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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 III 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**

I of II



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*Fac. ID: 9-102271*

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**JUNE 2002**

TANK 11

Technical Report for

Ogden Environmental

CTO 229

1-1019-0229

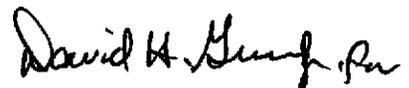
Accutest Job Number: F8440

Report to:

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

ATTN: Kent Evetts

Total number of pages in report: 334



Harry Behzadi, Ph.D.  
Laboratory Director

Results relate only to the items tested.

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DATE: 12/20/00

NUMBER OF PAGES (Including cover letter): 3

PLEASE DELIVER IMMEDIATELY TO:

NAME: Kent Fretts

FROM: LINDA R. WILLIAMS  
PROJECT MANAGER

COMPANY: DNCC

FAX NUMBER: 256-539-3074

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

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COMPANY: ORAC  
FAX NUMBER: 256-539-3074

FROM: LINDA R. WILLIAMS  
PROJECT MANAGER  
  
EMAIL: lindaw@accutest.com

**COMMENTS:**

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### Sample Summary

Ogden Environmental

Job No: F8440

CTO 229

Project No: 1-1019-0229

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F8440-1	12/15/00	09:50 ALW	12/19/00	SO	Solid	RH-BR-11-S01
F8440-2	12/15/00	14:55 ALW	12/19/00	SO	Solid	RH-BR-11-S02

---

## Report of Analysis

Client Sample ID:	RH-BR-11-S01	Date Sampled:	12/15/00
Lab Sample ID:	F8440-1	Date Received:	12/19/00
Matrix:	SO - Solid	Percent Solids:	76.5
Method:	SW846 8260B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H010353.D	1	12/22/00	NAF	n/a	n/a	VH239
Run #2	H010363.D	1	12/26/00	NAF	n/a	n/a	VH240

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	63.2	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	16.5	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)	8.4	16	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-S01	Date Sampled:	12/15/00
Lab Sample ID:	F8440-1	Date Received:	12/19/00
Matrix:	SO - Solid	Percent Solids:	76.5
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	48% <sup>b</sup>	46%	71-122%
2037-26-5	Toluene-D8	97%	91%	73-128%
460-00-4	4-Bromofluorobenzene	114%	111%	53-158%
17060-07-0	1,2-Dichloroethane-D4	91%	95%	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-11-S01		Date Sampled:	12/15/00
Lab Sample ID:	F8440-1		Date Received:	12/19/00
Matrix:	SO - Solid		Percent Solids:	76.5
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

Run #1 *	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	W003550.D	2	12/28/00	ME	12/26/00	OP2482	SW208

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2200	ug/kg	
95-57-8	2-Chlorophenol	ND	870	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	870	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	870	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2200	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	2200	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	1700	ug/kg	
95-48-7	2-Methylphenol	ND	870	ug/kg	
	3&4-Methylphenol	ND	870	ug/kg	
88-75-5	2-Nitrophenol	ND	870	ug/kg	
100-02-7	4-Nitrophenol	ND	2200	ug/kg	
87-86-5	Pentachlorophenol	ND	2200	ug/kg	
108-95-2	Phenol	ND	870	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	870	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	870	ug/kg	
83-32-9	Acenaphthene	ND	870	ug/kg	
208-96-8	Acenaphthylene	ND	870	ug/kg	
120-12-7	Anthracene	ND	870	ug/kg	
56-55-3	Benzo(a)anthracene	ND	870	ug/kg	
50-32-8	Benzo(a)pyrene	ND	870	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	870	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	870	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	870	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	870	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	870	ug/kg	
100-51-6	Benzyl Alcohol	ND	870	ug/kg	
91-58-7	2-Chloronaphthalene	ND	870	ug/kg	
106-47-8	4-Chloroaniline	ND	870	ug/kg	
86-74-8	Carbazole	ND	870	ug/kg	
218-01-9	Chrysene	ND	870	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	870	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	870	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	870	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	870	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	870	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	870	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-S01		Date Sampled:	12/15/00
Lab Sample ID:	F8440-1		Date Received:	12/19/00
Matrix:	SO - Solid		Percent Solids:	76.5
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	870	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	870	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	870	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1700	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	870	ug/kg	
132-64-9	Dibenzofuran	ND	870	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	870	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	870	ug/kg	
84-66-2	Diethyl phthalate	ND	870	ug/kg	
131-11-3	Dimethyl phthalate	ND	870	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	286	870	ug/kg	J
206-44-0	Fluoranthene	ND	870	ug/kg	
86-73-7	Fluorene	ND	870	ug/kg	
118-74-1	Hexachlorobenzene	ND	870	ug/kg	
87-68-3	Hexachlorobutadiene	ND	870	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	870	ug/kg	
67-72-1	Hexachloroethane	ND	870	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	870	ug/kg	
78-59-1	Isophorone	ND	870	ug/kg	
91-57-6	2-Methylnaphthalene	1560	870	ug/kg	
88-74-4	2-Nitroaniline	ND	870	ug/kg	
99-09-2	3-Nitroaniline	ND	870	ug/kg	
100-01-6	4-Nitroaniline	ND	870	ug/kg	
91-20-3	Naphthalene	ND	870	ug/kg	
98-95-3	Nitrobenzene	ND	870	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	870	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	870	ug/kg	
85-01-8	Phenanthrene	534	870	ug/kg	J
129-00-0	Pyrene	ND	870	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	870	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	43%		36-129%
4165-62-2	Phenol-d5	76%		38-135%
118-79-6	2,4,6-Tribromophenol	29% <sup>b</sup>		37-144%
4165-60-0	Nitrobenzene-d5	78%		36-135%
321-60-8	2-Fluorobiphenyl	94%		44-135%
1718-51-0	Terphenyl-d14	86%		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-S01	Date Sampled:	12/15/00
Lab Sample ID:	F8440-1	Date Received:	12/19/00
Matrix:	SO - Solid	Percent Solids:	76.5
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 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-S01	Date Sampled:	12/15/00
Lab Sample ID:	F8440-1	Date Received:	12/19/00
Matrix:	SO - Solid	Percent Solids:	76.5
Method:	SW846 8015 M SW846 3550B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00667.D	40	12/27/00	SKW	12/26/00	OP2483	GZF31
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	1690	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-11-S01	Date Sampled:	12/15/00
Lab Sample ID:	F8440-1	Date Received:	12/19/00
Matrix:	SO - Solid	Percent Solids:	76.5
Project:	CTO 229		

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	<13	13	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

---

RL = Reporting Limit

## Report of Analysis

Client Sample ID: RH-BR-11-S02  
 Lab Sample ID: F8440-2  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/15/00  
 Date Received: 12/19/00  
 Percent Solids: 92.8

Run #1 *	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010366.D	1	12/26/00	NAF	n/a	n/a	VH240

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	24.3	45	ug/kg	J
71-43-2	Benzene	ND	4.5	ug/kg	
75-27-4	Bromodichloromethane	ND	4.5	ug/kg	
75-25-2	Bromoform	ND	4.5	ug/kg	
108-90-7	Chlorobenzene	ND	4.5	ug/kg	
75-00-3	Chloroethane	ND	4.5	ug/kg	
67-66-3	Chloroform	ND	4.5	ug/kg	
75-15-0	Carbon disulfide	ND	9.0	ug/kg	
56-23-5	Carbon tetrachloride	ND	4.5	ug/kg	
75-34-3	1,1-Dichloroethane	ND	4.5	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	4.5	ug/kg	
107-06-2	1,2-Dichloroethane	ND	4.5	ug/kg	
78-87-5	1,2-Dichloropropane	ND	4.5	ug/kg	
124-48-1	Dibromochloromethane	ND	4.5	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	4.5	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	4.5	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	4.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	4.5	ug/kg	
100-41-4	Ethylbenzene	2.0	4.5	ug/kg	J
591-78-6	2-Hexanone	ND	9.0	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	9.0	ug/kg	
74-83-9	Methyl bromide	ND	4.5	ug/kg	
74-87-3	Methyl chloride	ND	4.5	ug/kg	
75-09-2	Methylene chloride	ND	9.0	ug/kg	
78-93-3	Methyl ethyl ketone	ND	9.0	ug/kg	
100-42-5	Styrene	ND	4.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	4.5	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	4.5	ug/kg	
127-18-4	Tetrachloroethylene	ND	4.5	ug/kg	
108-88-3	Toluene	ND	4.5	ug/kg	
79-01-6	Trichloroethylene	ND	4.5	ug/kg	
75-01-4	Vinyl chloride	ND	4.5	ug/kg	
1330-20-7	Xylene (total)	ND	14	ug/kg	

ND = Not detected

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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-S02	Date Sampled:	12/15/00
Lab Sample ID:	F8440-2	Date Received:	12/19/00
Matrix:	SO - Solid	Percent Solids:	92.8
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	96%		73-128%
460-00-4	4-Bromofluorobenzene	116%		53-158%
17060-07-0	1,2-Dichloroethane-D4	89%		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-S02		Date Sampled:	12/15/00
Lab Sample ID:	F8440-2		Date Received:	12/19/00
Matrix:	SO - Solid		Percent Solids:	92.8
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>	W003551.D	4	12/28/00	ME	12/26/00	OP2482	SW208
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

## Report of Analysis

Client Sample ID:	RH-BR-11-S02		Date Sampled:	12/15/00
Lab Sample ID:	F8440-2		Date Received:	12/19/00
Matrix:	SO - Solid		Percent Solids:	92.8
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	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	992	1400	ug/kg	J
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	1140	1400	ug/kg	J
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	6110	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	776	1400	ug/kg	J
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	2090	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	84%		36-129%
4165-62-2	Phenol-d5	96%		38-135%
118-79-6	2,4,6-Tribromophenol	87%		37-144%
4165-60-0	Nitrobenzene-d5	94%		36-135%
321-60-8	2-Fluorobiphenyl	112%		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-S02	Date Sampled:	12/15/00
Lab Sample ID:	F8440-2	Date Received:	12/19/00
Matrix:	SO - Solid	Percent Solids:	92.8
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.

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-S02		Date Sampled:	12/15/00	
Lab Sample ID:	F8440-2		Date Received:	12/19/00	
Matrix:	SO - Solid		Percent Solids:	92.8	
Method:	SW846 8015 M SW846 3550B				
Project:	CTO 229				

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00668.D	80	12/27/00	SKW	12/26/00	OP2483	GZF31
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	3130	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-S02  
Lab Sample ID: F8440-2  
Matrix: SO - Solid  
Project: CTO 229

Date Sampled: 12/15/00  
Date Received: 12/19/00  
Percent Solids: 92.8

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	<11	11	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

---

RL = Reporting Limit

# SECTION 2

**CASE NARRATIVE  
GC/MS Volatile Analysis**

Laboratory Reference No. F8440

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

**I. RECEIPT**

The samples were received via DHL on December 19, 2000. No trip blank was received with the samples as noted on the Chain-of-Custody.

**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.
- D. Samples: Sample analysis proceeded normally with the exception of sample F8440-1 which had a low recovery of the surrogate Dibromofluoromethane (48% vs 71%), which was confirmed by reanalysis of the sample.

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

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

Laboratory Reference No. F8440

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

**I. RECEIPT**

The samples were received via DHL on December 19, 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): All acceptance criteria were met.
- D. Samples: The surrogate, 2,4,6-Tribromophenol, in sample F8440-1 was outside the acceptance criteria (29% vs 37%) and the sample was diluted 1:2 due to a matrix interference. Sample F8440-2 required a dilution of 1:4 due to a 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: David H. Greer, Jr. Date: 01/09/01  
David H. Greer, Jr.  
Quality Assurance Officer

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

Laboratory Reference No. F8440

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

**I. RECEIPT**

The samples were received via DHL on December 19, 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): All acceptance criteria were met.

D. Samples: Sample analyses proceeded normally except that sample F8440-1 had to be diluted 1:40 prior to analysis and therefore the surrogate was not recovered and sample F8440-2 required a dilution of 1:80, diluting out the surrogate.

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

CASE NARRATIVE  
Inorganic Analysis

Laboratory Reference No. F8440

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

**I. RECEIPT**

The samples were received via DHL on December 19, 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 except that the low calibration check standard was outside the criteria (148% vs 130%).

B. Blanks: All acceptance criteria were met.

C. Spikes (Matrix Spike, Matrix Spike Duplicate, and LCS): The MSD (F8440-1) was outside the acceptance limits (411.8% vs 127%) for all samples, however the LCS (blank spike) was within the criteria.

D. Duplicates: All acceptance criteria were met. The duplicate results for the samples was acceptable due to low duplicate and sample concentration.

E. Serial Dilutions: The serial dilutions were acceptable due to low initial sample concentration (e.g. <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: 01/09/01

Accutest Laboratories Southeast  
Case Narrative

Job (SDG) No.: F8440

Samples: 1-2

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: see attached

ACCUTEST LABORATORIES SOUTHEAST

SAMPLE RECEIPT CONFIRMATION

Accutest Job No.: F8440  
Client/Project: Ogden / Red Hill Bulk Fuel  
Date/Time Received: 12-19-00 / 18:00  
Method of Delivery: Fed Ex  Greyhound  Courier  Other DHL  
Air Bill No.: 8103264595  
Custody Seal Intact? YES  NO   
Chain-of-Custody Provided? YES  NO   
COC Match Bottles? YES  NO   
Sample Labels Present? YES  NO   
Cooler Temperature 4.6°  
Bottles Broken? YES  NO   
Proper Preservative? YES  NO   
Correct Containers Used? YES  NO   
Sufficient Sample Volume? YES  NO   
Number of Encores?: 0

Comments: \_\_\_\_\_  
\_\_\_\_\_ No trip blank was in the cooler \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature: Heidi M. Sanchez Date: 12-19-00

# SECTION 3

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**ACCUTEST.**

**9. Metals SUPPORT DATA**

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# SECTION 4



### Sample Summary

Ogden Environmental

Job No: F8440

CTO 229

Project No: 1-1019-0229

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F8440-1	12/15/00	09:50	ALW 12/19/00	SO	Solid	RH-BR-11-S01
F8440-2	12/15/00	14:55	ALW 12/19/00	SO	Solid	RH-BR-11-S02

<b>Client Sample ID:</b> RH-BR-11-S01	<b>Date Sampled:</b> 12/15/00
<b>Lab Sample ID:</b> F8440-1	<b>Date Received:</b> 12/19/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 76.5
<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>	H010353.D	1	12/22/00	NAF	n/a	n/a	VH239
Run #2	H010363.D	1	12/26/00	NAF	n/a	n/a	VH240

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	63.2	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	16.5	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)	8.4	16	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-S01	<b>Date Sampled:</b> 12/15/00
<b>Lab Sample ID:</b> F8440-1	<b>Date Received:</b> 12/19/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 76.5
<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	48% <sup>b</sup>	46%	71-122%
2037-26-5	Toluene-D8	97%	91%	73-128%
460-00-4	4-Bromofluorobenzene	114%	111%	53-158%
17060-07-0	1,2-Dichloroethane-D4	91%	95%	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-11-S01	
<b>Lab Sample ID:</b> F8440-1	<b>Date Sampled:</b> 12/15/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/19/00
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 76.5
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	W003550.D	2	12/28/00	ME	12/26/00	OP2482	SW208
Run #2							

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	2200	ug/kg	
95-57-8	2-Chlorophenol	ND	870	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	870	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	870	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	2200	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	2200	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	1700	ug/kg	
95-48-7	2-Methylphenol	ND	870	ug/kg	
	3&4-Methylphenol	ND	870	ug/kg	
88-75-5	2-Nitrophenol	ND	870	ug/kg	
100-02-7	4-Nitrophenol	ND	2200	ug/kg	
87-86-5	Pentachlorophenol	ND	2200	ug/kg	
108-95-2	Phenol	ND	870	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	870	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	870	ug/kg	
83-32-9	Acenaphthene	ND	870	ug/kg	
208-96-8	Acenaphthylene	ND	870	ug/kg	
120-12-7	Anthracene	ND	870	ug/kg	
56-55-3	Benzo(a)anthracene	ND	870	ug/kg	
50-32-8	Benzo(a)pyrene	ND	870	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	870	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	870	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	870	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	870	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	870	ug/kg	
100-51-6	Benzyl Alcohol	ND	870	ug/kg	
91-58-7	2-Chloronaphthalene	ND	870	ug/kg	
106-47-8	4-Chloroaniline	ND	870	ug/kg	
86-74-8	Carbazole	ND	870	ug/kg	
218-01-9	Chrysene	ND	870	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	870	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	870	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	870	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	870	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	870	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	870	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-S01	
<b>Lab Sample ID:</b> F8440-1	<b>Date Sampled:</b> 12/15/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/19/00
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 76.5
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	870	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	870	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	870	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	1700	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	870	ug/kg	
132-64-9	Dibenzofuran	ND	870	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	870	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	870	ug/kg	
84-66-2	Diethyl phthalate	ND	870	ug/kg	
131-11-3	Dimethyl phthalate	ND	870	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	286	870	ug/kg	J
206-44-0	Fluoranthene	ND	870	ug/kg	
86-73-7	Fluorene	ND	870	ug/kg	
118-74-1	Hexachlorobenzene	ND	870	ug/kg	
87-68-3	Hexachlorobutadiene	ND	870	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	870	ug/kg	
67-72-1	Hexachloroethane	ND	870	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	870	ug/kg	
78-59-1	Isophorone	ND	870	ug/kg	
91-57-6	2-Methylnaphthalene	1560	870	ug/kg	
88-74-4	2-Nitroaniline	ND	870	ug/kg	
99-09-2	3-Nitroaniline	ND	870	ug/kg	
100-01-6	4-Nitroaniline	ND	870	ug/kg	
91-20-3	Naphthalene	ND	870	ug/kg	
98-95-3	Nitrobenzene	ND	870	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	870	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	870	ug/kg	
85-01-8	Phenanthrene	534	870	ug/kg	J
129-00-0	Pyrene	ND	870	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	870	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	43%		36-129%
4165-62-2	Phenol-d5	76%		38-135%
118-79-6	2,4,6-Tribromophenol	29% <sup>b</sup>		37-144%
4165-60-0	Nitrobenzene-d5	78%		36-135%
321-60-8	2-Fluorobiphenyl	94%		44-135%
1718-51-0	Terphenyl-d14	86%		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-S01		
<b>Lab Sample ID:</b> F8440-1		<b>Date Sampled:</b> 12/15/00
<b>Matrix:</b> SO - Solid		<b>Date Received:</b> 12/19/00
<b>Method:</b> SW846 8270C SW846 3550B		<b>Percent Solids:</b> 76.5
<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 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-S01	<b>Date Sampled:</b> 12/15/00
<b>Lab Sample ID:</b> F8440-1	<b>Date Received:</b> 12/19/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 76.5
<b>Method:</b> SW846 8015 M SW846 3550B	
<b>Project:</b> CTO 229	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00667.D	40	12/27/00	SKW	12/26/00	OP2483	GZF31
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	1690	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



**Client Sample ID:** RH-BR-11-S01

**Lab Sample ID:** F8440-1

**Matrix:** SO - Solid

**Project:** CTO 229

**Date Sampled:** 12/15/00

**Date Received:** 12/19/00

**Percent Solids:** 76.5

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	4.7 B	13	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

RL = Reporting Limit



Client Sample ID: RH-BR-11-S02  
 Lab Sample ID: F8440-2  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/15/00  
 Date Received: 12/19/00  
 Percent Solids: 92.8

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010366.D	1	12/26/00	NAF	n/a	n/a	VH240

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	24.3	45	ug/kg	J
71-43-2	Benzene	ND	4.5	ug/kg	
75-27-4	Bromodichloromethane	ND	4.5	ug/kg	
75-25-2	Bromoform	ND	4.5	ug/kg	
108-90-7	Chlorobenzene	ND	4.5	ug/kg	
75-00-3	Chloroethane	ND	4.5	ug/kg	
67-66-3	Chloroform	ND	4.5	ug/kg	
75-15-0	Carbon disulfide	ND	9.0	ug/kg	
56-23-5	Carbon tetrachloride	ND	4.5	ug/kg	
75-34-3	1,1-Dichloroethane	ND	4.5	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	4.5	ug/kg	
107-06-2	1,2-Dichloroethane	ND	4.5	ug/kg	
78-87-5	1,2-Dichloropropane	ND	4.5	ug/kg	
124-48-1	Dibromochloromethane	ND	4.5	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	4.5	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	4.5	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	4.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	4.5	ug/kg	
100-41-4	Ethylbenzene	2.0	4.5	ug/kg	J
591-78-6	2-Hexanone	ND	9.0	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	9.0	ug/kg	
74-83-9	Methyl bromide	ND	4.5	ug/kg	
74-87-3	Methyl chloride	ND	4.5	ug/kg	
75-09-2	Methylene chloride	ND	9.0	ug/kg	
78-93-3	Methyl ethyl ketone	ND	9.0	ug/kg	
100-42-5	Styrene	ND	4.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	4.5	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	4.5	ug/kg	
127-18-4	Tetrachloroethylene	ND	4.5	ug/kg	
108-88-3	Toluene	ND	4.5	ug/kg	
79-01-6	Trichloroethylene	ND	4.5	ug/kg	
75-01-4	Vinyl chloride	ND	4.5	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

<b>Client Sample ID:</b> RH-BR-11-S02	
<b>Lab Sample ID:</b> F8440-2	<b>Date Sampled:</b> 12/15/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/19/00
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 92.8
<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	96%		73-128%
460-00-4	4-Bromofluorobenzene	116%		53-158%
17060-07-0	1,2-Dichloroethane-D4	89%		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-S02	
<b>Lab Sample ID:</b> F8440-2	<b>Date Sampled:</b> 12/15/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/19/00
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 92.8
<b>Project:</b> CTO 229	

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	W003551.D	4	12/28/00	ME	12/26/00	OP2482	SW208

**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-S02	
<b>Lab Sample ID:</b> F8440-2	<b>Date Sampled:</b> 12/15/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/19/00
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 92.8
<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	992	1400	ug/kg	J
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	1140	1400	ug/kg	J
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	6110	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	776	1400	ug/kg	J
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	2090	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	84%		36-129%
4165-62-2	Phenol-d5	96%		38-135%
118-79-6	2,4,6-Tribromophenol	87%		37-144%
4165-60-0	Nitrobenzene-d5	94%		36-135%
321-60-8	2-Fluorobiphenyl	112%		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-S02	
<b>Lab Sample ID:</b> F8440-2	<b>Date Sampled:</b> 12/15/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/19/00
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 92.8
<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>
----------------	-----------------	---------------	-----------	--------------	----------

(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



**ACCUTEST.**

### Report of Analysis

<b>Client Sample ID:</b> RH-BR-11-S02	
<b>Lab Sample ID:</b> F8440-2	<b>Date Sampled:</b> 12/15/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/19/00
<b>Method:</b> SW846 8015 M SW846 3550B	<b>Percent Solids:</b> 92.8
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00668.D	80	12/27/00	SKW	12/26/00	OP2483	GZF31
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	3130	720	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% a		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-S02

Lab Sample ID: F8440-2

Matrix: SO - Solid

Project: CTO 229

Date Sampled: 12/15/00

Date Received: 12/19/00

Percent Solids: 92.8

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.13 U	11	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

RL = Reporting Limit

# SECTION 5



# CHAIN OF CUSTODY

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

ACCUTEST JOB #: F844C  
ACCUTEST QUOTE #:

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION		MATRIX CODES													
NAME: <u>Lane @ OPEN Env.</u> ADDRESS: <u>2904 Westview Blvd Suite 107</u> CITY: <u>Heartsville</u> STATE: <u>AL</u> ZIP: <u>35805</u> SEND REPORT TO: PHONE # <u>256-539-3016</u>		PROJECT NAME: <u>Red Hill Bulk Fuel</u> LOCATION: <u>Opaha, HI</u> PROJECT NO.: <u>1-1019-0229</u> FAX #: <u>256-539-3074</u>		VOC CRUM 03.2 SVOC CRUM 03.2 Lead CRUM 04.0 TR4 as for 8015 B		DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID LAB USE ONLY													
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		PRESERVATION		DATE	TIME	SAMPLED BY:	MATRIX	BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	ICE			
		DATE	TIME	DATE	TIME														
-1	RH-BE-11-501	12-15	0950	ALW	SOL3	12-15	0950	ALW	SOL3	3							X		
-2	RH-BE-11-502	12-15	1455	ALW	SOL3	12-15	1455	ALW	SOL3	3							X		
	trip blank	12-15	-	-	LIQ 2	12-15	-	-	LIQ 2	2							X		
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		COMMENTS/REMARKS															
<input checked="" 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 checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input type="checkbox"/> OTHER (SPECIFY) _____		APPROVED BY: _____ DATE TIME: _____		RECEIVED BY: _____ DATE TIME: _____		RECEIVED BY: _____ DATE TIME: _____		RECEIVED BY: _____ DATE TIME: _____		RECEIVED BY: _____ DATE TIME: _____		RECEIVED BY: _____ DATE TIME: _____		RECEIVED BY: _____ DATE TIME: _____		TEMPERATURE: <u>4.0</u> C ON ICE: <input checked="" type="checkbox"/>	
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																			
RELINQUISHED BY: SAMPLER: <u>1. Lane William</u>	DATE TIME: <u>12/15/07 1100</u>	RELINQUISHED BY: <u>1. Lane William</u>	DATE TIME: <u>12-19-07</u>	RECEIVED BY: <u>2. [Signature]</u>	DATE TIME: <u>13:01</u>	RECEIVED BY: <u>3. [Signature]</u>	DATE TIME: _____	RECEIVED BY: <u>4. [Signature]</u>	DATE TIME: _____	RECEIVED BY: <u>5. [Signature]</u>	DATE TIME: _____	RECEIVED BY: _____	DATE TIME: _____	RECEIVED BY: _____	DATE TIME: _____	RECEIVED BY: _____	DATE TIME: _____	SEAL # _____	PRESERVE WHERE APPLICABLE: <input type="checkbox"/>

TANK 12

Technical Report for

Ogden Environmental

CTO 229

1-1019-0229

Accutest Job Number: F8430

Report to:

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

ATTN: Kent Evetts

Total number of pages in report: 840



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: F8430

CTO 229

Project No: 1-1019-0229

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
F8430-1	12/12/00	08:10 ALW	12/18/00	SO	Solid	RH-BR-12-S01
F8430-2	12/13/00	15:05 ALW	12/18/00	SO	Solid	RH-BR-12-S02
F8430-3	12/13/00	16:20 ALW	12/18/00	SO	Solid	RH-BR-12-S03
F8430-4	12/14/00	11:30 ALW	12/18/00	SO	Solid	RH-BR-12-S04
F8430-5	12/14/00	14:00 ALW	12/18/00	SO	Solid	RH-BR-12-S05
F8430-6	12/14/00	00:00 ALW	12/18/00	SO	Solid	RH-BR-12-D06
F8430-7	12/13/00	00:00 ALW	12/18/00	AQ	Trip Blank Soil	TRIP BLANK

## Report of Analysis

Client Sample ID:	RH-BR-12-SO1		Date Sampled:	12/12/00
Lab Sample ID:	F8430-1		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	89.5
Method:	SW846 8270C	SW846 3550B		
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W003532.D	1	12/27/00	ME	12/26/00	OP2482	SW207
Run #2							

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	930	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	930	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	930	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	930	ug/kg	
87-86-5	Pentachlorophenol	ND	930	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-12-SO1	Date Sampled:	12/12/00
Lab Sample ID:	F8430-1	Date Received:	12/18/00
Matrix:	SO - Solid	Percent Solids:	89.5
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	96%		73-128%
460-00-4	4-Bromofluorobenzene	104%		53-158%
17060-07-0	1,2-Dichloroethane-D4	90%		71-122%

(a) 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-12-SO1		Date Sampled:	12/12/00	
Lab Sample ID:	F8430-1		Date Received:	12/18/00	
Matrix:	SO - Solid		Percent Solids:	89.5	
Method:	SW846 8260B				
Project:	CTO 229				

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010345.D	1	12/22/00	NAF	n/a	n/a	VH239

## 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-12-SO1		Date Sampled:	12/12/00
Lab Sample ID:	F8430-1		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	89.5
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	169	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	83%		36-129%
4165-62-2	Phenol-d5	86%		38-135%
118-79-6	2,4,6-Tribromophenol	82%		37-144%
4165-60-0	Nitrobenzene-d5	87%		36-135%
321-60-8	2-Fluorobiphenyl	83%		44-135%
1718-51-0	Terphenyl-d14	83%		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-12-SO1	Date Sampled:	12/12/00
Lab Sample ID:	F8430-1	Date Received:	12/18/00
Matrix:	SO - Solid	Percent Solids:	89.5
Method:	SW846 8015 M SW846 3550B		
Project:	CTO 229		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00651.D	1	12/27/00	SKW	12/26/00	OP2483	GZF31
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	31.7	9.3	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	89%		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-12-SO1

Lab Sample ID: F8430-1

Matrix: SO - Solid

Project: CTO 229

Date Sampled: 12/12/00

Date Received: 12/18/00

Percent Solids: 89.5

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	<11	11	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID: RH-BR-12-SO2  
 Lab Sample ID: F8430-2  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/13/00  
 Date Received: 12/18/00  
 Percent Solids: 87.1

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010362.D	1	12/26/00	NAF	n/a	n/a	VH240

## 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-12-SO2	Date Sampled:	12/13/00
Lab Sample ID:	F8430-2	Date Received:	12/18/00
Matrix:	SO - Solid	Percent Solids:	87.1
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		71-122%
2037-26-5	Toluene-D8	93%		73-128%
460-00-4	4-Bromofluorobenzene	98%		53-158%
17060-07-0	1,2-Dichloroethane-D4	82%		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-12-SO2		Date Sampled:	12/13/00
Lab Sample ID:	F8430-2		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	87.1
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W003533.D	1	12/27/00	ME	12/26/00	OP2482	SW207
Run #2	W003545.D	4	12/27/00	ME	12/26/00	OP2482	SW207

## 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	380	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	380	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	380	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	760	ug/kg	
95-48-7	2-Methylphenol	ND	380	ug/kg	
	3&4-Methylphenol	ND	380	ug/kg	
88-75-5	2-Nitrophenol	ND	380	ug/kg	
100-02-7	4-Nitrophenol	ND	960	ug/kg	
87-86-5	Pentachlorophenol	ND	960	ug/kg	
108-95-2	Phenol	ND	380	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	380	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	380	ug/kg	
83-32-9	Acenaphthene	ND	380	ug/kg	
208-96-8	Acenaphthylene	ND	380	ug/kg	
120-12-7	Anthracene	ND	380	ug/kg	
56-55-3	Benzo(a)anthracene	ND	380	ug/kg	
50-32-8	Benzo(a)pyrene	ND	380	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	380	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	380	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	380	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	380	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	380	ug/kg	
100-51-6	Benzyl Alcohol	ND	380	ug/kg	
91-58-7	2-Chloronaphthalene	ND	380	ug/kg	
106-47-8	4-Chloroaniline	ND	380	ug/kg	
86-74-8	Carbazole	ND	380	ug/kg	
218-01-9	Chrysene	ND	380	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	380	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	380	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	380	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	380	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	380	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	380	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-12-SO2		Date Sampled:	12/13/00
Lab Sample ID:	F8430-2		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	87.1
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	380	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	380	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	380	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	760	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	380	ug/kg	
132-64-9	Dibenzofuran	ND	380	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	380	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	380	ug/kg	
84-66-2	Diethyl phthalate	ND	380	ug/kg	
131-11-3	Dimethyl phthalate	ND	380	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	380	ug/kg	
206-44-0	Fluoranthene	ND	380	ug/kg	
86-73-7	Fluorene	ND	380	ug/kg	
118-74-1	Hexachlorobenzene	ND	380	ug/kg	
87-68-3	Hexachlorobutadiene	ND	380	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	380	ug/kg	
67-72-1	Hexachloroethane	ND	380	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	380	ug/kg	
78-59-1	Isophorone	ND	380	ug/kg	
91-57-6	2-Methylnaphthalene	ND	380	ug/kg	
88-74-4	2-Nitroaniline	ND	380	ug/kg	
99-09-2	3-Nitroaniline	ND	380	ug/kg	
100-01-6	4-Nitroaniline	ND	380	ug/kg	
91-20-3	Naphthalene	ND	380	ug/kg	
98-95-3	Nitrobenzene	ND	380	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	380	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	380	ug/kg	
85-01-8	Phenanthrene	ND	380	ug/kg	
129-00-0	Pyrene	ND	380	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	380	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	64%	68%	36-129%
4165-62-2	Phenol-d5	86%	92%	38-135%
118-79-6	2,4,6-Tribromophenol	15% <sup>b</sup>	11% <sup>a</sup>	37-144%
4165-60-0	Nitrobenzene-d5	86%	89%	36-135%
321-60-8	2-Fluorobiphenyl	95%	94%	44-135%
1718-51-0	Terphenyl-d14	83%	96%	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-12-SO2	Date Sampled:	12/13/00
Lab Sample ID:	F8430-2	Date Received:	12/18/00
Matrix:	SO - Solid	Percent Solids:	87.1
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
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- (a) Outside control limits due to dilution.  
(b) Confirmed by 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-12-SO2	Date Sampled:	12/13/00
Lab Sample ID:	F8430-2	Date Received:	12/18/00
Matrix:	SO - Solid	Percent Solids:	87.1
Method:	SW846 8015 M SW846 3550B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00661.D	5	12/27/00	SKW	12/26/00	OP2483	GZF31
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	232	48	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	88%		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-12-SO2  
Lab Sample ID: F8430-2  
Matrix: SO - Solid  
Project: CTO 229

Date Sampled: 12/13/00  
Date Received: 12/18/00  
Percent Solids: 87.1

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	<11	11	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID: RH-BR-12-SO3  
 Lab Sample ID: F8430-3  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/13/00  
 Date Received: 12/18/00  
 Percent Solids: 94.7

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 *	H010347.D	1	12/22/00	NAF	n/a	n/a	VH239
Run #2							

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	53	ug/kg	
71-43-2	Benzene	ND	5.3	ug/kg	
75-27-4	Bromodichloromethane	ND	5.3	ug/kg	
75-25-2	Bromoform	ND	5.3	ug/kg	
108-90-7	Chlorobenzene	ND	5.3	ug/kg	
75-00-3	Chloroethane	ND	5.3	ug/kg	
67-66-3	Chloroform	ND	5.3	ug/kg	
75-15-0	Carbon disulfide	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.3	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.3	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.3	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.3	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.3	ug/kg	
124-48-1	Dibromochloromethane	ND	5.3	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.3	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.3	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.3	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.3	ug/kg	
100-41-4	Ethylbenzene	ND	5.3	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	5.3	ug/kg	
74-87-3	Methyl chloride	ND	5.3	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	5.3	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.3	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.3	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.3	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.3	ug/kg	
108-88-3	Toluene	ND	5.3	ug/kg	
79-01-6	Trichloroethylene	ND	5.3	ug/kg	
75-01-4	Vinyl chloride	ND	5.3	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-12-SO3	Date Sampled:	12/13/00
Lab Sample ID:	F8430-3	Date Received:	12/18/00
Matrix:	SO - Solid	Percent Solids:	94.7
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	99%		73-128%
460-00-4	4-Bromofluorobenzene	110%		53-158%
17060-07-0	1,2-Dichloroethane-D4	91%		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-12-SO3		Date Sampled:	12/13/00
Lab Sample ID:	F8430-3		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	94.7
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W003534.D	1	12/27/00	ME	12/26/00	OP2482	SW207
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-12-SO3		Date Sampled:	12/13/00
Lab Sample ID:	F8430-3		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	94.7
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	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	199	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	91%		36-129%
4165-62-2	Phenol-d5	95%		38-135%
118-79-6	2,4,6-Tribromophenol	116%		37-144%
4165-60-0	Nitrobenzene-d5	95%		36-135%
321-60-8	2-Fluorobiphenyl	128%		44-135%
1718-51-0	Terphenyl-d14	84%		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-12-SO3		Date Sampled:	12/13/00
Lab Sample ID:	F8430-3		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	94.7
Method:	SW846 8015 M SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00662.D	20	12/27/00	SKW	12/26/00	OP2483	GZF31
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	780	180	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-12-SO3  
Lab Sample ID: F8430-3  
Matrix: SO - Solid  
Project: CTO 229

Date Sampled: 12/13/00  
Date Received: 12/18/00  
Percent Solids: 94.7

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	<11	11	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID: RH-BR-12-SO4  
 Lab Sample ID: F8430-4  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/14/00  
 Date Received: 12/18/00  
 Percent Solids: 97.3

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H010350.D	1	12/22/00	NAF	n/a	n/a	VH239
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	9.7	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

## Report of Analysis

Client Sample ID:	RH-BR-12-SO4	Date Sampled:	12/14/00
Lab Sample ID:	F8430-4	Date Received:	12/18/00
Matrix:	SO - Solid	Percent Solids:	97.3
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	98%		53-158%
17060-07-0	1,2-Dichloroethane-D4	90%		71-122%

(a) 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-12-SO4		Date Sampled:	12/14/00
Lab Sample ID:	F8430-4		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	97.3
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W003535.D	1	12/27/00	ME	12/26/00	OP2482	SW207
Run #2							

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	860	ug/kg	
95-57-8	2-Chlorophenol	ND	340	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	340	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	340	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	860	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	860	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	680	ug/kg	
95-48-7	2-Methylphenol	ND	340	ug/kg	
	3&4-Methylphenol	ND	340	ug/kg	
88-75-5	2-Nitrophenol	ND	340	ug/kg	
100-02-7	4-Nitrophenol	ND	860	ug/kg	
87-86-5	Pentachlorophenol	ND	860	ug/kg	
108-95-2	Phenol	ND	340	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	340	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	340	ug/kg	
83-32-9	Acenaphthene	ND	340	ug/kg	
208-96-8	Acenaphthylene	ND	340	ug/kg	
120-12-7	Anthracene	ND	340	ug/kg	
56-55-3	Benzo(a)anthracene	ND	340	ug/kg	
50-32-8	Benzo(a)pyrene	ND	340	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	340	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	340	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	340	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	340	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	340	ug/kg	
100-51-6	Benzyl Alcohol	ND	340	ug/kg	
91-58-7	2-Chloronaphthalene	ND	340	ug/kg	
106-47-8	4-Chloroaniline	ND	340	ug/kg	
86-74-8	Carbazole	ND	340	ug/kg	
218-01-9	Chrysene	ND	340	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	340	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	340	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	340	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	340	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	340	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	340	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-12-SO4		Date Sampled:	12/14/00
Lab Sample ID:	F8430-4		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	97.3
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	340	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	340	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	340	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	680	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	340	ug/kg	
132-64-9	Dibenzofuran	ND	340	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	340	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	340	ug/kg	
84-66-2	Diethyl phthalate	ND	340	ug/kg	
131-11-3	Dimethyl phthalate	ND	340	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	125	340	ug/kg	J
206-44-0	Fluoranthene	ND	340	ug/kg	
86-73-7	Fluorene	ND	340	ug/kg	
118-74-1	Hexachlorobenzene	ND	340	ug/kg	
87-68-3	Hexachlorobutadiene	ND	340	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	340	ug/kg	
67-72-1	Hexachloroethane	ND	340	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	340	ug/kg	
78-59-1	Isophorone	ND	340	ug/kg	
91-57-6	2-Methylnaphthalene	ND	340	ug/kg	
88-74-4	2-Nitroaniline	ND	340	ug/kg	
99-09-2	3-Nitroaniline	ND	340	ug/kg	
100-01-6	4-Nitroaniline	ND	340	ug/kg	
91-20-3	Naphthalene	ND	340	ug/kg	
98-95-3	Nitrobenzene	ND	340	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	340	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	340	ug/kg	
85-01-8	Phenanthrene	ND	340	ug/kg	
129-00-0	Pyrene	ND	340	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	340	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	77%		36-129%
4165-62-2	Phenol-d5	80%		38-135%
118-79-6	2,4,6-Tribromophenol	86%		37-144%
4165-60-0	Nitrobenzene-d5	79%		36-135%
321-60-8	2-Fluorobiphenyl	85%		44-135%
1718-51-0	Terphenyl-d14	82%		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-12-SO4		Date Sampled:	12/14/00
Lab Sample ID:	F8430-4		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	97.3
Method:	SW846 8015 M SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00663.D	2	12/27/00	SKW	12/26/00	OP2483	GZF31
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	77.1	17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	101%		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-12-SO4

Lab Sample ID: F8430-4

Matrix: SO - Solid

Project: CTO 229

Date Sampled: 12/14/00

Date Received: 12/18/00

Percent Solids: 97.3

#### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	<10	10	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID: RH-BR-12-SO5  
 Lab Sample ID: F8430-5  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/14/00  
 Date Received: 12/18/00  
 Percent Solids: 92.9

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 *	H010365.D	1	12/26/00	NAF	n/a	n/a	VH240
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	2.0	5.0	ug/kg	J
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)	18.0	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-12-SO5	Date Sampled:	12/14/00
Lab Sample ID:	F8430-5	Date Received:	12/18/00
Matrix:	SO - Solid	Percent Solids:	92.9
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	97%		73-128%
460-00-4	4-Bromofluorobenzene	137%		53-158%
17060-07-0	1,2-Dichloroethane-D4	90%		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-12-S05		Date Sampled:	12/14/00
Lab Sample ID:	F8430-5		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	92.9
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	W003549.D	4	12/28/00	ME	12/26/00	OP2482	SW208

## 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-12-SO5		Date Sampled:	12/14/00
Lab Sample ID:	F8430-5		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	92.9
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	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	3380	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	798	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	96%		36-129%
4165-62-2	Phenol-d5	102%		38-135%
118-79-6	2,4,6-Tribromophenol	111%		37-144%
4165-60-0	Nitrobenzene-d5	99%		36-135%
321-60-8	2-Fluorobiphenyl	152% <sup>b</sup>		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-12-SO5	Date Sampled:	12/14/00
Lab Sample ID:	F8430-5	Date Received:	12/18/00
Matrix:	SO - Solid	Percent Solids:	92.9
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-12-SO5		Date Sampled:	12/14/00
Lab Sample ID:	F8430-5		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	92.9
Method:	SW846 8015 M SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00666.D	40	12/27/00	SKW	12/26/00	OP2483	GZF31
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	1710	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-12-SO5  
Lab Sample ID: F8430-5  
Matrix: SO - Solid  
Project: CTO 229

Date Sampled: 12/14/00  
Date Received: 12/18/00  
Percent Solids: 92.9

#### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	<11	11	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID: RH-BR-12-D06  
 Lab Sample ID: F8430-6  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/14/00  
 Date Received: 12/18/00  
 Percent Solids: 95.4

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010352.D	1	12/22/00	NAF	n/a	n/a	VH239

## 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

## Report of Analysis

Client Sample ID:	RH-BR-12-D06	Date Sampled:	12/14/00
Lab Sample ID:	F8430-6	Date Received:	12/18/00
Matrix:	SO - Solid	Percent Solids:	95.4
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	95%		73-128%
460-00-4	4-Bromofluorobenzene	98%		53-158%
17060-07-0	1,2-Dichloroethane-D4	92%		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-12-D06		Date Sampled:	12/14/00
Lab Sample ID:	F8430-6		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	95.4
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	W003539.D	1	12/27/00	ME	12/26/00	OP2482	SW207

## 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-12-D06		Date Sampled:	12/14/00
Lab Sample ID:	F8430-6		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	95.4
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	120	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	78%		36-129%
4165-62-2	Phenol-d5	82%		38-135%
118-79-6	2,4,6-Tribromophenol	79%		37-144%
4165-60-0	Nitrobenzene-d5	78%		36-135%
321-60-8	2-Fluorobiphenyl	78%		44-135%
1718-51-0	Terphenyl-d14	82%		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-12-D06		Date Sampled:	12/14/00
Lab Sample ID:	F8430-6		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	95.4
Method:	SW846 8015 M SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00656.D	1	12/27/00	SKW	12/26/00	OP2483	GZF31
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	19.6	8.7	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	97%		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-12-D06	Date Sampled:	12/14/00
Lab Sample ID:	F8430-6	Date Received:	12/18/00
Matrix:	SO - Solid	Percent Solids:	95.4
Project:	CTO 229		

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	<11	11	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

---

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	TRIP BLANK		Date Sampled:	12/13/00
Lab Sample ID:	F8430-7		Date Received:	12/18/00
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	C0001900.D	1	12/21/00	JG	n/a	n/a	VC86

## 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:	12/13/00
Lab Sample ID:	F8430-7	Date Received:	12/18/00
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	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		69-128%
2037-26-5	Toluene-D8	97%		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. F8430

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

**I. RECEIPT**

The samples were received via DHL on December 18, 2000. Sample RH-BR-13-SO4 was received on December 14, 2000 and is reported with Batch F8396.

**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 except that the MS and MSD for carbon disulfide was slightly low for the aqueous samples F8430-7 (64 and 65 % vs 70%). The LCS (blank spike) was acceptable and none of this analyte was found in the sample.
- 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: 01/09/00  
David H. Greer, Jr.  
Quality Assurance Officer

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

Laboratory Reference No. F8430

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

**I. RECEIPT**

The samples were received via DHL on December 18, 2000. Sample RH-BR-13-SO4 was received on December 14, 2000 and is reported with Batch F8396.

**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): All acceptance criteria were met.
- D. Samples: The surrogate, 2,4,6-Tribromophenol, in sample F8430-2 was outside the acceptance criteria (15% vs 37%) and was diluted 1:4 prior to reanalysis due to a matrix interference. Sample F8430-5 required a dilution of 1:4 and the Surrogate 2-Fluorobiphenyl recovery was high and outside the control limits (152% vs 135%) due to the 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: \_\_\_\_\_

*David H. Greer, Jr.*

David H. Greer, Jr.  
Quality Assurance Officer

Date: 01/09/01

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

Laboratory Reference No. F8430

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

**I. RECEIPT**

The samples were received via DHL on December 18, 2000. Sample RH-BR-13-SO4 was received on December 14, 2000 and is reported with Batch F8396.

**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): All acceptance criteria were met.
- D. Samples: Sample analyses proceeded normally except that sample F8430-5 had to be diluted 1:40 prior to analysis and therefore the surrogate was not recovered. The sample was analyzed without dilution and required a significant dilution to report the Hydrocarbons present in the sample.

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

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

Laboratory Reference No. F8430

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

**I. RECEIPT**

The samples were received via DHL on December 18, 2000. Sample RH-BR-13-SO4 was received on December 14, 2000 and is reported with Batch F8396.

**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 except that the low calibration check standard was outside the criteria (148% vs 130%).
- B. Blanks: All acceptance criteria were met.
- C. Spikes (Matrix Spike, Matrix Spike Duplicate, and LCS): The MSD (F8440-1) was outside the acceptance limits (411.8% vs 127%) for all samples, however the LCS (blank spike) was within the criteria.
- D. Duplicates: All acceptance criteria were met. The duplicate results for the samples was acceptable due to low duplicate and sample concentration.
- E. Serial Dilutions: The serial dilutions were acceptable due to low initial sample concentration (e.g. <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. Date: 01/09/01  
David H. Greer, Jr.  
Quality Assurance Officer

Accutest Laboratories Southeast  
Case Narrative

Job (SDG) No.: F8430

Samples: 1-7

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: see attached

# Memo To File

To: *Blatter*  
From: *Sinde*  
CG: *F 8430*  
Date: *12/18/00*  
Re: *Sample received not on CC.*

---

Per conversation w/ Kent Grette please disregard sample RH-BE-13-504. It was already received in the Dec. 14<sup>th</sup> batch.

*12/18/00  
JW  
14:20*

ACCUTEST LABORATORIES SOUTHEAST

SAMPLE RECEIPT CONFIRMATION

Accutest Job No.: F8430  
Client/Project: Ogden  
Date/Time Received: 12/18/00  
Method of Delivery: Fed Ex  Greyhound  Courier  Other DHL  
Air Bill No.: 8103264584  
Custody Seal Intact? YES  NO   
Chain-of-Custody Provided? YES  NO   
COC Match Bottles? YES  NO   
Sample Labels Present? YES  NO   
Cooler Temperature 3.6  
Bottles Broken? YES  NO   
Proper Preservative? YES  NO   
Correct Containers Used? YES  NO   
Sufficient Sample Volume? YES  NO   
Number of Encores?: \_\_\_\_\_

Comments: Sample AH-BB-13-S04 was not in the cooler!  
\_\_\_\_\_  
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Signature: Jeff Brown Date: 12/18/00

# SECTION 3



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# SECTION 4



## Sample Summary

Ogden Environmental

Job No: F8430

CTO 229

Project No: 1-1019-0229

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F8430-1	12/12/00	08:10 ALW	12/18/00	SO	Solid	RH-BR-12-SO1
F8430-2	12/13/00	15:05 ALW	12/18/00	SO	Solid	RH-BR-12-SO2
F8430-3	12/13/00	16:20 ALW	12/18/00	SO	Solid	RH-BR-12-SO3
F8430-4	12/14/00	11:30 ALW	12/18/00	SO	Solid	RH-BR-12-SO4
F8430-5	12/14/00	14:00 ALW	12/18/00	SO	Solid	RH-BR-12-SO5
F8430-6	12/14/00	00:00 ALW	12/18/00	SO	Solid	RH-BR-12-D06
F8430-7	12/13/00	00:00 ALW	12/18/00	AQ	Trip Blank Soil	TRIP BLANK



Client Sample ID: RH-BR-12-SO1  
 Lab Sample ID: F8430-1  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/12/00  
 Date Received: 12/18/00  
 Percent Solids: 89.5

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010345.D	1	12/22/00	NAF	n/a	n/a	VH239
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-12-SO1  
 Lab Sample ID: F8430-1  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/12/00  
 Date Received: 12/18/00  
 Percent Solids: 89.5

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		71-122%
2037-26-5	Toluene-D8	96%		73-128%
460-00-4	4-Bromofluorobenzene	104%		53-158%
17060-07-0	1,2-Dichloroethane-D4	90%		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-12-SO1	<b>Date Sampled:</b> 12/12/00
<b>Lab Sample ID:</b> F8430-1	<b>Date Received:</b> 12/18/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 89.5
<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	W003532.D	1	12/27/00	ME	12/26/00	OP2482	SW207
Run #2							

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	930	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	930	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	930	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	930	ug/kg	
87-86-5	Pentachlorophenol	ND	930	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-12-SO1	<b>Date Sampled:</b> 12/12/00
<b>Lab Sample ID:</b> F8430-1	<b>Date Received:</b> 12/18/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 89.5
<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	169	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	83%		36-129%
4165-62-2	Phenol-d5	86%		38-135%
118-79-6	2,4,6-Tribromophenol	82%		37-144%
4165-60-0	Nitrobenzene-d5	87%		36-135%
321-60-8	2-Fluorobiphenyl	83%		44-135%
1718-51-0	Terphenyl-d14	83%		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-12-SO1	<b>Date Sampled:</b> 12/12/00
<b>Lab Sample ID:</b> F8430-1	<b>Date Received:</b> 12/18/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 89.5
<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	ZF00651.D	1	12/27/00	SKW	12/26/00	OP2483	GZF31
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	31.7	9.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	89%		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-12-SO1  
Lab Sample ID: F8430-1  
Matrix: SO - Solid  
Project: CTO 229

Date Sampled: 12/12/00  
Date Received: 12/18/00  
Percent Solids: 89.5

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.13 U	11	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b> RH-BR-12-SO2 <b>Lab Sample ID:</b> F8430-2 <b>Matrix:</b> SO - Solid <b>Method:</b> SW846 8260B <b>Project:</b> CTO 229	<b>Date Sampled:</b> 12/13/00 <b>Date Received:</b> 12/18/00 <b>Percent Solids:</b> 87.1
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Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010362.D	1	12/26/00	NAF	n/a	n/a	VH240

**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-12-SO2	<b>Date Sampled:</b> 12/13/00
<b>Lab Sample ID:</b> F8430-2	<b>Date Received:</b> 12/18/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 87.1
<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	89%		71-122%
2037-26-5	Toluene-D8	93%		73-128%
460-00-4	4-Bromofluorobenzene	98%		53-158%
17060-07-0	1,2-Dichloroethane-D4	82%		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-12-SO2

Lab Sample ID: F8430-2

Date Sampled: 12/13/00

Matrix: SO - Solid

Date Received: 12/18/00

Method: SW846 8270C SW846 3550B

Percent Solids: 87.1

Project: CTO 229

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W003533.D	1	12/27/00	ME	12/26/00	OP2482	SW207
Run #2	W003545.D	4	12/27/00	ME	12/26/00	OP2482	SW207

**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	380	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	380	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	380	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	760	ug/kg	
95-48-7	2-Methylphenol	ND	380	ug/kg	
	3&4-Methylphenol	ND	380	ug/kg	
88-75-5	2-Nitrophenol	ND	380	ug/kg	
100-02-7	4-Nitrophenol	ND	960	ug/kg	
87-86-5	Pentachlorophenol	ND	960	ug/kg	
108-95-2	Phenol	ND	380	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	380	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	380	ug/kg	
83-32-9	Acenaphthene	ND	380	ug/kg	
208-96-8	Acenaphthylene	ND	380	ug/kg	
120-12-7	Anthracene	ND	380	ug/kg	
56-55-3	Benzo(a)anthracene	ND	380	ug/kg	
50-32-8	Benzo(a)pyrene	ND	380	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	380	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	380	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	380	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	380	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	380	ug/kg	
100-51-6	Benzyl Alcohol	ND	380	ug/kg	
91-58-7	2-Chloronaphthalene	ND	380	ug/kg	
106-47-8	4-Chloroaniline	ND	380	ug/kg	
86-74-8	Carbazole	ND	380	ug/kg	
218-01-9	Chrysene	ND	380	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	380	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	380	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	380	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	380	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	380	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	380	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-12-SO2	<b>Date Sampled:</b> 12/13/00
<b>Lab Sample ID:</b> F8430-2	<b>Date Received:</b> 12/18/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 87.1
<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	380	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	380	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	380	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	760	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	380	ug/kg	
132-64-9	Dibenzofuran	ND	380	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	380	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	380	ug/kg	
84-66-2	Diethyl phthalate	ND	380	ug/kg	
131-11-3	Dimethyl phthalate	ND	380	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	380	ug/kg	
206-44-0	Fluoranthene	ND	380	ug/kg	
86-73-7	Fluorene	ND	380	ug/kg	
118-74-1	Hexachlorobenzene	ND	380	ug/kg	
87-68-3	Hexachlorobutadiene	ND	380	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	380	ug/kg	
67-72-1	Hexachloroethane	ND	380	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	380	ug/kg	
78-59-1	Isophorone	ND	380	ug/kg	
91-57-6	2-Methylnaphthalene	ND	380	ug/kg	
88-74-4	2-Nitroaniline	ND	380	ug/kg	
99-09-2	3-Nitroaniline	ND	380	ug/kg	
100-01-6	4-Nitroaniline	ND	380	ug/kg	
91-20-3	Naphthalene	ND	380	ug/kg	
98-95-3	Nitrobenzene	ND	380	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	380	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	380	ug/kg	
85-01-8	Phenanthrene	ND	380	ug/kg	
129-00-0	Pyrene	ND	380	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	380	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	64%	68%	36-129%
4165-62-2	Phenol-d5	86%	92%	38-135%
118-79-6	2,4,6-Tribromophenol	15% <sup>b</sup>	11% <sup>a</sup>	37-144%
4165-60-0	Nitrobenzene-d5	86%	89%	36-135%
321-60-8	2-Fluorobiphenyl	95%	94%	44-135%
1718-51-0	Terphenyl-d14	83%	96%	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-12-SO2	<b>Date Sampled:</b> 12/13/00
<b>Lab Sample ID:</b> F8430-2	<b>Date Received:</b> 12/18/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 87.1
<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) Outside control limits due to dilution.
- (b) 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

<b>Client Sample ID:</b> RH-BR-12-SO2	<b>Date Sampled:</b> 12/13/00
<b>Lab Sample ID:</b> F8430-2	<b>Date Received:</b> 12/18/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 87.1
<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	ZF00661.D	5	12/27/00	SKW	12/26/00	OP2483	GZF31
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	232	48	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%		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-12-SO2	<b>Date Sampled:</b> 12/13/00
<b>Lab Sample ID:</b> F8430-2	<b>Date Received:</b> 12/18/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 87.1
<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	<11	11	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

RL = Reporting Limit

023

<b>Client Sample ID:</b> RH-BR-12-SO3	
<b>Lab Sample ID:</b> F8430-3	<b>Date Sampled:</b> 12/13/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/18/00
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 94.7
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010347.D	1	12/22/00	NAF	n/a	n/a	VH239
Run #2							

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	53	ug/kg	
71-43-2	Benzene	ND	5.3	ug/kg	
75-27-4	Bromodichloromethane	ND	5.3	ug/kg	
75-25-2	Bromoform	ND	5.3	ug/kg	
108-90-7	Chlorobenzene	ND	5.3	ug/kg	
75-00-3	Chloroethane	ND	5.3	ug/kg	
67-66-3	Chloroform	ND	5.3	ug/kg	
75-15-0	Carbon disulfide	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.3	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.3	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.3	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.3	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.3	ug/kg	
124-48-1	Dibromochloromethane	ND	5.3	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.3	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.3	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.3	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.3	ug/kg	
100-41-4	Ethylbenzene	ND	5.3	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	5.3	ug/kg	
74-87-3	Methyl chloride	ND	5.3	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	5.3	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.3	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.3	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.3	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.3	ug/kg	
108-88-3	Toluene	ND	5.3	ug/kg	
79-01-6	Trichloroethylene	ND	5.3	ug/kg	
75-01-4	Vinyl chloride	ND	5.3	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

Page 2 of 2

<b>Client Sample ID:</b> RH-BR-12-SO3	
<b>Lab Sample ID:</b> F8430-3	<b>Date Sampled:</b> 12/13/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/18/00
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 94.7
<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	99%		73-128%
460-00-4	4-Bromofluorobenzene	110%		53-158%
17060-07-0	1,2-Dichloroethane-D4	91%		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-12-SO3	<b>Date Sampled:</b> 12/13/00
<b>Lab Sample ID:</b> F8430-3	<b>Date Received:</b> 12/18/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 94.7
<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	W003534.D	1	12/27/00	ME	12/26/00	OP2482	SW207
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-12-SO3	<b>Date Sampled:</b> 12/13/00
<b>Lab Sample ID:</b> F8430-3	<b>Date Received:</b> 12/18/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 94.7
<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	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	199	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	91%		36-129%
4165-62-2	Phenol-d5	95%		38-135%
118-79-6	2,4,6-Tribromophenol	116%		37-144%
4165-60-0	Nitrobenzene-d5	95%		36-135%
321-60-8	2-Fluorobiphenyl	128%		44-135%
1718-51-0	Terphenyl-d14	84%		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-12-SO3	
<b>Lab Sample ID:</b> F8430-3	<b>Date Sampled:</b> 12/13/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/18/00
<b>Method:</b> SW846 8015 M SW846 3550B	<b>Percent Solids:</b> 94.7
<b>Project:</b> CTO 229	

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	ZF00662.D	20	12/27/00	SKW	12/26/00	OP2483	GZF31
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	780	180	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-12-SO3

Lab Sample ID: F8430-3

Matrix: SO - Solid

Project: CTO 229

Date Sampled: 12/13/00

Date Received: 12/18/00

Percent Solids: 94.7

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	11	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

RL = Reporting Limit



<b>Client Sample ID:</b> RH-BR-12-SO4	
<b>Lab Sample ID:</b> F8430-4	<b>Date Sampled:</b> 12/14/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/18/00
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 97.3
<b>Project:</b> CTO 229	

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010350.D	1	12/22/00	NAF	n/a	n/a	VH239

**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

<b>Client Sample ID:</b> RH-BR-12-SO4	
<b>Lab Sample ID:</b> F8430-4	<b>Date Sampled:</b> 12/14/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/18/00
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 97.3
<b>Project:</b> 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	98%		53-158%
17060-07-0	1,2-Dichloroethane-D4	90%		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-12-SO4  
Lab Sample ID: F8430-4  
Matrix: SO - Solid  
Method: SW846 8270C SW846 3550B  
Project: CTO 229  
Date Sampled: 12/14/00  
Date Received: 12/18/00  
Percent Solids: 97.3

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	W003535.D	1	12/27/00	ME	12/26/00	OP2482	SW207

### ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	860	ug/kg	
95-57-8	2-Chlorophenol	ND	340	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	340	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	340	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	860	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	860	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	680	ug/kg	
95-48-7	2-Methylphenol	ND	340	ug/kg	
	3&4-Methylphenol	ND	340	ug/kg	
88-75-5	2-Nitrophenol	ND	340	ug/kg	
100-02-7	4-Nitrophenol	ND	860	ug/kg	
87-86-5	Pentachlorophenol	ND	860	ug/kg	
108-95-2	Phenol	ND	340	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	340	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	340	ug/kg	
83-32-9	Acenaphthene	ND	340	ug/kg	
208-96-8	Acenaphthylene	ND	340	ug/kg	
120-12-7	Anthracene	ND	340	ug/kg	
56-55-3	Benzo(a)anthracene	ND	340	ug/kg	
50-32-8	Benzo(a)pyrene	ND	340	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	340	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	340	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	340	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	340	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	340	ug/kg	
100-51-6	Benzyl Alcohol	ND	340	ug/kg	
91-58-7	2-Chloronaphthalene	ND	340	ug/kg	
106-47-8	4-Chloroaniline	ND	340	ug/kg	
86-74-8	Carbazole	ND	340	ug/kg	
218-01-9	Chrysene	ND	340	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	340	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	340	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	340	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	340	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	340	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	340	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-12-SO4	
<b>Lab Sample ID:</b> F8430-4	<b>Date Sampled:</b> 12/14/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/18/00
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 97.3
<b>Project:</b> CTO 229	

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	340	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	340	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	340	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	680	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	340	ug/kg	
132-64-9	Dibenzofuran	ND	340	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	340	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	340	ug/kg	
84-66-2	Diethyl phthalate	ND	340	ug/kg	
131-11-3	Dimethyl phthalate	ND	340	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	125	340	ug/kg	J
206-44-0	Fluoranthene	ND	340	ug/kg	
86-73-7	Fluorene	ND	340	ug/kg	
118-74-1	Hexachlorobenzene	ND	340	ug/kg	
87-68-3	Hexachlorobutadiene	ND	340	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	340	ug/kg	
67-72-1	Hexachloroethane	ND	340	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	340	ug/kg	
78-59-1	Isophorone	ND	340	ug/kg	
91-57-6	2-Methylnaphthalene	ND	340	ug/kg	
88-74-4	2-Nitroaniline	ND	340	ug/kg	
99-09-2	3-Nitroaniline	ND	340	ug/kg	
100-01-6	4-Nitroaniline	ND	340	ug/kg	
91-20-3	Naphthalene	ND	340	ug/kg	
98-95-3	Nitrobenzene	ND	340	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	340	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	340	ug/kg	
85-01-8	Phenanthrene	ND	340	ug/kg	
129-00-0	Pyrene	ND	340	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	340	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	77%		36-129%
4165-62-2	Phenol-d5	80%		38-135%
118-79-6	2,4,6-Tribromophenol	86%		37-144%
4165-60-0	Nitrobenzene-d5	79%		36-135%
321-60-8	2-Fluorobiphenyl	85%		44-135%
1718-51-0	Terphenyl-d14	82%		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-12-SO4	
<b>Lab Sample ID:</b> F8430-4	<b>Date Sampled:</b> 12/14/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/18/00
<b>Method:</b> SW846 8015 M SW846 3550B	<b>Percent Solids:</b> 97.3
<b>Project:</b> CTO 229	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00663.D	2	12/27/00	SKW	12/26/00	OP2483	GZF31
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	77.1	17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	101%		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

<b>Client Sample ID:</b> RH-BR-12-SO4	<b>Date Sampled:</b> 12/14/00
<b>Lab Sample ID:</b> F8430-4	<b>Date Received:</b> 12/18/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 97.3
<b>Project:</b> CTO 229	

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

RL = Reporting Limit



## Report of Analysis

Client Sample ID:	RH-BR-12-SO5	Date Sampled:	12/14/00
Lab Sample ID:	F8430-5	Date Received:	12/18/00
Matrix:	SO - Solid	Percent Solids:	92.9
Method:	SW846 8260B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010365.D	1	12/26/00	NAF	n/a	n/a	VH240
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	2.0	5.0	ug/kg	J
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)	18.0	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-12-SO5	
<b>Lab Sample ID:</b> F8430-5	<b>Date Sampled:</b> 12/14/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/18/00
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 92.9
<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	97%		73-128%
460-00-4	4-Bromofluorobenzene	137%		53-158%
17060-07-0	1,2-Dichloroethane-D4	90%		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-12-SO5	
<b>Lab Sample ID:</b> F8430-5	<b>Date Sampled:</b> 12/14/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/18/00
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 92.9
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	W003549.D	4	12/28/00	ME	12/26/00	OP2482	SW208
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-12-SO5	<b>Date Sampled:</b> 12/14/00
<b>Lab Sample ID:</b> F8430-5	<b>Date Received:</b> 12/18/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 92.9
<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	3380	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	798	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	96%		36-129%
4165-62-2	Phenol-d5	102%		38-135%
118-79-6	2,4,6-Tribromophenol	111%		37-144%
4165-60-0	Nitrobenzene-d5	99%		36-135%
321-60-8	2-Fluorobiphenyl	152% <sup>b</sup>		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



**Client Sample ID:** RH-BR-12-SO5

**Lab Sample ID:** F8430-5

**Matrix:** SO - Solid

**Method:** SW846 8270C SW846 3550B

**Project:** CTO 229

**Date Sampled:** 12/14/00

**Date Received:** 12/18/00

**Percent Solids:** 92.9

**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

Client Sample ID:	RH-BR-12-SO5		Date Sampled:	12/14/00
Lab Sample ID:	F8430-5		Date Received:	12/18/00
Matrix:	SO - Solid		Percent Solids:	92.9
Method:	SW846 8015 M SW846 3550B			
Project:	CTO 229			

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00666.D	40	12/27/00	SKW	12/26/00	OP2483	GZF31
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	1710	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



**Client Sample ID:** RH-BR-12-SO5

**Lab Sample ID:** F8430-5

**Matrix:** SO - Solid

**Project:** CTO 229

**Date Sampled:** 12/14/00

**Date Received:** 12/18/00

**Percent Solids:** 92.9

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.13 U	11	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

RL = Reporting Limit

<b>Client Sample ID:</b> RH-BR-12-D06	
<b>Lab Sample ID:</b> F8430-6	<b>Date Sampled:</b> 12/14/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/18/00
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 95.4
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010352.D	1	12/22/00	NAF	n/a	n/a	VH239
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	9.7	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-12-D06  
 Lab Sample ID: F8430-6  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/14/00  
 Date Received: 12/18/00  
 Percent Solids: 95.4

**VOA TCL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		71-122%
2037-26-5	Toluene-D8	95%		73-128%
460-00-4	4-Bromofluorobenzene	98%		53-158%
17060-07-0	1,2-Dichloroethane-D4	92%		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-12-D06		
<b>Lab Sample ID:</b> F8430-6		<b>Date Sampled:</b> 12/14/00
<b>Matrix:</b> SO - Solid		<b>Date Received:</b> 12/18/00
<b>Method:</b> SW846 8270C SW846 3550B		<b>Percent Solids:</b> 95.4
<b>Project:</b> CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W003539.D	1	12/27/00	ME	12/26/00	OP2482	SW207
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-12-D06	<b>Date Sampled:</b>	12/14/00
<b>Lab Sample ID:</b>	F8430-6	<b>Date Received:</b>	12/18/00
<b>Matrix:</b>	SO - Solid	<b>Percent Solids:</b>	95.4
<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	120	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	78%		36-129%
4165-62-2	Phenol-d5	82%		38-135%
118-79-6	2,4,6-Tribromophenol	79%		37-144%
4165-60-0	Nitrobenzene-d5	78%		36-135%
321-60-8	2-Fluorobiphenyl	78%		44-135%
1718-51-0	Terphenyl-d14	82%		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-12-D06		
<b>Lab Sample ID:</b> F8430-6		<b>Date Sampled:</b> 12/14/00
<b>Matrix:</b> SO - Solid		<b>Date Received:</b> 12/18/00
<b>Method:</b> SW846 8015 M SW846 3550B		<b>Percent Solids:</b> 95.4
<b>Project:</b> CTO 229		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00656.D	1	12/27/00	SKW	12/26/00	OP2483	GZF31
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	19.6	8.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	97%		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

<b>Client Sample ID:</b> RH-BR-12-D06	
<b>Lab Sample ID:</b> F8430-6	<b>Date Sampled:</b> 12/14/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/18/00
	<b>Percent Solids:</b> 95.4
<b>Project:</b> CTO 229	

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.13 U	11	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

RL = Reporting Limit



# Report of Analysis

Client Sample ID: TRIP BLANK	Date Sampled: 12/13/00
Lab Sample ID: F8430-7	Date Received: 12/18/00
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	C0001900.D	1	12/21/00	JG	n/a	n/a	VC86
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> F8430-7	<b>Date Sampled:</b> 12/13/00
<b>Matrix:</b> AQ - Trip Blank Soil	<b>Date Received:</b> 12/18/00
<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	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		69-128%
2037-26-5	Toluene-D8	97%		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



TANK 13

Technical Report for

Ogden Environmental

CTO 229

1-1019-0229

Accutest Job Number: F8396

Report to:

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

ATTN: Kent Evetts

Total number of pages in report: 559



Harry Behzadi, Ph.D.  
Laboratory Director

Results relate only to the items tested.

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### Sample Summary

Ogden Environmental

Job No: F8396

CTO 229

Project No: 1-1019-0229

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
F8396-1	12/11/00	12:55 ALW	12/14/00	SO	Solid	RH-BR-13-S01
F8396-2	12/11/00	14:15 ALW	12/14/00	SO	Solid	RH-BR-13-S02
F8396-3	12/11/00	15:55 ALW	12/14/00	SO	Solid	RH-BR-13-S03
F8396-4	12/11/00	00:00 ALW	12/14/00	SO	Solid	RH-BR-13-D05
F8396-5	12/11/00	00:00 ALW	12/14/00	AQ	Trip Blank Soil	TRIP BLANK
F8396-6	12/12/00	08:00 ALW	12/14/00	SO	Solid	RH-BR-13-S04

---

## Report of Analysis

Client Sample ID:	RH-BR-13-S01		Date Sampled:	12/11/00	
Lab Sample ID:	F8396-1		Date Received:	12/14/00	
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	H010285.D	1	12/18/00	NAF	n/a	n/a	VH235
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

## Report of Analysis

Client Sample ID:	RH-BR-13-S01	Date Sampled:	12/11/00
Lab Sample ID:	F8396-1	Date Received:	12/14/00
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	93%		71-122%
2037-26-5	Toluene-D8	97%		73-128%
460-00-4	4-Bromofluorobenzene	101%		53-158%
17060-07-0	1,2-Dichloroethane-D4	89%		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-13-S01		Date Sampled:	12/11/00
Lab Sample ID:	F8396-1		Date Received:	12/14/00
Matrix:	SO - Solid		Percent Solids:	95.6
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	W003469.D	1	12/20/00	ME	12/19/00	OP2456	SW204

## 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-13-S01	Date Sampled:	12/11/00
Lab Sample ID:	F8396-1	Date Received:	12/14/00
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	178	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	79%		36-129%
4165-62-2	Phenol-d5	83%		38-135%
118-79-6	2,4,6-Tribromophenol	78%		37-144%
4165-60-0	Nitrobenzene-d5	84%		36-135%
321-60-8	2-Fluorobiphenyl	82%		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-13-S01		Date Sampled:	12/11/00
Lab Sample ID:	F8396-1		Date Received:	12/14/00
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	ZF00614.D	1	12/21/00	SKW	12/19/00	OP2458	GZF28
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	20.3	8.7	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	89%		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-13-S01	Date Sampled:	12/11/00
Lab Sample ID:	F8396-1	Date Received:	12/14/00
Matrix:	SO - Solid	Percent Solids:	95.6
Project:	CTO 229		

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.7	mg/kg	1	12/20/00	12/22/00 JK	SW846 6010B

---

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	RH-BR-13-S02	Date Sampled:	12/11/00
Lab Sample ID:	F8396-2	Date Received:	12/14/00
Matrix:	SO - Solid	Percent Solids:	86.7
Method:	SW846 8260B		
Project:	CTO 229		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H010295.D	1	12/19/00	NAF	n/a	n/a	VH236
Run #2							

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	60	ug/kg	
71-43-2	Benzene	ND	6.0	ug/kg	
75-27-4	Bromodichloromethane	ND	6.0	ug/kg	
75-25-2	Bromoform	ND	6.0	ug/kg	
108-90-7	Chlorobenzene	ND	6.0	ug/kg	
75-00-3	Chloroethane	ND	6.0	ug/kg	
67-66-3	Chloroform	ND	6.0	ug/kg	
75-15-0	Carbon disulfide	ND	12	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	6.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	6.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.0	ug/kg	
124-48-1	Dibromochloromethane	ND	6.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	6.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.0	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	6.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.0	ug/kg	
100-41-4	Ethylbenzene	ND	6.0	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	6.0	ug/kg	
74-87-3	Methyl chloride	ND	6.0	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	6.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	6.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	6.0	ug/kg	
127-18-4	Tetrachloroethylene	ND	6.0	ug/kg	
108-88-3	Toluene	ND	6.0	ug/kg	
79-01-6	Trichloroethylene	ND	6.0	ug/kg	
75-01-4	Vinyl chloride	ND	6.0	ug/kg	
1330-20-7	Xylene (total)	ND	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-13-S02	Date Sampled:	12/11/00
Lab Sample ID:	F8396-2	Date Received:	12/14/00
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	94%		71-122%
2037-26-5	Toluene-D8	97%		73-128%
460-00-4	4-Bromofluorobenzene	101%		53-158%
17060-07-0	1,2-Dichloroethane-D4	90%		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-13-S02		Date Sampled:	12/11/00
Lab Sample ID:	F8396-2		Date Received:	12/14/00
Matrix:	SO - Solid		Percent Solids:	86.7
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	W003470.D	1	12/20/00	ME	12/19/00	OP2456	SW204

## 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	380	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	380	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	380	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	380	ug/kg	
	3&4-Methylphenol	ND	380	ug/kg	
88-75-5	2-Nitrophenol	ND	380	ug/kg	
100-02-7	4-Nitrophenol	ND	960	ug/kg	
87-86-5	Pentachlorophenol	ND	960	ug/kg	
108-95-2	Phenol	ND	380	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	380	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	380	ug/kg	
83-32-9	Acenaphthene	ND	380	ug/kg	
208-96-8	Acenaphthylene	ND	380	ug/kg	
120-12-7	Anthracene	ND	380	ug/kg	
56-55-3	Benzo(a)anthracene	ND	380	ug/kg	
50-32-8	Benzo(a)pyrene	ND	380	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	380	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	380	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	380	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	380	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	380	ug/kg	
100-51-6	Benzyl Alcohol	ND	380	ug/kg	
91-58-7	2-Chloronaphthalene	ND	380	ug/kg	
106-47-8	4-Chloroaniline	ND	380	ug/kg	
86-74-8	Carbazole	ND	380	ug/kg	
218-01-9	Chrysene	ND	380	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	380	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	380	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	380	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	380	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	380	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	380	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-13-S02		Date Sampled:	12/11/00
Lab Sample ID:	F8396-2		Date Received:	12/14/00
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	380	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	380	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	380	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	770	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	380	ug/kg	
132-64-9	Dibenzofuran	ND	380	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	380	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	380	ug/kg	
84-66-2	Diethyl phthalate	ND	380	ug/kg	
131-11-3	Dimethyl phthalate	ND	380	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	342	380	ug/kg	J
206-44-0	Fluoranthene	ND	380	ug/kg	
86-73-7	Fluorene	ND	380	ug/kg	
118-74-1	Hexachlorobenzene	ND	380	ug/kg	
87-68-3	Hexachlorobutadiene	ND	380	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	380	ug/kg	
67-72-1	Hexachloroethane	ND	380	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	380	ug/kg	
78-59-1	Isophorone	ND	380	ug/kg	
91-57-6	2-Methylnaphthalene	ND	380	ug/kg	
88-74-4	2-Nitroaniline	ND	380	ug/kg	
99-09-2	3-Nitroaniline	ND	380	ug/kg	
100-01-6	4-Nitroaniline	ND	380	ug/kg	
91-20-3	Naphthalene	ND	380	ug/kg	
98-95-3	Nitrobenzene	ND	380	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	380	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	380	ug/kg	
85-01-8	Phenanthrene	ND	380	ug/kg	
129-00-0	Pyrene	ND	380	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	380	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	79%		36-129%
4165-62-2	Phenol-d5	83%		38-135%
118-79-6	2,4,6-Tribromophenol	79%		37-144%
4165-60-0	Nitrobenzene-d5	81%		36-135%
321-60-8	2-Fluorobiphenyl	77%		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

Report of Analysis

Client Sample ID:	RH-BR-13-S02		Date Sampled:	12/11/00
Lab Sample ID:	F8396-2		Date Received:	12/14/00
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	ZF00617.D	1	12/21/00	SKW	12/19/00	OP2458	GZF28
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	31.9	9.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%		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-13-S02	Date Sampled:	12/11/00
Lab Sample ID:	F8396-2	Date Received:	12/14/00
Matrix:	SO - Solid	Percent Solids:	86.7
Project:	CTO 229		

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.13 U	11.4	mg/kg	1	12/20/00	12/22/00 JK	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID: RH-BR-13-S03  
 Lab Sample ID: F8396-3  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/11/00  
 Date Received: 12/14/00  
 Percent Solids: 83.2

Run #1 *	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010286.D	1	12/18/00	NAF	n/a	n/a	VH235

## 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-13-S03	Date Sampled:	12/11/00
Lab Sample ID:	F8396-3	Date Received:	12/14/00
Matrix:	SO - Solid	Percent Solids:	83.2
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	89%		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-13-S03	Date Sampled:	12/11/00
Lab Sample ID:	F8396-3	Date Received:	12/14/00
Matrix:	SO - Solid	Percent Solids:	83.2
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W003471.D	1	12/20/00	ME	12/19/00	OP2456	SW204
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	400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	400	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	400	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	800	ug/kg	
95-48-7	2-Methylphenol	ND	400	ug/kg	
	3&4-Methylphenol	ND	400	ug/kg	
88-75-5	2-Nitrophenol	ND	400	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	ug/kg	
87-86-5	Pentachlorophenol	ND	1000	ug/kg	
108-95-2	Phenol	ND	400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	400	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	400	ug/kg	
83-32-9	Acenaphthene	ND	400	ug/kg	
208-96-8	Acenaphthylene	ND	400	ug/kg	
120-12-7	Anthracene	ND	400	ug/kg	
56-55-3	Benzo(a)anthracene	ND	400	ug/kg	
50-32-8	Benzo(a)pyrene	ND	400	ug/kg	
205-99-2	Benzo(h)fluoranthene	ND	400	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	400	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	400	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	400	ug/kg	
100-51-6	Benzyl Alcohol	ND	400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	400	ug/kg	
106-47-8	4-Chloroaniline	ND	400	ug/kg	
86-74-8	Carbazole	ND	400	ug/kg	
218-01-9	Chrysene	ND	400	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	400	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	400	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	400	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-13-S03		Date Sampled:	12/11/00
Lab Sample ID:	F8396-3		Date Received:	12/14/00
Matrix:	SO - Solid		Percent Solids:	83.2
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	400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	400	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	400	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	800	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	400	ug/kg	
132-64-9	Dibenzofuran	ND	400	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	400	ug/kg	
84-66-2	Diethyl phthalate	ND	400	ug/kg	
131-11-3	Dimethyl phthalate	ND	400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	416	400	ug/kg	
206-44-0	Fluoranthene	ND	400	ug/kg	
86-73-7	Fluorene	ND	400	ug/kg	
118-74-1	Hexachlorobenzene	ND	400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	400	ug/kg	
67-72-1	Hexachloroethane	ND	400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	400	ug/kg	
78-59-1	Isophorone	ND	400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	400	ug/kg	
88-74-4	2-Nitroaniline	ND	400	ug/kg	
99-09-2	3-Nitroaniline	ND	400	ug/kg	
100-01-6	4-Nitroaniline	ND	400	ug/kg	
91-20-3	Naphthalene	ND	400	ug/kg	
98-95-3	Nitrobenzene	ND	400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	400	ug/kg	
85-01-8	Phenanthrene	ND	400	ug/kg	
129-00-0	Pyrene	ND	400	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	62%		36-129%
4165-62-2	Phenol-d5	66%		38-135%
118-79-6	2,4,6-Tribromophenol	72%		37-144%
4165-60-0	Nitrobenzene-d5	65%		36-135%
321-60-8	2-Fluorobiphenyl	65%		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-13-S03	Date Sampled: 12/11/00
Lab Sample ID: F8396-3	Date Received: 12/14/00
Matrix: SO - Solid	Percent Solids: 83.2
Method: SW846 8015 M SW846 3550B	
Project: CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00619.D	1	12/21/00	SKW	12/19/00	OP2458	GZF28
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	32.6	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	88%		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-13-S03	Date Sampled:	12/11/00
Lab Sample ID:	F8396-3	Date Received:	12/14/00
Matrix:	SO - Solid	Percent Solids:	83.2
Project:	CTO 229		

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	<12	12	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID: RH-BR-13-D05	Date Sampled: 12/11/00
Lab Sample ID: F8396-4	Date Received: 12/14/00
Matrix: SO - Solid	Percent Solids: 93.3
Method: SW846 8260B	
Project: CTO 229	

Run #1 *	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010287.D	1	12/18/00	NAF	n/a	n/a	VH235

## 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-13-D05	Date Sampled:	12/11/00
Lab Sample ID:	F8396-4	Date Received:	12/14/00
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	92%		71-122%
2037-26-5	Toluene-D8	102%		73-128%
460-00-4	4-Bromofluorobenzene	97%		53-158%
17060-07-0	1,2-Dichloroethane-D4	88%		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-13-D05		Date Sampled:	12/11/00
Lab Sample ID:	F8396-4		Date Received:	12/14/00
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 #2	W003472.D	1	12/20/00	ME	12/19/00	OP2456	SW204

## 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-13-D05		Date Sampled:	12/11/00
Lab Sample ID:	F8396-4		Date Received:	12/14/00
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	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	566	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	70%		36-129%
4165-62-2	Phenol-d5	75%		38-135%
118-79-6	2,4,6-Tribromophenol	72%		37-144%
4165-60-0	Nitrobenzene-d5	75%		36-135%
321-60-8	2-Fluorobiphenyl	74%		44-135%
1718-51-0	Terphenyl-d14	83%		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-13-D05	Date Sampled:	12/11/00
Lab Sample ID:	F8396-4	Date Received:	12/14/00
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	ZF00620.D	1	12/21/00	SKW	12/19/00	OP2458	GZF28
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	26.1	8.9	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	86%		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-13-D05	Date Sampled:	12/11/00
Lab Sample ID:	F8396-4	Date Received:	12/14/00
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	10.4	mg/kg	1	12/20/00	12/22/00 JK	SW846 6010B

---

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	12/11/00
Lab Sample ID:	F8396-5	Date Received:	12/14/00
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	B003038.D	1	12/19/00	JG	n/a	n/a	VB107
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:	12/11/00
Lab Sample ID:	F8396-5	Date Received:	12/14/00
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	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		69-128%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	98%		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-13-S04  
 Lab Sample ID: F8396-6  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/12/00  
 Date Received: 12/14/00  
 Percent Solids: 87.3

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010294.D	1	12/19/00	NAF	n/a	n/a	VH236

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	21.6	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-13-S04	Date Sampled:	12/12/00
Lab Sample ID:	F8396-6	Date Received:	12/14/00
Matrix:	SO - Solid	Percent Solids:	87.3
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		71-122%
2037-26-5	Toluene-D8	103%		73-128%
460-00-4	4-Bromofluorobenzene	117%		53-158%
17060-07-0	1,2-Dichloroethane-D4	91%		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-13-S04		Date Sampled:	12/12/00
Lab Sample ID:	F8396-6		Date Received:	12/14/00
Matrix:	SO - Solid		Percent Solids:	87.3
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

Run #1 *	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	W003479.D	4	12/21/00	ME	12/19/00	OP2456	SW205

## 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-13-S04		Date Sampled:	12/12/00
Lab Sample ID:	F8396-6		Date Received:	12/14/00
Matrix:	SO - Solid		Percent Solids:	87.3
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	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	942	1500	ug/kg	J
206-44-0	Fluoranthene	ND	1500	ug/kg	
86-73-7	Fluorene	ND	1500	ug/kg	
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	ND	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	ND	1500	ug/kg	
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	ND	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	82%		36-129%
4165-62-2	Phenol-d5	94%		38-135%
118-79-6	2,4,6-Tribromophenol	25% <sup>b</sup>		37-144%
4165-60-0	Nitrobenzene-d5	92%		36-135%
321-60-8	2-Fluorobiphenyl	99%		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-13-S04	Date Sampled:	12/12/00
Lab Sample ID:	F8396-6	Date Received:	12/14/00
Matrix:	SO - Solid	Percent Solids:	87.3
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 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-13-S04		Date Sampled:	12/12/00	
Lab Sample ID:	F8396-6		Date Received:	12/14/00	
Matrix:	SO - Solid		Percent Solids:	87.3	
Method:	SW846 8015 M SW846 3550B				
Project:	CTO 229				

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00629.D	100	12/22/00	SKW	12/19/00	OP2458	GZF29
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	2160	950	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-13-S04	Date Sampled:	12/12/00
Lab Sample ID:	F8396-6	Date Received:	12/14/00
Matrix:	SO - Solid	Percent Solids:	87.3
Project:	CTO 229		

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	6.8 B	11.5	mg/kg	1	12/20/00	12/22/00 JK	SW846 6010B

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RL = Reporting Limit

**CASE NARRATIVE  
GC/MS Volatile Analysis**

Laboratory Reference No. F8396

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

- I. **RECEIPT**  
The samples were received via DHL on December 14, 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 except that the MSD for cis-1,2-Dichloroethylene was slightly high for samples F8396-1, -3, and -4 (126% vs 125%).
  - 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: 1/09/01  
David H. Greer, Jr.  
Quality Assurance Officer

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

Laboratory Reference No. F8396

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

**I. RECEIPT**

The samples were received via DHL on December 14, 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): Matrix spikes and matrix spike duplicates were performed on a sample not from this site and were outside the acceptance criteria for several analytes. The blank spike (LCS) was within the acceptance criteria.

D. Samples: Sample F8396-6 was diluted 1:4 prior to analysis due to a matrix interference. The Surrogate 2,4,6-Tribromophenol recovery was low and outside the control limits (25% vs 37%) due to the 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: David H. Greer, Jr.  
David H. Greer, Jr.  
Quality Assurance Officer

Date: 1/09/01

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

Laboratory Reference No. F8396

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

**I. RECEIPT**

The samples were received via DHL on December 14, 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): All acceptance criteria were met.

D. Samples: Sample analyses proceeded normally except that sample F8396-6 had to be diluted 1:100 prior to analysis and therefore the surrogate was not recovered. The sample was analyzed without dilution and required a significant dilution to report the Hydrocarbons present in the sample.

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: 1/09/01  
David H. Greer, Jr.  
Quality Assurance Officer

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

Laboratory Reference No. F8396

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

**I. RECEIPT**

The samples were received via DHL on December 14, 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): The MSD (F8440-1) was outside the acceptance limits (411.8% vs 127%) for sample F8396-3, however the LCS (blank spike) was within the criteria.

D. Duplicates: All acceptance criteria were met. The duplicate results for sample F8396-3 was acceptable due to low duplicate and sample concentration (F8440-1)

E. Serial Dilutions: The serial dilutions were acceptable due to low initial sample concentration (e.g. <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. Date: 1/09/01  
David H. Greer, Jr.  
Quality Assurance Officer

# SECTION 2

Accutest Laboratories Southeast  
Case Narrative

Job (SDG) No.: F8396

Samples: 1-6

Analysis Performed: 8260, 8270, 8015M, Metals

1) Sample Receipt Conformance / Non-Conformance Summary

- |                                       |   |  |
|---------------------------------------|---|--|
| Custody Seals on Coolers?             | Yes ( <input checked="" type="checkbox"/> ) | No ( )                                     |
| Custody Seals in Tact?                | Yes ( <input checked="" type="checkbox"/> ) | No ( )                                     |
| Chain of Custody Sealed in Plastic?   | Yes ( <input checked="" type="checkbox"/> ) | No ( )                                     |
| Chain of Custody Filled out Properly? | Yes ( <input checked="" type="checkbox"/> ) | No ( )                                     |
| Enough ice and Packing material?      | Yes ( <input checked="" type="checkbox"/> ) | No ( )                                     |
| All Bottles Sealed?                   | Yes ( <input checked="" type="checkbox"/> ) | No ( )                                     |
| Any Bottles Broken?                   | Yes ( )                                     | No ( <input checked="" type="checkbox"/> ) |
| Labels in good condition?             | Yes ( <input checked="" type="checkbox"/> ) | No ( )                                     |
| Labels agree with chain of custody?   | Yes ( <input checked="" type="checkbox"/> ) | No ( )                                     |
| Correct Containers Used?              | Yes ( <input checked="" type="checkbox"/> ) | No ( )                                     |
| Preserved Properly?                   | Yes ( <input checked="" type="checkbox"/> ) | No ( )                                     |
| Sufficient Sample?                    | Yes ( <input checked="" type="checkbox"/> ) | No ( )                                     |

Comments: \_\_\_\_\_

# SECTION 3

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# SECTION 4



## Sample Summary

Ogden Environmental

Job No: F8396

CTO 229

Project No: 1-1019-0229

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F8396-1	12/11/00	12:55	ALW 12/14/00	SO	Solid	RH-BR-13-S01
F8396-2	12/11/00	14:15	ALW 12/14/00	SO	Solid	RH-BR-13-S02
F8396-3	12/11/00	15:55	ALW 12/14/00	SO	Solid	RH-BR-13-S03
F8396-4	12/11/00	00:00	ALW 12/14/00	SO	Solid	RH-BR-13-D05
F8396-5	12/11/00	00:00	ALW 12/14/00	AQ	Trip Blank Soil	TRIP BLANK
F8396-6	12/12/00	08:00	ALW 12/14/00	SO	Solid	RH-BR-13-S04



## Report of Analysis

Client Sample ID: RH-BR-13-S01	Date Sampled: 12/11/00
Lab Sample ID: F8396-1	Date Received: 12/14/00
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>	H010285.D	1	12/18/00	NAF	n/a	n/a	VH235
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



# Report of Analysis

Client Sample ID: RH-BR-13-S01  
Lab Sample ID: F8396-1  
Matrix: SO - Solid  
Method: SW846 8260B  
Project: CTO 229

Date Sampled: 12/11/00  
Date Received: 12/14/00  
Percent Solids: 95.6

### VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		71-122%
2037-26-5	Toluene-D8	97%		73-128%
460-00-4	4-Bromofluorobenzene	101%		53-158%
17060-07-0	1,2-Dichloroethane-D4	89%		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

<b>Client Sample ID:</b> RH-BR-13-S01 <b>Lab Sample ID:</b> F8396-1 <b>Matrix:</b> SO - Solid <b>Method:</b> SW846 8270C SW846 3550B <b>Project:</b> CTO 229	<b>Date Sampled:</b> 12/11/00 <b>Date Received:</b> 12/14/00 <b>Percent Solids:</b> 95.6
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W003469.D	1	12/20/00	ME	12/19/00	OP2456	SW204
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-13-S01	
<b>Lab Sample ID:</b> F8396-1	<b>Date Sampled:</b> 12/11/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/14/00
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 95.6
<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	178	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	79%		36-129%
4165-62-2	Phenol-d5	83%		38-135%
118-79-6	2,4,6-Tribromophenol	78%		37-144%
4165-60-0	Nitrobenzene-d5	84%		36-135%
321-60-8	2-Fluorobiphenyl	82%		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

<b>Client Sample ID:</b> RH-BR-13-S01	<b>Date Sampled:</b> 12/11/00
<b>Lab Sample ID:</b> F8396-1	<b>Date Received:</b> 12/14/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 95.6
<b>Method:</b> SW846 8015 M SW846 3550B	
<b>Project:</b> CTO 229	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00614.D	1	12/21/00	SKW	12/19/00	OP2458	GZF28
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	20.3	8.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	89%		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-13-S01	Date Sampled:	12/11/00
Lab Sample ID:	F8396-1	Date Received:	12/14/00
Matrix:	SO - Solid	Percent Solids:	95.6
Project:	CTO 229		

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.7	mg/kg	1	12/20/00	12/22/00 JK	SW846 6010B

RL = Reporting Limit



# Report of Analysis

<b>Client Sample ID:</b> RH-BR-13-S02		<b>Date Sampled:</b> 12/11/00
<b>Lab Sample ID:</b> F8396-2		<b>Date Received:</b> 12/14/00
<b>Matrix:</b> SO - Solid		<b>Percent Solids:</b> 86.7
<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>	H010295.D	1	12/19/00	NAF	n/a	n/a	VH236
Run #2							

## VOA TCL List

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

<b>Client Sample ID:</b> RH-BR-13-S02	
<b>Lab Sample ID:</b> F8396-2	<b>Date Sampled:</b> 12/11/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/14/00
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 86.7
<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	101%		53-158%
17060-07-0	1,2-Dichloroethane-D4	90%		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-13-S02 Lab Sample ID: F8396-2 Matrix: SO - Solid Method: SW846 8270C SW846 3550B Project: CTO 229	Date Sampled: 12/11/00 Date Received: 12/14/00 Percent Solids: 86.7
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W003470.D	1	12/20/00	ME	12/19/00	OP2456	SW204
Run #2							

**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	380	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	380	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	380	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	380	ug/kg	
	3&4-Methylphenol	ND	380	ug/kg	
88-75-5	2-Nitrophenol	ND	380	ug/kg	
100-02-7	4-Nitrophenol	ND	960	ug/kg	
87-86-5	Pentachlorophenol	ND	960	ug/kg	
108-95-2	Phenol	ND	380	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	380	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	380	ug/kg	
83-32-9	Acenaphthene	ND	380	ug/kg	
208-96-8	Acenaphthylene	ND	380	ug/kg	
120-12-7	Anthracene	ND	380	ug/kg	
56-55-3	Benzo(a)anthracene	ND	380	ug/kg	
50-32-8	Benzo(a)pyrene	ND	380	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	380	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	380	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	380	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	380	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	380	ug/kg	
100-51-6	Benzyl Alcohol	ND	380	ug/kg	
91-58-7	2-Chloronaphthalene	ND	380	ug/kg	
106-47-8	4-Chloroaniline	ND	380	ug/kg	
86-74-8	Carbazole	ND	380	ug/kg	
218-01-9	Chrysene	ND	380	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	380	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	380	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	380	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	380	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	380	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	380	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-13-S02	Date Sampled:	12/11/00
Lab Sample ID:	F8396-2	Date Received:	12/14/00
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	380	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	380	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	380	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	770	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	380	ug/kg	
132-64-9	Dibenzofuran	ND	380	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	380	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	380	ug/kg	
84-66-2	Diethyl phthalate	ND	380	ug/kg	
131-11-3	Dimethyl phthalate	ND	380	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	342	380	ug/kg	J
206-44-0	Fluoranthene	ND	380	ug/kg	
86-73-7	Fluorene	ND	380	ug/kg	
118-74-1	Hexachlorobenzene	ND	380	ug/kg	
87-68-3	Hexachlorobutadiene	ND	380	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	380	ug/kg	
67-72-1	Hexachloroethane	ND	380	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	380	ug/kg	
78-59-1	Isophorone	ND	380	ug/kg	
91-57-6	2-Methylnaphthalene	ND	380	ug/kg	
88-74-4	2-Nitroaniline	ND	380	ug/kg	
99-09-2	3-Nitroaniline	ND	380	ug/kg	
100-01-6	4-Nitroaniline	ND	380	ug/kg	
91-20-3	Naphthalene	ND	380	ug/kg	
98-95-3	Nitrobenzene	ND	380	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	380	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	380	ug/kg	
85-01-8	Phenanthrene	ND	380	ug/kg	
129-00-0	Pyrene	ND	380	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	380	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	79%		36-129%
4165-62-2	Phenol-d5	83%		38-135%
118-79-6	2,4,6-Tribromophenol	79%		37-144%
4165-60-0	Nitrobenzene-d5	81%		36-135%
321-60-8	2-Fluorobiphenyl	77%		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



# Report of Analysis

<b>Client Sample ID:</b> RH-BR-13-S02	<b>Date Sampled:</b> 12/11/00
<b>Lab Sample ID:</b> F8396-2	<b>Date Received:</b> 12/14/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 86.7
<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	ZF00617.D	1	12/21/00	SKW	12/19/00	OP2458	GZF28
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	31.9	9.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%		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-13-S02  
**Lab Sample ID:** F8396-2  
**Matrix:** SO - Solid  
**Project:** CTO 229

**Date Sampled:** 12/11/00  
**Date Received:** 12/14/00  
**Percent Solids:** 86.7

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.13 U	11.4	mg/kg	1	12/20/00	12/22/00 JK	SW846 6010B

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b> RH-BR-13-S03 <b>Lab Sample ID:</b> F8396-3 <b>Matrix:</b> SO - Solid <b>Method:</b> SW846 8260B <b>Project:</b> CTO 229	<b>Date Sampled:</b> 12/11/00 <b>Date Received:</b> 12/14/00 <b>Percent Solids:</b> 83.2
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010286.D	1	12/18/00	NAF	n/a	n/a	VH235
Run #2							

**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

Page 2 of 2

Client Sample ID:	RH-BR-13-S03	Date Sampled:	12/11/00
Lab Sample ID:	F8396-3	Date Received:	12/14/00
Matrix:	SO - Solid	Percent Solids:	83.2
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	89%		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

<b>Client Sample ID:</b> RH-BR-13-S03	
<b>Lab Sample ID:</b> F8396-3	<b>Date Sampled:</b> 12/11/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/14/00
<b>Method:</b> SW846 8270C SW846 3550B	<b>Percent Solids:</b> 83.2
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W003471.D	1	12/20/00	ME	12/19/00	OP2456	SW204
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	400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	400	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	400	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	800	ug/kg	
95-48-7	2-Methylphenol	ND	400	ug/kg	
	3&4-Methylphenol	ND	400	ug/kg	
88-75-5	2-Nitrophenol	ND	400	ug/kg	
100-02-7	4-Nitrophenol	ND	1000	ug/kg	
87-86-5	Pentachlorophenol	ND	1000	ug/kg	
108-95-2	Phenol	ND	400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	400	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	400	ug/kg	
83-32-9	Acenaphthene	ND	400	ug/kg	
208-96-8	Acenaphthylene	ND	400	ug/kg	
120-12-7	Anthracene	ND	400	ug/kg	
56-55-3	Benzo(a)anthracene	ND	400	ug/kg	
50-32-8	Benzo(a)pyrene	ND	400	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	400	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	400	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	400	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	400	ug/kg	
100-51-6	Benzyl Alcohol	ND	400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	400	ug/kg	
106-47-8	4-Chloroaniline	ND	400	ug/kg	
86-74-8	Carbazole	ND	400	ug/kg	
218-01-9	Chrysene	ND	400	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	400	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	400	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	400	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-13-S03	Date Sampled: 12/11/00
Lab Sample ID: F8396-3	Date Received: 12/14/00
Matrix: SO - Solid	Percent Solids: 83.2
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	400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	400	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	400	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	800	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	400	ug/kg	
132-64-9	Dibenzofuran	ND	400	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	400	ug/kg	
84-66-2	Diethyl phthalate	ND	400	ug/kg	
131-11-3	Dimethyl phthalate	ND	400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	416	400	ug/kg	
206-44-0	Fluoranthene	ND	400	ug/kg	
86-73-7	Fluorene	ND	400	ug/kg	
118-74-1	Hexachlorobenzene	ND	400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	400	ug/kg	
67-72-1	Hexachloroethane	ND	400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	400	ug/kg	
78-59-1	Isophorone	ND	400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	400	ug/kg	
88-74-4	2-Nitroaniline	ND	400	ug/kg	
99-09-2	3-Nitroaniline	ND	400	ug/kg	
100-01-6	4-Nitroaniline	ND	400	ug/kg	
91-20-3	Naphthalene	ND	400	ug/kg	
98-95-3	Nitrobenzene	ND	400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	400	ug/kg	
85-01-8	Phenanthrene	ND	400	ug/kg	
129-00-0	Pyrene	ND	400	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	62%		36-129%
4165-62-2	Phenol-d5	66%		38-135%
118-79-6	2,4,6-Tribromophenol	72%		37-144%
4165-60-0	Nitrobenzene-d5	65%		36-135%
321-60-8	2-Fluorobiphenyl	65%		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-13-S03	Date Sampled:	12/11/00
Lab Sample ID:	F8396-3	Date Received:	12/14/00
Matrix:	SO - Solid	Percent Solids:	83.2
Method:	SW846 8015 M SW846 3550B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00619.D	1	12/21/00	SKW	12/19/00	OP2458	GZF28
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	32.6	10	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%		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-13-S03

**Lab Sample ID:** F8396-3

**Matrix:** SO - Solid

**Project:** CTO 229

**Date Sampled:** 12/11/00

**Date Received:** 12/14/00

**Percent Solids:** 83.2

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.14 U	12	mg/kg	1	12/29/00	01/02/01 SJL	SW846 6010B

RL = Reporting Limit



## Report of Analysis

Page 1 of 2

Client Sample ID: RH-BR-13-D05  
 Lab Sample ID: F8396-4  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/11/00  
 Date Received: 12/14/00  
 Percent Solids: 93.3

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010287.D	1	12/18/00	NAF	n/a	n/a	VH235
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

Page 2 of 2

Client Sample ID: RH-BR-13-D05  
Lab Sample ID: F8396-4  
Matrix: SO - Solid  
Method: SW846 8260B  
Project: CTO 229

Date Sampled: 12/11/00  
Date Received: 12/14/00  
Percent Solids: 93.3

### VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		71-122%
2037-26-5	Toluene-D8	102%		73-128%
460-00-4	4-Bromofluorobenzene	97%		53-158%
17060-07-0	1,2-Dichloroethane-D4	88%		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-13-D05

Lab Sample ID: F8396-4

Date Sampled: 12/11/00

Matrix: SO - Solid

Date Received: 12/14/00

Method: SW846 8270C SW846 3550B

Percent Solids: 93.3

Project: CTO 229

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W003472.D	1	12/20/00	ME	12/19/00	OP2456	SW204
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-13-D05	
<b>Lab Sample ID:</b> F8396-4	<b>Date Sampled:</b> 12/11/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/14/00
<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
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	566	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	70%		36-129%
4165-62-2	Phenol-d5	75%		38-135%
118-79-6	2,4,6-Tribromophenol	72%		37-144%
4165-60-0	Nitrobenzene-d5	75%		36-135%
321-60-8	2-Fluorobiphenyl	74%		44-135%
1718-51-0	Terphenyl-d14	83%		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-13-D05		Date Sampled:	12/11/00
Lab Sample ID:	F8396-4		Date Received:	12/14/00
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	ZF00620.D	1	12/21/00	SKW	12/19/00	OP2458	GZF28
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	26.1	8.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		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-13-D05

Lab Sample ID: F8396-4

Matrix: SO - Solid

Project: CTO 229

Date Sampled: 12/11/00

Date Received: 12/14/00

Percent Solids: 93.3

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.12 U	10.4	mg/kg	1	12/20/00	12/22/00 JK	SW846 6010B

RL = Reporting Limit

<b>Client Sample ID:</b> TRIP BLANK	<b>Date Sampled:</b> 12/11/00
<b>Lab Sample ID:</b> F8396-5	<b>Date Received:</b> 12/14/00
<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	B003038.D	1	12/19/00	JG	n/a	n/a	VB107
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

<b>Client Sample ID:</b> TRIP BLANK	
<b>Lab Sample ID:</b> F8396-5	<b>Date Sampled:</b> 12/11/00
<b>Matrix:</b> AQ - Trip Blank Soil	<b>Date Received:</b> 12/14/00
<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	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		69-128%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	98%		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

<b>Client Sample ID:</b> RH-BR-13-S04	
<b>Lab Sample ID:</b> F8396-6	<b>Date Sampled:</b> 12/12/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 12/14/00
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 87.3
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H010294.D	1	12/19/00	NAF	n/a	n/a	VH236
Run #2							

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	21.6	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-13-S04	<b>Date Sampled:</b> 12/12/00
<b>Lab Sample ID:</b> F8396-6	<b>Date Received:</b> 12/14/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 87.3
<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	90%		71-122%
2037-26-5	Toluene-D8	103%		73-128%
460-00-4	4-Bromofluorobenzene	117%		53-158%
17060-07-0	1,2-Dichloroethane-D4	91%		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-13-S04	<b>Date Sampled:</b> 12/12/00
<b>Lab Sample ID:</b> F8396-6	<b>Date Received:</b> 12/14/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 87.3
<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 <sup>a</sup>	W003479.D	4	12/21/00	ME	12/19/00	OP2456	SW205
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-13-S04	<b>Date Sampled:</b> 12/12/00
<b>Lab Sample ID:</b> F8396-6	<b>Date Received:</b> 12/14/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 87.3
<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	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	942	1500	ug/kg	J
206-44-0	Fluoranthene	ND	1500	ug/kg	
86-73-7	Fluorene	ND	1500	ug/kg	
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	ND	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	ND	1500	ug/kg	
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	ND	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	82%		36-129%
4165-62-2	Phenol-d5	94%		38-135%
118-79-6	2,4,6-Tribromophenol	25% <sup>b</sup>		37-144%
4165-60-0	Nitrobenzene-d5	92%		36-135%
321-60-8	2-Fluorobiphenyl	99%		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-13-S04	<b>Date Sampled:</b> 12/12/00
<b>Lab Sample ID:</b> F8396-6	<b>Date Received:</b> 12/14/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 87.3
<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 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

# SECTION 5



TANK 14

**Technical Report for**

**AMEC Environmental**

**CTO 229**

**1-1019-0229**

**Accutest Job Number: F8356**

**Report to:**

**Ogden Environmental**

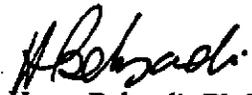
**Lance.williams@amec.com**

**ATTN: Rhett Walker**

**Total number of pages in report:**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

  
**Harry Behzadi, Ph.D.**  
**Laboratory Director**

Certification: Florida DOH E83510

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## Sample Summary

AMEC Environmental

Job No: F8356

CTO 229

Project No: 1-1019-0229

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F8356-1	12/06/00	09:45 AW	12/09/00	SO	Solid	RH-BR-14-S01
F8356-2	12/06/00	11:05 AW	12/09/00	SO	Solid	RH-BR-14-S02
F8356-3	12/06/00	12:35 AW	12/09/00	SO	Solid	RH-BR-14-S03
F8356-4	12/06/00	14:00 AW	12/09/00	SO	Solid	RH-BR-14-S04
F8356-5	12/06/00	15:15 AW	12/09/00	SO	Solid	RH-BR-14-S05
F8356-6	12/06/00	00:00 AW	12/09/00	SO	Solid	RH-BR-14-D04
F8356-7	12/06/00	00:00 AW	12/09/00	AQ	Trip Blank Soil	TRIP BLANK

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Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## Report of Analysis

Client Sample ID: RH-BR-14-S01  
 Lab Sample ID: F8356-1  
 Matrix: SO - Solid  
 Method: SW846 8260B  
 Project: CTO 229

Date Sampled: 12/06/00  
 Date Received: 12/09/00  
 Percent Solids: 92.7

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010281.D	1	12/18/00	NAF	n/a	n/a	VH235

## 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-14-S01	Date Sampled:	12/06/00
Lab Sample ID:	F8356-1	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	92.7
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	99%		73-128%
460-00-4	4-Bromofluorobenzene	109%		53-158%
17060-07-0	1,2-Dichloroethane-D4	85%		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-14-S01		Date Sampled:	12/06/00
Lab Sample ID:	F8356-1		Date Received:	12/09/00
Matrix:	SO - Solid		Percent Solids:	92.7
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L005838.D	4	12/18/00	ME	12/15/00	OP2441	SL353
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

## Report of Analysis

Client Sample ID:	RH-BR-14-S01		Date Sampled:	12/06/00
Lab Sample ID:	F8356-1		Date Received:	12/09/00
Matrix:	SO - Solid		Percent Solids:	92.7
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	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	80%		36-129%
4165-62-2	Phenol-d5	87%		38-135%
118-79-6	2,4,6-Tribromophenol	94%		37-144%
4165-60-0	Nitrobenzene-d5	83%		36-135%
321-60-8	2-Fluorobiphenyl	107%		44-135%
1718-51-0	Terphenyl-d14	112%		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-14-S01	Date Sampled:	12/06/00
Lab Sample ID:	F8356-1	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	92.7
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.

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-14-S01 Lab Sample ID: F8356-1 Matrix: SO - Solid Method: SW846 8015 M SW846 3550B Project: CTO 229	Date Sampled: 12/06/00 Date Received: 12/09/00 Percent Solids: 92.7
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Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	ZF00582.D	20	12/18/00	ME	12/15/00	OP2442	GZF26

CAS No.	Compound	Result	RL	Units Q
	TPH (C10-C28)	581	150	mg/kg

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	120%		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-14-S01	Date Sampled:	12/06/00
Lab Sample ID:	F8356-1	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	92.7
Project:	CTO 229		

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	0.12 U	10.6	mg/kg	1	12/20/00	12/22/00 JK	SW846 6010B	SW846 3050B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID: RH-BR-14-S02	Date Sampled: 12/06/00
Lab Sample ID: F8356-2	Date Received: 12/09/00
Matrix: SO - Solid	Percent Solids: 93.6
Method: SW846 8260B	
Project: CTO 229	

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010276.D	50	12/18/00	NAF	n/a	n/a	VH235

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	2400	ug/kg	
71-43-2	Benzene	ND	240	ug/kg	
75-27-4	Bromodichloromethane	ND	240	ug/kg	
75-25-2	Bromoform	ND	240	ug/kg	
108-90-7	Chlorobenzene	ND	240	ug/kg	
75-00-3	Chloroethane	ND	240	ug/kg	
67-66-3	Chloroform	ND	240	ug/kg	
75-15-0	Carbon disulfide	ND	480	ug/kg	
56-23-5	Carbon tetrachloride	ND	240	ug/kg	
75-34-3	1,1-Dichloroethane	ND	240	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	240	ug/kg	
107-06-2	1,2-Dichloroethane	ND	240	ug/kg	
78-87-5	1,2-Dichloropropane	ND	240	ug/kg	
124-48-1	Dibromochloromethane	ND	240	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	240	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	240	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	240	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	240	ug/kg	
100-41-4	Ethylbenzene	ND	240	ug/kg	
591-78-6	2-Hexanone	ND	480	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	480	ug/kg	
74-83-9	Methyl bromide	ND	240	ug/kg	
74-87-3	Methyl chloride	ND	240	ug/kg	
75-09-2	Methylene chloride	ND	480	ug/kg	
78-93-3	Methyl ethyl ketone	ND	480	ug/kg	
100-42-5	Styrene	ND	240	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	240	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	240	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	240	ug/kg	
127-18-4	Tetrachloroethylene	ND	240	ug/kg	
108-88-3	Toluene	ND	240	ug/kg	
79-01-6	Trichloroethylene	ND	240	ug/kg	
75-01-4	Vinyl chloride	ND	240	ug/kg	
1330-20-7	Xylene (total)	ND	720	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-14-S02	
Lab Sample ID: F8356-2	Date Sampled: 12/06/00
Matrix: SO - Solid	Date Received: 12/09/00
Method: SW846 8260B	Percent Solids: 93.6
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	101%		73-128%
460-00-4	4-Bromofluorobenzene	114%		53-158%
17060-07-0	1,2-Dichloroethane-D4	84%		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-14-S02		Date Sampled:	12/06/00
Lab Sample ID:	F8356-2		Date Received:	12/09/00
Matrix:	SO - Solid		Percent Solids:	93.6
Method:	SW846 8270C	SW846 3550B		
Project:	CTO 229			

Run #1 *	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	L005831.D	4	12/18/00	ME	12/15/00	OP2441	SL353

## 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	2800	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-14-S02	Date Sampled:	12/06/00
Lab Sample ID:	F8356-2	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	93.6
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	2800	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	80%		36-129%
4165-62-2	Phenol-d5	92%		38-135%
118-79-6	2,4,6-Tribromophenol	113%		37-144%
4165-60-0	Nitrobenzene-d5	96%		36-135%
321-60-8	2-Fluorobiphenyl	119%		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-14-S02	Date Sampled:	12/06/00
Lab Sample ID:	F8356-2	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	93.6
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.

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-14-S02		Date Sampled:	12/06/00
Lab Sample ID:	F8356-2		Date Received:	12/09/00
Matrix:	SO - Solid		Percent Solids:	93.6
Method:	SW846 8015 M SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00595.D	80	12/19/00	ME	12/15/00	OP2442	GZF27
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	2810	620	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-14-S02	Date Sampled:	12/06/00
Lab Sample ID:	F8356-2	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	93.6
Project:	CTO 229		

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	0.12 U	10.7	mg/kg	1	12/20/00	12/22/00 JK	SW846 6010B	SW846 3050B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID:	RH-BR-14-S03	Date Sampled:	12/06/00
Lab Sample ID:	F8356-3	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	92.6
Method:	SW846 8260B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H010282.D	1	12/18/00	NAF	n/a	n/a	VH235
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-14-S03	Date Sampled:	12/06/00
Lab Sample ID:	F8356-3	Date Received:	12/09/00
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	90%		71-122%
2037-26-5	Toluene-D8	116%		73-128%
460-00-4	4-Bromofluorobenzene	109%		53-158%
17060-07-0	1,2-Dichloroethane-D4	89%		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-14-S03		Date Sampled:	12/06/00
Lab Sample ID:	F8356-3		Date Received:	12/09/00
Matrix:	SO - Solid		Percent Solids:	92.6
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L005839.D	1	12/18/00	ME	12/15/00	OP2441	SL353
Run #2							

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	900	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	900	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	900	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	720	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	900	ug/kg	
87-86-5	Pentachlorophenol	ND	900	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-14-S03	Date Sampled:	12/06/00
Lab Sample ID:	F8356-3	Date Received:	12/09/00
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	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	720	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	146	360	ug/kg	J
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	72%		36-129%
4165-62-2	Phenol-d5	78%		38-135%
118-79-6	2,4,6-Tribromophenol	104%		37-144%
4165-60-0	Nitrobenzene-d5	78%		36-135%
321-60-8	2-Fluorobiphenyl	93%		44-135%
1718-51-0	Terphenyl-d14	94%		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-14-S03	Date Sampled:	12/06/00
Lab Sample ID:	F8356-3	Date Received:	12/09/00
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	ZF00584.D	10	12/18/00	ME	12/15/00	OP2442	GZF26
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	292	77	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	126%		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-14-S03	Date Sampled:	12/06/00
Lab Sample ID:	F8356-3	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	92.6
Project:	CTO 229		

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	0.12 U	10.5	mg/kg	1	12/20/00	12/22/00 JK	SW846 6010B	SW846 3050B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID:	RH-BR-14-S04	Date Sampled:	12/06/00
Lab Sample ID:	F8356-4	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	80.3
Method:	SW846 8260B		
Project:	CTO 229		

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010278.D	50	12/18/00	NAF	n/a	n/a	VH235

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	3000	ug/kg	
71-43-2	Benzene	ND	300	ug/kg	
75-27-4	Bromodichloromethane	ND	300	ug/kg	
75-25-2	Bromoform	ND	300	ug/kg	
108-90-7	Chlorobenzene	ND	300	ug/kg	
75-00-3	Chloroethane	ND	300	ug/kg	
67-66-3	Chloroform	ND	300	ug/kg	
75-15-0	Carbon disulfide	ND	600	ug/kg	
56-23-5	Carbon tetrachloride	ND	300	ug/kg	
75-34-3	1,1-Dichloroethane	ND	300	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	300	ug/kg	
107-06-2	1,2-Dichloroethane	ND	300	ug/kg	
78-87-5	1,2-Dichloropropane	ND	300	ug/kg	
124-48-1	Dibromochloromethane	ND	300	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	300	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	300	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	300	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	300	ug/kg	
100-41-4	Ethylbenzene	1550	300	ug/kg	
591-78-6	2-Hexanone	ND	600	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	600	ug/kg	
74-83-9	Methyl bromide	ND	300	ug/kg	
74-87-3	Methyl chloride	ND	300	ug/kg	
75-09-2	Methylene chloride	ND	600	ug/kg	
78-93-3	Methyl ethyl ketone	ND	600	ug/kg	
100-42-5	Styrene	ND	300	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	300	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	300	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	300	ug/kg	
127-18-4	Tetrachloroethylene	ND	300	ug/kg	
108-88-3	Toluene	170	300	ug/kg	J
79-01-6	Trichloroethylene	ND	300	ug/kg	
75-01-4	Vinyl chloride	ND	300	ug/kg	
1330-20-7	Xylene (total)	6400	890	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-14-S04	Date Sampled:	12/06/00
Lab Sample ID:	F8356-4	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	80.3
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		71-122%
2037-26-5	Toluene-D8	114%		73-128%
460-00-4	4-Bromofluorobenzene	102%		53-158%
17060-07-0	1,2-Dichloroethane-D4	84%		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-14-S04	Date Sampled:	12/06/00
Lab Sample ID:	F8356-4	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	80.3
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 *	L005833.D	100	12/18/00	ME	12/15/00	OP2441	SL353
Run #2							

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	100000	ug/kg	
95-57-8	2-Chlorophenol	ND	42000	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	42000	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	42000	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	100000	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	100000	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	83000	ug/kg	
95-48-7	2-Methylphenol	ND	42000	ug/kg	
	3&4-Methylphenol	ND	42000	ug/kg	
88-75-5	2-Nitrophenol	ND	42000	ug/kg	
100-02-7	4-Nitrophenol	ND	100000	ug/kg	
87-86-5	Pentachlorophenol	ND	100000	ug/kg	
108-95-2	Phenol	ND	42000	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	42000	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	42000	ug/kg	
83-32-9	Acenaphthene	ND	42000	ug/kg	
208-96-8	Acenaphthylene	ND	42000	ug/kg	
120-12-7	Anthracene	ND	42000	ug/kg	
56-55-3	Benzo(a)anthracene	ND	42000	ug/kg	
50-32-8	Benzo(a)pyrene	ND	42000	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	42000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	42000	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	42000	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	42000	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	42000	ug/kg	
100-51-6	Benzyl Alcohol	ND	42000	ug/kg	
91-58-7	2-Chloronaphthalene	ND	42000	ug/kg	
106-47-8	4-Chloroaniline	ND	42000	ug/kg	
86-74-8	Carbazole	ND	42000	ug/kg	
218-01-9	Chrysene	ND	42000	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	42000	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	42000	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	42000	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	42000	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	42000	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	42000	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-14-S04	Date Sampled:	12/06/00
Lab Sample ID:	F8356-4	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	80.3
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	42000	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	42000	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	42000	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	83000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	42000	ug/kg	
132-64-9	Dibenzofuran	ND	42000	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	42000	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	42000	ug/kg	
84-66-2	Diethyl phthalate	ND	42000	ug/kg	
131-11-3	Dimethyl phthalate	ND	42000	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	42000	ug/kg	
206-44-0	Fluoranthene	ND	42000	ug/kg	
86-73-7	Fluorene	ND	42000	ug/kg	
118-74-1	Hexachlorobenzene	ND	42000	ug/kg	
87-68-3	Hexachlorobutadiene	ND	42000	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	42000	ug/kg	
67-72-1	Hexachloroethane	ND	42000	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	42000	ug/kg	
78-59-1	Isophorone	ND	42000	ug/kg	
91-57-6	2-Methylnaphthalene	57800	42000	ug/kg	
88-74-4	2-Nitroaniline	ND	42000	ug/kg	
99-09-2	3-Nitroaniline	ND	42000	ug/kg	
100-01-6	4-Nitroaniline	ND	42000	ug/kg	
91-20-3	Naphthalene	11400	42000	ug/kg	J
98-95-3	Nitrobenzene	ND	42000	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	42000	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	42000	ug/kg	
85-01-8	Phenanthrene	12800	42000	ug/kg	J
129-00-0	Pyrene	ND	42000	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	42000	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-14-S04	Date Sampled:	12/06/00
Lab Sample ID:	F8356-4	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	80.3
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.

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-14-S04		Date Sampled:	12/06/00
Lab Sample ID:	F8356-4		Date Received:	12/09/00
Matrix:	SO - Solid		Percent Solids:	80.3
Method:	SW846 8015 M SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00585.D	2000	12/18/00	ME	12/15/00	OP2442	GZF26
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	26200	13000	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-14-S04	Date Sampled:	12/06/00
Lab Sample ID:	F8356-4	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	80.3
Project:	CTO 229		

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	0.14 U	12.5	mg/kg	1	12/20/00	12/22/00 JK	SW846 6010B	SW846 3050B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID:	RH-BR-14-S05	Date Sampled:	12/06/00
Lab Sample ID:	F8356-5	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	88.2
Method:	SW846 8260B		
Project:	CTO 229		

Run #1 *	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010279.D	50	12/18/00	NAF	n/a	n/a	VH235

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	2800	ug/kg	
71-43-2	Benzene	ND	280	ug/kg	
75-27-4	Bromodichloromethane	ND	280	ug/kg	
75-25-2	Bromoform	ND	280	ug/kg	
108-90-7	Chlorobenzene	ND	280	ug/kg	
75-00-3	Chloroethane	ND	280	ug/kg	
67-66-3	Chloroform	ND	280	ug/kg	
75-15-0	Carbon disulfide	ND	560	ug/kg	
56-23-5	Carbon tetrachloride	ND	280	ug/kg	
75-34-3	1,1-Dichloroethane	ND	280	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	280	ug/kg	
107-06-2	1,2-Dichloroethane	ND	280	ug/kg	
78-87-5	1,2-Dichloropropane	ND	280	ug/kg	
124-48-1	Dibromochloromethane	ND	280	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	280	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	280	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	280	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	280	ug/kg	
100-41-4	Ethylbenzene	ND	280	ug/kg	
591-78-6	2-Hexanone	ND	560	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	560	ug/kg	
74-83-9	Methyl bromide	ND	280	ug/kg	
74-87-3	Methyl chloride	ND	280	ug/kg	
75-09-2	Methylene chloride	ND	560	ug/kg	
78-93-3	Methyl ethyl ketone	ND	560	ug/kg	
100-42-5	Styrene	ND	280	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	280	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	280	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	280	ug/kg	
127-18-4	Tetrachloroethylene	ND	280	ug/kg	
108-88-3	Toluene	ND	280	ug/kg	
79-01-6	Trichloroethylene	ND	280	ug/kg	
75-01-4	Vinyl chloride	ND	280	ug/kg	
1330-20-7	Xylene (total)	ND	840	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-14-S05	Date Sampled:	12/06/00
Lab Sample ID:	F8356-5	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	88.2
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		71-122%
2037-26-5	Toluene-D8	99%		73-128%
460-00-4	4-Bromofluorobenzene	101%		53-158%
17060-07-0	1,2-Dichloroethane-D4	86%		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-14-S05	Date Sampled:	12/06/00
Lab Sample ID:	F8356-5	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	88.2
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	L005840.D	4	12/18/00	ME	12/15/00	OP2441	SL353

## 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	3000	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-14-S05	Date Sampled:	12/06/00
Lab Sample ID:	F8356-5	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	88.2
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	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	3000	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	ND	1500	ug/kg	
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	3060	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	ND	1500	ug/kg	
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	974	1500	ug/kg	J
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	67%		36-129%
4165-62-2	Phenol-d5	76%		38-135%
118-79-6	2,4,6-Tribromophenol	78%		37-144%
4165-60-0	Nitrobenzene-d5	76%		36-135%
321-60-8	2-Fluorobiphenyl	102%		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-14-S05	Date Sampled:	12/06/00
Lab Sample ID:	F8356-5	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	88.2
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.

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-14-S05		Date Sampled:	12/06/00
Lab Sample ID:	F8356-5		Date Received:	12/09/00
Matrix:	SO - Solid		Percent Solids:	88.2
Method:	SW846 8015 M SW846 3550B			
Project:	CTO 229			

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	ZF00586.D	20	12/18/00	ME	12/15/00	OP2442	GZF26

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	851	150	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	122%		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-14-S05  
Lab Sample ID: F8356-5  
Matrix: SO - Solid  
Project: CTO 229

Date Sampled: 12/06/00  
Date Received: 12/09/00  
Percent Solids: 88.2

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	0.13 U	11.0	mg/kg	1	12/20/00	12/22/00 JK	SW846 6010B	SW846 3050B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID:	RH-BR-14-D04		Date Sampled:	12/06/00	
Lab Sample ID:	F8356-6		Date Received:	12/09/00	
Matrix:	SO - Solid		Percent Solids:	89.3	
Method:	SW846 8260B				
Project:	CTO 229				

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H010280.D	50	12/18/00	NAF	n/a	n/a	VH235

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	2500	ug/kg	
71-43-2	Benzene	ND	250	ug/kg	
75-27-4	Bromodichloromethane	ND	250	ug/kg	
75-25-2	Bromoform	ND	250	ug/kg	
108-90-7	Chlorobenzene	ND	250	ug/kg	
75-00-3	Chloroethane	ND	250	ug/kg	
67-66-3	Chloroform	ND	250	ug/kg	
75-15-0	Carbon disulfide	ND	500	ug/kg	
56-23-5	Carbon tetrachloride	ND	250	ug/kg	
75-34-3	1,1-Dichloroethane	ND	250	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	250	ug/kg	
107-06-2	1,2-Dichloroethane	ND	250	ug/kg	
78-87-5	1,2-Dichloropropane	ND	250	ug/kg	
124-48-1	Dibromochloromethane	ND	250	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	250	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	250	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	250	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	250	ug/kg	
100-41-4	Ethylbenzene	ND	250	ug/kg	
591-78-6	2-Hexanone	ND	500	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	500	ug/kg	
74-83-9	Methyl bromide	ND	250	ug/kg	
74-87-3	Methyl chloride	ND	250	ug/kg	
75-09-2	Methylene chloride	ND	500	ug/kg	
78-93-3	Methyl ethyl ketone	ND	500	ug/kg	
100-42-5	Styrene	ND	250	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	250	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	250	ug/kg	
127-18-4	Tetrachloroethylene	ND	250	ug/kg	
108-88-3	Toluene	ND	250	ug/kg	
79-01-6	Trichloroethylene	ND	250	ug/kg	
75-01-4	Vinyl chloride	ND	250	ug/kg	
1330-20-7	Xylene (total)	ND	750	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-14-D04	Date Sampled:	12/06/00
Lab Sample ID:	F8356-6	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	89.3
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		71-122%
2037-26-5	Toluene-D8	101%		73-128%
460-00-4	4-Bromofluorobenzene	100%		53-158%
17060-07-0	1,2-Dichloroethane-D4	82%		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-14-D04		Date Sampled:	12/06/00
Lab Sample ID:	F8356-6		Date Received:	12/09/00
Matrix:	SO - Solid		Percent Solids:	89.3
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>	L005835.D	10	12/18/00	ME	12/15/00	OP2441	SL353
Run #2							

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	9300	ug/kg	
95-57-8	2-Chlorophenol	ND	3700	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	3700	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	3700	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	9300	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	9300	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	7500	ug/kg	
95-48-7	2-Methylphenol	ND	3700	ug/kg	
	3&4-Methylphenol	ND	3700	ug/kg	
88-75-5	2-Nitrophenol	ND	3700	ug/kg	
100-02-7	4-Nitrophenol	ND	9300	ug/kg	
87-86-5	Pentachlorophenol	ND	9300	ug/kg	
108-95-2	Phenol	ND	3700	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	3700	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	3700	ug/kg	
83-32-9	Acenaphthene	ND	3700	ug/kg	
208-96-8	Acenaphthylene	ND	3700	ug/kg	
120-12-7	Anthracene	ND	3700	ug/kg	
56-55-3	Benzo(a)anthracene	ND	3700	ug/kg	
50-32-8	Benzo(a)pyrene	ND	3700	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	3700	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	3700	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	3700	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	3700	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	3700	ug/kg	
100-51-6	Benzyl Alcohol	ND	3700	ug/kg	
91-58-7	2-Chloronaphthalene	ND	3700	ug/kg	
106-47-8	4-Chloroaniline	ND	3700	ug/kg	
86-74-8	Carbazole	ND	3700	ug/kg	
218-01-9	Chrysene	ND	3700	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	3700	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	3700	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	3700	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	3700	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	3700	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	3700	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-14-D04	Date Sampled:	12/06/00
Lab Sample ID:	F8356-6	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	89.3
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	3700	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	3700	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	3700	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	7500	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	3700	ug/kg	
132-64-9	Dibenzofuran	ND	3700	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	3700	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	3700	ug/kg	
84-66-2	Diethyl phthalate	ND	3700	ug/kg	
131-11-3	Dimethyl phthalate	ND	3700	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	3700	ug/kg	
206-44-0	Fluoranthene	ND	3700	ug/kg	
86-73-7	Fluorene	ND	3700	ug/kg	
118-74-1	Hexachlorobenzene	ND	3700	ug/kg	
87-68-3	Hexachlorobutadiene	ND	3700	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	3700	ug/kg	
67-72-1	Hexachloroethane	ND	3700	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	3700	ug/kg	
78-59-1	Isophorone	ND	3700	ug/kg	
91-57-6	2-Methylnaphthalene	ND	3700	ug/kg	
88-74-4	2-Nitroaniline	ND	3700	ug/kg	
99-09-2	3-Nitroaniline	ND	3700	ug/kg	
100-01-6	4-Nitroaniline	ND	3700	ug/kg	
91-20-3	Naphthalene	ND	3700	ug/kg	
98-95-3	Nitrobenzene	ND	3700	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	3700	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	3700	ug/kg	
85-01-8	Phenanthrene	ND	3700	ug/kg	
129-00-0	Pyrene	ND	3700	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	3700	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	82%		36-129%
4165-62-2	Phenol-d5	90%		38-135%
118-79-6	2,4,6-Tribromophenol	106%		37-144%
4165-60-0	Nitrobenzene-d5	87%		36-135%
321-60-8	2-Fluorobiphenyl	109%		44-135%
1718-51-0	Terphenyl-d14	100%		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-14-D04	Date Sampled:	12/06/00
Lab Sample ID:	F8356-6	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	89.3
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.

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-14-D04	Date Sampled: 12/06/00
Lab Sample ID: F8356-6	Date Received: 12/09/00
Matrix: SO - Solid	Percent Solids: 89.3
Method: SW846 8015 M SW846 3550B	
Project: CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00596.D	80	12/19/00	ME	12/15/00	OP2442	GZF27
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	2090	590	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-14-D04	Date Sampled:	12/06/00
Lab Sample ID:	F8356-6	Date Received:	12/09/00
Matrix:	SO - Solid	Percent Solids:	89.3
Project:	CTO 229		

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	0.13 U	11.2	mg/kg	1	12/20/00	12/22/00 JK	SW846 6010B	SW846 3050B

---

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	12/06/00
Lab Sample ID:	F8356-7	Date Received:	12/09/00
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	C0001746.D	1	12/13/00	JG	n/a	n/a	VC79

## 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:	12/06/00
Lab Sample ID:	F8356-7	Date Received:	12/09/00
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	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	107%		69-128%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	98%		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

TANK 15



Southeast

**ACCUTEST.**

06/06/02

**Technical Report for**

**AMEC Environmental**

**CTO 229**

**1-1019-0229**

**Accutest Job Number: F8314**

**Report to:**

**Ogden Environmental**

**Lance.williams@amec.com**

**ATTN: Rhett Walker**

**Total number of pages in report:**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

*Harry Behzadi*  
**Harry Behzadi, Ph.D.**  
**Laboratory Director**

Certification: Florida DOH E83510

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### Sample Summary

AMEC Environmental

Job No: F8314

CTO 229

Project No: 1-1019-0229

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F8314-1	12/04/00	13:10 ALW	12/07/00	SO	Solid	RH-BR-15-S01
F8314-2	12/04/00	14:15 ALW	12/07/00	SO	Solid	RH-BR-15-S02
F8314-3	12/04/00	16:15 ALW	12/07/00	SO	Solid	RH-BR-15-S03
F8314-4	12/04/00	00:00 ALW	12/07/00	SO	Solid	RH-BR-15-D03
F8314-5	12/04/00	00:00 ALW	12/07/00	AQ	Trip Blank Soil	TRIP BLANK

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Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## Report of Analysis

Client Sample ID:	RH-BR-15-S01		Date Sampled:	12/04/00	
Lab Sample ID:	F8314-1		Date Received:	12/07/00	
Matrix:	SO - Solid		Percent Solids:	84.6	
Method:	SW846 8260B				
Project:	CTO 229				

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	G0014965.D	1	12/12/00	NAF	n/a	n/a	VG433

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	60	ug/kg	
71-43-2	Benzene	ND	6.0	ug/kg	
75-27-4	Bromodichloromethane	ND	6.0	ug/kg	
75-25-2	Bromoform	ND	6.0	ug/kg	
108-90-7	Chlorobenzene	ND	6.0	ug/kg	
75-00-3	Chloroethane	ND	6.0	ug/kg	
67-66-3	Chloroform	ND	6.0	ug/kg	
75-15-0	Carbon disulfide	ND	12	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	6.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	6.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.0	ug/kg	
124-48-1	Dibromochloromethane	ND	6.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	6.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.0	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	6.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.0	ug/kg	
100-41-4	Ethylbenzene	ND	6.0	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	6.0	ug/kg	
74-87-3	Methyl chloride	ND	6.0	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	6.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	6.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	6.0	ug/kg	
127-18-4	Tetrachloroethylene	ND	6.0	ug/kg	
108-88-3	Toluene	ND	6.0	ug/kg	
79-01-6	Trichloroethylene	ND	6.0	ug/kg	
75-01-4	Vinyl chloride	ND	6.0	ug/kg	
1330-20-7	Xylene (total)	ND	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-15-S01	Date Sampled:	12/04/00
Lab Sample ID:	F8314-1	Date Received:	12/07/00
Matrix:	SO - Solid	Percent Solids:	84.6
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	104%		53-158%
17060-07-0	1,2-Dichloroethane-D4	86%		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-15-S01		Date Sampled:	12/04/00
Lab Sample ID:	F8314-1		Date Received:	12/07/00
Matrix:	SO - Solid		Percent Solids:	84.6
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	W003290.D	1	12/12/00	ME	12/11/00	OP2417	SW196

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	980	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	980	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	980	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	790	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	980	ug/kg	
87-86-5	Pentachlorophenol	ND	980	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-15-S01	Date Sampled:	12/04/00
Lab Sample ID:	F8314-1	Date Received:	12/07/00
Matrix:	SO - Solid	Percent Solids:	84.6
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	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	790	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	206	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	74%		36-129%
4165-62-2	Phenol-d5	78%		38-135%
118-79-6	2,4,6-Tribromophenol	79%		37-144%
4165-60-0	Nitrobenzene-d5	77%		36-135%
321-60-8	2-Fluorobiphenyl	73%		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-15-S01		Date Sampled:	12/04/00
Lab Sample ID:	F8314-1		Date Received:	12/07/00
Matrix:	SO - Solid		Percent Solids:	84.6
Method:	SW846 8015 M SW846 3550B			
Project:	CTO 229			

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	ZF00507.D	1	12/12/00	NJ	12/11/00	OP2416	GZF23

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	8.05	9.8	mg/kg	J

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

(a) Petroleum hydrocarbon pattern extends beyond C28, value may be low.

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-15-S01 Lab Sample ID: F8314-1 Matrix: SO - Solid Project: CTO 229	Date Sampled: 12/04/00 Date Received: 12/07/00 Percent Solids: 84.6
--	---

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	0.13 U	11.5	mg/kg	1	12/14/00	12/15/00 JK	SW846 6010B	SW846 3050B

---

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	RH-BR-15-S02	Date Sampled:	12/04/00
Lab Sample ID:	F8314-2	Date Received:	12/07/00
Matrix:	SO - Solid	Percent Solids:	87.6
Method:	SW846 8260B		
Project:	CTO 229		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	G0014966.D	1	12/12/00	NAF	n/a	n/a	VG433
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-15-S02	Date Sampled:	12/04/00
Lab Sample ID:	F8314-2	Date Received:	12/07/00
Matrix:	SO - Solid	Percent Solids:	87.6
Method:	SW846 8260B		
Project:	CTO 229		

## VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		71-122%
2037-26-5	Toluene-D8	96%		73-128%
460-00-4	4-Bromofluorobenzene	105%		53-158%
17060-07-0	1,2-Dichloroethane-D4	95%		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-15-S02		Date Sampled:	12/04/00
Lab Sample ID:	F8314-2		Date Received:	12/07/00
Matrix:	SO - Solid		Percent Solids:	87.6
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W003291.D	1	12/12/00	ME	12/11/00	OP2417	SW196
Run #2							

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	950	ug/kg	
95-57-8	2-Chlorophenol	ND	380	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	380	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	380	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	950	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	950	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	760	ug/kg	
95-48-7	2-Methylphenol	ND	380	ug/kg	
	3&4-Methylphenol	ND	380	ug/kg	
88-75-5	2-Nitrophenol	ND	380	ug/kg	
100-02-7	4-Nitrophenol	ND	950	ug/kg	
87-86-5	Pentachlorophenol	ND	950	ug/kg	
108-95-2	Phenol	ND	380	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	380	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	380	ug/kg	
83-32-9	Acenaphthene	ND	380	ug/kg	
208-96-8	Acenaphthylene	ND	380	ug/kg	
120-12-7	Anthracene	ND	380	ug/kg	
56-55-3	Benzo(a)anthracene	ND	380	ug/kg	
50-32-8	Benzo(a)pyrene	ND	380	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	380	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	380	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	380	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	380	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	380	ug/kg	
100-51-6	Benzyl Alcohol	ND	380	ug/kg	
91-58-7	2-Chloronaphthalene	ND	380	ug/kg	
106-47-8	4-Chloroaniline	ND	380	ug/kg	
86-74-8	Carbazole	ND	380	ug/kg	
218-01-9	Chrysene	ND	380	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	380	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	380	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	380	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	380	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	380	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	380	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-15-S02		Date Sampled:	12/04/00
Lab Sample ID:	F8314-2		Date Received:	12/07/00
Matrix:	SO - Solid		Percent Solids:	87.6
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	380	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	380	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	380	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	760	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	380	ug/kg	
132-64-9	Dibenzofuran	ND	380	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	380	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	380	ug/kg	
84-66-2	Diethyl phthalate	ND	380	ug/kg	
131-11-3	Dimethyl phthalate	ND	380	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	176	380	ug/kg	J
206-44-0	Fluoranthene	ND	380	ug/kg	
86-73-7	Fluorene	ND	380	ug/kg	
118-74-1	Hexachlorobenzene	ND	380	ug/kg	
87-68-3	Hexachlorobutadiene	ND	380	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	380	ug/kg	
67-72-1	Hexachloroethane	ND	380	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	380	ug/kg	
78-59-1	Isophorone	ND	380	ug/kg	
91-57-6	2-Methylnaphthalene	ND	380	ug/kg	
88-74-4	2-Nitroaniline	ND	380	ug/kg	
99-09-2	3-Nitroaniline	ND	380	ug/kg	
100-01-6	4-Nitroaniline	ND	380	ug/kg	
91-20-3	Naphthalene	ND	380	ug/kg	
98-95-3	Nitrobenzene	ND	380	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	380	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	380	ug/kg	
85-01-8	Phenanthrene	ND	380	ug/kg	
129-00-0	Pyrene	ND	380	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	380	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	68%		36-129%
4165-62-2	Phenol-d5	71%		38-135%
118-79-6	2,4,6-Tribromophenol	70%		37-144%
4165-60-0	Nitrobenzene-d5	72%		36-135%
321-60-8	2-Fluorobiphenyl	68%		44-135%
1718-51-0	Terphenyl-d14	73%		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-15-S02		Date Sampled:	12/04/00
Lab Sample ID:	F8314-2		Date Received:	12/07/00
Matrix:	SO - Solid		Percent Solids:	87.6
Method:	SW846 8015 M SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00510.D	1	12/12/00	NJ	12/11/00	OP2416	GZF23
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	9.5	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	79%		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-15-S02	Date Sampled: 12/04/00
Lab Sample ID: F8314-2	Date Received: 12/07/00
Matrix: SO - Solid	Percent Solids: 87.6
Project: CTO 229	

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	0.001 U	0.12	mg/kg	1	12/14/00	12/15/00 JK	SW846 6010B	SW846 3050B

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RL = Reporting Limit

## Report of Analysis

Client Sample ID: RH-BR-15-S03	Date Sampled: 12/04/00
Lab Sample ID: F8314-3	Date Received: 12/07/00
Matrix: SO - Solid	Percent Solids: 84.1
Method: SW846 8260B	
Project: CTO 229	

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	G0014967.D	1	12/12/00	NAF	n/a	n/a	VG433

## VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	25.7	59	ug/kg	J
71-43-2	Benzene	ND	5.9	ug/kg	
75-27-4	Bromodichloromethane	ND	5.9	ug/kg	
75-25-2	Bromoform	ND	5.9	ug/kg	
108-90-7	Chlorobenzene	ND	5.9	ug/kg	
75-00-3	Chloroethane	ND	5.9	ug/kg	
67-66-3	Chloroform	ND	5.9	ug/kg	
75-15-0	Carbon disulfide	ND	12	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.9	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.9	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.9	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.9	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.9	ug/kg	
124-48-1	Dibromochloromethane	ND	5.9	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.9	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.9	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.9	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.9	ug/kg	
100-41-4	Ethylbenzene	ND	5.9	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	5.9	ug/kg	
74-87-3	Methyl chloride	ND	5.9	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	5.9	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.9	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.9	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.9	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.9	ug/kg	
108-88-3	Toluene	ND	5.9	ug/kg	
79-01-6	Trichloroethylene	ND	5.9	ug/kg	
75-01-4	Vinyl chloride	ND	5.9	ug/kg	
1330-20-7	Xylene (total)	ND	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-15-S03	Date Sampled: 12/04/00
Lab Sample ID: F8314-3	Date Received: 12/07/00
Matrix: SO - Solid	Percent Solids: 84.1
Method: SW846 8260B	
Project: CTO 229	

VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		71-122%
2037-26-5	Toluene-D8	97%		73-128%
460-00-4	4-Bromofluorobenzene	104%		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-15-S03		Date Sampled:	12/04/00
Lab Sample ID:	F8314-3		Date Received:	12/07/00
Matrix:	SO - Solid		Percent Solids:	84.1
Method:	SW846 8270C SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W003292.D	1	12/12/00	ME	12/11/00	OP2417	SW196
Run #2							

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	990	ug/kg	
95-57-8	2-Chlorophenol	ND	400	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	400	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	400	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	990	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	990	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	790	ug/kg	
95-48-7	2-Methylphenol	ND	400	ug/kg	
	3&4-Methylphenol	ND	400	ug/kg	
88-75-5	2-Nitrophenol	ND	400	ug/kg	
100-02-7	4-Nitrophenol	ND	990	ug/kg	
87-86-5	Pentachlorophenol	ND	990	ug/kg	
108-95-2	Phenol	ND	400	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	400	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	400	ug/kg	
83-32-9	Acenaphthene	ND	400	ug/kg	
208-96-8	Acenaphthylene	ND	400	ug/kg	
120-12-7	Anthracene	ND	400	ug/kg	
56-55-3	Benzo(a)anthracene	ND	400	ug/kg	
50-32-8	Benzo(a)pyrene	ND	400	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	400	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	400	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	400	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	400	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	400	ug/kg	
100-51-6	Benzyl Alcohol	ND	400	ug/kg	
91-58-7	2-Chloronaphthalene	ND	400	ug/kg	
106-47-8	4-Chloroaniline	ND	400	ug/kg	
86-74-8	Carbazole	ND	400	ug/kg	
218-01-9	Chrysene	ND	400	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	400	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	400	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	400	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	400	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	400	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	400	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-15-S03		Date Sampled:	12/04/00
Lab Sample ID:	F8314-3		Date Received:	12/07/00
Matrix:	SO - Solid		Percent Solids:	84.1
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	400	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	400	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	400	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	790	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	400	ug/kg	
132-64-9	Dibenzofuran	ND	400	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	400	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	400	ug/kg	
84-66-2	Diethyl phthalate	ND	400	ug/kg	
131-11-3	Dimethyl phthalate	ND	400	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	191	400	ug/kg	J
206-44-0	Fluoranthene	ND	400	ug/kg	
86-73-7	Fluorene	ND	400	ug/kg	
118-74-1	Hexachlorobenzene	ND	400	ug/kg	
87-68-3	Hexachlorobutadiene	ND	400	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	400	ug/kg	
67-72-1	Hexachloroethane	ND	400	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	400	ug/kg	
78-59-1	Isophorone	ND	400	ug/kg	
91-57-6	2-Methylnaphthalene	ND	400	ug/kg	
88-74-4	2-Nitroaniline	ND	400	ug/kg	
99-09-2	3-Nitroaniline	ND	400	ug/kg	
100-01-6	4-Nitroaniline	ND	400	ug/kg	
91-20-3	Naphthalene	ND	400	ug/kg	
98-95-3	Nitrobenzene	ND	400	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	400	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	400	ug/kg	
85-01-8	Phenanthrene	ND	400	ug/kg	
129-00-0	Pyrene	ND	400	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	70%		36-129%
4165-62-2	Phenol-d5	73%		38-135%
118-79-6	2,4,6-Tribromophenol	75%		37-144%
4165-60-0	Nitrobenzene-d5	72%		36-135%
321-60-8	2-Fluorobiphenyl	69%		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-15-S03		Date Sampled:	12/04/00
Lab Sample ID:	F8314-3		Date Received:	12/07/00
Matrix:	SO - Solid		Percent Solids:	84.1
Method:	SW846 8015 M SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00511.D	1	12/12/00	NJ	12/11/00	OP2416	GZF23
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	10.7	9.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		40-140%

(a) Petroleum hydrocarbon pattern extends beyond C28, value may be low.

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-15-S03	Date Sampled:	12/04/00
Lab Sample ID:	F8314-3	Date Received:	12/07/00
Matrix:	SO - Solid	Percent Solids:	84.1
Project:	CTO 229		

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	0.001 U	0.12	mg/kg	1	12/14/00	12/15/00 JK	SW846 6010B	SW846 3050B

---

RL = Reporting Limit

## Report of Analysis

Client Sample ID: RH-BR-15-D03	Date Sampled: 12/04/00
Lab Sample ID: F8314-4	Date Received: 12/07/00
Matrix: SO - Solid	Percent Solids: 84.7
Method: SW846 8260B	
Project: CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	G0014968.D	1	12/12/00	NAF	n/a	n/a	VG433
Run #2							

## 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-15-D03	Date Sampled:	12/04/00
Lab Sample ID:	F8314-4	Date Received:	12/07/00
Matrix:	SO - Solid	Percent Solids:	84.7
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	100%		73-128%
460-00-4	4-Bromofluorobenzene	104%		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-15-D03	Date Sampled:	12/04/00
Lab Sample ID:	F8314-4	Date Received:	12/07/00
Matrix:	SO - Solid	Percent Solids:	84.7
Method:	SW846 8270C SW846 3550B		
Project:	CTO 229		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	W003293.D	1	12/12/00	ME	12/11/00	OP2417	SW196

## ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	980	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	980	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	980	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	790	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	980	ug/kg	
87-86-5	Pentachlorophenol	ND	980	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-15-D03	Date Sampled:	12/04/00
Lab Sample ID:	F8314-4	Date Received:	12/07/00
Matrix:	SO - Solid	Percent Solids:	84.7
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	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	790	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	70%		36-129%
4165-62-2	Phenol-d5	74%		38-135%
118-79-6	2,4,6-Tribromophenol	80%		37-144%
4165-60-0	Nitrobenzene-d5	72%		36-135%
321-60-8	2-Fluorobiphenyl	70%		44-135%
1718-51-0	Terphenyl-d14	88%		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-15-D03		Date Sampled:	12/04/00
Lab Sample ID:	F8314-4		Date Received:	12/07/00
Matrix:	SO - Solid		Percent Solids:	84.7
Method:	SW846 8015 M SW846 3550B			
Project:	CTO 229			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00512.D	1	12/12/00	NJ	12/11/00	OP2416	GZF23
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	9.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	79%		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-15-D03	Date Sampled: 12/04/00
Lab Sample ID: F8314-4	Date Received: 12/07/00
Matrix: SO - Solid	Percent Solids: 84.7
Project: CTO 229	

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	0.001 U	0.12	mg/kg	1	12/14/00	12/15/00 JK	SW846 6010B	SW846 3050B

---

RL = Reporting Limit

## Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	12/04/00
Lab Sample ID:	F8314-5	Date Received:	12/07/00
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	C0001678.D	1	12/11/00	JG	n/a	n/a	VC77
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:	12/04/00
Lab Sample ID:	F8314-5	Date Received:	12/07/00
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	99%		69-128%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	102%		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

TANK 17

**Technical Report for**

---

**Ogden Environmental****CTO 229****1-1019-0229/Red Hill Bulk Fuel Storage****Accutest Job Number: F8109**

---

**Report to:**

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

**ATTN: Kent Evetts**

**Total number of pages in report: 337**  
**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 No.: FB109

Client/Project: Ogden

Date/Time Received: 11/13/00 1100

Method of Delivery: Fed Ex  Greyhound  Courier  Other DHL

Air Bill No.: 8103254387

Custody Seal Intact? YES  NO

Chain-of-Custody Provided? YES  NO

COC Match Bottles? YES  NO

Sample Labels Present? YES  NO

Cooler Temperature 2.7

Bottles Broken? YES  NO

Proper Preservative? YES  NO

Correct Containers Used? YES  NO

Sufficient Sample Volume? YES  NO

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

TANK 19 SUMMARY

Comments: \_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

Signature: Jill Brown Date: 11/13/00





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

DATE: 11/14/00

NUMBER OF PAGES (Including cover letter): 5

PLEASE DELIVER IMMEDIATELY TO:

NAME: Kent Evetts  
COMPANY: Golden Env. & Energy Serv.  
FAX NUMBER: 256-539-3074

FROM: LINDA R. WILLIAMS  
PROJECT MANAGER

EMAIL: ljrdaw@accutest.com

COMMENTS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ORIGINAL WILL BE SENT BY:

FAX \_\_\_\_\_ REGULAR MAIL \_\_\_\_\_ OVERNIGHT MAIL  
 MESSENGER  
 OTHER

IF ANY PAGES ARE MISSING OR ILLEGIBLE, PLEASE CALL (407) 425-6700. THANK YOU.

ACCUTEST CANNOT BE HELD RESPONSIBLE FOR THE SECURITY OF DATA ONCE THE MEDIA CONTAINING THE DATA HAS LEFT THE POSSESSION OR CONTROL OF ACCUTEST. ANALYTICAL DATA TRANSMITTED VIA FACSIMILE SHOULD BE CONSIDERED PRELIMINARY.





# CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15  
ORLANDO, FL 32811  
TEL: 407-425-9700 • FAX: 407-425-0707

ACCUTEST JOB #: F 8109  
ACCUTEST QUOTE #:

### CLIENT INFORMATION

NAME: Green Environmental  
ADDRESS: 2904 Westloop Blvd Site 107  
City: Huntsville AL 35805  
STATE: AL ZIP: 35805

### FACILITY INFORMATION

PROJECT NAME: Red Hill Bille Fuel  
LOCATION: Dallas, TX  
PROJECT NO.: 1-1019-0229  
FAX #: 256-539-3074

### ANALYTICAL INFORMATION

CLP dmo 3.2  
SVOC CLP dlm 03.2  
PH 805 B as fuel  
Lead CLP dlm 04.0  
temp

### MATRIX CODES

- DW - DRINKING WATER
- GW - GROUND WATER
- WW - WASTE WATER
- SO - SOIL
- SL - SLUDGE
- OI - OIL
- LO - OTHER LIQUID
- SO - OTHER SOLID

### LAB USE ONLY

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			PRESERVATION			ANALYTICAL INFORMATION
		DATE	TIME	SAMPLED BY	REF	TEMP	OTHER	
RT-BE-17-S01		11/10/00	0905	AWJ	SOL 3			
RT-BE-17-S02		11/10/00	1045	AWJ	SOL 3			
RT-BE-17-S03		11/10/00	1250	AWJ	SOL 3			
RT-BE-17-DO2		11/10/00		AWJ	SOL 3			
Trip blank								
Temp blank								

### DATA TURNAROUND INFORMATION

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

### DATA DELIVERABLE INFORMATION

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

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

RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	DATE TIME:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	DATE TIME:
1. <u>Paul Williams</u>	11/10/00 1730	1. <u>Jeff Bessie</u>	11/21/00 1100	2. _____		2. _____	
3. _____		3. _____		4. _____		4. _____	
5. _____		5. _____		6. _____		6. _____	

PERMITTING AGENCY APPROVABLE

ON ICE  DATE: 11-21-00

# SECTION 2



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

Laboratory Reference No. F8109

Client/Project: Ogden Environmental/ Red Hill Bulk Fuel Storage - CTO 229

**I. RECEIPT**

The samples were received via DHL on November 13, 2000. Although the Chain-of-Custody indicated that a Trip Blank was sent, no Trip Blank was received with the samples. The samples were processed using SW-846 procedures rather than the CLP methodology noted on the Chain-of-Custody.

**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**

Sample preparation was accomplished using method 5030A rather than 5035 due to the core samples which were collected.

**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. Samples: Sample F8109-1 had to be diluted 1:50 due to a matrix effect (hydrocarbons present above the calibration range). Methylene Chloride is a suspected laboratory contaminant in samples F8109-2 and F8109-3.

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.  
Quality Assurance Officer

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

11/30/00



CASE NARRATIVE  
GC/MS Semivolatile Analysis

Laboratory Reference No. F8109

Client/Project: Ogden Environmental/ Red Hill Bulk Fuel Storage - CTO 229

I. RECEIPT

The samples were received via DHL on November 13, 2000. Although the Chain-of-Custody indicated that a Trip Blank was sent, no Trip Blank was received with the samples. The samples were processed using SW-846 procedures rather than the CLP methodology noted on the Chain-of-Custody.

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 was outside the limits for 4-Chloroaniline (25% vs 12%) and 3-Nitroaniline (32% vs 18%). The MS and MSD recoveries for these analytes was within the acceptance limits. The Laboratory Control Spike (LCS) was acceptable.
- D. Samples: Sample analyses proceeded normally, except that sample F8109-1 had to be diluted 1:4 due to a matrix effect (hydrocarbons).

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: 11/30/00  
David H. Greer, Jr.  
Quality Assurance Officer



**CASE NARRATIVE**  
**GC TPH (C10-C28) Analysis**

Laboratory Reference No. F8109

Client/Project: Ogden Environmental/ Red Hill Bulk Fuel Storage - CTO 229

**I. RECEIPT**

The samples were received via DHL on November 13, 2000. Although the Chain-of-Custody indicated that a Trip Blank was sent, no Trip Blank was received with the samples. The samples were processed using SW-846 procedures rather than the CLP methodology noted on the Chain-of-Custody.

**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): All acceptance criteria were met.
- D. Samples: The surrogate for sample F8109-1 was outside the acceptance criteria due to the dilution which was required for the analysis of the sample (1:40).

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: 11/30/00  
David H. Greer, Jr.  
Quality Assurance Officer



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

Laboratory Reference No. F8109

Client/Project: Ogden Environmental/Red Hill Bulk Fuel Storage - CTO 229

**I. RECEIPT**

The samples were received via DHL on November 13, 2000. Although the Chain-of-Custody indicated that a Trip Blank was sent, no Trip Blank was received with the samples. The samples were processed using SW-846 procedures rather than the CLP methodology noted on the Chain-of-Custody

**II. HOLDING TIMES**

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

**III. METHOD**

Preparation: 3050B  
Analysis: 6010B (Lead only)

**IV. PREPARATION**

Sample preparation was performed on a fraction of the sample collected due to the rock (lava) structure of the sample.

**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. Serial Dilutions: The Serial Dilution was outside the control limits (35.6% vs 10%).
- 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: 11/30/00  
David H. Greer, Jr.  
Quality Assurance Officer

Accutest Laboratories Southeast  
Case Narrative

Job (SDG) No.: F8109

Samples: 1-4

Analysis Performed: 8260, 8270, 8015 v1, 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: see attached memo

ACCUTEST LABORATORIES SOUTHEAST

SAMPLE RECEIPT CONFIRMATION

Accutest Job No.: - F8109  
Client/Project: Ogden  
Date/Time Received: 11/13/00 1100  
Method of Delivery: Fed Ex  Greyhound  Courier  Other DHL  
Air Bill No.: 8103264387  
Custody Seal Intact? YES  NO   
Chain-of-Custody Provided? YES  NO   
COC Match Bottles? YES  NO   
Sample Labels Present? YES  NO   
Cooler Temperature 2.7  
Bottles Broken? YES  NO   
Proper Preservative? YES  NO   
Correct Containers Used? YES  NO   
Sufficient Sample Volume? YES  NO   
Number of Encores?: \_\_\_\_\_

Comments: A trip blank was not received with these samples as  
noted on the chain of custody BTR 11/21/00  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature: Jff Brown Date: 11/13/00

# SECTION 3

**TABLE OF CONTENTS**  
**FULL LABORATORY DATA DELIVERABLES**

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**ACCUTEST.**

**9. Metals SUPPORT DATA**

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# SECTION 4



## Sample Summary

Ogden Environmental

Job No: F8109

CTO 229

Project No: 1-1019-0229/Red Hill Bulk Fuel Storage

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F8109-1	11/10/00	09:05 AW	11/13/00	SO	Solid	RH-BR-17-S01
F8109-2	11/10/00	10:45 AW	11/13/00	SO	Solid	RH-BR-17-S02
F8109-3	11/10/00	12:50 AW	11/13/00	SO	Solid	RH-BR-17-S03
F8109-4	11/10/00	00:00 AW	11/13/00	SO	Solid	RH-BR-17-D02



<b>Client Sample ID:</b> RH-BR-17-S01	<b>Date Sampled:</b> 11/10/00
<b>Lab Sample ID:</b> F8109-1	<b>Date Received:</b> 11/13/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 78.7
<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>	H009995.D	50	11/16/00	NAF	n/a	n/a	VH220
Run #2							

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	2800	ug/kg	
71-43-2	Benzene	ND	280	ug/kg	
75-27-4	Bromodichloromethane	ND	280	ug/kg	
75-25-2	Bromoform	ND	280	ug/kg	
108-90-7	Chlorobenzene	ND	280	ug/kg	
75-00-3	Chloroethane	ND	280	ug/kg	
67-66-3	Chloroform	ND	280	ug/kg	
75-15-0	Carbon disulfide	ND	560	ug/kg	
56-23-5	Carbon tetrachloride	ND	280	ug/kg	
75-34-3	1,1-Dichloroethane	ND	280	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	280	ug/kg	
107-06-2	1,2-Dichloroethane	ND	280	ug/kg	
78-87-5	1,2-Dichloropropane	ND	280	ug/kg	
124-48-1	Dibromochloromethane	ND	280	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	280	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	280	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	280	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	280	ug/kg	
100-41-4	Ethylbenzene	ND	280	ug/kg	
591-78-6	2-Hexanone	ND	560	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	560	ug/kg	
74-83-9	Methyl bromide	ND	280	ug/kg	
74-87-3	Methyl chloride	ND	280	ug/kg	
75-09-2	Methylene chloride	ND	560	ug/kg	
78-93-3	Methyl ethyl ketone	ND	560	ug/kg	
100-42-5	Styrene	ND	280	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	280	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	280	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	280	ug/kg	
127-18-4	Tetrachloroethylene	ND	280	ug/kg	
108-88-3	Toluene	ND	280	ug/kg	
79-01-6	Trichloroethylene	ND	280	ug/kg	
75-01-4	Vinyl chloride	ND	280	ug/kg	
1330-20-7	Xylene (total)	ND	840	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-17-S01	Date Sampled:	11/10/00
Lab Sample ID:	F8109-1	Date Received:	11/13/00
Matrix:	SO - Solid	Percent Solids:	78.7
Method:	SW846 8260B		
Project:	CTO 229		

### VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		71-122%
2037-26-5	Toluene-D8	100%		73-128%
460-00-4	4-Bromofluorobenzene	100%		53-158%
17060-07-0	1,2-Dichloroethane-D4	97%		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



Client Sample ID: RH-BR-17-S01  
 Lab Sample ID: F8109-1  
 Matrix: SO - Solid  
 Method: SW846 3550B/8270C  
 Project: CTO 229

Date Sampled: 11/10/00  
 Date Received: 11/13/00  
 Percent Solids: 78.7

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	L005642.D	4	11/20/00	ME	11/18/00	OP2330	SL342

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	4200	ug/kg	
95-57-8	2-Chlorophenol	ND	1700	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	1700	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	1700	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	4200	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	4200	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	3400	ug/kg	
95-48-7	2-Methylphenol	ND	1700	ug/kg	
	3&4-Methylphenol	ND	1700	ug/kg	
88-75-5	2-Nitrophenol	ND	1700	ug/kg	
100-02-7	4-Nitrophenol	ND	4200	ug/kg	
87-86-5	Pentachlorophenol	ND	4200	ug/kg	
108-95-2	Phenol	ND	1700	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	1700	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	1700	ug/kg	
83-32-9	Acenaphthene	ND	1700	ug/kg	
208-96-8	Acenaphthylene	ND	1700	ug/kg	
120-12-7	Anthracene	ND	1700	ug/kg	
56-55-3	Benzo(a)anthracene	ND	1700	ug/kg	
50-32-8	Benzo(a)pyrene	ND	1700	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	1700	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	1700	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	1700	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	1700	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	1700	ug/kg	
100-51-6	Benzyl Alcohol	ND	1700	ug/kg	
91-58-7	2-Chloronaphthalene	ND	1700	ug/kg	
106-47-8	4-Chloroaniline	ND	1700	ug/kg	
86-74-8	Carbazole	ND	1700	ug/kg	
218-01-9	Chrysene	ND	1700	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	1700	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	1700	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	1700	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	1700	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1700	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1700	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-17-S01	Date Sampled:	11/10/00
Lab Sample ID:	F8109-1	Date Received:	11/13/00
Matrix:	SO - Solid	Percent Solids:	78.7
Method:	SW846 3550B/8270C		
Project:	CTO 229		

### ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	1700	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	1700	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	1700	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	3400	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	1700	ug/kg	
132-64-9	Dibenzofuran	ND	1700	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	1700	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	1700	ug/kg	
84-66-2	Diethyl phthalate	ND	1700	ug/kg	
131-11-3	Dimethyl phthalate	ND	1700	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	1700	ug/kg	
206-44-0	Fluoranthene	ND	1700	ug/kg	
86-73-7	Fluorene	ND	1700	ug/kg	
118-74-1	Hexachlorobenzene	ND	1700	ug/kg	
87-68-3	Hexachlorobutadiene	ND	1700	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	1700	ug/kg	
67-72-1	Hexachloroethane	ND	1700	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1700	ug/kg	
78-59-1	Isophorone	ND	1700	ug/kg	
91-57-6	2-Methylnaphthalene	ND	1700	ug/kg	
88-74-4	2-Nitroaniline	ND	1700	ug/kg	
99-09-2	3-Nitroaniline	ND	1700	ug/kg	
100-01-6	4-Nitroaniline	ND	1700	ug/kg	
91-20-3	Naphthalene	ND	1700	ug/kg	
98-95-3	Nitrobenzene	ND	1700	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	1700	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	1700	ug/kg	
85-01-8	Phenanthrene	ND	1700	ug/kg	
129-00-0	Pyrene	ND	1700	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	1700	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	96%		36-129%
4165-62-2	Phenol-d5	107%		38-135%
118-79-6	2,4,6-Tribromophenol	102%		37-144%
4165-60-0	Nitrobenzene-d5	119%		36-135%
321-60-8	2-Fluorobiphenyl	100%		44-135%
1718-51-0	Terphenyl-d14	112%		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-17-S01

**Lab Sample ID:** F8109-1

**Matrix:** SO - Solid

**Method:** SW846 3550B/8270C

**Project:** CTO 229

**Date Sampled:** 11/10/00

**Date Received:** 11/13/00

**Percent Solids:** 78.7

**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-17-S01 <b>Lab Sample ID:</b> F8109-1 <b>Matrix:</b> SO - Solid <b>Method:</b> SW846 8015 M <b>Project:</b> CTO 229	<b>Date Sampled:</b> 11/10/00 <b>Date Received:</b> 11/13/00 <b>Percent Solids:</b> 78.7
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00372.D	40	11/20/00	SKW	11/18/00	OP2325	GZF16
Run #2							

CAS No.	Compound	Result	RL	Units Q
	TPH (C10-C28)	861	420	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

<b>Client Sample ID:</b> RH-BR-17-S01	<b>Date Sampled:</b> 11/10/00
<b>Lab Sample ID:</b> F8109-1	<b>Date Received:</b> 11/13/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 78.7
<b>Project:</b> CTO 229	

### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.13 U	11.0	mg/kg	1	11/14/00	11/15/00 JK	SW846 6010B

RL = Reporting Limit

**Client Sample ID:** RH-BR-17-S02  
**Lab Sample ID:** F8109-2  
**Matrix:** SO - Solid  
**Method:** SW846 8260B  
**Project:** CTO 229

**Date Sampled:** 11/10/00  
**Date Received:** 11/13/00  
**Percent Solids:** 77.9

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H009996.D	1	11/16/00	NAF	n/a	n/a	VH220
Run #2							

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	66	ug/kg	
71-43-2	Benzene	ND	6.6	ug/kg	
75-27-4	Bromodichloromethane	ND	6.6	ug/kg	
75-25-2	Bromoform	ND	6.6	ug/kg	
108-90-7	Chlorobenzene	ND	6.6	ug/kg	
75-00-3	Chloroethane	ND	6.6	ug/kg	
67-66-3	Chloroform	ND	6.6	ug/kg	
75-15-0	Carbon disulfide	ND	13	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.6	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.6	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	6.6	ug/kg	
107-06-2	1,2-Dichloroethane	ND	6.6	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.6	ug/kg	
124-48-1	Dibromochloromethane	ND	6.6	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	6.6	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.6	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	6.6	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.6	ug/kg	
100-41-4	Ethylbenzene	ND	6.6	ug/kg	
591-78-6	2-Hexanone	ND	13	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	13	ug/kg	
74-83-9	Methyl bromide	ND	6.6	ug/kg	
74-87-3	Methyl chloride	ND	6.6	ug/kg	
75-09-2	Methylene chloride <sup>b</sup>	15.2	13	ug/kg	
78-93-3	Methyl ethyl ketone	ND	13	ug/kg	
100-42-5	Styrene	ND	6.6	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	6.6	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.6	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	6.6	ug/kg	
127-18-4	Tetrachloroethylene	ND	6.6	ug/kg	
108-88-3	Toluene	ND	6.6	ug/kg	
79-01-6	Trichloroethylene	ND	6.6	ug/kg	
75-01-4	Vinyl chloride	ND	6.6	ug/kg	
1330-20-7	Xylene (total)	ND	20	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-17-S02	<b>Date Sampled:</b> 11/10/00
<b>Lab Sample ID:</b> F8109-2	<b>Date Received:</b> 11/13/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 77.9
<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	89%		71-122%
2037-26-5	Toluene-D8	97%		73-128%
460-00-4	4-Bromofluorobenzene	112%		53-158%
17060-07-0	1,2-Dichloroethane-D4	93%		71-122%

- (a) Sample introduction performed using method 5030A.
- (b) Suspected laboratory contaminant.

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-17-S02  
 Lab Sample ID: F8109-2  
 Matrix: SO - Solid  
 Method: SW846 3550B/8270C  
 Project: CTO 229

Date Sampled: 11/10/00  
 Date Received: 11/13/00  
 Percent Solids: 77.9

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L005635.D	1	11/19/00	ME	11/18/00	OP2330	SL341
Run #2							

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	1100	ug/kg	
95-57-8	2-Chlorophenol	ND	430	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	430	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	430	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	1100	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	1100	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	850	ug/kg	
95-48-7	2-Methylphenol	ND	430	ug/kg	
	3&4-Methylphenol	ND	430	ug/kg	
88-75-5	2-Nitrophenol	ND	430	ug/kg	
100-02-7	4-Nitrophenol	ND	1100	ug/kg	
87-86-5	Pentachlorophenol	ND	1100	ug/kg	
108-95-2	Phenol	ND	430	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	430	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	430	ug/kg	
83-32-9	Acenaphthene	ND	430	ug/kg	
208-96-8	Acenaphthylene	ND	430	ug/kg	
120-12-7	Anthracene	ND	430	ug/kg	
56-55-3	Benzo(a)anthracene	ND	430	ug/kg	
50-32-8	Benzo(a)pyrene	ND	430	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	430	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	430	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	430	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	430	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	430	ug/kg	
100-51-6	Benzyl Alcohol	ND	430	ug/kg	
91-58-7	2-Chloronaphthalene	ND	430	ug/kg	
106-47-8	4-Chloroaniline	ND	430	ug/kg	
86-74-8	Carbazole	ND	430	ug/kg	
218-01-9	Chrysene	ND	430	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	430	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	430	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	430	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	430	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	430	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	430	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-17-S02	Date Sampled:	11/10/00
Lab Sample ID:	F8109-2	Date Received:	11/13/00
Matrix:	SO - Solid	Percent Solids:	77.9
Method:	SW846 3550B/8270C		
Project:	CTO 229		

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	430	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	430	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	430	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	850	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	430	ug/kg	
132-64-9	Dibenzofuran	ND	430	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	430	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	430	ug/kg	
84-66-2	Diethyl phthalate	ND	430	ug/kg	
131-11-3	Dimethyl phthalate	ND	430	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	294	430	ug/kg	J
206-44-0	Fluoranthene	ND	430	ug/kg	
86-73-7	Fluorene	ND	430	ug/kg	
118-74-1	Hexachlorobenzene	ND	430	ug/kg	
87-68-3	Hexachlorobutadiene	ND	430	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	430	ug/kg	
67-72-1	Hexachloroethane	ND	430	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	430	ug/kg	
78-59-1	Isophorone	ND	430	ug/kg	
91-57-6	2-Methylnaphthalene	ND	430	ug/kg	
88-74-4	2-Nitroaniline	ND	430	ug/kg	
99-09-2	3-Nitroaniline	ND	430	ug/kg	
100-01-6	4-Nitroaniline	ND	430	ug/kg	
91-20-3	Naphthalene	ND	430	ug/kg	
98-95-3	Nitrobenzene	ND	430	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	430	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	430	ug/kg	
85-01-8	Phenanthrene	ND	430	ug/kg	
129-00-0	Pyrene	ND	430	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	430	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	88%		36-129%
4165-62-2	Phenol-d5	94%		38-135%
118-79-6	2,4,6-Tribromophenol	104%		37-144%
4165-60-0	Nitrobenzene-d5	89%		36-135%
321-60-8	2-Fluorobiphenyl	91%		44-135%
1718-51-0	Terphenyl-d14	107%		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-17-S02	
<b>Lab Sample ID:</b> F8109-2	<b>Date Sampled:</b> 11/10/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 11/13/00
<b>Method:</b> SW846 8015 M	<b>Percent Solids:</b> 77.9
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00373.D	1	11/20/00	SKW	11/18/00	OP2325	GZF16
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	11	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	100%		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

<b>Client Sample ID:</b> RH-BR-17-S02	<b>Date Sampled:</b> 11/10/00
<b>Lab Sample ID:</b> F8109-2	<b>Date Received:</b> 11/13/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 77.9
<b>Project:</b> CTO 229	

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.13 U	11.5	mg/kg	1	11/14/00	11/15/00 JK	SW846 6010B

RL = Reporting Limit

<b>Client Sample ID:</b> RH-BR-17-S03	<b>Date Sampled:</b> 11/10/00
<b>Lab Sample ID:</b> F8109-3	<b>Date Received:</b> 11/13/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 92.4
<b>Method:</b> SW846 8260B	
<b>Project:</b> CTO 229	

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H009997.D	1	11/16/00	NAF	n/a	n/a	VH220

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	49	ug/kg	
71-43-2	Benzene	ND	4.9	ug/kg	
75-27-4	Bromodichloromethane	ND	4.9	ug/kg	
75-25-2	Bromoform	ND	4.9	ug/kg	
108-90-7	Chlorobenzene	ND	4.9	ug/kg	
75-00-3	Chloroethane	ND	4.9	ug/kg	
67-66-3	Chloroform	ND	4.9	ug/kg	
75-15-0	Carbon disulfide	ND	9.8	ug/kg	
56-23-5	Carbon tetrachloride	ND	4.9	ug/kg	
75-34-3	1,1-Dichloroethane	ND	4.9	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	4.9	ug/kg	
107-06-2	1,2-Dichloroethane	ND	4.9	ug/kg	
78-87-5	1,2-Dichloropropane	ND	4.9	ug/kg	
124-48-1	Dibromochloromethane	ND	4.9	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	4.9	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	4.9	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	4.9	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	4.9	ug/kg	
100-41-4	Ethylbenzene	ND	4.9	ug/kg	
591-78-6	2-Hexanone	ND	9.8	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	9.8	ug/kg	
74-83-9	Methyl bromide	ND	4.9	ug/kg	
74-87-3	Methyl chloride	ND	4.9	ug/kg	
75-09-2	Methylene chloride <sup>b</sup>	10.8	9.8	ug/kg	
78-93-3	Methyl ethyl ketone	ND	9.8	ug/kg	
100-42-5	Styrene	ND	4.9	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	4.9	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.9	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	4.9	ug/kg	
127-18-4	Tetrachloroethylene	ND	4.9	ug/kg	
108-88-3	Toluene	ND	4.9	ug/kg	
79-01-6	Trichloroethylene	ND	4.9	ug/kg	
75-01-4	Vinyl chloride	ND	4.9	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-17-S03	<b>Date Sampled:</b> 11/10/00
<b>Lab Sample ID:</b> F8109-3	<b>Date Received:</b> 11/13/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 92.4
<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	90%		71-122%
2037-26-5	Toluene-D8	99%		73-128%
460-00-4	4-Bromofluorobenzene	99%		53-158%
17060-07-0	1,2-Dichloroethane-D4	97%		71-122%

- (a) Sample introduction performed using method 5030A.  
 (b) Suspected laboratory contaminant.

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-17-S03	<b>Date Sampled:</b> 11/10/00
<b>Lab Sample ID:</b> F8109-3	<b>Date Received:</b> 11/13/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 92.4
<b>Method:</b> SW846 3550B/8270C	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L005636.D	1	11/19/00	ME	11/18/00	OP2330	SL341
Run #2							

**ABN TCL List**

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic acid	ND	900	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	900	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	900	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	720	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	900	ug/kg	
87-86-5	Pentachlorophenol	ND	900	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-17-S03	
<b>Lab Sample ID:</b> F8109-3	<b>Date Sampled:</b> 11/10/00
<b>Matrix:</b> SO - Solid	<b>Date Received:</b> 11/13/00
<b>Method:</b> SW846 3550B/8270C	<b>Percent Solids:</b> 92.4
<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	720	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	224	360	ug/kg	J
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	91%		36-129%
4165-62-2	Phenol-d5	97%		38-135%
118-79-6	2,4,6-Tribromophenol	99%		37-144%
4165-60-0	Nitrobenzene-d5	93%		36-135%
321-60-8	2-Fluorobiphenyl	95%		44-135%
1718-51-0	Terphenyl-d14	105%		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-17-S03	<b>Date Sampled:</b> 11/10/00
<b>Lab Sample ID:</b> F8109-3	<b>Date Received:</b> 11/13/00
<b>Matrix:</b> SO - Solid	<b>Percent Solids:</b> 92.4
<b>Method:</b> SW846 8015 M	
<b>Project:</b> CTO 229	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF00374.D	1	11/20/00	SKW	11/18/00	OP2325	GZF16
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C28)	ND	9.0	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	100%		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



**ACCUTEST.**

### Report of Analysis

**Client Sample ID:** RH-BR-17-S03

**Lab Sample ID:** F8109-3

**Matrix:** SO - Solid

**Project:** CTO 229

**Date Sampled:** 11/10/00

**Date Received:** 11/13/00

**Percent Solids:** 92.4

#### Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method
Lead	0.11 U	9.8	mg/kg	1	11/14/00	11/15/00 JK	SW846 6010B

RL = Reporting Limit

**Client Sample ID:** RH-BR-17-D02  
**Lab Sample ID:** F8109-4  
**Matrix:** SO - Solid  
**Method:** SW846 8260B  
**Project:** CTO 229

**Date Sampled:** 11/10/00  
**Date Received:** 11/13/00  
**Percent Solids:** 79.1

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H009998.D	1	11/16/00	NAF	n/a	n/a	VH220
Run #2							

**VOA TCL List**

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	64	ug/kg	
71-43-2	Benzene	ND	6.4	ug/kg	
75-27-4	Bromodichloromethane	ND	6.4	ug/kg	
75-25-2	Bromoform	ND	6.4	ug/kg	
108-90-7	Chlorobenzene	ND	6.4	ug/kg	
75-00-3	Chloroethane	ND	6.4	ug/kg	
67-66-3	Chloroform	ND	6.4	ug/kg	
75-15-0	Carbon disulfide	ND	13	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.4	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.4	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	6.4	ug/kg	
107-06-2	1,2-Dichloroethane	ND	6.4	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.4	ug/kg	
124-48-1	Dibromochloromethane	ND	6.4	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	6.4	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.4	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	6.4	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.4	ug/kg	
100-41-4	Ethylbenzene	ND	6.4	ug/kg	
591-78-6	2-Hexanone	ND	13	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	13	ug/kg	
74-83-9	Methyl bromide	ND	6.4	ug/kg	
74-87-3	Methyl chloride	ND	6.4	ug/kg	
75-09-2	Methylene chloride	ND	13	ug/kg	
78-93-3	Methyl ethyl ketone	ND	13	ug/kg	
100-42-5	Styrene	ND	6.4	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	6.4	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.4	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	6.4	ug/kg	
127-18-4	Tetrachloroethylene	ND	6.4	ug/kg	
108-88-3	Toluene	2.9	6.4	ug/kg	J
79-01-6	Trichloroethylene	ND	6.4	ug/kg	
75-01-4	Vinyl chloride	ND	6.4	ug/kg	
1330-20-7	Xylene (total)	ND	19	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-17-D02  
Lab Sample ID: F8109-4  
Matrix: SO - Solid  
Method: SW846 8260B  
Project: CTO 229

Date Sampled: 11/10/00  
Date Received: 11/13/00  
Percent Solids: 79.1

### VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		71-122%
2037-26-5	Toluene-D8	113%		73-128%
460-00-4	4-Bromofluorobenzene	96%		53-158%
17060-07-0	1,2-Dichloroethane-D4	99%		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