



## Subsurface Consultants, Inc.

October 5, 1998  
SCI 447.055

Mr. George Hill  
305 Sheridan Avenue  
Piedmont, California 94611

Mr. Gordon Linden  
101 Gleneden Avenue  
Oakland, California 94611

**Soil Stockpile Removal  
Connell Oldsmobile  
3093 Broadway  
Oakland, California**

Dear Messrs. Hill & Linden:

This letter documents the removal of the soil stockpile at the Connell Automobile Dealership (Site) in Oakland, California. The Site is located at the southwest corner of the intersection of Hawthorne Street and Broadway, as shown on the Site Plan, Plate 1.

Subsurface Consultants, Inc. (SCI) prepared a Work Plan, dated December 23, 1997, for the characterization, transport, and disposal of the soil stockpile. The Alameda County Health Care Services Agency approved this Work Plan in a letter dated January 26, 1998.

The stockpile was primarily generated in 1989 during excavation activities associated with removal of the former underground storage tanks, but also contains some soil derived from previous subsurface investigations conducted at the Site. The soil was stockpiled on an asphaltic-concrete paved surface located toward the western portion of the Site (refer to Plate 1).

### SOIL STOCKPILE SAMPLING

SCI's field technician collected eight soil samples from the stockpile on June 17, 1998, at various depths and locations. A hand auger was used to access each soil sampling depth within the stockpile. A slide hammer was then used to drive a 6-inch sample barrel containing a stainless

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steel tube to obtain each sample. Following sample collection, each stainless steel tube was sealed with teflon tape and capped. Samples were placed in ice-filled coolers and remained iced until delivery to Curtis & Tompkins, Ltd., a State of California Department of Health Services certified analytical testing laboratory. Chain of custody documentation accompanied the samples.

### **CHEMICAL ANALYSES OF SAMPLES**

The analytical testing program for soil samples included the chemicals listed below:

- Total volatile hydrocarbons (TVH) (EPA 8015 modified),
- Total extractable hydrocarbons (TEH) (EPA 8015 modified),
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) (EPA 8020A),
- Methyl tertiary butyl ether (MTBE) (EPA 8020A),
- Volatile organic compounds (VOCs) (EPA 8260),
- Semi-volatile organic compounds (SVOCs) (EPA 8270B), and
- Title 26 metals (EPA 6010A/7471).

The laboratory was directed to composite the eight samples into two four-point composite samples for analysis. These two composite samples were analyzed for TEH, TVH, BTEX, MTBE, and metals. Additionally, one of the composites was analyzed for VOCs and SVOCs. Analytical test results are summarized in Tables 1 and 2. Analytical test reports are attached.

Analytical test results were submitted to the Altamont Landfill in Livermore, California, for acceptance preapproval.

### **SOIL STOCKPILE TRANSPORTATION AND DISPOSAL**

SCI retained Enviroclean Inc. to offhaul the soil stockpile. A 624H Loader was used to load the soil into tandem end-dump trucks on a rotating basis. Each tandem dump truck was loaded with approximately 20 cubic yards of soil. Loaded trucks were then appropriately covered before transport to the landfill. On July 22 and 23, 1998, ten deliveries totaling approximately 198 tons were made to the Altamont Class III Landfill operated by Waste Management, Inc. The landfill stage tickets documenting the transfer and acceptance are attached.

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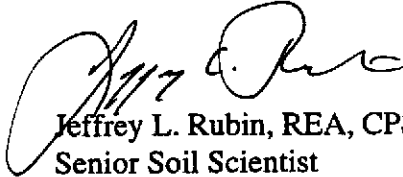
We trust that this provides the required information. If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.



Meg Mendoza  
Project Engineer



Jeffrey L. Rubin, REA, CPSS  
Senior Soil Scientist

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Attachments: Site Plan  
Table 1 - Summary of Chemical Concentrations  
Table 2 - Summary of Metal Concentrations  
Analytical Test Report  
Stage Tickets (10)

cc: Ms. Susan Hugo  
Senior Hazardous Materials Specialist  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway  
Alameda, California 94502-6577

Mr. Jonathan Redding, Esq.  
Fitzgerald, Abbott & Beardsley, LLP  
1221 Broadway, 12th Floor  
Oakland, California 94612

**TABLE 1**  
**SUMMARY OF CHEMICAL CONCENTRATIONS**  
**SOIL STOCKPILE**  
**3093 BROADWAY**  
**OAKLAND, CALIFORNIA**

<u>Sample ID</u>	<u>Event Date</u>	<u>TVHg mg/kg</u>	<u>TEHd mg/kg</u>	<u>TEHmo mg/kg</u>	<u>MTBE ug/kg</u>	<u>B ug/kg</u>	<u>T ug/kg</u>	<u>E ug/kg</u>	<u>X ug/kg</u>	<u>VOCs ug/kg</u>	<u>SVOCs ug/kg</u>
<b><u>Current Investigation</u></b>											
COMP SP (1-4)	6/17/98	<1	11YH	190YH	<20	<5	<5	<5	<5	ND	ND
COMP SP (5-8)	6/17/98	<1	11YH	170YH	<20	<5	<5	<5	<5	--	--

**NOTES:**

mg/kg = milligrams per kilogram = parts per million = ppm

µg/kg = micrograms per kilogram = parts per billion = ppb

TVHg = Total volatile hydrocarbons, gasoline range

TEHd = Total extractable hydrocarbons, diesel range

TEHmo = Total extractable hydrocarbons, motor oil range

MTBE = Methyl tertiary butyl ether

BTEX = Benzene, toluene, ethylbenzene, xylenes

-- = Test not requested

VOCs = Volatile organic compounds

SVOCs = Semi-volatile organic compounds

Y = Sample exhibits fuel pattern which does not resemble standard

H = Heavier hydrocarbons than indicated standard

<1 = Chemical not present at a concentration in excess  
of detection limit shown

ND = analyte not detected above it's laboratory reporting limit

**TABLE 2**  
**SUMMARY OF METAL CONCENTRATIONS**  
**SOIL STOCKPILE**  
**3093 BROADWAY**  
**OAKLAND, CALIFORNIA**

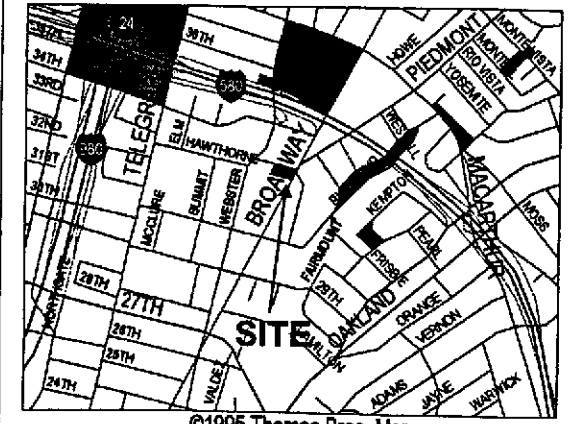
<u>Metal</u>	<u>units</u>	<u>COMP SP (1-4)</u>	<u>COMP SP (5-8)</u>
Antimony	mg/kg	<3.0	<2.9
Arsenic	mg/kg	3.7	4.0
Barium	mg/kg	110	130
Beryllium	mg/kg	0.38	0.48
Cadmium	mg/kg	0.46	0.53
Chromium (total)	mg/kg	31	26
Cobalt	mg/kg	9.9	12
Copper	mg/kg	18	30
Lead	mg/kg	15	21
Mercury	mg/kg	0.087	0.061
Molybdenum	mg/kg	<1.0	<0.97
Nickel	mg/kg	38	38
Selenium	mg/kg	<0.25	<0.24
Silver	mg/kg	<0.50	<0.48
Thallium	mg/kg	4.8	3.2
Vanadium	mg/kg	28	33
Zinc	mg/kg	46	48

NOTES:

Samples collected June 17, 1998

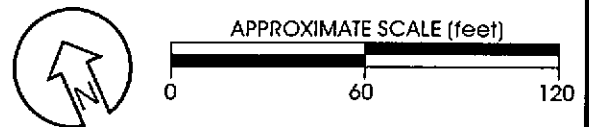
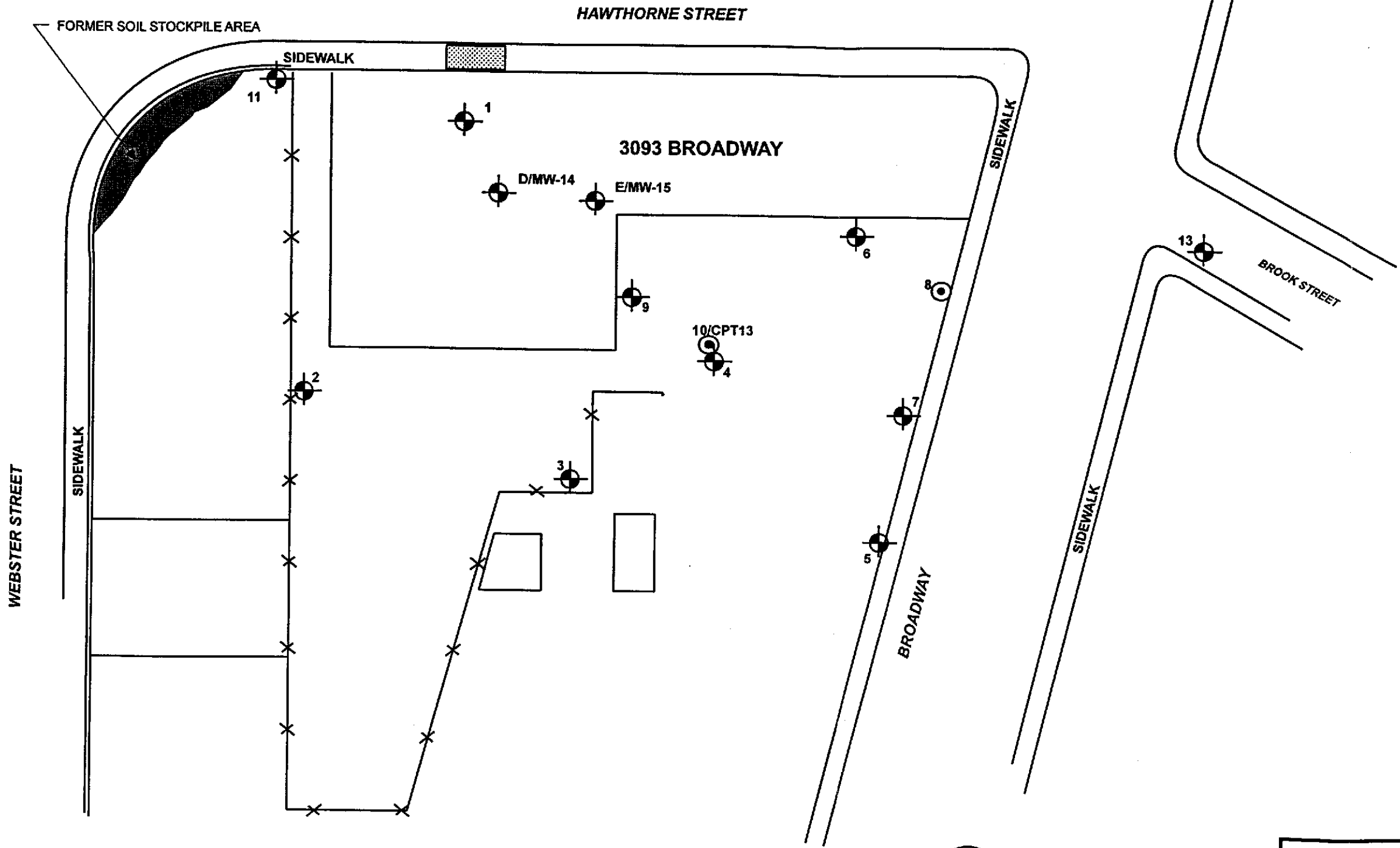
mg/kg = milligrams per kilogram = parts per million = ppm

<1 = Chemical not present at a concentration in excess  
of detection limit shown



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VICINITY MAP

EXPLANATION	
	SCI MONITORING WELL
	EXTRACTION WELL
	FENCE
	RETAINING WALL
	FORMER TANK LOCATION



**SITE PLAN**

<b>SCI</b> Subsurface Consultants, Inc. Geotechnical & Environmental Engineers	CONNELL OLDSMOBILE - OAKLAND, CA		PLATE <b>1</b>
	JOB NUMBER 447.055	DATE 5/26/98	APPROVED <i>MW</i>



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L   R E P O R T

Prepared for:

Subsurface Consultants  
3736 Mt. Diablo Blvd.  
Suite 200  
Lafayette, CA 94549

Date: 06-JUL-98  
Lab Job Number: 134118  
Project ID: 447.055  
Location: Connell Olds

Reviewed by:

Reviewed by:

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## TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants  
 Project#: 447.055  
 Location: Connell Olds

Analysis Method: EPA 8015M  
 Prep Method: CA LUFT

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
134118-005	COMP SP(1-4)	41660	06/17/98	06/25/98	06/25/98	
134118-010	COMP SP(5-8)	41660	06/17/98	06/25/98	06/25/98	

Matrix: Soil

Analyte	Units	134118-005	134118-010
Diln Fac:		2	2
Diesel C12-C22	mg/Kg	11 YH	11 YH
Motor Oil C22-C50	mg/Kg	190 YH	170 YH
Surrogate			
Hexacosane	%REC	77	77

Y: Sample exhibits fuel pattern which does not resemble standard

H: Heavier hydrocarbons than indicated standard

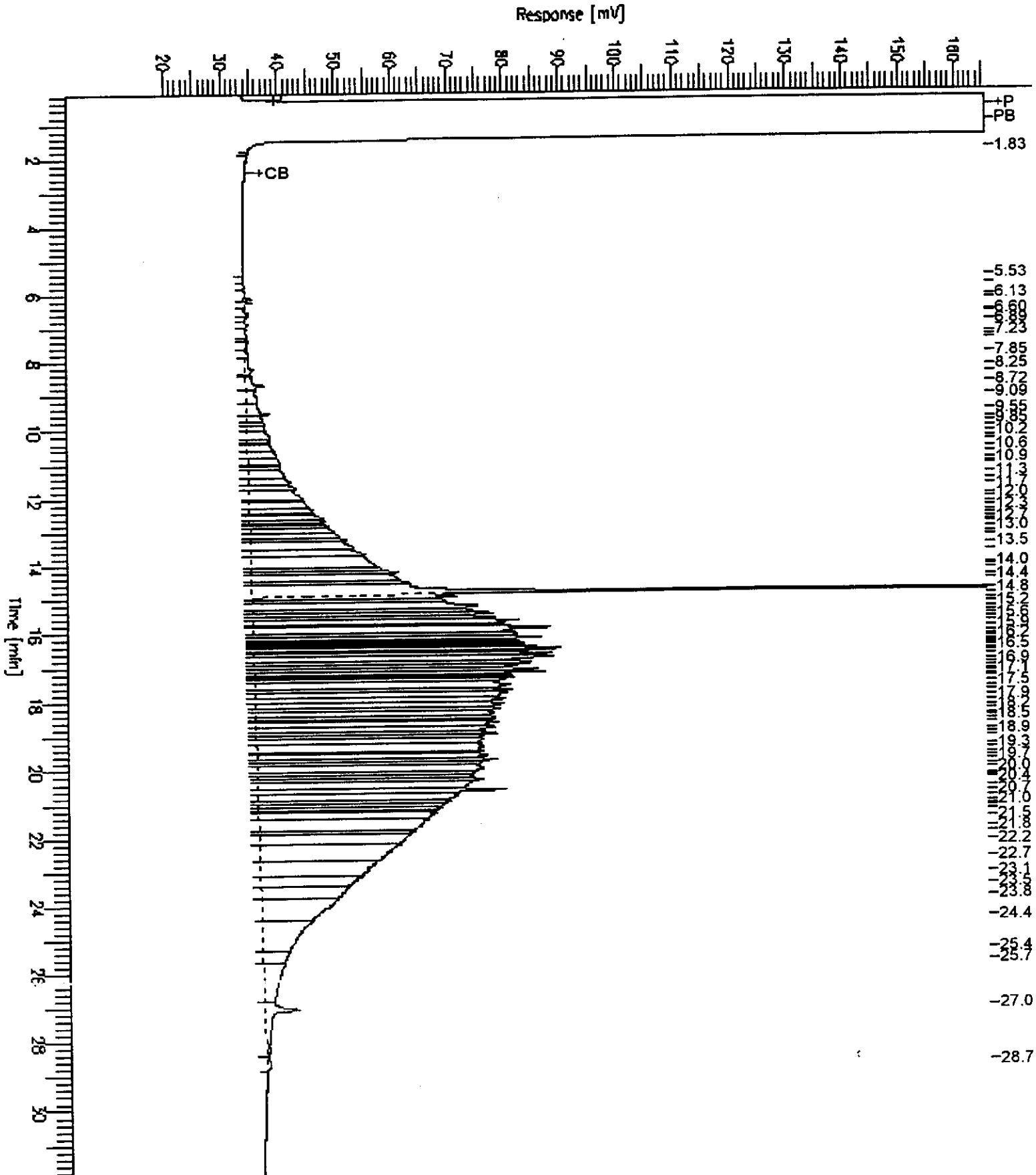


# GC15 Channel B TEH

Sample Name : 134118-005,41660  
FileName : C:\GC15\CHB\174B081.RAW  
Method : B161TEH.MTH  
Start Time : 0.12 min  
Scale Factor: 0.0

End Time : 31.91 min  
Plot Offset: 19 mV

Sample #: 41660  
Date : 6/26/98 11:07 AM  
Time of Injection: 6/25/98 09:56 PM  
Low Point : 19.39 mV  
Plot Scale: 146.3 mV  
High Point : 165.65 mV

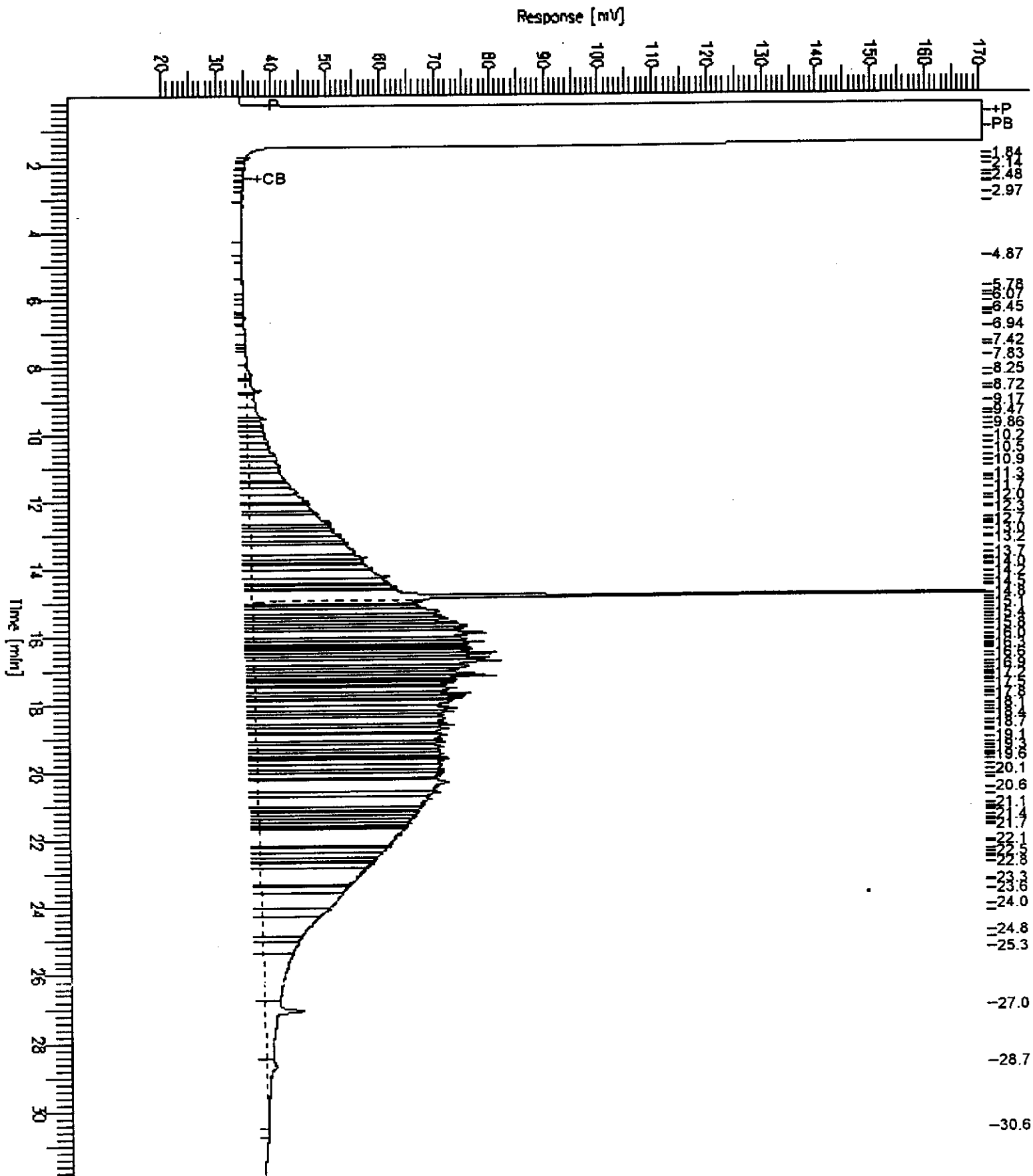


# GC15 Channel B TEH

Sample Name : 134118-010,41660  
 FileName : C:\GC15\CHB\174B082.RAW  
 Method : B161TEH.MTH  
 Start Time : 0.01 min  
 Scale Factor: 0.0

End Time : 31.91 min  
 Plot Offset: 20 mV

Sample #: 41660  
 Date : 6/26/98 11:08 AM  
 Time of Injection: 6/25/98 10:39 PM  
 Low Point : 19.88 mV  
 Plot Scale: 150.8 mV  
 High Point : 170.72 mV



Lab #: 134118

BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants  
Project#: 447.055  
Location: Connell Olds

Analysis Method: EPA 8015M  
Prep Method: CA LUFT

METHOD BLANK

Matrix: Soil  
Batch#: 41660  
Units: mg/Kg  
Diln Fac: 1

Prep Date: 06/25/98  
Analysis Date: 06/28/98

MB Lab ID: QC73534

Analyte	Result
Diesel C12-C22	<1.0
Motor Oil C22-C50	<5.0

Surrogate	%Rec	Recovery Limits
Hexacosane	105	48-142

Lab #: 134118

BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants  
Project#: 447.055  
Location: Connell Olds

Analysis Method: EPA 8015M  
Prep Method: CA LUFT

LABORATORY CONTROL SAMPLE

Matrix: Soil  
Batch#: 41660  
Units: mg/Kg  
Diln Fac: 1

Prep Date: 06/25/98  
Analysis Date: 06/28/98

LCS Lab ID: QC73535

Analyte	Result	Spike Added	%Rec #	Limits
Diesel C12-C22	36	49.5	73	49-108
Surrogate	%Rec	Limits		
Hexacosane	86	48-142		

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants	Analysis Method: EPA 8015M
Project#: 447.055	Prep Method: CA LUFT
Location: Connell Olds	

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ	Sample Date: 06/16/98
Lab ID: 134134-003	Received Date: 06/18/98
Matrix: Soil	Prep Date: 06/25/98
Batch#: 41660	Analysis Date: 06/28/98
Units: mg/Kg dry weight	Moisture: 13%
Diln Fac: 1	

MS Lab ID: QC73536

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Diesel C12-C22	56.9	<1.149	39.92	70	34-121
Surrogate	%Rec	Limits			
Hexacosane	83	48-142			

MSD Lab ID: QC73537

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	56.9	41.16	72	34-121	3	36
Surrogate	%Rec	Limits				
Hexacosane	83	48-142				

# Column to be used to flag recovery and RPD values with an asterisk  
 \* Values outside of QC limits  
 RPD: 0 out of 1 outside limits  
 Spike Recovery: 0 out of 2 outside limits



## Volatile Organics by GC/MS

Client: Subsurface Consultants  
Project#: 447.055  
Location: Connell OldsAnalysis Method: EPA 8260  
Prep Method: EPA 5030Field ID: COMP SP(1-4)  
Lab ID: 134118-005  
Matrix: Soil  
Batch#: 41546  
Units: ug/Kg  
Diln Fac: 1Sampled: 06/17/98  
Received: 06/17/98  
Extracted: 06/18/98  
Analyzed: 06/18/98

Analyte	Result	Reporting Limit
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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
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
Chloroform	ND	5.0
1,1,1-Trichloroethane	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
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
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
Chlorobenzene	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
1,1,2,2-Tetrachloroethane	ND	5.0

Surrogate	%Recovery	Recovery Limits
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1,2-Dichloroethane-d4	112	75-130
Toluene-d8	98	89-110
Bromofluorobenzene	108	83-117

Lab #: 134118

BATCH QC REPORT



Curtis & Tompkins Ltd.  
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EPA 8240 Volatile Organics

Client: Subsurface Consultants  
Project#: 447.055  
Location: Connell Olds

Analysis Method: EPA 8260  
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil  
Batch#: 41571  
Units: ug/Kg  
Diln Fac: 1

Prep Date: 06/19/98  
Analysis Date: 06/19/98

MB Lab ID: QC73168

Analyte	Result	Reporting Limit
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
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
Chloroform	ND	5.0
1,1,1-Trichloroethane	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
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
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
Chlorobenzene	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
1,1,2,2-Tetrachloroethane	ND	5.0
Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	109	75-130
Toluene-d8	98	89-110
Bromofluorobenzene	106	83-117

Lab #: 134118

BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants  
Project#: 447.055  
Location: Connell Olds

Analysis Method: EPA 8260  
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ  
Lab ID: 134134-001  
Matrix: Soil  
Batch#: 41571  
Units: ug/Kg  
Diln Fac: 1

Sample Date: 06/15/98  
Received Date: 06/18/98  
Prep Date: 06/19/98  
Analysis Date: 06/19/98

MS Lab ID: QC73169

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	52.56	105	33-153
Benzene	50	<5	48.35	97	55-124
Trichloroethene	50	<5	93.15	186 *	38-144
Toluene	50	<5	50.35	101	47-125
Chlorobenzene	50	<5	49.36	99	39-127
Surrogate	%Rec	Limits			
1,2-Dichloroethane-d4	107	75-130			
Toluene-d8	100	89-110			
Bromofluorobenzene	100	83-117			

MSD Lab ID: QC73170

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	53	106	33-153	1	27
Benzene	50	48.54	97	55-124	0	23
Trichloroethene	50	92.97	186 *	38-144	0	29
Toluene	50	49.81	100	47-125	1	26
Chlorobenzene	50	48.15	96	39-127	2	27
Surrogate	%Rec	Limits				
1,2-Dichloroethane-d4	108	75-130				
Toluene-d8	101	89-110				
Bromofluorobenzene	100	83-117				

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 2 out of 10 outside limits



Lab #: 134118

BATCH QC REPORT



Curtis & Tompkins Ltd.  
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EPA 8240 Volatile Organics

Client: Subsurface Consultants  
Project#: 447.055  
Location: Connell Olds

Analysis Method: EPA 8260  
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil  
Batch#: 41571  
Units: ug/Kg  
Diln Fac: 1

Prep Date: 06/19/98  
Analysis Date: 06/19/98

LCS Lab ID: QC73167

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	49.02	50	98	60-156
Benzene	50.38	50	101	87-127
Trichloroethene	52.72	50	105	80-130
Toluene	53.37	50	107	84-130
Chlorobenzene	53.76	50	108	88-124
Surrogate	%Rec	Limits		
1,2-Dichloroethane-d4	105	75-130		
Toluene-d8	99	89-110		
Bromofluorobenzene	99	83-117		

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits



## Semivolatile Organics by GC/MS

Client: Subsurface Consultants  
Project#: 447.055  
Location: Connell Olds

Analysis Method: EPA 8270B  
Prep Method: EPA 3550

Field ID: COMP SP(1-4)  
Lab ID: 134118-005  
Matrix: Soil  
Batch#: 41586  
Units: ug/Kg  
Diln Fac: 1

Sampled: 06/17/98  
Received: 06/17/98  
Extracted: 06/22/98  
Analyzed: 06/22/98

Analyte	Result	Reporting Limit
Phenol	ND	330
2-Chlorophenol	ND	330
Benzyl alcohol	ND	330
2-Methylphenol	ND	330
3,4-Methylphenol	ND	330
2-Nitrophenol	ND	1700
2,4-Dimethylphenol	ND	330
Benzoic acid	ND	1700
2,4-Dichlorophenol	ND	330
4-Chloro-3-methylphenol	ND	330
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2,4-Dinitrophenol	ND	1700
4-Nitrophenol	ND	1700
4,6-Dinitro-2-methylphenol	ND	1700
Pentachlorophenol	ND	1700
N-Nitrosodimethylamine	ND	330
Aniline	ND	330
bis(2-Chloroethyl) ether	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
1,2-Dichlorobenzene	ND	330
bis(2-Chloroisopropyl) ether	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
bis(2-Chloroethoxy) methane	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	330
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
2-Methylnaphthalene	ND	330
Hexachlorocyclopentadiene	ND	1700
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	1700
Dimethylphthalate	ND	330
Acenaphthylene	ND	330



## Semivolatile Organics by GC/MS

Field ID: COMP SP(1-4)	Sampled: 06/17/98
Lab ID: 134118-005	Received: 06/17/98
Matrix: Soil	Extracted: 06/22/98
Batch#: 41586	Analyzed: 06/22/98
Units: ug/Kg	
Diln Fac: 1	

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1700
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Phenanthrene	ND	330
Anthracene	ND	330
Di-n-butylphthalate	ND	330
Fluoranthene	ND	330
Benzidine	ND	330
Pyrene	ND	330
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	1700
Benzo (a) anthracene	ND	330
Chrysene	ND	330
bis (2-Ethylhexyl) phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo (b,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	%Recovery	Recovery Limits
2-Fluorophenol	89	25-120
Phenol-d5	87	29-118
2,4,6-Tribromophenol	67	13-112
Nitrobenzene-d5	85	32-117
2-Fluorobiphenyl	91	38-121
Terphenyl-d14	89	29-143



## EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants  
 Project#: 447.055  
 Location: Connell Olds

Analysis Method: EPA 8270B  
 Prep Method: EPA 3550

## METHOD BLANK

Matrix: Soil  
 Batch#: 41586  
 Units: ug/Kg  
 Diln Fac: 1

Prep Date: 06/22/98  
 Analysis Date: 06/22/98

MB Lab ID: QC73267

Analyte	Result	Reporting Limit
Phenol	ND	330
2-Chlorophenol	ND	330
Benzyl alcohol	ND	330
2-Methylphenol	ND	330
3,4-Methylphenol	ND	330
2-Nitrophenol	ND	1700
2,4-Dimethylphenol	ND	330
Benzoic acid	ND	1700
2,4-Dichlorophenol	ND	330
4-Chloro-3-methylphenol	ND	330
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2,4-Dinitrophenol	ND	1700
4-Nitrophenol	ND	1700
4,6-Dinitro-2-methylphenol	ND	1700
Pentachlorophenol	ND	1700
N-Nitrosodimethylamine	ND	330
Aniline	ND	330
bis(2-Chloroethyl) ether	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
1,2-Dichlorobenzene	ND	330
bis(2-Chloroisopropyl) ether	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
bis(2-Chloroethoxy)methane	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	330
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
2-Methylnaphthalene	ND	330
Hexachlorocyclopentadiene	ND	1700
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	1700
Dimethylphthalate	ND	330
Acenaphthylene	ND	330
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1700

Lab #: 134118

BATCH QC REPORT

Curtis & Tompkins, Ltd.  
Page 2 of 2

## EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants  
 Project#: 447.055  
 Location: Connell Olds

Analysis Method: EPA 8270B  
 Prep Method: EPA 3550

## METHOD BLANK

Matrix: Soil  
 Batch#: 41586  
 Units: ug/Kg  
 Diln Fac: 1

Prep Date: 06/22/98  
 Analysis Date: 06/22/98

MB Lab ID: QC73267

Analyte	Result	Reporting Limit
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Phenanthrene	ND	330
Anthracene	ND	330
Di-n-butylphthalate	ND	330
Fluoranthene	ND	330
Benzidine	ND	330
Pyrene	ND	330
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	1700
Benzo (a) anthracene	ND	330
Chrysene	ND	330
bis(2-Ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo (b,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	Recovery Limits
2-Fluorophenol	87	25-120
Phenol-d5	90	29-118
2,4,6-Tribromophenol	96	13-112
Nitrobenzene-d5	88	32-117
2-Fluorobiphenyl	88	38-121
Terphenyl-d14	83	29-143

Lab #: 134118

## BATCH QC REPORT

Curtis & Tompkins Ltd.  
Page 1 of 1

## EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants  
Project#: 447.055  
Location: Connell OldsAnalysis Method: EPA 8270B  
Prep Method: EPA 3550

## MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ  
Lab ID: 134101-001  
Matrix: Soil  
Batch#: 41586  
Units: ug/Kg  
Diln Fac: 1Sample Date: 06/12/98  
Received Date: 06/16/98  
Prep Date: 06/22/98  
Analysis Date: 06/22/98

MS Lab ID: QC73269

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Phenol	3333	<333.3	2951	89	43-115
2-Chlorophenol	3333	<333.3	2818	85	45-117
4-Chloro-3-methylphenol	3333	<333.3	2792	84	44-113
4-Nitrophenol	3333	<1667	2526	76	29-110
Pentachlorophenol	3333	<1667	2060	62	10-110
1,4-Dichlorobenzene	1667	<333.3	1359	82	21-114
N-Nitroso-di-n-propylamine	1667	<333.3	1456	87	30-105
1,2,4-Trichlorobenzene	1667	<333.3	1452	87	28-115
Acenaphthene	1667	<333.3	1408	85	34-128
2,4-Dinitrotoluene	1667	<333.3	1256	75	17-112
Pyrene	1667	<333.3	1357	81	21-152
Surrogate	%Rec	Limits			
2-Fluorophenol	94	25-120			
Phenol-d5	92	29-118			
2,4,6-Tribromophenol	77	13-112			
Nitrobenzene-d5	86	32-117			
2-Fluorobiphenyl	89	38-121			
Terphenyl-d14	87	29-143			

MSD Lab ID: QC73270

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Phenol	3333	2949	88	43-115	0	40
2-Chlorophenol	3333	2853	86	45-117	1	43
4-Chloro-3-methylphenol	3333	2826	85	44-113	1	39
4-Nitrophenol	3333	2546	76	29-110	1	50
Pentachlorophenol	3333	1979	59	10-110	4	50
1,4-Dichlorobenzene	1667	1404	84	21-114	3	43
N-Nitroso-di-n-propylamine	1667	1478	89	30-105	2	43
1,2,4-Trichlorobenzene	1667	1469	88	28-115	1	38
Acenaphthene	1667	1421	85	34-128	1	43
2,4-Dinitrotoluene	1667	1280	77	17-112	2	46
Pyrene	1667	1354	81	21-152	0	50
Surrogate	%Rec	Limits				
2-Fluorophenol	96	25-120				
Phenol-d5	93	29-118				
2,4,6-Tribromophenol	75	13-112				
Nitrobenzene-d5	87	32-117				
2-Fluorobiphenyl	90	38-121				
Terphenyl-d14	87	29-143				

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 11 outside limits

Spike Recovery: 0 out of 22 outside limits

Lab #: 134118

BATCH QC REPORT



Curtis & Tompkins Ltd.  
Page 1 of 1

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants  
Project#: 447.055  
Location: Connell Olds

Analysis Method: EPA 8270B  
Prep Method: EPA 3550

LABORATORY CONTROL SAMPLE

Matrix: Soil  
Batch#: 41586  
Units: ug/Kg  
Diln Fac: 1

Prep Date: 06/22/98  
Analysis Date: 06/22/98

LCS Lab ID: QC73268

Analyte	Result	Spike Added	%Rec #	Limits
Phenol	2905	3333	87	31-124
2-Chlorophenol	3018	3333	91	35-127
4-Chloro-3-methylphenol	2809	3333	84	32-124
4-Nitrophenol	2566	3333	77	21-109
Pentachlorophenol	2761	3333	83	14-110
1,4-Dichlorobenzene	1416	1667	85	29-118
N-Nitroso-di-n-propylamine	894.4	1667	54	18-112
1,2,4-Trichlorobenzene	1418	1667	85	27-117
Acenaphthene	1378	1667	83	26-127
2,4-Dinitrotoluene	1365	1667	82	25-114
Pyrene	1360	1667	82	23-125
Surrogate	%Rec	Limits		
2-Fluorophenol	96	25-120		
Phenol-d5	98	29-118		
2,4,6-Tribromophenol	103	13-112		
Nitrobenzene-d5	94	32-117		
2-Fluorobiphenyl	89	38-121		
Terphenyl-d14	94	29-143		

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

Spike Recovery: 0 out of 11 outside limits

## TVH-Total Volatile Hydrocarbons

 Client: Subsurface Consultants  
 Project#: 447.055  
 Location: Connell Olds

 Analysis Method: EPA 8015M  
 Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
134118-005	COMP SP(1-4)	41583	06/17/98	06/23/98	06/23/98	
134118-010	COMP SP(5-8)	41583	06/17/98	06/23/98	06/23/98	

Matrix: Soil

Analyte	Units	134118-005	134118-010
Diln Fac:		1	1
Gasoline C7-C12	mg/Kg	<1	<1
Surrogate			
Trifluorotoluene	%REC	104	104
Bromofluorobenzene	%REC	107	107



## BTXE

 Client: Subsurface Consultants  
 Project#: 447.055  
 Location: Connell Olds

 Analysis Method: EPA 8020A  
 Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
134118-005	COMP SP(1-4)	41583	06/17/98	06/23/98	06/23/98	
134118-010	COMP SP(5-8)	41583	06/17/98	06/23/98	06/23/98	

Matrix: Soil

Analyte	Units	134118-005	134118-010
Diln Fac:		1	1
MTBE	ug/Kg	<20	<20
Benzene	ug/Kg	<5	<5
Toluene	ug/Kg	<5	<5
Ethylbenzene	ug/Kg	<5	<5
m,p-Xylenes	ug/Kg	<5	<5
o-Xylene	ug/Kg	<5	<5
Surrogate			
Trifluorotoluene	%REC	107	106
Bromofluorobenzene	%REC	110	110

Lab #: 134118

BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants  
Project#: 447.055  
Location: Connell Olds

Analysis Method: EPA 8015M  
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil  
Batch#: 41583  
Units: mg/Kg  
Diln Fac: 1

Prep Date: 06/22/98  
Analysis Date: 06/22/98

MB Lab ID: QC73219

Analyte	Result	
Gasoline C7-C12	<1.0	
Surrogate	%Rec	Recovery Limits
Trifluorotoluene	102	53-157
Bromofluorobenzene	100	53-157

Lab #: 134118

BATCH QC REPORT

BTXE

Client: Subsurface Consultants  
Project#: 447.055  
Location: Connell Olds

Analysis Method: EPA 8020A  
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil  
Batch#: 41583  
Units: ug/Kg  
Diln Fac: 1

Prep Date: 06/22/98  
Analysis Date: 06/22/98

MB Lab ID: QC73219

Analyte	Result	
MTBE	<20	
Benzene	<5.0	
Toluene	<5.0	
Ethylbenzene	<5.0	
m,p-Xylenes	<5.0	
o-Xylene	<5.0	
Surrogate	%Rec	Recovery Limits
Trifluorotoluene	103	53-126
Bromofluorobenzene	103	35-144

Lab #: 134118

BATCH QC REPORT



Curtis & Tompkins Ltd  
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TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants  
Project#: 447.055  
Location: Connell Olds

Analysis Method: EPA 8015M  
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil  
Batch#: 41583  
Units: mg/Kg  
Diln Fac: 1

Prep Date: 06/22/98  
Analysis Date: 06/22/98

LCS Lab ID: QC73217

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	9.47	10	95	78-120
Surrogate	%Rec	Limits		
Trifluorotoluene	116	53-157		
Bromofluorobenzene	138	53-157		

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

Spike Recovery: 0 out of 1 outside limits

Lab #: 134118

BATCH QC REPORT

BTXE

Client: Subsurface Consultants  
Project#: 447.055  
Location: Connell Olds

Analysis Method: EPA 8020A  
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil  
Batch#: 41583  
Units: ug/Kg  
Diln Fac: 1

Prep Date: 06/22/98  
Analysis Date: 06/22/98

LCS Lab ID: QC73218

Analyte	Result	Spike Added	%Rec #	Limits
MTBE	100	100	100	65-135
Benzene	105.6	100	106	69-118
Toluene	107.7	100	108	73-118
Ethylbenzene	105.5	100	106	68-124
m,p-Xylenes	108.9	100	109	67-124
o-Xylene	104.9	100	105	73-127
Surrogate	%Rec	Limits		
Trifluorotoluene	107	53-126		
Bromofluorobenzene	113	35-144		

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

Spike Recovery: 0 out of 6 outside limits

TVH-Total Volatile Hydrocarbons	
Client: Subsurface Consultants	Analysis Method: EPA 8015M
Project#: 447.055	Prep Method: EPA 5030
Location: Connell Olds	
MATRIX SPIKE/MATRIX SPIKE DUPLICATE	
Field ID: ZZZZZZ	Sample Date: 06/11/98
Lab ID: 134074-001	Received Date: 06/12/98
Matrix: Soil	Prep Date: 06/22/98
Batch#: 41583	Analysis Date: 06/22/98
Units: mg/Kg	
Diln Fac: 1	

MS Lab ID: QC73220

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	10	<1	10.02	100	38-132
Surrogate	%Rec	Limits			
Trifluorotoluene	116	53-157			
Bromofluorobenzene	139	53-157			

MSD Lab ID: QC73221

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	10	10.92	109	38-132	9	26
Surrogate	%Rec	Limits				
Trifluorotoluene	116	53-157				
Bromofluorobenzene	144	53-157				

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits



Curtis & Tompkins, Ltd.

SAMPLE ID: COMP SP(1-4)  
LAB ID: 134118-005  
CLIENT: Subsurface Consultants  
PROJECT ID: 447.055  
LOCATION: Connell Olds  
MATRIX: Soil

DATE SAMPLED: 06/17/98  
DATE RECEIVED: 06/17/98  
DATE REPORTED: 06/26/98

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	3.0	1	41564	EPA 6010A	06/22/98
Arsenic	3.7	0.25	1	41564	EPA 6010A	06/22/98
Barium	110	0.50	1	41564	EPA 6010A	06/22/98
Beryllium	0.38	0.10	1	41564	EPA 6010A	06/22/98
Cadmium	0.46	0.10	1	41564	EPA 6010A	06/22/98
Chromium (total)	31	0.50	1	41564	EPA 6010A	06/22/98
Cobalt	9.9	1.0	1	41564	EPA 6010A	06/22/98
Copper	18	0.50	1	41564	EPA 6010A	06/22/98
Lead	15	0.15	1	41564	EPA 6010A	06/22/98
Mercury	0.087	0.039	1	41570	EPA 7471	06/19/98
Molybdenum	ND	1.0	1	41564	EPA 6010A	06/22/98
Nickel	38	1.0	1	41564	EPA 6010A	06/22/98
Selenium	ND	0.25	1	41564	EPA 6010A	06/22/98
Silver	ND	0.50	1	41564	EPA 6010A	06/22/98
Thallium	4.8	0.25	1	41564	EPA 6010A	06/22/98
Vanadium	28	0.50	1	41564	EPA 6010A	06/22/98
Zinc	46	1.0	1	41564	EPA 6010A	06/22/98

ND = Not detected at or above reporting limit



Curtis &amp; Tompkins, Ltd.

SAMPLE ID: COMP SP(5-8)  
LAB ID: 134118-010  
CLIENT: Subsurface Consultants  
PROJECT ID: 447.055  
LOCATION: Connell Olds  
MATRIX: Soil

DATE SAMPLED: 06/17/98  
DATE RECEIVED: 06/17/98  
DATE REPORTED: 06/26/98

## California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	2.9	1	41564	EPA 6010A	06/22/98
Arsenic	4.0	0.24	1	41564	EPA 6010A	06/22/98
Barium	130	0.48	1	41564	EPA 6010A	06/22/98
Beryllium	0.48	0.097	1	41564	EPA 6010A	06/22/98
Cadmium	0.53	0.097	1	41564	EPA 6010A	06/22/98
Chromium (total)	26	0.48	1	41564	EPA 6010A	06/22/98
Cobalt	12	0.97	1	41564	EPA 6010A	06/22/98
Copper	30	0.48	1	41564	EPA 6010A	06/22/98
Lead	21	0.14	1	41564	EPA 6010A	06/22/98
Mercury	0.061	0.037	1	41570	EPA 7471	06/19/98
Molybdenum	ND	0.97	1	41564	EPA 6010A	06/22/98
Nickel	38	0.97	1	41564	EPA 6010A	06/22/98
Selenium	ND	0.24	1	41564	EPA 6010A	06/22/98
Silver	ND	0.48	1	41564	EPA 6010A	06/22/98
Thallium	3.2	0.24	1	41564	EPA 6010A	06/22/98
Vanadium	33	0.48	1	41564	EPA 6010A	06/22/98
Zinc	48	0.97	1	41564	EPA 6010A	06/22/98

ND = Not detected at or above reporting limit





CLIENT: Subsurface Consultants  
JOB NUMBER: 134118

DATE REPORTED: 06/26/98

BATCH QC REPORT  
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Antimony	ND	3	mg/Kg	1	41564	EPA 6010A	06/22/98
Arsenic	ND	0.25	mg/Kg	1	41564	EPA 6010A	06/22/98
Barium	ND	0.5	mg/Kg	1	41564	EPA 6010A	06/22/98
Beryllium	ND	0.1	mg/Kg	1	41564	EPA 6010A	06/22/98
Cadmium	ND	0.1	mg/Kg	1	41564	EPA 6010A	06/22/98
Chromium (total)	ND	0.5	mg/Kg	1	41564	EPA 6010A	06/22/98
Cobalt	ND	1	mg/Kg	1	41564	EPA 6010A	06/22/98
Copper	ND	0.5	mg/Kg	1	41564	EPA 6010A	06/22/98
Lead	ND	0.15	mg/Kg	1	41564	EPA 6010A	06/22/98
Mercury	ND	0.04	mg/Kg	1	41570	EPA 7471	06/19/98
Molybdenum	ND	1	mg/Kg	1	41564	EPA 6010A	06/22/98
Nickel	ND	1	mg/Kg	1	41564	EPA 6010A	06/22/98
Selenium	ND	0.25	mg/Kg	1	41564	EPA 6010A	06/22/98
Silver	ND	0.5	mg/Kg	1	41564	EPA 6010A	06/22/98
Thallium	ND	0.25	mg/Kg	1	41564	EPA 6010A	06/22/98
Vanadium	ND	0.5	mg/Kg	1	41564	EPA 6010A	06/22/98
Zinc	ND	1	mg/Kg	1	41564	EPA 6010A	06/22/98

ND = Not Detected at or above reporting limit



CLIENT: Subsurface Consultants  
 JOB NUMBER: 134118

DATE REPORTED: 06/26/98

BATCH QC REPORT  
 BLANK SPIKE / BLANK SPIKE DUPLICATE

Compound	Spike Amount	BS Result	BSD Result	Units	BS% Rec.	BSD% Rec.	Rec. Limits	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Antimony	25	27.75	24	mg/Kg	111	96	80-120	15	35	41564	EPA 6010A	06/22/98
Arsenic	100	93	87.5	mg/Kg	93	88	80-120	6	35	41564	EPA 6010A	06/22/98
Barium	100	98	94	mg/Kg	98	94	80-120	4	35	41564	EPA 6010A	06/22/98
Beryllium	2.5	2.71	2.48	mg/Kg	108	99	80-120	9	35	41564	EPA 6010A	06/22/98
Cadmium	2.5	2.49	2.32	mg/Kg	100	93	80-120	7	35	41564	EPA 6010A	06/22/98
Chromium (total)	10	10.2	9.35	mg/Kg	102	94	80-120	9	35	41564	EPA 6010A	06/22/98
Cobalt	25	25.5	23.3	mg/Kg	102	93	80-120	9	35	41564	EPA 6010A	06/22/98
Copper	12.5	13.1	12.4	mg/Kg	105	99	80-120	6	35	41564	EPA 6010A	06/22/98
Lead	25	24.4	22.1	mg/Kg	98	88	80-120	10	35	41564	EPA 6010A	06/22/98
Mercury	1.000	1.089	1.132	mg/Kg	109	113	80-120	4	35	41570	EPA 7471	06/19/98
Molybdenum	20	20.7	19	mg/Kg	104	95	80-120	9	35	41564	EPA 6010A	06/22/98
Nickel	25	25.15	23.45	mg/Kg	101	94	80-120	7	35	41564	EPA 6010A	06/22/98
Selenium	100	93.5	86.5	mg/Kg	94	87	80-120	8	35	41564	EPA 6010A	06/22/98
Silver	5	5.05	4.62	mg/Kg	101	92	80-120	9	35	41564	EPA 6010A	06/22/98
Thallium	100	100	93.5	mg/Kg	100	94	80-120	7	35	41564	EPA 6010A	06/22/98
Vanadium	25	25.6	23.75	mg/Kg	102	95	80-120	8	35	41564	EPA 6010A	06/22/98
Zinc	25	24.7	23.75	mg/Kg	99	95	80-120	4	35	41564	EPA 6010A	06/22/98

CLIENT: Subsurface Consultants  
JOB NUMBER: 134118

 Curtis & Tompkins, Ltd.  
DATE REPORTED: 06/26/98

BATCH QC REPORT  
MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Compound	Sample	Sample Result	Spike Amount	MS Result	MSD Result	Units	MS% Rec.	MSD% Rec.	Rec. Limit	RPD %	RPD Lim	QC Batch	Method	Analysis Date
Mercury	134050-001	<0.040	0.9811	1.08	1.098	mg/Kg	110	110	65-135	2	35	41570	EPA 7471	06/19/98



CLIENT: Subsurface Consultants  
JOB NUMBER: 134118

DATE REPORTED: 06/26/98

BATCH QC REPORT  
SAMPLE DUPLICATE

Compound	Sample	Sample Result	Duplicate Result	Units	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Antimony	134100-001	<2.871	<2.871	mg/Kg	NC	35	41564	EPA 6010A	06/22/98
Arsenic	134100-001	2.857	2.426	mg/Kg	16	35	41564	EPA 6010A	06/22/98
Barium	134100-001	17.93	18.18	mg/Kg	1	35	41564	EPA 6010A	06/22/98
Beryllium	134100-001	0.8424	0.8804	mg/Kg	4	35	41564	EPA 6010A	06/22/98
Cadmium	134100-001	0.3586	0.2555	mg/Kg	34	35	41564	EPA 6010A	06/22/98
Chromium (total)	134100-001	24.04	24.83	mg/Kg	3	35	41564	EPA 6010A	06/22/98
Cobalt	134100-001	3.655	3.904	mg/Kg	7	35	41564	EPA 6010A	06/22/98
Copper	134100-001	21.53	22.78	mg/Kg	6	35	41564	EPA 6010A	06/22/98
Lead	134100-001	4.473	4.344	mg/Kg	3	35	41564	EPA 6010A	06/22/98
Mercury	134050-001	<0.039	<0.039	mg/Kg	NC	35	41570	EPA 7471	06/19/98
Molybdenum	134100-001	4.635	4.928	mg/Kg	6	35	41564	EPA 6010A	06/22/98
Nickel	134100-001	28.08	29.28	mg/Kg	4	35	41564	EPA 6010A	06/22/98
Selenium	134100-001	<0.239	<0.239	mg/Kg	NC	35	41564	EPA 6010A	06/22/98
Silver	134100-001	<0.479	<0.479	mg/Kg	NC	35	41564	EPA 6010A	06/22/98
Thallium	134100-001	2.951	3.263	mg/Kg	10	35	41564	EPA 6010A	06/22/98
Vanadium	134100-001	4.182	4.287	mg/Kg	2	35	41564	EPA 6010A	06/22/98
Zinc	134100-001	36.06	36.94	mg/Kg	2	35	41564	EPA 6010A	06/22/98

NC - Not Calculable



CLIENT: Subsurface Consultants  
JOB NUMBER: 134118

DATE REPORTED: 06/26/98

BATCH QC REPORT  
SAMPLE SPIKE

Compound	Spike Amount	Sample	Sample Result	Spike Result	Units	Percent Rec.	Rec. Limit	QC Batch	Method	Analysis Date
Antimony	24.63	134100-001	<2.956	19.06	mg/Kg	77	65-135	41564	EPA 6010A	06/22/98
Arsenic	98.52	134100-001	2.857	86.21	mg/Kg	85	65-135	41564	EPA 6010A	06/22/98
Barium	98.52	134100-001	17.93	109.4	mg/Kg	93	65-135	41564	EPA 6010A	06/22/98
Beryllium	2.463	134100-001	0.8424	3.227	mg/Kg	97	65-135	41564	EPA 6010A	06/22/98
Cadmium	2.463	134100-001	0.3586	2.502	mg/Kg	87	65-135	41564	EPA 6010A	06/22/98
Chromium (total)	9.852	134100-001	24.04	33.05	mg/Kg	91	65-135	41564	EPA 6010A	06/22/98
Cobalt	24.63	134100-001	3.655	26.75	mg/Kg	94	65-135	41564	EPA 6010A	06/22/98
Copper	12.32	134100-001	21.53	35.47	mg/Kg	113	65-135	41564	EPA 6010A	06/22/98
Lead	24.63	134100-001	4.473	25.91	mg/Kg	87	65-135	41564	EPA 6010A	06/22/98
Molybdenum	19.7	134100-001	4.635	22.46	mg/Kg	90	65-135	41564	EPA 6010A	06/22/98
Nickel	24.63	134100-001	28.08	51.72	mg/Kg	96	65-135	41564	EPA 6010A	06/22/98
Selenium	98.52	134100-001	<0.246	82.27	mg/Kg	84	65-135	41564	EPA 6010A	06/22/98
Silver	4.926	134100-001	<0.493	4.719	mg/Kg	96	65-135	41564	EPA 6010A	06/22/98
Thallium	98.52	134100-001	2.951	93.6	mg/Kg	92	65-135	41564	EPA 6010A	06/22/98
Vanadium	24.63	134100-001	4.182	27.04	mg/Kg	93	65-135	41564	EPA 6010A	06/22/98
Zinc	24.63	134100-001	36.06	58.62	mg/Kg	92	65-135	41564	EPA 6010A	06/22/98

# CHAIN OF CUSTODY FORM

134116

PROJECT NAME: CONNELL SUBSTATION  
 JOB NUMBER: 447.055 LAB: CURTIS & TEMPKENS  
 PROJECT CONTACT: MES MENDOZA TURNAROUND: STANDARD  
 SAMPLED BY: \_\_\_\_\_ REQUESTED BY: Mes Mendoza

ANALYSIS REQUESTED						
TVA/BTEX/PAH						
TEH, diesel & metals						
CAM / Mistel						
VSC						
SUEC						

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX				CONTAINERS				METHOD PRESERVED					SAMPLING DATE				NOTES
		WATER	SOIL	WASTE	AIR	VOA	LITER	PINT	TUBE	HCL	H <sup>2</sup> SO <sup>4</sup>	HNO <sup>3</sup>	ICE	NONE	MONTH	DAY	YEAR	TIME	
1	121'		X					X							06	17	98	1235	Composite X X X X X X
2	SP2 23'		X					X										1245	
3	SP3 22"		X					X										1300	
4	SP4 21'		X					X										1310	
6	SP5 24'		X					X										1325	Composite X X X X X
7	SP6 26"		X					X										1330	
8	SP7 22'		X					X										1340	
9	SP8 25'		X					X										1400	
															06	17	98	1400	

## CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature) <i>Devi Shepard</i>	DATE / TIME 6/17/98 2:20 p.m.	RECEIVED BY: (Signature) <i>Agudo</i>	DATE / TIME 6/17/98 2:20 pm
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:  
 \* Prepare 4-point composite of samples 1 through 4 and 5 and through 8.

**Subsurface Consultants, Inc.**  
 171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607  
 (510) 268-0461 • FAX: 510-268-0137

FROM : ENVIROCLEAN, Inc.

PHONE NO. : 510 779 9502

Aug. 27 1998 09:12AM P2

YELLOW

CLASS 2 COVER

ALTAMONT LANDFILL & RRF

DATE: 07/22/1998 TICK: 79211 - 1  
TIME IN: 09:50 I/O: I  
TIME OUT: 10:19  
STAGE TICKET: 82507

CARRIER: P. PRD  
TRUCK#: 201 END DUMP  
CUSTOMER: ENVIROCON ENVIROCON, INC.  
GENERATOR: CORNELL CONNELL TRUST  
ORIGIN: OAK OAKLAND

TRAILER#:

PROFILE 51996200

MANIFEST	WASTE DESCRIPTION	QUAN.	PER	RATE	AMOUNT	TAX	FEE	TOTAL
	C2C CLASS II COVER	801	23.08					

GROSS: 76280 PB LBS

CUSTOMER: \_\_\_\_\_

TARE: 30120 PB LBS

WEIGHMASTER: \_\_\_\_\_

NET: 46160 LBS TONS: 23.08

WEIGH IN CLERK: RAMIREZ, JOSE

WEIGH OUT CLERK: ROGELIO, ROJAS

THIS IS TO CERTIFY THAT THE FOLLOWING DESCRIBED COMMODITY WAS WEIGHED, MEASURED, OR COUNTED BY A WEIGHMASTER WHOSE SIGNATURE IS ON THIS CERTIFICATE, WHO IS A RECOGNIZED AUTHORITY OF ACCURACY, AS PRESCRIBED BY CHAPTER 7 COMMENCING WITH SECTION 127001 OF DIVISION 5 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE ADMINISTERED BY THE DIVISION OF MEASUREMENT STANDARDS OF THE CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE.

YELLOW

CLASS 2 COVER

ALTAMONT LANDFILL & RRF

DATE: 07/22/1998 TICK: 79212 - 1  
TIME IN: 09:52 I/O: 1  
TIME OUT: 10:31  
STAGE TICKET: 82508

CARRIER: P. PRD  
TRUCK#: 9 END DUMP TRAILER#:  
CUSTOMER: ENVIROCON ENVIROCON, INC.  
GENERATOR: CONNL CONNELL TRUST  
ORIGIN: OAK OAKLAND

PROFILE 51996200

MANIFEST	WASTE DESCRIPTION	QUAN.	PER	RATE	AMOUNT	TAX	FEE	TOTAL
3	C2C CLASS II COVER SOI	18.26	T					

GROSS: 65260 PB LBS  
TARE: 28740 PB LBS  
NET: 36520 LBS TONS: 18.26

CUSTOMER: \_\_\_\_\_  
WEIGHMASTER: \_\_\_\_\_

WEIGH IN CLERK: RAMIREZ, JOSE

WEIGH OUT CLERK: ROGELIO, ROJAS

THIS IS TO CERTIFY THAT THE FOLLOWING DESCRIBED COMMODITY WAS WEIGHED, MEASURED, OR COUNTED BY A WEIGHMASTER WHOSE SIGNATURE IS ON THIS CERTIFICATE, WHO IS A RECOGNIZED AUTHORITY OF ACCURACY, AS PRESCRIBED BY CHAPTER 7 COMMENCING WITH SECTION 127001 OF DIVISION 5 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE ADMINISTERED BY THE DIVISION OF MEASUREMENT STANDARDS OF THE CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE.



FROM : ENVIROCLEAN, Inc.

PHONE NO. : 510 779 9502

Aug. 27 1998 09:13AM P4

YELLOW

CLASS 2 COVER

ALTA MONT LANDFILL & RRF

DATE: 07/22/1998 TICK: 79215 - 1  
TIME IN: 09:58 I/O: I  
TIME OUT: 10:32  
STAGE TICKET: 82510

CARRIER: EA EAGLE ENTERPRISE  
TRUCK#: 3841 END DUMP  
CUSTOMER: ENVIROCON ENVIROCON, INC.  
GENERATOR: CONNL CONNELL TRUST  
ORIGIN: OAK OAKLAND

TRAILER#:

PROFILE 51996200

MANIFEST	WASTE DESCRIPTION	QUAN.	PER	RATE	AMOUNT	TAX	FEE	TOTAL
4	C2C CLASS II COVER SOI	17.72	T					

GROSS: 65580 PB LBS

CUSTOMER: \_\_\_\_\_

TARE: 30140 PB LBS

NET: 35440 LBS TONS: 17.72

WEIGHMASTER: \_\_\_\_\_

WEIGH IN CLERK: RAMIREZ, JOSE

WEIGH OUT CLERK: ROGELIO, ROJAS

THIS IS TO CERTIFY THAT THE FOLLOWING DESCRIBED COMMODITY WAS WEIGHED, MEASURED, OR COUNTED BY A WEIGHMASTER WHOSE SIGNATURE IS ON THIS CERTIFICATE, WHO IS A RECOGNIZED AUTHORITY OF ACCURACY, AS PRESCRIBED BY CHAPTER 7 COMMENCING WITH SECTION 127001 OF DIVISION 5 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE ADMINISTERED BY THE DIVISION OF MEASUREMENT STANDARDS OF THE CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE.

FROM : ENVIROCLEAN, Inc.

PHONE NO. : 510 779 9502

Aug. 27 1998 09:13AM P5

YELLOW

CLASS 2 COVER

MTAMONT LANDFILL & RRF

DATE: 07/22/1998 TICK: 79242 - 1  
TIME IN: 12:37 I/O: I  
TIME OUT: 12:37

STAGE TICKET: 82550

CARRIER: HOW HOWLAND TRUCKING

TRAILER#:

TRUCK: M1 END DUMP

CUSTOMER: ENVIROCON ENVIROCON, INC.

GENERATOR: CONNL CORNELL TRUST

ORIGIN: OAK OAKLAND

PROFILE #1996200

MANIFEST	WASTE DESCRIPTION	QUAN.	PER	RATE	AMOUNT	TAX	FEE	TOTAL
	C2C CLASS II COVER SOI	21.51	T					

GROSS: 72640 PB LBS

CUSTOMER: \_\_\_\_\_

TARE: 29620 PT LBS

WEIGHMASTER: \_\_\_\_\_

NET: 43020 LBS TONS: 21.51

SIGN IN CLERK: RAMIREZ, JOSE

WEIGH OUT CLERK: RAMIREZ, JOSE

THIS IS TO CERTIFY THAT THE FOLLOWING DESCRIBED COMMODITY WAS WEIGHED, MEASURED, OR COUNTED BY A WEIGHMASTER WHOSE SIGNATURE IS ON THIS CERTIFICATE, WHO IS A RECOGNIZED AUTHORITY OF ACCURACY, AS PRESCRIBED BY CHAPTER 7 COMMENCING WITH SECTION 127001 OF DIVISION 5 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE ADMINISTERED BY THE DIVISION OF MEASUREMENT STANDARDS OF THE CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE.

FROM : ENVIROCLEAN, Inc.

PHONE NO. : 510 779 9502

Aug. 27 1998 09:14AM P6

YELLOW

CLASS 2 COVER

ALAMONT LANDFILL & HRF

DATE: 07/22/1998 TICKET: 79257 - 1

TIME IN: 13:31 I/O: I

TIME OUT: 13:31

STAGE TICKET: 92564

CARRIER: P. PRD

TRAILERS:

TRUCK#: 201 END DUMP

CUSTOMER: ENVIROCON ENVIROCON, INC.

GENERATOR: CONNL CORNELL TRUST

ORIGIN: OAK OAKLAND

PROFILE 51996200

MANIFEST WASTE DESCRIPTION	QTY	PER	RATE	AMOUNT	TAX	FEE	TOTAL
CSC CLASS II COVER SOI	24.61	T					

GROSS: 79340 PB LBS

CUSTOMER: \_\_\_\_\_

TARE: 30120 FT LBS

WEIGHMASTER: \_\_\_\_\_

NET: 49220 LBS TONS: 24.61

WEIGH IN CLERK: RAMIREZ, JOSE

WEIGH OUT CLERK: RAMIREZ, JOSE

THIS IS TO CERTIFY THAT THE FOLLOWING DESCRIBED COMMODITY WAS WEIGHED, MEASURED, OR COUNTED BY A WEIGHMASTER WHOSE SIGNATURE IS ON THIS CERTIFICATE, WHO IS A RECOGNIZED AUTHORITY OF ACCURACY, AS PRESCRIBED BY CHAPTER 7 COMMENCING WITH SECTION 117001 OF DIVISION 5 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE ADMINISTERED BY THE DIVISION OF MEASUREMENT STANDARDS OF THE CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE.

FROM : ENVIROCLEAN, Inc.

PHONE NO. : 510 779 9502

Aug. 27 1998 09:14AM P7

YELLOW

CLASS 2 COVER

ALHAMBRA LANDFILL & RRF

DATE: 07/22/1998 TICK: 79258 - 1  
TIME IN: 13:34 I/O: I  
TIME OUT: 13:34  
STAGE TICKET: 62565

CARRIER: P. PRD

TRUCKS: 9. END DUMP

TRAILERS:

CUSTOMER: ENVIROCON ENVIROCON, INC.

GENERATOR: CONNOR CORNELL TRUST

PROFILE 51996200

ORIGIN: OAK OAKLAND

MANIFEST	WASTE DESCRIPTION	QUAN.	PER	RATE	AMOUNT	TAX	FES	TOTAL
7	C2C CLASS II COVER SOI	25.88	T					

GROSS: 80500 PB LBS

CUSTOMER: \_\_\_\_\_

TARE: 28740 PT LBS

NET: 51760 LBS TONS: 25.88

WEIGHMASTER: \_\_\_\_\_

WEIGH IN CLERK: RAMIREZ, JOSE

WEIGH OUT CLERK: RAMIREZ, JOSE

THIS IS TO CERTIFY THAT THE FOLLOWING DESCRIBED COMMODITY WAS WEIGHED, MEASURED, OR COUNTED BY A WEIGHMASTER WHOSE SIGNATURE IS ON THIS CERTIFICATE, WHO IS A RECOGNIZED AUTHORITY OF ACCURACY, AS PRESCRIBED BY CHAPTER 7 COMMENCING WITH SECTION 127001 OF DIVISION 5 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE ADMINISTERED BY THE DIVISION OF MEASUREMENT STANDARDS OF THE CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE.

FROM : ENVIROCLEAN, Inc.

PHONE NO. : 510 779 9502

Aug. 27 1998 09:15AM P8

YELLOW

CLASS 2 COVER

ALAMONT LANDFILL & RRF

DATE: 07/23/1998 TICKET: 79260 - 1  
TIME IN: 13:37 I/O: I  
TIME OUT: 13:37  
STAGE TICKET: 82567

CARRIER: EA EAGLE ENTERPRISE  
TRUCKS: 3841 END DUMP  
CUSTOMER: ENVIROCON ENVIROCON, INC.  
GENERATOR: CONNL CONNELL TRUST  
ORIGIN: OAK OAKLAND

TRAILER#:

PROFILE 51996200

MANIFEST	WASTE DESCRIPTION	QUAN.	PER	RATE	AMOUNT	TAX	PSE	TOTAL
8	C2C CLASS II COVER SOI	22.11	T					

GROSS: 74360 PB LBS  
TARE: 30140 PT LBS  
NET: 44220 LBS TONS: 22.11

CUSTOMER: \_\_\_\_\_

WEIGHMASTER: \_\_\_\_\_

WEIGH IN CLERK: RAMIREZ, JOSE

WEIGH OUT CLERK: RAMIREZ, JOSE

THIS IS TO CERTIFY THAT THE FOLLOWING DESCRIBED COMMODITY WAS WEIGHED, MEASURED, OR COUNTED BY A WEIGHMASTER WHOSE SIGNATURE IS ON THIS CERTIFICATE, WHO IS A RECOGNIZED AUTHORITY OF ACCURACY, AS PRESCRIBED BY CHAPTER 7 COMMENCING WITH SECTION 127001 OF DIVISION 5 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE ADMINISTERED BY THE DIVISION OF MEASUREMENT STANDARDS OF THE CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE.

YELLOW

CLASS 2 COVER

ALTAMONT LANDFILL & RRF

DATE: 07/23/1998 TICK: 79355 - 1  
TIME IN: 09:14 I/O: I  
TIME OUT: 09:14  
STAGE TICKET: 82663

CARRIER: EA EAGLE ENTERPRISE  
TRUCK#: 3841 END DUMP  
CUSTOMER: ENVIROCON ENVIROCON, INC.  
GENERATOR: CONN. CONNELL TRUST  
ORIGIN: OAK OAKLAND

TRAILER#:

PROFILE 51996200

MANIFEST	WASTE DESCRIPTION	QUAN.	PER	RATE	AMOUNT	TAX	FEE	TOTAL
9	C2C CLASS II COVER SOI	21.85	T					

GROSS: 73840 PB LBS  
TARE: 30140 FT LBS  
NET: 43700 LBS TONS: 21.85

CUSTOMER: \_\_\_\_\_

WEIGHMASTER: \_\_\_\_\_

WEIGH IN CLERK: FELIX PENA

WEIGH OUT CLERK: FELIX PENA

THIS IS TO CERTIFY THAT THE FOLLOWING DESCRIBED COMMODITY WAS WEIGHED, MEASURED, OR COUNTED BY A WEIGHMASTER WHOSE SIGNATURE IS ON THIS CERTIFICATE, WHO IS A RECOGNIZED AUTHORITY OF ACCURACY, AS PRESCRIBED BY CHAPTER 7 COMMENCING WITH SECTION 127001 OF DIVISION 5 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE ADMINISTERED BY THE DIVISION OF MEASUREMENT STANDARDS OF THE CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE.

FROM : ENVIROCLEAN, Inc.

PHONE NO. : 510 779 9502

Aug. 27 1998 09:16AM P10

YELLOW CLASS 2 COVER

ALTA MONT LANDFILL & RRF

DATE: 07/23/1998 TICK: 79415 - 1  
TIME IN: 13:05 I/O: I  
TIME OUT: 13:05  
STAGE TICKET: 82725

CARRIER: EA EAGLE ENTERPRISE  
TRUCK#: 3841 END DUMP  
CUSTOMER: ENVIROCON ENVIROCON, INC.  
GENERATOR: CONNL CONNELL TRUST  
ORIGIN: OAK OAKLAND

TRAILER#:

PROFILE 51996200

MANIFEST	WASTE DESCRIPTION	QUAN.	PER	RATE	AMOUNT	TAX	FES	TOTAL
10	CRC CLASS II COVER SOI	6.22	T					

GROSS: 42380 PB LBS

CUSTOMER: \_\_\_\_\_

TARE: 30140 FT LBS

NET: 12440 LBS TONS: 6.22

WEIGHMASTER: \_\_\_\_\_

WEIGH IN CLERK: RAMIREZ, JOSE

WEIGH OUT CLERK: RAMIREZ, JOSE

THIS IS TO CERTIFY THAT THE FOLLOWING DESCRIBED COMMODITY WAS WEIGHED, MEASURED, OR COUNTED BY A WEIGHMASTER WHOSE SIGNATURE IS ON THIS CERTIFICATE, WHO IS A RECOGNIZED AUTHORITY OF ACCURACY, AS PRESCRIBED BY CHAPTER 7 COMMENCING WITH SECTION 127001 OF DIVISION 5 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE ADMINISTERED BY THE DIVISION OF MEASUREMENT STANDARDS OF THE CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE.

**YELLOW**

**CLASS II COVER SOIL**

**ALTAMONT LANDFILL & RRF**

**DATE: 07/22/1998 TICK: 79203 - 1**

**CARRIER: HOW HOWLAND TRUCKING**

**TRUCK: H1 END DUMP TRAILER: #**

**CUSTOMER: ENVIRO-ENVIROCLEAN**

**GENERATOR: CONNELL TRUST**

**ORIGIN : OAKLAND**

**PROFILE#519962000**

MANIFEST WASTE DESCRIPTION	QUAN. PER	RATE	AMOUNT	TAX	FEK	TOTAL
CLASS II COVER SOIL	20.00 T			0	0	

**GROSS: 63580 PB LBS**

**TARE: 29620 PB LBS**

**NET: 33960 LBS TONS:16.98**

**CUSTOMER: \_\_\_\_\_**

**WEIGEMASTER: \_\_\_\_\_**

**WEIGH IN CLERK: ROGELIO, ROJAS**

**WEIGH OUT CLERK: ROGELIO, ROJAS**

THIS IS TO CERTIFY THAT THE FOLLOWING DESCRIBED COMMODITY WAS WEIGHED, MEASURED, OR COUNTED BY A WEIGEMASTER WHOSE SIGNATURE IS ON THIS CERTIFICATE, WHO IS A RECOGNIZED AUTHORITY OF ACCURACY, AS PRESCRIBED BY CHAPTER 7 COMMENCING WITH SECTION 127001 OF DIVISION 5 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE ADMINISTERED BY THE DIVISION OF MEASUREMENT STANDARDS OF THE CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE.