

NOV 26 2002 *LL*



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**Comprehensive Long-Term  
Environmental Action Navy (CLEAN) for  
Pacific Division,  
Naval Facilities Engineering Command  
Pearl Harbor, Hawaii**

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CTO No. 0229

**RED HILL BULK FUEL STORAGE FACILITY INVESTIGATION REPORT  
VOLUME II OF III  
(FINAL)**

**FOR  
FLEET INDUSTRIAL SUPPLY CENTER  
(FISC)  
OAHU, HAWAII**

**HDOH FACILITY ID NO. UNASSIGNED**

Fac. ID: 9-102271

Rel. ID: 990051, 010011, 020028

**AUGUST 2002**

*II of II*

Fac. ID: 9-102271

Rel. ID: 990051, 010011, 020028

**TANK 6/7**

Technical Report for

Ogden Environmental

CTO 229

1-1019-0229

Accutest Job Number: F8793

Report to:

Ogden Environmental  
2904 Westcorp Blvd.  
Suite 204  
Huntsville, AL 35805

ATTN: Kent Evetts

Total number of pages in report: 703



Harry Behzadi, Ph.D.  
Laboratory Director

Results relate only to the items tested.

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

### ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest Job Number: FR793  
 Client/Project: Ogden Red Hill Bulk Fuel Storage  
 Date/Time Received: 1/25/01 1130  
 Method of Delivery: Fed Ex Greyhound UPS Pickup Delivery Other **DHL**  
 Air Bill Number: 8103264492  
 Cooler Temperatures: 3.8  
 Custody Seals Intact? (YES) NO  
 Chain Of Custody Provided? (YES) NO  
 Chain Of Custody Match Bottles? (YES) NO  
 Sample Labels Present? (YES) NO  
 Are All Bottles Unbroken? (YES) NO  
 Proper Preservative? YES (NO) ~~XX~~  
 Correct Containers Used? YES (NO) ~~XX~~  
 Sufficient Sample Volume? YES NO  
 Number of Encores: 0

TANK 6/7

COMMENTS:

\* for RH-MW-6-501 (FR793-6) 3 hand-capped vials were sent and one amber liter

~~no~~ no primed bottle for Pb (TCLP?)

Signature: Mike Powell Date: 1/25/01



# CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15  
ORLANDO, FL 32811  
TEL: 407-425-8700 • FAX: 407-425-0707

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION		MATRIX CODES	
<b>Opden Environmental + Energy Services, Inc</b> NAME 2904 Westcamp Blvd, Suite 107 ADDRESS Huntsville, AL 35805 CITY, STATE ZIP Kent Everitts SEND REPORT TO: PHONE # (256) 539-3016		Red Hill Bulk Fuel Storage PROJECT NAME Dalton, HI LOCATION (-1019 - 0224) PROJECT NO. FAX # (256) 539-3074		VOC CLP OLM #3.2 SVOC CLP OLM #3.2 Lead CLP ILM #1.0 TPH & Fuel #15.0		DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LO - OTHER LIQUID SOL - OTHER SOLID LAB USE ONLY	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		PRESERVATION		DATE	APPROVED BY:
		DATE	APPROX. TIME	BY	BY		
1875	Trip Blank						
	Temp Blank						
-2	RH-BR-7-604	1/14/01	08:14	JLD	SOL 3	1/14/01	X
-3	RH-BR-7-505	1/14/01	08:41	JLP	SOL 3	1/14/01	X
-4	RH-BR-6-501	1/14/01	14:13	JLD/GILA	SPL 3	1/14/01	X
-5	RH-BR-6-502	1/14/01	18:30	JLD	SPL 2	1/14/01	X
-6	RH-MW-6-501	1/14/01	14:18	JLD	LIA 4	1/14/01	X
-7	RH-BR-6-503	1/20/01	10:53	JLD	SOL 3	1/20/01	X
-8	RH-BR-6-007	1/22/01	10:53	JLD	SOL 3	1/22/01	X
DATA TURNAROUND INFORMATION <input type="checkbox"/> STANDARD <input type="checkbox"/> 48 HOUR RUSH <input type="checkbox"/> 24 HOUR EMERGENCY <input type="checkbox"/> OTHER EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		DATA DELIVERABLE INFORMATION <input type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY)		DATA DELIVERABLE INFORMATION COMMENTS/REMARKS RH-BR-6-502 1.25 Full Jars of 2.25 RH-MW-6-501 1-3 VOA's of 6 and 1 - 1 liter jar		DATE TIME: 1/22/01 15:21 RECEIVED BY: 1. Gary T. Brown DATE TIME: 1/25/01 RECEIVED BY: 2. Me Z... DATE TIME: 1/25/01 RECEIVED BY: 3. DATE TIME: 1/25/01 RECEIVED BY: 4. DATE TIME: 1/25/01 RECEIVED BY: 5.	

RECEIVED BY: 1. Gary T. Brown DATE TIME: 1/22/01 15:21  
 RECEIVED BY: 2. Me Z... DATE TIME: 1/25/01  
 RECEIVED BY: 3. DATE TIME: 1/25/01  
 RECEIVED BY: 4. DATE TIME: 1/25/01  
 RECEIVED BY: 5. DATE TIME: 1/25/01

PRESERVE WHERE APPLICABLE  ON ICE  TEMPERATURE  C

## Sample Summary

Ogden Environmental

Job No: F8793

CTO 229

Project No: 1-1019-0229

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F8793-1	01/19/01	00:00 JLP	01/25/01	AQ	Trip Blank Soil	TRIP BLANK
F8793-2	01/19/01	08:14 JLP	01/25/01	SO	Solid	RH-BR-7-S04
F8793-3	01/19/01	08:41 JLP	01/25/01	SO	Solid	RH-BR-7-S05
F8793-4	01/19/01	14:13 JLP	01/25/01	SO	Solid	RH-BR-6-S01
F8793-5	01/19/01	15:30 JLP	01/25/01	SO	Solid	RH-BR-6-S02
F8793-6	01/19/01	14:18 JLP	01/25/01	SO	Oil	RH-MW-6-S01
F8793-7	01/22/01	10:53 JLP	01/25/01	SO	Solid	RH-BR-6-S03
F8793-8	01/22/01	10:53 JLP	01/25/01	SO	Solid	RH-BR-6-D07

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## Report of Analysis

Client Sample ID:	RH-BR-7-S04	Date Sampled:	01/19/01
Lab Sample ID:	F8793-2	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	86.3
Method:	SW846 8260B		
Project:	CTO 229		

Run #1 *	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 *	H010794.D	1	01/30/01	NAF	n/a	n/a	VH264
Run #2	H010835.D	1	02/01/01	NAF	n/a	n/a	VH267

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	58	ug/kg	
71-43-2	Benzene	ND	5.8	ug/kg	
75-27-4	Bromodichloromethane	ND	5.8	ug/kg	
75-25-2	Bromoform	ND	5.8	ug/kg	
108-90-7	Chlorobenzene	ND	5.8	ug/kg	
75-00-3	Chloroethane	ND	5.8	ug/kg	
67-66-3	Chloroform	ND	5.8	ug/kg	
75-15-0	Carbon disulfide	ND	12	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.8	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.8	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.8	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.8	ug/kg	
124-48-1	Dibromochloromethane	ND	5.8	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.8	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.8	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.8	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.8	ug/kg	
100-41-4	Ethylbenzene	ND	5.8	ug/kg	
591-78-6	2-Hexanone	ND	12	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	12	ug/kg	
74-83-9	Methyl bromide	ND	5.8	ug/kg	
74-87-3	Methyl chloride	ND	5.8	ug/kg	
75-09-2	Methylene chloride	ND	12	ug/kg	
78-93-3	Methyl ethyl ketone	ND	12	ug/kg	
100-42-5	Styrene	ND	5.8	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.8	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.8	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.8	ug/kg	
108-88-3	Toluene	ND	5.8	ug/kg	
79-01-6	Trichloroethylene	ND	5.8	ug/kg	
75-01-4	Vinyl chloride	ND	5.8	ug/kg	
1330-20-7	Xylene (total)	ND	17	ug/kg	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S04	Date Sampled:	01/19/01
Lab Sample ID:	F8793-2	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	86.3
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	18% <sup>b</sup>	6%	71-122%
2037-26-5	Toluene-D8	101%	99%	73-128%
460-00-4	4-Bromofluorobenzene	100%	99%	53-158%
17060-07-0	1,2-Dichloroethane-D4	98%	104%	71-122%

(a) Sample introduction performed using method 5030A.

(b) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S04		Date Sampled:	01/19/01
Lab Sample ID:	F8793-2		Date Received:	01/25/01
Matrix:	SO - Solid		Percent Solids:	86.3
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006380.D	1	02/02/01	ME	01/31/01	OP2655	SL382
Run #2	W003809.D	1	02/04/01	ME	02/02/01	OP2655	SW221

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	960	ug/kg	
95-57-8	2-Chlorophenol	ND	390	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	390	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	390	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	960	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	960	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	770	ug/kg	
95-48-7	2-Methylphenol	ND	390	ug/kg	
	3&4-Methylphenol	ND	390	ug/kg	
88-75-5	2-Nitrophenol	ND	390	ug/kg	
100-02-7	4-Nitrophenol	ND	960	ug/kg	
87-86-5	Pentachlorophenol	ND	960	ug/kg	
108-95-2	Phenol	ND	390	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	390	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	390	ug/kg	
83-32-9	Acenaphthene	ND	390	ug/kg	
208-96-8	Acenaphthylene	ND	390	ug/kg	
120-12-7	Anthracene	ND	390	ug/kg	
56-55-3	Benzo(a)anthracene	ND	390	ug/kg	
50-32-8	Benzo(a)pyrene	ND	390	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	390	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	390	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	390	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	390	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	390	ug/kg	
100-51-6	Benzyl Alcohol	ND	390	ug/kg	
91-58-7	2-Chloronaphthalene	ND	390	ug/kg	
106-47-8	4-Chloroaniline	ND	390	ug/kg	
86-74-8	Carbazole	ND	390	ug/kg	
218-01-9	Chrysene	ND	390	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	390	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	390	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	390	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	390	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	390	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	390	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S04		Date Sampled:	01/19/01
Lab Sample ID:	F8793-2		Date Received:	01/25/01
Matrix:	SO - Solid		Percent Solids:	86.3
Method:	SW846 8270C	SW846 3550B		
Project:	CTO 229			

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	390	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	390	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	390	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	770	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	390	ug/kg	
132-64-9	Dibenzofuran	ND	390	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	390	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	390	ug/kg	
84-66-2	Diethyl phthalate	ND	390	ug/kg	
131-11-3	Dimethyl phthalate	ND	390	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	291	390	ug/kg	J
206-44-0	Fluoranthene	ND	390	ug/kg	
86-73-7	Fluorene	ND	390	ug/kg	
118-74-1	Hexachlorobenzene	ND	390	ug/kg	
87-68-3	Hexachlorobutadiene	ND	390	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	390	ug/kg	
67-72-1	Hexachloroethane	ND	390	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	390	ug/kg	
78-59-1	Isophorone	ND	390	ug/kg	
91-57-6	2-Methylnaphthalene	ND	390	ug/kg	
88-74-4	2-Nitroaniline	ND	390	ug/kg	
99-09-2	3-Nitroaniline	ND	390	ug/kg	
100-01-6	4-Nitroaniline	ND	390	ug/kg	
91-20-3	Naphthalene	ND	390	ug/kg	
98-95-3	Nitrobenzene	ND	390	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	390	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	390	ug/kg	
85-01-8	Phenanthrene	ND	390	ug/kg	
129-00-0	Pyrene	ND	390	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	390	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	7% <sup>a</sup>	7% <sup>a</sup>	36-129%
4165-62-2	Phenol-d5	36% <sup>a</sup>	32% <sup>a</sup>	38-135%
118-79-6	2,4,6-Tribromophenol	0% <sup>a</sup>	0% <sup>a</sup>	37-144%
4165-60-0	Nitrobenzene-d5	77%	69%	36-135%
321-60-8	2-Fluorobiphenyl	82%	66%	44-135%
1718-51-0	Terphenyl-d14	92%	81%	42-149%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S04	Date Sampled:	01/19/01
Lab Sample ID:	F8793-2	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	86.3
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

### ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
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(a) Confirmed by re-extraction and reanalysis.

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ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S04		Date Sampled:	01/19/01	
Lab Sample ID:	F8793-2		Date Received:	01/25/01	
Matrix:	SO - Solid		Percent Solids:	86.3	
Method:	SW846 8015 M SW846 3550B				
Project:	CTO 229				

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00956.D	1	02/01/01	NJ	01/31/01	OP2658	GZF44
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	22.3	9.6	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	73%		40-140%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S04	Date Sampled:	01/19/01
Lab Sample ID:	F8793-2	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	86.3
Project:	CTO 229		

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.13 U	11.5	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID:	RH-BR-7-S05	Date Sampled:	01/19/01
Lab Sample ID:	F8793-3	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	95.0
Method:	SW846 8260B		
Project:	CTO 229		

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010836.D	1	02/01/01	NAF	n/a	n/a	VH267

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	52	ug/kg	
71-43-2	Benzene	ND	5.2	ug/kg	
75-27-4	Bromodichloromethane	ND	5.2	ug/kg	
75-25-2	Bromoform	ND	5.2	ug/kg	
108-90-7	Chlorobenzene	ND	5.2	ug/kg	
75-00-3	Chloroethane	ND	5.2	ug/kg	
67-66-3	Chloroform	ND	5.2	ug/kg	
75-15-0	Carbon disulfide	ND	10	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.2	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.2	ug/kg	
124-48-1	Dibromochloromethane	ND	5.2	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.2	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.2	ug/kg	
100-41-4	Ethylbenzene	ND	5.2	ug/kg	
591-78-6	2-Hexanone	ND	10	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/kg	
74-83-9	Methyl bromide	ND	5.2	ug/kg	
74-87-3	Methyl chloride	ND	5.2	ug/kg	
75-09-2	Methylene chloride	ND	10	ug/kg	
78-93-3	Methyl ethyl ketone	ND	10	ug/kg	
100-42-5	Styrene	ND	5.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.2	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.2	ug/kg	
108-88-3	Toluene	ND	5.2	ug/kg	
79-01-6	Trichloroethylene	ND	5.2	ug/kg	
75-01-4	Vinyl chloride	ND	5.2	ug/kg	
1330-20-7	Xylene (total)	ND	15	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S05	Date Sampled:	01/19/01
Lab Sample ID:	F8793-3	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	95.0
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		71-122%
2037-26-5	Toluene-D8	97%		73-128%
460-00-4	4-Bromofluorobenzene	98%		53-158%
17060-07-0	1,2-Dichloroethane-D4	103%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S05		Date Sampled:	01/19/01
Lab Sample ID:	F8793-3		Date Received:	01/25/01
Matrix:	SO - Solid		Percent Solids:	95.0
Method:	SW846 8270C	SW846 3550B		
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006381.D	1	02/02/01	ME	01/31/01	OP2655	SL382
Run #2							

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	880	ug/kg	
95-57-8	2-Chlorophenol	ND	350	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	350	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	350	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	880	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	880	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	700	ug/kg	
95-48-7	2-Methylphenol	ND	350	ug/kg	
	3&4-Methylphenol	ND	350	ug/kg	
88-75-5	2-Nitrophenol	ND	350	ug/kg	
100-02-7	4-Nitrophenol	ND	880	ug/kg	
87-86-5	Pentachlorophenol	ND	880	ug/kg	
108-95-2	Phenol	ND	350	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	350	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	350	ug/kg	
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	350	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	350	ug/kg	
50-32-8	Benzo(a)pyrene	ND	350	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	350	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	350	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	350	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	350	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	350	ug/kg	
100-51-6	Benzyl Alcohol	ND	350	ug/kg	
91-58-7	2-Chloronaphthalene	ND	350	ug/kg	
106-47-8	4-Chloroaniline	ND	350	ug/kg	
86-74-8	Carbazole	ND	350	ug/kg	
218-01-9	Chrysene	ND	350	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	350	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	350	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	350	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	350	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	350	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	350	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S05		Date Sampled:	01/19/01
Lab Sample ID:	F8793-3		Date Received:	01/25/01
Matrix:	SO - Solid		Percent Solids:	95.0
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	350	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	350	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	350	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	700	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	350	ug/kg	
132-64-9	Dibenzofuran	ND	350	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	350	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	350	ug/kg	
84-66-2	Diethyl phthalate	ND	350	ug/kg	
131-11-3	Dimethyl phthalate	ND	350	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	180	350	ug/kg	J
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
118-74-1	Hexachlorobenzene	ND	350	ug/kg	
87-68-3	Hexachlorobutadiene	ND	350	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	350	ug/kg	
67-72-1	Hexachloroethane	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	350	ug/kg	
78-59-1	Isophorone	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
88-74-4	2-Nitroaniline	ND	350	ug/kg	
99-09-2	3-Nitroaniline	ND	350	ug/kg	
100-01-6	4-Nitroaniline	ND	350	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
98-95-3	Nitrobenzene	ND	350	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	350	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	62%		36-129%
4165-62-2	Phenol-d5	67%		38-135%
118-79-6	2,4,6-Tribromophenol	73%		37-144%
4165-60-0	Nitrobenzene-d5	69%		36-135%
321-60-8	2-Fluorobiphenyl	81%		44-135%
1718-51-0	Terphenyl-d14	76%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RH-BR-7-S05		Date Sampled:	01/19/01
Lab Sample ID:	F8793-3		Date Received:	01/25/01
Matrix:	SO - Solid		Percent Solids:	95.0
Method:	SW846 8015 M SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF01016.D	5	02/06/01	SKW	01/31/01	OP2658	GZF47
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	208	44	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	90%		40-140%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S05	Date Sampled:	01/19/01
Lab Sample ID:	F8793-3	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	95.0
Project:	CTO 229		

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.5	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID: RH-BR-6-S01	Date Sampled: 01/19/01
Lab Sample ID: F8793-4	Date Received: 01/25/01
Matrix: SO - Solid	Percent Solids: 82.0
Method: SW846 8260B	
Project: CTO 229	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010766.D	50	01/26/01	NAF	n/a	n/a	VH262

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	2900	ug/kg	
71-43-2	Benzene	ND	290	ug/kg	
75-27-4	Bromodichloromethane	ND	290	ug/kg	
75-25-2	Bromoform	ND	290	ug/kg	
108-90-7	Chlorobenzene	ND	290	ug/kg	
75-00-3	Chloroethane	ND	290	ug/kg	
67-66-3	Chloroform	ND	290	ug/kg	
75-15-0	Carbon disulfide	ND	590	ug/kg	
56-23-5	Carbon tetrachloride	ND	290	ug/kg	
75-34-3	1,1-Dichloroethane	ND	290	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	290	ug/kg	
107-06-2	1,2-Dichloroethane	ND	290	ug/kg	
78-87-5	1,2-Dichloropropane	ND	290	ug/kg	
124-48-1	Dibromochloromethane	ND	290	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	290	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	290	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	290	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	290	ug/kg	
100-41-4	Ethylbenzene	ND	290	ug/kg	
591-78-6	2-Hexanone	ND	590	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	590	ug/kg	
74-83-9	Methyl bromide	ND	290	ug/kg	
74-87-3	Methyl chloride	ND	290	ug/kg	
75-09-2	Methylene chloride	ND	590	ug/kg	
78-93-3	Methyl ethyl ketone	ND	590	ug/kg	
100-42-5	Styrene	ND	290	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	290	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	290	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	290	ug/kg	
127-18-4	Tetrachloroethylene	ND	290	ug/kg	
108-88-3	Toluene	ND	290	ug/kg	
79-01-6	Trichloroethylene	ND	290	ug/kg	
75-01-4	Vinyl chloride	ND	290	ug/kg	
1330-20-7	Xylene (total)	ND	880	ug/kg	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-S01	Date Sampled:	01/19/01
Lab Sample ID:	F8793-4	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	82.0
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		71-122%
2037-26-5	Toluene-D8	114%		73-128%
460-00-4	4-Bromofluorobenzene	96%		53-158%
17060-07-0	1,2-Dichloroethane-D4	94%		71-122%

(a) Dilution required due to matrix interference (non-target analytes present above calibration range). Sample introduction performed using method 5030A.

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ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-S01		Date Sampled:	01/19/01	
Lab Sample ID:	F8793-4		Date Received:	01/25/01	
Matrix:	SO - Solid		Percent Solids:	82.0	
Method:	SW846 8270C SW846 3550B				
Project:	CTO 229				

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	W003822.D	40	02/05/01	ME	01/31/01	OP2655	SW222
Run #2 <sup>a</sup>	L006382.D	50	02/02/01	ME	01/31/01	OP2655	SL382

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND <sup>b</sup>	51000	ug/kg	
95-57-8	2-Chlorophenol	ND <sup>b</sup>	20000	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND <sup>b</sup>	20000	ug/kg	
120-83-2	2,4-Dichlorophenol	ND <sup>b</sup>	20000	ug/kg	
105-67-9	2,4-Dimethylphenol	ND <sup>b</sup>	51000	ug/kg	
51-28-5	2,4-Dinitrophenol	ND <sup>b</sup>	51000	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND <sup>b</sup>	41000	ug/kg	
95-48-7	2-Methylphenol	ND <sup>b</sup>	20000	ug/kg	
	3&4-Methylphenol	ND <sup>b</sup>	20000	ug/kg	
88-75-5	2-Nitrophenol	ND <sup>b</sup>	20000	ug/kg	
100-02-7	4-Nitrophenol	ND <sup>b</sup>	51000	ug/kg	
87-86-5	Pentachlorophenol	ND <sup>b</sup>	51000	ug/kg	
108-95-2	Phenol	ND <sup>b</sup>	20000	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND <sup>b</sup>	20000	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND <sup>b</sup>	20000	ug/kg	
83-32-9	Acenaphthene	ND <sup>b</sup>	20000	ug/kg	
208-96-8	Acenaphthylene	ND <sup>b</sup>	20000	ug/kg	
120-12-7	Anthracene	ND <sup>b</sup>	20000	ug/kg	
56-55-3	Benzo(a)anthracene	ND <sup>b</sup>	20000	ug/kg	
50-32-8	Benzo(a)pyrene	ND <sup>b</sup>	20000	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND <sup>b</sup>	20000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND <sup>b</sup>	20000	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND <sup>b</sup>	20000	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND <sup>b</sup>	20000	ug/kg	
85-68-7	Butyl benzyl phthalate	ND <sup>b</sup>	20000	ug/kg	
100-51-6	Benzyl Alcohol	ND <sup>b</sup>	20000	ug/kg	
91-58-7	2-Chloronaphthalene	ND <sup>b</sup>	20000	ug/kg	
106-47-8	4-Chloroaniline	ND <sup>b</sup>	20000	ug/kg	
86-74-8	Carbazole	ND <sup>b</sup>	20000	ug/kg	
218-01-9	Chrysene	ND <sup>b</sup>	20000	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND <sup>b</sup>	20000	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND <sup>b</sup>	20000	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND <sup>b</sup>	20000	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND <sup>b</sup>	20000	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND <sup>b</sup>	20000	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND <sup>b</sup>	20000	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-S01		Date Sampled:	01/19/01
Lab Sample ID:	F8793-4		Date Received:	01/25/01
Matrix:	SO - Solid		Percent Solids:	82.0
Method:	SW846 8270C	SW846 3550B		
Project:	CTO 229			

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND <sup>b</sup>	20000	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND <sup>b</sup>	20000	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND <sup>b</sup>	20000	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND <sup>b</sup>	41000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND <sup>b</sup>	20000	ug/kg	
132-64-9	Dibenzofuran	ND <sup>b</sup>	20000	ug/kg	
84-74-2	Di-n-butyl phthalate	ND <sup>b</sup>	20000	ug/kg	
117-84-0	Di-n-octyl phthalate	ND <sup>b</sup>	20000	ug/kg	
84-66-2	Diethyl phthalate	ND <sup>b</sup>	20000	ug/kg	
131-11-3	Dimethyl phthalate	ND <sup>b</sup>	20000	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND <sup>b</sup>	20000	ug/kg	
206-44-0	Fluoranthene	ND <sup>b</sup>	20000	ug/kg	
86-73-7	Fluorene	ND <sup>b</sup>	20000	ug/kg	
118-74-1	Hexachlorobenzene	ND <sup>b</sup>	20000	ug/kg	
87-68-3	Hexachlorobutadiene	ND <sup>b</sup>	20000	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND <sup>b</sup>	20000	ug/kg	
67-72-1	Hexachloroethane	ND <sup>b</sup>	20000	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND <sup>b</sup>	20000	ug/kg	
78-59-1	Isophorone	ND <sup>b</sup>	20000	ug/kg	
91-57-6	2-Methylnaphthalene	18900	16000	ug/kg	
88-74-4	2-Nitroaniline	ND <sup>b</sup>	20000	ug/kg	
99-09-2	3-Nitroaniline	ND <sup>b</sup>	20000	ug/kg	
100-01-6	4-Nitroaniline	ND <sup>b</sup>	20000	ug/kg	
91-20-3	Naphthalene	ND <sup>b</sup>	20000	ug/kg	
98-95-3	Nitrobenzene	ND <sup>b</sup>	20000	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND <sup>b</sup>	20000	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND <sup>b</sup>	20000	ug/kg	
85-01-8	Phenanthrene	10900 <sup>b</sup>	20000	ug/kg	J
129-00-0	Pyrene	ND <sup>b</sup>	20000	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND <sup>b</sup>	20000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	0% <sup>c</sup>	0% <sup>c</sup>	36-129%
4165-62-2	Phenol-d5	0% <sup>c</sup>	0% <sup>c</sup>	38-135%
118-79-6	2,4,6-Tribromophenol	0% <sup>c</sup>	0% <sup>c</sup>	37-144%
4165-60-0	Nitrobenzene-d5	0% <sup>c</sup>	0% <sup>c</sup>	36-135%
321-60-8	2-Fluorobiphenyl	0% <sup>c</sup>	0% <sup>c</sup>	44-135%
1718-51-0	Terphenyl-d14	0% <sup>c</sup>	0% <sup>c</sup>	42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-S01	Date Sampled:	01/19/01
Lab Sample ID:	F8793-4	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	82.0
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
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- (a) Dilution required due to matrix interference.
- (b) Result is from Run# 2
- (c) Outside control limits due to dilution.

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ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-S01		Date Sampled:	01/19/01
Lab Sample ID:	F8793-4		Date Received:	01/25/01
Matrix:	SO - Solid		Percent Solids:	82.0
Method:	SW846 8015 M	SW846 3550B		
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF01017.D	200	02/06/01	SKW	01/31/01	OP2658	GZF47
Run #2							

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C10-C28)	10200	2000	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	0% <sup>a</sup>		40-140%
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(a) Outside control limits due to dilution.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: RH-BR-6-S01	Date Sampled: 01/19/01
Lab Sample ID: F8793-4	Date Received: 01/25/01
Matrix: SO - Solid	Percent Solids: 82.0
Project: CTO 229	

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	11.3 B	11.8	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID:	RH-BR-6-S02		Date Sampled:	01/19/01	
Lab Sample ID:	F8793-5		Date Received:	01/25/01	
Matrix:	SO - Solid		Percent Solids:	70.0	
Method:	SW846 8260B				
Project:	CTO 229				

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010777.D	50	01/29/01	NAF	n/a	n/a	VH263

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	3400	ug/kg	
71-43-2	Benzene	ND	340	ug/kg	
75-27-4	Bromodichloromethane	ND	340	ug/kg	
75-25-2	Bromoform	ND	340	ug/kg	
108-90-7	Chlorobenzene	ND	340	ug/kg	
75-00-3	Chloroethane	ND	340	ug/kg	
67-66-3	Chloroform	ND	340	ug/kg	
75-15-0	Carbon disulfide	ND	690	ug/kg	
56-23-5	Carbon tetrachloride	ND	340	ug/kg	
75-34-3	1,1-Dichloroethane	ND	340	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	340	ug/kg	
107-06-2	1,2-Dichloroethane	ND	340	ug/kg	
78-87-5	1,2-Dichloropropane	ND	340	ug/kg	
124-48-1	Dibromochloromethane	ND	340	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	340	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	340	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	340	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	340	ug/kg	
100-41-4	Ethylbenzene	ND	340	ug/kg	
591-78-6	2-Hexanone	ND	690	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	690	ug/kg	
74-83-9	Methyl bromide	ND	340	ug/kg	
74-87-3	Methyl chloride	ND	340	ug/kg	
75-09-2	Methylene chloride	ND	690	ug/kg	
78-93-3	Methyl ethyl ketone	ND	690	ug/kg	
100-42-5	Styrene	ND	340	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	340	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	340	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	340	ug/kg	
127-18-4	Tetrachloroethylene	ND	340	ug/kg	
108-88-3	Toluene	ND	340	ug/kg	
79-01-6	Trichloroethylene	ND	340	ug/kg	
75-01-4	Vinyl chloride	ND	340	ug/kg	
1330-20-7	Xylene (total)	ND	1000	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-S02	Date Sampled:	01/19/01
Lab Sample ID:	F8793-5	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	70.0
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		71-122%
2037-26-5	Toluene-D8	98%		73-128%
460-00-4	4-Bromofluorobenzene	99%		53-158%
17060-07-0	1,2-Dichloroethane-D4	106%		71-122%

(a) Dilution required due to matrix interference (non-target analytes present above calibration range). Sample introduction performed using method 5030A.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-S02		Date Sampled:	01/19/01	
Lab Sample ID:	F8793-5		Date Received:	01/25/01	
Matrix:	SO - Solid		Percent Solids:	70.0	
Method:	SW846 8270C SW846 3550B				
Project:	CTO 229				

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	L006383.D	50	02/02/01	ME	01/31/01	OP2655	SL382

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	60000	ug/kg	
95-57-8	2-Chlorophenol	ND	24000	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	24000	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	24000	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	60000	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	60000	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	48000	ug/kg	
95-48-7	2-Methylphenol	ND	24000	ug/kg	
	3&4-Methylphenol	ND	24000	ug/kg	
88-75-5	2-Nitrophenol	ND	24000	ug/kg	
100-02-7	4-Nitrophenol	ND	60000	ug/kg	
87-86-5	Pentachlorophenol	ND	60000	ug/kg	
108-95-2	Phenol	ND	24000	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	24000	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	24000	ug/kg	
83-32-9	Acenaphthene	ND	24000	ug/kg	
208-96-8	Acenaphthylene	ND	24000	ug/kg	
120-12-7	Anthracene	ND	24000	ug/kg	
56-55-3	Benzo(a)anthracene	ND	24000	ug/kg	
50-32-8	Benzo(a)pyrene	ND	24000	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	24000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	24000	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	24000	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	24000	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	24000	ug/kg	
100-51-6	Benzyl Alcohol	ND	24000	ug/kg	
91-58-7	2-Chloronaphthalene	ND	24000	ug/kg	
106-47-8	4-Chloroaniline	ND	24000	ug/kg	
86-74-8	Carbazole	ND	24000	ug/kg	
218-01-9	Chrysene	ND	24000	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	24000	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	24000	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	24000	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	24000	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	24000	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	24000	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-S02		Date Sampled:	01/19/01
Lab Sample ID:	F8793-5		Date Received:	01/25/01
Matrix:	SO - Solid		Percent Solids:	70.0
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	24000	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	24000	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	24000	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	48000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	24000	ug/kg	
132-64-9	Dibenzofuran	ND	24000	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	24000	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	24000	ug/kg	
84-66-2	Diethyl phthalate	ND	24000	ug/kg	
131-11-3	Dimethyl phthalate	ND	24000	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	24000	ug/kg	
206-44-0	Fluoranthene	ND	24000	ug/kg	
86-73-7	Fluorene	ND	24000	ug/kg	
118-74-1	Hexachlorobenzene	ND	24000	ug/kg	
87-68-3	Hexachlorobutadiene	ND	24000	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	24000	ug/kg	
67-72-1	Hexachloroethane	ND	24000	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	24000	ug/kg	
78-59-1	Isophorone	ND	24000	ug/kg	
91-57-6	2-Methylnaphthalene	ND	24000	ug/kg	
88-74-4	2-Nitroaniline	ND	24000	ug/kg	
99-09-2	3-Nitroaniline	ND	24000	ug/kg	
100-01-6	4-Nitroaniline	ND	24000	ug/kg	
91-20-3	Naphthalene	ND	24000	ug/kg	
98-95-3	Nitrobenzene	ND	24000	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	24000	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	24000	ug/kg	
85-01-8	Phenanthrene	ND	24000	ug/kg	
129-00-0	Pyrene	8450	24000	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	24000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	0% <sup>b</sup>		36-129%
4165-62-2	Phenol-d5	0% <sup>b</sup>		38-135%
118-79-6	2,4,6-Tribromophenol	0% <sup>b</sup>		37-144%
4165-60-0	Nitrobenzene-d5	0% <sup>b</sup>		36-135%
321-60-8	2-Fluorobiphenyl	0% <sup>b</sup>		44-135%
1718-51-0	Terphenyl-d14	0% <sup>b</sup>		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-S02	Date Sampled:	01/19/01
Lab Sample ID:	F8793-5	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	70.0
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

### ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
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- (a) Dilution required due to matrix interference.
- (b) Outside control limits due to dilution.

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ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-S02	Date Sampled:	01/19/01
Lab Sample ID:	F8793-5	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	70.0
Method:	SW846 8015 M SW846 3550B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF01018.D	500	02/06/01	SKW	01/31/01	OP2658	GZF47
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	43100	6000	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	0% <sup>a</sup>		40-140%	

(a) Outside control limits due to dilution.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: RH-BR-6-S02	Date Sampled: 01/19/01
Lab Sample ID: F8793-5	Date Received: 01/25/01
Matrix: SO - Solid	Percent Solids: 70.0
Project: CTO 229	

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	11.2 B	14.7	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID:	RH-MW-6-S01		Date Sampled:	01/19/01	
Lab Sample ID:	F8793-6		Date Received:	01/25/01	
Matrix:	SO - Oil		Percent Solids:	9.2	
Method:	SW846 8260B				
Project:	CTO 229				

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H010776.D	5000	01/29/01	NAF	n/a	n/a	VH266
Run #2							

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	250000	ug/kg	
71-43-2	Benzene	ND	25000	ug/kg	
75-27-4	Bromodichloromethane	ND	25000	ug/kg	
75-25-2	Bromoform	ND	25000	ug/kg	
108-90-7	Chlorobenzene	ND	25000	ug/kg	
75-00-3	Chloroethane	ND	25000	ug/kg	
67-66-3	Chloroform	ND	25000	ug/kg	
75-15-0	Carbon disulfide	ND	50000	ug/kg	
56-23-5	Carbon tetrachloride	ND	25000	ug/kg	
75-34-3	1,1-Dichloroethane	ND	25000	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	25000	ug/kg	
107-06-2	1,2-Dichloroethane	ND	25000	ug/kg	
78-87-5	1,2-Dichloropropane	ND	25000	ug/kg	
124-48-1	Dibromochloromethane	ND	25000	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	25000	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	25000	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	25000	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	25000	ug/kg	
100-41-4	Ethylbenzene	ND	25000	ug/kg	
591-78-6	2-Hexanone	ND	50000	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	50000	ug/kg	
74-83-9	Methyl bromide	ND	25000	ug/kg	
74-87-3	Methyl chloride	ND	25000	ug/kg	
75-09-2	Methylene chloride	ND	50000	ug/kg	
78-93-3	Methyl ethyl ketone	ND	50000	ug/kg	
100-42-5	Styrene	ND	25000	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	25000	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	25000	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	25000	ug/kg	
127-18-4	Tetrachloroethylene	ND	25000	ug/kg	
108-88-3	Toluene	ND	25000	ug/kg	
79-01-6	Trichloroethylene	ND	25000	ug/kg	
75-01-4	Vinyl chloride	ND	25000	ug/kg	
1330-20-7	Xylene (total)	ND	75000	ug/kg	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-MW-6-S01	Date Sampled:	01/19/01
Lab Sample ID:	F8793-6	Date Received:	01/25/01
Matrix:	SO - Oil	Percent Solids:	9.2
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		71-122%
2037-26-5	Toluene-D8	99%		73-128%
460-00-4	4-Bromofluorobenzene	96%		53-158%
17060-07-0	1,2-Dichloroethane-D4	98%		71-122%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-MW-6-S01		Date Sampled:	01/19/01	
Lab Sample ID:	F8793-6		Date Received:	01/25/01	
Matrix:	SO - Oil		Percent Solids:	9.2	
Method:	SW846 8270C SW846 3580A				
Project:	CTO 229				

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006363.D	1	02/01/01	ME	01/31/01	OP2661	SL381
Run #2							

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	250000	ug/kg	
95-57-8	2-Chlorophenol	ND	100000	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	100000	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	100000	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	250000	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	250000	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	200000	ug/kg	
95-48-7	2-Methylphenol	ND	100000	ug/kg	
	3&4-Methylphenol	ND	100000	ug/kg	
88-75-5	2-Nitrophenol	ND	100000	ug/kg	
100-02-7	4-Nitrophenol	ND	250000	ug/kg	
87-86-5	Pentachlorophenol	ND	250000	ug/kg	
108-95-2	Phenol	ND	100000	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	100000	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	100000	ug/kg	
83-32-9	Acenaphthene	ND	100000	ug/kg	
208-96-8	Acenaphthylene	ND	100000	ug/kg	
120-12-7	Anthracene	ND	100000	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100000	ug/kg	
50-32-8	Benzo(a)pyrene	ND	100000	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100000	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100000	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	100000	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	100000	ug/kg	
100-51-6	Benzyl Alcohol	ND	100000	ug/kg	
91-58-7	2-Chloronaphthalene	ND	100000	ug/kg	
106-47-8	4-Chloroaniline	ND	100000	ug/kg	
86-74-8	Carbazole	ND	100000	ug/kg	
218-01-9	Chrysene	ND	100000	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	100000	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	100000	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	100000	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	100000	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	100000	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	100000	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-MW-6-S01		Date Sampled:	01/19/01
Lab Sample ID:	F8793-6		Date Received:	01/25/01
Matrix:	SO - Oil		Percent Solids:	9.2
Method:	SW846 8270C	SW846 3580A		
Project:	CTO 229			

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	100000	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	100000	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	100000	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	200000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100000	ug/kg	
132-64-9	Dibenzofuran	ND	100000	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	100000	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	100000	ug/kg	
84-66-2	Diethyl phthalate	ND	100000	ug/kg	
131-11-3	Dimethyl phthalate	ND	100000	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	100000	ug/kg	
206-44-0	Fluoranthene	ND	100000	ug/kg	
86-73-7	Fluorene	ND	100000	ug/kg	
118-74-1	Hexachlorobenzene	ND	100000	ug/kg	
87-68-3	Hexachlorobutadiene	ND	100000	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	100000	ug/kg	
67-72-1	Hexachloroethane	ND	100000	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100000	ug/kg	
78-59-1	Isophorone	ND	100000	ug/kg	
91-57-6	2-Methylnaphthalene	36800	100000	ug/kg	J
88-74-4	2-Nitroaniline	ND	100000	ug/kg	
99-09-2	3-Nitroaniline	ND	100000	ug/kg	
100-01-6	4-Nitroaniline	ND	100000	ug/kg	
91-20-3	Naphthalene	ND	100000	ug/kg	
98-95-3	Nitrobenzene	ND	100000	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	100000	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	100000	ug/kg	
85-01-8	Phenanthrene	ND	100000	ug/kg	
129-00-0	Pyrene	ND	100000	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	100000	ug/kg	

(a) Sample only partly miscible in methylene chloride. Reported results are considered minimum values.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-MW-6-S01	Date Sampled:	01/19/01
Lab Sample ID:	F8793-6	Date Received:	01/25/01
Matrix:	SO - Oil	Percent Solids:	9.2
Method:	SW846 8015 M SW846 3580A		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF01021.D	2	02/06/01	SKW	01/31/01	OP2662	GZF47
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	29500	5000	mg/kg	

(a) Sample only partly miscible in methylene chloride. Reported results are considered minimum values.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-MW-6-S01	Date Sampled:	01/19/01
Lab Sample ID:	F8793-6	Date Received:	01/25/01
Matrix:	SO - Oil	Percent Solids:	9.2
Project:	CTO 229		

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	27.5 B	105	mg/kg	1	02/06/01	02/07/01 JK	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID:	RH-BR-6-S03	Date Sampled:	01/22/01
Lab Sample ID:	F8793-7	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	95.2
Method:	SW846 8260B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010764.D	I	01/26/01	NAF	n/a	n/a	VH262
Run #2							

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	52	ug/kg	
71-43-2	Benzene	ND	5.2	ug/kg	
75-27-4	Bromodichloromethane	ND	5.2	ug/kg	
75-25-2	Bromoform	ND	5.2	ug/kg	
108-90-7	Chlorobenzene	ND	5.2	ug/kg	
75-00-3	Chloroethane	ND	5.2	ug/kg	
67-66-3	Chloroform	ND	5.2	ug/kg	
75-15-0	Carbon disulfide	ND	10	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.2	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.2	ug/kg	
124-48-1	Dibromochloromethane	ND	5.2	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.2	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.2	ug/kg	
100-41-4	Ethylbenzene	ND	5.2	ug/kg	
591-78-6	2-Hexanone	ND	10	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/kg	
74-83-9	Methyl bromide	ND	5.2	ug/kg	
74-87-3	Methyl chloride	ND	5.2	ug/kg	
75-09-2	Methylene chloride	ND	10	ug/kg	
78-93-3	Methyl ethyl ketone	ND	10	ug/kg	
100-42-5	Styrene	ND	5.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.2	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.2	ug/kg	
108-88-3	Toluene	ND	5.2	ug/kg	
79-01-6	Trichloroethylene	ND	5.2	ug/kg	
75-01-4	Vinyl chloride	ND	5.2	ug/kg	
1330-20-7	Xylene (total)	ND	16	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-S03	Date Sampled:	01/22/01
Lab Sample ID:	F8793-7	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	95.2
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		71-122%
2037-26-5	Toluene-D8	102%		73-128%
460-00-4	4-Bromofluorobenzene	103%		53-158%
17060-07-0	1,2-Dichloroethane-D4	94%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-S03		Date Sampled:	01/22/01
Lab Sample ID:	F8793-7		Date Received:	01/25/01
Matrix:	SO - Solid		Percent Solids:	95.2
Method:	SW846 8270C	SW846 3550B		
Project:	CTO 229			

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	L006384.D	1	02/02/01	ME	01/31/01	OP2655	SL382

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	880	ug/kg	
95-57-8	2-Chlorophenol	ND	350	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	350	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	350	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	880	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	880	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	700	ug/kg	
95-48-7	2-Methylphenol	ND	350	ug/kg	
	3&4-Methylphenol	ND	350	ug/kg	
88-75-5	2-Nitrophenol	ND	350	ug/kg	
100-02-7	4-Nitrophenol	ND	880	ug/kg	
87-86-5	Pentachlorophenol	ND	880	ug/kg	
108-95-2	Phenol	ND	350	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	350	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	350	ug/kg	
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	350	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	350	ug/kg	
50-32-8	Benzo(a)pyrene	ND	350	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	350	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	350	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	350	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	350	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	350	ug/kg	
100-51-6	Benzyl Alcohol	ND	350	ug/kg	
91-58-7	2-Chloronaphthalene	ND	350	ug/kg	
106-47-8	4-Chloroaniline	ND	350	ug/kg	
86-74-8	Carbazole	ND	350	ug/kg	
218-01-9	Chrysene	ND	350	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	350	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	350	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	350	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	350	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	350	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	350	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-S03		Date Sampled:	01/22/01
Lab Sample ID:	F8793-7		Date Received:	01/25/01
Matrix:	SO - Solid		Percent Solids:	95.2
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	350	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	350	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	350	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	700	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	350	ug/kg	
132-64-9	Dibenzofuran	ND	350	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	350	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	350	ug/kg	
84-66-2	Diethyl phthalate	ND	350	ug/kg	
131-11-3	Dimethyl phthalate	ND	350	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	265	350	ug/kg	J
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
118-74-1	Hexachlorobenzene	ND	350	ug/kg	
87-68-3	Hexachlorobutadiene	ND	350	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	350	ug/kg	
67-72-1	Hexachloroethane	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	350	ug/kg	
78-59-1	Isophorone	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
88-74-4	2-Nitroaniline	ND	350	ug/kg	
99-09-2	3-Nitroaniline	ND	350	ug/kg	
100-01-6	4-Nitroaniline	ND	350	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
98-95-3	Nitrobenzene	ND	350	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	350	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	54%		36-129%
4165-62-2	Phenol-d5	58%		38-135%
118-79-6	2,4,6-Tribromophenol	76%		37-144%
4165-60-0	Nitrobenzene-d5	57%		36-135%
321-60-8	2-Fluorobiphenyl	64%		44-135%
1718-51-0	Terphenyl-d14	81%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-S03		Date Sampled:	01/22/01	
Lab Sample ID:	F8793-7		Date Received:	01/25/01	
Matrix:	SO - Solid		Percent Solids:	95.2	
Method:	SW846 8015 M SW846 3550B				
Project:	CTO 229				

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00960.D	1	02/01/01	NJ	01/31/01	OP2658	GZF44
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	8.83	8.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	69%		40-140%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

### Report of Analysis

Client Sample ID:	RH-BR-6-S03	Date Sampled:	01/22/01
Lab Sample ID:	F8793-7	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	95.2
Project:	CTO 229		

#### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.3	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID:	RH-BR-6-D07	Date Sampled:	01/22/01
Lab Sample ID:	F8793-8	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	90.7
Method:	SW846 8260B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H010765.D	1	01/26/01	NAF	n/a	n/a	VH262
Run #2							

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	54	ug/kg	
71-43-2	Benzene	ND	5.4	ug/kg	
75-27-4	Bromodichloromethane	ND	5.4	ug/kg	
75-25-2	Bromoform	ND	5.4	ug/kg	
108-90-7	Chlorobenzene	ND	5.4	ug/kg	
75-00-3	Chloroethane	ND	5.4	ug/kg	
67-66-3	Chloroform	ND	5.4	ug/kg	
75-15-0	Carbon disulfide	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.4	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.4	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.4	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.4	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.4	ug/kg	
124-48-1	Dibromochloromethane	ND	5.4	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.4	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.4	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.4	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.4	ug/kg	
100-41-4	Ethylbenzene	ND	5.4	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	11	ug/kg	
74-83-9	Methyl bromide	ND	5.4	ug/kg	
74-87-3	Methyl chloride	ND	5.4	ug/kg	
75-09-2	Methylene chloride	ND	11	ug/kg	
78-93-3	Methyl ethyl ketone	ND	11	ug/kg	
100-42-5	Styrene	ND	5.4	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.4	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.4	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.4	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.4	ug/kg	
108-88-3	Toluene	ND	5.4	ug/kg	
79-01-6	Trichloroethylene	ND	5.4	ug/kg	
75-01-4	Vinyl chloride	ND	5.4	ug/kg	
1330-20-7	Xylene (total)	ND	16	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-D07	Date Sampled:	01/22/01
Lab Sample ID:	F8793-8	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	90.7
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		71-122%
2037-26-5	Toluene-D8	102%		73-128%
460-00-4	4-Bromofluorobenzene	109%		53-158%
17060-07-0	1,2-Dichloroethane-D4	96%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-D07	Date Sampled:	01/22/01
Lab Sample ID:	F8793-8	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	90.7
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	L006387.D	1	02/02/01	ME	01/31/01	OP2655	SL382

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	920	ug/kg	
95-57-8	2-Chlorophenol	ND	370	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	370	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	370	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	920	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	920	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	730	ug/kg	
95-48-7	2-Methylphenol	ND	370	ug/kg	
	3&4-Methylphenol	ND	370	ug/kg	
88-75-5	2-Nitrophenol	ND	370	ug/kg	
100-02-7	4-Nitrophenol	ND	920	ug/kg	
87-86-5	Pentachlorophenol	ND	920	ug/kg	
108-95-2	Phenol	ND	370	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	370	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	370	ug/kg	
83-32-9	Acenaphthene	ND	370	ug/kg	
208-96-8	Acenaphthylene	ND	370	ug/kg	
120-12-7	Anthracene	ND	370	ug/kg	
56-55-3	Benzo(a)anthracene	ND	370	ug/kg	
50-32-8	Benzo(a)pyrene	ND	370	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	370	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	370	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	370	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	370	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	370	ug/kg	
100-51-6	Benzyl Alcohol	ND	370	ug/kg	
91-58-7	2-Chloronaphthalene	ND	370	ug/kg	
106-47-8	4-Chloroaniline	ND	370	ug/kg	
86-74-8	Carbazole	ND	370	ug/kg	
218-01-9	Chrysene	ND	370	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	370	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	370	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	370	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	370	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	370	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	370	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-D07		Date Sampled:	01/22/01
Lab Sample ID:	F8793-8		Date Received:	01/25/01
Matrix:	SO - Solid		Percent Solids:	90.7
Method:	SW846 8270C	SW846 3550B		
Project:	CTO 229			

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	370	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	370	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	370	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	730	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	370	ug/kg	
132-64-9	Dibenzofuran	ND	370	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	370	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	370	ug/kg	
84-66-2	Diethyl phthalate	ND	370	ug/kg	
131-11-3	Dimethyl phthalate	ND	370	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	456	370	ug/kg	
206-44-0	Fluoranthene	ND	370	ug/kg	
86-73-7	Fluorene	ND	370	ug/kg	
118-74-1	Hexachlorobenzene	ND	370	ug/kg	
87-68-3	Hexachlorobutadiene	ND	370	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	370	ug/kg	
67-72-1	Hexachloroethane	ND	370	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	370	ug/kg	
78-59-1	Isophorone	ND	370	ug/kg	
91-57-6	2-Methylnaphthalene	ND	370	ug/kg	
88-74-4	2-Nitroaniline	ND	370	ug/kg	
99-09-2	3-Nitroaniline	ND	370	ug/kg	
100-01-6	4-Nitroaniline	ND	370	ug/kg	
91-20-3	Naphthalene	ND	370	ug/kg	
98-95-3	Nitrobenzene	ND	370	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	370	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	370	ug/kg	
85-01-8	Phenanthrene	ND	370	ug/kg	
129-00-0	Pyrene	ND	370	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	370	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	62%		36-129%
4165-62-2	Phenol-d5	65%		38-135%
118-79-6	2,4,6-Tribromophenol	81%		37-144%
4165-60-0	Nitrobenzene-d5	65%		36-135%
321-60-8	2-Fluorobiphenyl	76%		44-135%
1718-51-0	Terphenyl-d14	92%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-D07		Date Sampled:	01/22/01	
Lab Sample ID:	F8793-8		Date Received:	01/25/01	
Matrix:	SO - Solid		Percent Solids:	90.7	
Method:	SW846 8015 M SW846 3550B				
Project:	CTO 229				

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00961.D	1	02/01/01	NJ	01/31/01	OP2658	GZF44
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	9.2	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	61%		40-140%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-6-D07	Date Sampled:	01/22/01
Lab Sample ID:	F8793-8	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	90.7
Project:	CTO 229		

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.13 U	10.8	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

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RL = Reporting Limit

# SECTION 2

**CASE NARRATIVE  
GC/MS Volatile Analysis**

Laboratory Reference No. F8793

Client/Project: AMEC/CTO 299 – 1-1019-0229

**I. RECEIPT**

The samples were received via DHL Worldwide Express on January 25, 2001.

**II. HOLDING TIMES**

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 5030A

Analysis: SW-846 8260B

**IV. PREPARATION**

Samples were prepared as received. Soil samples were received without EnCore samples and were therefore analyzed using method 5030A.

**V. ANALYSIS**

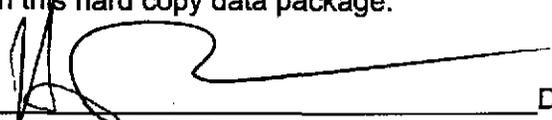
A. Calibration: All acceptance criteria were met.

B. Blanks: All acceptance criteria were met.

C. Spikes (Matrix Spike, Matrix Spike Duplicate, and LCS): All LCS's were within the limit except, VH267-BS, the results for cis-1,2- Dichloroethene and Vinyl chloride were high. The MS and MSD recovery for number of compounds were outside a control limit.

D. Samples: Sample F8793 was run twice due to a low recovery of surrogate Dibromofluoromethane, Sample F7893-4, F7893-5, F7893-6 was diluted due to matrix interference.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package:

Signed:  Date: 2/21/01  
Harry Behzadi, Ph.D.  
Laboratory Director

**CASE NARRATIVE**  
**GC/MS Semi-Volatile Analysis**

Laboratory Reference No. F8793

Client/Project: AMEC/CTO 299 - 1-1019-0229

**I. RECEIPT**

The samples were received via DHL Worldwide Express on January 25, 2001.

**II. HOLDING TIMES**

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 3550B

Analysis: SW-846 8270C

**IV. PREPARATION**

Sample preparation proceeded normally.

**V. ANALYSIS**

A. Calibration: All acceptance criteria were met.

B. Blanks: All acceptance criteria were met.

C. Spikes (Matrix Spike, Matrix Spike Duplicate, and LCS): The MS recovery for 2-methyl phenol, bis(2chloroisopropylether), Hexachloroethene, 2-methyl naphthalene analytes, which were not found in the samples. The following compounds recovery in LCS were outside a control limit, 4-Chloroaniline, 2-Methylnaphthalene.

D. Samples: Sample F8793-2 was re-extracted and reanalyzed due to low surrogate recovery. F8793-4 was diluted due to matrix interference. F8793-5 surrogate outside control limits due to dilution. Sample F8793-6 was only partly miscible in methylene chloride.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package:

Signed: \_\_\_\_\_

Harry Benzadi, Ph.D.  
Laboratory Director

Date: \_\_\_\_\_

2/21/01

**CASE NARRATIVE**  
**GC Diesel Range Organics (DRO) Analysis**

Laboratory Reference No. F8793

Client/Project: AMEC/CTO 299 – 1-1019-0229

**I. RECEIPT**

The samples were received via DHL Worldwide Express on January 25, 2001.

**II. HOLDING TIMES**

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 3550C

Analysis: SW-846 8015

**IV. PREPARATION**

Sample preparation proceeded normally.

**V. ANALYSIS**

A. Calibration: All acceptance criteria were met.

B. Blanks: All acceptance criteria were met.

C. Spikes (Matrix Spike and LCS): All acceptance criteria were met.

D. Duplicates: All acceptance criteria were met.

E. Samples: Sample analyses proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package and in the computer-readable data submitted on diskette:

Signed: \_\_\_\_\_

Harry Behzadi, Ph.D.  
Laboratory Director

Date: \_\_\_\_\_

2/21/01

**CASE NARRATIVE  
Inorganic Analysis**

Laboratory Reference No. F8793

Client/Project: AMEC/CTO 299 – 1-1019-0229

**I. RECEIPT**

The samples were received via DHL Worldwide Express on January 25, 2001.

**II. HOLDING TIMES**

- A. Sample Preparation: All holding times were met.
- B. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 3010B  
Analysis: SW-846 6010B (Lead Only)

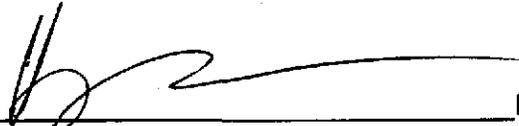
**IV. PREPARATION**

Sample preparation proceeded normally.

**V. ANALYSIS**

- A. Calibration: All acceptance criteria were met.
- B. Blanks: All acceptance criteria were met.
- C. Spikes (Matrix Spike, Matrix Spike Duplicate, and LCS): All acceptance criteria were met.
- D. Duplicates: All acceptance criteria were met.
- E. Serial Dilutions: The serial dilution was found to be slightly high, but acceptable due to low initial sample concentration (< 50 times the IDL).
- F. Samples: Sample analyses proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package:

Signed:  Date: 2/21/01  
Harry Behzadi, Ph.D.  
Laboratory Director

## Internal Sample Tracking Chronicle

Ogden Environmental

Job No: F8793

CTO 229

Project No: 1-1019-0229

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
F8793-1 Collected: 19-JAN-01 00:00 By: JLP Received: 25-JAN-01 By: SMG TRIP BLANK						
F8793-1	SW846 8260B	26-JAN-01 14:44	JG			V8260TCL
F8793-2 Collected: 19-JAN-01 08:14 By: JLP Received: 25-JAN-01 By: SMG RH-BR-7-S04						
F8793-2	SW846 8260B	30-JAN-01 17:18	NAF			V8260TCL
F8793-2	SW846 8015 M	01-FEB-01 15:03	NJ	31-JAN-01	NJ	B8015DROM1
F8793-2	SW846 8260B	01-FEB-01 18:58	NAF			V8260TCL
F8793-2	SW846 8270C	02-FEB-01 18:08	ME	31-JAN-01	SKW	AB8270TCL
F8793-2	SW846 8270C	04-FEB-01 23:54	ME	02-FEB-01	SKW	AB8270TCL
F8793-2	EPA 160.3 M	05-FEB-01	LIR			%SOL
F8793-2	SW846 6010B	05-FEB-01 15:19	JK	02-FEB-01	SJL	PB
F8793-3 Collected: 19-JAN-01 08:41 By: JLP Received: 25-JAN-01 By: SMG RH-BR-7-S05						
F8793-3	EPA 160.3 M	29-JAN-01	SJL			%SOL
F8793-3	SW846 8260B	01-FEB-01 19:38	NAF			V8260TCL
F8793-3	SW846 8270C	02-FEB-01 18:41	ME	31-JAN-01	NJ	AB8270TCL
F8793-3	SW846 6010B	05-FEB-01 15:25	JK	02-FEB-01	SJL	PB
F8793-3	SW846 8015 M	06-FEB-01 19:48	SKW	31-JAN-01	NJ	B8015DROM1
F8793-4 Collected: 19-JAN-01 14:13 By: JLP Received: 25-JAN-01 By: SMG RH-BR-6-S01						
F8793-4	SW846 8260B	26-JAN-01 22:39	NAF			V8260TCL
F8793-4	EPA 160.3 M	29-JAN-01	SJL			%SOL
F8793-4	SW846 8270C	02-FEB-01 19:13	ME	31-JAN-01	NJ	AB8270TCL
F8793-4	SW846 8270C	05-FEB-01 14:58	ME	31-JAN-01	NJ	AB8270TCL
F8793-4	SW846 6010B	05-FEB-01 15:30	JK	02-FEB-01	SJL	PB
F8793-4	SW846 8015 M	06-FEB-01 20:12	SKW	31-JAN-01	NJ	B8015DROM1
F8793-5 Collected: 19-JAN-01 15:30 By: JLP Received: 25-JAN-01 By: SMG RH-BR-6-S02						
F8793-5	EPA 160.3 M	29-JAN-01	SJL			%SOL
F8793-5	SW846 8260B	29-JAN-01 16:27	NAF			V8260TCL

ACCUTEST LABORATORIES SOUTHEAST  
SAMPLE RECEIPT CONFIRMATION

Accutest Job Number: F8793  
Client/Project: Ogden Red Hill Bulk Fuel Storage  
Date/Time Received: 1/25/01 1130  
Method of Delivery: Fed Ex Greyhound UPS Pickup Delivery Other DHL  
Air Bill Number: 8103264492  
Cooler Temperatures: 3.8

Custody Seals Intact?	<input checked="" type="radio"/> YES	<input type="radio"/> NO
Chain Of Custody Provided?	<input checked="" type="radio"/> YES	<input type="radio"/> NO
Chain Of Custody Match Bottles?	<input checked="" type="radio"/> YES	<input type="radio"/> NO
Sample Labels Present?	<input checked="" type="radio"/> YES	<input type="radio"/> NO
Are All Bottles Unbroken?	<input checked="" type="radio"/> YES	<input type="radio"/> NO
Proper Preservative?	YES	<input checked="" type="radio"/> NO
Correct Containers Used?	YES	<input checked="" type="radio"/> NO
Sufficient Sample Volume?	YES	<input type="radio"/> NO
Number of Encores:	<u>0</u>	

COMMENTS:

\* for RH-MW-6-501 (F8793-6), 3 hand-capped vials were sent and one amber Liten

~~no~~ no preserved bottle for Pb (TCLP?)

Signature: Mike Powell

Date: 1/25/01

## Internal Sample Tracking Chronicle

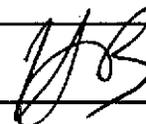
Ogden Environmental

Job No: F8793

CTO 229

Project No: 1-1019-0229

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
F8793-5	SW846 8270C	02-FEB-01 19:45	ME	31-JAN-01	NJ	AB8270TCL
F8793-5	SW846 6010B	05-FEB-01 15:35	JK	02-FEB-01	SJL	PB
F8793-5	SW846 8015 M	06-FEB-01 20:37	SKW	31-JAN-01	NJ	B8015DROM1
F8793-6 Collected: 19-JAN-01 14:18 By: JLP Received: 25-JAN-01 By: SMG RH-MW-6-S01						
F8793-6	SW846 8260B	29-JAN-01 15:47	NAF			V8260TCL
F8793-6	SW846 8270C	01-FEB-01 20:59	ME	31-JAN-01	NJ	AB8270TCL
F8793-6	SW846 8015 M	06-FEB-01 21:50	SKW	31-JAN-01	NJ	B8015DROM1
F8793-6	SW846 6010B	07-FEB-01 12:34	JK	06-FEB-01	SJL	PB
F8793-6	EPA 160.3 M	14-FEB-01	LIR			%SOL
F8793-7 Collected: 22-JAN-01 10:53 By: JLP Received: 25-JAN-01 By: SMG RH-BR-6-S03						
F8793-7	SW846 8260B	26-JAN-01 21:19	NAF			V8260TCL
F8793-7	EPA 160.3 M	29-JAN-01	SJL			%SOL
F8793-7	SW846 8015 M	01-FEB-01 16:41	NJ	31-JAN-01	NJ	B8015DROM1
F8793-7	SW846 8270C	02-FEB-01 20:18	ME	31-JAN-01	NJ	AB8270TCL
F8793-7	SW846 6010B	05-FEB-01 15:51	JK	02-FEB-01	SJL	PB
F8793-8 Collected: 22-JAN-01 10:53 By: JLP Received: 25-JAN-01 By: SMG RH-BR-6-D07						
F8793-8	SW846 8260B	26-JAN-01 21:59	NAF			V8260TCL
F8793-8	EPA 160.3 M	29-JAN-01	SJL			%SOL
F8793-8	SW846 8015 M	01-FEB-01 17:06	NJ	31-JAN-01	NJ	B8015DROM1
F8793-8	SW846 8270C	02-FEB-01 21:56	ME	31-JAN-01	NJ	AB8270TCL
F8793-8	SW846 6010B	05-FEB-01 15:56	JK	02-FEB-01	SJL	PB



# SECTION 3

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7.1	Sample Result Summary	SVOC.01
7.2	Surrogate Recoveries Summary	SVOC.02
7.3	Matrix Spike / Matrix Spike Duplicate / Blank Spike Summary	SVOC.03
7.4	Method Blank Summary	SVOC.04
7.5	Tune Summary	SVOC.05
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8.1	Sample Result Summary	SGC.01
8.2	Surrogate Recoveries Summary	SGC.02
8.3	Matrix Spike / Matrix Spike Duplicate / Blank Spike Summary	SGC.03
8.4	Method Blank Summary	SGC.04
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9.1	Sample Result Summary	SGC.01

9.2	Surrogate Recoveries Summary	SGC.02
9.3	Matrix Spike / Matrix Spike Duplicate / Blank Spike Summary	SGC.03
9.4	Method Blank Summary	SGC.04
9.5	Initial Calibration Summary	SGC.05
9.6	Continuing Calibration Summary	SGC.06
9.7	Sequence Log Summary	SGC.07

**9. GC SUPPORT DATA ( SW846- METHOD 8015M)**

9.1	Sample Result Summary	SGC.01
9.2	Surrogate Recoveries Summary	SGC.02
9.3	Matrix Spike / Matrix Spike Duplicate / Blank Spike Summary	SGC.03
9.4	Method Blank Summary	SGC.04
9.5	Initial Calibration Summary	SGC.05
9.6	Continuing Calibration Summary	SGC.06
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**10. GEN. CHEM. SUPPORT DATA**

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**11. TCLP Data**

# SECTION 4



## Sample Summary

Ogden Environmental

Job No: F8793

CTO 229

Project No: 1-1019-0229

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F8793-1	01/19/01	00:00 JLP	01/25/01	AQ	Trip Blank Soil	TRIP BLANK
F8793-2	01/19/01	08:14 JLP	01/25/01	SO	Solid	RH-BR-7-S04
F8793-3	01/19/01	08:41 JLP	01/25/01	SO	Solid	RH-BR-7-S05
F8793-4	01/19/01	14:13 JLP	01/25/01	SO	Solid	RH-BR-6-S01
F8793-5	01/19/01	15:30 JLP	01/25/01	SO	Solid	RH-BR-6-S02
F8793-6	01/19/01	14:18 JLP	01/25/01	SO	Oil	RH-MW-6-S01
F8793-7	01/22/01	10:53 JLP	01/25/01	SO	Solid	RH-BR-6-S03
F8793-8	01/22/01	10:53 JLP	01/25/01	SO	Solid	RH-BR-6-D07



# Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	01/19/01
Lab Sample ID:	F8793-1	Date Received:	01/25/01
Matrix:	AQ - Trip Blank Soil	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B003660.D	1	01/26/01	JG	n/a	n/a	VB139
Run #2							

### VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	ug/l	
75-25-2	Bromoform	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	10	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	5.0	ug/l	
74-87-3	Methyl chloride	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
100-42-5	Styrene	ND	2.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> TRIP BLANK	
<b>Lab Sample ID:</b> F8793-1	<b>Date Sampled:</b> 01/19/01
<b>Matrix:</b> AQ - Trip Blank Soil	<b>Date Received:</b> 01/25/01
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> CTO 229	

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	98%		69-128%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



# Report of Analysis

Client Sample ID:	RH-BR-7-S04	Date Sampled:	01/19/01
Lab Sample ID:	F8793-2	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	86.3
Method:	SW846 8260B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010794.D	1	01/30/01	NAF	n/a	n/a	VH264
Run #2	H010835.D	1	02/01/01	NAF	n/a	n/a	VH267

### VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	58	ug/kg	
71-43-2	Benzene	ND	5.8	ug/kg	
75-27-4	Bromodichloromethane	ND	5.8	ug/kg	
75-25-2	Bromoform	ND	5.8	ug/kg	
108-90-7	Chlorobenzene	ND	5.8	ug/kg	
75-00-3	Chloroethane	ND	5.8	ug/kg	
67-66-3	Chloroform	ND	5.8	ug/kg	
75-15-0	Carbon disulfide	ND	12	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.8	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.8	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.8	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.8	ug/kg	
124-48-1	Dibromochloromethane	ND	5.8	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.8	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.8	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.8	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.8	ug/kg	
100-41-4	Ethylbenzene	ND	5.8	ug/kg	
591-78-6	2-Hexanone	ND	12	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	12	ug/kg	
74-83-9	Methyl bromide	ND	5.8	ug/kg	
74-87-3	Methyl chloride	ND	5.8	ug/kg	
75-09-2	Methylene chloride	ND	12	ug/kg	
78-93-3	Methyl ethyl ketone	ND	12	ug/kg	
100-42-5	Styrene	ND	5.8	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.8	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.8	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.8	ug/kg	
108-88-3	Toluene	ND	5.8	ug/kg	
79-01-6	Trichloroethylene	ND	5.8	ug/kg	
75-01-4	Vinyl chloride	ND	5.8	ug/kg	
1330-20-7	Xylene (total)	ND	17	ug/kg	

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range  
J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-7-S04	
<b>Lab Sample ID:</b> F8793-2	<b>Date Sampled:</b> 01/19/01
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 01/25/01
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 86.3
<b>Project:</b> CTO 229	

**VOA TCL List**

<b>CAS No.</b>	<b>Surrogate Recoveries</b>	<b>Run# 1</b>	<b>Run# 2</b>	<b>Limits</b>
1868-53-7	Dibromofluoromethane	18% <sup>b</sup>	6%	71-122%
2037-26-5	Toluene-D8	101%	99%	73-128%
460-00-4	4-Bromofluorobenzene	100%	99%	53-158%
17060-07-0	1,2-Dichloroethane-D4	98%	104%	71-122%

(a) Sample introduction performed using method 5030A.

(b) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-7-S04	<b>Date Sampled:</b> 01/19/01
<b>Lab Sample ID:</b> F8793-2	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 86.3
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006380.D	1	02/02/01	ME	01/31/01	OP2655	SL382
Run #2	W003809.D	1	02/04/01	ME	02/02/01	OP2655	SW221

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	960	ug/kg	
95-57-8	2-Chlorophenol	ND	390	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	390	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	390	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	960	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	960	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	770	ug/kg	
95-48-7	2-Methylphenol	ND	390	ug/kg	
	3&4-Methylphenol	ND	390	ug/kg	
88-75-5	2-Nitrophenol	ND	390	ug/kg	
100-02-7	4-Nitrophenol	ND	960	ug/kg	
87-86-5	Pentachlorophenol	ND	960	ug/kg	
108-95-2	Phenol	ND	390	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	390	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	390	ug/kg	
83-32-9	Acenaphthene	ND	390	ug/kg	
208-96-8	Acenaphthylene	ND	390	ug/kg	
120-12-7	Anthracene	ND	390	ug/kg	
56-55-3	Benzo(a)anthracene	ND	390	ug/kg	
50-32-8	Benzo(a)pyrene	ND	390	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	390	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	390	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	390	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	390	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	390	ug/kg	
100-51-6	Benzyl Alcohol	ND	390	ug/kg	
91-58-7	2-Chloronaphthalene	ND	390	ug/kg	
106-47-8	4-Chloroaniline	ND	390	ug/kg	
86-74-8	Carbazole	ND	390	ug/kg	
218-01-9	Chrysene	ND	390	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	390	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	390	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	390	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	390	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	390	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	390	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-7-S04	
<b>Lab Sample ID:</b> F8793-2	<b>Date Sampled:</b> 01/19/01
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 01/25/01
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 86.3
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	390	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	390	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	390	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	770	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	390	ug/kg	
132-64-9	Dibenzofuran	ND	390	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	390	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	390	ug/kg	
84-66-2	Diethyl phthalate	ND	390	ug/kg	
131-11-3	Dimethyl phthalate	ND	390	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	291	390	ug/kg	J
206-44-0	Fluoranthene	ND	390	ug/kg	
86-73-7	Fluorene	ND	390	ug/kg	
118-74-1	Hexachlorobenzene	ND	390	ug/kg	
87-68-3	Hexachlorobutadiene	ND	390	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	390	ug/kg	
67-72-1	Hexachloroethane	ND	390	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	390	ug/kg	
78-59-1	Isophorone	ND	390	ug/kg	
91-57-6	2-Methylnaphthalene	ND	390	ug/kg	
88-74-4	2-Nitroaniline	ND	390	ug/kg	
99-09-2	3-Nitroaniline	ND	390	ug/kg	
100-01-6	4-Nitroaniline	ND	390	ug/kg	
91-20-3	Naphthalene	ND	390	ug/kg	
98-95-3	Nitrobenzene	ND	390	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	390	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	390	ug/kg	
85-01-8	Phenanthrene	ND	390	ug/kg	
129-00-0	Pyrene	ND	390	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	390	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	7% <sup>a</sup>	7% <sup>a</sup>	36-129%
4165-62-2	Phenol-d5	36% <sup>a</sup>	32% <sup>a</sup>	38-135%
118-79-6	2,4,6-Tribromophenol	0% <sup>a</sup>	0% <sup>a</sup>	37-144%
4165-60-0	Nitrobenzene-d5	77%	69%	36-135%
321-60-8	2-Fluorobiphenyl	82%	66%	44-135%
1718-51-0	Terphenyl-d14	92%	81%	42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-7-S04	<b>Date Sampled:</b> 01/19/01
<b>Lab Sample ID:</b> F8793-2	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 86.3
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

**ABN TCL List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
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(a) Confirmed by re-extraction and reanalysis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



**Report of Analysis**

<b>Client Sample ID:</b> RH-BR-7-S04	<b>Date Sampled:</b> 01/19/01
<b>Lab Sample ID:</b> F8793-2	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 86.3
<b>Method:</b> SW846 8015 M SW846 3550B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00956.D	1	02/01/01	NJ	01/31/01	OP2658	GZF44
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	22.3	9.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	73%		40-140%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-7-S04	<b>Date Sampled:</b> 01/19/01
<b>Lab Sample ID:</b> F8793-2	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 86.3
<b>Project:</b> CTO 229	

**Metals Analysis**

<b>Analyte</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>DF</b>	<b>Prep</b>	<b>Analyzed By</b>	<b>Method</b>
Lead	0.13 U	11.5	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

RL = Reporting Limit

**Report of Analysis**

Client Sample ID: RH-BR-7-S05  
 Lab Sample ID: F8793-3  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 01/19/01  
 Date Received: 01/25/01  
 Percent Solids: 95.0

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010836.D	1	02/01/01	NAF	n/a	n/a	VH267

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	52	ug/kg	
71-43-2	Benzene	ND	5.2	ug/kg	
75-27-4	Bromodichloromethane	ND	5.2	ug/kg	
75-25-2	Bromoform	ND	5.2	ug/kg	
108-90-7	Chlorobenzene	ND	5.2	ug/kg	
75-00-3	Chloroethane	ND	5.2	ug/kg	
67-66-3	Chloroform	ND	5.2	ug/kg	
75-15-0	Carbon disulfide	ND	10	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.2	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.2	ug/kg	
124-48-1	Dibromochloromethane	ND	5.2	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.2	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.2	ug/kg	
100-41-4	Ethylbenzene	ND	5.2	ug/kg	
591-78-6	2-Hexanone	ND	10	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/kg	
74-83-9	Methyl bromide	ND	5.2	ug/kg	
74-87-3	Methyl chloride	ND	5.2	ug/kg	
75-09-2	Methylene chloride	ND	10	ug/kg	
78-93-3	Methyl ethyl ketone	ND	10	ug/kg	
100-42-5	Styrene	ND	5.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.2	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.2	ug/kg	
108-88-3	Toluene	ND	5.2	ug/kg	
79-01-6	Trichloroethylene	ND	5.2	ug/kg	
75-01-4	Vinyl chloride	ND	5.2	ug/kg	
1330-20-7	Xylene (total)	ND	15	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-7-S05	<b>Date Sampled:</b> 01/19/01
<b>Lab Sample ID:</b> F8793-3	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 95.0
<b>Method:</b> SW846 8260B	
<b>Project:</b> CTO 229	

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		71-122%
2037-26-5	Toluene-D8	97%		73-128%
460-00-4	4-Bromofluorobenzene	98%		53-158%
17060-07-0	1,2-Dichloroethane-D4	103%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-7-S05	<b>Date Sampled:</b> 01/19/01
<b>Lab Sample ID:</b> F8793-3	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 95.0
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006381.D	1	02/02/01	ME	01/31/01	OP2655	SL382
Run #2							

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	880	ug/kg	
95-57-8	2-Chlorophenol	ND	350	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	350	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	350	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	880	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	880	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	700	ug/kg	
95-48-7	2-Methylphenol	ND	350	ug/kg	
	3&4-Methylphenol	ND	350	ug/kg	
88-75-5	2-Nitrophenol	ND	350	ug/kg	
100-02-7	4-Nitrophenol	ND	880	ug/kg	
87-86-5	Pentachlorophenol	ND	880	ug/kg	
108-95-2	Phenol	ND	350	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	350	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	350	ug/kg	
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	350	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	350	ug/kg	
50-32-8	Benzo(a)pyrene	ND	350	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	350	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	350	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	350	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	350	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	350	ug/kg	
100-51-6	Benzyl Alcohol	ND	350	ug/kg	
91-58-7	2-Chloronaphthalene	ND	350	ug/kg	
106-47-8	4-Chloroaniline	ND	350	ug/kg	
86-74-8	Carbazole	ND	350	ug/kg	
218-01-9	Chrysene	ND	350	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	350	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	350	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	350	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	350	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	350	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	350	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-7-S05	
<b>Lab Sample ID:</b> F8793-3	<b>Date Sampled:</b> 01/19/01
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 01/25/01
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 95.0
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	350	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	350	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	350	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	700	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	350	ug/kg	
132-64-9	Dibenzofuran	ND	350	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	350	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	350	ug/kg	
84-66-2	Diethyl phthalate	ND	350	ug/kg	
131-11-3	Dimethyl phthalate	ND	350	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	180	350	ug/kg	J
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
118-74-1	Hexachlorobenzene	ND	350	ug/kg	
87-68-3	Hexachlorobutadiene	ND	350	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	350	ug/kg	
67-72-1	Hexachloroethane	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	350	ug/kg	
78-59-1	Isophorone	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
88-74-4	2-Nitroaniline	ND	350	ug/kg	
99-09-2	3-Nitroaniline	ND	350	ug/kg	
100-01-6	4-Nitroaniline	ND	350	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
98-95-3	Nitrobenzene	ND	350	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	350	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	62%		36-129%
4165-62-2	Phenol-d5	67%		38-135%
118-79-6	2,4,6-Tribromophenol	73%		37-144%
4165-60-0	Nitrobenzene-d5	69%		36-135%
321-60-8	2-Fluorobiphenyl	81%		44-135%
1718-51-0	Terphenyl-d14	76%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> RH-BR-7-S05	<b>Date Sampled:</b> 01/19/01
<b>Lab Sample ID:</b> F8793-3	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 95.0
<b>Method:</b> SW846 8015 M SW846 3550B	
<b>Project:</b> CTO 229	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	ZF01016.D	5	02/06/01	SKW	01/31/01	OP2658	GZF47

CAS No.	Compound	Result	RL	Units Q
	TPH (C10-C28)	208	44	mg/kg

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	90%		40-140%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



**Client Sample ID:** RH-BR-7-S05

**Lab Sample ID:** F8793-3

**Matrix:** SO - Solid

**Project:** CTO 229

**Date Sampled:** 01/19/01

**Date Received:** 01/25/01

**Percent Solids:** 95.0

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.5	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

RL = Reporting Limit

**Client Sample ID:** RH-BR-6-S01  
**Lab Sample ID:** F8793-4  
**Matrix:** SO - Solid  
**Method:** SW846 8260B  
**Project:** CTO 229

**Date Sampled:** 01/19/01  
**Date Received:** 01/25/01  
**Percent Solids:** 82.0

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010766.D	50	01/26/01	NAF	n/a	n/a	VH262
Run #2							

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	2900	ug/kg	
71-43-2	Benzene	ND	290	ug/kg	
75-27-4	Bromodichloromethane	ND	290	ug/kg	
75-25-2	Bromoform	ND	290	ug/kg	
108-90-7	Chlorobenzene	ND	290	ug/kg	
75-00-3	Chloroethane	ND	290	ug/kg	
67-66-3	Chloroform	ND	290	ug/kg	
75-15-0	Carbon disulfide	ND	590	ug/kg	
56-23-5	Carbon tetrachloride	ND	290	ug/kg	
75-34-3	1,1-Dichloroethane	ND	290	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	290	ug/kg	
107-06-2	1,2-Dichloroethane	ND	290	ug/kg	
78-87-5	1,2-Dichloropropane	ND	290	ug/kg	
124-48-1	Dibromochloromethane	ND	290	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	290	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	290	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	290	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	290	ug/kg	
100-41-4	Ethylbenzene	ND	290	ug/kg	
591-78-6	2-Hexanone	ND	590	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	590	ug/kg	
74-83-9	Methyl bromide	ND	290	ug/kg	
74-87-3	Methyl chloride	ND	290	ug/kg	
75-09-2	Methylene chloride	ND	590	ug/kg	
78-93-3	Methyl ethyl ketone	ND	590	ug/kg	
100-42-5	Styrene	ND	290	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	290	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	290	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	290	ug/kg	
127-18-4	Tetrachloroethylene	ND	290	ug/kg	
108-88-3	Toluene	ND	290	ug/kg	
79-01-6	Trichloroethylene	ND	290	ug/kg	
75-01-4	Vinyl chloride	ND	290	ug/kg	
1330-20-7	Xylene (total)	ND	880	ug/kg	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-6-S01	<b>Date Sampled:</b> 01/19/01
<b>Lab Sample ID:</b> F8793-4	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 82.0
<b>Method:</b> SW846 8260B	
<b>Project:</b> CTO 229	

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		71-122%
2037-26-5	Toluene-D8	114%		73-128%
460-00-4	4-Bromofluorobenzene	96%		53-158%
17060-07-0	1,2-Dichloroethane-D4	94%		71-122%

(a) Dilution required due to matrix interference (non-target analytes present above calibration range). Sample introduction performed using method 5030A.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-6-S01	<b>Date Sampled:</b> 01/19/01
<b>Lab Sample ID:</b> F8793-4	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 82.0
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	W003822.D	40	02/05/01	ME	01/31/01	OP2655	SW222
Run #2 <sup>a</sup>	L006382.D	50	02/02/01	ME	01/31/01	OP2655	SL382

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND <sup>b</sup>	51000	ug/kg	
95-57-8	2-Chlorophenol	ND <sup>b</sup>	20000	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND <sup>b</sup>	20000	ug/kg	
120-83-2	2,4-Dichlorophenol	ND <sup>b</sup>	20000	ug/kg	
105-67-9	2,4-Dimethylphenol	ND <sup>b</sup>	51000	ug/kg	
51-28-5	2,4-Dinitrophenol	ND <sup>b</sup>	51000	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND <sup>b</sup>	41000	ug/kg	
95-48-7	2-Methylphenol	ND <sup>b</sup>	20000	ug/kg	
	3&4-Methylphenol	ND <sup>b</sup>	20000	ug/kg	
88-75-5	2-Nitrophenol	ND <sup>b</sup>	20000	ug/kg	
100-02-7	4-Nitrophenol	ND <sup>b</sup>	51000	ug/kg	
87-86-5	Pentachlorophenol	ND <sup>b</sup>	51000	ug/kg	
108-95-2	Phenol	ND <sup>b</sup>	20000	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND <sup>b</sup>	20000	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND <sup>b</sup>	20000	ug/kg	
83-32-9	Acenaphthene	ND <sup>b</sup>	20000	ug/kg	
208-96-8	Acenaphthylene	ND <sup>b</sup>	20000	ug/kg	
120-12-7	Anthracene	ND <sup>b</sup>	20000	ug/kg	
56-55-3	Benzo(a)anthracene	ND <sup>b</sup>	20000	ug/kg	
50-32-8	Benzo(a)pyrene	ND <sup>b</sup>	20000	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND <sup>b</sup>	20000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND <sup>b</sup>	20000	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND <sup>b</sup>	20000	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND <sup>b</sup>	20000	ug/kg	
85-68-7	Butyl benzyl phthalate	ND <sup>b</sup>	20000	ug/kg	
100-51-6	Benzyl Alcohol	ND <sup>b</sup>	20000	ug/kg	
91-58-7	2-Chloronaphthalene	ND <sup>b</sup>	20000	ug/kg	
106-47-8	4-Chloroaniline	ND <sup>b</sup>	20000	ug/kg	
86-74-8	Carbazole	ND <sup>b</sup>	20000	ug/kg	
218-01-9	Chrysene	ND <sup>b</sup>	20000	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND <sup>b</sup>	20000	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND <sup>b</sup>	20000	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND <sup>b</sup>	20000	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND <sup>b</sup>	20000	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND <sup>b</sup>	20000	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND <sup>b</sup>	20000	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Client Sample ID:	RH-BR-6-S01	Date Sampled:	01/19/01
Lab Sample ID:	F8793-4	Date Received:	01/25/01
Matrix:	SO - Solid	Percent Solids:	82.0
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND <sup>b</sup>	20000	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND <sup>b</sup>	20000	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND <sup>b</sup>	20000	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND <sup>b</sup>	41000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND <sup>b</sup>	20000	ug/kg	
132-64-9	Dibenzofuran	ND <sup>b</sup>	20000	ug/kg	
84-74-2	Di-n-butyl phthalate	ND <sup>b</sup>	20000	ug/kg	
117-84-0	Di-n-octyl phthalate	ND <sup>b</sup>	20000	ug/kg	
84-66-2	Diethyl phthalate	ND <sup>b</sup>	20000	ug/kg	
131-11-3	Dimethyl phthalate	ND <sup>b</sup>	20000	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND <sup>b</sup>	20000	ug/kg	
206-44-0	Fluoranthene	ND <sup>b</sup>	20000	ug/kg	
86-73-7	Fluorene	ND <sup>b</sup>	20000	ug/kg	
118-74-1	Hexachlorobenzene	ND <sup>b</sup>	20000	ug/kg	
87-68-3	Hexachlorobutadiene	ND <sup>b</sup>	20000	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND <sup>b</sup>	20000	ug/kg	
67-72-1	Hexachloroethane	ND <sup>b</sup>	20000	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND <sup>b</sup>	20000	ug/kg	
78-59-1	Isophorone	ND <sup>b</sup>	20000	ug/kg	
91-57-6	2-Methylnaphthalene	18900	16000	ug/kg	
88-74-4	2-Nitroaniline	ND <sup>b</sup>	20000	ug/kg	
99-09-2	3-Nitroaniline	ND <sup>b</sup>	20000	ug/kg	
100-01-6	4-Nitroaniline	ND <sup>b</sup>	20000	ug/kg	
91-20-3	Naphthalene	ND <sup>b</sup>	20000	ug/kg	
98-95-3	Nitrobenzene	ND <sup>b</sup>	20000	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND <sup>b</sup>	20000	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND <sup>b</sup>	20000	ug/kg	
85-01-8	Phenanthrene	10900 <sup>b</sup>	20000	ug/kg	J
129-00-0	Pyrene	ND <sup>b</sup>	20000	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND <sup>b</sup>	20000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	0% <sup>c</sup>	0% <sup>c</sup>	36-129%
4165-62-2	Phenol-d5	0% <sup>c</sup>	0% <sup>c</sup>	38-135%
118-79-6	2,4,6-Tribromophenol	0% <sup>c</sup>	0% <sup>c</sup>	37-144%
4165-60-0	Nitrobenzene-d5	0% <sup>c</sup>	0% <sup>c</sup>	36-135%
321-60-8	2-Fluorobiphenyl	0% <sup>c</sup>	0% <sup>c</sup>	44-135%
1718-51-0	Terphenyl-d14	0% <sup>c</sup>	0% <sup>c</sup>	42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-6-S01	<b>Date Sampled:</b> 01/19/01
<b>Lab Sample ID:</b> F8793-4	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 82.0
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

**ABN TCL List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
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- (a) Dilution required due to matrix interference.
- (b) Result is from Run# 2
- (c) Outside control limits due to dilution.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b> RH-BR-6-S01		
<b>Lab Sample ID:</b> F8793-4		<b>Date Sampled:</b> 01/19/01
<b>Matrix:</b> SO - Solid		<b>Date Received:</b> 01/25/01
<b>Method:</b> SW846 8015 M SW846 3550B		<b>Percent Solids:</b> 82.0
<b>Project:</b> CTO 229		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF01017.D	200	02/06/01	SKW	01/31/01	OP2658	GZF47
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	10200	2000	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% <sup>a</sup>		40-140%

(a) Outside control limits due to dilution.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-6-S01	<b>Date Sampled:</b> 01/19/01
<b>Lab Sample ID:</b> F8793-4	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 82.0
<b>Project:</b> CTO 229	

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	11.3 B	11.8	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

RL = Reporting Limit



<b>Client Sample ID:</b> RH-BR-6-S02	
<b>Lab Sample ID:</b> F8793-5	<b>Date Sampled:</b> 01/19/01
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 01/25/01
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 70.0
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010777.D	50	01/29/01	NAF	n/a	n/a	VH263
Run #2							

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	3400	ug/kg	
71-43-2	Benzene	ND	340	ug/kg	
75-27-4	Bromodichloromethane	ND	340	ug/kg	
75-25-2	Bromoform	ND	340	ug/kg	
108-90-7	Chlorobenzene	ND	340	ug/kg	
75-00-3	Chloroethane	ND	340	ug/kg	
67-66-3	Chloroform	ND	340	ug/kg	
75-15-0	Carbon disulfide	ND	690	ug/kg	
56-23-5	Carbon tetrachloride	ND	340	ug/kg	
75-34-3	1,1-Dichloroethane	ND	340	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	340	ug/kg	
107-06-2	1,2-Dichloroethane	ND	340	ug/kg	
78-87-5	1,2-Dichloropropane	ND	340	ug/kg	
124-48-1	Dibromochloromethane	ND	340	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	340	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	340	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	340	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	340	ug/kg	
100-41-4	Ethylbenzene	ND	340	ug/kg	
591-78-6	2-Hexanone	ND	690	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	690	ug/kg	
74-83-9	Methyl bromide	ND	340	ug/kg	
74-87-3	Methyl chloride	ND	340	ug/kg	
75-09-2	Methylene chloride	ND	690	ug/kg	
78-93-3	Methyl ethyl ketone	ND	690	ug/kg	
100-42-5	Styrene	ND	340	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	340	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	340	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	340	ug/kg	
127-18-4	Tetrachloroethylene	ND	340	ug/kg	
108-88-3	Toluene	ND	340	ug/kg	
79-01-6	Trichloroethylene	ND	340	ug/kg	
75-01-4	Vinyl chloride	ND	340	ug/kg	
1330-20-7	Xylene (total)	ND	1000	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 2 of 2

Client Sample ID: RH-BR-6-S02  
Lab Sample ID: F8793-5  
Matrix: SO - Solid  
Method: SW846 8260B  
Project: CTO 229

Date Sampled: 01/19/01  
Date Received: 01/25/01  
Percent Solids: 70.0

### VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		71-122%
2037-26-5	Toluene-D8	98%		73-128%
460-00-4	4-Bromofluorobenzene	99%		53-158%
17060-07-0	1,2-Dichloroethane-D4	106%		71-122%

(a) Dilution required due to matrix interference (non-target analytes present above calibration range). Sample introduction performed using method 5030A.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-6-S02	
<b>Lab Sample ID:</b> F8793-5	<b>Date Sampled:</b> 01/19/01
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 01/25/01
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 70.0
<b>Project:</b> CTO 229	

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	L006383.D	50	02/02/01	ME	01/31/01	OP2655	SL382

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	60000	ug/kg	
95-57-8	2-Chlorophenol	ND	24000	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	24000	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	24000	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	60000	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	60000	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	48000	ug/kg	
95-48-7	2-Methylphenol	ND	24000	ug/kg	
	3&4-Methylphenol	ND	24000	ug/kg	
88-75-5	2-Nitrophenol	ND	24000	ug/kg	
100-02-7	4-Nitrophenol	ND	60000	ug/kg	
87-86-5	Pentachlorophenol	ND	60000	ug/kg	
108-95-2	Phenol	ND	24000	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	24000	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	24000	ug/kg	
83-32-9	Acenaphthene	ND	24000	ug/kg	
208-96-8	Acenaphthylene	ND	24000	ug/kg	
120-12-7	Anthracene	ND	24000	ug/kg	
56-55-3	Benzo(a)anthracene	ND	24000	ug/kg	
50-32-8	Benzo(a)pyrene	ND	24000	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	24000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	24000	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	24000	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	24000	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	24000	ug/kg	
100-51-6	Benzyl Alcohol	ND	24000	ug/kg	
91-58-7	2-Chloronaphthalene	ND	24000	ug/kg	
106-47-8	4-Chloroaniline	ND	24000	ug/kg	
86-74-8	Carbazole	ND	24000	ug/kg	
218-01-9	Chrysene	ND	24000	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	24000	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	24000	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	24000	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	24000	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	24000	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	24000	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Client Sample ID:	RH-BR-6-S02		Date Sampled:	01/19/01
Lab Sample ID:	F8793-5		Date Received:	01/25/01
Matrix:	SO - Solid		Percent Solids:	70.0
Method:	SW846 8270C	SW846 3550B		
Project:	CTO 229			

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	24000	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	24000	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	24000	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	48000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	24000	ug/kg	
132-64-9	Dibenzofuran	ND	24000	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	24000	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	24000	ug/kg	
84-66-2	Diethyl phthalate	ND	24000	ug/kg	
131-11-3	Dimethyl phthalate	ND	24000	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	24000	ug/kg	
206-44-0	Fluoranthene	ND	24000	ug/kg	
86-73-7	Fluorene	ND	24000	ug/kg	
118-74-1	Hexachlorobenzene	ND	24000	ug/kg	
87-68-3	Hexachlorobutadiene	ND	24000	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	24000	ug/kg	
67-72-1	Hexachloroethane	ND	24000	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	24000	ug/kg	
78-59-1	Isophorone	ND	24000	ug/kg	
91-57-6	2-Methylnaphthalene	ND	24000	ug/kg	
88-74-4	2-Nitroaniline	ND	24000	ug/kg	
99-09-2	3-Nitroaniline	ND	24000	ug/kg	
100-01-6	4-Nitroaniline	ND	24000	ug/kg	
91-20-3	Naphthalene	ND	24000	ug/kg	
98-95-3	Nitrobenzene	ND	24000	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	24000	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	24000	ug/kg	
85-01-8	Phenanthrene	ND	24000	ug/kg	
129-00-0	Pyrene	8450	24000	ug/kg	J
120-82-1	1,2,4-Trichlorobenzene	ND	24000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	0% <sup>b</sup>		36-129%
4165-62-2	Phenol-d5	0% <sup>b</sup>		38-135%
118-79-6	2,4,6-Tribromophenol	0% <sup>b</sup>		37-144%
4165-60-0	Nitrobenzene-d5	0% <sup>b</sup>		36-135%
321-60-8	2-Fluorobiphenyl	0% <sup>b</sup>		44-135%
1718-51-0	Terphenyl-d14	0% <sup>b</sup>		42-149%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b> RH-BR-6-S02	<b>Date Sampled:</b> 01/19/01
<b>Lab Sample ID:</b> F8793-5	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 70.0
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

### ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
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- (a) Dilution required due to matrix interference.
- (b) Outside control limits due to dilution.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b> RH-BR-6-S02	<b>Date Sampled:</b> 01/19/01
<b>Lab Sample ID:</b> F8793-5	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 70.0
<b>Method:</b> SW846 8015 M SW846 3550B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF01018.D	500	02/06/01	SKW	01/31/01	OP2658	GZF47
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	43100	6000	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% <sup>a</sup>		40-140%

(a) Outside control limits due to dilution.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-6-S02	<b>Date Sampled:</b> 01/19/01
<b>Lab Sample ID:</b> F8793-5	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 70.0
<b>Project:</b> CTO 229	

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	11.2 B	14.7	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

RL = Reporting Limit



# Report of Analysis

<b>Client Sample ID:</b> RH-MW-6-S01	
<b>Lab Sample ID:</b> F8793-6	<b>Date Sampled:</b> 01/19/01
<b>Matrix:</b> SO - Oil	<b>Date Received:</b> 01/25/01
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 9.2
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H010776.D	5000	01/29/01	NAF	n/a	n/a	VH266
Run #2							

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	250000	ug/kg	
71-43-2	Benzene	ND	25000	ug/kg	
75-27-4	Bromodichloromethane	ND	25000	ug/kg	
75-25-2	Bromoform	ND	25000	ug/kg	
108-90-7	Chlorobenzene	ND	25000	ug/kg	
75-00-3	Chloroethane	ND	25000	ug/kg	
67-66-3	Chloroform	ND	25000	ug/kg	
75-15-0	Carbon disulfide	ND	50000	ug/kg	
56-23-5	Carbon tetrachloride	ND	25000	ug/kg	
75-34-3	1,1-Dichloroethane	ND	25000	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	25000	ug/kg	
107-06-2	1,2-Dichloroethane	ND	25000	ug/kg	
78-87-5	1,2-Dichloropropane	ND	25000	ug/kg	
124-48-1	Dibromochloromethane	ND	25000	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	25000	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	25000	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	25000	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	25000	ug/kg	
100-41-4	Ethylbenzene	ND	25000	ug/kg	
591-78-6	2-Hexanone	ND	50000	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	50000	ug/kg	
74-83-9	Methyl bromide	ND	25000	ug/kg	
74-87-3	Methyl chloride	ND	25000	ug/kg	
75-09-2	Methylene chloride	ND	50000	ug/kg	
78-93-3	Methyl ethyl ketone	ND	50000	ug/kg	
100-42-5	Styrene	ND	25000	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	25000	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	25000	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	25000	ug/kg	
127-18-4	Tetrachloroethylene	ND	25000	ug/kg	
108-88-3	Toluene	ND	25000	ug/kg	
79-01-6	Trichloroethylene	ND	25000	ug/kg	
75-01-4	Vinyl chloride	ND	25000	ug/kg	
1330-20-7	Xylene (total)	ND	75000	ug/kg	

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



**Client Sample ID:** RH-MW-6-S01  
**Lab Sample ID:** F8793-6  
**Matrix:** SO - Oil  
**Method:** SW846 8260B  
**Project:** CTO 229

**Date Sampled:** 01/19/01  
**Date Received:** 01/25/01  
**Percent Solids:** 9.2

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		71-122%
2037-26-5	Toluene-D8	99%		73-128%
460-00-4	4-Bromofluorobenzene	96%		53-158%
17060-07-0	1,2-Dichloroethane-D4	98%		71-122%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-MW-6-S01	
<b>Lab Sample ID:</b> F8793-6	<b>Date Sampled:</b> 01/19/01
<b>Matrix:</b> SO - Oil	<b>Date Received:</b> 01/25/01
<b>Method:</b> SW846 8270C SW846 3580A	<b>Percent Solids:</b> 9.2
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L006363.D	1	02/01/01	ME	01/31/01	OP2661	SL381
Run #2							

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	250000	ug/kg	
95-57-8	2-Chlorophenol	ND	100000	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	100000	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	100000	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	250000	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	250000	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	200000	ug/kg	
95-48-7	2-Methylphenol	ND	100000	ug/kg	
	3&4-Methylphenol	ND	100000	ug/kg	
88-75-5	2-Nitrophenol	ND	100000	ug/kg	
100-02-7	4-Nitrophenol	ND	250000	ug/kg	
87-86-5	Pentachlorophenol	ND	250000	ug/kg	
108-95-2	Phenol	ND	100000	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	100000	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	100000	ug/kg	
83-32-9	Acenaphthene	ND	100000	ug/kg	
208-96-8	Acenaphthylene	ND	100000	ug/kg	
120-12-7	Anthracene	ND	100000	ug/kg	
56-55-3	Benzo(a)anthracene	ND	100000	ug/kg	
50-32-8	Benzo(a)pyrene	ND	100000	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100000	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100000	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	100000	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	100000	ug/kg	
100-51-6	Benzyl Alcohol	ND	100000	ug/kg	
91-58-7	2-Chloronaphthalene	ND	100000	ug/kg	
106-47-8	4-Chloroaniline	ND	100000	ug/kg	
86-74-8	Carbazole	ND	100000	ug/kg	
218-01-9	Chrysene	ND	100000	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	100000	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	100000	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	100000	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	100000	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	100000	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	100000	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Client Sample ID: RH-MW-6-S01

Lab Sample ID: F8793-6

Date Sampled: 01/19/01

Matrix: SO - Oil

Date Received: 01/25/01

Method: SW846 8270C SW846 3580A

Percent Solids: 9.2

Project: CTO 229

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	100000	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	100000	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	100000	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	200000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100000	ug/kg	
132-64-9	Dibenzofuran	ND	100000	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	100000	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	100000	ug/kg	
84-66-2	Diethyl phthalate	ND	100000	ug/kg	
131-11-3	Dimethyl phthalate	ND	100000	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	100000	ug/kg	
206-44-0	Fluoranthene	ND	100000	ug/kg	
86-73-7	Fluorene	ND	100000	ug/kg	
118-74-1	Hexachlorobenzene	ND	100000	ug/kg	
87-68-3	Hexachlorobutadiene	ND	100000	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	100000	ug/kg	
67-72-1	Hexachloroethane	ND	100000	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100000	ug/kg	
78-59-1	Isophorone	ND	100000	ug/kg	
91-57-6	2-Methylnaphthalene	36800	100000	ug/kg	J
88-74-4	2-Nitroaniline	ND	100000	ug/kg	
99-09-2	3-Nitroaniline	ND	100000	ug/kg	
100-01-6	4-Nitroaniline	ND	100000	ug/kg	
91-20-3	Naphthalene	ND	100000	ug/kg	
98-95-3	Nitrobenzene	ND	100000	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	100000	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	100000	ug/kg	
85-01-8	Phenanthrene	ND	100000	ug/kg	
129-00-0	Pyrene	ND	100000	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	100000	ug/kg	

(a) Sample only partly miscible in methylene chloride. Reported results are considered minimum values.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



# Report of Analysis

Client Sample ID:	RH-MW-6-S01		Date Sampled:	01/19/01
Lab Sample ID:	F8793-6		Date Received:	01/25/01
Matrix:	SO - Oil		Percent Solids:	9.2
Method:	SW846 8015 M SW846 3580A			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	ZF01021.D	2	02/06/01	SKW	01/31/01	OP2662	GZF47
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	29500	5000	mg/kg	

(a) Sample only partly miscible in methylene chloride. Reported results are considered minimum values.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-MW-6-S01	<b>Date Sampled:</b> 01/19/01
<b>Lab Sample ID:</b> F8793-6	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Oil	<b>Percent Solids:</b> 9.2
<b>Project:</b> CTO 229	

**Metals Analysis**

<b>Analyte</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>DF</b>	<b>Prep</b>	<b>Analyzed By</b>	<b>Method</b>
Lead	27.5 B	105	mg/kg	1	02/06/01	02/07/01 JK	SW846 6010B

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b> RH-BR-6-S03	<b>Date Sampled:</b> 01/22/01
<b>Lab Sample ID:</b> F8793-7	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 95.2
<b>Method:</b> SW846 8260B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010764.D	1	01/26/01	NAF	n/a	n/a	VH262
Run #2							

### VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	52	ug/kg	
71-43-2	Benzene	ND	5.2	ug/kg	
75-27-4	Bromodichloromethane	ND	5.2	ug/kg	
75-25-2	Bromoform	ND	5.2	ug/kg	
108-90-7	Chlorobenzene	ND	5.2	ug/kg	
75-00-3	Chloroethane	ND	5.2	ug/kg	
67-66-3	Chloroform	ND	5.2	ug/kg	
75-15-0	Carbon disulfide	ND	10	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.2	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.2	ug/kg	
124-48-1	Dibromochloromethane	ND	5.2	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.2	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.2	ug/kg	
100-41-4	Ethylbenzene	ND	5.2	ug/kg	
591-78-6	2-Hexanone	ND	10	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/kg	
74-83-9	Methyl bromide	ND	5.2	ug/kg	
74-87-3	Methyl chloride	ND	5.2	ug/kg	
75-09-2	Methylene chloride	ND	10	ug/kg	
78-93-3	Methyl ethyl ketone	ND	10	ug/kg	
100-42-5	Styrene	ND	5.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.2	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.2	ug/kg	
108-88-3	Toluene	ND	5.2	ug/kg	
79-01-6	Trichloroethylene	ND	5.2	ug/kg	
75-01-4	Vinyl chloride	ND	5.2	ug/kg	
1330-20-7	Xylene (total)	ND	16	ug/kg	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Client Sample ID:** RH-BR-6-S03  
**Lab Sample ID:** F8793-7  
**Matrix:** SO - Solid  
**Method:** SW846 8260B  
**Project:** CTO 229

**Date Sampled:** 01/22/01  
**Date Received:** 01/25/01  
**Percent Solids:** 95.2

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		71-122%
2037-26-5	Toluene-D8	102%		73-128%
460-00-4	4-Bromofluorobenzene	103%		53-158%
17060-07-0	1,2-Dichloroethane-D4	94%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-6-S03	<b>Date Sampled:</b> 01/22/01
<b>Lab Sample ID:</b> F8793-7	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 95.2
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006384.D	1	02/02/01	ME	01/31/01	OP2655	SL382
Run #2							

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	880	ug/kg	
95-57-8	2-Chlorophenol	ND	350	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	350	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	350	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	880	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	880	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	700	ug/kg	
95-48-7	2-Methylphenol	ND	350	ug/kg	
	3&4-Methylphenol	ND	350	ug/kg	
88-75-5	2-Nitrophenol	ND	350	ug/kg	
100-02-7	4-Nitrophenol	ND	880	ug/kg	
87-86-5	Pentachlorophenol	ND	880	ug/kg	
108-95-2	Phenol	ND	350	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	350	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	350	ug/kg	
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	350	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	350	ug/kg	
50-32-8	Benzo(a)pyrene	ND	350	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	350	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	350	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	350	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	350	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	350	ug/kg	
100-51-6	Benzyl Alcohol	ND	350	ug/kg	
91-58-7	2-Chloronaphthalene	ND	350	ug/kg	
106-47-8	4-Chloroaniline	ND	350	ug/kg	
86-74-8	Carbazole	ND	350	ug/kg	
218-01-9	Chrysene	ND	350	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	350	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	350	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	350	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	350	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	350	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	350	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-6-S03	
<b>Lab Sample ID:</b> F8793-7	<b>Date Sampled:</b> 01/22/01
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 01/25/01
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 95.2
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	350	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	350	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	350	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	700	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	350	ug/kg	
132-64-9	Dibenzofuran	ND	350	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	350	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	350	ug/kg	
84-66-2	Diethyl phthalate	ND	350	ug/kg	
131-11-3	Dimethyl phthalate	ND	350	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	265	350	ug/kg	J
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
118-74-1	Hexachlorobenzene	ND	350	ug/kg	
87-68-3	Hexachlorobutadiene	ND	350	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	350	ug/kg	
67-72-1	Hexachloroethane	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	350	ug/kg	
78-59-1	Isophorone	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
88-74-4	2-Nitroaniline	ND	350	ug/kg	
99-09-2	3-Nitroaniline	ND	350	ug/kg	
100-01-6	4-Nitroaniline	ND	350	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
98-95-3	Nitrobenzene	ND	350	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	350	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	54%		36-129%
4165-62-2	Phenol-d5	58%		38-135%
118-79-6	2,4,6-Tribromophenol	76%		37-144%
4165-60-0	Nitrobenzene-d5	57%		36-135%
321-60-8	2-Fluorobiphenyl	64%		44-135%
1718-51-0	Terphenyl-d14	81%		42-149%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



**Client Sample ID:** RH-BR-6-S03

**Lab Sample ID:** F8793-7

**Matrix:** SO - Solid

**Method:** SW846 8015 M SW846 3550B

**Project:** CTO 229

**Date Sampled:** 01/22/01

**Date Received:** 01/25/01

**Percent Solids:** 95.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00960.D	1	02/01/01	NJ	01/31/01	OP2658	GZF44
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	8.83	8.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	69%		40-140%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



# Report of Analysis

Client Sample ID: RH-BR-6-S03  
Lab Sample ID: F8793-7  
Matrix: SO - Solid  
Project: CTO 229

Date Sampled: 01/22/01  
Date Received: 01/25/01  
Percent Solids: 95.2

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.3	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

RL = Reporting Limit



## Report of Analysis

Client Sample ID: RH-BR-6-D07  
 Lab Sample ID: F8793-8  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 01/22/01  
 Date Received: 01/25/01  
 Percent Solids: 90.7

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010765.D	1	01/26/01	NAF	n/a	n/a	VH262

### VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	54	ug/kg	
71-43-2	Benzene	ND	5.4	ug/kg	
75-27-4	Bromodichloromethane	ND	5.4	ug/kg	
75-25-2	Bromoform	ND	5.4	ug/kg	
108-90-7	Chlorobenzene	ND	5.4	ug/kg	
75-00-3	Chloroethane	ND	5.4	ug/kg	
67-66-3	Chloroform	ND	5.4	ug/kg	
75-15-0	Carbon disulfide	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.4	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.4	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.4	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.4	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.4	ug/kg	
124-48-1	Dibromochloromethane	ND	5.4	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.4	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.4	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.4	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.4	ug/kg	
100-41-4	Ethylbenzene	ND	5.4	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	11	ug/kg	
74-83-9	Methyl bromide	ND	5.4	ug/kg	
74-87-3	Methyl chloride	ND	5.4	ug/kg	
75-09-2	Methylene chloride	ND	11	ug/kg	
78-93-3	Methyl ethyl ketone	ND	11	ug/kg	
100-42-5	Styrene	ND	5.4	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.4	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.4	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.4	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.4	ug/kg	
108-88-3	Toluene	ND	5.4	ug/kg	
79-01-6	Trichloroethylene	ND	5.4	ug/kg	
75-01-4	Vinyl chloride	ND	5.4	ug/kg	
1330-20-7	Xylene (total)	ND	16	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Client Sample ID:** RH-BR-6-D07

**Lab Sample ID:** F8793-8

**Matrix:** SO - Solid

**Method:** SW846 8260B

**Project:** CTO 229

**Date Sampled:** 01/22/01

**Date Received:** 01/25/01

**Percent Solids:** 90.7

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		71-122%
2037-26-5	Toluene-D8	102%		73-128%
460-00-4	4-Bromofluorobenzene	109%		53-158%
17060-07-0	1,2-Dichloroethane-D4	96%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Client Sample ID: RH-BR-6-D07

Lab Sample ID: F8793-8

Date Sampled: 01/22/01

Matrix: SO - Solid

Date Received: 01/25/01

Method: SW846 8270C SW846 3550B

Percent Solids: 90.7

Project: CTO 229

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006387.D	1	02/02/01	ME	01/31/01	OP2655	SL382
Run #2							

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	920	ug/kg	
95-57-8	2-Chlorophenol	ND	370	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	370	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	370	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	920	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	920	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	730	ug/kg	
95-48-7	2-Methylphenol	ND	370	ug/kg	
	3&4-Methylphenol	ND	370	ug/kg	
88-75-5	2-Nitrophenol	ND	370	ug/kg	
100-02-7	4-Nitrophenol	ND	920	ug/kg	
87-86-5	Pentachlorophenol	ND	920	ug/kg	
108-95-2	Phenol	ND	370	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	370	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	370	ug/kg	
83-32-9	Acenaphthene	ND	370	ug/kg	
208-96-8	Acenaphthylene	ND	370	ug/kg	
120-12-7	Anthracene	ND	370	ug/kg	
56-55-3	Benzo(a)anthracene	ND	370	ug/kg	
50-32-8	Benzo(a)pyrene	ND	370	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	370	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	370	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	370	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	370	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	370	ug/kg	
100-51-6	Benzyl Alcohol	ND	370	ug/kg	
91-58-7	2-Chloronaphthalene	ND	370	ug/kg	
106-47-8	4-Chloroaniline	ND	370	ug/kg	
86-74-8	Carbazole	ND	370	ug/kg	
218-01-9	Chrysene	ND	370	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	370	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	370	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	370	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	370	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	370	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	370	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-6-D07	<b>Date Sampled:</b> 01/22/01
<b>Lab Sample ID:</b> F8793-8	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 90.7
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	370	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	370	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	370	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	730	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	370	ug/kg	
132-64-9	Dibenzofuran	ND	370	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	370	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	370	ug/kg	
84-66-2	Diethyl phthalate	ND	370	ug/kg	
131-11-3	Dimethyl phthalate	ND	370	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	456	370	ug/kg	
206-44-0	Fluoranthene	ND	370	ug/kg	
86-73-7	Fluorene	ND	370	ug/kg	
118-74-1	Hexachlorobenzene	ND	370	ug/kg	
87-68-3	Hexachlorobutadiene	ND	370	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	370	ug/kg	
67-72-1	Hexachloroethane	ND	370	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	370	ug/kg	
78-59-1	Isophorone	ND	370	ug/kg	
91-57-6	2-Methylnaphthalene	ND	370	ug/kg	
88-74-4	2-Nitroaniline	ND	370	ug/kg	
99-09-2	3-Nitroaniline	ND	370	ug/kg	
100-01-6	4-Nitroaniline	ND	370	ug/kg	
91-20-3	Naphthalene	ND	370	ug/kg	
98-95-3	Nitrobenzene	ND	370	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	370	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	370	ug/kg	
85-01-8	Phenanthrene	ND	370	ug/kg	
129-00-0	Pyrene	ND	370	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	370	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	62%		36-129%
4165-62-2	Phenol-d5	65%		38-135%
118-79-6	2,4,6-Tribromophenol	81%		37-144%
4165-60-0	Nitrobenzene-d5	65%		36-135%
321-60-8	2-Fluorobiphenyl	76%		44-135%
1718-51-0	Terphenyl-d14	92%		42-149%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> RH-BR-6-D07	
<b>Lab Sample ID:</b> F8793-8	<b>Date Sampled:</b> 01/22/01
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 01/25/01
<b>Method:</b> SW846 8015 M SW846 3550B	<b>Percent Solids:</b> 90.7
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00961.D	1	02/01/01	NJ	01/31/01	OP2658	GZF44
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	9.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	61%		40-140%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-6-D07	<b>Date Sampled:</b> 01/22/01
<b>Lab Sample ID:</b> F8793-8	<b>Date Received:</b> 01/25/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 90.7
<b>Project:</b> CTO 229	

**Metals Analysis**

<b>Analyte</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>DF</b>	<b>Prep</b>	<b>Analyzed By</b>	<b>Method</b>
Lead	0.13 U	10.8	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

RL = Reporting Limit

# SECTION 5



# CHAIN OF CUSTODY

4405 VINELAND BLVD • SUITE C-15  
ORLANDO, FL 32811  
TEL: 407-425-6700 • FAX: 407-425-0707

ACCUTEST JOB #:  
ACCUTEST QUOTE #:

CLIENT INFORMATION  
 Oqden Environmental & Energy Services, Inc  
 NAME  
 2414 Westrup Blvd, Suite 107  
 ADDRESS  
 Huntsville, AL 35805  
 CITY, STATE ZIP  
 Kent Earths  
 SEND REPORT TO:  
 PHONE # (256) 581-3016

FACILITY INFORMATION  
 Red Hill Bulk Fuel Storage  
 PROJECT NAME  
 OSHA H I  
 LOCATION  
 1-1019-0204  
 PROJECT NO.  
 FAX # (256) 539-3074

ACCUTEST SAMPLE #  
 FORMS / Trip Blank  
 Temp Blank  
 -2 RH-BR-7-5φ4  
 -3 RH-BR-7-5φ5  
 -4 RH-BR-6-5φ1  
 -5 RH-BR-6-5φ2  
 -6 RH-MW-6-5φ1  
 -7 RH-BR-6-5φ3  
 -8 RH-BR-6-5φ7

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		MATRIX	PRESERVATION			
		DATE	TIME		NO. OF BOTTLES	COOL	SHAKE	NO. OF FILTERS
-	-	-	-	LIG	1			X
-	-	-	-	LIG	1			
-2	RH-BR-7-5φ4	1/19/01	08:14	JLD	3			X
-3	RH-BR-7-5φ5	1/19/01	08:41	JLP	3			X
-4	RH-BR-6-5φ1	1/19/01	14:13	JLD/ GWA	3			X
-5	RH-BR-6-5φ2	1/19/01	15:30	JLD	3			X
-6	RH-MW-6-5φ1	1/19/01	14:18	JLD	4			X
-7	RH-BR-6-5φ3	1/22/01	10:53	JLD	3			X
-8	RH-BR-6-5φ7	1/22/01	10:53	JLD	3			X

ANALYTICAL INFORMATION  
 VCC CLR OLM φ3.2  
 S00C CLR OLM φ3.2  
 Lead CLR HLM φ.1  
 TPH 95 Fuel φ15.0

MATRIX CODES  
 DW - DRINKING WATER  
 GW - GROUND WATER  
 WW - WASTE WATER  
 SO - SOIL  
 SL - SLUDGE  
 LIQ - OTHER LIQUID  
 SOL - OTHER SOLID  
 LAB USE ONLY

DATA TURNAROUND INFORMATION  
 STANDARD  
 48 HOUR RUSH  
 24 HOUR EMERGENCY  
 OTHER  
 EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

APPROVED BY: \_\_\_\_\_

DATA DELIVERABLE INFORMATION  
 STANDARD  
 COMMERCIAL "B"  
 DISK DELIVERABLE  
 STATE FORMS  
 OTHER (SPECIFY) \_\_\_\_\_

COMMENTS/REMARKS  
 RH-BR-6-5φ2 1.25 Full Jars of 2.25  
 RH-MW-6-5φ1 1-3 VOA's of 6 and  
 1 - liter Jar

RECEIVED BY: 1. *Steve Z...* 1/25/01  
 RECEIVED BY: 2. \_\_\_\_\_  
 RECEIVED BY: 3. \_\_\_\_\_  
 RECEIVED BY: 4. \_\_\_\_\_  
 RECEIVED BY: 5. \_\_\_\_\_

DATE TIME: 1/23/01 15:23  
 DATE TIME: \_\_\_\_\_  
 DATE TIME: \_\_\_\_\_  
 DATE TIME: \_\_\_\_\_

RELINQUISHED BY: 1. \_\_\_\_\_  
 RELINQUISHED BY: 2. \_\_\_\_\_  
 RELINQUISHED BY: 3. \_\_\_\_\_  
 RELINQUISHED BY: 4. \_\_\_\_\_  
 RELINQUISHED BY: 5. \_\_\_\_\_

SEAL # \_\_\_\_\_  
 PRESERVE WHERE APPLICABLE  ON ICE  TEMPERATURE \_\_\_\_\_ C

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

TANK 7

Technical Report for

Ogden Environmental

CTO 229

1-1019-0229

Accutest Job Number: F8754

Report to:

Ogden Environmental  
2904 Westcorp Blvd.  
Suite 204  
Huntsville, AL 35805

ATTN: Kent Evetts

Total number of pages in report: 684



Harry Behzadi, Ph.D.  
Laboratory Director

Results relate only to the items tested.

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.





### Sample Summary

Ogden Environmental

Job No: F8754

CTO 229

Project No: 1-1019-0229

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F8754-1	01/18/01	00:00 JLD	01/22/01	AQ	Trip Blank Soil	TRIP BLANK
F8754-2	01/17/01	13:50 JLD	01/22/01	SO	Solid	RH-BR-7-S01
F8754-3	01/18/01	10:35 JLD	01/22/01	SO	Solid	RH-BR-7-S02
F8754-4	01/18/01	15:28 JLD	01/22/01	SO	Solid	RH-BR-7-S03

## Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	01/18/01
Lab Sample ID:	F8754-1	Date Received:	01/22/01
Matrix:	AQ - Trip Blank Soil	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B003634.D	1	01/24/01	JG	n/a	n/a	VB138
Run #2							

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	ug/l	
75-25-2	Bromoform	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	10	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	5.0	ug/l	
74-87-3	Methyl chloride	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
100-42-5	Styrene	ND	2.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	01/18/01
Lab Sample ID:	F8754-1	Date Received:	01/22/01
Matrix:	AQ - Trip Blank Soil	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		69-128%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S01	Date Sampled:	01/17/01
Lab Sample ID:	F8754-2	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	80.0
Method:	SW846 8260B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H010787.D	1	01/30/01	NAF	n/a	n/a	VH264
Run #2 <sup>a</sup>	H010806.D	1	01/31/01	NAF	n/a	n/a	VH265

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	29.5 <sup>b</sup>	60	ug/kg	J
71-43-2	Benzene	ND <sup>b</sup>	6.0	ug/kg	
75-27-4	Bromodichloromethane	ND <sup>b</sup>	6.0	ug/kg	
75-25-2	Bromoform	ND <sup>b</sup>	6.0	ug/kg	
108-90-7	Chlorobenzene	ND <sup>b</sup>	6.0	ug/kg	
75-00-3	Chloroethane	ND <sup>b</sup>	6.0	ug/kg	
67-66-3	Chloroform	ND <sup>b</sup>	6.0	ug/kg	
75-15-0	Carbon disulfide	ND <sup>b</sup>	12	ug/kg	
56-23-5	Carbon tetrachloride	ND <sup>b</sup>	6.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND <sup>b</sup>	6.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND <sup>b</sup>	6.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND <sup>b</sup>	6.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND <sup>b</sup>	6.0	ug/kg	
124-48-1	Dibromochloromethane	ND <sup>b</sup>	6.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND <sup>b</sup>	6.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND <sup>b</sup>	6.0	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND <sup>b</sup>	6.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND <sup>b</sup>	6.0	ug/kg	
100-41-4	Ethylbenzene	ND <sup>b</sup>	6.0	ug/kg	
591-78-6	2-Hexanone	ND <sup>b</sup>	12	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND <sup>b</sup>	12	ug/kg	
74-83-9	Methyl bromide	ND <sup>b</sup>	6.0	ug/kg	
74-87-3	Methyl chloride	ND <sup>b</sup>	6.0	ug/kg	
75-09-2	Methylene chloride	ND <sup>b</sup>	12	ug/kg	
78-93-3	Methyl ethyl ketone	ND <sup>b</sup>	12	ug/kg	
100-42-5	Styrene	ND <sup>b</sup>	6.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND <sup>b</sup>	6.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND <sup>b</sup>	6.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND <sup>b</sup>	6.0	ug/kg	
127-18-4	Tetrachloroethylene	ND <sup>b</sup>	6.0	ug/kg	
108-88-3	Toluene	ND <sup>b</sup>	6.0	ug/kg	
79-01-6	Trichloroethylene	ND <sup>b</sup>	6.0	ug/kg	
75-01-4	Vinyl chloride	ND <sup>b</sup>	6.0	ug/kg	
1330-20-7	Xylene (total)	ND <sup>b</sup>	18	ug/kg	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S01	Date Sampled:	01/17/01
Lab Sample ID:	F8754-2	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	80.0
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%	96%	71-122%
2037-26-5	Toluene-D8	112%	100%	73-128%
460-00-4	4-Bromofluorobenzene	137%	105%	53-158%
17060-07-0	1,2-Dichloroethane-D4	101%	103%	71-122%

(a) Sample introduction performed using method 5030A.

(b) Result is from Run# 2

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S01		Date Sampled:	01/17/01
Lab Sample ID:	F8754-2		Date Received:	01/22/01
Matrix:	SO - Solid		Percent Solids:	80.0
Method:	SW846 8270C	SW846 3550B		
Project:	CTO 229			

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	L006244.D	1	01/27/01	ME	01/25/01	OP2632	SL376

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	1000	ug/kg	
95-57-8	2-Chlorophenol	ND	420	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	420	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	420	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	1000	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	830	ug/kg	
95-48-7	2-Methylphenol	ND	420	ug/kg	
	3&4-Methylphenol	ND	420	ug/kg	
88-75-5	2-Nitrophenol	ND	420	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	ug/kg	
87-86-5	Pentachlorophenol	ND	1000	ug/kg	
108-95-2	Phenol	ND	420	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	420	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	420	ug/kg	
83-32-9	Acenaphthene	ND	420	ug/kg	
208-96-8	Acenaphthylene	ND	420	ug/kg	
120-12-7	Anthracene	ND	420	ug/kg	
56-55-3	Benzo(a)anthracene	ND	420	ug/kg	
50-32-8	Benzo(a)pyrene	ND	420	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	420	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	420	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	420	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	420	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	420	ug/kg	
100-51-6	Benzyl Alcohol	ND	420	ug/kg	
91-58-7	2-Chloronaphthalene	ND	420	ug/kg	
106-47-8	4-Chloroaniline	ND	420	ug/kg	
86-74-8	Carbazole	ND	420	ug/kg	
218-01-9	Chrysene	ND	420	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	420	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	420	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	420	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	420	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	420	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	420	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S01	Date Sampled:	01/17/01
Lab Sample ID:	F8754-2	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	80.0
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	420	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	420	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	420	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	830	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	420	ug/kg	
132-64-9	Dibenzofuran	ND	420	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	420	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	420	ug/kg	
84-66-2	Diethyl phthalate	ND	420	ug/kg	
131-11-3	Dimethyl phthalate	ND	420	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	420	ug/kg	
206-44-0	Fluoranthene	ND	420	ug/kg	
86-73-7	Fluorene	ND	420	ug/kg	
118-74-1	Hexachlorobenzene	ND	420	ug/kg	
87-68-3	Hexachlorobutadiene	ND	420	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	420	ug/kg	
67-72-1	Hexachloroethane	ND	420	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	420	ug/kg	
78-59-1	Isophorone	ND	420	ug/kg	
91-57-6	2-Methylnaphthalene	ND	420	ug/kg	
88-74-4	2-Nitroaniline	ND	420	ug/kg	
99-09-2	3-Nitroaniline	ND	420	ug/kg	
100-01-6	4-Nitroaniline	ND	420	ug/kg	
91-20-3	Naphthalene	ND	420	ug/kg	
98-95-3	Nitrobenzene	ND	420	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	420	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	420	ug/kg	
85-01-8	Phenanthrene	ND	420	ug/kg	
129-00-0	Pyrene	ND	420	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	420	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	79%		36-129%
4165-62-2	Phenol-d5	88%		38-135%
118-79-6	2,4,6-Tribromophenol	100%		37-144%
4165-60-0	Nitrobenzene-d5	84%		36-135%
321-60-8	2-Fluorobiphenyl	89%		44-135%
1718-51-0	Terphenyl-d14	68%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RH-BR-7-S01		Date Sampled:	01/17/01
Lab Sample ID:	F8754-2		Date Received:	01/22/01
Matrix:	SO - Solid		Percent Solids:	80.0
Method:	SW846 8015 M SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00939.D	16	01/27/01	SKW	01/25/01	OP2628	GZF43
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	631	170	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% <sup>a</sup>		40-140%

(a) Outside control limits due to dilution.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S01	Date Sampled:	01/17/01
Lab Sample ID:	F8754-2	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	80.0
Project:	CTO 229		

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	17.6	12.5	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID:	RH-BR-7-S02	Date Sampled:	01/18/01
Lab Sample ID:	F8754-3	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	93.3
Method:	SW846 8260B		
Project:	CTO 229		

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010792.D	50	01/30/01	NAF	n/a	n/a	VH264

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	2700	ug/kg	
71-43-2	Benzene	ND	270	ug/kg	
75-27-4	Bromodichloromethane	ND	270	ug/kg	
75-25-2	Bromoform	ND	270	ug/kg	
108-90-7	Chlorobenzene	ND	270	ug/kg	
75-00-3	Chloroethane	ND	270	ug/kg	
67-66-3	Chloroform	ND	270	ug/kg	
75-15-0	Carbon disulfide	ND	540	ug/kg	
56-23-5	Carbon tetrachloride	ND	270	ug/kg	
75-34-3	1,1-Dichloroethane	ND	270	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	270	ug/kg	
107-06-2	1,2-Dichloroethane	ND	270	ug/kg	
78-87-5	1,2-Dichloropropane	ND	270	ug/kg	
124-48-1	Dibromochloromethane	ND	270	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	270	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	270	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	270	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	270	ug/kg	
100-41-4	Ethylbenzene	122	270	ug/kg	J
591-78-6	2-Hexanone	ND	540	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	540	ug/kg	
74-83-9	Methyl bromide	ND	270	ug/kg	
74-87-3	Methyl chloride	ND	270	ug/kg	
75-09-2	Methylene chloride	ND	540	ug/kg	
78-93-3	Methyl ethyl ketone	431	540	ug/kg	J
100-42-5	Styrene	ND	270	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	270	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	270	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	270	ug/kg	
127-18-4	Tetrachloroethylene	ND	270	ug/kg	
108-88-3	Toluene	ND	270	ug/kg	
79-01-6	Trichloroethylene	ND	270	ug/kg	
75-01-4	Vinyl chloride	ND	270	ug/kg	
1330-20-7	Xylene (total)	1230	800	ug/kg	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S02	Date Sampled:	01/18/01
Lab Sample ID:	F8754-3	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	93.3
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		71-122%
2037-26-5	Toluene-D8	101%		73-128%
460-00-4	4-Bromofluorobenzene	98%		53-158%
17060-07-0	1,2-Dichloroethane-D4	96%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S02	Date Sampled:	01/18/01
Lab Sample ID:	F8754-3	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	93.3
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006378.D	10	02/02/01	ME	01/31/01	OP2655	SL382
Run #2	W003821.D	10	02/05/01	ME	01/31/01	OP2655	SW222

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	8900	ug/kg	
95-57-8	2-Chlorophenol	ND	3600	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	3600	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	3600	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	8900	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	8900	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	7100	ug/kg	
95-48-7	2-Methylphenol	ND	3600	ug/kg	
	3&4-Methylphenol	ND	3600	ug/kg	
88-75-5	2-Nitrophenol	ND	3600	ug/kg	
100-02-7	4-Nitrophenol	ND	8900	ug/kg	
87-86-5	Pentachlorophenol	ND	8900	ug/kg	
108-95-2	Phenol	ND	3600	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	3600	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	3600	ug/kg	
83-32-9	Acenaphthene	ND	3600	ug/kg	
208-96-8	Acenaphthylene	ND	3600	ug/kg	
120-12-7	Anthracene	ND	3600	ug/kg	
56-55-3	Benzo(a)anthracene	ND	3600	ug/kg	
50-32-8	Benzo(a)pyrene	ND	3600	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	3600	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	3600	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	3600	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	3600	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	3600	ug/kg	
100-51-6	Benzyl Alcohol	ND	3600	ug/kg	
91-58-7	2-Chloronaphthalene	ND	3600	ug/kg	
106-47-8	4-Chloroaniline	ND	3600	ug/kg	
86-74-8	Carbazole	ND	3600	ug/kg	
218-01-9	Chrysene	ND	3600	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	3600	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	3600	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	3600	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	3600	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	3600	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	3600	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S02	Date Sampled:	01/18/01
Lab Sample ID:	F8754-3	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	93.3
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	3600	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	3600	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	3600	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	7100	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	3600	ug/kg	
132-64-9	Dibenzofuran	ND	3600	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	3600	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	3600	ug/kg	
84-66-2	Diethyl phthalate	ND	3600	ug/kg	
131-11-3	Dimethyl phthalate	ND	3600	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	3600	ug/kg	
206-44-0	Fluoranthene	ND	3600	ug/kg	
86-73-7	Fluorene	ND	3600	ug/kg	
118-74-1	Hexachlorobenzene	ND	3600	ug/kg	
87-68-3	Hexachlorobutadiene	ND	3600	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	3600	ug/kg	
67-72-1	Hexachloroethane	ND	3600	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	3600	ug/kg	
78-59-1	Isophorone	ND	3600	ug/kg	
91-57-6	2-Methylnaphthalene	19100 <sup>a</sup>	3600	ug/kg	
88-74-4	2-Nitroaniline	ND	3600	ug/kg	
99-09-2	3-Nitroaniline	ND	3600	ug/kg	
100-01-6	4-Nitroaniline	ND	3600	ug/kg	
91-20-3	Naphthalene	7090	3600	ug/kg	
98-95-3	Nitrobenzene	ND	3600	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	3600	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	3600	ug/kg	
85-01-8	Phenanthrene	ND	3600	ug/kg	
129-00-0	Pyrene	ND	3600	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	3600	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	85%	77%	36-129%
4165-62-2	Phenol-d5	95%	85%	38-135%
118-79-6	2,4,6-Tribromophenol	68%	65%	37-144%
4165-60-0	Nitrobenzene-d5	95%	116%	36-135%
321-60-8	2-Fluorobiphenyl	106%	104%	44-135%
1718-51-0	Terphenyl-d14	96%	97%	42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S02	Date Sampled:	01/18/01
Lab Sample ID:	F8754-3	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	93.3
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

### ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
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(a) Result is from Run# 2

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RH-BR-7-S02	Date Sampled:	01/18/01
Lab Sample ID:	F8754-3	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	93.3
Method:	SW846 8015 M SW846 3550B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF01015.D	50	02/06/01	SKW	01/31/01	OP2658	GZF47
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	2420	440	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% <sup>a</sup>		40-140%

(a) Outside control limits due to dilution.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

### Report of Analysis

Client Sample ID:	RH-BR-7-S02	Date Sampled:	01/18/01
Lab Sample ID:	F8754-3	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	93.3
Project:	CTO 229		

#### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.6	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID:	RH-BR-7-S03	Date Sampled:	01/18/01
Lab Sample ID:	F8754-4	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	95.6
Method:	SW846 8260B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010807.D	1	01/31/01	NAF	n/a	n/a	VH265
Run #2							

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	40.0	52	ug/kg	J
71-43-2	Benzene	ND	5.2	ug/kg	
75-27-4	Bromodichloromethane	ND	5.2	ug/kg	
75-25-2	Bromoform	ND	5.2	ug/kg	
108-90-7	Chlorobenzene	ND	5.2	ug/kg	
75-00-3	Chloroethane	ND	5.2	ug/kg	
67-66-3	Chloroform	ND	5.2	ug/kg	
75-15-0	Carbon disulfide	ND	10	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.2	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.2	ug/kg	
124-48-1	Dibromochloromethane	ND	5.2	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.2	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.2	ug/kg	
100-41-4	Ethylbenzene	ND	5.2	ug/kg	
591-78-6	2-Hexanone	ND	10	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/kg	
74-83-9	Methyl bromide	ND	5.2	ug/kg	
74-87-3	Methyl chloride	ND	5.2	ug/kg	
75-09-2	Methylene chloride	ND	10	ug/kg	
78-93-3	Methyl ethyl ketone	ND	10	ug/kg	
100-42-5	Styrene	ND	5.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.2	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.2	ug/kg	
108-88-3	Toluene	ND	5.2	ug/kg	
79-01-6	Trichloroethylene	ND	5.2	ug/kg	
75-01-4	Vinyl chloride	ND	5.2	ug/kg	
1330-20-7	Xylene (total)	ND	16	ug/kg	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S03	Date Sampled:	01/18/01
Lab Sample ID:	F8754-4	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	95.6
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		71-122%
2037-26-5	Toluene-D8	98%		73-128%
460-00-4	4-Bromofluorobenzene	104%		53-158%
17060-07-0	1,2-Dichloroethane-D4	103%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: RH-BR-7-S03	Date Sampled: 01/18/01
Lab Sample ID: F8754-4	Date Received: 01/22/01
Matrix: SO - Solid	Percent Solids: 95.6
Method: SW846 8270C SW846 3550B	
Project: CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006379.D	1	02/02/01	ME	01/31/01	OP2655	SL382
Run #2							

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	870	ug/kg	
95-57-8	2-Chlorophenol	ND	350	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	350	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	350	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	870	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	870	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	700	ug/kg	
95-48-7	2-Methylphenol	ND	350	ug/kg	
	3&4-Methylphenol	ND	350	ug/kg	
88-75-5	2-Nitrophenol	ND	350	ug/kg	
100-02-7	4-Nitrophenol	ND	870	ug/kg	
87-86-5	Pentachlorophenol	ND	870	ug/kg	
108-95-2	Phenol	ND	350	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	350	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	350	ug/kg	
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	350	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	350	ug/kg	
50-32-8	Benzo(a)pyrene	ND	350	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	350	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	350	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	350	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	350	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	350	ug/kg	
100-51-6	Benzyl Alcohol	ND	350	ug/kg	
91-58-7	2-Chloronaphthalene	ND	350	ug/kg	
106-47-8	4-Chloroaniline	ND	350	ug/kg	
86-74-8	Carbazole	ND	350	ug/kg	
218-01-9	Chrysene	ND	350	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	350	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	350	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	350	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	350	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	350	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	350	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S03	Date Sampled:	01/18/01
Lab Sample ID:	F8754-4	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	95.6
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	350	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	350	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	350	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	700	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	350	ug/kg	
132-64-9	Dibenzofuran	ND	350	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	350	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	350	ug/kg	
84-66-2	Diethyl phthalate	ND	350	ug/kg	
131-11-3	Dimethyl phthalate	ND	350	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	350	ug/kg	
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
118-74-1	Hexachlorobenzene	ND	350	ug/kg	
87-68-3	Hexachlorobutadiene	ND	350	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	350	ug/kg	
67-72-1	Hexachloroethane	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	350	ug/kg	
78-59-1	Isophorone	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
88-74-4	2-Nitroaniline	ND	350	ug/kg	
99-09-2	3-Nitroaniline	ND	350	ug/kg	
100-01-6	4-Nitroaniline	ND	350	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
98-95-3	Nitrobenzene	ND	350	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	350	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	47%		36-129%
4165-62-2	Phenol-d5	48%		38-135%
118-79-6	2,4,6-Tribromophenol	70%		37-144%
4165-60-0	Nitrobenzene-d5	49%		36-135%
321-60-8	2-Fluorobiphenyl	57%		44-135%
1718-51-0	Terphenyl-d14	78%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S03	Date Sampled:	01/18/01
Lab Sample ID:	F8754-4	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	95.6
Method:	SW846 8015 M SW846 3550B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00955.D	1	02/01/01	NJ	01/31/01	OP2658	GZF44
Run #2							

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C10-C28)	24.4	8.7	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	70%		40-140%
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ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-7-S03	Date Sampled:	01/18/01
Lab Sample ID:	F8754-4	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	95.6
Project:	CTO 229		

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.13 U	10.8	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

---

RL = Reporting Limit

# SECTION 2

**CASE NARRATIVE**  
**GC/MS Volatile Analysis**

Laboratory Reference No. F8754

Client/Project: AMEC/CTO 299 – Red Hill Bulk Fuel Storage

**I. RECEIPT**

The samples were received via DHL Worldwide Express on January 22, 2001.

**II. HOLDING TIMES**

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 5030A

Analysis: SW-846 8260B

**IV. PREPARATION**

Samples were prepared as received. Soil samples were received without EnCore samples and were therefore analyzed using method 5030A.

**V. ANALYSIS**

A. Calibration: All acceptance criteria were met.

B. Blanks: All acceptance criteria were met.

C. Spikes (Matrix Spike, Matrix Spike Duplicate, and LCS): The MS and MSD in sample F8754-2 for vinyl chloride was slightly high (147% and 135% vs 131%). None was reported in the samples and the LCS was acceptable. The MS was high for several analytes which were not found in the samples.

D. Samples: Sample F8754-2 was run twice due to a low recovery of the Internal Standard 1,4-Dichlorobenzene-d4 in the first analysis.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package:

Signed: David H. Greer, Jr.  
David H. Greer, Jr.  
Quality Assurance Officer

Date: 02/13/01

**CASE NARRATIVE**  
**GC/MS Semi-Volatile Analysis**

Laboratory Reference No. F8754

Client/Project: AMEC/CTO 229 – Red Hill Bulk Fuel Storage

**I. RECEIPT**

The samples were received via DHL Worldwide Express on January 22, 2001.

**II. HOLDING TIMES**

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 3550B

Analysis: SW-846 8270C

**IV. PREPARATION**

Sample preparation proceeded normally.

**V. ANALYSIS**

A. Calibration: All acceptance criteria were met.

B. Blanks: All acceptance criteria were met.

C. Spikes (Matrix Spike, Matrix Spike Duplicate, and LCS): The MS/MSD RPD for F8754-2 was found to be slightly higher than the acceptance limits for several analytes, which were not found in the samples. The MSD for F8754-2 was found to be below the criteria for 2-Methylnaphthalene (-47% vs 63%) due to high levels of this analyte in the sample (F8772-3). The MS recovery was slightly low for several analytes for F5754-3 and -4. The MS and MSD for these samples was slightly low for hexachloroethane (57% and 60% vs 61%) and the RPD was slightly high for pyrene (18 vs 16). The LCS (blank spike) was found to be acceptable for all compounds except 2-methylnaphthalene which was found in sample F8754-3. This sample was reanalyzed with an acceptable LCS.

D. Samples: Sample F8754-3 was found to have low recovery 2-Methylnaphthalene in the LCS which was run with it (see C. above) This sample was reextracted and the LCS recovery of 2-Methylnaphthalene was found to be acceptable. The reextracted sample is reported.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his

designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package:

Signed: David H. Greer, Jr. Date: 02/13/01  
David H. Greer, Jr.  
Quality Assurance Officer

**CASE NARRATIVE**  
**GC Diesel Range Organics Analysis**

Laboratory Reference No. F8754

Client/Project: AMEC/CTO 229 – Red Hill Bulk Fuel Storage

**I. RECEIPT**

The samples were received via DHL Worldwide Express on January 22, 2001.

**II. HOLDING TIMES**

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 3550B

Analysis: SW-846 8015 M

**IV. PREPARATION**

Sample preparation proceeded normally.

**V. ANALYSIS**

A. Calibration: All acceptance criteria were met.

B. Blanks: All acceptance criteria were met.

C. Spikes (Matrix Spike, Matrix Spike Duplicate, and LCS): The surrogate, o-Terphenyl, was out due to sample dilution for samples F8754-2 and F8754-3 as well as the Duplicate sample analyzed with this batch of samples (F8757-1).

D. Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package:

Signed: David H. Greer, Jr. Date: 02/13/01  
David H. Greer, Jr.  
Quality Assurance Officer

**CASE NARRATIVE**  
**Inorganic Analysis**

Laboratory Reference No. F8754

Client/Project: AMEC/CTO 229 – Red Hill Bulk Fuel Storage

**I. RECEIPT**

The samples were received via DHL Worldwide Express on January 22, 2001.

**II. HOLDING TIMES**

- A. Sample Preparation: All holding times were met.
- B. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 3050B

Analysis: SW-846 6010B (Lead Only)

**IV. PREPARATION**

Sample preparation proceeded normally.

**V. ANALYSIS**

- A. Calibration: All acceptance criteria were met.
- B. Blanks: All acceptance criteria were met.
- C. Spikes (Matrix Spike, Matrix Spike Duplicate, and LCS): All acceptance criteria were met.
- D. Duplicates: All acceptance criteria were met.
- E. Serial Dilutions: The serial dilution was found to be slightly high, but acceptable due to low initial sample concentration (< 50 times the IDL).
- F. Samples: Sample analyses proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package:

Signed: David H. Greer, Jr.  
David H. Greer, Jr.  
Quality Assurance Officer

Date: 02/13/01

ACCUTEST LABORATORIES SOUTHEAST  
SAMPLE RECEIPT CONFIRMATION

Accutest Job Number: F8754

Client/Project: AUEC

Date/Time Received: 1/22/01 1640

Method of Delivery: Fed Ex Greyhound UPS Pickup Delivery Other

Air Bill Number: DAL 2050 8103264574

Cooler Temperatures: 38

- |                                 |   |                             |
|---------------------------------|---|-----------------------------|
| Custody Seals Intact?           | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| Chain Of Custody Provided?      | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| Chain Of Custody Match Bottles? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| Sample Labels Present?          | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| Are All Bottles Unbroken?       | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| Proper Preservative?            | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| Correct Containers Used?        | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| Sufficient Sample Volume?       | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |

Number of Encores: \_\_\_\_\_

COMMENTS:

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\_\_\_\_\_

Signature: [Signature] Date: 1/22/01

# SECTION 3

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# SECTION 4



### Sample Summary

Ogden Environmental

Job No: F8754

CTO 229

Project No: 1-1019-0229

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F8754-1	01/18/01	00:00 JLD	01/22/01	AQ	Trip Blank Soil	TRIP BLANK
F8754-2	01/17/01	13:50 JLD	01/22/01	SO	Solid	RH-BR-7-S01
F8754-3	01/18/01	10:35 JLD	01/22/01	SO	Solid	RH-BR-7-S02
F8754-4	01/18/01	15:28 JLD	01/22/01	SO	Solid	RH-BR-7-S03



<b>Client Sample ID:</b> TRIP BLANK	<b>Date Sampled:</b> 01/18/01
<b>Lab Sample ID:</b> F8754-1	<b>Date Received:</b> 01/22/01
<b>Matrix:</b> AQ - Trip Blank Soil	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B003634.D	1	01/24/01	JG	n/a	n/a	VB138
Run #2							

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	ug/l	
75-25-2	Bromoform	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	10	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	5.0	ug/l	
74-87-3	Methyl chloride	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
100-42-5	Styrene	ND	2.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> TRIP BLANK	<b>Date Sampled:</b> 01/18/01
<b>Lab Sample ID:</b> F8754-1	<b>Date Received:</b> 01/22/01
<b>Matrix:</b> AQ - Trip Blank Soil	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> CTO 229	

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		69-128%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**011**



<b>Client Sample ID:</b> RH-BR-7-S01	<b>Date Sampled:</b> 01/17/01
<b>Lab Sample ID:</b> F8754-2	<b>Date Received:</b> 01/22/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 80.0
<b>Method:</b> SW846 8260B	
<b>Project:</b> CTO 229	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H010787.D	1	01/30/01	NAF	n/a	n/a	VH264
Run #2 <sup>a</sup>	H010806.D	1	01/31/01	NAF	n/a	n/a	VH265

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	29.5 <sup>b</sup>	60	ug/kg	J
71-43-2	Benzene	ND <sup>b</sup>	6.0	ug/kg	
75-27-4	Bromodichloromethane	ND <sup>b</sup>	6.0	ug/kg	
75-25-2	Bromoform	ND <sup>b</sup>	6.0	ug/kg	
108-90-7	Chlorobenzene	ND <sup>b</sup>	6.0	ug/kg	
75-00-3	Chloroethane	ND <sup>b</sup>	6.0	ug/kg	
67-66-3	Chloroform	ND <sup>b</sup>	6.0	ug/kg	
75-15-0	Carbon disulfide	ND <sup>b</sup>	12	ug/kg	
56-23-5	Carbon tetrachloride	ND <sup>b</sup>	6.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND <sup>b</sup>	6.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND <sup>b</sup>	6.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND <sup>b</sup>	6.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND <sup>b</sup>	6.0	ug/kg	
124-48-1	Dibromochloromethane	ND <sup>b</sup>	6.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND <sup>b</sup>	6.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND <sup>b</sup>	6.0	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND <sup>b</sup>	6.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND <sup>b</sup>	6.0	ug/kg	
100-41-4	Ethylbenzene	ND <sup>b</sup>	6.0	ug/kg	
591-78-6	2-Hexanone	ND <sup>b</sup>	12	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND <sup>b</sup>	12	ug/kg	
74-83-9	Methyl bromide	ND <sup>b</sup>	6.0	ug/kg	
74-87-3	Methyl chloride	ND <sup>b</sup>	6.0	ug/kg	
75-09-2	Methylene chloride	ND <sup>b</sup>	12	ug/kg	
78-93-3	Methyl ethyl ketone	ND <sup>b</sup>	12	ug/kg	
100-42-5	Styrene	ND <sup>b</sup>	6.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND <sup>b</sup>	6.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND <sup>b</sup>	6.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND <sup>b</sup>	6.0	ug/kg	
127-18-4	Tetrachloroethylene	ND <sup>b</sup>	6.0	ug/kg	
108-88-3	Toluene	ND <sup>b</sup>	6.0	ug/kg	
79-01-6	Trichloroethylene	ND <sup>b</sup>	6.0	ug/kg	
75-01-4	Vinyl chloride	ND <sup>b</sup>	6.0	ug/kg	
1330-20-7	Xylene (total)	ND <sup>b</sup>	18	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-7-S01	<b>Date Sampled:</b> 01/17/01
<b>Lab Sample ID:</b> F8754-2	<b>Date Received:</b> 01/22/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 80.0
<b>Method:</b> SW846 8260B	
<b>Project:</b> CTO 229	

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%	96%	71-122%
2037-26-5	Toluene-D8	112%	100%	73-128%
460-00-4	4-Bromofluorobenzene	137%	105%	53-158%
17060-07-0	1,2-Dichloroethane-D4	101%	103%	71-122%

(a) Sample introduction performed using method 5030A.

(b) Result is from Run# 2

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**013**



Client Sample ID: RH-BR-7-S01

Lab Sample ID: F8754-2

Date Sampled: 01/17/01

Matrix: SO - Solid

Date Received: 01/22/01

Method: SW846 8270C SW846 3550B

Percent Solids: 80.0

Project: CTO 229

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006244.D	1	01/27/01	ME	01/25/01	OP2632	SL376
Run #2							

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	1000	ug/kg	
95-57-8	2-Chlorophenol	ND	420	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	420	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	420	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	1000	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1000	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	830	ug/kg	
95-48-7	2-Methylphenol	ND	420	ug/kg	
	3&4-Methylphenol	ND	420	ug/kg	
88-75-5	2-Nitrophenol	ND	420	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	ug/kg	
87-86-5	Pentachlorophenol	ND	1000	ug/kg	
108-95-2	Phenol	ND	420	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	420	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	420	ug/kg	
83-32-9	Acenaphthene	ND	420	ug/kg	
208-96-8	Acenaphthylene	ND	420	ug/kg	
120-12-7	Anthracene	ND	420	ug/kg	
56-55-3	Benzo(a)anthracene	ND	420	ug/kg	
50-32-8	Benzo(a)pyrene	ND	420	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	420	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	420	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	420	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	420	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	420	ug/kg	
100-51-6	Benzyl Alcohol	ND	420	ug/kg	
91-58-7	2-Chloronaphthalene	ND	420	ug/kg	
106-47-8	4-Chloroaniline	ND	420	ug/kg	
86-74-8	Carbazole	ND	420	ug/kg	
218-01-9	Chrysene	ND	420	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	420	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	420	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	420	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	420	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	420	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	420	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-7-S01	<b>Date Sampled:</b> 01/17/01
<b>Lab Sample ID:</b> F8754-2	<b>Date Received:</b> 01/22/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 80.0
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	420	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	420	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	420	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	830	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	420	ug/kg	
132-64-9	Dibenzofuran	ND	420	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	420	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	420	ug/kg	
84-66-2	Diethyl phthalate	ND	420	ug/kg	
131-11-3	Dimethyl phthalate	ND	420	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	420	ug/kg	
206-44-0	Fluoranthene	ND	420	ug/kg	
86-73-7	Fluorene	ND	420	ug/kg	
118-74-1	Hexachlorobenzene	ND	420	ug/kg	
87-68-3	Hexachlorobutadiene	ND	420	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	420	ug/kg	
67-72-1	Hexachloroethane	ND	420	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	420	ug/kg	
78-59-1	Isophorone	ND	420	ug/kg	
91-57-6	2-Methylnaphthalene	ND	420	ug/kg	
88-74-4	2-Nitroaniline	ND	420	ug/kg	
99-09-2	3-Nitroaniline	ND	420	ug/kg	
100-01-6	4-Nitroaniline	ND	420	ug/kg	
91-20-3	Naphthalene	ND	420	ug/kg	
98-95-3	Nitrobenzene	ND	420	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	420	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	420	ug/kg	
85-01-8	Phenanthrene	ND	420	ug/kg	
129-00-0	Pyrene	ND	420	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	420	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	79%		36-129%
4165-62-2	Phenol-d5	88%		38-135%
118-79-6	2,4,6-Tribromophenol	100%		37-144%
4165-60-0	Nitrobenzene-d5	84%		36-135%
321-60-8	2-Fluorobiphenyl	89%		44-135%
1718-51-0	Terphenyl-d14	68%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> RH-BR-7-S01	<b>Date Sampled:</b> 01/17/01
<b>Lab Sample ID:</b> F8754-2	<b>Date Received:</b> 01/22/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 80.0
<b>Method:</b> SW846 8015 M SW846 3550B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00939.D	16	01/27/01	SKW	01/25/01	OP2628	GZF43
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	631	170	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% <sup>a</sup>		40-140%

(a) Outside control limits due to dilution.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



# Report of Analysis

Client Sample ID: RH-BR-7-S01  
Lab Sample ID: F8754-2  
Matrix: SO - Solid  
Project: CTO 229

Date Sampled: 01/17/01  
Date Received: 01/22/01  
Percent Solids: 80.0

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	17.6	12.5	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

RL = Reporting Limit

017

**Client Sample ID:** RH-BR-7-S02  
**Lab Sample ID:** F8754-3  
**Matrix:** SO - Solid  
**Method:** SW846 8260B  
**Project:** CTO 229

**Date Sampled:** 01/18/01  
**Date Received:** 01/22/01  
**Percent Solids:** 93.3

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010792.D	50	01/30/01	NAF	n/a	n/a	VH264
Run #2							

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	2700	ug/kg	
71-43-2	Benzene	ND	270	ug/kg	
75-27-4	Bromodichloromethane	ND	270	ug/kg	
75-25-2	Bromoform	ND	270	ug/kg	
108-90-7	Chlorobenzene	ND	270	ug/kg	
75-00-3	Chloroethane	ND	270	ug/kg	
67-66-3	Chloroform	ND	270	ug/kg	
75-15-0	Carbon disulfide	ND	540	ug/kg	
56-23-5	Carbon tetrachloride	ND	270	ug/kg	
75-34-3	1,1-Dichloroethane	ND	270	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	270	ug/kg	
107-06-2	1,2-Dichloroethane	ND	270	ug/kg	
78-87-5	1,2-Dichloropropane	ND	270	ug/kg	
124-48-1	Dibromochloromethane	ND	270	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	270	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	270	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	270	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	270	ug/kg	
100-41-4	Ethylbenzene	122	270	ug/kg	J
591-78-6	2-Hexanone	ND	540	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	540	ug/kg	
74-83-9	Methyl bromide	ND	270	ug/kg	
74-87-3	Methyl chloride	ND	270	ug/kg	
75-09-2	Methylene chloride	ND	540	ug/kg	
78-93-3	Methyl ethyl ketone	431	540	ug/kg	J
100-42-5	Styrene	ND	270	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	270	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	270	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	270	ug/kg	
127-18-4	Tetrachloroethylene	ND	270	ug/kg	
108-88-3	Toluene	ND	270	ug/kg	
79-01-6	Trichloroethylene	ND	270	ug/kg	
75-01-4	Vinyl chloride	ND	270	ug/kg	
1330-20-7	Xylene (total)	1230	800	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 2 of 2

Client Sample ID:	RH-BR-7-S02	Date Sampled:	01/18/01
Lab Sample ID:	F8754-3	Date Received:	01/22/01
Matrix:	SO - Solid	Percent Solids:	93.3
Method:	SW846 8260B		
Project:	CTO 229		

### VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		71-122%
2037-26-5	Toluene-D8	101%		73-128%
460-00-4	4-Bromofluorobenzene	98%		53-158%
17060-07-0	1,2-Dichloroethane-D4	96%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-7-S02	<b>Date Sampled:</b> 01/18/01
<b>Lab Sample ID:</b> F8754-3	<b>Date Received:</b> 01/22/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 93.3
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006378.D	10	02/02/01	ME	01/31/01	OP2655	SL382
Run #2	W003821.D	10	02/05/01	ME	01/31/01	OP2655	SW222

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	8900	ug/kg	
95-57-8	2-Chlorophenol	ND	3600	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	3600	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	3600	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	8900	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	8900	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	7100	ug/kg	
95-48-7	2-Methylphenol	ND	3600	ug/kg	
	3&4-Methylphenol	ND	3600	ug/kg	
88-75-5	2-Nitrophenol	ND	3600	ug/kg	
100-02-7	4-Nitrophenol	ND	8900	ug/kg	
87-86-5	Pentachlorophenol	ND	8900	ug/kg	
108-95-2	Phenol	ND	3600	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	3600	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	3600	ug/kg	
83-32-9	Acenaphthene	ND	3600	ug/kg	
208-96-8	Acenaphthylene	ND	3600	ug/kg	
120-12-7	Anthracene	ND	3600	ug/kg	
56-55-3	Benzo(a)anthracene	ND	3600	ug/kg	
50-32-8	Benzo(a)pyrene	ND	3600	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	3600	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	3600	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	3600	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	3600	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	3600	ug/kg	
100-51-6	Benzyl Alcohol	ND	3600	ug/kg	
91-58-7	2-Chloronaphthalene	ND	3600	ug/kg	
106-47-8	4-Chloroaniline	ND	3600	ug/kg	
86-74-8	Carbazole	ND	3600	ug/kg	
218-01-9	Chrysene	ND	3600	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	3600	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	3600	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	3600	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	3600	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	3600	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	3600	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-7-S02	<b>Date Sampled:</b> 01/18/01
<b>Lab Sample ID:</b> F8754-3	<b>Date Received:</b> 01/22/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 93.3
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	3600	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	3600	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	3600	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	7100	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	3600	ug/kg	
132-64-9	Dibenzofuran	ND	3600	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	3600	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	3600	ug/kg	
84-66-2	Diethyl phthalate	ND	3600	ug/kg	
131-11-3	Dimethyl phthalate	ND	3600	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	3600	ug/kg	
206-44-0	Fluoranthene	ND	3600	ug/kg	
86-73-7	Fluorene	ND	3600	ug/kg	
118-74-1	Hexachlorobenzene	ND	3600	ug/kg	
87-68-3	Hexachlorobutadiene	ND	3600	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	3600	ug/kg	
67-72-1	Hexachloroethane	ND	3600	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	3600	ug/kg	
78-59-1	Isophorone	ND	3600	ug/kg	
91-57-6	2-Methylnaphthalene	19100 <sup>a</sup>	3600	ug/kg	
88-74-4	2-Nitroaniline	ND	3600	ug/kg	
99-09-2	3-Nitroaniline	ND	3600	ug/kg	
100-01-6	4-Nitroaniline	ND	3600	ug/kg	
91-20-3	Naphthalene	7090	3600	ug/kg	
98-95-3	Nitrobenzene	ND	3600	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	3600	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	3600	ug/kg	
85-01-8	Phenanthrene	ND	3600	ug/kg	
129-00-0	Pyrene	ND	3600	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	3600	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	85%	77%	36-129%
4165-62-2	Phenol-d5	95%	85%	38-135%
118-79-6	2,4,6-Tribromophenol	68%	65%	37-144%
4165-60-0	Nitrobenzene-d5	95%	116%	36-135%
321-60-8	2-Fluorobiphenyl	106%	104%	44-135%
1718-51-0	Terphenyl-d14	96%	97%	42-149%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-7-S02	
<b>Lab Sample ID:</b> F8754-3	<b>Date Sampled:</b> 01/18/01
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 01/22/01
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 93.3
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
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(a) Result is from Run# 2

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> RH-BR-7-S02	<b>Date Sampled:</b> 01/18/01
<b>Lab Sample ID:</b> F8754-3	<b>Date Received:</b> 01/22/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 93.3
<b>Method:</b> SW846 8015 M SW846 3550B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF01015.D	50	02/06/01	SKW	01/31/01	OP2658	GZF47
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	2420	440	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	0% <sup>a</sup>		40-140%	

(a) Outside control limits due to dilution.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-7-S02	<b>Date Sampled:</b> 01/18/01
<b>Lab Sample ID:</b> F8754-3	<b>Date Received:</b> 01/22/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 93.3
<b>Project:</b> CTO 229	

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.6	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

RL = Reporting Limit

024



# Report of Analysis

Client Sample ID: RH-BR-7-S03  
Lab Sample ID: F8754-4  
Matrix: SO - Solid  
Method: SW846 8260B  
Project: CTO 229

Date Sampled: 01/18/01  
Date Received: 01/22/01  
Percent Solids: 95.6

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010807.D	1	01/31/01	NAF	n/a	n/a	VH265
Run #2							

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	40.0	52	ug/kg	J
71-43-2	Benzene	ND	5.2	ug/kg	
75-27-4	Bromodichloromethane	ND	5.2	ug/kg	
75-25-2	Bromoform	ND	5.2	ug/kg	
108-90-7	Chlorobenzene	ND	5.2	ug/kg	
75-00-3	Chloroethane	ND	5.2	ug/kg	
67-66-3	Chloroform	ND	5.2	ug/kg	
75-15-0	Carbon disulfide	ND	10	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.2	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.2	ug/kg	
124-48-1	Dibromochloromethane	ND	5.2	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.2	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.2	ug/kg	
100-41-4	Ethylbenzene	ND	5.2	ug/kg	
591-78-6	2-Hexanone	ND	10	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/kg	
74-83-9	Methyl bromide	ND	5.2	ug/kg	
74-87-3	Methyl chloride	ND	5.2	ug/kg	
75-09-2	Methylene chloride	ND	10	ug/kg	
78-93-3	Methyl ethyl ketone	ND	10	ug/kg	
100-42-5	Styrene	ND	5.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.2	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.2	ug/kg	
108-88-3	Toluene	ND	5.2	ug/kg	
79-01-6	Trichloroethylene	ND	5.2	ug/kg	
75-01-4	Vinyl chloride	ND	5.2	ug/kg	
1330-20-7	Xylene (total)	ND	16	ug/kg	

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-7-S03	
<b>Lab Sample ID:</b> F8754-4	<b>Date Sampled:</b> 01/18/01
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 01/22/01
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 95.6
<b>Project:</b> CTO 229	

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		71-122%
2037-26-5	Toluene-D8	98%		73-128%
460-00-4	4-Bromofluorobenzene	104%		53-158%
17060-07-0	1,2-Dichloroethane-D4	103%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

026

<b>Client Sample ID:</b> RH-BR-7-S03	<b>Date Sampled:</b> 01/18/01
<b>Lab Sample ID:</b> F8754-4	<b>Date Received:</b> 01/22/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 95.6
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006379.D	1	02/02/01	ME	01/31/01	OP2655	SL382
Run #2							

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	870	ug/kg	
95-57-8	2-Chlorophenol	ND	350	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	350	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	350	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	870	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	870	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	700	ug/kg	
95-48-7	2-Methylphenol	ND	350	ug/kg	
	3&4-Methylphenol	ND	350	ug/kg	
88-75-5	2-Nitrophenol	ND	350	ug/kg	
100-02-7	4-Nitrophenol	ND	870	ug/kg	
87-86-5	Pentachlorophenol	ND	870	ug/kg	
108-95-2	Phenol	ND	350	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	350	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	350	ug/kg	
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	350	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	350	ug/kg	
50-32-8	Benzo(a)pyrene	ND	350	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	350	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	350	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	350	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	350	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	350	ug/kg	
100-51-6	Benzyl Alcohol	ND	350	ug/kg	
91-58-7	2-Chloronaphthalene	ND	350	ug/kg	
106-47-8	4-Chloroaniline	ND	350	ug/kg	
86-74-8	Carbazole	ND	350	ug/kg	
218-01-9	Chrysene	ND	350	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	350	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	350	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	350	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	350	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	350	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	350	ug/kg	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-7-S03	<b>Date Sampled:</b> 01/18/01
<b>Lab Sample ID:</b> F8754-4	<b>Date Received:</b> 01/22/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 95.6
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	350	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	350	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	350	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	700	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	350	ug/kg	
132-64-9	Dibenzofuran	ND	350	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	350	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	350	ug/kg	
84-66-2	Diethyl phthalate	ND	350	ug/kg	
131-11-3	Dimethyl phthalate	ND	350	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	350	ug/kg	
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
118-74-1	Hexachlorobenzene	ND	350	ug/kg	
87-68-3	Hexachlorobutadiene	ND	350	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	350	ug/kg	
67-72-1	Hexachloroethane	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	350	ug/kg	
78-59-1	Isophorone	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
88-74-4	2-Nitroaniline	ND	350	ug/kg	
99-09-2	3-Nitroaniline	ND	350	ug/kg	
100-01-6	4-Nitroaniline	ND	350	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
98-95-3	Nitrobenzene	ND	350	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	350	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	47%		36-129%
4165-62-2	Phenol-d5	48%		38-135%
118-79-6	2,4,6-Tribromophenol	70%		37-144%
4165-60-0	Nitrobenzene-d5	49%		36-135%
321-60-8	2-Fluorobiphenyl	57%		44-135%
1718-51-0	Terphenyl-d14	78%		42-149%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

028



<b>Client Sample ID:</b> RH-BR-7-S03	<b>Date Sampled:</b> 01/18/01
<b>Lab Sample ID:</b> F8754-4	<b>Date Received:</b> 01/22/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 95.6
<b>Method:</b> SW846 8015 M SW846 3550B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00955.D	1	02/01/01	NJ	01/31/01	OP2658	GZF44
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	24.4	8.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	70%		40-140%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



**Client Sample ID:** RH-BR-7-S03

**Lab Sample ID:** F8754-4

**Matrix:** SO - Solid

**Project:** CTO 229

**Date Sampled:** 01/18/01

**Date Received:** 01/22/01

**Percent Solids:** 95.6

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.13 U	10.8	mg/kg	1	02/02/01	02/05/01 JK	SW846 6010B

RL = Reporting Limit

# SECTION 5



# CHAIN OF CUSTODY

4405 VINELAND, AD • SUITE C-15  
ORLANDO, FL 32811  
TEL: 407-425-6700 • FAX: 407-425-0707

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION		MATRIX CODES	
Oaden Environmental + Energy Services NAME 2904 Westcott Blvd., Suite 107 ADDRESS Huntsville, AL 35805 CITY STATE ZIP Kent Evans SEND REPORT TO: (256) 539-3616 PHONE #		Red Hill Bulk Fuel Storage PROJECT NAME Ocala, HI LOCATION 1-101A-033A PROJECT NO. FAX # (256) 539-3074		VOC CLP OLM 0.3.2 VOC CLP OLM 0.3.2 Lead CLP ILM 0.3.2 Top 5 Fil 0.3.2		DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OL - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		PRESERVATION		LAB USE ONLY	
		DATE	TIME	SAMPLED BY:	DATE	TIME	LAB USE ONLY
	Trip Blank						
	RH-BR-7-501	11/17/01	~13:40	JLD/GAL	12/1	12/1	X
	RH-BR-7-502	11/18/01	~10:35	JLD	12/1	12/1	X
	RH-BR-7-503	11/18/01	~15:28	G/LG	12/1	12/1	X
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		COMMENTS/REMARKS			
<input type="checkbox"/> STANDARD <input type="checkbox"/> 48 HOUR RUSH <input type="checkbox"/> 24 HOUR EMERGENCY <input type="checkbox"/> OTHER _____ EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		<input type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) _____					
RELINQUISHED BY SAMPLER: 1. <i>Donna J. Almon</i> 11/18/01 ~ 10:24 DATE TIME: RELINQUISHED BY: 3. _____ DATE TIME: RELINQUISHED BY: 5. _____ DATE TIME:		SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY RELINQUISHED BY: 2. _____ DATE TIME: RELINQUISHED BY: 4. _____ DATE TIME: RELINQUISHED BY: 5. _____ DATE TIME:		RECEIVED BY: 2. _____ DATE TIME: RECEIVED BY: 4. _____ DATE TIME:		ON ICE <input type="checkbox"/> PRESERVE WHERE APPLICABLE <input type="checkbox"/> TEMPERATURE _____ C	



TANK 8

Technical Report for

Ogden Environmental

CTO 229

1-1019-0229

Accutest Job Number: F8703

Report to:

Ogden Environmental  
2904 Westcorp Blvd.  
Suite 204  
Huntsville, AL 35805

ATTN: Kent Evetts

Total number of pages in report: 414

  
Harry Behzadi, Ph.D.  
Laboratory Director

Results relate only to the items tested.

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

### Sample Summary

Ogden Environmental

Job No: F8703

CTO 229

Project No: 1-1019-0229

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F8703-1	01/16/01	00:00 JLD	01/18/01	AQ	Trip Blank Soil	TRIP BLANK
F8703-2	01/15/01	08:00 JLD	01/18/01	SO	Solid	RH-BR-8-S01
F8703-3	01/16/01	12:40 JLD	01/18/01	SO	Solid	RH-BR-8-S02
F8703-4	01/16/01	17:06 JLD	01/18/01	SO	Solid	RH-BR-8-S03

## Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	01/16/01
Lab Sample ID:	F8703-1	Date Received:	01/18/01
Matrix:	AQ - Trip Blank Soil	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CTO 229		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	C0002169.D	1	01/19/01	JG	n/a	n/a	VC98

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	ug/l	
75-25-2	Bromoform	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	10	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	5.0	ug/l	
74-87-3	Methyl chloride	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
100-42-5	Styrene	ND	2.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	01/16/01
Lab Sample ID:	F8703-1	Date Received:	01/18/01
Matrix:	AQ - Trip Blank Soil	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		69-128%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: RH-BR-8-S01  
 Lab Sample ID: F8703-2  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 01/15/01  
 Date Received: 01/18/01  
 Percent Solids: 90.0

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010734.D	1	01/25/01	NAF	n/a	n/a	VH261

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	56	ug/kg	
71-43-2	Benzene	ND	5.6	ug/kg	
75-27-4	Bromodichloromethane	ND	5.6	ug/kg	
75-25-2	Bromoform	ND	5.6	ug/kg	
108-90-7	Chlorobenzene	ND	5.6	ug/kg	
75-00-3	Chloroethane	ND	5.6	ug/kg	
67-66-3	Chloroform	ND	5.6	ug/kg	
75-15-0	Carbon disulfide	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.6	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.6	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.6	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.6	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.6	ug/kg	
124-48-1	Dibromochloromethane	ND	5.6	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.6	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.6	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.6	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.6	ug/kg	
100-41-4	Ethylbenzene	ND	5.6	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	11	ug/kg	
74-83-9	Methyl bromide	ND	5.6	ug/kg	
74-87-3	Methyl chloride	ND	5.6	ug/kg	
75-09-2	Methylene chloride	ND	11	ug/kg	
78-93-3	Methyl ethyl ketone	ND	11	ug/kg	
100-42-5	Styrene	ND	5.6	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.6	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.6	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.6	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.6	ug/kg	
108-88-3	Toluene	ND	5.6	ug/kg	
79-01-6	Trichloroethylene	ND	5.6	ug/kg	
75-01-4	Vinyl chloride	ND	5.6	ug/kg	
1330-20-7	Xylene (total)	ND	17	ug/kg	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-8-S01	Date Sampled:	01/15/01
Lab Sample ID:	F8703-2	Date Received:	01/18/01
Matrix:	SO - Solid	Percent Solids:	90.0
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	79%		71-122%
2037-26-5	Toluene-D8	102%		73-128%
460-00-4	4-Bromofluorobenzene	112%		53-158%
17060-07-0	1,2-Dichloroethane-D4	98%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: RH-BR-8-S01	Date Sampled: 01/15/01
Lab Sample ID: F8703-2	Date Received: 01/18/01
Matrix: SO - Solid	Percent Solids: 90.0
Method: SW846 8270C SW846 3550B	
Project: CTO 229	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	L006240.D	1	01/27/01	ME	01/25/01	OP2632	SL376

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	920	ug/kg	
95-57-8	2-Chlorophenol	ND	370	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	370	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	370	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	920	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	920	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	740	ug/kg	
95-48-7	2-Methylphenol	ND	370	ug/kg	
	3&4-Methylphenol	ND	370	ug/kg	
88-75-5	2-Nitrophenol	ND	370	ug/kg	
100-02-7	4-Nitrophenol	ND	920	ug/kg	
87-86-5	Pentachlorophenol	ND	920	ug/kg	
108-95-2	Phenol	ND	370	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	370	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	370	ug/kg	
83-32-9	Acenaphthene	ND	370	ug/kg	
208-96-8	Acenaphthylene	ND	370	ug/kg	
120-12-7	Anthracene	ND	370	ug/kg	
56-55-3	Benzo(a)anthracene	ND	370	ug/kg	
50-32-8	Benzo(a)pyrene	ND	370	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	370	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	370	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	370	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	370	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	370	ug/kg	
100-51-6	Benzyl Alcohol	ND	370	ug/kg	
91-58-7	2-Chloronaphthalene	ND	370	ug/kg	
106-47-8	4-Chloroaniline	ND	370	ug/kg	
86-74-8	Carbazole	ND	370	ug/kg	
218-01-9	Chrysene	ND	370	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	370	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	370	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	370	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	370	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	370	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	370	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-8-S01		Date Sampled:	01/15/01
Lab Sample ID:	F8703-2		Date Received:	01/18/01
Matrix:	SO - Solid		Percent Solids:	90.0
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	370	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	370	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	370	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	740	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	370	ug/kg	
132-64-9	Dibenzofuran	ND	370	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	370	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	370	ug/kg	
84-66-2	Diethyl phthalate	ND	370	ug/kg	
131-11-3	Dimethyl phthalate	ND	370	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	189	370	ug/kg	J
206-44-0	Fluoranthene	ND	370	ug/kg	
86-73-7	Fluorene	ND	370	ug/kg	
118-74-1	Hexachlorobenzene	ND	370	ug/kg	
87-68-3	Hexachlorobutadiene	ND	370	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	370	ug/kg	
67-72-1	Hexachloroethane	ND	370	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	370	ug/kg	
78-59-1	Isophorone	ND	370	ug/kg	
91-57-6	2-Methylnaphthalene	ND	370	ug/kg	
88-74-4	2-Nitroaniline	ND	370	ug/kg	
99-09-2	3-Nitroaniline	ND	370	ug/kg	
100-01-6	4-Nitroaniline	ND	370	ug/kg	
91-20-3	Naphthalene	ND	370	ug/kg	
98-95-3	Nitrobenzene	ND	370	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	370	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	370	ug/kg	
85-01-8	Phenanthrene	ND	370	ug/kg	
129-00-0	Pyrene	ND	370	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	370	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	65%		36-129%
4165-62-2	Phenol-d5	78%		38-135%
118-79-6	2,4,6-Tribromophenol	88%		37-144%
4165-60-0	Nitrobenzene-d5	68%		36-135%
321-60-8	2-Fluorobiphenyl	77%		44-135%
1718-51-0	Terphenyl-d14	79%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-8-S01		Date Sampled:	01/15/01	
Lab Sample ID:	F8703-2		Date Received:	01/18/01	
Matrix:	SO - Solid		Percent Solids:	90.0	
Method:	SW846 8015 M SW846 3550B				
Project:	CTO 229				

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00909.D	25	01/26/01	SKW	01/25/01	OP2628	GZF42
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	1030	230	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	116%		40-140%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: RH-BR-8-S01

Lab Sample ID: F8703-2

Matrix: SO - Solid

Project: CTO 229

Date Sampled: 01/15/01

Date Received: 01/18/01

Percent Solids: 90.0

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	47.1	10.9	mg/kg	1	01/30/01	02/02/01 JK	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID: RH-BR-8-S02  
 Lab Sample ID: F8703-3  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 01/16/01  
 Date Received: 01/18/01  
 Percent Solids: 93.2

Run #1 *	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010735.D	1	01/25/01	NAF	n/a	n/a	VH261

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	55	ug/kg	
71-43-2	Benzene	ND	5.5	ug/kg	
75-27-4	Bromodichloromethane	ND	5.5	ug/kg	
75-25-2	Bromoform	ND	5.5	ug/kg	
108-90-7	Chlorobenzene	ND	5.5	ug/kg	
75-00-3	Chloroethane	ND	5.5	ug/kg	
67-66-3	Chloroform	ND	5.5	ug/kg	
75-15-0	Carbon disulfide	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.5	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.5	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.5	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.5	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.5	ug/kg	
124-48-1	Dibromochloromethane	ND	5.5	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.5	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.5	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.5	ug/kg	
100-41-4	Ethylbenzene	ND	5.5	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	11	ug/kg	
74-83-9	Methyl bromide	ND	5.5	ug/kg	
74-87-3	Methyl chloride	ND	5.5	ug/kg	
75-09-2	Methylene chloride	ND	11	ug/kg	
78-93-3	Methyl ethyl ketone	ND	11	ug/kg	
100-42-5	Styrene	ND	5.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.5	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.5	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.5	ug/kg	
108-88-3	Toluene	ND	5.5	ug/kg	
79-01-6	Trichloroethylene	ND	5.5	ug/kg	
75-01-4	Vinyl chloride	ND	5.5	ug/kg	
1330-20-7	Xylene (total)	ND	16	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-8-S02	Date Sampled:	01/16/01
Lab Sample ID:	F8703-3	Date Received:	01/18/01
Matrix:	SO - Solid	Percent Solids:	93.2
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		71-122%
2037-26-5	Toluene-D8	98%		73-128%
460-00-4	4-Bromofluorobenzene	102%		53-158%
17060-07-0	1,2-Dichloroethane-D4	97%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-8-S02		Date Sampled:	01/16/01
Lab Sample ID:	F8703-3		Date Received:	01/18/01
Matrix:	SO - Solid		Percent Solids:	93.2
Method:	SW846 8270C	SW846 3550B		
Project:	CTO 229			

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006241.D	1	01/27/01	ME	01/25/01	OP2632	SL376
Run #2							

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	890	ug/kg	
95-57-8	2-Chlorophenol	ND	360	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	360	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	360	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	890	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	890	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	710	ug/kg	
95-48-7	2-Methylphenol	ND	360	ug/kg	
	3&4-Methylphenol	ND	360	ug/kg	
88-75-5	2-Nitrophenol	ND	360	ug/kg	
100-02-7	4-Nitrophenol	ND	890	ug/kg	
87-86-5	Pentachlorophenol	ND	890	ug/kg	
108-95-2	Phenol	ND	360	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	360	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	360	ug/kg	
83-32-9	Acenaphthene	ND	360	ug/kg	
208-96-8	Acenaphthylene	ND	360	ug/kg	
120-12-7	Anthracene	ND	360	ug/kg	
56-55-3	Benzo(a)anthracene	ND	360	ug/kg	
50-32-8	Benzo(a)pyrene	ND	360	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	360	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	360	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	360	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	360	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	360	ug/kg	
100-51-6	Benzyl Alcohol	ND	360	ug/kg	
91-58-7	2-Chloronaphthalene	ND	360	ug/kg	
106-47-8	4-Chloroaniline	ND	360	ug/kg	
86-74-8	Carbazole	ND	360	ug/kg	
218-01-9	Chrysene	ND	360	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	360	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	360	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	360	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	360	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	360	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	360	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-8-S02	Date Sampled:	01/16/01
Lab Sample ID:	F8703-3	Date Received:	01/18/01
Matrix:	SO - Solid	Percent Solids:	93.2
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	360	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	360	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	360	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	710	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	360	ug/kg	
132-64-9	Dibenzofuran	ND	360	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	360	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	360	ug/kg	
84-66-2	Diethyl phthalate	ND	360	ug/kg	
131-11-3	Dimethyl phthalate	ND	360	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	360	ug/kg	
206-44-0	Fluoranthene	ND	360	ug/kg	
86-73-7	Fluorene	ND	360	ug/kg	
118-74-1	Hexachlorobenzene	ND	360	ug/kg	
87-68-3	Hexachlorobutadiene	ND	360	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	360	ug/kg	
67-72-1	Hexachloroethane	ND	360	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	360	ug/kg	
78-59-1	Isophorone	ND	360	ug/kg	
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	
88-74-4	2-Nitroaniline	ND	360	ug/kg	
99-09-2	3-Nitroaniline	ND	360	ug/kg	
100-01-6	4-Nitroaniline	ND	360	ug/kg	
91-20-3	Naphthalene	ND	360	ug/kg	
98-95-3	Nitrobenzene	ND	360	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	360	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	360	ug/kg	
85-01-8	Phenanthrene	ND	360	ug/kg	
129-00-0	Pyrene	ND	360	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	360	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		36-129%
4165-62-2	Phenol-d5	53%		38-135%
118-79-6	2,4,6-Tribromophenol	67%		37-144%
4165-60-0	Nitrobenzene-d5	49%		36-135%
321-60-8	2-Fluorobiphenyl	46%		44-135%
1718-51-0	Terphenyl-d14	85%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: RH-BR-8-S02	Date Sampled: 01/16/01
Lab Sample ID: F8703-3	Date Received: 01/18/01
Matrix: SO - Solid	Percent Solids: 93.2
Method: SW846 8015 M SW846 3550B	
Project: CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00910.D	1	01/26/01	SKW	01/25/01	OP2628	GZF42
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	8.9	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	85%		40-140%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

### Report of Analysis

Client Sample ID: RH-BR-8-S02

Lab Sample ID: F8703-3

Matrix: SO - Solid

Project: CTO 229

Date Sampled: 01/16/01

Date Received: 01/18/01

Percent Solids: 93.2

#### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.5	mg/kg	1	01/30/01	02/02/01 JK	SW846 6010B

---

RL = Reporting Limit

## Report of Analysis

Client Sample ID: RH-BR-8-S03	Date Sampled: 01/16/01
Lab Sample ID: F8703-4	Date Received: 01/18/01
Matrix: SO - Solid	Percent Solids: 94.8
Method: SW846 8260B	
Project: CTO 229	

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010736.D	1	01/25/01	NAF	n/a	n/a	VH261

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	54	ug/kg	
71-43-2	Benzene	ND	5.4	ug/kg	
75-27-4	Bromodichloromethane	ND	5.4	ug/kg	
75-25-2	Bromoform	ND	5.4	ug/kg	
108-90-7	Chlorobenzene	ND	5.4	ug/kg	
75-00-3	Chloroethane	ND	5.4	ug/kg	
67-66-3	Chloroform	ND	5.4	ug/kg	
75-15-0	Carbon disulfide	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.4	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.4	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.4	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.4	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.4	ug/kg	
124-48-1	Dibromochloromethane	ND	5.4	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.4	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.4	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.4	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.4	ug/kg	
100-41-4	Ethylbenzene	ND	5.4	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	11	ug/kg	
74-83-9	Methyl bromide	ND	5.4	ug/kg	
74-87-3	Methyl chloride	ND	5.4	ug/kg	
75-09-2	Methylene chloride	ND	11	ug/kg	
78-93-3	Methyl ethyl ketone	ND	11	ug/kg	
100-42-5	Styrene	ND	5.4	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.4	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.4	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.4	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.4	ug/kg	
108-88-3	Toluene	ND	5.4	ug/kg	
79-01-6	Trichloroethylene	ND	5.4	ug/kg	
75-01-4	Vinyl chloride	ND	5.4	ug/kg	
1330-20-7	Xylene (total)	ND	16	ug/kg	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-8-S03	Date Sampled:	01/16/01
Lab Sample ID:	F8703-4	Date Received:	01/18/01
Matrix:	SO - Solid	Percent Solids:	94.8
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		71-122%
2037-26-5	Toluene-D8	103%		73-128%
460-00-4	4-Bromofluorobenzene	103%		53-158%
17060-07-0	1,2-Dichloroethane-D4	101%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-8-S03		Date Sampled:	01/16/01	
Lab Sample ID:	F8703-4		Date Received:	01/18/01	
Matrix:	SO - Solid		Percent Solids:	94.8	
Method:	SW846 8270C SW846 3550B				
Project:	CTO 229				

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006242.D	1	01/27/01	ME	01/25/01	OP2632	SL376
Run #2							

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	880	ug/kg	
95-57-8	2-Chlorophenol	ND	350	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	350	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	350	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	880	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	880	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	700	ug/kg	
95-48-7	2-Methylphenol	ND	350	ug/kg	
	3&4-Methylphenol	ND	350	ug/kg	
88-75-5	2-Nitrophenol	ND	350	ug/kg	
100-02-7	4-Nitrophenol	ND	880	ug/kg	
87-86-5	Pentachlorophenol	ND	880	ug/kg	
108-95-2	Phenol	ND	350	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	350	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	350	ug/kg	
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	350	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	350	ug/kg	
50-32-8	Benzo(a)pyrene	ND	350	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	350	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	350	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	350	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	350	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	350	ug/kg	
100-51-6	Benzyl Alcohol	ND	350	ug/kg	
91-58-7	2-Chloronaphthalene	ND	350	ug/kg	
106-47-8	4-Chloroaniline	ND	350	ug/kg	
86-74-8	Carbazole	ND	350	ug/kg	
218-01-9	Chrysene	ND	350	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	350	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	350	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	350	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	350	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	350	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	350	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-8-S03	Date Sampled:	01/16/01
Lab Sample ID:	F8703-4	Date Received:	01/18/01
Matrix:	SO - Solid	Percent Solids:	94.8
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	350	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	350	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	350	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	700	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	350	ug/kg	
132-64-9	Dibenzofuran	ND	350	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	350	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	350	ug/kg	
84-66-2	Diethyl phthalate	ND	350	ug/kg	
131-11-3	Dimethyl phthalate	ND	350	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	123	350	ug/kg	J
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
118-74-1	Hexachlorobenzene	ND	350	ug/kg	
87-68-3	Hexachlorobutadiene	ND	350	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	350	ug/kg	
67-72-1	Hexachloroethane	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	350	ug/kg	
78-59-1	Isophorone	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
88-74-4	2-Nitroaniline	ND	350	ug/kg	
99-09-2	3-Nitroaniline	ND	350	ug/kg	
100-01-6	4-Nitroaniline	ND	350	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
98-95-3	Nitrobenzene	ND	350	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	350	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		36-129%
4165-62-2	Phenol-d5	53%		38-135%
118-79-6	2,4,6-Tribromophenol	67%		37-144%
4165-60-0	Nitrobenzene-d5	50%		36-135%
321-60-8	2-Fluorobiphenyl	47%		44-135%
1718-51-0	Terphenyl-d14	75%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-8-S03		Date Sampled:	01/16/01	
Lab Sample ID:	F8703-4		Date Received:	01/18/01	
Matrix:	SO - Solid		Percent Solids:	94.8	
Method:	SW846 8015 M SW846 3550B				
Project:	CTO 229				

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00911.D	1	01/26/01	SKW	01/25/01	OP2628	GZF42
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	8.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	84%		40-140%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: RH-BR-8-S03

Lab Sample ID: F8703-4

Matrix: SO - Solid

Project: CTO 229

Date Sampled: 01/16/01

Date Received: 01/18/01

Percent Solids: 94.8

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.4	mg/kg	1	01/30/01	02/02/01 JK	SW846 6010B

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RL = Reporting Limit

# SECTION 2

**CASE NARRATIVE**  
**GC/MS Volatile Analysis**

Laboratory Reference No. F8703

Client/Project: AMEC/CTO 299 – Red Hill Bulk Fuel Storage

**I. RECEIPT**

The samples were received via DHL Worldwide Express on January 18, 2001.

**II. HOLDING TIMES**

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 5030A

Analysis: SW-846 8260B

**IV. PREPARATION**

Samples were prepared as received. Soil samples were received without EnCore samples and were therefore analyzed using method 5030A.

**V. ANALYSIS**

A. Calibration: All acceptance criteria were met.

B. Blanks: All acceptance criteria were met.

C. Spikes (Matrix Spike, Matrix Spike Duplicate, and LCS): The MS and MSD for the soil samples (F8703-2) were found to be outside the limits for 1,1,2,2-Tetrachloroethane (3% and 3% vs 35%), Trichloroethylene (189% and 184% vs 125%) and in the MS for vinyl chloride (141% vs 131%). These compounds were not detected in any samples and the Blank Spike (LCS) was found to be in control.

D. Samples: Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package:

Signed: David H. Greer, Jr. Date: 02/08/01  
David H. Greer, Jr.  
Quality Assurance Officer

**CASE NARRATIVE**  
**GC/MS Semi-Volatile Analysis**

Laboratory Reference No. F8703

Client/Project: AMEC/CTO 229 – Red Hill Bulk Fuel Storage

**I. RECEIPT**

The samples were received via DHL Worldwide Express on January 18, 2001.

**II. HOLDING TIMES**

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 3550B

Analysis: SW-846 8270C

**IV. PREPARATION**

Sample preparation proceeded normally.

**V. ANALYSIS**

A. Calibration: All acceptance criteria were met.

B. Blanks: All acceptance criteria were met.

C. Spikes (Matrix Spike, Matrix Spike Duplicate, and LCS): The MS and MSD RPDs were found to be slightly above the acceptance limits for several analytes. The MS recovery (-47% vs 63%) and RPD (32 vs 12) was outside the limits for 2-Methylnaphthalene due to the high level of this compound found in the spike sample (F8772-3) relative to the spike amount. The LCS (blank spike) was found to be acceptable for all compounds.

D. Samples: Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package:

Signed: David H. Greer, Jr. Date: 02/09/01  
David H. Greer, Jr.  
Quality Assurance Officer

# SECTION 3

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# SECTION 4



**ACCUTEST.**

### Sample Summary

Ogden Environmental

Job No: F8703

CTO 229

Project No: 1-1019-0229

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F8703-1	01/16/01	00:00 JLD	01/18/01	AQ	Trip Blank Soil	TRIP BLANK
F8703-2	01/15/01	08:00 JLD	01/18/01	SO	Solid	RH-BR-8-S01
F8703-3	01/16/01	12:40 JLD	01/18/01	SO	Solid	RH-BR-8-S02
F8703-4	01/16/01	17:06 JLD	01/18/01	SO	Solid	RH-BR-8-S03

<b>Client Sample ID:</b> TRIP BLANK	<b>Date Sampled:</b> 01/16/01
<b>Lab Sample ID:</b> F8703-1	<b>Date Received:</b> 01/18/01
<b>Matrix:</b> AQ - Trip Blank Soil	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> CTO 229	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0002169.D	1	01/19/01	JG	n/a	n/a	VC98
Run #2							

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	ug/l	
75-25-2	Bromoform	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	10	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	5.0	ug/l	
74-87-3	Methyl chloride	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
100-42-5	Styrene	ND	2.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> TRIP BLANK		<b>Date Sampled:</b> 01/16/01
<b>Lab Sample ID:</b> F8703-1		<b>Date Received:</b> 01/18/01
<b>Matrix:</b> AQ - Trip Blank Soil		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> CTO 229		

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		69-128%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

Client Sample ID: RH-BR-8-S01  
 Lab Sample ID: F8703-2  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 01/15/01  
 Date Received: 01/18/01  
 Percent Solids: 90.0

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010734.D	1	01/25/01	NAF	n/a	n/a	VH261

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	56	ug/kg	
71-43-2	Benzene	ND	5.6	ug/kg	
75-27-4	Bromodichloromethane	ND	5.6	ug/kg	
75-25-2	Bromoform	ND	5.6	ug/kg	
108-90-7	Chlorobenzene	ND	5.6	ug/kg	
75-00-3	Chloroethane	ND	5.6	ug/kg	
67-66-3	Chloroform	ND	5.6	ug/kg	
75-15-0	Carbon disulfide	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.6	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.6	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.6	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.6	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.6	ug/kg	
124-48-1	Dibromochloromethane	ND	5.6	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.6	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.6	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.6	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.6	ug/kg	
100-41-4	Ethylbenzene	ND	5.6	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	11	ug/kg	
74-83-9	Methyl bromide	ND	5.6	ug/kg	
74-87-3	Methyl chloride	ND	5.6	ug/kg	
75-09-2	Methylene chloride	ND	11	ug/kg	
78-93-3	Methyl ethyl ketone	ND	11	ug/kg	
100-42-5	Styrene	ND	5.6	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.6	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.6	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.6	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.6	ug/kg	
108-88-3	Toluene	ND	5.6	ug/kg	
79-01-6	Trichloroethylene	ND	5.6	ug/kg	
75-01-4	Vinyl chloride	ND	5.6	ug/kg	
1330-20-7	Xylene (total)	ND	17	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-8-S01	
<b>Lab Sample ID:</b> F8703-2	<b>Date Sampled:</b> 01/15/01
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 01/18/01
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 90.0
<b>Project:</b> CTO 229	

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	79%		71-122%
2037-26-5	Toluene-D8	102%		73-128%
460-00-4	4-Bromofluorobenzene	112%		53-158%
17060-07-0	1,2-Dichloroethane-D4	98%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Client Sample ID: RH-BR-8-S01	Date Sampled: 01/15/01
Lab Sample ID: F8703-2	Date Received: 01/18/01
Matrix: SO - Solid	Percent Solids: 90.0
Method: SW846 8270C SW846 3550B	
Project: CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006240.D	1	01/27/01	ME	01/25/01	OP2632	SL376
Run #2							

### ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	920	ug/kg	
95-57-8	2-Chlorophenol	ND	370	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	370	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	370	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	920	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	920	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	740	ug/kg	
95-48-7	2-Methylphenol	ND	370	ug/kg	
	3&4-Methylphenol	ND	370	ug/kg	
88-75-5	2-Nitrophenol	ND	370	ug/kg	
100-02-7	4-Nitrophenol	ND	920	ug/kg	
87-86-5	Pentachlorophenol	ND	920	ug/kg	
108-95-2	Phenol	ND	370	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	370	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	370	ug/kg	
83-32-9	Acenaphthene	ND	370	ug/kg	
208-96-8	Acenaphthylene	ND	370	ug/kg	
120-12-7	Anthracene	ND	370	ug/kg	
56-55-3	Benzo(a)anthracene	ND	370	ug/kg	
50-32-8	Benzo(a)pyrene	ND	370	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	370	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	370	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	370	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	370	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	370	ug/kg	
100-51-6	Benzyl Alcohol	ND	370	ug/kg	
91-58-7	2-Chloronaphthalene	ND	370	ug/kg	
106-47-8	4-Chloroaniline	ND	370	ug/kg	
86-74-8	Carbazole	ND	370	ug/kg	
218-01-9	Chrysene	ND	370	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	370	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	370	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	370	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	370	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	370	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	370	ug/kg	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-8-S01	<b>Date Sampled:</b> 01/15/01
<b>Lab Sample ID:</b> F8703-2	<b>Date Received:</b> 01/18/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 90.0
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	370	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	370	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	370	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	740	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	370	ug/kg	
132-64-9	Dibenzofuran	ND	370	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	370	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	370	ug/kg	
84-66-2	Diethyl phthalate	ND	370	ug/kg	
131-11-3	Dimethyl phthalate	ND	370	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	189	370	ug/kg	J
206-44-0	Fluoranthene	ND	370	ug/kg	
86-73-7	Fluorene	ND	370	ug/kg	
118-74-1	Hexachlorobenzene	ND	370	ug/kg	
87-68-3	Hexachlorobutadiene	ND	370	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	370	ug/kg	
67-72-1	Hexachloroethane	ND	370	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	370	ug/kg	
78-59-1	Isophorone	ND	370	ug/kg	
91-57-6	2-Methylnaphthalene	ND	370	ug/kg	
88-74-4	2-Nitroaniline	ND	370	ug/kg	
99-09-2	3-Nitroaniline	ND	370	ug/kg	
100-01-6	4-Nitroaniline	ND	370	ug/kg	
91-20-3	Naphthalene	ND	370	ug/kg	
98-95-3	Nitrobenzene	ND	370	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	370	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	370	ug/kg	
85-01-8	Phenanthrene	ND	370	ug/kg	
129-00-0	Pyrene	ND	370	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	370	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	65%		36-129%
4165-62-2	Phenol-d5	78%		38-135%
118-79-6	2,4,6-Tribromophenol	88%		37-144%
4165-60-0	Nitrobenzene-d5	68%		36-135%
321-60-8	2-Fluorobiphenyl	77%		44-135%
1718-51-0	Terphenyl-d14	79%		42-149%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> RH-BR-8-S01							
<b>Lab Sample ID:</b> F8703-2					<b>Date Sampled:</b> 01/15/01		
<b>Matrix:</b> SO - Solid					<b>Date Received:</b> 01/18/01		
<b>Method:</b> SW846 8015 M SW846 3550B					<b>Percent Solids:</b> 90.0		
<b>Project:</b> CTO 229							

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00909.D	25	01/26/01	SKW	01/25/01	OP2628	GZF42
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	1030	230	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	116%		40-140%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-8-S01	<b>Date Sampled:</b> 01/15/01
<b>Lab Sample ID:</b> F8703-2	<b>Date Received:</b> 01/18/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 90.0
<b>Project:</b> CTO 229	

**Metals Analysis**

<b>Analyte</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>DF</b>	<b>Prep</b>	<b>Analyzed By</b>	<b>Method</b>
Lead	47.1	10.9	mg/kg	1	01/30/01	02/02/01 JK	SW846 6010B

RL = Reporting Limit

<b>Client Sample ID:</b> RH-BR-8-S02	
<b>Lab Sample ID:</b> F8703-3	<b>Date Sampled:</b> 01/16/01
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 01/18/01
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 93.2
<b>Project:</b> CTO 229	

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010735.D	1	01/25/01	NAF	n/a	n/a	VH261

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	55	ug/kg	
71-43-2	Benzene	ND	5.5	ug/kg	
75-27-4	Bromodichloromethane	ND	5.5	ug/kg	
75-25-2	Bromoform	ND	5.5	ug/kg	
108-90-7	Chlorobenzene	ND	5.5	ug/kg	
75-00-3	Chloroethane	ND	5.5	ug/kg	
67-66-3	Chloroform	ND	5.5	ug/kg	
75-15-0	Carbon disulfide	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.5	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.5	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.5	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.5	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.5	ug/kg	
124-48-1	Dibromochloromethane	ND	5.5	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.5	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.5	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.5	ug/kg	
100-41-4	Ethylbenzene	ND	5.5	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	11	ug/kg	
74-83-9	Methyl bromide	ND	5.5	ug/kg	
74-87-3	Methyl chloride	ND	5.5	ug/kg	
75-09-2	Methylene chloride	ND	11	ug/kg	
78-93-3	Methyl ethyl ketone	ND	11	ug/kg	
100-42-5	Styrene	ND	5.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.5	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.5	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.5	ug/kg	
108-88-3	Toluene	ND	5.5	ug/kg	
79-01-6	Trichloroethylene	ND	5.5	ug/kg	
75-01-4	Vinyl chloride	ND	5.5	ug/kg	
1330-20-7	Xylene (total)	ND	16	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-8-S02	<b>Date Sampled:</b> 01/16/01
<b>Lab Sample ID:</b> F8703-3	<b>Date Received:</b> 01/18/01
<b>Matrix:</b> SO - Solid.	<b>Percent Solids:</b> 93.2
<b>Method:</b> SW846 8260B	
<b>Project:</b> CTO 229	

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		71-122%
2037-26-5	Toluene-D8	98%		73-128%
460-00-4	4-Bromofluorobenzene	102%		53-158%
17060-07-0	1,2-Dichloroethane-D4	97%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-8-S02	<b>Date Sampled:</b> 01/16/01
<b>Lab Sample ID:</b> F8703-3	<b>Date Received:</b> 01/18/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 93.2
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006241.D	1	01/27/01	ME	01/25/01	OP2632	SL376
Run #2							

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	890	ug/kg	
95-57-8	2-Chlorophenol	ND	360	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	360	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	360	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	890	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	890	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	710	ug/kg	
95-48-7	2-Methylphenol	ND	360	ug/kg	
	3&4-Methylphenol	ND	360	ug/kg	
88-75-5	2-Nitrophenol	ND	360	ug/kg	
100-02-7	4-Nitrophenol	ND	890	ug/kg	
87-86-5	Pentachlorophenol	ND	890	ug/kg	
108-95-2	Phenol	ND	360	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	360	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	360	ug/kg	
83-32-9	Acenaphthene	ND	360	ug/kg	
208-96-8	Acenaphthylene	ND	360	ug/kg	
120-12-7	Anthracene	ND	360	ug/kg	
56-55-3	Benzo(a)anthracene	ND	360	ug/kg	
50-32-8	Benzo(a)pyrene	ND	360	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	360	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	360	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	360	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	360	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	360	ug/kg	
100-51-6	Benzyl Alcohol	ND	360	ug/kg	
91-58-7	2-Chloronaphthalene	ND	360	ug/kg	
106-47-8	4-Chloroaniline	ND	360	ug/kg	
86-74-8	Carbazole	ND	360	ug/kg	
218-01-9	Chrysene	ND	360	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	360	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	360	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	360	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	360	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	360	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	360	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-8-S02	<b>Date Sampled:</b> 01/16/01
<b>Lab Sample ID:</b> F8703-3	<b>Date Received:</b> 01/18/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 93.2
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	360	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	360	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	360	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	710	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	360	ug/kg	
132-64-9	Dibenzofuran	ND	360	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	360	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	360	ug/kg	
84-66-2	Diethyl phthalate	ND	360	ug/kg	
131-11-3	Dimethyl phthalate	ND	360	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	360	ug/kg	
206-44-0	Fluoranthene	ND	360	ug/kg	
86-73-7	Fluorene	ND	360	ug/kg	
118-74-1	Hexachlorobenzene	ND	360	ug/kg	
87-68-3	Hexachlorobutadiene	ND	360	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	360	ug/kg	
67-72-1	Hexachloroethane	ND	360	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	360	ug/kg	
78-59-1	Isophorone	ND	360	ug/kg	
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	
88-74-4	2-Nitroaniline	ND	360	ug/kg	
99-09-2	3-Nitroaniline	ND	360	ug/kg	
100-01-6	4-Nitroaniline	ND	360	ug/kg	
91-20-3	Naphthalene	ND	360	ug/kg	
98-95-3	Nitrobenzene	ND	360	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	360	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	360	ug/kg	
85-01-8	Phenanthrene	ND	360	ug/kg	
129-00-0	Pyrene	ND	360	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	360	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		36-129%
4165-62-2	Phenol-d5	53%		38-135%
118-79-6	2,4,6-Tribromophenol	67%		37-144%
4165-60-0	Nitrobenzene-d5	49%		36-135%
321-60-8	2-Fluorobiphenyl	46%		44-135%
1718-51-0	Terphenyl-d14	85%		42-149%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



**Report of Analysis**

<b>Client Sample ID:</b> RH-BR-8-S02	<b>Date Sampled:</b> 01/16/01
<b>Lab Sample ID:</b> F8703-3	<b>Date Received:</b> 01/18/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 93.2
<b>Method:</b> SW846 8015 M SW846 3550B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00910.D	1	01/26/01	SKW	01/25/01	OP2628	GZF42
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	8.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		40-140%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



# Report of Analysis

Client Sample ID: RH-BR-8-S02

Lab Sample ID: F8703-3

Matrix: SO - Solid

Project: CTO 229

Date Sampled: 01/16/01

Date Received: 01/18/01

Percent Solids: 93.2

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.5	mg/kg	1	01/30/01	02/02/01 JK	SW846 6010B

RL = Reporting Limit



# Report of Analysis

<b>Client Sample ID:</b> RH-BR-8-S03	
<b>Lab Sample ID:</b> F8703-4	<b>Date Sampled:</b> 01/16/01
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 01/18/01
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 94.8
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010736.D	1	01/25/01	NAF	n/a	n/a	VH261
Run #2							

### VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	54	ug/kg	
71-43-2	Benzene	ND	5.4	ug/kg	
75-27-4	Bromodichloromethane	ND	5.4	ug/kg	
75-25-2	Bromoform	ND	5.4	ug/kg	
108-90-7	Chlorobenzene	ND	5.4	ug/kg	
75-00-3	Chloroethane	ND	5.4	ug/kg	
67-66-3	Chloroform	ND	5.4	ug/kg	
75-15-0	Carbon disulfide	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.4	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.4	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.4	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.4	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.4	ug/kg	
124-48-1	Dibromochloromethane	ND	5.4	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.4	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.4	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.4	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.4	ug/kg	
100-41-4	Ethylbenzene	ND	5.4	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	11	ug/kg	
74-83-9	Methyl bromide	ND	5.4	ug/kg	
74-87-3	Methyl chloride	ND	5.4	ug/kg	
75-09-2	Methylene chloride	ND	11	ug/kg	
78-93-3	Methyl ethyl ketone	ND	11	ug/kg	
100-42-5	Styrene	ND	5.4	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.4	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.4	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.4	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.4	ug/kg	
108-88-3	Toluene	ND	5.4	ug/kg	
79-01-6	Trichloroethylene	ND	5.4	ug/kg	
75-01-4	Vinyl chloride	ND	5.4	ug/kg	
1330-20-7	Xylene (total)	ND	16	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-8-S03	
<b>Lab Sample ID:</b> F8703-4	<b>Date Sampled:</b> 01/16/01
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 01/18/01
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 94.8
<b>Project:</b> CTO 229	

**VOA TCL List**

<b>CAS No.</b>	<b>Surrogate Recoveries</b>	<b>Run# 1</b>	<b>Run# 2</b>	<b>Limits</b>
1868-53-7	Dibromofluoromethane	98%		71-122%
2037-26-5	Toluene-D8	103%		73-128%
460-00-4	4-Bromofluorobenzene	103%		53-158%
17060-07-0	1,2-Dichloroethane-D4	101%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-8-S03	<b>Date Sampled:</b> 01/16/01
<b>Lab Sample ID:</b> F8703-4	<b>Date Received:</b> 01/18/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 94.8
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006242.D	1	01/27/01	ME	01/25/01	OP2632	SL376
Run #2							

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	880	ug/kg	
95-57-8	2-Chlorophenol	ND	350	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	350	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	350	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	880	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	880	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	700	ug/kg	
95-48-7	2-Methylphenol	ND	350	ug/kg	
	3&4-Methylphenol	ND	350	ug/kg	
88-75-5	2-Nitrophenol	ND	350	ug/kg	
100-02-7	4-Nitrophenol	ND	880	ug/kg	
87-86-5	Pentachlorophenol	ND	880	ug/kg	
108-95-2	Phenol	ND	350	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	350	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	350	ug/kg	
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	350	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	350	ug/kg	
50-32-8	Benzo(a)pyrene	ND	350	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	350	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	350	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	350	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	350	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	350	ug/kg	
100-51-6	Benzyl Alcohol	ND	350	ug/kg	
91-58-7	2-Chloronaphthalene	ND	350	ug/kg	
106-47-8	4-Chloroaniline	ND	350	ug/kg	
86-74-8	Carbazole	ND	350	ug/kg	
218-01-9	Chrysene	ND	350	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	350	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	350	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	350	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	350	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	350	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	350	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-8-S03	<b>Date Sampled:</b> 01/16/01
<b>Lab Sample ID:</b> F8703-4	<b>Date Received:</b> 01/18/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 94.8
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	350	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	350	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	350	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	700	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	350	ug/kg	
132-64-9	Dibenzofuran	ND	350	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	350	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	350	ug/kg	
84-66-2	Diethyl phthalate	ND	350	ug/kg	
131-11-3	Dimethyl phthalate	ND	350	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	123	350	ug/kg	J
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
118-74-1	Hexachlorobenzene	ND	350	ug/kg	
87-68-3	Hexachlorobutadiene	ND	350	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	350	ug/kg	
67-72-1	Hexachloroethane	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	350	ug/kg	
78-59-1	Isophorone	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
88-74-4	2-Nitroaniline	ND	350	ug/kg	
99-09-2	3-Nitroaniline	ND	350	ug/kg	
100-01-6	4-Nitroaniline	ND	350	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
98-95-3	Nitrobenzene	ND	350	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	350	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		36-129%
4165-62-2	Phenol-d5	53%		38-135%
118-79-6	2,4,6-Tribromophenol	67%		37-144%
4165-60-0	Nitrobenzene-d5	50%		36-135%
321-60-8	2-Fluorobiphenyl	47%		44-135%
1718-51-0	Terphenyl-d14	75%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> RH-BR-8-S03	<b>Date Sampled:</b> 01/16/01
<b>Lab Sample ID:</b> F8703-4	<b>Date Received:</b> 01/18/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 94.8
<b>Method:</b> SW846 8015 M SW846 3550B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00911.D	1	01/26/01	SKW	01/25/01	OP2628	GZF42
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	8.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	84%		40-140%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-8-S03	<b>Date Sampled:</b> 01/16/01
<b>Lab Sample ID:</b> F8703-4	<b>Date Received:</b> 01/18/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 94.8
<b>Project:</b> CTO 229	

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.4	mg/kg	1	01/30/01	02/02/01 JK	SW846 6010B

RL = Reporting Limit

# SECTION 5



Technical Report for

Ogden Environmental

CTO 229

1-1019-0229

Accutest Job Number: F8625

Report to:

Ogden Environmental  
2904 Westcorp Blvd.  
Suite 204  
Huntsville, AL 35805

ATTN: Kent Evetts

Total number of pages in report: 427



Harry Behzadi, Ph.D.  
Laboratory Director

Results relate only to the items tested.

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ACCUTEST LABORATORIES SOUTHEAST  
4405 Vineland Road, Suite C-15  
Orlando, Florida 32811  
Phone: (407)425-6700  
Fax: (407) 425-0707

DATE: 1/17/01

NUMBER OF PAGES (Including cover letter): 3

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NAME: Kept Everts  
COMPANY: JMEC  
FAX NUMBER: 256-539-374

FROM: LINDA R. WILLIAMS  
PROJECT MANAGER

EMAIL: [lindaw@accutest.com](mailto:lindaw@accutest.com)

COMMENTS:

\_\_\_\_\_  
\_\_\_\_\_  
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### ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest Job Number: F8625

Client/Project: AMEC - Bulk Fuel Storage

Date/Time Received: 1-12-01 / 10:00

Method of Delivery: Fed Ex Greyhound UPS Pickup Delivery Other - DTL

Air Bill Number: 8103264536

Cooler Temperatures: 2.0

Chain Of Custody Provided? YES NO

Chain Of Custody Match Bottles? YES NO

Sample Labels Present? YES NO

Are All Bottles Unbroken? YES NO

Proper Preservative? YES NO

Correct Containers Used? YES NO

Sufficient Sample Volume? YES NO

Number of Encores: 0

COMMENTS:  
\_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature: Am

Date: 1-12-01



# SECTION 2

**CASE NARRATIVE  
GC/MS Volatile Analysis**

Laboratory Reference No. F8625

Client/Project: AMEC (Ogden Environmental)/CTO 229

**I. RECEIPT**

No exceptions were encountered. All samples were received via DHL Worldwide Express on 01/12/01.

**II. HOLDING TIMES**

- A. Sample Preparation: All holding times were met.
- B. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 5030B

Analysis: SW-846 8260B

**IV. PREPARATION**

Sample preparation proceeded normally.

**V. ANALYSIS**

- A. Calibration: All acceptance criteria were met.
- B. Blanks: All acceptance criteria were met.
- C. Spikes (Matrix Spike and LCS): All acceptance criteria were met. Except BS recovery for Carbon Tetrachloride high ( 127 vs. 126), however recovery within control limit in MS & MSD.
- D. Duplicates: All acceptance criteria were met.
- E. Samples: Sample analyses proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package and in the computer-readable data submitted on diskette:

Signed: \_\_\_\_\_

Harry Behzadi, Ph.D.  
Laboratory Director

Date: \_\_\_\_\_

1/31/01

**CASE NARRATIVE**  
**GC/MS Semi-Volatile Analysis**

Laboratory Reference No. F8625

Client/Project: AMEC (Ogden Environmental)/CTO 229

**I. RECEIPT**

No exceptions were encountered. All samples were received via DHL Worldwide Express on 01/12/01.

**II. HOLDING TIMES**

C. Sample Preparation: All holding times were met.

D. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 3550B

Analysis: SW-846 8270C

**IV. PREPARATION**

Sample preparation proceeded normally.

**V. ANALYSIS**

F. Calibration: All acceptance criteria were met.

G. Blanks: All acceptance criteria were met.

H. Spikes (Matrix Spike, Matrix Spike Duplicate and LCS): LCS recovery outside of control limit for 4-Chloroaniline ( 34 vs. 49). The RPD outside control limit for number of compounds, however LCS, MS and MSD recovery were within control limit.

I. Surrogates: All acceptance criteria were met.

J. Samples: Sample analyses proceeded normally,.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package and in the computer-readable data submitted on diskette:

Signed: \_\_\_\_\_

Harry Behzadi, Ph.D.  
Laboratory Director

Date: \_\_\_\_\_

1/3/01

ACCUTEST LABORATORIES SOUTHEAST  
SAMPLE RECEIPT CONFIRMATION

Accutest Job Number: F8625

Client/Project: AMEC - Bulk Fuel Storage

Date/Time Received: 1-12-01 / 10:00

Method of Delivery: Fed Ex Greyhound UPS Pickup Delivery Other - D+L

Air Bill Number: 8103264536

Cooler Temperatures: 2.0

Chain Of Custody Provided? YES NO

Chain Of Custody Match Bottles? YES NO

Sample Labels Present? YES NO

Are All Bottles Unbroken? YES NO

Proper Preservative? YES NO

Correct Containers Used? YES NO

Sufficient Sample Volume? YES NO

Number of Encores: 0

COMMENTS:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature: HW

Date: 1-12-01

**CASE NARRATIVE**  
**GC Semi-Volatile Analysis**

Laboratory Reference No. F8625

Client/Project: AMEC (Ogden Environmental)/CTO 229

**I. RECEIPT**

No exceptions were encountered. All samples were received via DHL Worldwide Express on 01/12/01.

**II. HOLDING TIMES**

- E. Sample Preparation: All holding times were met.
- F. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 3550BB  
Analysis: SW-846 8015M

**IV. PREPARATION**

Sample preparation proceeded normally.

**V. ANALYSIS**

- K. Calibration: All acceptance criteria were met.
- L. Blanks: All acceptance criteria were met.
- M. Spikes (Matrix Spike, Matrix Spike Duplicate and LCS): Matrix Spike ( F8356-6MS) and Matrix Spike Duplicate LCS recovery was within control limit.
- N. Surrogates: All acceptance criteria were met.
- O. Samples: Sample analyses proceeded normally,
- P.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package and in the computer-readable data submitted on diskette:

Signed: \_\_\_\_\_

Harry Behzadi, Ph.D.  
Laboratory Director

Date: \_\_\_\_\_

1/31/01

**CASE NARRATIVE  
Inorganic Analysis**

Laboratory Reference No. F8625

Client/Project: AMEC (Ogden Environmental)/CTO 229

**I. RECEIPT**

No exceptions were encountered. All samples were received via DHL Worldwide Express on 01/12/01.

**II. HOLDING TIMES**

- A. Sample Preparation: All holding times were met.
- B. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 3050B  
Analysis: SW-846 6010B (Lead Only)

**IV. PREPARATION**

Sample preparation proceeded normally.

**V. ANALYSIS**

- A. Calibration: All acceptance criteria were met.
- B. Blanks: All acceptance criteria were met.
- C. Spikes (Matrix Spike, Matrix Spike Duplicate, and LCS): All acceptance criteria were met
- D. Duplicates: All acceptance criteria were met.
- E. Serial Dilutions: The serial dilution was acceptable .
- F. Samples: Sample analyses proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both *technically* and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package:

Signed: \_\_\_\_\_

Harry Behzadi, Ph.D.  
Laboratory Director

Date: \_\_\_\_\_

1/31/01

# SECTION 3

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# SECTION 4



### Sample Summary

Ogden Environmental

Job No: F8625

CTO 229

Project No: 1-1019-0229

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F8625-1	01/10/01	08:05	ALW 01/12/01	SO	Solid	RH-BR-10-SO1
F8625-2	01/10/01	12:05	ALW 01/12/01	SO	Solid	RH-BR-10-SO2
F8625-3	01/10/01	14:41	ALW 01/12/01	SO	Solid	RH-BR-10-SO3
F8625-4	01/10/01	00:00	ALW 01/12/01	AQ	Trip Blank Soil	TRIP BLANK

**Client Sample ID:** RH-BR-10-SO1  
**Lab Sample ID:** F8625-1  
**Matrix:** SO - Solid  
**Method:** SW846 8260B  
**Project:** CTO 229

**Date Sampled:** 01/10/01  
**Date Received:** 01/12/01  
**Percent Solids:** 90.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010680.D	1	01/19/01	NAF	n/a	n/a	VH258
Run #2							

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	48	ug/kg	
71-43-2	Benzene	ND	4.8	ug/kg	
75-27-4	Bromodichloromethane	ND	4.8	ug/kg	
75-25-2	Bromoform	ND	4.8	ug/kg	
108-90-7	Chlorobenzene	ND	4.8	ug/kg	
75-00-3	Chloroethane	ND	4.8	ug/kg	
67-66-3	Chloroform	ND	4.8	ug/kg	
75-15-0	Carbon disulfide	ND	9.5	ug/kg	
56-23-5	Carbon tetrachloride	ND	4.8	ug/kg	
75-34-3	1,1-Dichloroethane	ND	4.8	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	4.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	4.8	ug/kg	
78-87-5	1,2-Dichloropropane	ND	4.8	ug/kg	
124-48-1	Dibromochloromethane	ND	4.8	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	4.8	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	4.8	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	4.8	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	4.8	ug/kg	
100-41-4	Ethylbenzene	ND	4.8	ug/kg	
591-78-6	2-Hexanone	ND	9.5	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	9.5	ug/kg	
74-83-9	Methyl bromide	ND	4.8	ug/kg	
74-87-3	Methyl chloride	ND	4.8	ug/kg	
75-09-2	Methylene chloride	ND	9.5	ug/kg	
78-93-3	Methyl ethyl ketone	ND	9.5	ug/kg	
100-42-5	Styrene	ND	4.8	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	4.8	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	4.8	ug/kg	
127-18-4	Tetrachloroethylene	ND	4.8	ug/kg	
108-88-3	Toluene	ND	4.8	ug/kg	
79-01-6	Trichloroethylene	ND	4.8	ug/kg	
75-01-4	Vinyl chloride	ND	4.8	ug/kg	
1330-20-7	Xylene (total)	ND	14	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



**Client Sample ID:** RH-BR-10-SO1  
**Lab Sample ID:** F8625-1  
**Matrix:** SO - Solid  
**Method:** SW846 8260B  
**Project:** CTO 229

**Date Sampled:** 01/10/01  
**Date Received:** 01/12/01  
**Percent Solids:** 90.8

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		71-122%
2037-26-5	Toluene-D8	104%		73-128%
460-00-4	4-Bromofluorobenzene	99%		53-158%
17060-07-0	1,2-Dichloroethane-D4	89%		71-122%

(a) Sample introduction performed using method 5030A. Results reported on a wet weight basis.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



# Report of Analysis

Client Sample ID:	RH-BR-10-SO1	Date Sampled:	01/10/01
Lab Sample ID:	F8625-1	Date Received:	01/12/01
Matrix:	SO - Solid	Percent Solids:	90.8
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006159.D	1	01/24/01	ME	01/22/01	OP2606	SL373
Run #2							

### ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	920	ug/kg	
95-57-8	2-Chlorophenol	ND	370	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	370	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	370	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	920	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	920	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	730	ug/kg	
95-48-7	2-Methylphenol	ND	370	ug/kg	
	3&4-Methylphenol	ND	370	ug/kg	
88-75-5	2-Nitrophenol	ND	370	ug/kg	
100-02-7	4-Nitrophenol	ND	920	ug/kg	
87-86-5	Pentachlorophenol	ND	920	ug/kg	
108-95-2	Phenol	ND	370	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	370	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	370	ug/kg	
83-32-9	Acenaphthene	ND	370	ug/kg	
208-96-8	Acenaphthylene	ND	370	ug/kg	
120-12-7	Anthracene	ND	370	ug/kg	
56-55-3	Benzo(a)anthracene	ND	370	ug/kg	
50-32-8	Benzo(a)pyrene	ND	370	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	370	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	370	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	370	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	370	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	370	ug/kg	
100-51-6	Benzyl Alcohol	ND	370	ug/kg	
91-58-7	2-Chloronaphthalene	ND	370	ug/kg	
106-47-8	4-Chloroaniline	ND	370	ug/kg	
86-74-8	Carbazole	ND	370	ug/kg	
218-01-9	Chrysene	ND	370	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	370	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	370	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	370	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	370	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	370	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	370	ug/kg	

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-10-SO1	
<b>Lab Sample ID:</b> F8625-1	<b>Date Sampled:</b> 01/10/01
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 01/12/01
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 90.8
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	370	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	370	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	370	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	730	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	370	ug/kg	
132-64-9	Dibenzofuran	ND	370	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	370	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	370	ug/kg	
84-66-2	Diethyl phthalate	ND	370	ug/kg	
131-11-3	Dimethyl phthalate	ND	370	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	370	ug/kg	
206-44-0	Fluoranthene	ND	370	ug/kg	
86-73-7	Fluorene	ND	370	ug/kg	
118-74-1	Hexachlorobenzene	ND	370	ug/kg	
87-68-3	Hexachlorobutadiene	ND	370	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	370	ug/kg	
67-72-1	Hexachloroethane	ND	370	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	370	ug/kg	
78-59-1	Isophorone	ND	370	ug/kg	
91-57-6	2-Methylnaphthalene	ND	370	ug/kg	
88-74-4	2-Nitroaniline	ND	370	ug/kg	
99-09-2	3-Nitroaniline	ND	370	ug/kg	
100-01-6	4-Nitroaniline	ND	370	ug/kg	
91-20-3	Naphthalene	ND	370	ug/kg	
98-95-3	Nitrobenzene	ND	370	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	370	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	370	ug/kg	
85-01-8	Phenanthrene	ND	370	ug/kg	
129-00-0	Pyrene	ND	370	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	370	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	82%		36-129%
4165-62-2	Phenol-d5	88%		38-135%
118-79-6	2,4,6-Tribromophenol	94%		37-144%
4165-60-0	Nitrobenzene-d5	84%		36-135%
321-60-8	2-Fluorobiphenyl	81%		44-135%
1718-51-0	Terphenyl-d14	87%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



**ACCUTEST**

### Report of Analysis

<b>Client Sample ID:</b> RH-BR-10-SO1	<b>Date Sampled:</b> 01/10/01
<b>Lab Sample ID:</b> F8625-1	<b>Date Received:</b> 01/12/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 90.8
<b>Method:</b> SW846 8015 M SW846 3550B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00890.D	1	01/23/01	SKW	01/22/01	OP2609	GZF41
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	9.2	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	103%		40-140%	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



**Client Sample ID:** RH-BR-10-SO1

**Lab Sample ID:** F8625-1

**Matrix:** SO - Solid

**Project:** CTO 229

**Date Sampled:** 01/10/01

**Date Received:** 01/12/01

**Percent Solids:** 90.8

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.13 U	11.0	mg/kg	1	01/23/01	01/24/01 JK	SW846 6010B

RL = Reporting Limit



# Report of Analysis

Client Sample ID: RH-BR-10-SO2  
Lab Sample ID: F8625-2  
Matrix: SO - Solid  
Method: SW846 8260B  
Project: CTO 229

Date Sampled: 01/10/01  
Date Received: 01/12/01  
Percent Solids: 94.3

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010681.D	1	01/19/01	NAF	n/a	n/a	VH258
Run #2							

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/kg	
71-43-2	Benzene	ND	5.0	ug/kg	
75-27-4	Bromodichloromethane	ND	5.0	ug/kg	
75-25-2	Bromoform	ND	5.0	ug/kg	
108-90-7	Chlorobenzene	ND	5.0	ug/kg	
75-00-3	Chloroethane	ND	5.0	ug/kg	
67-66-3	Chloroform	ND	5.0	ug/kg	
75-15-0	Carbon disulfide	ND	10	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.0	ug/kg	
124-48-1	Dibromochloromethane	ND	5.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	ug/kg	
591-78-6	2-Hexanone	ND	10	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/kg	
74-83-9	Methyl bromide	ND	5.0	ug/kg	
74-87-3	Methyl chloride	ND	5.0	ug/kg	
75-09-2	Methylene chloride	ND	10	ug/kg	
78-93-3	Methyl ethyl ketone	ND	10	ug/kg	
100-42-5	Styrene	ND	5.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.0	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.0	ug/kg	
108-88-3	Toluene	ND	5.0	ug/kg	
79-01-6	Trichloroethylene	ND	5.0	ug/kg	
75-01-4	Vinyl chloride	ND	5.0	ug/kg	
1330-20-7	Xylene (total)	ND	15	ug/kg	

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-10-SO2	<b>Date Sampled:</b> 01/10/01
<b>Lab Sample ID:</b> F8625-2	<b>Date Received:</b> 01/12/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 94.3
<b>Method:</b> SW846 8260B	
<b>Project:</b> CTO 229	

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		71-122%
2037-26-5	Toluene-D8	102%		73-128%
460-00-4	4-Bromofluorobenzene	99%		53-158%
17060-07-0	1,2-Dichloroethane-D4	99%		71-122%

(a) Sample introduction performed using method 5030A. Results reported on a wet weight basis.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> RH-BR-10-SO2	
<b>Lab Sample ID:</b> F8625-2	<b>Date Sampled:</b> 01/10/01
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 01/12/01
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 94.3
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L006160.D	1	01/24/01	ME	01/22/01	OP2606	SL373
Run #2							

### ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	880	ug/kg	
95-57-8	2-Chlorophenol	ND	350	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	350	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	350	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	880	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	880	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	710	ug/kg	
95-48-7	2-Methylphenol	ND	350	ug/kg	
	3&4-Methylphenol	ND	350	ug/kg	
88-75-5	2-Nitrophenol	ND	350	ug/kg	
100-02-7	4-Nitrophenol	ND	880	ug/kg	
87-86-5	Pentachlorophenol	ND	880	ug/kg	
108-95-2	Phenol	ND	350	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	350	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	350	ug/kg	
83-32-9	Acenaphthene	ND	350	ug/kg	
208-96-8	Acenaphthylene	ND	350	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	350	ug/kg	
50-32-8	Benzo(a)pyrene	ND	350	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	350	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	350	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	350	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	350	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	350	ug/kg	
100-51-6	Benzyl Alcohol	ND	350	ug/kg	
91-58-7	2-Chloronaphthalene	ND	350	ug/kg	
106-47-8	4-Chloroaniline	ND	350	ug/kg	
86-74-8	Carbazole	ND	350	ug/kg	
218-01-9	Chrysene	ND	350	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	350	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	350	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	350	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	350	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	350	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	350	ug/kg	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-10-SO2	<b>Date Sampled:</b> 01/10/01
<b>Lab Sample ID:</b> F8625-2	<b>Date Received:</b> 01/12/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 94.3
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	350	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	350	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	350	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	710	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	350	ug/kg	
132-64-9	Dibenzofuran	ND	350	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	350	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	350	ug/kg	
84-66-2	Diethyl phthalate	ND	350	ug/kg	
131-11-3	Dimethyl phthalate	ND	350	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	350	ug/kg	
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
118-74-1	Hexachlorobenzene	ND	350	ug/kg	
87-68-3	Hexachlorobutadiene	ND	350	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	350	ug/kg	
67-72-1	Hexachloroethane	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	350	ug/kg	
78-59-1	Isophorone	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
88-74-4	2-Nitroaniline	ND	350	ug/kg	
99-09-2	3-Nitroaniline	ND	350	ug/kg	
100-01-6	4-Nitroaniline	ND	350	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
98-95-3	Nitrobenzene	ND	350	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	350	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	80%		36-129%
4165-62-2	Phenol-d5	85%		38-135%
118-79-6	2,4,6-Tribromophenol	82%		37-144%
4165-60-0	Nitrobenzene-d5	84%		36-135%
321-60-8	2-Fluorobiphenyl	80%		44-135%
1718-51-0	Terphenyl-d14	85%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



**Report of Analysis**

Client Sample ID: RH-BR-10-SO2  
 Lab Sample ID: F8625-2  
 Matrix: SO - Solid  
 Method: SW846 8015 M SW846 3550B  
 Project: CTO 229

Date Sampled: 01/10/01  
 Date Received: 01/12/01  
 Percent Solids: 94.3

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00891.D	1	01/23/01	SKW	01/22/01	OP2609	GZF41
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	8.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	104%		40-140%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



# Report of Analysis

**Client Sample ID:** RH-BR-10-SO2

**Lab Sample ID:** F8625-2

**Matrix:** SO - Solid

**Project:** CTO 229

**Date Sampled:** 01/10/01

**Date Received:** 01/12/01

**Percent Solids:** 94.3

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.5	mg/kg	1	01/23/01	01/24/01 JK	SW846 6010B

RL = Reporting Limit

Client Sample ID: RH-BR-10-SO3  
 Lab Sample ID: F8625-3  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 01/10/01  
 Date Received: 01/12/01  
 Percent Solids: 93.9

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010682.D	1	01/19/01	NAF	n/a	n/a	VH258

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	48	ug/kg	
71-43-2	Benzene	ND	4.8	ug/kg	
75-27-4	Bromodichloromethane	ND	4.8	ug/kg	
75-25-2	Bromoform	ND	4.8	ug/kg	
108-90-7	Chlorobenzene	ND	4.8	ug/kg	
75-00-3	Chloroethane	ND	4.8	ug/kg	
67-66-3	Chloroform	ND	4.8	ug/kg	
75-15-0	Carbon disulfide	ND	9.7	ug/kg	
56-23-5	Carbon tetrachloride	ND	4.8	ug/kg	
75-34-3	1,1-Dichloroethane	ND	4.8	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	4.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	4.8	ug/kg	
78-87-5	1,2-Dichloropropane	ND	4.8	ug/kg	
124-48-1	Dibromochloromethane	ND	4.8	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	4.8	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	4.8	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	4.8	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	4.8	ug/kg	
100-41-4	Ethylbenzene	ND	4.8	ug/kg	
591-78-6	2-Hexanone	ND	9.7	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	9.7	ug/kg	
74-83-9	Methyl bromide	ND	4.8	ug/kg	
74-87-3	Methyl chloride	ND	4.8	ug/kg	
75-09-2	Methylene chloride	ND	9.7	ug/kg	
78-93-3	Methyl ethyl ketone	ND	9.7	ug/kg	
100-42-5	Styrene	ND	4.8	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	4.8	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	4.8	ug/kg	
127-18-4	Tetrachloroethylene	ND	4.8	ug/kg	
108-88-3	Toluene	ND	4.8	ug/kg	
79-01-6	Trichloroethylene	ND	4.8	ug/kg	
75-01-4	Vinyl chloride	ND	4.8	ug/kg	
1330-20-7	Xylene (total)	ND	14	ug/kg	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



Client Sample ID: RH-BR-10-SO3  
 Lab Sample ID: F8625-3  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 01/10/01  
 Date Received: 01/12/01  
 Percent Solids: 93.9

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		71-122%
2037-26-5	Toluene-D8	102%		73-128%
460-00-4	4-Bromofluorobenzene	100%		53-158%
17060-07-0	1,2-Dichloroethane-D4	99%		71-122%

(a) Sample introduction performed using method 5030A. Results reported on a wet weight basis.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-10-SO3	<b>Date Sampled:</b> 01/10/01
<b>Lab Sample ID:</b> F8625-3	<b>Date Received:</b> 01/12/01
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 93.9
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	L006161.D	1	01/24/01	ME	01/22/01	OP2606	SL373

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	890	ug/kg	
95-57-8	2-Chlorophenol	ND	360	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	360	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	360	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	890	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	890	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	710	ug/kg	
95-48-7	2-Methylphenol	ND	360	ug/kg	
	3&4-Methylphenol	ND	360	ug/kg	
88-75-5	2-Nitrophenol	ND	360	ug/kg	
100-02-7	4-Nitrophenol	ND	890	ug/kg	
87-86-5	Pentachlorophenol	ND	890	ug/kg	
108-95-2	Phenol	ND	360	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	360	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	360	ug/kg	
83-32-9	Acenaphthene	ND	360	ug/kg	
208-96-8	Acenaphthylene	ND	360	ug/kg	
120-12-7	Anthracene	ND	360	ug/kg	
56-55-3	Benzo(a)anthracene	ND	360	ug/kg	
50-32-8	Benzo(a)pyrene	ND	360	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	360	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	360	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	360	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	360	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	360	ug/kg	
100-51-6	Benzyl Alcohol	ND	360	ug/kg	
91-58-7	2-Chloronaphthalene	ND	360	ug/kg	
106-47-8	4-Chloroaniline	ND	360	ug/kg	
86-74-8	Carbazole	ND	360	ug/kg	
218-01-9	Chrysene	ND	360	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	360	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	360	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	360	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	360	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	360	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	360	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Client Sample ID:	RH-BR-10-SO3	Date Sampled:	01/10/01
Lab Sample ID:	F8625-3	Date Received:	01/12/01
Matrix:	SO - Solid	Percent Solids:	93.9
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	360	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	360	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	360	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	710	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	360	ug/kg	
132-64-9	Dibenzofuran	ND	360	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	360	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	360	ug/kg	
84-66-2	Diethyl phthalate	ND	360	ug/kg	
131-11-3	Dimethyl phthalate	ND	360	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	360	ug/kg	
206-44-0	Fluoranthene	ND	360	ug/kg	
86-73-7	Fluorene	ND	360	ug/kg	
118-74-1	Hexachlorobenzene	ND	360	ug/kg	
87-68-3	Hexachlorobutadiene	ND	360	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	360	ug/kg	
67-72-1	Hexachloroethane	ND	360	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	360	ug/kg	
78-59-1	Isophorone	ND	360	ug/kg	
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	
88-74-4	2-Nitroaniline	ND	360	ug/kg	
99-09-2	3-Nitroaniline	ND	360	ug/kg	
100-01-6	4-Nitroaniline	ND	360	ug/kg	
91-20-3	Naphthalene	ND	360	ug/kg	
98-95-3	Nitrobenzene	ND	360	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	360	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	360	ug/kg	
85-01-8	Phenanthrene	ND	360	ug/kg	
129-00-0	Pyrene	ND	360	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	360	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	85%		36-129%
4165-62-2	Phenol-d5	88%		38-135%
118-79-6	2,4,6-Tribromophenol	88%		37-144%
4165-60-0	Nitrobenzene-d5	84%		36-135%
321-60-8	2-Fluorobiphenyl	84%		44-135%
1718-51-0	Terphenyl-d14	90%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

Client Sample ID: RH-BR-10-SO3

Lab Sample ID: F8625-3

Matrix: SO - Solid

Method: SW846 8015 M SW846 3550B

Project: CTO 229

Date Sampled: 01/10/01

Date Received: 01/12/01

Percent Solids: 93.9

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00892.D	1	01/23/01	SKW	01/22/01	OP2609	GZF41
Run #2							

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C10-C28)	ND	8.9	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	98%		40-140%
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ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



# Report of Analysis

**Client Sample ID:** RH-BR-10-SO3

**Lab Sample ID:** F8625-3

**Matrix:** SO - Solid

**Project:** CTO 229

**Date Sampled:** 01/10/01

**Date Received:** 01/12/01

**Percent Solids:** 93.9

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.6	mg/kg	1	01/23/01	01/24/01 JK	SW846 6010B

RL = Reporting Limit



Client Sample ID:	TRIP BLANK	Date Sampled:	01/10/01
Lab Sample ID:	F8625-4	Date Received:	01/12/01
Matrix:	AQ - Trip Blank Soil	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CTO 229		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	B003463.D	1	01/15/01	JG	n/a	n/a	VB128

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	ug/l	
75-25-2	Bromoform	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	10	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	5.0	ug/l	
74-87-3	Methyl chloride	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
100-42-5	Styrene	ND	2.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> TRIP BLANK	
<b>Lab Sample ID:</b> F8625-4	<b>Date Sampled:</b> 01/10/01
<b>Matrix:</b> AQ - Trip Blank Soil	<b>Date Received:</b> 01/12/01
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> CTO 229	

### VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		69-128%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	94%		80-120%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

# SECTION 5



TANK 10

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**Technical Report for**

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**Ogden Environmental****CTO 229****1-1019-0229****Accutest Job Number: F8493**

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**Report to:**

**Ogden Environmental  
2904 Westcorp Blvd.  
Suite 204  
Huntsville, AL 35805**

**ATTN: Kent Evetts**

**Total number of pages in report: 363**  
**Harry Behzadi, Ph.D.  
Laboratory Director****Results relate only to the items tested.****This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.**

### Sample Summary

Ogden Environmental

Job No: F8493

CTO 229

Project No: 1-1019-0229

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F8493-1	12/18/00	10:30	ALW 12/22/00	SO	Solid	RH-BR-11-S03
F8493-2	12/18/00	12:05	ALW 12/22/00	SO	Solid	RH-BR-11-S04
F8493-3	12/18/00	14:30	ALW 12/22/00	SO	Solid	RH-BR-11-S05
F8493-4	12/18/00	00:00	ALW 12/22/00	AQ	Trip Blank Water	TRIP BLANK

## Report of Analysis

Client Sample ID:	RH-BR-11-S03	Date Sampled:	12/18/00
Lab Sample ID:	F8493-1	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	92.6
Method:	SW846 8260B		
Project:	CTO 229		

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	G0015150.D	1	12/29/00	NAF	n/a	n/a	VG443

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	21.5	52	ug/kg	J
71-43-2	Benzene	ND	5.2	ug/kg	
75-27-4	Bromodichloromethane	ND	5.2	ug/kg	
75-25-2	Bromoform	ND	5.2	ug/kg	
108-90-7	Chlorobenzene	ND	5.2	ug/kg	
75-00-3	Chloroethane	ND	5.2	ug/kg	
67-66-3	Chloroform	ND	5.2	ug/kg	
75-15-0	Carbon disulfide	ND	10	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.2	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.2	ug/kg	
124-48-1	Dibromochloromethane	ND	5.2	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.2	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.2	ug/kg	
100-41-4	Ethylbenzene	ND	5.2	ug/kg	
591-78-6	2-Hexanone	ND	10	ug/kg	
108-10-1	4-Methyl-2-pentanone	6.7	10	ug/kg	J
74-83-9	Methyl bromide	ND	5.2	ug/kg	
74-87-3	Methyl chloride	ND	5.2	ug/kg	
75-09-2	Methylene chloride	ND	10	ug/kg	
78-93-3	Methyl ethyl ketone	ND	10	ug/kg	
100-42-5	Styrene	ND	5.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.2	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.2	ug/kg	
108-88-3	Toluene	ND	5.2	ug/kg	
79-01-6	Trichloroethylene	ND	5.2	ug/kg	
75-01-4	Vinyl chloride	ND	5.2	ug/kg	
1330-20-7	Xylene (total)	ND	16	ug/kg	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S03	Date Sampled:	12/18/00
Lab Sample ID:	F8493-1	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	92.6
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		71-122%
2037-26-5	Toluene-D8	88%		73-128%
460-00-4	4-Bromofluorobenzene	98%		53-158%
17060-07-0	1,2-Dichloroethane-D4	101%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S03	Date Sampled:	12/18/00
Lab Sample ID:	F8493-1	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	92.6
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	L005943.D	4	01/02/01	ME	12/29/00	OP2511	SL360

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	3600	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1400	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1400	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	3600	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	3600	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2900	ug/kg	
95-48-7	2-Methylphenol	ND	1400	ug/kg	
	3&4-Methylphenol	ND	1400	ug/kg	
88-75-5	2-Nitrophenol	ND	1400	ug/kg	
100-02-7	4-Nitrophenol	ND	3600	ug/kg	
87-86-5	Pentachlorophenol	ND	3600	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	1400	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1400	ug/kg	
83-32-9	Acenaphthene	ND	1400	ug/kg	
208-96-8	Acenaphthylene	ND	1400	ug/kg	
120-12-7	Anthracene	ND	1400	ug/kg	
56-55-3	Benzo(a)anthracene	ND	1400	ug/kg	
50-32-8	Benzo(a)pyrene	ND	1400	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	1400	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	1400	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	1400	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
100-51-6	Benzyl Alcohol	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	1400	ug/kg	
86-74-8	Carbazole	ND	1400	ug/kg	
218-01-9	Chrysene	ND	1400	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S03		Date Sampled:	12/18/00
Lab Sample ID:	F8493-1		Date Received:	12/22/00
Matrix:	SO - Solid		Percent Solids:	92.6
Method:	SW846 8270C	SW846 3550B		
Project:	CTO 229			

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	1400	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	1400	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	2900	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	1400	ug/kg	
132-64-9	Dibenzofuran	ND	1400	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	ND	1400	ug/kg	
86-73-7	Fluorene	ND	1400	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	1400	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1400	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	1400	ug/kg	
88-74-4	2-Nitroaniline	ND	1400	ug/kg	
99-09-2	3-Nitroaniline	ND	1400	ug/kg	
100-01-6	4-Nitroaniline	ND	1400	ug/kg	
91-20-3	Naphthalene	ND	1400	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	ND	1400	ug/kg	
129-00-0	Pyrene	ND	1400	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	98%		36-129%
4165-62-2	Phenol-d5	100%		38-135%
118-79-6	2,4,6-Tribromophenol	118%		37-144%
4165-60-0	Nitrobenzene-d5	96%		36-135%
321-60-8	2-Fluorobiphenyl	132%		44-135%
1718-51-0	Terphenyl-d14	101%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S03	Date Sampled:	12/18/00
Lab Sample ID:	F8493-1	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	92.6
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

### ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
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(a) Dilution required due to matrix interference.

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ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S03	Date Sampled:	12/18/00
Lab Sample ID:	F8493-1	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	92.6
Method:	SW846 8015 M SW846 3550B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00679.D	40	01/02/01	SKW	12/29/00	OP2512	GZF32
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	1440	360	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	0% <sup>a</sup>		40-140%	

(a) Outside control limits due to dilution.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S03	Date Sampled:	12/18/00
Lab Sample ID:	F8493-1	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	92.6
Project:	CTO 229		

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.5	mg/kg	1	01/04/01	01/05/01 SJL	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID: RH-BR-11-S04  
 Lab Sample ID: F8493-2  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/18/00  
 Date Received: 12/22/00  
 Percent Solids: 92.2

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	G0015151.D	1	12/29/00	NAF	n/a	n/a	VG443

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	47	ug/kg	
71-43-2	Benzene	ND	4.7	ug/kg	
75-27-4	Bromodichloromethane	ND	4.7	ug/kg	
75-25-2	Bromoform	ND	4.7	ug/kg	
108-90-7	Chlorobenzene	ND	4.7	ug/kg	
75-00-3	Chloroethane	ND	4.7	ug/kg	
67-66-3	Chloroform	ND	4.7	ug/kg	
75-15-0	Carbon disulfide	ND	9.4	ug/kg	
56-23-5	Carbon tetrachloride	ND	4.7	ug/kg	
75-34-3	1,1-Dichloroethane	ND	4.7	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	4.7	ug/kg	
107-06-2	1,2-Dichloroethane	ND	4.7	ug/kg	
78-87-5	1,2-Dichloropropane	ND	4.7	ug/kg	
124-48-1	Dibromochloromethane	ND	4.7	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	4.7	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	4.7	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	4.7	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	4.7	ug/kg	
100-41-4	Ethylbenzene	ND	4.7	ug/kg	
591-78-6	2-Hexanone	ND	9.4	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	9.4	ug/kg	
74-83-9	Methyl bromide	ND	4.7	ug/kg	
74-87-3	Methyl chloride	ND	4.7	ug/kg	
75-09-2	Methylene chloride	ND	9.4	ug/kg	
78-93-3	Methyl ethyl ketone	ND	9.4	ug/kg	
100-42-5	Styrene	ND	4.7	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	4.7	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.7	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	4.7	ug/kg	
127-18-4	Tetrachloroethylene	ND	4.7	ug/kg	
108-88-3	Toluene	ND	4.7	ug/kg	
79-01-6	Trichloroethylene	ND	4.7	ug/kg	
75-01-4	Vinyl chloride	ND	4.7	ug/kg	
1330-20-7	Xylene (total)	7.3	14	ug/kg	J

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S04	Date Sampled:	12/18/00
Lab Sample ID:	F8493-2	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	92.2
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		71-122%
2037-26-5	Toluene-D8	99%		73-128%
460-00-4	4-Bromofluorobenzene	165% <sup>b</sup>		53-158%
17060-07-0	1,2-Dichloroethane-D4	113%		71-122%

(a) Sample introduction performed using method 5030A.

(b) Outside control limits due to matrix interference.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S04	Date Sampled:	12/18/00
Lab Sample ID:	F8493-2	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	92.2
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

Run #1 *	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	L005944.D	4	01/02/01	ME	12/29/00	OP2511	SL360

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	3600	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1400	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1400	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	3600	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	3600	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2900	ug/kg	
95-48-7	2-Methylphenol	ND	1400	ug/kg	
	3&4-Methylphenol	ND	1400	ug/kg	
88-75-5	2-Nitrophenol	ND	1400	ug/kg	
100-02-7	4-Nitrophenol	ND	3600	ug/kg	
87-86-5	Pentachlorophenol	ND	3600	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	1400	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1400	ug/kg	
83-32-9	Acenaphthene	ND	1400	ug/kg	
208-96-8	Acenaphthylene	ND	1400	ug/kg	
120-12-7	Anthracene	ND	1400	ug/kg	
56-55-3	Benzo(a)anthracene	ND	1400	ug/kg	
50-32-8	Benzo(a)pyrene	ND	1400	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	1400	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	1400	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	1400	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
100-51-6	Benzyl Alcohol	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	1400	ug/kg	
86-74-8	Carbazole	ND	1400	ug/kg	
218-01-9	Chrysene	ND	1400	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S04		Date Sampled:	12/18/00
Lab Sample ID:	F8493-2		Date Received:	12/22/00
Matrix:	SO - Solid		Percent Solids:	92.2
Method:	SW846 8270C	SW846 3550B		
Project:	CTO 229			

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	1400	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	1400	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	2900	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	1400	ug/kg	
132-64-9	Dibenzofuran	ND	1400	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	ND	1400	ug/kg	
86-73-7	Fluorene	ND	1400	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	1400	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1400	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	1780	1400	ug/kg	
88-74-4	2-Nitroaniline	ND	1400	ug/kg	
99-09-2	3-Nitroaniline	ND	1400	ug/kg	
100-01-6	4-Nitroaniline	ND	1400	ug/kg	
91-20-3	Naphthalene	ND	1400	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	926	1400	ug/kg	J
129-00-0	Pyrene	ND	1400	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	93%		36-129%
4165-62-2	Phenol-d5	98%		38-135%
118-79-6	2,4,6-Tribromophenol	121%		37-144%
4165-60-0	Nitrobenzene-d5	101%		36-135%
321-60-8	2-Fluorobiphenyl	127%		44-135%
1718-51-0	Terphenyl-d14	93%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S04	Date Sampled:	12/18/00
Lab Sample ID:	F8493-2	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	92.2
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

### ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
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(a) Dilution required due to matrix interference.

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ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S04	Date Sampled:	12/18/00
Lab Sample ID:	F8493-2	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	92.2
Method:	SW846 8015 M SW846 3550B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00682.D	80	01/02/01	SKW	12/29/00	OP2512	GZF32
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	2320	720	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	0% <sup>a</sup>		40-140%	

(a) Outside control limits due to dilution.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S04	Date Sampled:	12/18/00
Lab Sample ID:	F8493-2	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	92.2
Project:	CTO 229		

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.13 U	10.8	mg/kg	1	01/04/01	01/05/01 SJL	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID:	RH-BR-11-S05		Date Sampled:	12/18/00
Lab Sample ID:	F8493-3		Date Received:	12/22/00
Matrix:	SO - Solid		Percent Solids:	86.7
Method:	SW846 8260B			
Project:	CTO 229			

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	G0015152.D	1	12/29/00	NAF	n/a	n/a	VG443

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	55	ug/kg	
71-43-2	Benzene	ND	5.5	ug/kg	
75-27-4	Bromodichloromethane	ND	5.5	ug/kg	
75-25-2	Bromoform	ND	5.5	ug/kg	
108-90-7	Chlorobenzene	ND	5.5	ug/kg	
75-00-3	Chloroethane	ND	5.5	ug/kg	
67-66-3	Chloroform	ND	5.5	ug/kg	
75-15-0	Carbon disulfide	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.5	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.5	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.5	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.5	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.5	ug/kg	
124-48-1	Dibromochloromethane	ND	5.5	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.5	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.5	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.5	ug/kg	
100-41-4	Ethylbenzene	19.4	5.5	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	11	ug/kg	
74-83-9	Methyl bromide	ND	5.5	ug/kg	
74-87-3	Methyl chloride	ND	5.5	ug/kg	
75-09-2	Methylene chloride	ND	11	ug/kg	
78-93-3	Methyl ethyl ketone	ND	11	ug/kg	
100-42-5	Styrene	ND	5.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.5	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.5	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.5	ug/kg	
108-88-3	Toluene	8.6	5.5	ug/kg	
79-01-6	Trichloroethylene	ND	5.5	ug/kg	
75-01-4	Vinyl chloride	ND	5.5	ug/kg	
1330-20-7	Xylene (total)	298	16	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S05	Date Sampled:	12/18/00
Lab Sample ID:	F8493-3	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	86.7
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		71-122%
2037-26-5	Toluene-D8	98%		73-128%
460-00-4	4-Bromofluorobenzene	215% <sup>b</sup>		53-158%
17060-07-0	1,2-Dichloroethane-D4	110%		71-122%

(a) Sample introduction performed using method 5030A.

(b) Outside control limits due to matrix interference.

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ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S05		Date Sampled:	12/18/00
Lab Sample ID:	F8493-3		Date Received:	12/22/00
Matrix:	SO - Solid		Percent Solids:	86.7
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	L005946.D	4	01/02/01	ME	12/29/00	OP2511	SL360

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	3800	ug/kg	
95-57-8	2-Chlorophenol	ND	1500	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1500	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1500	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	3800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	3800	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	3100	ug/kg	
95-48-7	2-Methylphenol	ND	1500	ug/kg	
	3&4-Methylphenol	ND	1500	ug/kg	
88-75-5	2-Nitrophenol	ND	1500	ug/kg	
100-02-7	4-Nitrophenol	ND	3800	ug/kg	
87-86-5	Pentachlorophenol	ND	3800	ug/kg	
108-95-2	Phenol	ND	1500	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	1500	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1500	ug/kg	
83-32-9	Acenaphthene	ND	1500	ug/kg	
208-96-8	Acenaphthylene	ND	1500	ug/kg	
120-12-7	Anthracene	ND	1500	ug/kg	
56-55-3	Benzo(a)anthracene	ND	1500	ug/kg	
50-32-8	Benzo(a)pyrene	ND	1500	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	1500	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	1500	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	1500	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1500	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1500	ug/kg	
100-51-6	Benzyl Alcohol	ND	1500	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1500	ug/kg	
106-47-8	4-Chloroaniline	ND	1500	ug/kg	
86-74-8	Carbazole	ND	1500	ug/kg	
218-01-9	Chrysene	ND	1500	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1500	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1500	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1500	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1500	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1500	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1500	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S05		Date Sampled:	12/18/00
Lab Sample ID:	F8493-3		Date Received:	12/22/00
Matrix:	SO - Solid		Percent Solids:	86.7
Method:	SW846 8270C	SW846 3550B		
Project:	CTO 229			

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	1500	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	1500	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	1500	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	3100	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	1500	ug/kg	
132-64-9	Dibenzofuran	ND	1500	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1500	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1500	ug/kg	
84-66-2	Diethyl phthalate	ND	1500	ug/kg	
131-11-3	Dimethyl phthalate	ND	1500	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1500	ug/kg	
206-44-0	Fluoranthene	ND	1500	ug/kg	
86-73-7	Fluorene	720	1500	ug/kg	J
118-74-1	Hexachlorobenzene	ND	1500	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1500	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	1500	ug/kg	
67-72-1	Hexachloroethane	ND	1500	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1500	ug/kg	
78-59-1	Isophorone	ND	1500	ug/kg	
91-57-6	2-Methylnaphthalene	6810	1500	ug/kg	
88-74-4	2-Nitroaniline	ND	1500	ug/kg	
99-09-2	3-Nitroaniline	ND	1500	ug/kg	
100-01-6	4-Nitroaniline	ND	1500	ug/kg	
91-20-3	Naphthalene	1090	1500	ug/kg	J
98-95-3	Nitrobenzene	ND	1500	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1500	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1500	ug/kg	
85-01-8	Phenanthrene	1500	1500	ug/kg	
129-00-0	Pyrene	ND	1500	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1500	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	89%		36-129%
4165-62-2	Phenol-d5	92%		38-135%
118-79-6	2,4,6-Tribromophenol	101%		37-144%
4165-60-0	Nitrobenzene-d5	92%		36-135%
321-60-8	2-Fluorobiphenyl	122%		44-135%
1718-51-0	Terphenyl-d14	92%		42-149%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S05	Date Sampled:	12/18/00
Lab Sample ID:	F8493-3	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	86.7
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

### ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
---------	----------	--------	----	-------	---

(a) Dilution required due to matrix interference.

---

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S05	Date Sampled:	12/18/00
Lab Sample ID:	F8493-3	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	86.7
Method:	SW846 8015 M SW846 3550B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00683.D	80	01/02/01	SKW	12/29/00	OP2512	GZF32
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	2910	770	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	0% <sup>a</sup>		40-140%	

(a) Outside control limits due to dilution.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	RH-BR-11-S05	Date Sampled:	12/18/00
Lab Sample ID:	F8493-3	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	86.7
Project:	CTO 229		

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.14 U	11.8	mg/kg	1	01/04/01	01/05/01 SJL	SW846 6010B

---

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	12/18/00
Lab Sample ID:	F8493-4	Date Received:	12/22/00
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CTO 229		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	C0001980.D	1	12/27/00	JG	n/a	n/a	VC90

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	ug/l	
75-25-2	Bromoform	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	10	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	5.0	ug/l	
74-87-3	Methyl chloride	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
100-42-5	Styrene	ND	2.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	12/18/00
Lab Sample ID:	F8493-4	Date Received:	12/22/00
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		80-120%
17060-07-0	1,2-Dichloroethane-D4	104%		69-128%
2037-26-5	Toluene-D8	93%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

# SECTION 2

**CASE NARRATIVE**  
**GC/MS Volatile Analysis**

Laboratory Reference No. F8493

Client/Project: Ogden Environmental/CTO 299 – Red Hill Bulk Fuel Storage

**I. RECEIPT**

The samples were received via DHL on December 22, 2000.

**II. HOLDING TIMES**

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 5030A

Analysis: SW-846 8260B

**IV. PREPARATION**

Samples were prepared as received. Samples were received without EnCore samples and were therefore analyzed using method 5030A.

**V. ANALYSIS**

A. Calibration: All acceptance criteria were met.

B. Blanks: All acceptance criteria were met.

C. Spikes (Matrix Spike, Matrix Spike Duplicate, and LCS): All acceptance criteria were met with the exception of 1,1,1-Trichloroethane which was found slightly high (126% vs 125%) in the MS and LCS. This compound was found to be acceptable in the MSD sample and was not detected in any samples.

D. Samples: Sample analysis proceeded normally with the exception of sample F8493-2 and -3 which had a high recoveries of the surrogate 4-Bromofluorobenzene (165% and 215% vs 158%), which was confirmed by reanalysis of the sample. It is presumed that these high recoveries are due to the petroleum hydrocarbons noted in the samples.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package:

Signed: David H. Greer, Jr. Date: 01/10/01  
David H. Greer, Jr.  
Quality Assurance Officer

**CASE NARRATIVE**  
**GC/MS Semi-Volatile Analysis**

Laboratory Reference No. F8493

Client/Project: Ogden Environmental/CTO 229 – Red Hill Bulk Fuel Storage

**I. RECEIPT**

The samples were received via DHL on December 22, 2000.

**II. HOLDING TIMES**

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 3550B

Analysis: SW-846 8270C

**IV. PREPARATION**

Sample preparation proceeded normally.

**V. ANALYSIS**

A. Calibration: All acceptance criteria were met.

B. Blanks: All acceptance criteria were met.

C. Spikes (Matrix Spike, Matrix Spike Duplicate, and LCS): The MS and MSD was outside the criteria for many compounds due to petroleum hydrocarbons present in the spike sample. The LCS (blank spike) was found to be acceptable for all compounds.

D. Samples: A 1:4 dilution was required for all samples due to petroleum hydrocarbons present in the samples.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package:

Signed: David H. Greer, Jr. Date: 01/10/01  
David H. Greer, Jr.  
Quality Assurance Officer

**CASE NARRATIVE**  
**GC Diesel Range Organics Analysis**

Laboratory Reference No. F8493

Client/Project: Ogden Environmental/CTO 229 – Red Hill Bulk Fuel Storage

**I. RECEIPT**

The samples were received via DHL on December 22, 2000.

**II. HOLDING TIMES**

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 3550B

Analysis: SW-846 8015 M

**IV. PREPARATION**

Sample preparation proceeded normally.

**V. ANALYSIS**

A. Calibration: All acceptance criteria were met.

B. Blanks: All acceptance criteria were met.

C. Spikes (Matrix Spike, Matrix Spike Duplicate, and LCS): The sample MS and MSD were out due to high petroleum hydrocarbons in the samples relative to the spike concentration. The LCS (blank spike) was within the acceptance range.

D. Samples: The surrogates were out due to dilutions required for sample analysis.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package:

Signed: David H. Greer, Jr. Date: 01/10/01  
David H. Greer, Jr.  
Quality Assurance Officer

**CASE NARRATIVE**  
**Inorganic Analysis**

Laboratory Reference No. F8493

Client/Project: Ogden Environmental/CTO 229 – Red Hill Bulk Fuel Storage

**I. RECEIPT**

The samples were received via DHL on December 22, 2000.

**II. HOLDING TIMES**

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

**III. METHOD**

Preparation: SW-846 3050B

Analysis: SW-846 6010B (Lead Only)

**IV. PREPARATION**

Sample preparation proceeded normally.

**V. ANALYSIS**

A. Calibration: All acceptance criteria were met.

B. Blanks: All acceptance criteria were met.

C. Spikes (Matrix Spike, Matrix Spike Duplicate, and LCS): All acceptance criteria were met.

D. Duplicates: All acceptance criteria were met.

E. Serial Dilutions: All acceptance criteria were met.

F. Samples: Sample analyses proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by Accutest Laboratories Southeast, Inc. and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package:

Signed: David H. Greer, Jr. Date: 01/10/01  
David H. Greer, Jr.  
Quality Assurance Officer

Accutest Laboratories Southeast  
Case Narrative

Job (SDG) No.: F8493

Samples: 1-4

Analysis Performed: 8260, 8270, 8015M, metals

1) Sample Receipt Conformance / Non-Conformance Summary

- |                                       |         |        |
|---------------------------------------|---------|--------|
| Custody Seals on Coolers?             | Yes (✓) | No ( ) |
| Custody Seals in Tact?                | Yes (✓) | No ( ) |
| Chain of Custody Sealed in Plastic?   | Yes (✓) | No ( ) |
| Chain of Custody Filled out Properly? | Yes (✓) | No ( ) |
| Enough ice and Packing material?      | Yes (✓) | No ( ) |
| All Bottles Sealed?                   | Yes (✓) | No ( ) |
| Any Bottles Broken?                   | Yes ( ) | No (✓) |
| Labels in good condition?             | Yes (✓) | No ( ) |
| Labels agree with chain of custody?   | Yes (✓) | No ( ) |
| Correct Containers Used?              | Yes (✓) | No ( ) |
| Preserved Properly?                   | Yes (✓) | No ( ) |
| Sufficient Sample?                    | Yes (✓) | No ( ) |

Comments: \_\_\_\_\_

# SECTION 3

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**ACCUTEST.**

**9. Metals SUPPORT DATA**

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# SECTION 4



### Sample Summary

Ogden Environmental

Job No: F8493

CTO 229

Project No: 1-1019-0229

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F8493-1	12/18/00	10:30	ALW	12/22/00	SO Solid	RH-BR-11-S03
F8493-2	12/18/00	12:05	ALW	12/22/00	SO Solid	RH-BR-11-S04
F8493-3	12/18/00	14:30	ALW	12/22/00	SO Solid	RH-BR-11-S05
F8493-4	12/18/00	00:00	ALW	12/22/00	AQ Trip Blank Water	TRIP BLANK



Client Sample ID: RH-BR-11-S03  
 Lab Sample ID: F8493-1  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/18/00  
 Date Received: 12/22/00  
 Percent Solids: 92.6

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	G0015150.D	1	12/29/00	NAF	n/a	n/a	VG443

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	21.5	52	ug/kg	J
71-43-2	Benzene	ND	5.2	ug/kg	
75-27-4	Bromodichloromethane	ND	5.2	ug/kg	
75-25-2	Bromoform	ND	5.2	ug/kg	
108-90-7	Chlorobenzene	ND	5.2	ug/kg	
75-00-3	Chloroethane	ND	5.2	ug/kg	
67-66-3	Chloroform	ND	5.2	ug/kg	
75-15-0	Carbon disulfide	ND	10	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.2	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.2	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.2	ug/kg	
124-48-1	Dibromochloromethane	ND	5.2	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.2	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.2	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.2	ug/kg	
100-41-4	Ethylbenzene	ND	5.2	ug/kg	
591-78-6	2-Hexanone	ND	10	ug/kg	
108-10-1	4-Methyl-2-pentanone	6.7	10	ug/kg	J
74-83-9	Methyl bromide	ND	5.2	ug/kg	
74-87-3	Methyl chloride	ND	5.2	ug/kg	
75-09-2	Methylene chloride	ND	10	ug/kg	
78-93-3	Methyl ethyl ketone	ND	10	ug/kg	
100-42-5	Styrene	ND	5.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.2	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.2	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.2	ug/kg	
108-88-3	Toluene	ND	5.2	ug/kg	
79-01-6	Trichloroethylene	ND	5.2	ug/kg	
75-01-4	Vinyl chloride	ND	5.2	ug/kg	
1330-20-7	Xylene (total)	ND	16	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Client Sample ID: RH-BR-11-S03  
 Lab Sample ID: F8493-1  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/18/00  
 Date Received: 12/22/00  
 Percent Solids: 92.6

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		71-122%
2037-26-5	Toluene-D8	88%		73-128%
460-00-4	4-Bromofluorobenzene	98%		53-158%
17060-07-0	1,2-Dichloroethane-D4	101%		71-122%

(a) Sample introduction performed using method 5030A.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-11-S03	<b>Date Sampled:</b> 12/18/00
<b>Lab Sample ID:</b> F8493-1	<b>Date Received:</b> 12/22/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 92.6
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L005943.D	4	01/02/01	ME	12/29/00	OP2511	SL360
Run #2							

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	3600	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1400	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1400	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	3600	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	3600	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2900	ug/kg	
95-48-7	2-Methylphenol	ND	1400	ug/kg	
	3&4-Methylphenol	ND	1400	ug/kg	
88-75-5	2-Nitrophenol	ND	1400	ug/kg	
100-02-7	4-Nitrophenol	ND	3600	ug/kg	
87-86-5	Pentachlorophenol	ND	3600	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	1400	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1400	ug/kg	
83-32-9	Acenaphthene	ND	1400	ug/kg	
208-96-8	Acenaphthylene	ND	1400	ug/kg	
120-12-7	Anthracene	ND	1400	ug/kg	
56-55-3	Benzo(a)anthracene	ND	1400	ug/kg	
50-32-8	Benzo(a)pyrene	ND	1400	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	1400	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	1400	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	1400	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
100-51-6	Benzyl Alcohol	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	1400	ug/kg	
86-74-8	Carbazole	ND	1400	ug/kg	
218-01-9	Chrysene	ND	1400	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Client Sample ID:	RH-BR-11-S03	Date Sampled:	12/18/00
Lab Sample ID:	F8493-1	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	92.6
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	1400	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	1400	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	2900	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	1400	ug/kg	
132-64-9	Dibenzofuran	ND	1400	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	ND	1400	ug/kg	
86-73-7	Fluorene	ND	1400	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	1400	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1400	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	1400	ug/kg	
88-74-4	2-Nitroaniline	ND	1400	ug/kg	
99-09-2	3-Nitroaniline	ND	1400	ug/kg	
100-01-6	4-Nitroaniline	ND	1400	ug/kg	
91-20-3	Naphthalene	ND	1400	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	ND	1400	ug/kg	
129-00-0	Pyrene	ND	1400	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	98%		36-129%
4165-62-2	Phenol-d5	100%		38-135%
118-79-6	2,4,6-Tribromophenol	118%		37-144%
4165-60-0	Nitrobenzene-d5	96%		36-135%
321-60-8	2-Fluorobiphenyl	132%		44-135%
1718-51-0	Terphenyl-d14	101%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> RH-BR-11-S03	<b>Date Sampled:</b> 12/18/00
<b>Lab Sample ID:</b> F8493-1	<b>Date Received:</b> 12/22/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 92.6
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

### ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
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(a) Dilution required due to matrix interference.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-11-S03	<b>Date Sampled:</b> 12/18/00
<b>Lab Sample ID:</b> F8493-1	<b>Date Received:</b> 12/22/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 92.6
<b>Method:</b> SW846 8015 M SW846 3550B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00679.D	40	01/02/01	SKW	12/29/00	OP2512	GZF32
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	1440	360	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% <sup>a</sup>		40-140%

(a) Outside control limits due to dilution.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



# Report of Analysis

Client Sample ID: RH-BR-11-S03  
Lab Sample ID: F8493-1  
Matrix: SO - Solid  
Project: CTO 229

Date Sampled: 12/18/00  
Date Received: 12/22/00  
Percent Solids: 92.6

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.5	mg/kg	1	01/04/01	01/05/01 SJL	SW846 6010B

RL = Reporting Limit



Client Sample ID: RH-BR-11-S04  
 Lab Sample ID: F8493-2  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/18/00  
 Date Received: 12/22/00  
 Percent Solids: 92.2

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	G0015151.D	1	12/29/00	NAF	n/a	n/a	VG443
Run #2							

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	47	ug/kg	
71-43-2	Benzene	ND	4.7	ug/kg	
75-27-4	Bromodichloromethane	ND	4.7	ug/kg	
75-25-2	Bromoform	ND	4.7	ug/kg	
108-90-7	Chlorobenzene	ND	4.7	ug/kg	
75-00-3	Chloroethane	ND	4.7	ug/kg	
67-66-3	Chloroform	ND	4.7	ug/kg	
75-15-0	Carbon disulfide	ND	9.4	ug/kg	
56-23-5	Carbon tetrachloride	ND	4.7	ug/kg	
75-34-3	1,1-Dichloroethane	ND	4.7	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	4.7	ug/kg	
107-06-2	1,2-Dichloroethane	ND	4.7	ug/kg	
78-87-5	1,2-Dichloropropane	ND	4.7	ug/kg	
124-48-1	Dibromochloromethane	ND	4.7	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	4.7	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	4.7	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	4.7	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	4.7	ug/kg	
100-41-4	Ethylbenzene	ND	4.7	ug/kg	
591-78-6	2-Hexanone	ND	9.4	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	9.4	ug/kg	
74-83-9	Methyl bromide	ND	4.7	ug/kg	
74-87-3	Methyl chloride	ND	4.7	ug/kg	
75-09-2	Methylene chloride	ND	9.4	ug/kg	
78-93-3	Methyl ethyl ketone	ND	9.4	ug/kg	
100-42-5	Styrene	ND	4.7	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	4.7	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.7	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	4.7	ug/kg	
127-18-4	Tetrachloroethylene	ND	4.7	ug/kg	
108-88-3	Toluene	ND	4.7	ug/kg	
79-01-6	Trichloroethylene	ND	4.7	ug/kg	
75-01-4	Vinyl chloride	ND	4.7	ug/kg	
1330-20-7	Xylene (total)	7.3	14	ug/kg	J

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-11-S04	<b>Date Sampled:</b> 12/18/00
<b>Lab Sample ID:</b> F8493-2	<b>Date Received:</b> 12/22/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 92.2
<b>Method:</b> SW846 8260B	
<b>Project:</b> CTO 229	

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		71-122%
2037-26-5	Toluene-D8	99%		73-128%
460-00-4	4-Bromofluorobenzene	165% <sup>b</sup>		53-158%
17060-07-0	1,2-Dichloroethane-D4	113%		71-122%

- (a) Sample introduction performed using method 5030A.
- (b) Outside control limits due to matrix interference.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-11-S04	
<b>Lab Sample ID:</b> F8493-2	<b>Date Sampled:</b> 12/18/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/22/00
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 92.2
<b>Project:</b> CTO 229	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L005944.D	4	01/02/01	ME	12/29/00	OP2511	SL360
Run #2							

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	3600	ug/kg	
95-57-8	2-Chlorophenol	ND	1400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1400	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1400	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	3600	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	3600	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	2900	ug/kg	
95-48-7	2-Methylphenol	ND	1400	ug/kg	
	3&4-Methylphenol	ND	1400	ug/kg	
88-75-5	2-Nitrophenol	ND	1400	ug/kg	
100-02-7	4-Nitrophenol	ND	3600	ug/kg	
87-86-5	Pentachlorophenol	ND	3600	ug/kg	
108-95-2	Phenol	ND	1400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	1400	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1400	ug/kg	
83-32-9	Acenaphthene	ND	1400	ug/kg	
208-96-8	Acenaphthylene	ND	1400	ug/kg	
120-12-7	Anthracene	ND	1400	ug/kg	
56-55-3	Benzo(a)anthracene	ND	1400	ug/kg	
50-32-8	Benzo(a)pyrene	ND	1400	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	1400	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	1400	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	1400	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1400	ug/kg	
100-51-6	Benzyl Alcohol	ND	1400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1400	ug/kg	
106-47-8	4-Chloroaniline	ND	1400	ug/kg	
86-74-8	Carbazole	ND	1400	ug/kg	
218-01-9	Chrysene	ND	1400	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1400	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1400	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1400	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-11-S04	<b>Date Sampled:</b> 12/18/00
<b>Lab Sample ID:</b> F8493-2	<b>Date Received:</b> 12/22/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 92.2
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	1400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	1400	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	1400	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	2900	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	1400	ug/kg	
132-64-9	Dibenzofuran	ND	1400	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1400	ug/kg	
84-66-2	Diethyl phthalate	ND	1400	ug/kg	
131-11-3	Dimethyl phthalate	ND	1400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1400	ug/kg	
206-44-0	Fluoranthene	ND	1400	ug/kg	
86-73-7	Fluorene	ND	1400	ug/kg	
118-74-1	Hexachlorobenzene	ND	1400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	1400	ug/kg	
67-72-1	Hexachloroethane	ND	1400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1400	ug/kg	
78-59-1	Isophorone	ND	1400	ug/kg	
91-57-6	2-Methylnaphthalene	1780	1400	ug/kg	
88-74-4	2-Nitroaniline	ND	1400	ug/kg	
99-09-2	3-Nitroaniline	ND	1400	ug/kg	
100-01-6	4-Nitroaniline	ND	1400	ug/kg	
91-20-3	Naphthalene	ND	1400	ug/kg	
98-95-3	Nitrobenzene	ND	1400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1400	ug/kg	
85-01-8	Phenanthrene	926	1400	ug/kg	J
129-00-0	Pyrene	ND	1400	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	93%		36-129%
4165-62-2	Phenol-d5	98%		38-135%
118-79-6	2,4,6-Tribromophenol	121%		37-144%
4165-60-0	Nitrobenzene-d5	101%		36-135%
321-60-8	2-Fluorobiphenyl	127%		44-135%
1718-51-0	Terphenyl-d14	93%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



**Client Sample ID:** RH-BR-11-S04

**Lab Sample ID:** F8493-2

**Matrix:** SO - Solid

**Method:** SW846 8270C SW846 3550B

**Project:** CTO 229

**Date Sampled:** 12/18/00

**Date Received:** 12/22/00

**Percent Solids:** 92.2

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
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(a) Dilution required due to matrix interference.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> RH-BR-11-S04	
<b>Lab Sample ID:</b> F8493-2	<b>Date Sampled:</b> 12/18/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/22/00
<b>Method:</b> SW846 8015 M SW846 3550B	<b>Percent Solids:</b> 92.2
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00682.D	80	01/02/01	SKW	12/29/00	OP2512	GZF32
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	2320	720	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% <sup>a</sup>		40-140%

(a) Outside control limits due to dilution.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



# Report of Analysis

Client Sample ID:	RH-BR-11-S04	Date Sampled:	12/18/00
Lab Sample ID:	F8493-2	Date Received:	12/22/00
Matrix:	SO - Solid	Percent Solids:	92.2
Project:	CTO 229		

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.13 U	10.8	mg/kg	1	01/04/01	01/05/01 SJL	SW846 6010B

RL = Reporting Limit



Client Sample ID: RH-BR-11-S05  
 Lab Sample ID: F8493-3  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/18/00  
 Date Received: 12/22/00  
 Percent Solids: 86.7

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	G0015152.D	1	12/29/00	NAF	n/a	n/a	VG443
Run #2							

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	55	ug/kg	
71-43-2	Benzene	ND	5.5	ug/kg	
75-27-4	Bromodichloromethane	ND	5.5	ug/kg	
75-25-2	Bromoform	ND	5.5	ug/kg	
108-90-7	Chlorobenzene	ND	5.5	ug/kg	
75-00-3	Chloroethane	ND	5.5	ug/kg	
67-66-3	Chloroform	ND	5.5	ug/kg	
75-15-0	Carbon disulfide	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.5	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.5	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.5	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.5	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.5	ug/kg	
124-48-1	Dibromochloromethane	ND	5.5	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.5	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.5	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.5	ug/kg	
100-41-4	Ethylbenzene	19.4	5.5	ug/kg	
591-78-6	2-Hexanone	ND	11	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	11	ug/kg	
74-83-9	Methyl bromide	ND	5.5	ug/kg	
74-87-3	Methyl chloride	ND	5.5	ug/kg	
75-09-2	Methylene chloride	ND	11	ug/kg	
78-93-3	Methyl ethyl ketone	ND	11	ug/kg	
100-42-5	Styrene	ND	5.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.5	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.5	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.5	ug/kg	
108-88-3	Toluene	8.6	5.5	ug/kg	
79-01-6	Trichloroethylene	ND	5.5	ug/kg	
75-01-4	Vinyl chloride	ND	5.5	ug/kg	
1330-20-7	Xylene (total)	298	16	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-11-S05	<b>Date Sampled:</b> 12/18/00
<b>Lab Sample ID:</b> F8493-3	<b>Date Received:</b> 12/22/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 86.7
<b>Method:</b> SW846 8260B	
<b>Project:</b> CTO 229	

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		71-122%
2037-26-5	Toluene-D8	98%		73-128%
460-00-4	4-Bromofluorobenzene	215% <sup>b</sup>		53-158%
17060-07-0	1,2-Dichloroethane-D4	110%		71-122%

- (a) Sample introduction performed using method 5030A.  
 (b) Outside control limits due to matrix interference.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-11-S05	<b>Date Sampled:</b> 12/18/00
<b>Lab Sample ID:</b> F8493-3	<b>Date Received:</b> 12/22/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 86.7
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L005946.D	4	01/02/01	ME	12/29/00	OP2511	SL360
Run #2							

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	3800	ug/kg	
95-57-8	2-Chlorophenol	ND	1500	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1500	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1500	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	3800	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	3800	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	3100	ug/kg	
95-48-7	2-Methylphenol	ND	1500	ug/kg	
	3&4-Methylphenol	ND	1500	ug/kg	
88-75-5	2-Nitrophenol	ND	1500	ug/kg	
100-02-7	4-Nitrophenol	ND	3800	ug/kg	
87-86-5	Pentachlorophenol	ND	3800	ug/kg	
108-95-2	Phenol	ND	1500	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	1500	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1500	ug/kg	
83-32-9	Acenaphthene	ND	1500	ug/kg	
208-96-8	Acenaphthylene	ND	1500	ug/kg	
120-12-7	Anthracene	ND	1500	ug/kg	
56-55-3	Benzo(a)anthracene	ND	1500	ug/kg	
50-32-8	Benzo(a)pyrene	ND	1500	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	1500	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	1500	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	1500	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1500	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1500	ug/kg	
100-51-6	Benzyl Alcohol	ND	1500	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1500	ug/kg	
106-47-8	4-Chloroaniline	ND	1500	ug/kg	
86-74-8	Carbazole	ND	1500	ug/kg	
218-01-9	Chrysene	ND	1500	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1500	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1500	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1500	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1500	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1500	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1500	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

<b>Client Sample ID:</b> RH-BR-11-S05	<b>Date Sampled:</b> 12/18/00
<b>Lab Sample ID:</b> F8493-3	<b>Date Received:</b> 12/22/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 86.7
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	1500	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	1500	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	1500	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	3100	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	1500	ug/kg	
132-64-9	Dibenzofuran	ND	1500	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1500	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1500	ug/kg	
84-66-2	Diethyl phthalate	ND	1500	ug/kg	
131-11-3	Dimethyl phthalate	ND	1500	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1500	ug/kg	
206-44-0	Fluoranthene	ND	1500	ug/kg	
86-73-7	Fluorene	720	1500	ug/kg	J
118-74-1	Hexachlorobenzene	ND	1500	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1500	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	1500	ug/kg	
67-72-1	Hexachloroethane	ND	1500	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1500	ug/kg	
78-59-1	Isophorone	ND	1500	ug/kg	
91-57-6	2-Methylnaphthalene	6810	1500	ug/kg	
88-74-4	2-Nitroaniline	ND	1500	ug/kg	
99-09-2	3-Nitroaniline	ND	1500	ug/kg	
100-01-6	4-Nitroaniline	ND	1500	ug/kg	
91-20-3	Naphthalene	1090	1500	ug/kg	J
98-95-3	Nitrobenzene	ND	1500	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1500	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1500	ug/kg	
85-01-8	Phenanthrene	1500	1500	ug/kg	
129-00-0	Pyrene	ND	1500	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1500	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	89%		36-129%
4165-62-2	Phenol-d5	92%		38-135%
118-79-6	2,4,6-Tribromophenol	101%		37-144%
4165-60-0	Nitrobenzene-d5	92%		36-135%
321-60-8	2-Fluorobiphenyl	122%		44-135%
1718-51-0	Terphenyl-d14	92%		42-149%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> RH-BR-11-S05	<b>Date Sampled:</b> 12/18/00
<b>Lab Sample ID:</b> F8493-3	<b>Date Received:</b> 12/22/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 86.7
<b>Method:</b> SW846 8270C SW846 3550B	
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
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(a) Dilution required due to matrix interference.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



# Report of Analysis

Client Sample ID: RH-BR-11-S05	Date Sampled: 12/18/00
Lab Sample ID: F8493-3	Date Received: 12/22/00
Matrix: SO - Solid	Percent Solids: 86.7
Method: SW846 8015 M SW846 3550B	
Project: CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00683.D	80	01/02/01	SKW	12/29/00	OP2512	GZF32
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	2910	770	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% <sup>a</sup>		40-140%

(a) Outside control limits due to dilution.

ND = Not detected  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



**Client Sample ID:** RH-BR-11-S05

**Lab Sample ID:** F8493-3

**Matrix:** SO - Solid

**Project:** CTO 229

**Date Sampled:** 12/18/00

**Date Received:** 12/22/00

**Percent Solids:** 86.7

**Metals Analysis**

<b>Analyte</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>DF</b>	<b>Prep</b>	<b>Analyzed By</b>	<b>Method</b>
Lead	0.14 U	11.8	mg/kg	1	01/04/01	01/05/01 SJL	SW846 6010B

RL = Reporting Limit



## Report of Analysis

Client Sample ID: TRIP BLANK

Lab Sample ID: F8493-4

Matrix: AQ - Trip Blank Water

Method: SW846 8260B

Project: CTO 229

Date Sampled: 12/18/00

Date Received: 12/22/00

Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0001980.D	1	12/27/00	JG	n/a	n/a	VC90
Run #2							

### VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	ug/l	
75-25-2	Bromoform	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	10	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	5.0	ug/l	
74-87-3	Methyl chloride	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
100-42-5	Styrene	ND	2.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



<b>Client Sample ID:</b> TRIP BLANK	<b>Date Sampled:</b> 12/18/00
<b>Lab Sample ID:</b> F8493-4	<b>Date Received:</b> 12/22/00
<b>Matrix:</b> AQ - Trip Blank Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> CTO 229	

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		80-120%
17060-07-0	1,2-Dichloroethane-D4	104%		69-128%
2037-26-5	Toluene-D8	93%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# SECTION 5

