1-3

Lab Sample ID: 720-385-3
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 11/11/2005 1142
Date Prepared: 11/10/2005 1534

Analysis Batch: 720-1698
Prep Batch: 720-1643

Instrument ID: HP DRO3
Lab File ID: N/A
Initial Weight/Volume: 30.19 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		ND		0.99
Motor Oil Range Organics [C24-C36]		ND		50

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	83	60 - 130

Analytical Data

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: 1-4

Lab Sample ID: 720-385-4
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 11/11/2005 1359
Date Prepared: 11/10/2005 1534

Analysis Batch: 720-1698
Prep Batch: 720-1643

Instrument ID: HP DRO3
Lab File ID: N/A
Initial Weight/Volume: 30.19 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		6.1		0.99
Motor Oil Range Organics [C24-C36]		ND		50

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	88	60 - 130

Analytical Data

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: **1-5**

Lab Sample ID: 720-385-5
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 11/11/2005 1427
Date Prepared: 11/10/2005 1534

Analysis Batch: 720-1698
Prep Batch: 720-1643

Instrument ID: HP DRO3
Lab File ID: N/A
Initial Weight/Volume: 30.02 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		61		1.0
Motor Oil Range Organics [C24-C36]		ND		50

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	93	60 - 130

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: 1-6

Lab Sample ID: 720-385-6
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 11/11/2005 1237
Date Prepared: 11/10/2005 1534

Analysis Batch: 720-1698
Prep Batch: 720-1643

Instrument ID: HP DRO3
Lab File ID: N/A
Initial Weight/Volume: 30.00 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		ND		1.0
Motor Oil Range Organics [C24-C36]		ND		50

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	87	60 - 130

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: 1-7

Lab Sample ID: 720-385-7
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 11/11/2005 1209
Date Prepared: 11/10/2005 1534

Analysis Batch: 720-1698
Prep Batch: 720-1643

Instrument ID: HP DRO3
Lab File ID: N/A
Initial Weight/Volume: 30.29 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		ND		0.99
Motor Oil Range Organics [C24-C36]		ND		50

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	90	60 - 130

Analytical Data

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: 1-8

Lab Sample ID: 720-385-8
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution: 5.0
Date Analyzed: 11/14/2005 0251
Date Prepared: 11/10/2005 1534

Analysis Batch: 720-1698
Prep Batch: 720-1643

Instrument ID: HP DRO3
Lab File ID: N/A
Initial Weight/Volume: 30.16 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		1100		5.0
Motor Oil Range Organics [C24-C36]		ND		250

Surrogate	%Rec		Acceptance Limits
o-Terphenyl	0	D	60 - 130

Analytical Data

Client: Consolidated Engineering Lab | Job Number: 720-385-1

Client Sample ID: 1-9

Lab Sample ID: 720-385-9
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution: 5.0
Date Analyzed: 11/14/2005 0318
Date Prepared: 11/10/2005 1534

Analysis Batch: 720-1698
Prep Batch: 720-1643

Instrument ID: HP DRO3
Lab File ID: N/A
Initial Weight/Volume: 30.20 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		710		5.0
Motor Oil Range Organics [C24-C36]		ND		250

Surrogate	%Rec		Acceptance Limits
o-Terphenyl	0	D	60 - 130

Analytical Data

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: **1-10**

Lab Sample ID: 720-385-10
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution: 5.0
Date Analyzed: 11/14/2005 0345
Date Prepared: 11/10/2005 1534

Analysis Batch: 720-1698
Prep Batch: 720-1643

Instrument ID: HP DRO3
Lab File ID: N/A
Initial Weight/Volume: 30.36 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		750		4.9
Motor Oil Range Organics [C24-C36]		ND		250

Surrogate	%Rec		Acceptance Limits
o-Terphenyl	0	D	60 - 130

Analytical Data

Client: *Consolidated Engineering Lab* Job Number: 720-385-1

Client Sample ID: 1-11

Lab Sample ID: 720-385-11
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution: 5.0
Date Analyzed: 11/14/2005 0412
Date Prepared: 11/10/2005 1534

Analysis Batch: 720-1698
Prep Batch: 720-1643

Instrument ID: HP DRO3
Lab File ID: N/A
Initial Weight/Volume: 30.18 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		800		5.0
Motor Oil Range Organics [C24-C36]		ND		250

Surrogate	%Rec		Acceptance Limits
o-Terphenyl	0	D	60 - 130

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: 1-12

Lab Sample ID: 720-385-12
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 11/11/2005 1454
Date Prepared: 11/10/2005 1534

Analysis Batch: 720-1698
Prep Batch: 720-1643

Instrument ID: HP DRO3
Lab File ID: N/A
Initial Weight/Volume: 30.08 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		16		1.0
Motor Oil Range Organics [C24-C36]		65		50

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	84	60 - 130

Analytical Data

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: 1-13

Lab Sample ID: 720-385-13
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 11/11/2005 1521
Date Prepared: 11/10/2005 1534

Analysis Batch: 720-1698
Prep Batch: 720-1643

Instrument ID: HP DRO3
Lab File ID: N/A
Initial Weight/Volume: 30.19 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	*DryWt Corrected: N* Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]	15		0.99
Motor Oil Range Organics [C24-C36]	68		50

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	82	60 - 130

Analytical Data

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: 1-14

Lab Sample ID: 720-385-14
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 11/11/2005 1454
Date Prepared: 11/10/2005 1534

Analysis Batch: 720-1698
Prep Batch: 720-1643

Instrument ID: HP DRO3
Lab File ID: N/A
Initial Weight/Volume: 30.05 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		7.5		1.0
Motor Oil Range Organics [C24-C36]		ND		50

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	79	60 - 130

Analytical Data

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: **1-15**

Lab Sample ID: 720-385-15
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method: 8015B
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 11/11/2005 1521
Date Prepared: 11/10/2005 1534

Analysis Batch: 720-1698
Prep Batch: 720-1643

Instrument ID: HP DRO3
Lab File ID: N/A
Initial Weight/Volume: 30.20 g
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		3.0		0.99
Motor Oil Range Organics [C24-C36]		ND		50

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	89	60 - 130

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: 1-1

Lab Sample ID: 720-385-1
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 11/11/2005 1838
Date Prepared: 11/11/2005 0823

Analysis Batch: 720-1683
Prep Batch: 720-1648

Instrument ID: Varian ICP
Lab File ID: N/A
Initial Weight/Volume: 1.04 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Silver		ND		0.96
Arsenic		5.5		0.96
Barium		170		0.96
Beryllium		ND		0.48
Cadmium		1.6		0.48
Cobalt		14		0.96
Chromium		54		0.96
Copper		35		0.96
Molybdenum		ND		0.96
Nickel		100		0.96
Lead		7.5		0.96
Antimony		3.8		1.9
Selenium		ND		1.9
Thallium		ND		0.96
Vanadium		25		0.96
Zinc		47		0.96

7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A
Preparation: 7471A
Dilution: 1.0
Date Analyzed: 11/11/2005 1427
Date Prepared: 11/11/2005 0833

Analysis Batch: 720-1684
Prep Batch: 720-1650

Instrument ID: FIMS 100
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.057		0.050

Analytical Data

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: 1-2

Lab Sample ID: 720-385-2
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 11/11/2005 1849
Date Prepared: 11/11/2005 0823

Analysis Batch: 720-1683
Prep Batch: 720-1648

Instrument ID: Varian ICP
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Silver		ND		1.0
Arsenic		3.9		1.0
Barium		190		1.0
Beryllium		ND		0.50
Cadmium		1.5		0.50
Cobalt		14		1.0
Chromium		50		1.0
Copper		30		1.0
Molybdenum		ND		1.0
Nickel		93		1.0
Lead		6.6		1.0
Antimony		ND		2.0
Selenium		ND		2.0
Thallium		ND		1.0
Vanadium		25		1.0
Zinc		42		1.0

7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A
Preparation: 7471A
Dilution: 1.0
Date Analyzed: 11/11/2005 1430
Date Prepared: 11/11/2005 0833

Analysis Batch: 720-1684
Prep Batch: 720-1650

Instrument ID: FIMS 100
Lab File ID: N/A
Initial Weight/Volume: 1.05 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.057		0.048

Analytical Data

Client: Consolidated Engineering Lab

Job Number: 720-385-1

Client Sample ID: 1-3

Lab Sample ID: 720-385-3
Client Matrix: Solid

Date Sampled: 11/10/2005 0000
Date Received: 11/10/2005 1220

6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 11/11/2005 1853
Date Prepared: 11/11/2005 0823

Analysis Batch: 720-1683
Prep Batch: 720-1648

Instrument ID: Varian ICP
Lab File ID: N/A
Initial Weight/Volume: 1.01 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Silver		ND		0.99
Arsenic		4.1		0.99
Barium		180		0.99
Beryllium		ND		0.50
Cadmium		1.5		0.50
Cobalt		14		0.99
Chromium		48		0.99
Copper		31		0.99
Molybdenum		ND		0.99
Nickel		92		0.99
Lead		6.9		0.99
Antimony		ND		2.0
Selenium		ND		2.0
Thallium		ND		0.99
Vanadium		25		0.99
Zinc		45		0.99

7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method: 7471A
Preparation: 7471A
Dilution: 1.0
Date Analyzed: 11/11/2005 1431
Date Prepared: 11/11/2005 0833

Analysis Batch: 720-1684
Prep Batch: 720-1650

Instrument ID: FIMS 100
Lab File ID: N/A
Initial Weight/Volume: 1.03 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		ND		0.049

Analytical Data

Client: Consolidated Engineering Lab | Job Number: 720-385-1

Client Sample ID: 1-4

Lab Sample ID:	720-385-4	Date Sampled:	11/10/2005 0000
Client Matrix:	Solid	Date Received:	11/10/2005 1220

6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

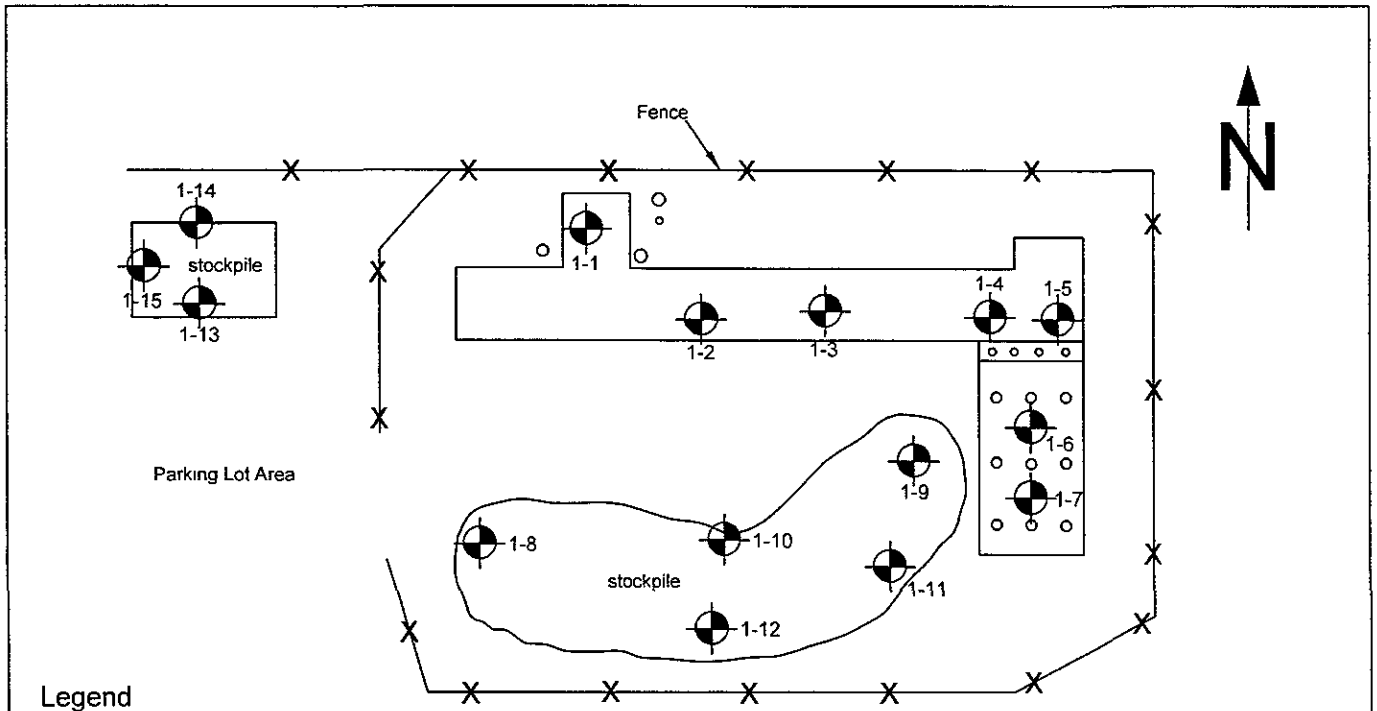
Method:	6010B	Analysis Batch: 720-1683		Instrument ID:	Varian ICP
Preparation:	3050B	Prep Batch: 720-1648		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.03 g
Date Analyzed:	11/11/2005 1857			Final Weight/Volume:	50 mL
Date Prepared:	11/11/2005 0823				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Silver		ND		0.97
Arsenic		2.1		0.97
Barium		35		0.97
Beryllium		ND		0.49
Cadmium		1.0		0.49
Cobalt		4.7		0.97
Chromium		15		0.97
Copper		11		0.97
Molybdenum		ND		0.97
Nickel		28		0.97
Lead		4.0		0.97
Antimony		ND		1.9
Selenium		ND		1.9
Thallium		ND		0.97
Vanadium		12		0.97
Zinc		72		0.97

7471A Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Method:	7471A	Analysis Batch: 720-1684		Instrument ID:	FIMS 100
Preparation:	7471A	Prep Batch: 720-1650		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.03 g
Date Analyzed:	11/11/2005 1432			Final Weight/Volume:	50 mL
Date Prepared:	11/11/2005 0833				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		ND		0.049



CONSOLIDATED ENGINEERING LABORATORIES	Airport Jet Fuel Line Replacement	81-01824	November 2005
		Livermore, California	Figure 1
			Site Plan