Subsurface Consultants, Inc.

September 19, 2001
SCI 272.073

Mr. Odili Ojukwu, P.E.
City of Oakland Public Works Agency
Environmental Services Department
250 Frank H. Ogawa Plaza, Suite 5301
Oakland, California 94612

Soil and Water Sampling
City Center Parcels T-5 and T-6
Oakland, California

Dear Mr. Ojukwu:

Subsurface Consultants, Inc. (SCI) has prepared this letter report to document recent soil and groundwater sampling activities performed at the subject site. As requested by the City, the purpose of these sampling activities is to supplement the data collected during previous investigations, including the findings described in SCI's letter report to the City dated August 21, 2000 (revised). The scope of activities conducted includes:

- sampling and analyses of one existing onsite well to evaluate groundwater conditions;
- sampling and analyses of shallow fill to assist the City with confirming offsite disposal arrangements; and,
- sampling and analyses of native soil samples to assist the City with negotiating unrestricted reuse of native soil as part of the development.

The activities and scope of work were completed in accordance with SCI's proposal to the City of Oakland (City) dated March 2, 2001, and revised June 5, 2001.

BACKGROUND

The Site currently comprises two landscaped areas bordered by 11th, 12th, and Clay Streets, as well as paved driveways providing access to the City Center garage structure (Plates 1 and 2). SCI understands that Parcels T-5 and T-6 will be developed as a multi-story office building with underground parking.

Previous reports indicated that shallow fill at parcel T6 contained elevated lead concentrations. Elevated oil and grease concentrations were also detected in soil samples collected from the

1000 Broadway · Suite 200 · Oakland, California 94607 · 510.268.0461 · FAX 510.268.0137
2011 Soscol Avenue · Suite 5 · Napa, California 94559 · 707.257.6993 · FAX 707.257.6995

northern landscaped area. Slightly elevated mercury concentrations were detected in a composite soil sample collected from the southern landscaped area. Results of analyses detected elevated ethylbenzene and xylene concentrations in groundwater samples collected from monitoring well W-3, which is likely associated with the previous service station operations at the site.

FIELD ACTIVITIES

Fieldwork was performed using standard industry practices regarding worker safety, equipment decontamination, and sample handling. SCI contracted with California Utility Surveys, a utility locator, to survey the site for existing monitoring wells installed by others. Only one [redacted] was located. W-3 was sampled on August 7, 2001.

On [redacted] SCI retained Vironex to advance 6 probes (B-1 through B-6) to depths ranging from 8 to 16 feet below ground surface (bgs). These probes were advanced approximately 2 feet into native soil. Vironex also used hand-auguring methods to [redacted] probes (B-7 and B-8) to approximately 3-5 feet bgs. Due to the presence of gravel encountered at those locations, hand-augering to greater depths was not practical. Probe locations are shown on Plate 2. (T6)

Soil samples were retained in clear butyrate liners, capped with Teflon sheeting and plastic end caps, and placed in an ice-chilled cooler. SCI's field geologist screened soil samples in the field using an organic vapor meter (OVM), and logged samples in accordance with the Unified Soil Classification System (USCS). Logs of the probes, including OVM readings, are attached.

In general, fill was encountered to depths ranging from 0.5 to 5 feet bgs. Fill comprised moist, medium dense, mottled dark brown to brown silty and/or clayey sand. Gravel and brick fragments were observed in the shallow fill. The fill was generally underlain with moist, medium dense, reddish to yellowish brown silty sand to the maximum depth explored. No groundwater was encountered during these drilling activities.

ANALYTICAL TESTING PROGRAM

Samples were submitted under chain-of-custody protocol to Curtis and Tompkins, Ltd., a State-certified chemical testing laboratory. Samples submitted for TOG analyses were submittted to McCampbell Analytical Inc., a State-certified chemical testing laboratory. Groundwater samples were tested for one or more of the following:

- Total petroleum hydrocarbons as gasoline (TPHg) including benzene, toluene, ethylbenzene, total xylene (BTEX) and methyl tertiary butyl ether (MTBE), USEPA Method 8015m/8020,
- Total extractable hydrocarbons as diesel (TPHd) using silica gel cleanup, USEPA Method 8015m, and

- Total Oil and Grease (TOG), USEPA Method 1664,
- 17 Title 22 metals, USEPA Method 6010/7000 series.

For the metals testing of the groundwater sample, the laboratory decanted the sample from the sample bottle making an effort to not include sediment from the bottom of the bottle.

The fill samples were tested for the following:

- Total lead, USEPA Method 6010, and
- Soluble lead, USEPA Method WET[1]/6010.

The native soil samples were tested for one or more of the following:

- Total petroleum hydrocarbons as gasoline (TPHg) including benzene, toluene, ethylbenzene, total xylene (BTEX) and methyl tertiary butyl ether (MTBE), USEPA Method 8015m/8020,
- Total extractable hydrocarbons as diesel and motor oil (TPHd and TPHo) using silica gel cleanup, USEPA Method 8015m,
- Total Oil and Grease (TOG), USEPA Method 1664,
- 17 Title 22 metals, USEPA Method 6010/7000 series,
- Semi-volatile Organic Compounds, USEPA Method 8270,
- Pesticides and Polychlorinated Biphenyls, USEPA Method 8081/8082,
- Volatile Organic Compounds, USEPA 8260, and
- Total lead, USEPA Method 6010.

ANALYTICAL RESULTS

The results of chemical testing are summarized in Tables 1 through 3. Analytical reports and chain of custody documents are attached.

Groundwater Samples

Analytical results indicated 170 micrograms per liter (ug/l) of TVHg in the groundwater sample. Analyses for TEHd, TEHo, TOG, BTEX, or MTBE concentrations. Analytical results for metals detected 28 ug/l of barium and 25 ug/l of nickel.

[1] California Waste Extraction Test

Fill Samples

Analytical results for the fill samples indicated total lead in the five fill samples at concentrations ranging from 2.4 milligrams per kilogram (mg/kg) in B-3@3.5' to 130 mg/kg in B-8@3.5'. The analytical results also indicated soluble lead concentrations using Waste Extraction Test (WET) methodologies in 2 of the 5 samples tested; 2.9 milligrams per liter (mg/l) in B-7@3.0', 6.3 in B-7@3.0' and 0.5 mg/l in B-8@3.5'. The detected soluble lead concentrations in B-7@3.0' and B-8@3.5' exceed the Soluble Threshold Limit Concentrations (STLC) of 5 mg/l for lead, one of the hazardous waste criteria established by the State of California.

Native Soil Samples

The analytical results for the native soil samples indicate 5.3 mg/kg of TEHd, 27 mg/kg of TEHmo, and 5.6 mg/kg of ethylbenzene in B-2@6.0'. The analytical results also indicated no TEHd, TEHmo, TOG, TVHg, MTBE, BTEX, HVOCs, SVOCs, pesticides, or PCB concentrations in the native soil samples tested. Based on SCI's experience with similar studies in the San Francisco Bay Area, the detected metals concentrations were similar to anticipated background values, including the total lead concentrations that ranged from 1.5 to 3.4 mg/kg.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings from this the previous SCI investigation, SCI concludes that groundwater at the Site is impacted with relatively low concentrations of gasoline hydrocarbons. If proposed construction activities involve dewatering at the Site, it is SCI's opinion that groundwater will likely be impacted with petroleum hydrocarbons resulting from previous gasoline station activities. We recommend that (1) the developer be made aware of the impacted groundwater conditions, and (2) if dewatering activities involve discharge to the storm drain or sanitary sewer, dewatering activities should be conducted in accordance with the applicable permits [e.g. EBMUD or National Pollution Discharge Elimination System (NPDES) permit].

For fill materials, analyses indicate that soil near the vicinity of B-7 and B-8 contains elevated soluble lead concentrations. Analyses on fill samples collected in the remaining portions of the Site indicate that except for the vicinity of B-7 and B-8, fill excavated from the Site will not likely exceed TTLC and STLC hazardous waste criteria, and therefore can likely be disposed as non-hazardous waste.

Except for 5.6 ug/kg of ethylbenzene in B-2@6.0', no petroleum hydrocarbons were detected in the native soil samples tested. Although arsenic and copper concentrations in Samples B-1@8.0' and B-2@6.0' exceeded either the RBSL or ESL criteria, it is SCI's opinion that the detected arsenic and copper concentrations are consistent with background metals values. This opinion is based on SCI's experience with similar studies in the San Francisco Bay Area. The detected lead concentrations in the native soil samples also appear to be consistent with background values. Based on these findings, it is SCI's opinion that with the exception of soil impacted with

petroleum hydrocarbons, the RWQCB will likely grant approval for the unrestricted reuse of native soils from the site. SCI recommends submitting a copy of this report to (1) the developer and their contractor to assist with planning, construction, and disposal issues, and (2) the RWQCB to assist with the City's negotiations for the unrestricted reuse of native soil from the Site.

CLOSING STATEMENT

We trust that this provides the information required at this time. If you have any questions, please call.

Yours very truly,
Subsurface Consultants, Inc.

Glenn S. Young, RG
Associate Geologist
GSY: ae 272.073\T 5_6 Report

REGISTERED GEOLOGIST
GLENN S. YOUNG
NO. 6406
STATE OF CALIFORNIA

4 copies submitted

Attachments: Table 1: Summary of Analytical Results – Groundwater Samples
Table 2: Summary of Analytical Results – Fill Samples
Table 3: Summary of Analytical Results – Native Soil Samples
Plate 1 – Vicinity Map
Plate 2 – Site Plan
Logs of Probes and USCS
Analytical Reports with Chain-of-Custody Documents

Table 1
Summary of Analytical Results - Groundwater Samples
City Center Parcels T-5/6
Oakland, California

Analyte	Units	W-3	W-3	MCL
Date Sampled		**11/9/00**	**8/7/01**	
TEHd*	ug/L	<50	<50	NE
TVHg	ug/L	**330**	**79**	NE
TOG	ug/L	--	<5.0	NE
VOCs	ug/L	ND	--	NE
Naphthalene	ug/L	**3.4**	--	NE
Isopropylbenzene	ug/L	**4.3**	--	NE
Benzene	ug/L	<0.50	<0.50	1
Toluene	ug/L	<0.50	<0.50	150
Ethylbenzene	ug/L	**29**	<0.50	700
Xylenes	ug/L	**51**	<0.50	1,750
MTBE	ug/L	<0.50	<2.0	13
Metals				
Antimony	ug/L	--	<60	6
Arsenic	ug/L	--	<5.0	50
Barium	ug/L	--	**90**	1,000
Beryllium	ug/L	--	<2.0	4
Cadmium	ug/L	--	<5.0	5
Chromium	ug/L	--	<10	50
Cobalt	ug/L	--	<20	NE
Copper	ug/L	--	<10	1,300**
Lead	ug/L	--	<3.0	15**
Mercury	ug/L	--	<0.20	2
Molybdenum	ug/L	--	<20	NE
Nickel	ug/L	--	**25**	100
Selenium	ug/L	--	<5.0	50
Silver	ug/L	--	<5.0	100***
Thallium	ug/L	--	<5.0	NE
Vanadium	ug/L	--	<10	NE
Zinc	ug/L	--	<20	5,000***

Notes:
-- = not tested
TVHg = Total Volatile Hydrocarbons as gasoline
TEHd = Total Extactable Hydrocarbons as diesel fuel
TEHmo= Total Extactable Hydrocarbons as motor oil
TOG = Total Oil and Grease
VOCs = Volatile Organic Compounds
MTBE = Methyl tert butyl ether
* = using silca gel cleanup
ug/L = micrograms per Liter
Detected concentrations are shown in bold.
< = not detected at or above the listed analytical reporting limit
NE = Not Established
MCL = Maximum Contaminant Levels. Values are established by the California Department of Health Services (DHS) (May 23, 2000).
** = Copper and Lead values are considered "Action Levels", and not MCLs.
*** = Secondary MCLs, established by the DHS.

Table 2: Summary of Analytical Results - Fill Samples
City Center Parcels T-5/6
Oakland, California

Analyte	Units	B-1 @ 3.5	B-3 @ 3.5	B-4 @ 4.0	B-7 @ 3.0	B-8 @ 3.5	TTLC (mg/kg)	STLC (mg/L)
Lead	mg/kg	**3.5**	**2.4**	**19**	**99**	**130**	*1,000*	*5.0*
WET Lead	mg/L	<0.15	<0.15	**2.2**	**7.3**	**6.3**	*NE*	*NE*

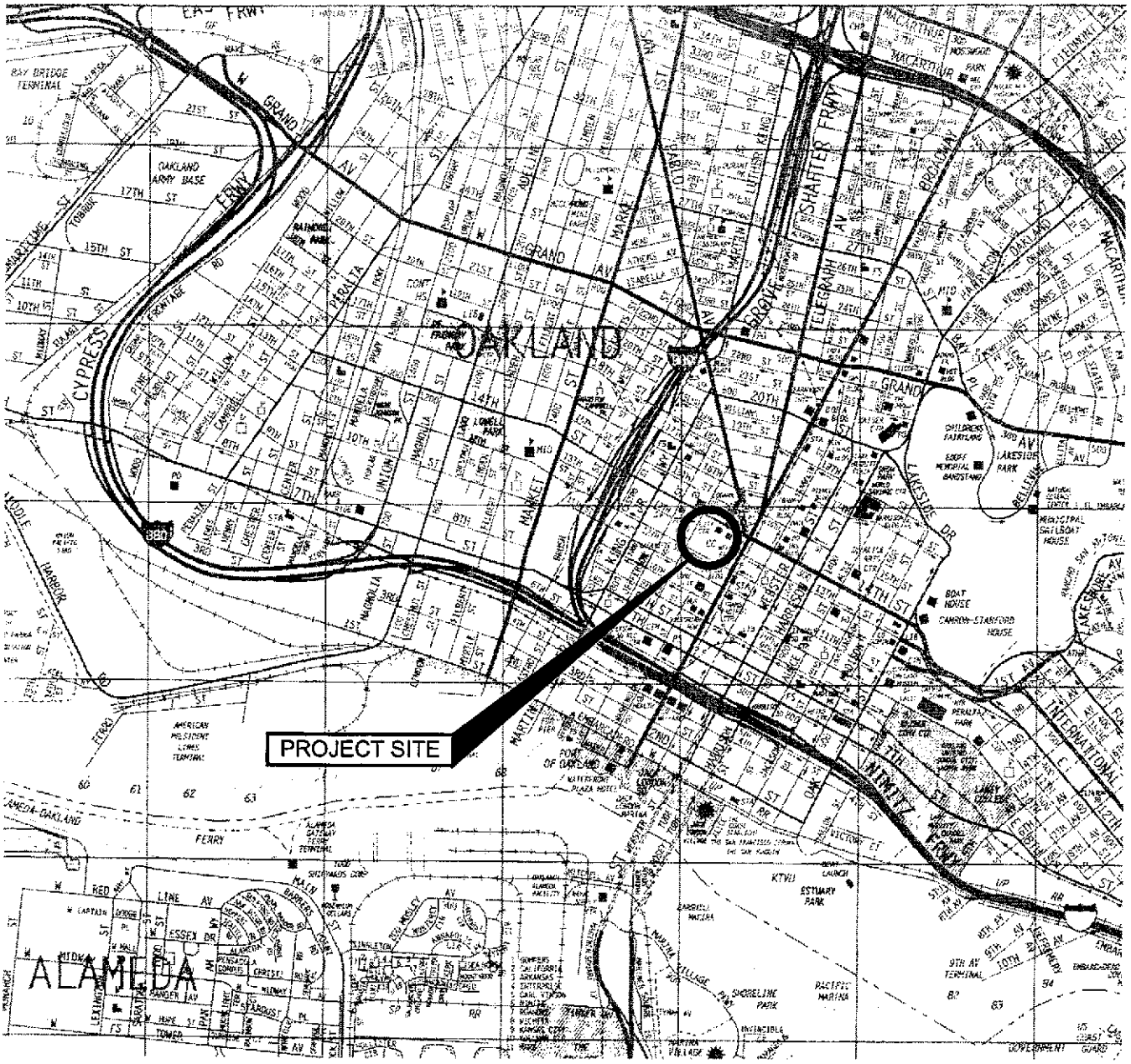
do ? ? extract ?

Notes:
Soil samples obtained August 20, 2001
mg/kg = milligrams per kilogram
mg/L = milligrams per Liter
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
Detected concentrations are shown in bold.
< = not detected at or above the listed analytical reporting limit

Table 3: Summary of Analytical Results -Native Soil Samples
City Center Parcels T-5/6
Oakland, California

Analyte	Units	B-1 @ 8.0	B-2 @ 6.0	B-3 @ 6.0	B-4 @ 8.0	B-5 @ 7.5	B-6 @ 5.5	Tier 2 ULR (Residential) / Commercial	RBSL (Table A)	TTLC (mg/kg)	STLC (mg/L)
TEHd*	mg/kg	<1.0	5.3	<1.0	<1.0	<1.0	<1.0	--	100	--	--
TEHmo*	mg/kg	<5.0	27	<5.0	<5.0	<5.0	<5.0	--	100	--	--
TOG	mg/kg	<50	<50	<50	<50	<50	<50	--	--	--	--
TVHg	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	100	--	--
MTBE	mg/kg	<21	<20	<21	<22	<20	<20	0.04	0.028	--	--
Benzene	ug/kg	<5.2	<4.9	<5.2	<5.6	<5.1	<5.0	3.7	0.045	--	--
Toluene	ug/kg	<5.2	<4.9	<5.2	<5.6	<5.1	<5.0	4.2	2.6	--	--
Ethylbenzene	ug/kg	<5.2	5.6	<5.2	<5.6	<5.1	<5.0	38	2.5	--	--
Xylenes	ug/kg	<5.2	<4.9	<5.2	<5.6	<5.1	<5.0	40	1.0	--	--
HVOCs	ug/kg	ND	--	--	--	--	--	--	--	--	--
SVOCs	ug/kg	ND	--	--	--	--	--	--	--	--	--
Pesticides	ug/kg	ND	--	--	--	--	--	--	--	--	--
PCBs	ug/kg	ND	--	--	--	--	--	--	--	--	--
Metals		--	--	--	--	--	--	--	--	--	--
Antimony	mg/kg	<2.9	--	<3.0	--	--	--	--	6.3	*500*	*15*
Arsenic	mg/kg	1.5	--	1.5	--	--	--	3.8/24	0.39	*500*	*5.0*
Barium	mg/kg	38	--	50	--	--	--	600	750	*10,000*	*100*
Beryllium	mg/kg	0.23	--	0.26	--	--	--	46	4.0	*75*	*0.75*
Cadmium	mg/kg	0.92	--	0.93	--	--	--	5.5	7.4	*100*	*1.0*
Chromium	mg/kg	29	--	33	--	--	--	77,000	750	*2,500*	*5*
Cobalt	mg/kg	4.2	--	4.8	--	--	--	--	40	*8,000*	*80*
Copper	mg/kg	5.5	--	4.9	--	--	--	1.7	225	*2,500*	*25*
Lead	mg/kg	1.9	3.4	2.0	1.5	2.1	1.9	--	200	*1,000*	*5.0*
Mercury	mg/kg	<0.19	--	<0.020	--	--	--	1.5	4.7	*20*	*0.2*
Molybdenum	mg/kg	<0.97	--	<1.0	--	--	--	--	40	*3,500*	*350*
Nickel	mg/kg	27	--	31	--	--	--	95	150	*2,000*	*20*
Selenium	mg/kg	<0.24	--	<0.25	--	--	--	3.7	10	*100*	*1.0*
Silver	mg/kg	<0.24	--	<0.25	--	--	--	12	20	*500*	*5*
Thallium	mg/kg	<0.24	--	<0.25	--	--	--	--	1.1	*700*	*7.0*
Vanadium	mg/kg	21	--	21	--	--	--	540	110	*2,400*	*24*
Zinc	mg/kg	19	--	17	--	--	--	4,200	600	*5,000*	*250*

Notes:
Soil Samples obtained August 20, 2001
TVHg = Total Volatile Hydrocarbons as gasoline
TEHd = Total Extactable Hydrocarbons as diesel fuel
TEHmo= Total Extactable Hydrocarbons as motor oil
TOG = Total Oil and Grease
* = using silca gel cleanup
HVOCs = Halogenated Volatile Organic Compounds
SVOCs = Semi Volatile Organic Compounds
PCBs = Polychlorinated biphenyls
mg/kg = milligrams per kilogram
ug/kg = micrograms per kilogram
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
Detected concentrations are shown in bold.
-- = Not Analyzed
< = not detected at or above the listed analytical reporting limit
Shaded cells indicate detected concentrations exceeding respective ULR or RBSL criteria



NOTE:

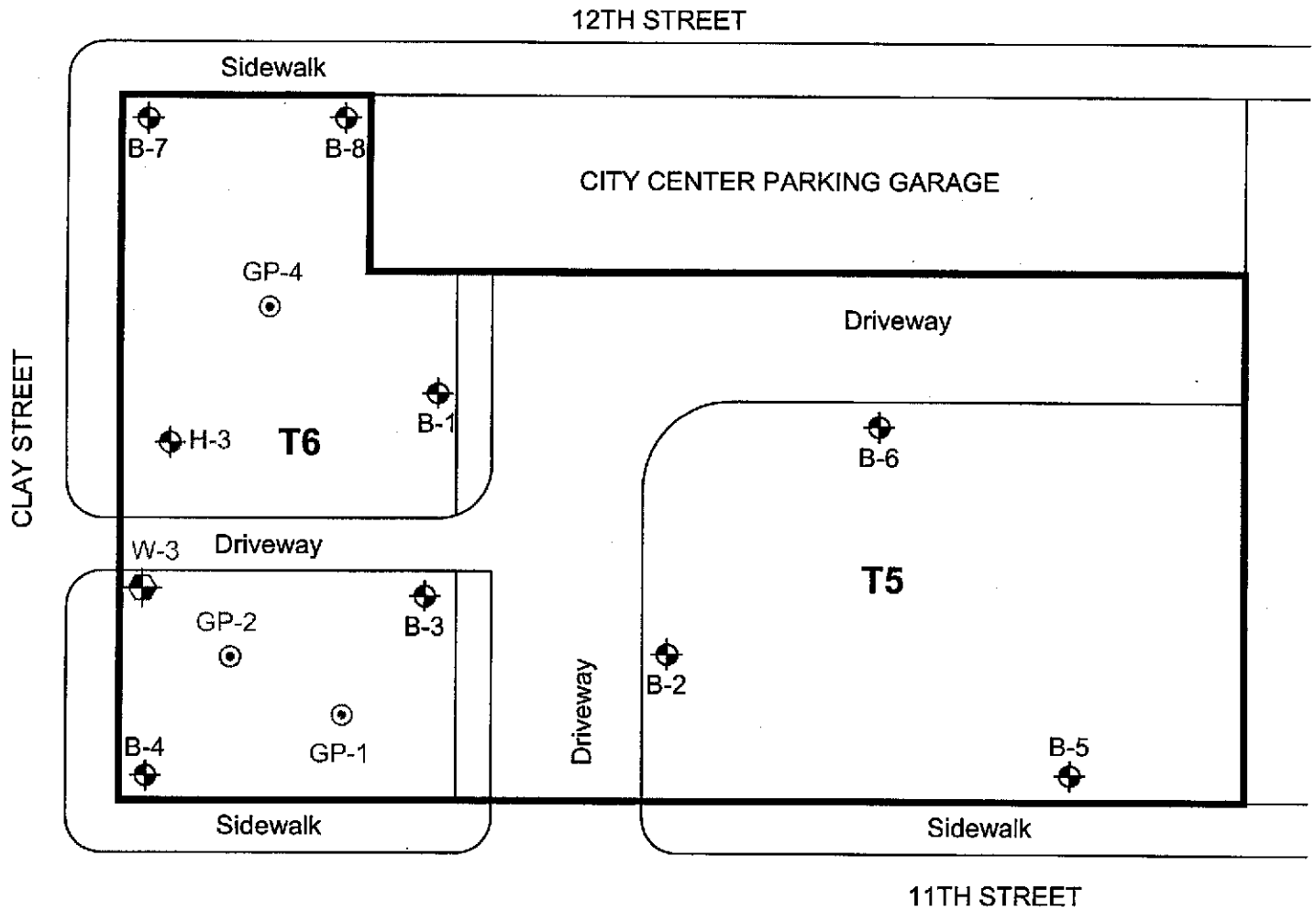
THIS VICINITY MAP IS BASED ON A THOMAS GUIDE MAP FOR SAN FRANCISCO, ALAMEDA AND CONTRA COSTA COUNTIES, CALIFORNIA, MAP 649, YEAR 2000

VICINITY MAP

CITY CENTER PARCEL T6
OAKLAND, CALIFORNIA

SCI
Subsurface Consultants, Inc.
Geotechnical & Environmental Engineers

DRAWN BY:	DATE	PLATE
CFY	8/14/01	1
JOB NUMBER	FILE NUMBER:	
272.073	A272.073.01	



LEGEND:

- Approximate Boring Location (8/2/01)
- Approximate Geoprobe Hand Auger Location
- Approximate Hand-Auger Boring Location
- Approximate Monitoring Well Location
- Approximate Site Boundary

APPROXIMATE SCALE IN FEET

0 50 100

N

SITE PLAN

CITY CENTER PARCEL T6
OAKLAND, CALIFORNIA

Subsurface Consultants, Inc.
Geotechnical & Environmental Engineers

DRAWN BY:	DATE	PLATE
CFY	5/25/01	2
JOB NUMBER	FILE NUMBER:	
272.057	A272.056.01	

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UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D2487-93)

MAJOR DIVISIONS			GROUP NAMES	
COARSE-GRAINED SOILS More than 50% retained on the No. 200 sieve	GRAVELS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	Clean gravels less than 5% fines	GW	Well-graded gravel, Well-graded gravel with sand
			GP	Poorly graded gravel, Poorly graded gravel with sand
		Gravels with more than 12% fines	GM	Silty gravel, Silty gravel with sand
			GC	Clayey gravel, Clayey gravel with sand
	SANDS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	Clean sand less than 5% fines	SW	Well-graded sand, Well-graded sand with gravel
			SP	Poorly graded sand, Poorly graded sand with gravel
		Sands with more than 12% fines	SM	Silty sand, Silty sand with gravel
			SC	Clayey sand, Clayey sand with gravel
FINE-GRAINED SOILS 50% or more passes the No. 200 sieve	SILTS AND CLAYS Liquid Limit Less than 50%		ML	Silt, Silt with sand or gravel, Sandy or gravelly silt, Sandy or gravelly silt with gravel or sand
			CL	Lean clay, Lean clay with sand or gravel, Sandy or gravelly lean clay, Sandy or gravelly lean clay with gravel or sand
			OL	Organic silt or clay, Organic silt or clay with sand or gravel, Sandy or gravelly organic silt or clay, Sandy or gravelly organic silt or clay with gravel or sand
	SILTS AND CLAYS Liquid Limit Greater than 50%		MH	Elastic silt, Elastic silt with sand or gravel, Sandy or gravelly elastic silt, Sandy or gravelly elastic silt with gravel or sand
			CH	Fat clay, Fat clay with sand or gravel, Sandy or gravelly fat clay, Sandy or gravelly fat clay with gravel or sand
			OH	Organic silt or clay, Organic silt or clay with sand or gravel, Sandy or gravelly organic silt or clay, Sandy or gravelly organic silt or clay with gravel or sand
HIGHLY ORGANIC SOILS			PT	Peat

For definition of dual and borderline symbols, see ASTM D2487-93. .

KEY TO TEST DATA AND SYMBOLS

Perm	-	Permeability
Consol	-	Consolidation
LL	-	Liquid Limit
PI	-	Plasticity Index
Gs	-	Specific Gravity
MA	-	Particle Size Analysis
-200	-	Percent Passing No. 200 Sieve
ND	-	Not Detected
■	-	Tube Sample
⊠	-	Bag or Bulk Sample
⊟	-	Lost Sample
▽	-	First Groundwater
▼	-	Stabilized Groundwater

	Shear Strength (psf)	Confining Pressure (psf)	
TxUU	3200	(2600)	Unconsolidated-Undrained Triaxial Shear
TxCU	3200	(2600)	Consolidated-Undrained Triaxial Shear
TxCD	3200	(2600)	Consolidated-Drained Triaxial Shear
SSCU	3200	(2600)	Consolidated-Undrained Simple Shear
SSCD	3200	(2600)	Consolidated-Drained Simple Shear
DSCD	2700	(2000)	Consolidated-Drained Direct Shear
UC	470		Unconfined Compression
LVS	700		Laboratory Vane Shear
FV	300		Field Vane Shear
RFV			
TV	800		Torvane Shear
PP	400		Pocket Penetrometer *(actual reading divided by 2)*

SCI Subsurface Consultants, Inc.
Geotechnical & Environmental Engineers

City Center Parcel T6
Oakland, California

JOB NUMBER 272.073

DATE 8/01

PLATE A1

Project Name & Location: City Center Parcel T6 Oakland, California	Ground Surface Elevation: Elevation Datum:
Drilling Coordinates:	Start: Date 8/2/01 Time 10:45 / Finish: Date 8/2/01 Time 11:05
Drilling Company & Driller: Vironex,	Drilling Fluid: None / Hole Diameter: 2"
Rig Type & Drilling Method: / Continuous	
Sampler Type(s): A) Clear Butyrate Tubes	Logged By: ES
Sampling Method(s): A) Hydraulic Push	Backfill Method: Grout / Date: 8/2/01

Depth (feet)	Sampler Type	Blows/6 inches or Pressure	Blows/12 inches	OVM (ppm)	Sample Interval	Graphic Log	SOIL DESCRIPTIONS GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)
0							**SILT (ML)** Dark brown, roots **SILTY SAND (SM)** Brownish-red, soft, moist, poorly graded
	A			0			Brick fragments 3.0' to 4.5'
5							**POORLY GRADED SILTY SAND (SP-SM)** Yellow, brown, medium dense, moist
	A			0			
	A			0			
10	A			0			Grades to reddish
							Bottom of boring at 12 feet below ground surface. Notes No Groundwater encountered
15							
20							

LOG OF BORING 272-073.GPJ GEO-ENV.GDT 8/29/01

SCI **Subsurface Consultants, Inc.**
Geotechnical & Environmental Engineers

City Center Parcel T6
Oakland, California

JOB NUMBER 272.073 | DATE 8/01

PROBE **B-1**

Project Name & Location: City Center Parcel T6 Oakland, California	Ground Surface Elevation:
	Elevation Datum:
Drilling Coordinates:	Start: Date 8/2/01 Time 11:15 / Finish: Date 8/2/01 Time 11:30
Drilling Company & Driller: Vironex,	
Rig Type & Drilling Method: / Continuous	Drilling Fluid: None / Hole Diameter: 2"
Sampler Type(s): A) Clear Butyrate Tubes	Logged By: ES
Sampling Method(s): A) Hydraulic Push	Backfill Method: Grout / Date: 8/2/01

Depth (feet)	Sampler Type	Blows/6 inches or Pressure	Blows/12 inches	OVM (ppm)	Sample Interval	Graphic Log	SOIL DESCRIPTIONS GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)
0							native
	A			0			**SILT (ML)** Dark brown, roots **SILTY SAND (SM)** Brown, medium dense, moist
							Brick fragments 3.5' to 4.0'
5	A			0			**POORLY GRADED SILTY SAND (SM)** Yellow, brown, soft, moist
	A			0			Reddish-brown
10	A			0			
15							Bottom of boring at 16 feet below ground surface. Notes No Groundwater encountered
20							

LOG OF BORING 272-073.GPJ GEO-ENV.GDT 8/29/01

SCI **Subsurface Consultants, Inc.**
Geotechnical & Environmental Engineers

City Center Parcel T6
Oakland, California

JOB NUMBER 272.073 | DATE 8/01

PROBE **B-2**

Project Name & Location: City Center Parcel T6 Oakland, California		Ground Surface Elevation:	
		Elevation Datum:	
Drilling Coordinates:		Start: Date 8/2/01 Time 11:30	Finish: Date 8/2/01 Time 12:05
Drilling Company & Driller: Vironex,		Drilling Fluid: None	Hole Diameter: 2"
Rig Type & Drilling Method: / Continuous			
Sampler Type(s): A) Clear Butyrate Tubes		Logged By: ES	
Sampling Method(s): A) Hydraulic Push		Backfill Method: Grout	Date: 8/2/01

Depth (feet)	Sampler Type	Blows/6 inches or Pressure	Blows/12 inches	OVM (ppm)	Sample Interval	Graphic Log	SOIL DESCRIPTIONS GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)
0							**SILT (ML)** Dark brown, roots to 4.0'
	A			0			
5							**SILTY SAND (SM)** Brown, soft, moist
	A			0			
10							
							Bottom of boring at 12 feet below ground surface. Notes No Groundwater encountered
15							
20							

LOG OF BORING 272-073.GPJ GEO-ENV.GDT 8/29/01

SCI **Subsurface Consultants, Inc.**
Geotechnical & Environmental Engineers

City Center Parcel T6
Oakland, California

JOB NUMBER 272.073 | DATE 8/01

PROBE **B-3**

Project Name & Location: City Center Parcel T6 Oakland, California		Ground Surface Elevation:	
		Elevation Datum:	
Drilling Coordinates:		Start: Date 8/2/01 Time 12:30	Finish: Date 8/2/01 Time 13:05
Drilling Company & Driller: Vironex,		Drilling Fluid: None	Hole Diameter: 2"
Rig Type & Drilling Method: / Continuous			
Sampler Type(s): A) Clear Butyrate Tubes		Logged By: ES	
Sampling Method(s): A) Hydraulic Push		Backfill Method: Grout	Date: 8/2/01

Depth (feet)	Sampler Type	Blows/6 inches or Pressure	Blows/12 inches	OVM (ppm)	Sample Interval	Graphic Log	SOIL DESCRIPTIONS GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)
0							**SILT (ML)**
							SILTY SAND (SM) Reddish-brown, soft, moist
	A			0			
5							**SILTY SAND (SM)** Yellow, brown, fine grained, moist
	A			0			
							Bottom of boring at 8 feet below ground surface. Notes No Groundwater encountered
10							
15							
20							

LOG OF BORING 272-073.GPJ GEO-ENV.GDT 8/29/01

SCI **Subsurface Consultants, Inc.**
Geotechnical & Environmental Engineers

City Center Parcel T6
Oakland, California

JOB NUMBER 272.073 | DATE 8/01

PROBE **B-4**

Project Name & Location: City Center Parcel T6 Oakland, California	Ground Surface Elevation: Elevation Datum:
Drilling Coordinates:	Start: Date 8/2/01 Time 12:57 / Finish: Date 8/2/01 Time 13:10
Drilling Company & Driller: Vironex,	Drilling Fluid: None / Hole Diameter: 2"
Rig Type & Drilling Method: / Continuous	
Sampler Type(s): A) Clear Butyrate Tubes	Logged By: ES
Sampling Method(s): A) Hydraulic Push	Backfill Method: Grout / Date: 8/2/01

Depth (feet)	Sampler Type	Blows/6 inches or Pressure	Blows/12 inches	OVM (ppm)	Sample Interval	Graphic Log	SOIL DESCRIPTIONS GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)
0							**SILT (ML)**
							SILTY SAND (SM) Yellow, brown, soft, moist
	A			0			
5	A			0			
	A			0			
							Bottom of boring at 8 feet below ground surface. Notes No Groundwater encountered
10							
15							
20							

LOG OF BORING 272-073.GPJ GEO-ENV.GDT 8/29/01

SCI **Subsurface Consultants, Inc.**
Geotechnical & Environmental Engineers

City Center Parcel T6
Oakland, California

JOB NUMBER 272.073 | DATE 8/01

PROBE **B-5**

Project Name & Location: City Center Parcel T6 Oakland, California		Ground Surface Elevation:	
		Elevation Datum:	
Drilling Coordinates:		Start: Date / Time: 8/2/01 13:30	Finish: Date / Time: 8/2/01 13:45
Drilling Company & Driller: Vironex,		Drilling Fluid: None	Hole Diameter: 2"
Rig Type & Drilling Method: / Continuous			
Sampler Type(s): A) Clear Butyrate Tubes		Logged By: ES	
Sampling Method(s): A) Hydraulic Push		Backfill Method: Grout	Date: 8/2/01

Depth (feet)	Sampler Type	Blows/6 inches or Pressure	Blows/12 inches	OVM (ppm)	Sample Interval	Graphic Log	SOIL DESCRIPTIONS GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)
0	A			0			**SILTY (SM)** **SILTY SAND (SM)** Yellow, brown, soft, moist to wet
5	A			0			Very stiff from 6.0' to 8.0'
							Bottom of boring at 8 feet below ground surface. Notes No Groundwater encountered
10							
15							
20							

LOG OF BORING 272-073.GPJ GEO-ENV.GDT 8/29/01

SCI **Subsurface Consultants, Inc.**
Geotechnical & Environmental Engineers

City Center Parcel T6
Oakland, California

JOB NUMBER 272.073 | DATE 8/01

PROBE **B-6**

Project Name & Location: City Center Parcel T6 Oakland, California	Ground Surface Elevation:
	Elevation Datum:
Drilling Coordinates:	Start: Date 8/2/01 Time 13:10 / Finish: Date 8/2/01 Time 13:20
Drilling Company & Driller: Vironex,	
Rig Type & Drilling Method: / Continuous	Drilling Fluid: None / Hole Diameter: 2"
Sampler Type(s): A) Clear Butyrate Tubes	Logged By: ES
Sampling Method(s): A) Hydraulic Push	Backfill Method: Grout / Date: 8/2/01

Depth (feet)	Sampler Type	Blows/6 inches or Pressure	Blows/12 inches	OVM (ppm)	Sample Interval	Graphic Log	SOIL DESCRIPTIONS GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)
0	A			0			**WELL GRADED GRAVEL (GW)** Dark brown, very stiff, moist
							Bottom of boring at 3.5 feet below ground surface. Notes No Groundwater encountered
5							
10							
15							
20							

LOG OF BORING 272-073.GPJ GEO-ENV.GDT 8/29/01

SCI **Subsurface Consultants, Inc.**
Geotechnical & Environmental Engineers

City Center Parcel T6
Oakland, California

JOB NUMBER 272.073 | DATE 8/01

PROBE **B-7**

Project Name & Location: City Center Parcel T6 Oakland, California		Ground Surface Elevation:	
		Elevation Datum:	
Drilling Coordinates:		Start: Date / Time: 8/2/01 13:20	Finish: Date / Time: 8/2/01 13:30
Drilling Company & Driller: Vironex,		Drilling Fluid: None	Hole Diameter: 2"
Rig Type & Drilling Method: / Continuous			
Sampler Type(s): A) Clear Butyrate Tubes		Logged By: ES	
Sampling Method(s): A) Hydraulic Push		Backfill Method: Grout	Date: 8/2/01

Depth (feet)	Sampler Type	Blows/6 inches or Pressure	Blows/12 inches	OVM (ppm)	Sample Interval	Graphic Log	SOIL DESCRIPTIONS GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)
0	A			0			**WELL GRADED GRAVEL (GW)** Dark brown, very stiff, moist
5							Bottom of boring at 4 feet below ground surface. Notes No Groundwater encountered
10							
15							
20							

LOG OF BORING 272-073.GPJ GEO-ENV.GDT 8/29/01

SCI **Subsurface Consultants, Inc.**
Geotechnical & Environmental Engineers

City Center Parcel T6
Oakland, California

JOB NUMBER 272.073 | DATE 8/01

PROBE **B-8**

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
1000 Broadway
Suite 200
Oakland, CA 94607

Date: 23-AUG-01
Lab Job Number: 153456
Project ID: 01.157
Location: City Center

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by: _____
Project Manager

Reviewed by: _____
Operations Manager

Curtis & Tompkins, Ltd.

Laboratory Number: **153456** Receipt Date: **08/07/01**
Client: **Subsurface Consultants, Inc.**
Project Name: **City Center – Parcel T5/T6**

CASE NARRATIVE

This hardcopy data package contains sample results and batch QC results for one water sample received from the above referenced project. The sample was received cold and intact.

Total Volatile Hydrocarbons/BTXE: No analytical problems were encountered.

Total Extractable Hydrocarbons: No analytical problems were encountered.

Metals: The matrix spike duplicate recovery for mercury was outside acceptance limits. The associated blank spike recoveries were acceptable for all target elements, therefore, there is no affect on the quality of the sample results. No other analytical problems were encountered.

General Chemistry: No analytical problems were encountered.

153456

CHAIN OF CUSTODY FORM

PAGE 1 OF 1

PROJECT NAME: City Center - Parcel T5/T6
JOB NUMBER: 01.157
PROJECT CONTACT: Glenn Young
SAMPLED BY: Ron Reindl
LAB: C+T
TURNAROUND: Standard
REQUESTED BY: Glenn Young

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR	PP	CONTAINERS: VOA	LITER Amber	PINT	TUBE	Poly 1 L	METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: TPHg - BTEX, MTBE (method 8015m/8020) + GCMS confirmation	TEH-d (silica gel cleanup) (method 8015m)	TOG (method 1664)	17-Title 22 metals (method 6010/7000 Series)
	W3	X					3					X			X		08	07	01	1345		X	X	X	X
	↓	X						4				X			X		08	07	01	1345		X	X	X	X
		X									2				X	X	08	07	01	1345		X	X	X	X

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
[signature]		[signature]	8/7/10 3:10
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES: Decant metals samples in poly containers.

See attached card for new address ↓

Subsurface Consultants, Inc.
171 - 12th Street, Suite 202, Oakland, CA 94607
(510) 268-0461 - FAX: (510) 268-0137
3736 Mt. Diablo Blvd., Ste. 200, Lafayette, CA 94549
(925) 299-7960 - (926) 299-7970

Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	153456	Location:	City Center
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	01.157	Analysis:	EPA 8015M
Field ID:	W3	Batch#:	65549
Matrix:	Water	Sampled:	08/07/01
Units:	ug/L	Received:	08/07/01
Diln Fac:	1.000	Analyzed:	08/08/01

Type: SAMPLE Lab ID: 153456-001

Analyte	Result	RL
Gasoline C7-C12	79	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	59-135
Bromofluorobenzene (FID)	96	60-140

Type: BLANK Lab ID: QC152669

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	102	59-135
Bromofluorobenzene (FID)	101	60-140

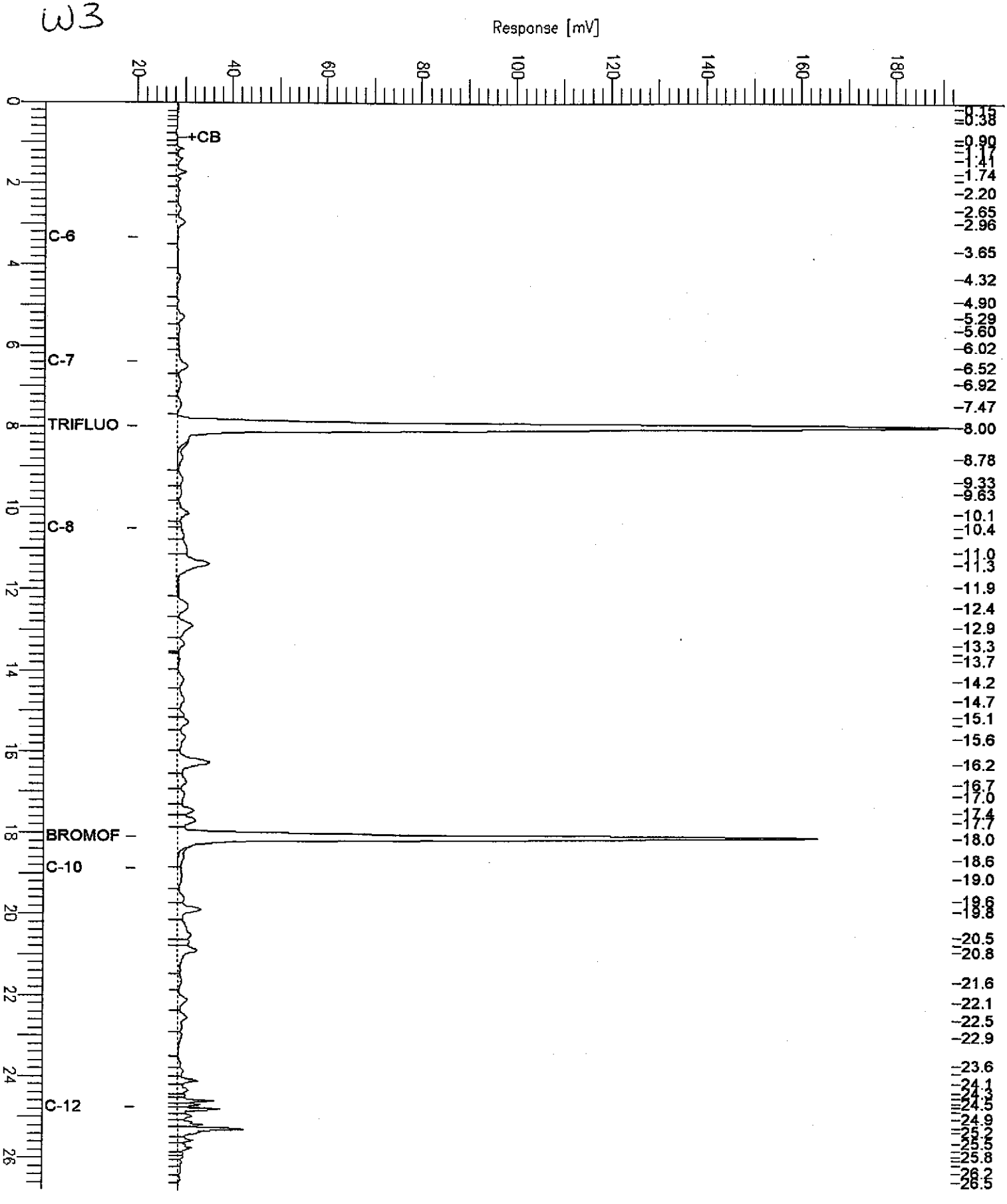
ND= Not Detected
RL= Reporting Limit

GC19 TVH 'X' Data File (FID)

Sample Name : 153456-001,65549
FileName : G:\GC19\DATA\220X006.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: 1.0 Plot Offset: 20 mV

Sample #: A1 Page 1 of 1
Date : 8/8/01 05:34 PM
Time of Injection: 8/8/01 05:07 PM
Low Point : 19.87 mV High Point : 192.30 mV
Plot Scale: 172.4 mV

W3

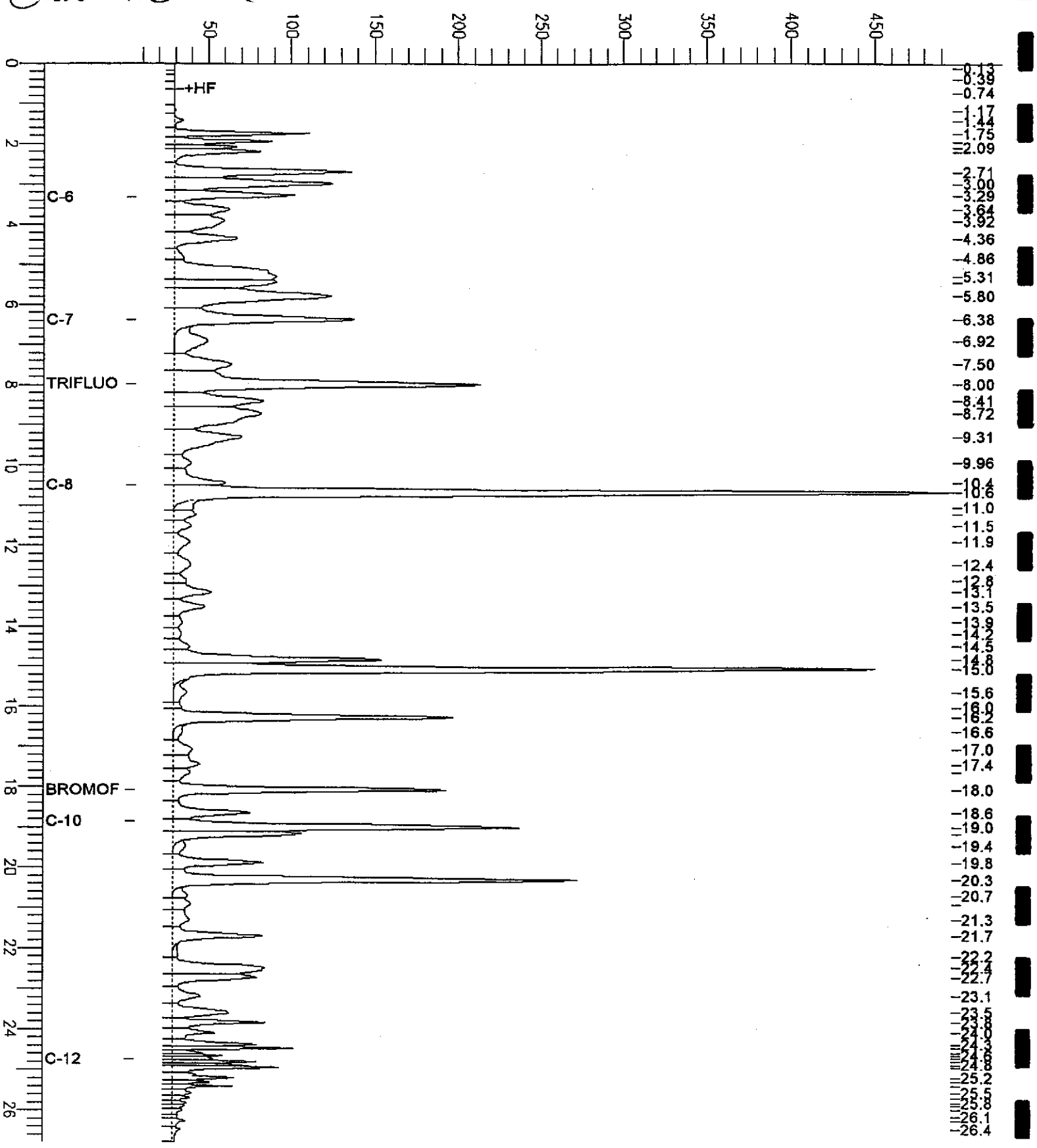


GC19 TVH 'X' Data File (FID)

mple Name : CCV/LCS,QC152666,65549,01WS1503,5/5000
leName : G:\GC19\DATA\220X002.raw
thod : TVHBTXE
art Time : 0.00 min End Time : 26.80 min
ale Factor: 1.0 Plot Offset: 6 mV

Sample #: Page 1 of 1
Date : 8/8/01 03:03 PM
Time of Injection: 8/8/01 02:07 PM
Low Point : 5.53 mV High Point : 497.11 mV
Plot Scale: 491.6 mV

Gasoline Std



Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	153456	Location:	City Center
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	01.157	Analysis:	EPA 8021B
Field ID:	W3	Batch#:	65549
Matrix:	Water	Sampled:	08/07/01
Units:	ug/L	Received:	08/07/01
Diln Fac:	1.000	Analyzed:	08/08/01

Type: SAMPLE Lab ID: 153456-001

Analyte	Result	RL
MTBE	ND	2.0
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	93	56-142
Bromofluorobenzene (PID)	92	55-149

Type: BLANK Lab ID: QC152669

Analyte	Result	RL
MTBE	ND	2.0
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	96	56-142
Bromofluorobenzene (PID)	97	55-149

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	153456	Location:	City Center
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	01.157	Analysis:	EPA 8015M
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC152666	Batch#:	65549
Matrix:	Water	Analyzed:	08/08/01
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,775	89	73-121

Surrogate	%REC	Limits
Trifluorotoluene (FID)	128	59-135
Bromofluorobenzene (FID)	115	60-140

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	153456	Location:	City Center
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	01.157	Analysis:	EPA 8021B
Matrix:	Water	Batch#:	65549
Units:	ug/L	Analyzed:	08/08/01
Diln Fac:	1.000		

Type: BS Lab ID: QC152667

Analyte	Spiked	Result	%REC	Limits
MTBE	20.00	20.85	104	51-125
Benzene	20.00	20.04	100	67-117
Toluene	20.00	19.69	98	69-117
Ethylbenzene	20.00	19.27	96	68-124
m,p-Xylenes	40.00	39.11	98	70-125
o-Xylene	20.00	19.07	95	65-129

Surrogate	%REC	Limits
Trifluorotoluene (PID)	99	56-142
Bromofluorobenzene (PID)	102	55-149

Type: BSD Lab ID: QC152668

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	20.00	21.58	108	51-125	3	20
Benzene	20.00	20.17	101	67-117	1	20
Toluene	20.00	19.80	99	69-117	1	20
Ethylbenzene	20.00	19.38	97	68-124	1	20
m,p-Xylenes	40.00	39.30	98	70-125	0	20
o-Xylene	20.00	18.96	95	65-129	1	20

Surrogate	%REC	Limits
Trifluorotoluene (PID)	99	56-142
Bromofluorobenzene (PID)	101	55-149

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	153456	Location:	City Center
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	01.157	Analysis:	EPA 8015M
Field ID:	ZZZZZZZZZZ	Batch#:	65549
MSS Lab ID:	153467-004	Sampled:	08/07/01
Matrix:	Water	Received:	08/07/01
Units:	ug/L	Analyzed:	08/09/01
Diln Fac:	1.000		

Type: MS Lab ID: QC152670

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<33.00	2,000	1,643	82	65-131

Surrogate	%REC	Limits
Trifluorotoluene (FID)	132	59-135
Bromofluorobenzene (FID)	107	60-140

Type: MSD Lab ID: QC152671

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,662	83	65-131	1	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	130	59-135
Bromofluorobenzene (FID)	108	60-140

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	153456	Location:	City Center
Client:	Subsurface Consultants	Prep:	EPA 3520
Project#:	01.157	Analysis:	EPA 8015M
Field ID:	W3	Sampled:	08/07/01
Matrix:	Water	Received:	08/07/01
Units:	ug/L	Prepared:	08/09/01
Diln Fac:	1.000	Analyzed:	08/16/01
Batch#:	65595		

Type: SAMPLE
Lab ID: 153456-001

Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
Hexacosane	64	44-121

Type: BLANK
Lab ID: QC152854

Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
Hexacosane	51	44-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	153456	Location:	City Center
Client:	Subsurface Consultants	Prep:	EPA 3520
Project#:	01.157	Analysis:	EPA 8015M
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC152855	Batch#:	65595
Matrix:	Water	Prepared:	08/09/01
Units:	ug/L	Analyzed:	08/16/01

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	1,990	80	45-110

Surrogate	%REC	Limits
Hexacosane	68	44-121

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	153456	Location:	City Center
Client:	Subsurface Consultants	Prep:	EPA 3520
Project#:	01.157	Analysis:	EPA 8015M
Field ID:	ZZZZZZZZZZ	Batch#:	65595
MSS Lab ID:	153333-010	Sampled:	07/31/01
Matrix:	Water	Received:	07/31/01
Units:	ug/L	Prepared:	08/09/01
Diln Fac:	1.000	Analyzed:	08/11/01

Type: MS Lab ID: QC152856

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	247.5	2,500	2,425	87	38-122

Surrogate	%REC	Limits
Hexacosane	75	44-121

Type: MSD Lab ID: QC152857

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,312	83	38-122	5	28

Surrogate	%REC	Limits
Hexacosane	74	44-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	153456	Project#:	01.157
Client:	Subsurface Consultants	Location:	City Center
Field ID:	W3	Diln Fac:	1.000
Lab ID:	153456-001	Sampled:	08/07/01
Matrix:	Water	Received:	08/07/01
Units:	ug/L	Analyzed:	08/09/01

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	60	65561	08/08/01	EPA 3010	EPA 6010B
Arsenic	ND	5.0	65561	08/08/01	EPA 3010	EPA 6010B
Barium	90	10	65561	08/08/01	EPA 3010	EPA 6010B
Beryllium	ND	2.0	65561	08/08/01	EPA 3010	EPA 6010B
Cadmium	ND	5.0	65561	08/08/01	EPA 3010	EPA 6010B
Chromium	ND	10	65561	08/08/01	EPA 3010	EPA 6010B
Cobalt	ND	20	65561	08/08/01	EPA 3010	EPA 6010B
Copper	ND	10	65561	08/08/01	EPA 3010	EPA 6010B
Lead	ND	3.0	65561	08/08/01	EPA 3010	EPA 6010B
Mercury	ND	0.20	65572	08/09/01	METHOD	EPA 7470A
Molybdenum	ND	20	65561	08/08/01	EPA 3010	EPA 6010B
Nickel	25	20	65561	08/08/01	EPA 3010	EPA 6010B
Selenium	ND	5.0	65561	08/08/01	EPA 3010	EPA 6010B
Silver	ND	5.0	65561	08/08/01	EPA 3010	EPA 6010B
Thallium	ND	5.0	65561	08/08/01	EPA 3010	EPA 6010B
Vanadium	ND	10	65561	08/08/01	EPA 3010	EPA 6010B
Zinc	ND	20	65561	08/08/01	EPA 3010	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	153456	Location:	City Center
Client:	Subsurface Consultants	Prep:	EPA 3010
Project#:	01.157	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC152711	Batch#:	65561
Matrix:	Water	Prepared:	08/08/01
Units:	ug/L	Analyzed:	08/09/01

Analyte	Result	RL
Antimony	ND	60
Arsenic	ND	5.0
Barium	ND	10
Beryllium	ND	2.0
Cadmium	ND	5.0
Chromium	ND	10
Cobalt	ND	20
Copper	ND	10
Lead	ND	3.0
Molybdenum	ND	20
Nickel	ND	20
Selenium	ND	5.0
Silver	ND	5.0
Thallium	ND	5.0
Vanadium	ND	10
Zinc	ND	20

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	153456	Location:	City Center
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	01.157	Analysis:	EPA 7470A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	65572
Lab ID:	QC152751	Prepared:	08/09/01
Matrix:	Water	Analyzed:	08/09/01
Units:	ug/L		

Result	RL
ND	0.20

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	153456	Location:	City Center
Client:	Subsurface Consultants	Prep:	EPA 3010
Project#:	01.157	Analysis:	EPA 6010B
Matrix:	Water	Batch#:	65561
Units:	ug/L	Prepared:	08/08/01
Diln Fac:	1.000	Analyzed:	08/09/01

Type: BS Lab ID: QC152712

Analyte	Spiked	Result	%REC	Limits
Antimony	500.0	490.0	98	75-123
Arsenic	100.0	96.20	96	80-120
Barium	2,000	1,880	94	80-116
Beryllium	50.00	51.00	102	80-116
Cadmium	50.00	46.00	92	80-126
Chromium	200.0	194.0	97	80-113
Cobalt	500.0	477.0	95	80-112
Copper	250.0	244.0	98	80-114
Lead	100.0	95.50	96	78-120
Molybdenum	400.0	393.0	98	80-114
Nickel	500.0	474.0	95	80-116
Selenium	100.0	94.90	95	79-120
Silver	50.00	50.20	100	80-120
Thallium	100.0	95.60	96	80-119
Vanadium	500.0	494.0	99	80-111
Zinc	500.0	476.0	95	72-126

Type: BSD Lab ID: QC152713

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	500.0	503.0	101	75-123	3	21
Arsenic	100.0	98.70	99	80-120	3	20
Barium	2,000	1,920	96	80-116	2	21
Beryllium	50.00	52.10	104	80-116	2	20
Cadmium	50.00	47.10	94	80-126	2	20
Chromium	200.0	199.0	100	80-113	3	21
Cobalt	500.0	489.0	98	80-112	2	25
Copper	250.0	249.0	100	80-114	2	24
Lead	100.0	99.20	99	78-120	4	20
Molybdenum	400.0	404.0	101	80-114	3	22
Nickel	500.0	487.0	97	80-116	3	23
Selenium	100.0	101.0	101	79-120	6	20
Silver	50.00	50.20	100	80-120	0	26
Thallium	100.0	97.20	97	80-119	2	20
Vanadium	500.0	505.0	101	80-111	2	20
Zinc	500.0	486.0	97	72-126	2	26

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	153456	Location:	City Center
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	01.157	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	65572
Matrix:	Water	Prepared:	08/09/01
Units:	ug/L	Analyzed:	08/09/01
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC152752	5.000	4.980	100	80-116		
BSD	QC152753	5.000	4.770	95	80-116	4	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	153456	Location:	City Center
Client:	Subsurface Consultants	Prep:	EPA 3010
Project#:	01.157	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	65561
MSS Lab ID:	153463-001	Sampled:	08/03/01
Matrix:	Water	Received:	08/07/01
Units:	ug/L	Prepared:	08/08/01
Diln Fac:	1.000	Analyzed:	08/09/01

Type: MS Lab ID: QC152714

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	<1.900	500.0	505.0	101	64-128
Arsenic	<1.300	100.0	101.0	101	65-131
Barium	<4.300	2,000	1,920	96	75-120
Beryllium	<0.1200	50.00	52.50	105	71-124
Cadmium	<0.1800	50.00	47.40	95	70-127
Chromium	0.8800	200.0	201.0	100	70-124
Cobalt	1.460	500.0	492.0	98	73-122
Copper	1.160	250.0	251.0	100	74-122
Lead	<0.9200	100.0	98.40	98	66-128
Molybdenum	2.010	400.0	404.0	100	72-122
Nickel	<1.600	500.0	489.0	98	70-126
Selenium	<1.700	100.0	98.20	98	65-132
Silver	<0.7200	50.00	51.10	102	72-125
Thallium	3.700	100.0	103.0	99	58-134
Vanadium	<0.3700	500.0	508.0	102	58-134
Zinc	9.210	500.0	493.0	97	69-129

Type: MSD Lab ID: QC152715

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	500.0	494.0	99	64-128	2	29
Arsenic	100.0	97.40	97	65-131	4	42
Barium	2,000	1,900	95	75-120	1	20
Beryllium	50.00	51.80	104	71-124	1	20
Cadmium	50.00	46.70	93	70-127	1	25
Chromium	200.0	197.0	98	70-124	2	20
Cobalt	500.0	484.0	97	73-122	2	20
Copper	250.0	247.0	98	74-122	2	20
Lead	100.0	97.80	98	66-128	1	29
Molybdenum	400.0	400.0	99	72-122	1	20
Nickel	500.0	481.0	96	70-126	2	20
Selenium	100.0	97.70	98	65-132	1	40
Silver	50.00	50.40	101	72-125	1	30
Thallium	100.0	97.30	94	58-134	6	41
Vanadium	500.0	499.0	100	58-134	2	41
Zinc	500.0	485.0	95	69-129	2	33

RPD= Relative Percent Difference

California Title 26 Metals

Lab #:	153456	Location:	City Center
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	01.157	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	65572
Field ID:	ZZZZZZZZZZ	Sampled:	08/03/01
MSS Lab ID:	153463-001	Received:	08/07/01
Matrix:	Water	Prepared:	08/09/01
Units:	ug/L	Analyzed:	08/09/01
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC152754	0.3200	5.000	4.410	82	80-114		
MSD	QC152755		5.000	4.150	77 *	80-114	6	22

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Curtis & Tompkins, Ltd.

Total Oil & Grease (HEM)

Lab #:	153456	Location:	City Center
Client:	Subsurface Consultants	Analysis:	EPA 1664A
Project#:	01.157		
Analyte:	Oil & Grease (HEM)	Batch#:	65624
Field ID:	W3	Sampled:	08/07/01
Matrix:	Water	Received:	08/07/01
Units:	mg/L	Analyzed:	08/10/01

Type	Lab ID	Result	RL	Dil Fac
SAMPLE	153456-001	ND	5.0	1.000
BLANK	QC152963	ND	5.6	1.120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Oil & Grease (HEM)

Lab #:	153456	Location:	City Center
Client:	Subsurface Consultants	Analysis:	EPA 1664A
Project#:	01.157		
Analyte:	Oil & Grease (HEM)	Diln Fac:	1.120
Matrix:	Water	Batch#:	65624
Units:	mg/L	Analyzed:	08/10/01

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC152964	40.00	35.20	79	78-114		
BSD	QC152965	40.00	34.80	78	78-114	1	20

RPD= Relative Percent Difference

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Subsurface Consultants, Inc. 1000 Broadway, Suite 200 Oakland, CA 94607	Client Project ID: #272.073; 11th & Clay	Date Sampled: 08/02/01
		Date Received: 08/13/01
	Client Contact: Emily Silverman	Date Extracted: 08/13/01
	Client P.O:	Date Analyzed: 08/13/01

08/20/01

Dear Emily:

Enclosed are:

1). the results of **6** samples from your **#272.073; 11th & Clay** project,

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Subsurface Consultants, Inc. 1000 Broadway, Suite 200 Oakland, CA 94607	Client Project ID: #272.073; 11th & Clay	Date Sampled: 08/02/01
		Date Received: 08/13/01
	Client Contact: Emily Silverman	Date Extracted: 08/13/01
	Client P.O:	Date Analyzed: 08/13/01

Petroleum Oil & Grease (with Silica Gel Clean-up) *

EPA methods 413.1, 9070 or 9071; Standard Methods 5520 D/E&F or 503 D&E for solids and 5520 B&F or 503 A&E for liquids

Lab ID	Client ID	Matrix	Oil & Grease*
74648	B-1 @ 8.0	S	ND
74649	B-2 @ 6.0	S	ND
74650	B-3 @ 6.0	S	ND
74651	B-4 @ 8.0	S	ND
74652	B-5 @ 7.5	S	ND
74653	B-6 @ 5.5	S	ND
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	5 mg/L
		S	50 mg/kg

* water samples are reported in mg/L, wipe samples in mg/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in mg/L

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Ave. South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC REPORT

EPA 8015m + 8020

Date: 08/12/01-08/13/01 **Extraction:** EPA 5030 **Matrix:** Soil

Compound	Concentration: mg/kg				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 81501					Instrument:	MB-1	
Oil & Grease	ND	20.000	19.900	20.80	96	96	0.5

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 200$$

RPD means Relative Percent Deviation

CHAIN OF CUSTODY FORM

27234 ZSci99

PAGE 1 OF 2

PROJECT NAME: 11th & Clay
JOB NUMBER: 272.073
PROJECT CONTACT: E. Silverman
SAMPLED BY: E. Silverman
LAB: Curtis & Tompkins
TURNAROUND: Standard
REQUESTED BY: E. Silverman

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR			CONTAINERS: VOA	LITER	PINT	TUBE			METHOD PRESERVED: HCL	H2SO4	HNO3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: TPH-G, BTEX, MTBE (8020)	TPH-D & TPH-mo. oil (8015)	TOG (1664) B&O	17 Title 22 metals (6010/7000)	Total Lead (6010)	Soluble Lead (6010 STLC)	SVOCs (8270)	Pesticides & PCB (8081)	VOCs (8260)	
	B-1@8.0		X								1						X	X	08	02	01	10:55				X						74648
	B-1@10.0		X								1						X	X	08	02	01	11:00										74649
	B-1@3.5		X								1						X	X	08	02	01	10:43										
	B-2@2.0		X								1						X	X	08	02	01	11:17										
	B-2@6.0		X								1						X	X	08	02	01	11:24				X						74648
	B-2@7.5		X								1						X	X	08	02	01	11:24										
	B-2@10.0		X								1						X	X	08	02	01	11:36										
	B-3@3.5		X								1						X	X	08	02	01	12:00										
	B-3@6.0		X								1						X	X	08	02	01	12:20				X						74650
B-4@4.0	~~B-4@4.5~~																					12:49										
	B-4@8.0		X								1						X	X	08	02	01	12:53				X						74651
	B-5@4.5		X								1						X	X	08	02	01	13:05										

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
[signature]	8/6/01 1750	[signature]	8/6/01 1750
[signature]	8/13/01 1:48pm	[signature]	8/13/01 1:48
[signature]	8/13/01 1504	[signature]	8/13/01 1504

COMMENTS & NOTES:
New tel: 510.267.4417
Fax: 510.268.0137
mail to: 1000 Broadway #200 Oakland, CA 94607
~~hold all samples~~ SES
$.01.176 written on sample tubes

Subsurface Consultants, Inc.
171 - 12th Street, Suite 202, Oakland, CA 94607
(510) 268-0461 - FAX: (510) 268-0137
3736 Mt. Diablo Blvd., Ste. 200, Lafayette, CA 94549
(925) 299-7860 - (925) 299-7870

CHAIN OF CUSTODY FORM

PROJECT NAME: 11th & Clay

JOB NUMBER: 272.073

LAB: Curtis & Tompkins

PROJECT CONTACT: E. Silverman

TURNAROUND: Standard

SAMPLED BY: E. Silverman

REQUESTED BY: E. Silverman

	LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR		CONTAINERS: VOA	LITER	PINT	TUBE		METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: TPH-g BTEX MTBE (8020)	TPH-d & TPH-mo (8015)	TOG (~~Hold~~) 5520 ES	17 Title 22 metals (6010/7000)	Total Lead (6010)	Soluble Lead (6010-WET)	SVOCs (8270)	Pesticides ~~PB~~ PCB (8081)	VOCs (8260)
3		B-5@7.5		X							1					X	X	08	02	01	1257				X						
14		B-5@3.0		X							1					X	X	08	02	01	1310										
15		B-6@1.5		X							1					X	X	08	02	01	1342										
16		B-6@5.5		X							1					X	X	08	02	01	1338				X						
7		B-7@3.0		X							1					X	X	08	02	01	0130										
8		B-8@3.5		V							1					X	Y	08	02	01	1135										

74652

74653

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME		RECEIVED BY: (Signature)	DATE / TIME	
Emily Miller 8/6/01		17:50	Anna Pajunutto	8/6/01	1750
[signature]	8/13/01	1:48 pm	Emily Miller	8/13/01	1:48
Emily Miller	8/13/01	1504	Marcia Venegas	8/13/01	1504

COMMENTS & NOTES:

New tel: 510.267.4417
fax: 510.268.0137

~~hold all samples~~ ES

01.176 written on sample tubes

SCI
Subsurface Consultants, Inc.
171 - 12th Street, Suite 202, Oakland, CA 94607
(510) 268-0461 - FAX: (510) 268-0137
3736 Mt. Diablo Blvd., Ste. 200, Lafayette, CA 94549
(925) 299-7960 - (925) 299-7970

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
1000 Broadway
Suite 200
Oakland, CA 94607

Date: 28-AUG-01
Lab Job Number: 153448
Project ID: 272.073
Location: 11th and Clay

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by: _____
Project Manager

Reviewed by: _____
Operations Manager

CA ELAP # 1459

Curtis & Tompkins, Ltd.

Laboratory Number: **153448** Receipt Date: **08/06/01**
Client: **Subsurface Consultants, Inc.**
Project Name: **11th & Clay**

CASE NARRATIVE

This hardcopy data package contains sample results and batch QC results for eighteen soil samples received from the above referenced project. The samples were received cold and intact.

Total Volatile Hydrocarbons/BTXE: No analytical problems were encountered.

Total Extractable Hydrocarbons: The matrix spike recoveries were not meaningful and were not analyzed. The concentration of analyte in the spiked sample rendered the spike amount insignificant. The associated laboratory control sample (LCS) recovery was acceptable, therefore, there is no affect on the quality of the sample results. No other analytical problems were encountered.

Volatile Organic Compounds: No analytical problems were encountered.

Semi-Volatile Organic Compounds: No analytical problems were encountered.

Organochlorine Pesticides: The LCS result for gamma-BHC is flagged with a "b" to indicate the bracketing continuing calibration standard (CCS) was biased low. The associated LCS recovery was acceptable.

The matrix spike recoveries were not meaningful. The spiked sample required a dilution that rendered the spike amounts insignificant. The associated LCS recoveries were acceptable for all target compounds, therefore, there is no affect on the quality of the sample results. No other analytical problems were encountered.

PCBs: No analytical problems were encountered.

Metals: The matrix spike recoveries for copper and nickel were not meaningful. The concentration of analyte in the spiked sample rendered the spike amount insignificant. The matrix spike recoveries for antimony and mercury were outside acceptance limits. The associated blank spike recoveries were acceptable for all target elements, therefore, there is no affect on the quality of the sample results. No other analytical problems were encountered.

153448

CHAIN OF CUSTODY FORM

PAGE 1 OF 2

PROJECT NAME: 11th & Clay

JOB NUMBER: 272.073 LAB: Curtis & Tompkins

PROJECT CONTACT: E. Silverman TURNAROUND: Standard

SAMPLED BY: E. Silverman REQUESTED BY: E. Silverman

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR			CONTAINERS: VOA	LITER	PINT	TUBE			METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: TPH-g, BTEX, MTBE (8020)	TPH-d & TPH-mo. Oil (8015)	TCLP (1664)	17 Title 22 metals (6010/7000)	Total Lead (6010)	Soluble Lead (waste-test)	SVOCs (8270)	Pesticides & PCB (8081)	VOCs (8260)
	B-1@8.0		X								1						X	X	08	02	01	1105									
	B-1@10.0		X								1						X	X	08	02	01	1100									
	B-1@3.5		X								1						X	X	08	02	01	1043									
	B-2@2.0		X								1						X	X	08	02	01	1117									
	B-2@6.0		X								1						X	X	08	02	01	1124									
	B-2@7.5		X								1						X	X	08	02	01	1127									
	B-2@10.0		X								1						X	X	08	02	01	1136									
	B-3@3.5		X								1						X	X	08	02	01	1200									
	B-3@6.0		X								1						X	X	08	02	01	1202									
B-4@4.0	~~B-4@8.0~~																					1249									
	B-4@8.0		X								1						X	X	08	02	01	1253									
	B-5@4.5		X								1						X	X	08	02	01	1305									

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
[signature]	8/6/01 1750	[signature]	8/6/01 1750
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES:

New tel: 510.267.4417
fax: 510.268.0137

mail to: 1000 Broadway #201 Oakland, CA 94607

hold all samples.

01.176 written on sample tubes

Subsurface Consultants, Inc.
171 - 12th Street, Suite 202, Oakland, CA 94607
(510) 268-0461 - FAX: (510) 268-0137
3736 Mt. Diablo Blvd., Ste. 200, Lafayette, CA 94549
(925) 299-7960 - (925) 299-7970

CHAIN OF CUSTODY FORM

PAGE 2 OF 2

PROJECT NAME: 11th & Clay

JOB NUMBER: 272.073 LAB: Curtis & Tompkins

PROJECT CONTACT: E. Silverman TURNAROUND: Standard

SAMPLED BY: E. Silverman REQUESTED BY: E. Silverman

	LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR	CONTAINERS: VOA	LITER	PINT	TUBE	METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: TPH-g, BTEX, MTBE (8020)	TPH-d & TPH-mo (8015) Si Gel	TOG (1664)	17 Title 22 metals (6010/7000)	Total Lead (6010)	Soluble Lead (6010-WET)	SVOCs (8270)	Pesticides PCB (8081)	VOCs (8260)
3		B-5@7.5		X						1				X	X	08	02	01	1257										
4		B-5@3.0		X						1				X	X	08	02	01	1310										
5		B-6@1.5		X						1				X	X	08	02	01	1342										
6		B-6@5.5		X						1				X	X	08	02	01	1338										
7		B-7@3.0		X						1				X	X	08	02	01	0130										
8		B-8@3.5		X						1				X	X	08	02	01	1135										

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Emily [signature] 8/6/01	17:03	[signature]	8/6/01 1750

COMMENTS & NOTES:

New tel: 510.267.4417
fax: 510.268.0137

hold all samples.

01.17.6 written on sample tubes

Subsurface Consultants, Inc.
171 - 12th Street, Suite 202, Oakland, CA 94607
(510) 268-0461 - FAX: (510) 268-0137
3730 Mt. Diablo Blvd., Ste. 200, Lafayette, CA 94549
(925) 299-7960 - (925) 299-7970

153448

PAGE 1 OF 2

CHAIN OF CUSTODY FORM

PROJECT NAME: 11th & Clay

JOB NUMBER: 272.073

PROJECT CONTACT: E. Silverman

SAMPLED BY: E. Silverman

LAB: Curtis & Tompkins

TURNAROUND: Standard

REQUESTED BY: E. Silverman

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR	CONTAINERS: VOA	LITER	PINT	TUBE	METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE
1	B-1@8.0		X						1				X	X
2	B-1@10.0		X						1				X	X
3	B-1@3.5		X						1				X	X
4	B-2@2.0		X						1				X	X
5	B-2@6.0		X						1				X	X
6	B-2@7.5		X						1				X	X
7	B-2@10.0		X						1				X	X
8	B-3@3.5		X						1				X	X
9	B-3@6.0		X											
10 B-4@4.0	~~[illegible]~~								1				K	X
11	B-4@8.0		X						1				X	X
12	B-5@4.5		X											

LABORATORY I.D. NUMBER	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	TPH-g BTEX MTBE (8020)	TPH-d TPH-mo Oil (8015)	TOG (1664)	17 Title 22 metals (6010/7000)	Total Lead (6010)	Soluble Lead (6010-WET)	SVOCs (8270)	Pesticides PCB (8081)	VOCs (8260)	
1	08	02	01	1055		X	X	X	X			X	X	X	N
2	08	02	01	1154	H										N
3	08	02	01	1043						X	X				F
4	08	02	01	1117	H										F
5	08	02	01	1124		X	X	X		X					N
6	08	02	01	1124	H										N
7	08	02	01	1136	H										N
8	08	02	01	1200						X	X				F
9	08	02	01	1202		X	X	X	X						N
10				1249						X	X				F
11	08	02	01	1253		X	X	X		X					N
12	08	02	01	1305	H										F

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
[signature]	8/6/01 1750	[signature]	8/6/01 1750
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES:

New tel: 510.267.4417
fax: 510.268.0137

mail to: 1000 Broadway #200 Oakland, CA 94607

hold all samples. (H) = HOLD

01.176 written on sample tubes.

Subsurface Consultants, Inc.

171 - 12th Street, Suite 202, Oakland, CA 94607
(510) 268-0461 - FAX: (510) 268-0137
3736 Mt. Diablo Blvd., Ste. 200, Lafayette, CA 94549
(925) 283-7840 - (925) 283-7976

153448

CHAIN OF CUSTODY FORM

PAGE 2 OF 2

PROJECT NAME: 11th & Clay
JOB NUMBER: 272.073
PROJECT CONTACT: E. Silverman
SAMPLED BY: E. Silverman

LAB: Curtis & Tompkins
TURNAROUND: Standard
REQUESTED BY: E. Silverman

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR	CONTAINERS: VOA	LITER	PINT	TUBE	METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	TPH-g BTEX MTBE (8020)	TPH-d TPH-mo (8015)	TOG (1664)	17 Title 22 metals (6010/7000)	Total Lead (6010)	Soluble Lead (6010-)	SVOCs (8270)	Pesticides/PCB (8081)	VOCs (8260)	
13	B-5@7.5		X						1				X	X	08	02	01	1257		X	X	X		X					N
14	B-5@3.0		X						1				X	X	08	02	01	1310	H										F
15	B-6@1.5		X						1				X	X	08	02	01	1342	H										F
16	B-6@5.5		X						1				X	X	08	02	01	1338		X	X	X		X					N
17	B-7@3.0		X						1				X	X	08	02	01	0130						X	X				F
18	B-8@3.5		X						1				X	X	08	02	01	1135						X	X				F

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
Emily [signature] 8/6/01	1720	[signature]	8/6/01 1750
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

COMMENTS & NOTES:
New tel: 510.267.4417 (H) = HOLD
fax: 510.268.0137

hold all samples.

01.176 written on sample tubes.

Subsurface Consultants, Inc.
171 – 12th Street, Suite 201, Oakland, CA 94607
(510) 268-0461 – FAX: (510) 268-0137
3736 Mt. Diablo Blvd., Ste. 200, Lafayette, CA 94549
(925) 299-7960 – (925) 299-7970

Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	272.073	Analysis:	EPA 8015M
Matrix:	Soil	Batch#:	65668
Units:	mg/Kg	Sampled:	08/02/01
Basis:	wet	Received:	08/06/01
Diln Fac:	1.000	Analyzed:	08/14/01

Field ID: B-1@8.0 Lab ID: 153448-001
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	97	62-138
Bromofluorobenzene (FID)	97	46-150

Field ID: B-2@6.0 Lab ID: 153448-005
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	0.98

Surrogate	%REC	Limits
Trifluorotoluene (FID)	101	62-138
Bromofluorobenzene (FID)	101	46-150

Field ID: B-3@6.0 Lab ID: 153448-009
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	62-138
Bromofluorobenzene (FID)	99	46-150

Field ID: B-4@8.0 Lab ID: 153448-011
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	1.1

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	62-138
Bromofluorobenzene (FID)	102	46-150

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	272.073	Analysis:	EPA 8015M
Matrix:	Soil	Batch#:	65668
Units:	mg/Kg	Sampled:	08/02/01
Basis:	wet	Received:	08/06/01
Diln Fac:	1.000	Analyzed:	08/14/01

Field ID: B-5@7.5 Lab ID: 153448-013
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	62-138
Bromofluorobenzene (FID)	99	46-150

Field ID: B-6@5.5 Lab ID: 153448-016
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	62-138
Bromofluorobenzene (FID)	99	46-150

Type: BLANK Lab ID: QC153139

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	96	62-138
Bromofluorobenzene (FID)	95	46-150

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	272.073	Analysis:	EPA 8021B
Matrix:	Soil	Batch#:	65668
Units:	ug/Kg	Sampled:	08/02/01
Basis:	wet	Received:	08/06/01
Diln Fac:	1.000	Analyzed:	08/14/01

Field ID: B-1@8.0 Lab ID: 153448-001
Type: SAMPLE

Analyte	Result	RL
MTBE	ND	21
Benzene	ND	5.2
Toluene	ND	5.2
Ethylbenzene	ND	5.2
m,p-Xylenes	ND	5.2
o-Xylene	ND	5.2

Surrogate	%REC	Limits
Trifluorotoluene (PID)	91	65-134
Bromofluorobenzene (PID)	93	55-138

Field ID: B-2@6.0 Lab ID: 153448-005
Type: SAMPLE

Analyte	Result	RL
MTBE	ND	20
Benzene	ND	4.9
Toluene	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	5.6	4.9
o-Xylene	ND	4.9

Surrogate	%REC	Limits
Trifluorotoluene (PID)	97	65-134
Bromofluorobenzene (PID)	99	55-138

Field ID: B-3@6.0 Lab ID: 153448-009
Type: SAMPLE

Analyte	Result	RL
MTBE	ND	21
Benzene	ND	5.2
Toluene	ND	5.2
Ethylbenzene	ND	5.2
m,p-Xylenes	ND	5.2
o-Xylene	ND	5.2

Surrogate	%REC	Limits
Trifluorotoluene (PID)	94	65-134
Bromofluorobenzene (PID)	95	55-138

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	272.073	Analysis:	EPA 8021B
Matrix:	Soil	Batch#:	65668
Units:	ug/Kg	Sampled:	08/02/01
Basis:	wet	Received:	08/06/01
Diln Fac:	1.000	Analyzed:	08/14/01

Field ID: B-4@8.0 Lab ID: 153448-011
Type: SAMPLE

Analyte	Result	RL
MTBE	ND	22
Benzene	ND	5.6
Toluene	ND	5.6
Ethylbenzene	ND	5.6
m,p-Xylenes	ND	5.6
o-Xylene	ND	5.6

Surrogate	%REC	Limits
Trifluorotoluene (PID)	95	65-134
Bromofluorobenzene (PID)	96	55-138

Field ID: B-5@7.5 Lab ID: 153448-013
Type: SAMPLE

Analyte	Result	RL
MTBE	ND	20
Benzene	ND	5.1
Toluene	ND	5.1
Ethylbenzene	ND	5.1
m,p-Xylenes	ND	5.1
o-Xylene	ND	5.1

Surrogate	%REC	Limits
Trifluorotoluene (PID)	95	65-134
Bromofluorobenzene (PID)	96	55-138

Field ID: B-6@5.5 Lab ID: 153448-016
Type: SAMPLE

Analyte	Result	RL
MTBE	ND	20
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
Trifluorotoluene (PID)	94	65-134
Bromofluorobenzene (PID)	96	55-138

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	272.073	Analysis:	EPA 8021B
Matrix:	Soil	Batch#:	65668
Units:	ug/Kg	Sampled:	08/02/01
Basis:	wet	Received:	08/06/01
Diln Fac:	1.000	Analyzed:	08/14/01

Type: BLANK Lab ID: QC153139

Analyte	Result	RL
MTBE	ND	20
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
Trifluorotoluene (PID)	91	65-134
Bromofluorobenzene (PID)	92	55-138

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	272.073	Analysis:	EPA 8015M
Type:	LCS	Basis:	wet
Lab ID:	QC153140	Diln Fac:	1.000
Matrix:	Soil	Batch#:	65668
Units:	mg/Kg	Analyzed:	08/14/01

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	9.170	92	75-123

Surrogate	%REC	Limits
Trifluorotoluene (FID)	123	62-138
Bromofluorobenzene (FID)	100	46-150

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	272.073	Analysis:	EPA 8021B
Type:	LCS	Basis:	wet
Lab ID:	QC153182	Diln Fac:	1.000
Matrix:	Soil	Batch#:	65668
Units:	ug/Kg	Analyzed:	08/14/01

Analyte	Spiked	Result	%REC	Limits
MTBE	100.0	105.7	106	58-115
Benzene	100.0	97.88	98	68-117
Toluene	100.0	97.83	98	70-120
Ethylbenzene	100.0	93.14	93	67-124
m,p-Xylenes	200.0	195.3	98	72-124
o-Xylene	100.0	93.83	94	72-123

Surrogate	%REC	Limits
Trifluorotoluene (PID)	94	65-134
Bromofluorobenzene (PID)	96	55-138

Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	272.073	Analysis:	EPA 8015M
Field ID:	B-1@8.0	Diln Fac:	1.000
MSS Lab ID:	153448-001	Batch#:	65668
Matrix:	Soil	Sampled:	08/02/01
Units:	mg/Kg	Received:	08/06/01
Basis:	wet	Analyzed:	08/14/01

Type: MS Lab ID: QC153141

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<0.1700	9.174	8.254	90	41-132

Surrogate	%REC	Limits
Trifluorotoluene (FID)	126	62-138
Bromofluorobenzene (FID)	107	46-150

Type: MSD Lab ID: QC153142

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.20	9.310	91	41-132	1	25

Surrogate	%REC	Limits
Trifluorotoluene (FID)	129	62-138
Bromofluorobenzene (FID)	108	46-150

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	SHAKER TABLE
Project#:	272.073	Analysis:	8015B(M)
Matrix:	Soil	Batch#:	65659
Units:	mg/Kg	Sampled:	08/02/01
Basis:	wet	Received:	08/06/01
Diln Fac:	1.000	Prepared:	08/13/01

Field ID: B-1@8.0
Type: SAMPLE
Lab ID: 153448-001
Analyzed: 08/15/01
Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24 (SGCU)	ND	1.0
Motor Oil C24-C36 (SGCU)	ND	5.0

Surrogate	%REC	Limits
Hexacosane (SGCU)	61	60-136

Field ID: B-2@6.0
Type: SAMPLE
Lab ID: 153448-005
Analyzed: 08/15/01
Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24 (SGCU)	5.3 H Y	1.0
Motor Oil C24-C36 (SGCU)	27	5.0

Surrogate	%REC	Limits
Hexacosane (SGCU)	69	60-136

Field ID: B-3@6.0
Type: SAMPLE
Lab ID: 153448-009
Analyzed: 08/15/01
Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24 (SGCU)	ND	1.0
Motor Oil C24-C36 (SGCU)	ND	5.0

Surrogate	%REC	Limits
Hexacosane (SGCU)	68	60-136

Field ID: B-4@8.0
Type: SAMPLE
Lab ID: 153448-011
Analyzed: 08/18/01
Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24 (SGCU)	ND	1.0
Motor Oil C24-C36 (SGCU)	ND	5.0

Surrogate	%REC	Limits
Hexacosane (SGCU)	66	60-136

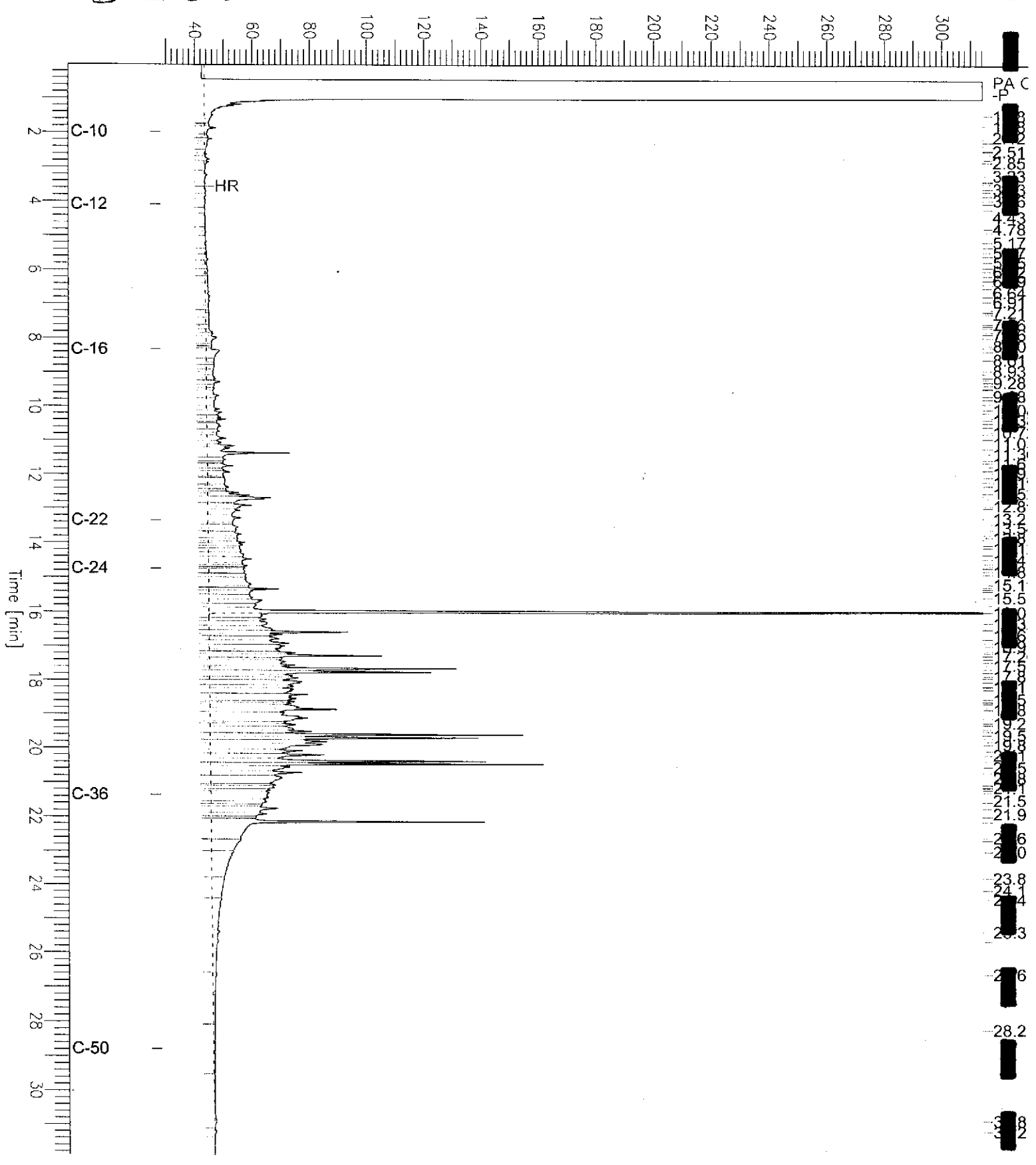
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits fuel pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
SGCU= Silica gel cleanup

Chromatogram

Sample Name : 153448-005sg,65659
FileName : G:\GC11\CHA\227A019.RAW
Method : ATEH212.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 28 mV

Sample #: 65659 Page 1 of 1
Date : 8/16/01 07:25 AM
Time of Injection: 8/15/01 11:07 PM
Low Point : 28.06 mV High Point : 314.22 mV
Plot Scale: 286.2 mV

B-2@6.0



Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	SHAKER TABLE
Project#:	272.073	Analysis:	8015B(M)
Matrix:	Soil	Batch#:	65659
Units:	mg/Kg	Sampled:	08/02/01
Basis:	wet	Received:	08/06/01
Diln Fac:	1.000	Prepared:	08/13/01

Field ID: B-5@7.5 Analyzed: 08/18/01
Type: SAMPLE Cleanup Method: EPA 3630C
Lab ID: 153448-013

Analyte	Result	RL
Diesel C10-C24 (SGCU)	ND	1.0
Motor Oil C24-C36 (SGCU)	ND	5.0

Surrogate	%REC	Limits
Hexacosane (SGCU)	76	60-136

Field ID: B-6@5.5 Analyzed: 08/16/01
Type: SAMPLE Cleanup Method: EPA 3630C
Lab ID: 153448-016

Analyte	Result	RL
Diesel C10-C24 (SGCU)	ND	1.0
Motor Oil C24-C36 (SGCU)	ND	5.0

Surrogate	%REC	Limits
Hexacosane (SGCU)	63	60-136

Type: BLANK Analyzed: 08/15/01
Lab ID: QC153103 Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24 (SGCU)	ND	1.0
Motor Oil C24-C36 (SGCU)	ND	5.0

Surrogate	%REC	Limits
Hexacosane (SGCU)	62	60-136

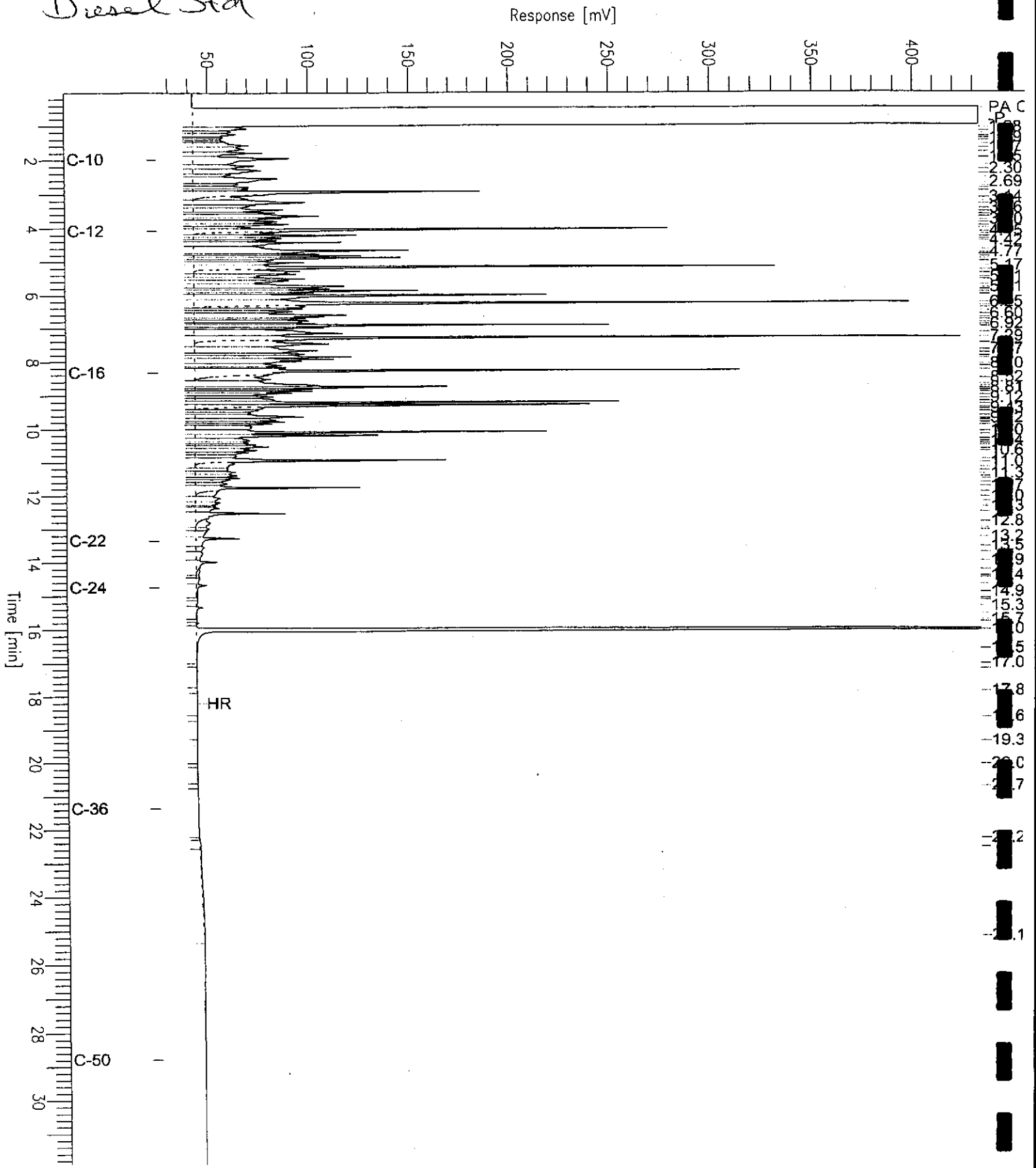
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits fuel pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit
SGCU= Silica gel cleanup

Chromatogram

Sample Name : ccv,01ws1521,dsl
FileName : G:\GC11\CHA\227A002.RAW
Method : ATEH212.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 24 mV

Sample #: 500mg/L Page 1 of 1
Date : 8/15/01 09:11 AM
Time of Injection: 8/15/01 08:13 AM
Low Point : 24.07 mV High Point : 433.02 mV
Plot Scale: 408.9 mV

Diesel Std

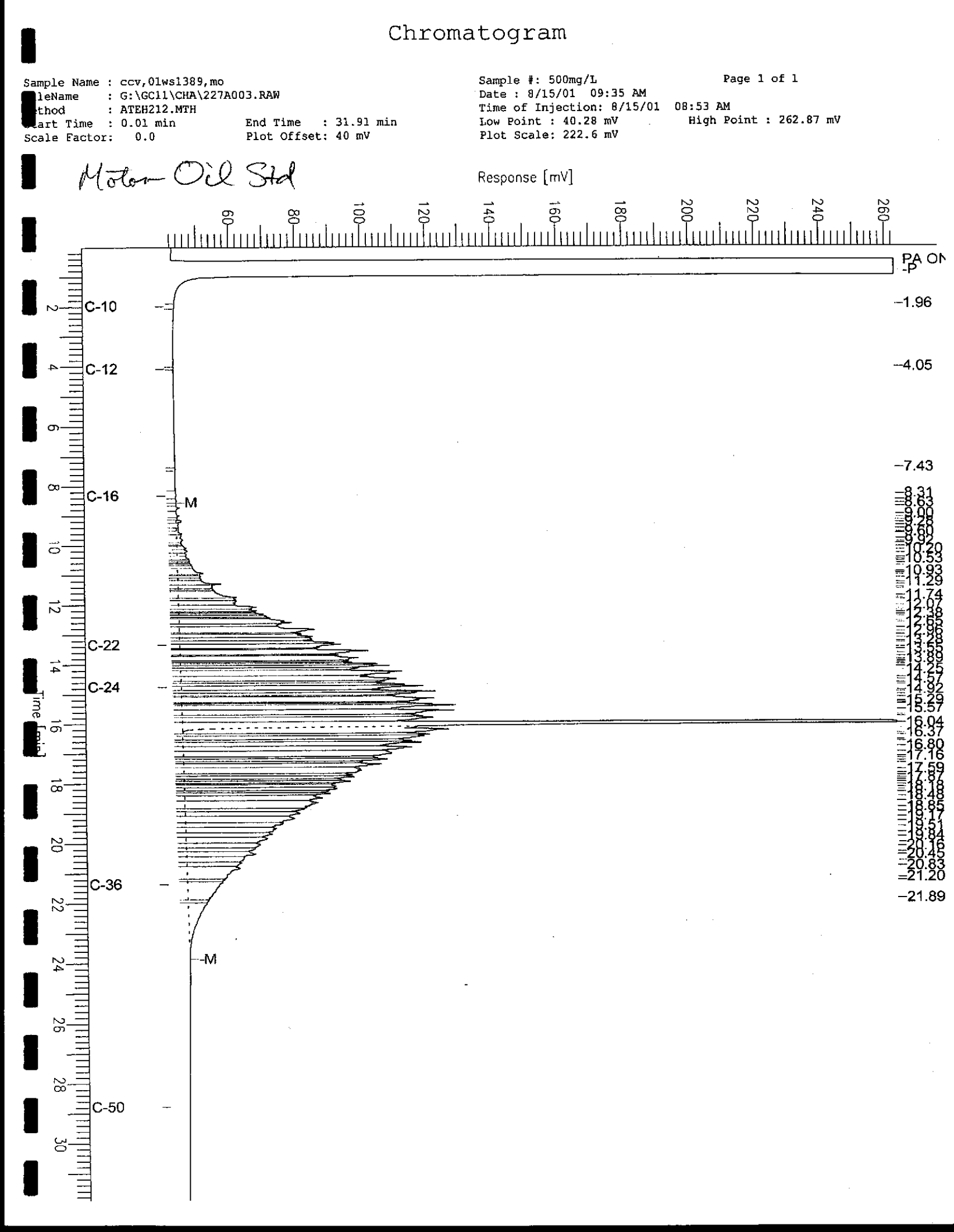


Chromatogram

Sample Name : ccv,01ws1389,mo
leName : G:\GC11\CHA\227A003.RAW
thod : ATEH212.MTH
art Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 40 mV

Sample #: 500mg/L Page 1 of 1
Date : 8/15/01 09:35 AM
Time of Injection: 8/15/01 08:53 AM
Low Point : 40.28 mV High Point : 262.87 mV
Plot Scale: 222.6 mV

Motor Oil Std



Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	SHAKER TABLE
Project#:	272.073	Analysis:	8015B(M)
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC153104	Batch#:	65659
Matrix:	Soil	Prepared:	08/13/01
Units:	mg/Kg	Analyzed:	08/16/01
Basis:	wet		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24 (SGCU)	46.77	36.12	77	67-121

Surrogate	%REC	Limits
Hexacosane (SGCU)	69	60-136

SGCU= Silica gel cleanup

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	272.073	Analysis:	EPA 8260B
Field ID:	B-1@8.0	Diln Fac:	1.000
Lab ID:	153448-001	Batch#:	65613
Matrix:	Soil	Sampled:	08/02/01
Units:	ug/Kg	Received:	08/06/01
Basis:	wet	Analyzed:	08/10/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	272.073	Analysis:	EPA 8260B
Field ID:	B-1@8.0	Diln Fac:	1.000
Lab ID:	153448-001	Batch#:	65613
Matrix:	Soil	Sampled:	08/02/01
Units:	ug/Kg	Received:	08/06/01
Basis:	wet	Analyzed:	08/10/01

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene .	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	94	63-133
1,2-Dichloroethane-d4	103	76-127
Toluene-d8	99	80-111
Bromofluorobenzene	104	77-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	272.073	Analysis:	EPA 8260B
Type:	BLANK	Basis:	wet
Lab ID:	QC152923	Diln Fac:	1.000
Matrix:	Soil	Batch#:	65613
Units:	ug/Kg	Analyzed:	08/10/01

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	272.073	Analysis:	EPA 8260B
Type:	BLANK	Basis:	wet
Lab ID:	QC152923	Diln Fac:	1.000
Matrix:	Soil	Batch#:	65613
Units:	ug/Kg	Analyzed:	08/10/01

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	93	63-133
1,2-Dichloroethane-d4	106	76-127
Toluene-d8	102	80-111
Bromofluorobenzene	104	77-126

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	272.073	Analysis:	EPA 8260B
Type:	LCS	Basis:	wet
Lab ID:	QC152921	Diln Fac:	1.000
Matrix:	Soil	Batch#:	65613
Units:	ug/Kg	Analyzed:	08/10/01

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	52.57	105	66-138
Benzene	50.00	50.95	102	76-121
Trichloroethene	50.00	51.98	104	75-124
Toluene	50.00	52.44	105	75-124
Chlorobenzene	50.00	49.39	99	78-115

Surrogate	%REC	Limits
Dibromofluoromethane	102	63-133
1,2-Dichloroethane-d4	106	76-127
Toluene-d8	102	80-111
Bromofluorobenzene	105	77-126

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 5030B
Project#:	272.073	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	0.9804
MSS Lab ID:	153487-004	Batch#:	65613
Matrix:	Soil	Sampled:	08/07/01
Units:	ug/Kg	Received:	08/09/01
Basis:	wet	Analyzed:	08/11/01

Type: MS Lab ID: QC152947

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1900	49.02	54.50	111	42-145
Benzene	3.716	49.02	49.25	93	50-133
Trichloroethene	<0.2000	49.02	44.53	91	33-133
Toluene	0.8207	49.02	43.81	88	45-134
Chlorobenzene	<0.2900	49.02	38.05	78	38-137

Surrogate	%REC	Limits
Dibromofluoromethane	100	63-133
1,2-Dichloroethane-d4	103	76-127
Toluene-d8	100	80-111
Bromofluorobenzene	107	77-126

Type: MSD Lab ID: QC152948

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	49.02	54.34	111	42-145	0	31
Benzene	49.02	49.60	94	50-133	1	29
Trichloroethene	49.02	46.58	95	33-133	4	30
Toluene	49.02	45.65	91	45-134	4	29
Chlorobenzene	49.02	40.64	83	38-137	7	31

Surrogate	%REC	Limits
Dibromofluoromethane	100	63-133
1,2-Dichloroethane-d4	106	76-127
Toluene-d8	102	80-111
Bromofluorobenzene	105	77-126

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3550
Project#:	272.073	Analysis:	EPA 8270C
Field ID:	B-1@8.0	Batch#:	65683
Lab ID:	153448-001	Sampled:	08/02/01
Matrix:	Soil	Received:	08/06/01
Units:	ug/Kg	Prepared:	08/14/01
Basis:	wet	Analyzed:	08/15/01
Diln Fac:	1.000		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	330
Phenol	ND	330
bis(2-Chloroethyl)ether	ND	330
2-Chlorophenol	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
Benzyl alcohol	ND	330
1,2-Dichlorobenzene	ND	330
2-Methylphenol	ND	330
bis(2-Chloroisopropyl) ether	ND	330
3-,4-Methylphenol	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
2-Nitrophenol	ND	1,700
2,4-Dimethylphenol	ND	330
Benzoic acid	ND	1,700
bis(2-Chloroethoxy)methane	ND	330
2,4-Dichlorophenol	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	330
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
4-Chloro-3-methylphenol	ND	330
2-Methylnaphthalene	ND	330
Hexachlorocyclopentadiene	ND	1,700
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	1,700
Dimethylphthalate	ND	330
Acenaphthylene	ND	330
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1,700
Acenaphthene	ND	330
2,4-Dinitrophenol	ND	1,700
4-Nitrophenol	ND	1,700
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
Fluorene	ND	330
4-Chlorophenyl-phenylether	ND	330
4-Nitroaniline	ND	1,700
4,6-Dinitro-2-methylphenol	ND	1,700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	1,700
Phenanthrene	ND	330
Anthracene	ND	330
Di-n-butylphthalate	ND	330
Fluoranthene	ND	330

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3550
Project#:	272.073	Analysis:	EPA 8270C
Field ID:	B-1@8.0	Batch#:	65683
Lab ID:	153448-001	Sampled:	08/02/01
Matrix:	Soil	Received:	08/06/01
Units:	ug/Kg	Prepared:	08/14/01
Basis:	wet	Analyzed:	08/15/01
Diln Fac:	1.000		

Analyte	Result	RL
Pyrene	ND	330
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	1,700
Benzo(a)anthracene	ND	330
Chrysene	ND	330
bis(2-Ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	ND	330
Benzo(k)fluoranthene	ND	330
Benzo(a)pyrene	ND	330
Indeno(1,2,3-cd)pyrene	ND	330
Dibenz(a,h)anthracene	ND	330
Benzo(g,h,i)perylene	ND	330

Surrogate	%REC	Limits
2-Fluorophenol	84	40-134
Phenol-d5	88	39-135
2,4,6-Tribromophenol	92	16-131
Nitrobenzene-d5	94	38-131
2-Fluorobiphenyl	95	45-129
Terphenyl-d14	94	41-140

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3550
Project#:	272.073	Analysis:	EPA 8270C
Field ID:	B-1@8.0	Batch#:	65683
Lab ID:	153448-001	Sampled:	08/02/01
Matrix:	Soil	Received:	08/06/01
Units:	ug/Kg	Prepared:	08/14/01
Basis:	wet	Analyzed:	08/15/01
Diln Fac:	1.000		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	330
Phenol	ND	330
bis(2-Chloroethyl)ether	ND	330
2-Chlorophenol	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
Benzyl alcohol	ND	330
1,2-Dichlorobenzene	ND	330
2-Methylphenol	ND	330
bis(2-Chloroisopropyl) ether	ND	330
3-,4-Methylphenol	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
2-Nitrophenol	ND	1,700
2,4-Dimethylphenol	ND	330
Benzoic acid	ND	1,700
bis(2-Chloroethoxy)methane	ND	330
2,4-Dichlorophenol	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	330
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
4-Chloro-3-methylphenol	ND	330
2-Methylnaphthalene	ND	330
Hexachlorocyclopentadiene	ND	1,700
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	1,700
Dimethylphthalate	ND	330
Acenaphthylene	ND	330
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1,700
Acenaphthene	ND	330
2,4-Dinitrophenol	ND	1,700
4-Nitrophenol	ND	1,700
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
Fluorene	ND	330
4-Chlorophenyl-phenylether	ND	330
4-Nitroaniline	ND	1,700
4,6-Dinitro-2-methylphenol	ND	1,700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	1,700
Phenanthrene	ND	330
Anthracene	ND	330
Di-n-butylphthalate	ND	330
Fluoranthene	ND	330

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3550
Project#:	272.073	Analysis:	EPA 8270C
Field ID:	B-1@8.0	Batch#:	65683
Lab ID:	153448-001	Sampled:	08/02/01
Matrix:	Soil	Received:	08/06/01
Units:	ug/Kg	Prepared:	08/14/01
Basis:	wet	Analyzed:	08/15/01
Diln Fac:	1.000		

Analyte	Result	RL
Pyrene	ND	330
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	1,700
Benzo(a)anthracene	ND	330
Chrysene	ND	330
bis(2-Ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	ND	330
Benzo(k)fluoranthene	ND	330
Benzo(a)pyrene	ND	330
Indeno(1,2,3-cd)pyrene	ND	330
Dibenz(a,h)anthracene	ND	330
Benzo(g,h,i)perylene	ND	330

Surrogate	%REC	Limits
2-Fluorophenol	84	40-134
Phenol-d5	88	39-135
2,4,6-Tribromophenol	92	16-131
Nitrobenzene-d5	94	38-131
2-Fluorobiphenyl	95	45-129
Terphenyl-d14	94	41-140

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3550
Project#:	272.073	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC153204	Batch#:	65683
Matrix:	Soil	Prepared:	08/14/01
Units:	ug/Kg	Analyzed:	08/15/01
Basis:	wet		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	330
Phenol	ND	330
bis(2-Chloroethyl)ether	ND	330
2-Chlorophenol	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
Benzyl alcohol	ND	330
1,2-Dichlorobenzene	ND	330
2-Methylphenol	ND	330
bis(2-Chloroisopropyl) ether	ND	330
3-,4-Methylphenol	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
2-Nitrophenol	ND	1,700
2,4-Dimethylphenol	ND	330
Benzoic acid	ND	1,700
bis(2-Chloroethoxy)methane	ND	330
2,4-Dichlorophenol	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	330
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
4-Chloro-3-methylphenol	ND	330
2-Methylnaphthalene	ND	330
Hexachlorocyclopentadiene	ND	1,700
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	1,700
Dimethylphthalate	ND	330
Acenaphthylene	ND	330
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1,700
Acenaphthene	ND	330
2,4-Dinitrophenol	ND	1,700
4-Nitrophenol	ND	1,700
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
Fluorene	ND	330
4-Chlorophenyl-phenylether	ND	330
4-Nitroaniline	ND	1,700
4,6-Dinitro-2-methylphenol	ND	1,700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	1,700
Phenanthrene	ND	330
Anthracene	ND	330
Di-n-butylphthalate	ND	330
Fluoranthene	ND	330
Pyrene	ND	330

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3550
Project#:	272.073	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC153204	Batch#:	65683
Matrix:	Soil	Prepared:	08/14/01
Units:	ug/Kg	Analyzed:	08/15/01
Basis:	wet		

Analyte	Result	RL
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	1,700
Benzo(a)anthracene	ND	330
Chrysene	ND	330
bis(2-Ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	ND	330
Benzo(k)fluoranthene	ND	330
Benzo(a)pyrene	ND	330
Indeno(1,2,3-cd)pyrene	ND	330
Dibenz(a,h)anthracene	ND	330
Benzo(g,h,i)perylene	ND	330

Surrogate	%REC	Limits
2-Fluorophenol	79	40-134
Phenol-d5	84	39-135
2,4,6-Tribromophenol	84	16-131
Nitrobenzene-d5	89	38-131
2-Fluorobiphenyl	92	45-129
Terphenyl-d14	89	41-140

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3550
Project#:	272.073	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC153205	Batch#:	65683
Matrix:	Soil	Prepared:	08/14/01
Units:	ug/Kg	Analyzed:	08/15/01
Basis:	wet		

Analyte	Spiked	Result	%REC	Limits
Phenol	3,323	2,564	77	39-128
2-Chlorophenol	3,323	2,653	80	45-137
1,4-Dichlorobenzene	1,662	1,389	84	41-127
N-Nitroso-di-n-propylamine	1,662	1,098	66	40-140
1,2,4-Trichlorobenzene	1,662	1,426	86	46-128
4-Chloro-3-methylphenol	3,323	2,799	84	45-130
Acenaphthene	1,662	1,377	83	47-124
4-Nitrophenol	3,323	2,598	78	36-110
2,4-Dinitrotoluene	1,662	1,352	81	42-123
Pentachlorophenol	3,323	2,210	66	15-110
Pyrene	1,662	1,332	80	44-123

Surrogate	%REC	Limits
2-Fluorophenol	79	40-134
Phenol-d5	81	39-135
2,4,6-Tribromophenol	88	16-131
Nitrobenzene-d5	89	38-131
2-Fluorobiphenyl	90	45-129
Terphenyl-d14	87	41-140

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3550
Project#:	272.073	Analysis:	EPA 8270C
Field ID:	B-1@8.0	Batch#:	65683
MSS Lab ID:	153448-001	Sampled:	08/02/01
Matrix:	Soil	Received:	08/06/01
Units:	ug/Kg	Prepared:	08/14/01
Basis:	wet	Analyzed:	08/15/01
Diln Fac:	1.000		

Type: MS Lab ID: QC153206

Analyte	MSS Result	Spiked	Result	%REC	Limits
Phenol	ND	3,327	2,645	80	38-133
2-Chlorophenol	ND	3,327	2,774	83	34-14
1,4-Dichlorobenzene	ND	1,663	1,372	82	43-12
N-Nitroso-di-n-propylamine	<22.00	1,663	1,137	68	48-13
1,2,4-Trichlorobenzene	ND	1,663	1,456	88	53-128
4-Chloro-3-methylphenol	ND	3,327	2,934	88	37-13
Acenaphthene	ND	1,663	1,446	87	55-12
4-Nitrophenol	ND	3,327	2,622	79	24-11
2,4-Dinitrotoluene	ND	1,663	1,358	82	37-122
Pentachlorophenol	ND	3,327	2,169	65	15-110
Pyrene	ND	1,663	1,400	84	30-13

Surrogate	%REC	Limits
2-Fluorophenol	81	40-134
Phenol-d5	83	39-135
2,4,6-Tribromophenol	90	16-131
Nitrobenzene-d5	91	38-131
2-Fluorobiphenyl	93	45-129
Terphenyl-d14	92	41-140

Type: MSD Lab ID: QC153207

Analyte	Spiked	Result	%REC	Limits	RPD	Li
Phenol	3,330	2,778	83	38-133	5	33
2-Chlorophenol	3,330	2,881	87	34-146	4	34
1,4-Dichlorobenzene	1,665	1,426	86	43-124	4	26
N-Nitroso-di-n-propylamine	1,665	1,201	72	48-130	5	43
1,2,4-Trichlorobenzene	1,665	1,487	89	53-128	2	24
4-Chloro-3-methylphenol	3,330	3,063	92	37-132	4	35
Acenaphthene	1,665	1,506	90	55-122	4	26
4-Nitrophenol	3,330	2,793	84	24-112	6	47
2,4-Dinitrotoluene	1,665	1,423	85	37-122	5	33
Pentachlorophenol	3,330	2,267	68	15-110	4	50
Pyrene	1,665	1,478	89	30-134	5	32

Surrogate	%REC	Limits
2-Fluorophenol	84	40-134
Phenol-d5	87	39-135
2,4,6-Tribromophenol	95	16-131
Nitrobenzene-d5	94	38-131
2-Fluorobiphenyl	97	45-129
Terphenyl-d14	98	41-140

ND= Not Detected
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3550
Project#:	272.073	Analysis:	EPA 8081A
Field ID:	B-1@8.0	Batch#:	65714
Lab ID:	153448-001	Sampled:	08/02/01
Matrix:	Soil	Received:	08/06/01
Units:	ug/Kg	Prepared:	08/15/01
Basis:	wet	Analyzed:	08/20/01
Diln Fac:	1.000		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	3.0
beta-BHC	ND	3.0
gamma-BHC	ND	3.0
delta-BHC	ND	3.0
Heptachlor	ND	3.0
Aldrin	ND	3.0
Heptachlor epoxide B	ND	3.0
Heptachlor epoxide A	ND	3.0
Endosulfan I	ND	3.0
Dieldrin	ND	6.0
4,4'-DDE	ND	6.0
Endrin	ND	6.0
Endosulfan II	ND	6.0
Endosulfan sulfate	ND	6.0
4,4'-DDD	ND	6.0
Endrin aldehyde	ND	6.0
4,4'-DDT	ND	6.0
alpha-Chlordane	ND	3.0
gamma-Chlordane	ND	3.0
Methoxychlor	ND	30
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	80	39-150
Decachlorobiphenyl	91	33-144

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3550
Project#:	272.073	Analysis:	EPA 8081A
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC153330	Batch#:	65714
Matrix:	Soil	Prepared:	08/15/01
Units:	ug/Kg	Analyzed:	08/20/01
Basis:	wet		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	3.0
beta-BHC	ND	3.0
gamma-BHC	ND	3.0
delta-BHC	ND	3.0
Heptachlor	ND	3.0
Aldrin	ND	3.0
Heptachlor epoxide B	ND	3.0
Heptachlor epoxide A	ND	3.0
Endosulfan I	ND	3.0
Dieldrin	ND	6.0
4,4'-DDE	ND	6.0
Endrin	ND	6.0
Endosulfan II	ND	6.0
Endosulfan sulfate	ND	6.0
4,4'-DDD	ND	6.0
Endrin aldehyde	ND	6.0
4,4'-DDT	ND	6.0
alpha-Chlordane	ND	3.0
gamma-Chlordane	ND	3.0
Methoxychlor	ND	30
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	74	39-150
Decachlorobiphenyl	88	33-144

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Organochlorine Pesticides

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3550
Project#:	272.073	Analysis:	EPA 8081A
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC153331	Batch#:	65714
Matrix:	Soil	Prepared:	08/15/01
Units:	ug/Kg	Analyzed:	08/16/01
Basis:	wet		

Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	16.57	12.02 b	73	59-124
Heptachlor	16.57	14.56	88	59-121
Aldrin	16.57	13.80	83	58-121
Dieldrin	16.57	13.16	79	56-124
Endrin	16.57	14.99	90	61-144
4,4'-DDT	16.57	15.21	92	28-138

Surrogate	%REC	Limits
TCMX	65	39-150
Decachlorobiphenyl	92	33-144

b = See narrative

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3550
Project#:	272.073	Analysis:	EPA 8082
Field ID:	B-1@8.0	Batch#:	65644
Matrix:	Soil	Sampled:	08/02/01
Units:	ug/Kg	Received:	08/06/01
Basis:	wet	Prepared:	08/13/01
Diln Fac:	1.000		

Type:	SAMPLE	Analyzed:	08/15/01
Lab ID:	153448-001	Cleanup Method:	EPA 3665A

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	90	39-150
Decachlorobiphenyl	89	33-144

Type:	BLANK	Analyzed:	08/14/01
Lab ID:	QC153042	Cleanup Method:	EPA 3665A

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	91	39-150
Decachlorobiphenyl	99	33-144

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3550
Project#:	272.073	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC153043	Batch#:	65644
Matrix:	Soil	Prepared:	08/13/01
Units:	ug/Kg	Analyzed:	08/14/01
Basis:	wet		

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits
Aroclor-1260	166.7	160.0	96	58-124

Surrogate	%REC	Limits
TCMX	96	39-150
Decachlorobiphenyl	106	33-144

Curtis & Tompkins, Ltd.

Polychlorinated Biphenyls (PCBs)

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3550
Project#:	272.073	Analysis:	EPA 8082
Field ID:	ZZZZZZZZZZ	Batch#:	65644
MSS Lab ID:	153519-004	Sampled:	08/09/01
Matrix:	Soil	Received:	08/09/01
Units:	ug/Kg	Prepared:	08/13/01
Basis:	wet	Analyzed:	08/15/01
Diln Fac:	1.000		

Type: MS
Lab ID: QC153044

Cleanup Method: EPA 3665A

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1260	<2.600	166.7	171.7	103	26-133

Surrogate	%REC	Limits
TCMX	104	39-150
Decachlorobiphenyl	84	33-144

Type: MSD
Lab ID: QC153045

Cleanup Method: EPA 3665A

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1260	166.2	157.7	95	26-133	8	40

Surrogate	%REC	Limits
TCMX	100	39-150
Decachlorobiphenyl	93	33-144

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	153448	Project#:	272.073
Client:	Subsurface Consultants	Location:	11th and Clay
Field ID:	B-1@8.0	Diln Fac:	1.000
Lab ID:	153448-001	Sampled:	08/02/01
Matrix:	Soil	Received:	08/06/01
Units:	mg/Kg	Prepared:	08/10/01
Basis:	wet		

Analyte	Result	RL	Batch#	Analyzed	Prep	Analysis
Antimony	ND	2.9	65627	08/15/01	EPA 3050	EPA 6010B
Arsenic	1.5	0.24	65627	08/15/01	EPA 3050	EPA 6010B
Barium	38	0.48	65627	08/15/01	EPA 3050	EPA 6010B
Beryllium	0.23	0.097	65627	08/15/01	EPA 3050	EPA 6010B
Cadmium	0.92	0.24	65627	08/15/01	EPA 3050	EPA 6010B
Chromium	29	0.48	65627	08/15/01	EPA 3050	EPA 6010B
Cobalt	4.2	0.97	65627	08/15/01	EPA 3050	EPA 6010B
Copper	5.5	0.48	65627	08/15/01	EPA 3050	EPA 6010B
Lead	1.9	0.14	65627	08/15/01	EPA 3050	EPA 6010B
Mercury	ND	0.019	65614	08/10/01	METHOD	EPA 7471
Molybdenum	ND	0.97	65627	08/15/01	EPA 3050	EPA 6010B
Nickel	27	0.97	65627	08/15/01	EPA 3050	EPA 6010B
Selenium	ND	0.24	65627	08/15/01	EPA 3050	EPA 6010B
Silver	ND	0.24	65627	08/15/01	EPA 3050	EPA 6010B
Thallium	ND	0.24	65627	08/15/01	EPA 3050	EPA 6010B
Vanadium	21	0.48	65627	08/15/01	EPA 3050	EPA 6010B
Zinc	19	0.97	65627	08/15/01	EPA 3050	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	153448	Project#:	272.073
Client:	Subsurface Consultants	Location:	11th and Clay
Field ID:	B-3@6.0	Diln Fac:	1.000
Lab ID:	153448-009	Sampled:	08/02/01
Matrix:	Soil	Received:	08/06/01
Units:	mg/Kg	Prepared:	08/10/01
Basis:	wet		

Analyte	Result	RL	Batch#	Analyzed	Prep	Analysis
Antimony	ND	3.0	65627	08/15/01	EPA 3050	EPA 6010B
Arsenic	1.5	0.25	65627	08/15/01	EPA 3050	EPA 6010B
Barium	50	0.50	65627	08/15/01	EPA 3050	EPA 6010B
Beryllium	0.26	0.10	65627	08/15/01	EPA 3050	EPA 6010B
Cadmium	0.93	0.25	65627	08/15/01	EPA 3050	EPA 6010B
Chromium	33	0.50	65627	08/15/01	EPA 3050	EPA 6010B
Cobalt	4.8	1.0	65627	08/15/01	EPA 3050	EPA 6010B
Copper	4.9	0.50	65627	08/15/01	EPA 3050	EPA 6010B
Lead	2.0	0.15	65627	08/15/01	EPA 3050	EPA 6010B
Mercury	ND	0.020	65614	08/10/01	METHOD	EPA 7471
Molybdenum	ND	1.0	65627	08/15/01	EPA 3050	EPA 6010B
Nickel	31	1.0	65627	08/15/01	EPA 3050	EPA 6010B
Selenium	ND	0.25	65627	08/15/01	EPA 3050	EPA 6010B
Silver	ND	0.25	65627	08/15/01	EPA 3050	EPA 6010B
Thallium	ND	0.25	65627	08/16/01	EPA 3050	EPA 6010B
Vanadium	21	0.50	65627	08/15/01	EPA 3050	EPA 6010B
Zinc	17	1.0	65627	08/15/01	EPA 3050	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3050
Project#:	272.073	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC152975	Batch#:	65627
Matrix:	Soil	Prepared:	08/10/01
Units:	mg/Kg	Analyzed:	08/14/01
Basis:	wet		

Analyte	Result	RL
Antimony	ND	3.0
Arsenic	ND	0.25
Barium	ND	0.50
Beryllium	ND	0.10
Cadmium	ND	0.25
Chromium	ND	0.50
Cobalt	ND	1.0
Copper	ND	0.50
Lead	ND	0.15
Molybdenum	ND	1.0
Nickel	ND	1.0
Selenium	ND	0.25
Silver	ND	0.25
Thallium	ND	0.25
Vanadium	ND	0.50
Zinc	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	272.073	Analysis:	EPA 7471
Analyte:	Mercury	Basis:	wet
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC152924	Batch#:	65614
Matrix:	Soil	Prepared:	08/10/01
Units:	mg/Kg	Analyzed:	08/10/01

Result	RL
ND	0.020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3050
Project#:	272.073	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	65627
Units:	mg/Kg	Prepared:	08/10/01
Basis:	wet	Analyzed:	08/14/01
Diln Fac:	1.000		

Type: BS Lab ID: QC152976

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	94.50	95	60-129
Arsenic	50.00	45.40	91	64-116
Barium	100.0	91.00	91	69-111
Beryllium	2.500	2.280	91	70-114
Cadmium	10.00	8.700	87	59-114
Chromium	100.0	88.00	88	68-111
Cobalt	25.00	21.55	86	66-110
Copper	12.50	11.75	94	67-114
Lead	100.0	86.50	87	66-110
Molybdenum	20.00	17.80	89	70-111
Nickel	25.00	22.15	89	68-111
Selenium	50.00	43.15	86	61-110
Silver	10.00	8.600	86	57-116
Thallium	50.00	43.90	88	60-111
Vanadium	25.00	22.45	90	69-112
Zinc	25.00	22.25	89	57-119

Type: BSD Lab ID: QC152977

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	94.00	94	60-129	1	20
Arsenic	50.00	45.20	90	64-116	0	20
Barium	100.0	89.00	89	69-111	2	20
Beryllium	2.500	2.270	91	70-114	0	20
Cadmium	10.00	8.700	87	59-114	0	20
Chromium	100.0	87.50	88	68-111	1	20
Cobalt	25.00	21.35	85	66-110	1	20
Copper	12.50	11.35	91	67-114	3	20
Lead	100.0	86.50	87	66-110	0	20
Molybdenum	20.00	17.65	88	70-111	1	20
Nickel	25.00	22.00	88	68-111	1	20
Selenium	50.00	42.95	86	61-110	0	20
Silver	10.00	8.450	85	57-116	2	20
Thallium	50.00	43.40	87	60-111	1	20
Vanadium	25.00	22.15	89	69-112	1	20
Zinc	25.00	22.40	90	57-119	1	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	272.073	Analysis:	EPA 7471
Analyte:	Mercury	Diln Fac:	1.000
Matrix:	Soil	Batch#:	65614
Units:	mg/Kg	Prepared:	08/10/01
Basis:	wet	Analyzed:	08/10/01

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC152925	0.5000	0.4680	94	80-114		
BSD	QC152926	0.5000	0.4750	95	80-114	1	130

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

California Title 26 Metals

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3050
Project#:	272.073	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	65627
MSS Lab ID:	153519-004	Sampled:	08/09/01
Matrix:	Soil	Received:	08/09/01
Units:	mg/Kg	Prepared:	08/10/01
Basis:	wet	Analyzed:	08/14/01
Diln Fac:	1.000		

Type: MS Lab ID: QC152978

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	1.584	88.50	12.88	13 *	15-142
Arsenic	<0.08800	44.25	33.54	76	38-124
Barium	95.43	88.50	183.2	99	33-136
Beryllium	0.2425	2.212	1.947	77	46-120
Cadmium	3.210	8.850	9.779	74	37-117
Chromium	59.82	88.50	127.9	77	21-137
Cobalt	24.16	22.12	41.46	78	24-131
Copper	45.21	11.06	57.08	107 NM	24-150
Lead	0.3329	88.50	67.26	76	24-132
Molybdenum	0.2365	17.70	11.64	64	23-122
Nickel	117.8	22.12	136.3	84 NM	21-142
Selenium	<0.07000	44.25	27.04	61	32-118
Silver	0.03429	8.850	7.478	84	45-118
Thallium	0.7352	44.25	35.04	78	42-112
Vanadium	57.08	22.12	67.26	46	35-128
Zinc	39.77	22.12	57.96	82	20-146

Type: MSD Lab ID: QC152979

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	99.50	15.37	14 *	15-142	6	46
Arsenic	49.75	38.66	78	38-124	2	36
Barium	99.50	210.0	115	33-136	8	35
Beryllium	2.488	2.229	80	46-120	3	25
Cadmium	9.950	11.19	80	37-117	5	27
Chromium	99.50	145.8	86	21-137	6	32
Cobalt	24.88	47.06	92	24-131	7	31
Copper	12.44	64.68	157 *	24-150	10	38
Lead	99.50	77.11	77	24-132	2	41
Molybdenum	19.90	13.33	66	23-122	2	27
Nickel	24.88	158.2	162 NM	21-142	13	35
Selenium	49.75	30.75	62	32-118	1	34
Silver	9.950	8.657	87	45-118	3	23
Thallium	49.75	40.35	80	42-112	3	36
Vanadium	24.88	79.10	89	35-128	13	29
Zinc	24.88	68.16	114	20-146	12	37

*= Value outside of QC limits; see narrative
NM= Not Meaningful
RPD= Relative Percent Difference

California Title 26 Metals

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	272.073	Analysis:	EPA 7471
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	65614
MSS Lab ID:	153492-001	Sampled:	08/09/01
Matrix:	Soil	Received:	08/09/01
Units:	mg/Kg	Prepared:	08/10/01
Basis:	wet	Analyzed:	08/10/01

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC152927	0.2719	0.5102	0.4541	36 *	62-135		
MSD	QC152928		0.4902	0.4637	39 *	62-135	5	35

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Lead

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3050
Project#:	272.073	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	65627
Matrix:	Soil	Sampled:	08/02/01
Units:	mg/Kg	Received:	08/06/01
Basis:	wet	Prepared:	08/10/01
Diln Fac:	1.000		

Field ID	Type	Lab ID	Result	RL	Analyzed
B-1@3.5	SAMPLE	153448-003	3.5	0.14	08/15/01
B-2@6.0	SAMPLE	153448-005	3.4	0.14	08/15/01
B-3@3.5	SAMPLE	153448-008	2.4	0.14	08/15/01
B-4@4.0	SAMPLE	153448-010	19	0.14	08/15/01
B-4@8.0	SAMPLE	153448-011	1.5	0.14	08/15/01
B-5@7.5	SAMPLE	153448-013	2.1	0.12	08/15/01
B-6@5.5	SAMPLE	153448-016	1.9	0.14	08/15/01
B-7@3.0	SAMPLE	153448-017	99	0.15	08/15/01
B-8@3.5	SAMPLE	153448-018	130	0.14	08/16/01
	BLANK	QC152975	ND	0.15	08/14/01

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Lead

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3050
Project#:	272.073	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Matrix:	Soil	Batch#:	65627
Units:	mg/Kg	Prepared:	08/10/01
Basis:	wet	Analyzed:	08/14/01

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC152976	100.0	86.50	87	66-110		
BSD	QC152977	100.0	86.50	87	66-110	0	20

RPD= Relative Percent Difference

Lead

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	EPA 3050
Project#:	272.073	Analysis:	EPA 6010B
Analyte:	Lead	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	65627
MSS Lab ID:	153519-004	Sampled:	08/09/01
Matrix:	Soil	Received:	08/09/01
Units:	mg/Kg	Prepared:	08/10/01
Basis:	wet	Analyzed:	08/14/01

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC152978	0.3329	88.50	67.26	76	24-132		
MSD	QC152979		99.50	77.11	77	24-132	2	41

RPD= Relative Percent Difference

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Lead

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	272.073	Analysis:	EPA 6010B
Analyte:	Lead	Sampled:	08/02/01
Matrix:	WET Leachate	Received:	08/06/01
Units:	ug/L	Prepared:	08/15/01
Diln Fac:	10.00	Analyzed:	08/16/01
Batch#:	65722		

Field ID	Type	Lab ID	Result	RL
B-1@3.5	SAMPLE	153448-003	ND	150
B-3@3.5	SAMPLE	153448-008	ND	150
B-4@4.0	SAMPLE	153448-010	2,200	150
B-7@3.0	SAMPLE	153448-017	7,300	150
B-8@3.5	SAMPLE	153448-018	6,300	150
	BLANK	QC153359	ND	150

ND= Not Detected
RL= Reporting Limit

Lead

Lab #:	153448	Location:	11th and Clay
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	272.073	Analysis:	EPA 6010B
Analyte:	Lead	Batch#:	65722
Field ID:	ZZZZZZZZZZ	Sampled:	08/07/01
MSS Lab ID:	153547-001	Received:	08/08/01
Matrix:	WET Leachate	Prepared:	08/15/01
Units:	ug/L	Analyzed:	08/16/01

Type	Lab ID	MSS Result	Spiked	Result	RL	%REC	Limits	RPD	Lim	Dil'n Fac
BS	QC153360		2,000	1,950		98	78-120			1.000
BSD	QC153361		2,000	1,960		98	78-120	1	20	1.000
SDUP	QC153362	<150.0		ND	150			NC	29	10.00
SSPIKE	QC153363	<46.00	10,000	9,500		95	66-128			10.00

NC= Not Calculated
ND= Not Detected
RL= Reporting Limit
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.