CHRISTINE O. GREGOIRE
Director

(Segment No. 13-28-GW)

90-e56

WA-28-1020 GW

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
7171 Cleanwater Lane, Building 8, LH-14 • Olympia, Washington 98504

October 22, 1990

TO: Mike Wilson

FROM: Pam Marti PM

SUBJECT: Toftdahl Drum Site Routine Monitoring Round Two (April,1990)

SUMMARY

The Toxics Investigations/Ground Water Monitoring Section collected samples from domestic supply wells located in the area surrounding the former Toftdahl Drum Site on April 11, 1990. Sample analyses showed low concentrations of copper, zinc and mercury in domestic wells. Metals concentrations did not exceed draft EPA drinking water standards.

OBJECTIVES

The Toxics Investigations/Ground Water Monitoring Section was requested by the Toxics Cleanup Program (TCP) to monitor ground water at the Toftdahl Drum Site on a bi-annual basis. Monitoring objectives are as follows:

1. Provide routine ground water monitoring data as required by the federally mandated Record of Decision (ROD);

2. Provide TCP with data to possibly explain past sporadic detection of polyaromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), and semi-volatile organic compounds (BNAs); and

3. Determine future sampling needs.

SITE BACKGROUND

In the early 1970s, drums containing unknown quantities and types of waste were cleaned for resale on the Toftdahl property. The drums allegedly contained industrial wastes from a plywood manufacturing facility. It is estimated that between 100 and 200 drums were cleaned on site. Approximately 50 drums contained residual wastes and could not be sold.

these drums were buried on site (see Figure 1). In 1985, the buried drums and wastes were removed. A Remedial Investigation conducted after drum removal concluded that no evidence of significant soil or ground water contamination existed. Low concentrations of PAHs, PCBs, VOCs, and BNAs were detected sporadically in nearby domestic water supply wells. The ROD prepared for the Toftdahl site requires ground water monitoring on a semi-annual basis for five years and annually for ten years. In 1989, the site was delisted from the National Priorities List.

METHODS

Ground Water Sampling

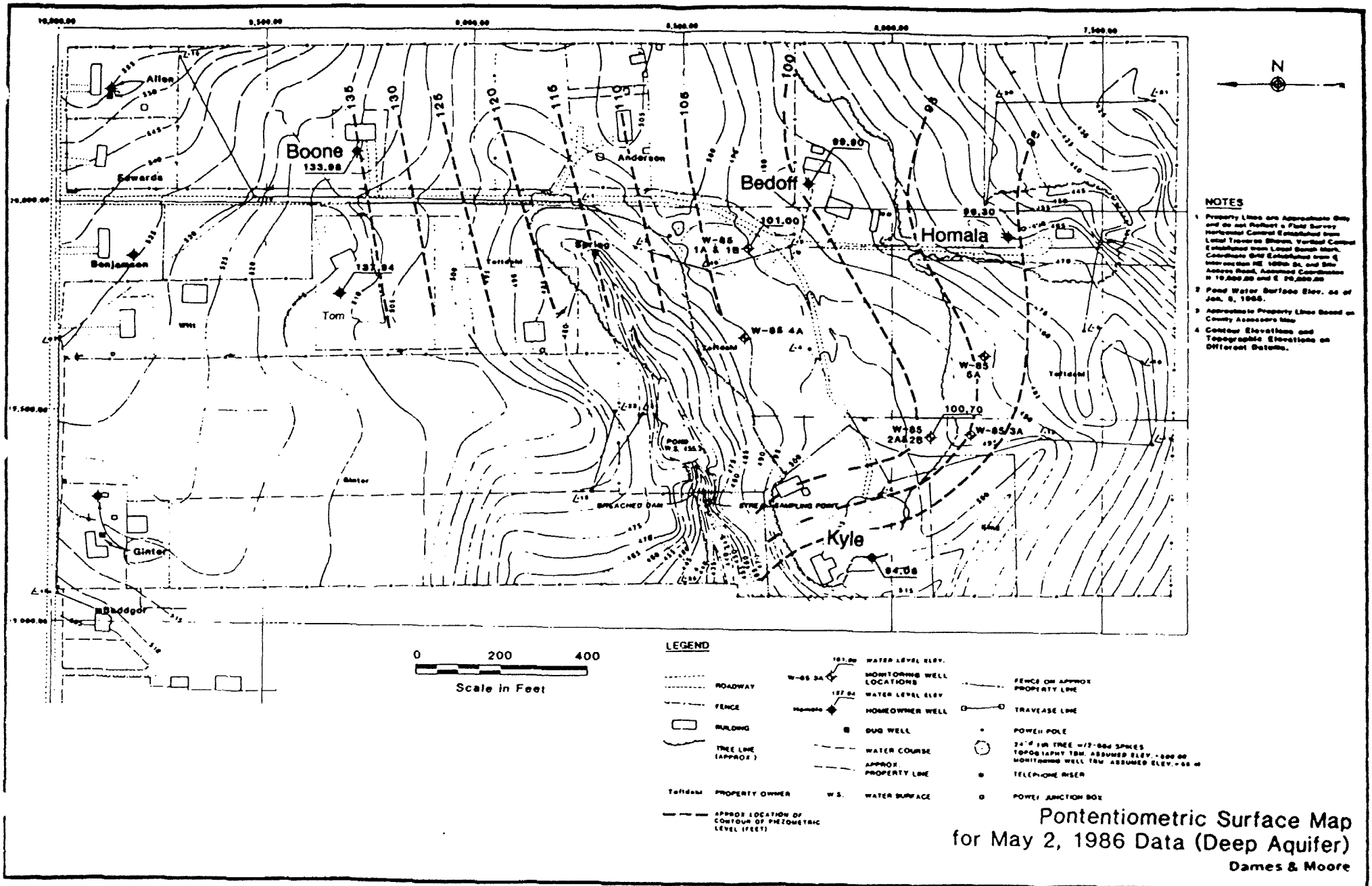
Figure 1 shows locations of domestic wells sampled and the direction of ground water flow. Prior to sample collection, domestic wells were purged by allowing taps to run until stable pH, temperature, and specific conductance values were obtained. Samples were then collected from the tap nearest the well. Wells were sampled from up-gradient to down-gradient. All wells were sampled for VOCs, BNAs, PCBs, pesticides, cyanide, and total priority pollutant metals. Metals samples were preserved with 1 mL of concentrated nitric acid to a $pH \leq 2$.

Quality Assurance Samples

A duplicate sample and transport blank were submitted. Matrix spikes, matrix spike duplicates, and method blanks were analyzed for all parameters.

SAMPLE ANALYTICAL RESULTS

Sample analytical results are presented in Appendix A. Data are stored in the ENVIS database. Table 1 is a summary of contaminants found during Sampling Round Two conducted on April 11, 1990. Copper, zinc, and mercury were present in both the up and down-gradient wells at concentrations well below EPA draft drinking water standards. Matrix spikes, matrix spike duplicates, and method blanks were within contract laboratory program limits. Duplicate samples from the Kyle domestic well (labeled Smith) showed similar analytical results. Table 2 is a summary of contaminants found throughout the three sample rounds that have been conducted to date.



Pontentiometric Surface Map
for May 2, 1986 Data (Deep Aquifer)

Dames & Moore

Job No. 7927-005

Figure 1: Site Map

Table 1: Summary of Sampling Results from April 1990.

Location	pH	Temperature (degree C)	Specific Conduct. (μmhos/cm)	Copper* mg/L	Zinc* mg/L	Mercury ug/L
Boone	6.91	11.2	110	0.08	0.16	0.05 J
Bedoff	7.08	11.1	120	0.04	ND	0.08 J
Kyle	6.99	10.7	88	0.05	ND	0.04 J
Smith (duplicate)	----	----	---	0.05	ND	ND
Homala	6.73	10.2	92	ND	0.08	0.04 J
Transport				ND	ND	ND
Detection Limits				0.002	0.005	0.02
Draft Drinking Water Standards				1.0	5.0	2.0

ND: Not Detected at Limits Shown
J: Estimated Value

* Copper and Zinc Draft Drinking Water Standards are considered Secondary Chemical Contaminants.

DISCUSSION AND CONCLUSIONS

Volatile and semi-volatile compounds, pesticides, and polychlorinated biphenyls analyses showed no detectable levels of contaminants in ground water samples (See Appendix A). Cyanide was detected in the sample from the Kyle well. This sample was analyzed several times, with the results ranging from below detection limit to 0.012J mg/L. To be conservative the value was reported as 0.012J mg/L. Cyanide was not detected in either the

Table 2: Summary of Sampling Results from September 1988 to April 1990

Location	September 12, 1988			October 17, 1989			April 11, 1990		
	Copper* (mg/L)	Zinc* (mg/L)	Mercury (ug/L)	Copper* (mg/L)	Zinc* (mg/L)	Mercury (ug/L)	Copper* (mg/L)	Zinc* (mg/L)	Mercury (ug/L)
Boone	0.08	0.39	ND	0.05	0.29	ND	0.08	0.16	0.05J
Bedoff	0.12	ND	ND	0.05	ND	ND	0.04	ND	0.08J
Kyle	0.04	0.05	ND	0.03	0.02	0.10B	0.05	ND	0.04J
Smith (duplicate)	----	----	----	----	----	----	0.05	ND	ND
Homala	----	----	----	ND	0.02	0.16B	ND	0.08	0.04J
Tom	0.03	0.03	0.1	0.01	0.01	0.01	----	----	----
East (duplicate)	----	----	----	ND	0.02	ND	----	----	----
Ginter	----	----	----	ND	ND	ND	----	----	----
Detection Limits	0.002	0.004	0.08	0.01	0.01	0.06	0.002	0.005	0.02
Draft Drinking Water Standards	1.0	5.0	2.0	1.0	5.0	2.0	1.0	5.0	2.0

ND: Not Detected at Limits Shown

J: Estimated Value

B: Concentration Detected Less than that Detected in the Transport Blank

* Copper and Zinc Draft Drinking Water Standards are considered Secondary Chemical Contaminants.

duplicate sample or any of the blanks. Cyanide has not appeared in any other sample throughout this investigation. The EPA Draft Drinking Water Standards is 0.005 ug/L for cyanide. Priority pollutant metals analyses showed detectable concentrations of copper, zinc and mercury. All analyses were well below EPA draft drinking water standards.

RECOMMENDATIONS

1. Sample the Kyle well for cyanide in Round III.

2. To determine if sampling should continue on an annual rather than semi-annual basis, an additional round of sampling should be conducted for priority pollutants and priority pollutant metals.

3. Down-gradient wells, Bedoff, Homala, and Kyle, and up-gradient well Boone should continue to be sampled for priority pollutants and priority pollutant metals annually.

PM:krc

cc: Bill Yake

Appendix A

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY
MANCHESTER ENVIRONMENTAL LABORATORY
P.O. Box 307, Manchester WA 98353

DATA REVIEW
June 29, 1990

Project: Tofdahl Drumsite

Samples: 158040 158041 158042 158043 158044 158045

Laboratory: Laucks Testing Laboratory

By: Greg Perez
Through: Stuart Magoon

CASE SUMMARY

Specific methods used and problems incurred during the analysis of these samples are detailed in the case narrative and will not be addressed here. Specific problems with QC will be noted and referenced to the case narrative. A notation by lab staff on the sample request form indicates the volatile samples were not preserved. This will not affect the quality of the data.

QUALIFIER DEFINITIONS

J - The reported number is an estimated value.

VOA FRACTION

Matrix: Water

Holding times

Sample	Date Collect	Date Man Lab Recd	Date Cntr Lab Recd	Date Anlz	#Days from Collect
158040	4/11	4/12	4/12	4/16	5 of 7
158041	4/11	4/12	4/12	4/16	5 of 7
158042	4/11	4/12	4/12	4/16	5 of 7
158043	4/11	4/12	4/12	4/16	5 of 7
158044	4/11	4/12	4/12	4/16	5 of 7
158045	4/11	4/12	4/12	4/16	5 of 7

These samples have been analyzed within the recommended holding times. Recommended holding time for unpreserved samples is seven days.

Surrogates:

Surrogate recoveries for these samples, the matrix spikes and the method blank are within the QC recovery limits.

Matrix Spike and Matrix Spike Duplicate (MS/MSD):

Matrix spike and spike duplicate recoveries and precision data are acceptable and within limits.

Sample Data:

This data is acceptable for use.

BNA FRACTION

Matrix: Water

Holding times

Sample	Date Collect	Date Man Lab Recd	Date Cntr Lab Recd	Date Extd	Date Anlz	#Days from Collect
158040	4/11	4/12	4/12	4/13	4/19	2 of 7
158041	4/11	4/12	4/12	4/13	4/19	2 of 7
158042	4/11	4/12	4/12	4/13	4/19	2 of 7
158043	4/11	4/12	4/12	4/13	4/19	2 of 7
158044	4/11	4/12	4/12	4/13	4/19	2 of 7
158045	4/11	4/12	4/12	4/13	4/19	2 of 7

These samples have been extracted and analyzed within the recommended holding times.

Surrogates:

Surrogate recoveries for these samples, the matrix spikes and the method blank are within the QC recovery limits.

Matrix Spike and Matrix Spike Duplicate (MS/MSD):

Matrix spike and spike duplicate recoveries and precision data are acceptable and within limits.

Sample Data:

This data is acceptable for use.

PESTICIDE/PCB FRACTION

Holding times

Sample	Date Collect	Date Man Lab Rec'd	Date Cntr Lab Rec'd	Date Extd	Date Anlz	*Days from Collect
158Ø4Ø	4/11	4/12	4/12	4/13	4/24	2 of 7
158Ø41	4/11	4/12	4/12	4/13	4/24	2 of 7
158Ø42	4/11	4/12	4/12	4/13	4/24	2 of 7
158Ø43	4/11	4/12	4/12	4/13	4/24	2 of 7
158Ø44	4/11	4/12	4/12	4/13	4/24	2 of 7
158Ø45	4/11	4/12	4/12	4/13	4/24	2 of 7

These samples have been extracted and analyzed within the recommended holding times.

Surrogates:

Surrogate recoveries for these samples and the method blank are within recovery limits.

Matrix Spike and Matrix Spike Duplicate (MS/MSD):

Matrix spike and spike duplicate recoveries and precision data are acceptable and within limits.

Sample Data:

This data is acceptable for use without the need for additional qualifiers.

LAUCKS TESTING LABORATORIES
940 S. Harney
Seattle, WA 98108

TO: **Washington Department of Ecology**
Project Name: Toftdahl
Laboratory No.: 9004186
Date of this report: May 08, 1990

GENERAL REMARKS ON ORGANIC ANALYSES:

The following samples were analyzed under the above lab number:

Client Sample I.D.	LTL Sample Number	Analysis Request
158040	9004186-1	VOA/ABN/PEST/PCB
158041	9004186-2	VOA/ABN/PEST/PCB
158042	9004186-3	VOA/ABN/PEST/PCB
158043	9004186-4	VOA/ABN/PEST/PCB
158044	9004186-5	VOA/ABN/PEST/PCB
158045	9004186-6	VOA/ABN/PEST/PCB

GC/MS Fractions:

Compounds may be called out as hits on the computerized printout. However, if they are not reported on the OADS (sample results) form, the mass spectral data have been manually searched and the compounds have been eliminated as hits based on this search.

ABN Fraction:

The data system which is used to perform the searches for ABN Tentatively Identified Compounds (TICs) is set with a threshold of 5% fit for TICs. In some cases less than three compounds in the NBS library pass this threshold setting. When this occurs there will not be spectra and fits for the associated unknown compound. This will be called out on the first page of the data system report and will be reflected in the spectra which are drawn; i.e., there will be less than three best-fit spectra. This generally has one of two meanings. First, that there are no compounds passing the fit

criteria; or, second, that one or more compounds pass the fit criteria. It is our opinion that the threshold setting for fit is set low enough that all reasonable and possible hits will be reported (up to a maximum of three).

Two optional ABN surrogates are used for recovery purposes, recoveries for one of which (2-Bromophenol) are listed under "Other" on Form II. The second optional surrogate is d10-Azobenzene. The recoveries for samples in this set are as listed:

Sample	% Recovery
SBLKH1	87
158040	78
158041	90
158042	85
158043	86
158044	76
158044MS	78
158044MSD	84
158045	76

Volatile Fraction:

All volatile analyses were performed using a DB-624 megabore capillary. The elution order and retention times differ from those stated for packed column analysis in the U.S.E.P.A.'s Statement of Work for organic CLP analyses. Listed below are the correct elution order and the internal standard with which each compound is associated.

Bromochloromethane(IS)	1,4-Difluorobenzene(IS)	d5-Chlorobenzene(IS)
Chloromethane	Benzene	4-Methyl-2-Pentanone
Vinyl Chloride	Trichloroethylene	Toluene
Bromomethane	1,2-Dichloropropane	d8-Toluene(SURR)
Chloroethane	Bromodichloromethane	Trans-1,3-Dichloropropene
1,1-Dichloroethylene	Cis-1,3-Dichloropropene	1,1,2-Trichloroethane
Acetone		Tetrachloroethylene
Carbon Disulfide		2-Hexanone
Methylene Chloride		Dibromochloromethane
Trans-1,2-Dichloroethylene		Chlorobenzene
1,1-Dichloroethane		Ethylbenzene
Vinyl Acetate		Styrene
Cis-1,2-Dichloroethylene		M,P-Xylene

2-Butanone
Chloroform
1,1,1-Trichloroethane
Carbon Tetrachloride
1,2-Dichloroethane
d4-1,2-Dichloroethane(SURR)
O-xylene
Bromoform
1,1,2,2-Tetrachloroethane
Bromofluorobenzene(SURR)

The analytes listed above were assigned to their respective internal standards on the basis of relative retention time (RRT). For all compounds except cis-1,3-dichloropropene, the RRTs fall between 0.8 and 1.2. Cis-1,2-dichloropropene was the only compound to fall outside of this range, and was assigned to the internal standard closest to its retention time.

Separation of cis- and trans- dichloroethylene isomers is achievable on a DB-624 megabore capillary column. These compounds have been found to coelute on the packed column specified in the U.S.E.P.A.'s Statement of Work. When these isomers are found in a sample, they will be reported as total-1,2-dichloroethylene.

A holding blank was analyzed in the same QC period with the samples from this set. The raw data were not submitted with the case. It will be held on file at Laucks should future review be necessary.

Pesticide/PCB Fraction:

The compound isodrin was added as a second, optional surrogate in the pesticide/PCB analyses. Recovery values are reported on the appropriate FORM II - PEST.

SPECIFIC REMARKS ON ORGANIC ANALYSES:

VOA Fraction:

No comments.

ABN Fraction:

No comments.

Pesticide/PCB Fraction:

No comments.

Sample Preparation:

LAUCKS TESTING LABORATORIES
940 S. Harney
Seattle, WA 98108

The following observations were made during extraction of the samples:

Sample ID	Lab ID	Color	Odor	Notes
158040	9004186-1	Clear	None	
158041	9004186-2	Clear	None	Sample contained a few very small floaters that looked like brown paper
158042	9004186-3	Clear	None	
158043	9004186-4	Clear	None	
158044	9004186-5	Clear	None	
158045	9004186-6	Clear	None	

2A

WATER VOLATILE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKO Case No.:_____ SAS No.: _____ SDG No.: 158041

	DOE SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	VBLKJ1	106	103	95	_____	0
02	158040	103	100	96	_____	0
03	158041	105	101	96	_____	0
04	158042	106	101	97	_____	0
05	158043	107	100	96	_____	0
06	158044	105	102	97	_____	0
07	158045	108	103	95	_____	0
08	158041MS	100	94	93	_____	0
09	158041MSD	99	94	92	_____	0
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

	QC LIMITS
S1 (TOL) = Toluene-d8	(88-110)
S2 (BFB) = Bromofluorobenzene	(86-115)
S3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Laucks Testing Labs Contract. _____

Lab Code. LAUCKS Case No.:_____ SAS No.: _____ SDG No.:15804

Matrix Spike - DOE Sample No.: 158041

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.000	0.000	39.400	79 _	61-145
Trichloroethene	50.000	0.000	52.700	105 _	71-120
Benzene	50.000	0.000	48.900	98 _	76-127
Toluene	50.000	0.000	52.800	106 _	76-125
Chlorobenzene	50.000	0.000	51.100	102 _	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.000	40.500	81 _	3 _	14	61-145
Trichloroethene	50.000	54.000	108 _	2 _	14	71-120
Benzene	50.000	49.600	99 _	1 _	11	76-127
Toluene	50.000	53.600	107 _	2 _	13	76-125
Chlorobenzene	50.000	51.900	104 _	2 _	13	75-130

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

* Values outside of QC limits

RPD:0 out of 5 outside limits
Spike Recovery:0 out of 10 outside limits

Comments: _____
_____

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: _____ SAS No.: _____ SDG No.: 15804

Lab File ID: B0418MVOWJ1 Lab Sample ID: B0418MVOWJ1

Date Analyzed: 04/18/90 Time Analyzed: 11:18

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: 1020J

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD.

	DOE SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	158040	04186-01A	04186V01	11:55
02	158041	04186-02A	04186V02	12:33
03	158042	04186-03A	04186V03	14:20
04	158043	04186-04A	04186V04	15:05
05	158044	04186-05A	04186V05	15:44
06	158045	04186-06A	04186V06	16:39
07	158041MS	04186-02AMS	04186V02MS	18:11
08	158041MSD	04186-02AMSD	04186V02MSD	19:38
09				
10				
11				
12				
13				
14				
15				
16				
17				
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19				
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29				
30				

COMMENTS: _____

VOLATILE ORGANICS ANALYSIS DATA SHEET

SDG SAMPLE NO.

150040
TRANSPORT

Lab Name. Laucks Testing Labs Contract. _____

Lab Code. LAUCKS Case No._____ SAS No. _____ SDG No.: 15004

Matrix. (soil/water)WATER Lab Sample ID: 04105 01B

Sample wt/vol: 5.0 (g/ml)ML Lab File ID. 04108V01

Level. (low/med) LOW Date Received. 04/12/90

% Moisture. not dec.__ Date Analyzed. 04/16/90

Column. (pack/cap) CAP Dilution Factor. 1

CAS NO.	COMPOUND	CONCENTRATION UNITS. (ug/L or ug/Kg)UG/L	C
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	3	U
75-09-2	Methylene Chloride	1	
67-64-1	Acetone	7	
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	3	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
108-05-4	Vinyl Acetate	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	3	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	3	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	Trans-1,3-Dichloropropene	3	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	U
591-78-6	2-Hexanone	3	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	3	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U

1C

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SDG SAMPLE NO.

158040
TRANSPORT

Lab Name. Laucks Testing Labs Contract: _____

Lab Code. LAUCKS Case No.:_____ SAS No.: _____ SDG No.:15804

Matrix: (soil/water)WATER Lab Sample ID: 04186 01A

Sample wt/vol. 5.0 (g/ml)ML Lab File ID. 04186V01

Level. (low/med) LOW Date Received. 04/12/90

% Moisture. not dec.__ Date Analyzed: 04/15/90

Column: (pack/cap) CAP Dilution Factor. 1.0

Number TICs found. 0

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
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30.					

VOLATILE ORGANICS ANALYSIS DATA SHEET

DOE SAMPLE NO.: 150041

Lab Name: Laucks Testing Labs Contract: _____ BOONE

Lab Code: LAUCKS Case No.: _____ SAS No.: _____ SDG No.: 15004

Matrix: (soil/water) WATER Lab Sample ID: 04186-02A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: 04186V02

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ Date Analyzed: 04/16/90

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	3	U
75-09-2	Methylene Chloride	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	3	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
108-05-4	Vinyl Acetate	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	3	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	3	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	Trans-1,3-Dichloropropene	3	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	U
591-78-6	2-Hexanone	3	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	3	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

158041
Boone

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: _____ SAS No.: _____ SDG No.: 15804

Matrix: (soil/water) WATER Lab Sample ID: 04186-02A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: 04186V02

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ Date Analyzed: 04/16/90

Column: (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

DOE SAMPLE NO.

150042 Homogenate

Lab Name. Laucks Testing Labs Contract: _____

Lab Code. LAUCKS Case No.:_____ SAS No. _____ SDG No.:15004

Matrix. (soil/water)WATER Lab Sample ID: 04186-03A

Sample wt/vol: 5.0 (g/ml)ML Lab File ID. 04186V03

Level. (low/med) LOW Date Received: 04/12/90

% Moisture. not dec.__ Date Analyzed: 04/18/90

Column. (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS. (ug/L or ug/Kg)UG/L	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	3	U
75-09-2	Methylene Chloride	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	3	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
108-05-4	Vinyl Acetate	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	3	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	3	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	Trans-1,3-Dichloropropene	3	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	U
591-78-6	2-Hexanone	3	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	3	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

DOE SAMPLE NO.
158042
Homogen

Lab Name: Laucks Testing Labs Contract: _____

Lab Code. LAUCKS Case No.:_____ SAS No.. _____ SDG No..15804

Matrix: (soil/water)WATER Lab Sample ID. 04186-03A

Sample wt/vol. 5.0 (g/ml)ML Lab File ID. 04186V03

Level. (low/med) LOW Date Received: 04/12/90

% Moisture. not dec.__ Date Analyzed: 04/16/90

Column: (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SDG SAMPLE NO.

150043
BEDOFF

Lab Name: Laucks Testing Labs Contract. _____

Lab Code. LAUCKS Case No.:_____ SAS No. _____ SDG No.:15804

Matrix: (soil/water)WATER Lab Sample ID: 04186-04A

Sample wt/vol. 5.0 (g/ml)ML Lab File ID. 04186V04

Level. (low/med) LOW Date Received. 04/12/90

% Moisture. not dec.__ Date Analyzed: 04/16/90

Column. (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS. (ug/L or ug/Kg)UG/L	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	3	U
75-09-2	Methylene Chloride	1	U
67-64-1	Acetone	2	J
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	3	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
108-05-4	Vinyl Acetate	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	3	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	3	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	Trans-1,3-Dichloropropene	3	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	U
591-78-6	2-Hexanone	3	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	3	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

DOE SAMPLE NO.
158043
BKDOFF

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: _____ SAS No.: _____ SDG No.: 15804

Matrix: (soil/water) WATER Lab Sample ID: 04186-04A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: 04186V04

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ Date Analyzed: 04/18/90

Column: (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SDG SAMPLE NO.

150044
SMITH

Lab Name. Laucks Testing Labs Contract: _____

Lab Code. LAUCKS Case No.._____ SAS No. _____ SDG No..15004

Matrix: (soil/water)WATER Lab Sample ID: 04106-05A

Sample wt/vol: 5.0 (g/ml)ML Lab File ID. 04106V05

Level. (low/med) LOW Date Received. 04/12/90

% Moisture. not dec.__ Date Analyzed. 04/16/90

Column. (pack/cap) CAP Dilution Factor. 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	3	U
75-09-2	Methylene Chloride	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	3	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
108-05-4	Vinyl Acetate	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	3	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	3	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	Trans-1,3-Dichloropropene	3	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	U
591-78-6	2-Hexanone	3	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	3	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

DOE SAMPLE NO.
158044
SMITH

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: _____ SAS No.: _____ SDG No.: 15804

Matrix: (soil/water) WATER Lab Sample ID: 04186-05A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: 04186V05

Level: (low/med) LOW Date Received: 04/12/90

% Moisture, not dec. __ Date Analyzed: 04/15/90

Column. (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS.
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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3.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

158045
KYLE

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: _____ SAS No. _____ SDG No.: 15804

Matrix: (soil/water) WATER Lab Sample ID: 04186-06A

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: 04186V06

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not ded. __ Date Analyzed: 04/16/90

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	3	U
75-09-2	Methylene Chloride	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	3	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
108-05-4	Vinyl Acetate	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	3	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	3	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	Trans-1,3-Dichloropropene	3	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	U
591-78-6	2-Hexanone	3	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	3	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CODE SAMPLE NO.
158045
KYLE

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: _____ SAS No.: _____ SDG No.: 15804

Matrix: (soil/water) WATER Lab Sample ID. 04188-08A

Sample wt/vol. 5.0 (g/ml) ML Lab File ID. 04188V08

Level. (low/med) LOW Date Received. 04/12/90

% Moisture: not dec. __ Date Analyzed. 04/18/90

Column. (pack/cap) CAP Dilution Factor. 1.0

Number TICs found: 0

CONCENTRATION UNITS.
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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7.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

DOE SAMPLE NO.: V8LKJ1

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: _____ SAS No.: _____ SDG No.: 15804

Matrix: (soil/water) WATER Lab Sample ID: B0416MVOWJ1

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: B0416MVOWJ1

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ Date Analyzed: 04/16/90

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	3	U
75-09-2	Methylene Chloride	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	3	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
108-05-4	Vinyl Acetate	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	3	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	3	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	Trans-1,3-Dichloropropene	3	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	U
591-78-6	2-Hexanone	3	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	3	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

DOE SAMPLE NO.: VBLKJ1

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: _____ SAS No.: _____ SDG No.: 15004

Matrix: (soil/water) WATER Lab Sample ID: B0416MVOWJ1

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: B0416MVOWJ1

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ Date Analyzed: 04/16/90

Column: (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

15804 1MS

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: _____ SAS No. _____ SDG No.: 15804

Matrix: (soil/water) WATER Lab Sample ID: 04186-02AMS

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: 04186V02MS

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ Date Analyzed: 04/16/90

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS. (ug/L or ug/Kg) UG/L	C
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	3	U
75-09-2	Methylene Chloride	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	3	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
108-05-4	Vinyl Acetate	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	3	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	3	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	Trans-1,3-Dichloropropene	3	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	U
591-78-6	2-Hexanone	3	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	3	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

DOE SAMPLE NO.

158041MSD

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: _____ SAS No.: _____ SDG No.: 15804

Matrix: (soil/water) WATER Lab Sample ID: 04186-02AMSD

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: 04186V02MSD

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ Date Analyzed: 04/16/90

Column: (pack/cap) CAP Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	3	U
75-09-2	Methylene Chloride	1	U
67-64-1	Acetone	4	J
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	3	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
108-05-4	Vinyl Acetate	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	3	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	3	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	Trans-1,3-Dichloropropene	3	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	3	U
591-78-6	2-Hexanone	3	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	3	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	3	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: 4186 SAS No.: _____ SDG No.: _____

	SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	OTHER	TOT OUT
01	SBLKH1	66 _	66 _	81 _	38 _	51 _	77 _	63	0
02	158041	73 _	70 _	88 _	38 _	55 _	82 _	70	0
03	158042	64 _	69 _	84 _	37 _	49 _	85 _	66	0
04	158043	65 _	71 _	79 _	33 _	44 _	76 _	60	0
05	158044	64 _	63 _	79 _	38 _	50 _	74 _	66	0
06	158044MS	68 _	64 _	94 _	43 _	53 _	76 _	65	0
07	158044MSD	62 _	66 _	91 _	45 _	54 _	79 _	63	0
08	158045	63 _	61 _	84 _	34 _	48 _	74 _	62	0
09									
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	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(35-114)
S2 (FBP) = 2-Fluorobiphenyl	(43-116)
S3 (TPH) = Terphenyl-d14	(33-141)
S4 (PHL) = Phenol-d5	(10-94)
S5 (2FP) = 2-Fluorophenol	(21-100)
S6 (TBP) = 2,4,6-Tribromophenol	(10-123)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

2E

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: 4186 SAS No.: _____ SDG No.: _____

	SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	OTHER	TOT OUT
01	158040	68	67	92	34	45	79	64	0
02									
03									
04									
05									
06									
07									
08									
09									
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30									

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(35-114)
S2 (FBP) = 2-Fluorobiphenyl	(43-116)
S3 (TPH) = Terphenyl-d14	(33-141)
S4 (PHL) = Phenol-d5	(10-94)
S5 (2FP) = 2-Fluorophenol	(21-100)
S6 (TBP) = 2,4,6-Tribromophenol	(10-123)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: 4186 SAS No.: _____ SDG No.: _____

Matrix Spike - Sample No.: 158044

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	#	QC LIMITS REC.
Phenol	267	0	108	41		12- 89
2-Chlorophenol	267	0	169	63		27-123
1,4-Dichlorobenzene	133	0	90	67		36- 97
N-Nitroso-di-n-prop.(1)	133	0	103	77		41-116
1,2,4-Trichlorobenzene	133	0	95	71		39- 98
4-Chloro-3-methylphenol	267	0	196	74		23- 97
Acenaphthene	133	0	89	67		46-118
4-Nitrophenol	267	0	120	45		10- 80
2,4-Dinitrotoluene	133	0	100	75		24- 96
Pentachlorophenol	267	0	167	63		9-103
Pyrene	133	0	104	78		26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC.
Phenol	267	110	41		1		42	12- 89
2-Chlorophenol	267	166	62		2		40	27-123
1,4-Dichlorobenzene	133	87	65		3		28	36- 97
N-Nitroso-di-n-prop.(1)	133	111	83		8		38	41-116
1,2,4-Trichlorobenzene	133	90	67		6		28	39- 98
4-Chloro-3-methylphenol	267	179	67		9		42	23- 97
Acenaphthene	133	94	71		5		31	46-118
4-Nitrophenol	267	132	50		10		50	10- 80
2,4-Dinitrotoluene	133	102	77		3		38	24- 96
Pentachlorophenol	267	173	65		3		50	9-103
Pyrene	133	106	80		2		31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

Comments: _____

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: 4186 SAS No.: _____ SDG No.: _____

Lab File ID: >HD190::D3 Lab Sample ID: B0413MPFWLE

Date Extracted: 04/13/90 Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 04/19/90 Time Analyzed: 14:31

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: 5970H

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	158041	04186-02A	>HD192::D3	04/19/90
02	158042	04186-03A	>HD193::D3	04/19/90
03	158043	04186-04A	>HD194::D3	04/19/90
04	158044	04186-05A	>HD195::D3	04/19/90
05	158044MS	04186-05AMS	>HD196::D3	04/19/90
06	158044MSD	04186-05AMSD	>HD197::D3	04/19/90
07	158045	04186-06A	>HD198::D3	04/19/90
08	158040	04186-01A	>HD200::D3	04/20/90
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COMMENTS: _____

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

155040
TRANSPORT

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.:4186 SAS No.: _____ SDG No.: _____

Matrix: (soil/water)WATER Lab Sample ID: 04186-01A

Sample wt/vol: 1000.(g/ml)ML Lab File ID: DHD200::D

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec.__ dec.__ Date Extracted:04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/20/90

GPC Cleanup: (Y/N)N pH:6.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
108-95-2	Phenol	2	U
111-44-4	bis (2-Chloroethyl)ether	2	U
95-57-8	2-Chlorophenol	2	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
100-51-6	Benzyl alcohol	2	U
95-50-1	1,2-Dichlorobenzene	2	U
95-48-7	2-Methylphenol	2	U
108-60-1	bis (2-Chloroisopropyl)ether	2	U
106-44-5	4-Methylphenol	2	U
621-64-7	N-Nitroso-di-n-propylamine	2	U
67-72-1	Hexachloroethane	4	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	2	U
88-75-5	2-Nitrophenol	4	U
105-67-9	2,4-Dimethylphenol	2	U
65-85-0	Benzoic acid	50	U
111-91-1	bis (2-Chloroethoxy)methane	2	U
120-83-2	2,4-Dichlorophenol	4	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	4	U
106-47-8	4-Chloroaniline	2	U
87-68-3	Hexachlorobutadiene	2	U
59-50-7	4-Chloro-3-methylphenol	4	U
91-57-6	2-Methylnaphthalene	2	U
77-47-4	Hexachlorocyclopentadiene	4	U
88-06-2	2,4,6-Trichlorophenol	4	U
95-95-4	2,4,5-Trichlorophenol	4	U
91-58-7	2-Chloronaphthalene	2	U
88-74-4	2-Nitroaniline	4	U
131-11-3	Dimethylphthalate	2	U
208-96-8	Acenaphthylene	2	U
606-20-2	2,6-Dinitrotoluene	4	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

158040 TRANSPORT

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: 4186 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 04186-01A

Sample wt/vol: 1000. (g/ml) ML Lab File ID: [illegible]

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ dec. __ Date Extracted: 04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/20/90

GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	2	U
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	2	U
121-14-2	2,4-Dinitrotoluene	4	U
84-66-2	Diethylphthalate	2	U
7005-72-3	4-Chlorophenyl-phenylether	2	U
86-73-7	Fluorene	2	U
100-01-6	4-Nitroaniline	4	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine	2	U
101-55-3	4-Bromophenyl-phenylether	4	U
118-74-1	Hexachlorobenzene	4	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	2	U
206-44-0	Fluoranthene	2	U
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	.2	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	J
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo(b)fluoranthene	4	U
207-08-9	Benzo(k)fluoranthene	4	U
50-32-8	Benzo(a)pyrene	4	U
193-39-5	Indeno(1,2,3-cd)pyrene	4	U
53-70-3	Dibenzo(a,h)anthracene	4	U
191-24-2	Benzo(g,h,i)perylene	4	U

(1) - Cannot be separated from diphenylamine

1F

SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

	LS8040
	TRANSPORT

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.:4186 SAS No.: _____ SDG No.:_____

Matrix: (soil/water)WATER Lab Sample ID: 04186-01A

Sample wt/vol: 1000.(g/ml)ML Lab File ID: >HD200::D3

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec.__ dec.__ Date Extracted:04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/20/90

GPC Cleanup: (Y/N)N pH:0.0 Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

158041
Boone

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.:4186 SAS No.: _____ SDG No.: _____

Matrix: (soil/water)WATER Lab Sample ID: 04186-02A

Sample wt/vol: 1000.(g/ml)ML Lab File ID: >HD192::D3

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec.__ dec.__ Date Extracted:04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/90

GPC Cleanup: (Y/N)N pH:0.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
108-95-2	Phenol	2	U
111-44-4	bis (2-Chloroethyl)ether	2	U
95-57-8	2-Chlorophenol	2	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
100-51-6	Benzyl alcohol	2	U
95-50-1	1,2-Dichlorobenzene	2	U
95-48-7	2-Methylphenol	2	U
108-60-1	bis (2-Chloroisopropyl)ether	2	U
106-44-5	4-Methylphenol	2	U
621-64-7	N-Nitroso-di-n-propylamine	2	U
67-72-1	Hexachloroethane	4	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	2	U
88-75-5	2-Nitrophenol	4	U
105-67-9	2,4-Dimethylphenol	2	U
65-85-0	Benzoic acid	50	U
111-91-1	bis (2-Chloroethoxy)methane	2	U
120-83-2	2,4-Dichlorophenol	4	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	4	U
106-47-8	4-Chloroaniline	2	U
87-68-3	Hexachlorobutadiene	2	U
59-50-7	4-Chloro-3-methylphenol	4	U
91-57-6	2-Methylnaphthalene	2	U
77-47-4	Hexachlorocyclopentadiene	4	U
88-06-2	2,4,6-Trichlorophenol	4	U
95-95-4	2,4,5-Trichlorophenol	4	U
91-58-7	2-Chloronaphthalene	2	U
88-74-4	2-Nitroaniline	4	U
131-11-3	Dimethylphthalate	2	U
208-96-8	Acenaphthylene	2	U
606-20-2	2,6-Dinitrotoluene	4	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

158041

Lab Name: Laucks Testing Labs Contract: _____ Boone

Lab Code: LAUCKS Case No.: 4136 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 04136-02A

Sample wt/vol: 1000. (g/ml) ML Lab File ID: HHD192::D3

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ dec. __ Date Extracted: 04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/90

GPC Cleanup: (Y/N) N pH: 9.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	2	U
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	2	U
121-14-2	2,4-Dinitrotoluene	4	U
84-66-2	Diethylphthalate	2	U
7005-72-3	4-Chlorophenyl-phenylether	2	U
86-73-7	Fluorene	2	U
100-01-6	4-Nitroaniline	4	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine	2	U
101-55-3	4-Bromophenyl-phenylether	4	U
118-74-1	Hexachlorobenzene	4	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	2	U
206-44-0	Fluoranthene	2	U
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	2	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	J
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo(b)fluoranthene	4	U
207-08-9	Benzo(k)fluoranthene	4	U
50-32-8	Benzo(a)pyrene	4	U
193-39-5	Indeno(1,2,3-cd)pyrene	4	U
53-70-3	Dibenzo(a,h)anthracene	4	U
191-24-2	Benzo(g,h,i)perylene	4	U

(1) - Cannot be separated from diphenylamine

1F

SAMPLE NO.

158041
Boone

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.:4186 SAS No.: _____ SDG No.:_____

Matrix: (soil/water)WATER Lab Sample ID: 04106-02A

Sample wt/vol: 1000.(g/ml)ML Lab File ID: >HD192:02

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec.__ dec.__ Date Extracted:04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/90

GPC Cleanup: (Y/N)N pH:0.0 Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
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SAMPLE NO.

150042

Homana

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: 4186 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 04186-03A

Sample wt/vol: 1000. (g/ml) ML Lab File ID: HD193::33

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ dec. __ Date Extracted: 04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/90

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	C
108-95-2	Phenol	2	U
111-44-4	bis (2-Chloroethyl) ether	2	U
95-57-8	2-Chlorophenol	2	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
100-51-6	Benzyl alcohol	2	U
95-50-1	1,2-Dichlorobenzene	2	U
95-48-7	2-Methylphenol	2	U
108-60-1	bis (2-Chloroisopropyl) ether	2	U
106-44-5	4-Methylphenol	2	U
621-64-7	N-Nitroso-di-n-propylamine	2	U
67-72-1	Hexachloroethane	4	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	2	U
88-75-5	2-Nitrophenol	4	U
105-67-9	2,4-Dimethylphenol	2	U
65-85-0	Benzoic acid	50	U
111-91-1	bis (2-Chloroethoxy) methane	2	U
120-83-2	2,4-Dichlorophenol	4	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	4	U
106-47-8	4-Chloroaniline	2	U
87-68-3	Hexachlorobutadiene	2	U
59-50-7	4-Chloro-3-methylphenol	4	U
91-57-6	2-Methylnaphthalene	2	U
77-47-4	Hexachlorocyclopentadiene	4	U
88-06-2	2,4,6-Trichlorophenol	4	U
95-95-4	2,4,5-Trichlorophenol	4	U
91-58-7	2-Chloronaphthalene	2	U
88-74-4	2-Nitroaniline	4	U
131-11-3	Dimethylphthalate	2	U
208-96-8	Acenaphthylene	2	U
606-20-2	2,6-Dinitrotoluene	4	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

158042 Hompaa

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: 4186 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 04186-03A

Sample wt/vol: 1000. (g/ml) ML Lab File ID: >HD19I::DI

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ dec. __ Date Extracted: 04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/90

GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	2	U
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	2	U
121-14-2	2,4-Dinitrotoluene	4	U
84-66-2	Diethylphthalate	2	U
7005-72-3	4-Chlorophenyl-phenylether	2	U
86-73-7	Fluorene	2	U
100-01-6	4-Nitroaniline	4	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine	2	U
101-55-3	4-Bromophenyl-phenylether	4	U
118-74-1	Hexachlorobenzene	4	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	2	U
206-44-0	Fluoranthene	2	U
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	2	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	J
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo(b)fluoranthene	4	U
207-08-9	Benzo(k)fluoranthene	4	U
50-32-8	Benzo(a)pyrene	4	U
193-39-5	Indeno(1,2,3-cd)pyrene	4	U
53-70-3	Dibenzo(a,h)anthracene	4	U
191-24-2	Benzo(g,h,i)perylene	4	U

(1) - Cannot be separated from diphenylamine

1F

SAMPLE NO.

150042
Hompack

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.:4106 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 04106-03A

Sample wt/vol: 1000. (g/ml) ML Lab File ID: >HD193::D3

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ dec. __ Date Extracted: 04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/90

GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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15

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

158043
BRDOFF

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: 4106 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 04186-04A

Sample wt/vol: 1000.(g/ml) ML Lab File ID: BND194::03

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ dec. __ Date Extracted: 04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/90

GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	2	U
111-44-4	bis (2-Chloroethyl) ether	2	U
95-57-8	2-Chlorophenol	2	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
100-51-6	Benzyl alcohol	2	U
95-50-1	1,2-Dichlorobenzene	2	U
95-48-7	2-Methylphenol	2	U
108-60-1	bis (2-Chloroisopropyl) ether	2	U
106-44-5	4-Methylphenol	2	U
621-64-7	N-Nitroso-di-n-propylamine	2	U
67-72-1	Hexachloroethane	4	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	2	U
88-75-5	2-Nitrophenol	4	U
105-67-9	2,4-Dimethylphenol	2	U
65-85-0	Benzoic acid	50	U
111-91-1	bis (2-Chloroethoxy) methane	2	U
120-83-2	2,4-Dichlorophenol	4	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	4	U
106-47-8	4-Chloroaniline	2	U
87-68-3	Hexachlorobutadiene	2	U
59-50-7	4-Chloro-3-methylphenol	4	U
91-57-6	2-Methylnaphthalene	2	U
77-47-4	Hexachlorocyclopentadiene	4	U
88-06-2	2,4,6-Trichlorophenol	4	U
95-95-4	2,4,5-Trichlorophenol	4	U
91-58-7	2-Chloronaphthalene	2	U
88-74-4	2-Nitroaniline	4	U
131-11-3	Dimethylphthalate	2	U
208-96-8	Acenaphthylene	2	U
606-20-2	2,6-Dinitrotoluene	4	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

153043
BEDOFF

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: 4184 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 04184-04R

Sample wt/vol: 1000. (g/ml) ML Lab File ID: 2ND19A::D3

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ dec. __ Date Extracted: 04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/90

GPC Cleanup: (Y/N) N pH: 8.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	2	U
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	30	U
132-64-9	Dibenzofuran	2	U
121-14-2	2,4-Dinitrotoluene	4	U
84-66-2	Diethylphthalate	2	U
7005-72-3	4-Chlorophenyl-phenylether	2	U
86-73-7	Fluorene	2	U
100-01-6	4-Nitroaniline	4	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine	2	U
101-55-3	4-Bromophenyl-phenylether	4	U
118-74-1	Hexachlorobenzene	4	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	2	U
206-44-0	Fluoranthene	2	U
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	2	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo(b)fluoranthene	4	U
207-08-9	Benzo(k)fluoranthene	4	U
50-32-8	Benzo(a)pyrene	4	U
193-39-5	Indeno(1,2,3-cd)pyrene	4	U
53-70-3	Dibenzo(a,h)anthracene	4	U
191-24-2	Benzo(g,h,i)perylene	4	U

(1) - Cannot be separated from diphenylamine

1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

156043
BEDOFF

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.:4184 SAS No.: _____ SDG No.: _____

Matrix: (soil/water)WATER Lab Sample ID: 04184-04A

Sample wt/vol: 1000. (g/ml)ML Lab File ID: MD173.D3

Level: (low/med) LOW Date Received: 04/13/90

% Moisture: not dec. __ dec. __ Date Extracted: 04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/90

GPC Cleanup: (Y/N)N pH:0.0 Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

15804-
SMITH

Lab Name: Lucks Testing Labs Contract:_____

Lab Code: LUCKS Case No.:4196 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 0413e-036

Sample wt/vol: 1000.(g/ml) ML Lab File ID: MD195:.03

Level: (low/med) LOW Date Received: 04/12/96

% Moisture: not dec.__ dec.__ Date Extracted: 04/13/96

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/96

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	2	U
111-44-4	bis (2-Chloroethyl)ether	2	U
95-57-8	2-Chlorophenol	2	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
100-51-6	Benzyl alcohol	2	U
95-50-1	1,2-Dichlorobenzene	2	U
95-48-7	2-Methylphenol	2	U
108-60-1	bis (2-Chloroisopropyl)ether	2	U
106-44-5	4-Methylphenol	2	U
621-64-7	N-Nitroso-di-n-propylamine	2	U
67-72-1	Hexachloroethane	4	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	2	U
88-75-5	2-Nitrophenol	4	U
105-67-9	2,4-Dimethylphenol	2	U
65-85-0	Benzoic acid	50	U
111-91-1	bis (2-Chloroethoxy)methane	2	U
120-83-2	2,4-Dichlorophenol	4	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	4	U
106-47-8	4-Chloroaniline	2	U
87-68-3	Hexachlorobutadiene	2	U
59-50-7	4-Chloro-3-methylphenol	4	U
91-57-6	2-Methylnaphthalene	2	U
77-47-4	Hexachlorocyclopentadiene	4	U
88-06-2	2,4,6-Trichlorophenol	4	U
95-95-4	2,4,5-Trichlorophenol	4	U
91-58-7	2-Chloronaphthalene	2	U
88-74-4	2-Nitroaniline	4	U
131-11-3	Dimethylphthalate	2	U
208-96-8	Acenaphthylene	2	U
606-20-2	2,6-Dinitrotoluene	4	U

1C

SEMIVOLATILE GPC MICRO ANALYSIS DATA SHEET

SAMPLE NO.

158044
SMITH

Lab Name: Leachate Testing Labs Contract: _____

Lab Code: LAUCHO Case No.: 4106 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 04186-09A

Sample wt/vol: 1000. (g/ml) ML Lab File ID: HD195:09

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec.__ dec.__ Date Extracted: 04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/90

GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	C
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	2	U
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	2	U
121-14-2	2,4-Dinitrotoluene	4	U
84-66-2	Diethylphthalate	2	U
7005-72-3	4-Chlorophenyl-phenylether	2	U
86-73-7	Fluorene	2	U
100-01-6	4-Nitroaniline	4	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine	2	U
101-55-3	4-Bromophenyl-phenylether	4	U
118-74-1	Hexachlorobenzene	4	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	2	U
206-44-0	Fluoranthene	2	U
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	2	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo(b)fluoranthene	4	U
207-08-9	Benzo(k)fluoranthene	4	U
50-32-8	Benzo(a)pyrene	4	U
193-39-5	Indeno(1,2,3-cd)pyrene	4	U
53-70-3	Dibenzo(a,h)anthracene	4	U
191-24-2	Benzo(g,h,i)perylene	4	U

(1) - Cannot be separated from diphenylamine

SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

1590C4
SMITH

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.:4106 SAS No.: _____ SDG No.: _____

Matrix: (soil/water)WATER Lab Sample ID: 04186-05A

Sample wt/vol: 1000.(g/ml)ML Lab File ID: 3HC135.D

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec.__ dec.__ Date Extracted:04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/17/90

GPC Cleanup: (Y/N)N pH:0.0 Dilution Factor: 1.0

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/L

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

158045

BWLK

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: 4186 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 04186-06A

Sample wt/vol: 1000. (g/ml) ML Lab File ID: >HD198::D3

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ dec. __ Date Extracted: 04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/90

GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	2	U
111-44-4	bis (2-Chloroethyl) ether	2	U
95-57-8	2-Chlorophenol	2	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
100-51-6	Benzyl alcohol	2	U
95-50-1	1,2-Dichlorobenzene	2	U
95-48-7	2-Methylphenol	2	U
108-60-1	bis (2-Chloroisopropyl) ether	2	U
106-44-5	4-Methylphenol	2	U
621-64-7	N-Nitroso-di-n-propylamine	2	U
67-72-1	Hexachloroethane	4	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	2	U
88-75-5	2-Nitrophenol	4	U
105-67-9	2,4-Dimethylphenol	2	U
65-85-0	Benzoic acid	50	U
111-91-1	bis (2-Chloroethoxy) methane	2	U
120-83-2	2,4-Dichlorophenol	4	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	4	U
106-47-8	4-Chloroaniline	2	U
87-68-3	Hexachlorobutadiene	2	U
59-50-7	4-Chloro-3-methylphenol	4	U
91-57-6	2-Methylnaphthalene	2	U
77-47-4	Hexachlorocyclopentadiene	4	U
88-06-2	2,4,6-Trichlorophenol	4	U
95-95-4	2,4,5-Trichlorophenol	4	U
91-58-7	2-Chloronaphthalene	2	U
88-74-4	2-Nitroaniline	4	U
131-11-3	Dimethylphthalate	2	U
208-96-8	Acenaphthylene	2	U
606-20-2	2,6-Dinitrotoluene	4	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

158045
KYLE

Lab Name: Laucks Testing Labs Contract:_____

Lab Code: LAUCKS Case No.:4186 SAS No.: _____ SDG No.: _____

Matrix: (soil/water)WATER Lab Sample ID: 04186-06A

Sample wt/vol: 1000.(g/ml)ML Lab File ID: >HD190::D3

Level: (low/med) LOW Date Received: 04/13/90

% Moisture: not dec.__ dec.__ Date Extracted:04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/90

GPC Cleanup: (Y/N)N pH:0.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	2	U
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	2	U
121-14-2	2,4-Dinitrotoluene	4	U
84-66-2	Diethylphthalate	2	U
7005-72-3	4-Chlorophenyl-phenylether	2	U
86-73-7	Fluorene	2	U
100-01-6	4-Nitroaniline	4	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine	2	U
101-55-3	4-Bromophenyl-phenylether	4	U
118-74-1	Hexachlorobenzene	4	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	2	U
206-44-0	Fluoranthene	2	U
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	2	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo(b)fluoranthene	4	U
207-08-9	Benzo(k)fluoranthene	4	U
50-32-8	Benzo(a)pyrene	4	U
193-39-5	Indeno(1,2,3-cd)pyrene	4	U
53-70-3	Dibenzo(a,h)anthracene	4	U
191-24-2	Benzo(g,h,i)perylene	4	U

(1) - Cannot be separated from diphenylamine

1F

SAMPLE NO.

138045
KYLE

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Laucke Testing Labs Contract: _____

Lab Code: LAUCKS Case No.:4186 SAS No.: _____ SDG No.:_____

Matrix: (soil/water)WATER Lab Sample ID: 04186-06A

Sample wt/vol: 1000.(g/ml)ML Lab File ID: HD198::D5

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec.__ dec.__ Date Extracted:04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/90

GPC Cleanup: (Y/N)N pH:0.0 Dilution Factor: 1.0

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/L

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE C

SBLKH1

Lab Name: Laucks Testing Labs Contract:_____

Lab Code: LAUCKS Case No.:4186 SAS No.: _____ SDG No.: _____

Matrix: (soil/water)WATER Lab Sample ID: B0[illegible]

Sample wt/vol: 1000.(g/ml)ML Lab File ID: [illegible]

Level: (low/med) LOW Date Received: 04/12/9[illegible]

% Moisture: not dec.__ dec.__ Date Extracted:04/13/9[illegible]

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/9[illegible]

GPC Cleanup: (Y/N)N pH:6.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
108-95-2	Phenol	2	U
111-44-4	bis (2-Chloroethyl)ether	2	U
95-57-8	2-Chlorophenol	2	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	2	U
100-51-6	Benzyl alcohol	2	U
95-50-1	1,2-Dichlorobenzene	2	U
95-48-7	2-Methylphenol	2	U
108-60-1	bis (2-Chloroisopropyl)ether	2	U
106-44-5	4-Methylphenol	2	U
621-64-7	N-Nitroso-di-n-propylamine	2	U
67-72-1	Hexachloroethane	4	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	2	U
88-75-5	2-Nitrophenol	4	U
105-67-9	2,4-Dimethylphenol	2	U
65-85-0	Benzoic acid	50	U
111-91-1	bis (2-Chloroethoxy)methane	2	U
120-83-2	2,4-Dichlorophenol	4	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	4	U
106-47-8	4-Chloroaniline	2	U
87-68-3	Hexachlorobutadiene	2	U
59-50-7	4-Chloro-3-methylphenol	4	U
91-57-6	2-Methylnaphthalene	2	U
77-47-4	Hexachlorocyclopentadiene	4	U
88-06-2	2,4,6-Trichlorophenol	4	U
95-95-4	2,4,5-Trichlorophenol	4	U
91-58-7	2-Chloronaphthalene	2	U
88-74-4	2-Nitroaniline	4	U
131-11-3	Dimethylphthalate	2	U
208-96-8	Acenaphthylene	2	U
606-20-2	2,6-Dinitrotoluene	4	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKH1

Lab Name: Laucks Testing Labs Contract:_____

Lab Code: LAUCKS Case No.:4186 SAS No.: _____ SDG No.: _____

Matrix: (soil/water)WATER Lab Sample ID: 8041INTPWLE

Sample wt/vol: 1000.(g/ml)ML Lab File ID: H3170: 30

Level: (low/med) LOW Date Received: 04/13/90

% Moisture: not dec.__ dec.__ Date Extracted:04/17/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/90

GPC Cleanup: (Y/N)N pH:0.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	2	U
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	2	U
121-14-2	2,4-Dinitrotoluene	4	U
84-66-2	Diethylphthalate	2	U
7005-72-3	4-Chlorophenyl-phenylether	2	U
86-73-7	Fluorene	2	U
100-01-6	4-Nitroaniline	4	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-Nitrosodiphenylamine	2	U
101-55-3	4-Bromophenyl-phenylether	4	U
118-74-1	Hexachlorobenzene	4	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	2	U
206-44-0	Fluoranthene	2	U
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	2	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo(b)fluoranthene	4	U
207-08-9	Benzo(k)fluoranthene	4	U
50-32-8	Benzo(a)pyrene	4	U
193-39-5	Indeno(1,2,3-cd)pyrene	4	U
53-70-3	Dibenzo(a,h)anthracene	4	U
191-24-2	Benzo(g,h,i)perylene	4	U

(1) - Cannot be separated from diphenylamine

1F

SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SBLKH1

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: 4186 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 8041SMPLBLK

Sample wt/vol: 1000. (g/ml) ML Lab File ID: H8190.D

Level: (low/med) LOW Date Received: 04/12/91

% Moisture: not dec.__ dec.__ Date Extracted: 04/15/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/91

GPC Cleanup: (Y/N) N pH: 8.0 Dilution Factor: 1.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
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9.					
10.					
11.					
12.					
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30.					

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

15804-MS

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: 4186 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 04186-05AMS

Sample wt/vol: 750.0 (g/ml) ML Lab File ID: C:\HP1\DATA\...

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ dec. __ Date Extracted: 04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/17/90

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	3	U
111-44-4	bis (2-Chloroethyl) ether	3	U
95-57-8	2-Chlorophenol	3	U
541-73-1	1,3-Dichlorobenzene	3	U
106-46-7	1,4-Dichlorobenzene	3	U
100-51-6	Benzyl alcohol	3	U
95-50-1	1,2-Dichlorobenzene	3	U
95-48-7	2-Methylphenol	3	U
108-60-1	bis (2-Chloroisopropyl) ether	3	U
106-44-5	4-Methylphenol	3	U
621-64-7	N-Nitroso-di-n-propylamine	3	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	3	U
78-59-1	Isophorone	3	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	3	U
65-85-0	Benzoic acid	67	U
111-91-1	bis (2-Chloroethoxy) methane	3	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	3	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	3	U
87-68-3	Hexachlorobutadiene	3	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	3	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	5	U
91-58-7	2-Chloronaphthalene	3	U
88-74-4	2-Nitroaniline	5	U
131-11-3	Dimethylphthalate	3	U
208-96-8	Acenaphthylene	3	U
606-20-2	2,6-Dinitrotoluene	5	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

158044MS

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.:4186 SAS No.: _____ SDG No.: _____

Matrix: (soil/water)WATER Lab Sample ID: 04186-05AMS

Sample wt/vol: 750.0(g/ml)ML Lab File ID: SHE176:DD

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec.__ dec.__ Date Extracted:04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/17/90

GPC Cleanup: (Y/N)N pH:8.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	C
99-09-2	3-Nitroaniline	13	U
83-32-9	Acenaphthene	3	U
51-28-5	2,4-Dinitrophenol	27	U
100-02-7	4-Nitrophenol	27	U
132-64-9	Dibenzofuran	3	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-73-7	Fluorene	3	U
100-01-6	4-Nitroaniline	5	U
534-52-1	4,6-Dinitro-2-methylphenol	27	U
86-30-6	N-Nitrosodiphenylamine	3	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	27	U
85-01-8	Phenanthrene	3	U
120-12-7	Anthracene	3	U
84-74-2	Di-n-butylphthalate	3	U
206-44-0	Fluoranthene	3	U
129-00-0	Pyrene	3	U
85-68-7	Butylbenzylphthalate	3	U
91-94-1	3,3'-Dichlorobenzidine	27	U
56-55-3	Benzo(a)anthracene	3	U
218-01-9	Chrysene	3	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	J
117-84-0	Di-n-octylphthalate	3	U
205-99-2	Benzo(b)fluoranthene	5	U
207-08-9	Benzo(k)fluoranthene	5	U
50-32-8	Benzo(a)pyrene	5	U
193-39-5	Indeno(1,2,3-cd)pyrene	5	U
53-70-3	Dibenzo(a,h)anthracene	5	U
191-24-2	Benzo(g,h,i)perylene	5	U

(1) - Cannot be separated from diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

158044MSD

Lab Name: Laucks Testing Labs Contract:_____

Lab Code: LAUCKS Case No.:4186 SAS No.: _____ SDG No.: _____

Matrix: (soil/water)WATER Lab Sample ID: 04186-05AMSD

Sample wt/vol: 750.0(g/ml)ML Lab File ID: MHD197::D3

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec.__ dec.__ Date Extracted:04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/90

GPC Cleanup: (Y/N)N pH:0.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	C
108-95-2	Phenol	3	U
111-44-4	bis (2-Chloroethyl)ether	3	U
95-57-8	2-Chlorophenol	3	U
541-73-1	1,3-Dichlorobenzene	3	U
106-46-7	1,4-Dichlorobenzene	3	U
100-51-6	Benzyl alcohol	3	U
95-50-1	1,2-Dichlorobenzene	3	U
95-48-7	2-Methylphenol	3	U
108-60-1	bis (2-Chloroisopropyl)ether	3	U
106-44-5	4-Methylphenol	3	U
621-64-7	N-Nitroso-di-n-propylamine	3	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	3	U
78-59-1	Isophorone	3	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	3	U
65-85-0	Benzoic acid	67	U
111-91-1	bis (2-Chloroethoxy)methane	3	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	3	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	3	U
87-68-3	Hexachlorobutadiene	3	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	3	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	5	U
91-58-7	2-Chloronaphthalene	3	U
88-74-4	2-Nitroaniline	5	U
131-11-3	Dimethylphthalate	3	U
208-96-8	Acenaphthylene	3	U
606-20-2	2,6-Dinitrotoluene	5	U

1C

SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

158044MSD

Lab Name: Laucks Testing Labs Contract: _____

Lab Code: LAUCKS Case No.: 4136 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 04136-05AMSD

Sample wt/vol: 750.0 (g/ml) ML Lab File ID: >HD197::D3

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. __ dec. __ Date Extracted: 04/13/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 04/19/90

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	C
99-09-2	3-Nitroaniline	13	U
83-32-9	Acenaphthene	3	U
51-28-5	2,4-Dinitrophenol	27	U
100-02-7	4-Nitrophenol	27	U
132-64-9	Dibenzofuran	3	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-73-7	Fluorene	3	U
100-01-6	4-Nitroaniline	5	U
534-52-1	4,6-Dinitro-2-methylphenol	27	U
86-30-6	N-Nitrosodiphenylamine	3	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	27	U
85-01-8	Phenanthrene	3	U
120-12-7	Anthracene	3	U
84-74-2	Di-n-butylphthalate	3	U
206-44-0	Fluoranthene	3	U
129-00-0	Pyrene	3	U
85-68-7	Butylbenzylphthalate	3	U
91-94-1	3,3'-Dichlorobenzidine	27	U
56-55-3	Benzo(a)anthracene	3	U
218-01-9	Chrysene	3	U
117-81-7	bis(2-Ethylhexyl)phthalate	3	U
117-84-0	Di-n-octylphthalate	3	U
205-99-2	Benzo(b)fluoranthene	5	U
207-08-9	Benzo(k)fluoranthene	5	U
50-32-8	Benzo(a)pyrene	5	U
193-39-5	Indeno(1,2,3-cd)pyrene	5	U
53-70-3	Dibenzo(a,h)anthracene	5	U
191-24-2	Benzo(g,h,i)perylene	5	U

(1) - Cannot be separated from diphenylamine

2E

WATER PESTICIDE SURROGATE RECOVERY

Lab Name: Laucks Testing Labs Contract: N/A

Lab Code: LAUCKS Lab No.: 4186 SAS No.: N/A SDG No.: N/A

	EPA ~~LL~~ SAMPLE NO.	S1 (DBC) #	OTHER @
01	PBLKD2	81	75
02	4186-1A	85	82
03	4186-2A	86	86
04	4186-3A	84	84
05	4186-6A	88	86
06	4186-6AMS	85	87
07	4186-6AMSD	83	81
08	4186-4A	93	91
09	4186-5A	89	84
10			
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27			
28			
29			
30			

ADVISORY QC LIMITS

S1 (DBC) = Dibutylchlorendate (24-154)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

@ Isodrin (Secondary Surrogate)

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Name: LAUCKS TESTING LABS Contract: N/A

Lab Code: LAUCKS Lab No.: 4186 SAS No.: N/A SDG No.: N/A

Matrix Spike - ~~EPA~~ LTL Sample No.: 4186-6A

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	0.200	0.000	0.153	77	56-123
Heptachlor	0.200	0.000	0.147	74	40-131
Aldrin	0.200	0.000	0.164	82	40-120
Dieldrin	0.500	0.000	0.529	106	52-126
Endrin	0.500	0.000	0.474	95	56-121
4,4' DDT	0.500	0.000	0.489	98	38-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	0.200	0.152	76	1	15	56-123
Heptachlor	0.200	0.142	71	3	20	40-131
Aldrin	0.200	0.158	79	4	22	40-120
Dieldrin	0.500	0.524	105	1	18	52-126
Endrin	0.500	0.460	92	3	21	56-121
4,4' DDT	0.500	0.563	113	14	27	38-127

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

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Comments: _____

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: LAUCKS TESTING LABS Contract: N/A

Lab Code: LAUCKS Lab No.: 4186 SAS No.: N/A SDG No.: N/A

Lab Sample ID: B0413GPXWLW Lab File ID:

Matrix: (soil/water) WATER Level: (low/med) LOW

Date Extracted: 04/13/90 Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed (1): 04/23/90 Date Analyzed (2): 04/23/90

Time Analyzed (1): 20:25 Time Analyzed (2): 20:25

Instrument ID (1): A Instrument ID (2): A

GC Column ID (1): DB1701 GC Column ID (2): DB-17

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	~~EPA~~ LTL SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	4186-1A	4186-1A	04/24/90	04/24/90
02	4186-2A	4186-2A	04/24/90	04/24/90
03	4186-3A	4186-3A	04/24/90	04/24/90
04	4186-6A	4186-6A	04/24/90	04/24/90
05	4186-6AMS	4186-6AMS	04/24/90	04/24/90
06	4186-6AMSD	4186-6AMSD	04/24/90	04/24/90
07	4186-4A	4186-4A	04/24/90	04/24/90
08	4186-5A	4186-5A	04/24/90	04/24/90
09				
10				
11				
12				
13				
14				
15				
16				
17				
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24				
25				
26				

COMMENTS: _____

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

4186-1A TRANSPORT

Lab Name: Laucks Testing Labs Contract:N/A

Lab Code: LAUCKS Lab No.:4186 SAS No.:N/A SDG No.:N/A

Matrix: (soil/water)WATER Lab Sample ID: 4186-1A

Sample wt/vol: 100.0 (g/mL)ML Lab File ID: F042320F.PRN

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. Date Extracted: 04/13/90

Extraction: (sepF/Cont/Sonc) SEPF Date Analyzed: 04/24/90

GPC Cleanup: (Y/N)N pH:6.6 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

~~EPA~~ SAMPLE NO.

4186-2A
Boone

Lab Name: Laucks Testing Labs Contract:N/A

Lab Code: LAUCKS Lab No.:4186 SAS No.:N/A SDG No.:N/A

Matrix: (soil/water)WATER Lab Sample ID: 4186-2A

Sample wt/vol: 100.0 (g/mL)ML Lab File ID: F042327F.PRN

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. Date Extracted: 04/13/90

Extraction: (sepF/Cont/Sonc) SEPF Date Analyzed: 04/24/90

GPC Cleanup: (Y/N)N pH:7.6 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

LTL ~~EPA~~ SAMPLE NO.

4186-3A

Lab Name: Laucks Testing Labs Contract: N/A

Lab Code: LAUCKS Lab No.: 4186 SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) WATER Lab Sample ID: 4186-3A

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: F042328F.PRN

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. Date Extracted: 04/13/90

Extraction: (sepF/Cont/Sonc) SEPF Date Analyzed: 04/24/90

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

4186-4A BEDOFF

Lab Name: Laucks Testing Labs Contract: N/A

Lab Code: LAUCKS Lab No.: 4186 SAS No.: N/A SDG No.: N/A

Matrix: (soil/water) WATER Lab Sample ID: 4186-4A

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: F042334F.PRN

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. Date Extracted: 04/13/90

Extraction: (sepF/Cont/Sonc) SEPF Date Analyzed: 04/24/90

GPC Cleanup: (Y/N) N pH: 7.7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

4186-5A SMITH

Lab Name: Laucks Testing Labs Contract:N/A

Lab Code: LAUCKS Lab No.:4186 SAS No.:N/A SDG No.:N/A

Matrix: (soil/water)WATER Lab Sample ID: 4186-5A

Sample wt/vol: 100.0 (g/mL)ML Lab File ID: F042335F.PRN

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. Date Extracted: 04/13/90

Extraction: (sepF/Cont/Sonc) SEPF Date Analyzed: 04/24/90

GPC Cleanup: (Y/N)N pH:7.5 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

LTL SM
EPA SAMPLE NO.

4186-6A
KYLE

Lab Name: Laucks Testing Labs Contract:N/A

Lab Code: LAUCKS Lab No.:4186 SAS No.:N/A SDG No.:N/A

Matrix: (soil/water)WATER Lab Sample ID: 4186-6A

Sample wt/vol: 100.0 (g/mL)ML Lab File ID: F042329F.PRN

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. Date Extracted: 04/13/90

Extraction: (sepF/Cont/Sonc) SEPF Date Analyzed: 04/24/90

GPC Cleanup: (Y/N)N pH:7.6 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

~~EPA~~ SAMPLE NO.

PBLKD2

Lab Name: Laucks Testing Labs Contract:N/A

Lab Code: LAUCKS Lab No.:4186 SAS No.:N/A SDG No.:N/A

Matrix: (soil/water)WATER Lab Sample ID: B0413GPXWLW

Sample wt/vol: 100.0 (g/mL)ML Lab File ID: F042314F.PRN

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. Date Extracted: 04/13/90

Extraction: (sepF/Cont/Sonc) SEPF Date Analyzed: 04/23/90

GPC Cleanup: (Y/N)N pH:7.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

LTL SA

~~EPA~~ SAMPLE NO.

4186-6AMS

Lab Name: Laucks Testing Labs Contract:N/A

Lab Code: LAUCKS Lab No.:4186 SAS No.:N/A SDG No.:N/A

Matrix: (soil/water)WATER Lab Sample ID: 4186-6AMS

Sample wt/vol: 100.0 (g/mL)ML Lab File ID: F042330F.PRN

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. Date Extracted: 04/13/90

Extraction: (sepF/Cont/Sonc) SEPF Date Analyzed: 04/24/90

GPC Cleanup: (Y/N)N pH:7.6 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

LTL ~~EPA~~ SAMPLE NO.

4186-6AMSD

Lab Name: Laucks Testing Labs Contract:N/A

Lab Code: LAUCKS Lab No.:4186 SAS No.:N/A SDG No.:N/A

Matrix: (soil/water)WATER Lab Sample ID: 4186-6AMSD

Sample wt/vol: 100.0 (g/mL)ML Lab File ID: F042331F.PRN

Level: (low/med) LOW Date Received: 04/12/90

% Moisture: not dec. Date Extracted: 04/13/90

Extraction: (sepF/Cont/Sonc) SEPF Date Analyzed: 04/24/90

GPC Cleanup: (Y/N)N pH:7.6 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

*** Lab Analysis Report ***

Transaction #: 04271121 Seq #: 01 (10) Gen Inorg/Phys-Specified
(WE) Ecology, Manchester Lab

Project: (DOE-008L) TOFTDAHL DRUM SITE D3P01 LZC
Item: (720 S) Cyanide Total mg/l

QA Code: ( ) Normal Data
Instrument: (TECH-2) Technicon (AAII) General
Method: (EP1-335.3) **Cyanide**, (Total), Colorimetric, Automated
Chemist: (CGT) Tupas, Cyma DOE Hours Worked:
Lab Prep: ( ) Unspecifed
Matrix: (10) Water-Total Date Preprd:
Units: (10) mg/l Date Anlyzd: 900425

Line	Sample #	Result	Sample Location/Description	#Days to Anl
1	90 158041	0.002U	BOONE	900411 (14)
2	90 158042	0.002U	HOMALA	900411 (14)
3	90 158043	0.002U	BDOFF	900411 (14)
4	90 158044	0.002U	SMITH	900411 (14)
5	90 158045	**0.012**	**KYLE**	900411 (14)

Record Type: TRNIN2 Date Verified: 4-30-90 By: D. Thomson
Transaction Status: Edited Transaction...First Printing...Unverified.
Processed: 27-APR-90 11:27:11 Status: E Batch: (In CUR DB)

Project: DOE-008L TOFTDAHL DRUM SITE

Officer: LZC Account: D3P01

Laboratory: Ecology, Manchester

Sample No: 90 158040 Description: **TRANSPOR**

Source: Drinking Water (At tap)

Begin Date: 90/04/11 :

All but contract

Metals - PP		Water-Total Result	Units
Arsenic	As-Total	1.5U	ug/l
Cadmium	Cd-Total	0.10U	ug/l
Lead	Pb-Total	1.0U	ug/l
Thallium	Tl-Total	2.5U	ug/l
Antimony	Sb-Total	1.0U	ug/l
Selenium	Se-Total	1.0U	ug/l
Mercury	Hg-Total	0.02U	ug/l

Metals - PP Matrix Spike #1		Water-Total Result	Units
Mercury	Hg-Total	109	% Recov

Metals - PP Matrix Spike #2		Water-Total Result	Units
Mercury	Hg-Total	115	% Recov

Metals - ICP Scan		Water-Total Result	Units
Berylium	Be-Total	1.0U	ug/l
Chromium	Cr-Total	4.0U	ug/l
Copper	Cu-Total	2.0U	ug/l
Nickel	Ni-Total	20U	ug/l
Silver	Ag-Total	2.0U	ug/l
Zinc	Zn-Total	5.0U	ug/l

Contract Lab Program		Water-Total Result	Units
B/N/Acid	GC/MS	REQ	CLP
VOA	GC/MS	REQ	CLP
P/PCBs	GC	REQ	CLP

(Sample Complete)

Project: DOE-008L TOFTDAHL DRUM SITE Officer: LZC Account: D3P01

Laboratory: Ecology, Manchester

Sample No: 90 158041 Description: **BOONE** Source: Drinking Water (At tap)

Begin Date: 90/04/11 :

Gen Inorg/Phys-Speci		Water-Total Result	Units
Cyanide	Total	0.002U	mg/l

Metals - PP		Water-Total Result	Units
Arsenic	As-Total	1.5U	ug/l
Cadmium	Cd-Total	**0.13BJ***	ug/l
Lead	Pb-Total	**1.0JB***	ug/l
Thallium	Tl-Total	2.5U	ug/l
Antimony	Sb-Total	1.0U	ug/l
Selenium	Se-Total	1.0U	ug/l
Mercury	Hg-Total	**0.048J***	ug/l

Metals - ICP Scan		Water-Total Result	Units
Berylium	Be-Total	1.0U	ug/l
Chromium	Cr-Total	4.0U	ug/l
Copper	Cu-Total	**77.6 ***	ug/l
Nickel	Ni-Total	20U	ug/l
Silver	Ag-Total	2.0U	ug/l
Zinc	Zn-Total	**160 ***	ug/l

Contract Lab Program		Water-Total Result	Units
B/N/Acid	GC/MS	REQ	CLP
VOA	GC/MS	REQ	CLP
P/PCBs	GC	REQ	CLP

(Sample Complete)

Project: DOE-008L TOFTDAHL DRUM SITE Officer: LZC Account: D3P01

Laboratory: Ecology, Manchester

Sample No: 90 **158042** Description: **HOMALA** Source: Drinking Water (At tap)

Begin Date: 90/04/11 :

Gen Inorg/Phys-Speci		Water-Total Result	Units
Cyanide	Total	0.002U	mg/l

Metals - PP		Water-Total Result	Units
Arsenic	As-Total	1.5U	ug/l
Cadmium	Cd-Total	**0.22BJ***	ug/l
Lead	Pb-Total	**1.5JB***	ug/l
Thallium	Tl-Total	2.5U	ug/l
Antimony	Sb-Total	1.0U	ug/l
Selenium	Se-Total	1.0U	ug/l
Mercury	Hg-Total	**0.037J***	ug/l

Metals - ICP Scan		Water-Total Result	Units
Berylium	Be-Total	1.0U	ug/l
Chromium	Cr-Total	4.0U	ug/l
Copper	Cu-Total	**3.3J***	ug/l
Nickel	Ni-Total	20U	ug/l
Silver	Ag-Total	3.0U	ug/l
Zinc	Zn-Total	**80.3 ***	ug/l

Contract Lab Program		Water-Total Result	Units
B/N/Acid	GC/MS	REQ	CLP
VOA	GC/MS	REQ	CLP
P/PCBs	GC	REQ	CLP

(Sample Complete)

Project: DOE-008L TOFTDAHL DRUM SITE Officer: LZC Account: D3P01

Laboratory: Ecology, Manchester

Sample No: 90 158043 Description: BDOFF Source: Drinking Water (At tap)

Begin Date: 90/04/11 :

Gen Inorg/Phys-Speci		Water-Total Result	Units
Cyanide	Total	0.002U	mg/l

Metals - PP		Water-Total Result	Units
Arsenic	As-Total	1.5U	ug/l
Cadmium	Cd-Total	0.10U	ug/l
Lead	Pb-Total	1.0U	ug/l
Thallium	Tl-Total	2.5U	ug/l
Antimony	Sb-Total	1.0U	ug/l
Selenium	Se-Total	1.0U	ug/l
Mercury	Hg-Total	0.079J*	ug/l

Metals - PP Matrix Spike #1		Water-Total Result	Units
Arsenic	As-Total	97	% Recov
Cadmium	Cd-Total	101	% Recov
Lead	Pb-Total	102	% Recov
Thallium	Tl-Total	105	% Recov
Antimony	Sb-Total	116	% Recov
Selenium	Se-Total	103	% Recov

Metals - PP Matrix Spike #2		Water-Total Result	Units
Arsenic	As-Total	103	% Recov
Cadmium	Cd-Total	105	% Recov
Lead	Pb-Total	108	% Recov
Thallium	Tl-Total	102	% Recov
Antimony	Sb-Total	120	% Recov
Selenium	Se-Total	100	% Recov

Metals - ICP Scan		Water-Total Result	Units
Berylium	Be-Total	1.0U	ug/l
Chromium	Cr-Total	4.0U	ug/l
Copper	Cu-Total	37.6 *	ug/l
Nickel	Ni-Total	20U	ug/l
Silver	Ag-Total	2.0U	ug/l

Metals - ICP Scan *** Continued ***		Water-Total Result	Units
Zinc	Zn-Total	5.0U	ug/l

Metals - ICP Scan Matrix Spike #1		Water-Total Result	Units
Berylium	Be-Total	119	% Recov
Chromium	Cr-Total	105	% Recov
Copper	Cu-Total	106	% Recov
Nickel	Ni-Total	120	% Recov
Silver	Ag-Total	96	% Recov
Zinc	Zn-Total	81	% Recov

Metals - ICP Scan Matrix Spike #2		Water-Total Result	Units
Berylium	Be-Total	118	% Recov
Chromium	Cr-Total	104	% Recov
Copper	Cu-Total	107	% Recov
Nickel	Ni-Total	109	% Recov
Silver	Ag-Total	99	% Recov
Zinc	Zn-Total	89	% Recov

Contract Lab Program		Water-Total Result	Units
B/N/Acid	GC/MS	REQ	CLP
VOA	GC/MS	REQ	CLP
P/PCBs	GC	REQ	CLP

(Sample Complete)

Project: DOE-008L TOFTDAHL DRUM SITE Officer: LZC Account: D3P01

Laboratory: Ecology, Manchester

Sample No: 90 158044 Description: SMITH Source: Drinking Water (At tap)

Begin Date: 90/04/11 :

Gen Inorg/Phys-Speci		Water-Total Result	Units
Cyanide	Total	0.002U	mg/l

Metals - PP		Water-Total Result	Units
Arsenic	As-Total	1.5U	ug/l
Cadmium	Cd-Total	0.10U	ug/l
Lead	Pb-Total	1.0U	ug/l
Thallium	Tl-Total	2.5U	ug/l
Antimony	Sb-Total	1.0U	ug/l
Selenium	Se-Total	1.0U	ug/l
Mercury	Hg-Total	0.02U	ug/l

Metals - ICP Scan		Water-Total Result	Units
Berylium	Be-Total	1.0U	ug/l
Chromium	Cr-Total	4.0U	ug/l
Copper	Cu-Total	**46.1 ***	ug/l
Nickel	Ni-Total	20U	ug/l
Silver	Ag-Total	2.0U	ug/l
Zinc	Zn-Total	**22JB***	ug/l

Contract Lab Program		Water-Total Result	Units
B/N/Acid	GC/MS	REQ	CLP
VOA	GC/MS	REQ	CLP
P/PCBs	GC	REQ	CLP

(Sample Complete)

Washington State Departme of Ecology
Sample/Project Analysis esults

Officer: LZC Account: D3P01

Project: DOE-008L TOFTDAHL DRUM SITE

Laboratory: Ecology, Manchester

Source: Drinking Water (At tap)

Sample No: 90 158045 Description: KYLE

Begin Date: 90/04/11 :

Gen Inorg/Phys-Speci		Water-Total Result	Units
Cyanide	Total	0.012 *	mg/l

Metals - PP		Water-Total Result	Units
Arsenic	As-Total	1.5U	ug/l
Cadmium	Cd-Total	0.10U	ug/l
Lead	Pb-Total	1.0U	ug/l
Thallium	Tl-Total	2.5U	ug/l
Antimony	Sb-Total	1.0U	ug/l
Selenium	Se-Total	1.0U	ug/l
Mercury	Hg-Total	0.035J*	ug/l

Metals - ICP Scan		Water-Total Result	Units
Berylium	Be-Total	1.0U	ug/l
Chromium	Cr-Total	4.0U	ug/l
Copper	Cu-Total	46.1 *	ug/l
Nickel	Ni-Total	20U	ug/l
Silver	Ag-Total	2.0U	ug/l
Zinc	Zn-Total	31B*	ug/l

Contract Lab Program		Water-Total Result	Units
B/N/Acid	GC/MS	REQ	CLP
VOA	GC/MS	REQ	CLP
P/PCBs	GC	REQ	CLP

(Sample Complete)

Project: DOE-008L TOFTDAHL DRUM SITE Officer: LZC Account: D3P01

Blank ID: PB 16.82

Metals - PP Blank #1		Water-Total Result	Units
Arsenic	As-Total	1.5U	ug/l
Cadmium	Cd-Total	**0.14J***	ug/l
Lead	Pb-Total	**1.5J***	ug/l
Thallium	Tl-Total	2.5U	ug/l
Antimony	Sb-Total	1.0U	ug/l
Selenium	Se-Total	1.0U	ug/l

Metals - ICP Scan Blank #1		Water-Total Result	Units
Berylium	Be-Total	1.0U	ug/l
Chromium	Cr-Total	**5.0JB***	ug/l
Copper	Cu-Total	2.0U	ug/l
Nickel	Ni-Total	20U	ug/l
Silver	Ag-Total	2.0U	ug/l
Zinc	Zn-Total	5.0U	ug/l

(Sample Complete)

Project: DOE-008L TOFTDAHL DRUM SITE Officer: LZC Account: D3P01

Blank ID: PB 16.83

Metals - PP Blank #2		Water-Total Result	Units
Arsenic	As-Total	1.5U	ug/l
Cadmium	Cd-Total	0.10U	ug/l
Lead	Pb-Total	1.2J*	ug/l
Thallium	Tl-Total	2.5U	ug/l
Antimony	Sb-Total	1.0U	ug/l
Selenium	Se-Total	1.0U	ug/l

Metals - ICP Scan Blank #2		Water-Total Result	Units
Berylium	Be-Total	1.0U	ug/l
Chromium	Cr-Total	4.0U	ug/l
Copper	Cu-Total	2.0U	ug/l
Nickel	Ni-Total	20U	ug/l
Silver	Ag-Total	2.0U	ug/l
Zinc	Zn-Total	5.6JB*	ug/l

(Sample Complete)