



**Aspen Research Corporation**

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Tel: 612/ 631-9234 Fax: 612/ 631-9270

RECEIVED

JUL 07 1994

CAPSULE

July 5, 1994

FILE

Mr. Bill Block  
Capsule Environmental Engineering, Inc.  
1970 Oakcrest Avenue, Suite 215  
St. Paul, MN 55113

ID#: \_\_\_\_\_  
SERVICE: \_\_\_\_\_  
BG, CF, CO, MT, PL

Reference: ARC Project #: 13356  
Capsule Project Title: Clayton Environmental  
Sampling Date: June 21, 1994  
Sample Receipt Date: June 22, 1994

CORRESPONDENCE: \_\_\_\_\_

Dear Mr. Block:

We have completed the requested analysis on the above referenced project. Enclosed you will find a summary of the results obtained.

The analysis for the following parameters was performed according to Test Methods for the Evaluation of Solid Wastes, SW-846, 3rd Edition:

<u>Parameter</u>	<u>Test Method</u>
Volatiles	EPA Method 8260 modified
TPH as Gas	EPA Method 8015 modified

Aspen Research received two 40 ml vials for analysis. In the future, Aspen would like to receive at least three 40 ml vials for EPA 8260 and three 40 ml vials for TPH as Gas analysis. In order for Aspen to follow its quality control plan, we need to be provided with sufficient sample to test for matrix spike and matrix spike duplicates.

Thank you for using Aspen Research Corporation. As always, if you have questions, comments, or if we can be of further assistance, please do not hesitate to call.

Regards,

ASPEN RESEARCH CORPORATION

*Jerry D. Olson*

Jerry D. Olson



Analysis for Volatile Organic Compounds by Modified Method 8260, SW-846 Third Edition

Capsule Environmental Engineering, Project ID: Clayton Environmental, PHS 56418.00

Sampling Date: June 21, 1994

Aspen Research Corporation Project ID: 13356

Analyte	Sample ID: ARC ID:	EQL Water ug/L	Meth Bl. 00000 ug/L	MJ-1 52340 ug/L	MJ-2 52342 ug/L	MJ-3 52344 ug/L	MJ-4 52346 ug/L	OB-1 52348 ug/L
Dichlorodifluoromethane		5.0	ND	ND	ND	ND	ND	ND
Chloromethane		5.0	ND	ND	ND	ND	ND	ND
Vinyl chloride		5.0	ND	ND	ND	ND	BEQL	ND
Bromomethane		5.0	ND	ND	ND	ND	ND	ND
Chloroethane		5.0	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane		5.0	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene		5.0	ND	ND	ND	ND	ND	ND
Methylene chloride		5.0	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene		5.0	ND	ND	ND	ND	16	12
1,1-Dichloroethane		5.0	ND	ND	ND	ND	ND	BEQL
2,2-Dichloropropane		5.0	ND	ND	ND	ND	BEQL	ND
cis-1,2-Dichloroethene		5.0	ND	ND	ND	BEQL	BEQL	6.7
Chloroform		5.0	ND	ND	ND	ND	ND	ND
Bromochloromethane		5.0	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane		5.0	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene		5.0	ND	ND	ND	ND	ND	ND
Carbon tetrachloride		5.0	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane		5.0	ND	ND	ND	ND	11	ND
Benzene		5.0	ND	ND	ND	27	370 *	83
Trichloroethene		5.0	ND	18	BEQL	ND	15	31
1,2-Dichloropropane		5.0	ND	ND	ND	ND	ND	ND
Bromodichloromethane		5.0	ND	ND	ND	ND	ND	ND
Dibromomethane		5.0	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene		5.0	ND	ND	ND	ND	ND	ND
Toluene		5.0	ND	ND	ND	BEQL	19	BEQL
trans-1,3-Dichloropropene		5.0	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane		5.0	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane		5.0	ND	ND	ND	ND	ND	ND
Tetrachloroethene		5.0	ND	BEQL	BEQL	ND	ND	ND
Chlorodibromomethane		5.0	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane		5.0	ND	ND	ND	ND	ND	ND
Chlorobenzene		5.0	ND	ND	ND	17	BEQL	ND
1,1,1,2-Tetrachloroethane		5.0	ND	ND	ND	ND	ND	ND
Ethylbenzene		5.0	ND	ND	ND	120 *	230 *	18
m,p-Xylene		5.0	ND	ND	ND	100 *	270 *	6.6
o-Xylene		5.0	ND	ND	ND	31	44	BEQL
Styrene		5.0	ND	ND	ND	ND	ND	ND
Bromoform		5.0	ND	ND	ND	ND	ND	ND
Isopropylbenzene		5.0	ND	ND	ND	13	43	28
1,1,2,2-Tetrachloroethane		5.0	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane		5.0	ND	ND	ND	ND	ND	ND
n-Propylbenzene		5.0	ND	ND	ND	33	54	5.4
Bromobenzene		5.0	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene		5.0	ND	ND	ND	63	110 *	ND
2-Chlorotoluene		5.0	ND	ND	ND	ND	ND	ND
4-Chlorotoluene		5.0	ND	ND	ND	ND	ND	ND

Capsule Environmental Engineering, Project ID: Clayton Environmental, PH# 56418.00  
 Sampling Date: June 21, 1994  
 Aspen Research Corporation Project ID: 13356

Analyte	Sample ID:	EQL	Meth Bl.	MW-1	MW-2	MW-3	MW-4	OB-1
	ARC ID:	Water ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
tert-Butylbenzene		5.0	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene		5.0	ND	ND	ND	78	210 *	BEQL
sec-Butylbenzene		5.0	ND	ND	ND	BEQL	BEQL	BEQL
4-Isopropyltoluene		5.0	ND	ND	ND	BEQL	BEQL	ND
1,3-Dichlorobenzene		5.0	ND	ND	ND	6.6	ND	ND
1,4-Dichlorobenzene		5.0	ND	ND	ND	13	ND	ND
n-Butylbenzene		5.0	ND	ND	ND	ND	19	BEQL
1,2-Dichlorobenzene		5.0	ND	ND	ND	42	BEQL	BEQL
1,2-Dibromo-3-chloropropane		5.0	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene		5.0	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene		5.0	ND	ND	ND	ND	ND	ND
Naphthalene		5.0	ND	ND	ND	18	46	BEQL
1,2,3-Trichlorobenzene		5.0	ND	ND	ND	ND	ND	ND

File Names:	>80177	>80172	>80173	>80174	>80175	>80176
Analysis Dates:	940629	940629	940629	940629	940629	940629

Keys

EQL: Estimated Quantitation Limit.

Analyst: Philip L. Sworn

Date: 6-20-94

ND: Not Detected at a concentration greater than 20% of the stated EQL.

BEQL: Detected at a concentration less than the EQL but greater than ND.

\* Values exceed linear range. Dilutions of samples not possible because only one vial provided for assay.

*Jerry D. Olson* 7-5-94

Analysis of TPH as Gasoline  
By Modified EPA Method 8015

Client Project ID: PN# 56418.00  
ARC Project ID: 13356  
Date sampled: 6/21/94  
Date analyzed: 6/29/94

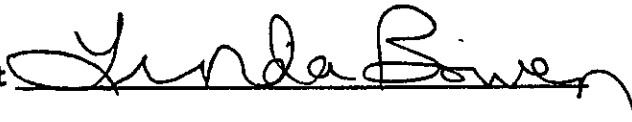
Sample ID:	ARC#	TPH (mg/L)	File Spec. F0000-	PQL (mg/L)
Laboratory Blank		BPQL	26.29	0.05
MW-1	52339	BPQL	26.31	0.05
MW-2	52341	BPQL	26.30	0.05
MW-3	52343	2.7	26.33	0.5*
MW-4	52345	8.0	26.34	0.5*
OB-1	52347	2.8	26.32	0.05

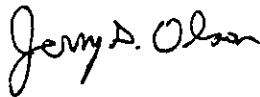
Spike recovery 106%  
Spike dup recovery 110%

PQL = Practical Quantitation Limit  
BPQL = Not detected at a level above the practical quantitation limit

\* These samples were diluted 1:10 and the PQL was raised accordingly.

Analyst





Reviewed by

\_\_\_\_\_

## REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only		Page _____ of _____
Project No.		
Batch No.		
Ind. Code	W.P.	
Date Logged In	By	

REPORT RESULTS TO	Name <i>MR. JERRY OLSON</i>	Title
	Company <i>ASPEN RESEARCH CORP.</i>	Dept.
	Mailing Address <i>436 WEST COUNTY ROAD</i>	
	City, State, Zip <i>ST. PAUL, MINNESOTA 55112-3522</i>	
	Telephone No. <i>(612) 631-9234</i>	Telefax No.

Purchase Order No. <i>47969</i>	Client Job No. <i>56418.00</i>
SEND INVOICE TO	
Name <i>JOHN VARGAS</i>	Dept. <i>EMS</i>
Company <i>CLAYTON ENVIRONMENTAL</i>	
Address <i>P.O. Box 9019</i>	
City, State, Zip <i>PLEASANTON, CA 94566</i>	

Date Results Req.: <i>NORMAL TAT</i>	Rush Charges Authorized? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Phone / Fax Results <input type="checkbox"/> <input type="checkbox"/>	Samples are: (check if applicable) <input type="checkbox"/> Drinking Water <input type="checkbox"/> Collected in the State of New York
Special Instructions: (method, limit of detection, etc.) <i>REF: MR. EVERETT MILTON</i>			ANALYSIS REQUESTED (Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added. *)
Explanation of Preservative: <i>P = HCL</i>			

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/MEDIA	AIR VOLUME (specify units)	Number of Containers	FOR LAB USE ONLY															
<i>MW-1</i>	<i>6-21-94</i>	<i>H<sub>2</sub>O</i>	<i>40 MLS</i>	<i>2</i>	<i>XP</i>	<i>XP</i>														
<i>MW-2</i>				<i>2</i>	<i>XP</i>	<i>XP</i>														
<i>MW-3</i>				<i>2</i>	<i>XP</i>	<i>XP</i>														
<i>MW-4</i>				<i>2</i>	<i>XP</i>	<i>XP</i>														
<i>OB-1</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>2</i>	<i>XP</i>	<i>XP</i>														

CHAIN OF CUSTODY	Collected by: <i>RICHARD SILVA</i> (print)	Collector's Signature: <i>Richard Silva</i>
	Relinquished by: <i>Richard Silva</i>	Date/Time: <i>6-22-94/0820</i>
	Relinquished by:	Date/Time:
	Method of Shipment: <i>UPS-RED</i>	
Authorized by: _____	Date: _____	
(Client Signature <u>Must</u> Accompany Request)		

Received by:	Date/Time:
Received at Lab by: <i>Beth Bronschweig</i>	Date/Time: <i>6/23/94 9:00</i>
Sample Condition Upon Receipt: <input type="checkbox"/> Acceptable <input type="checkbox"/> Other (explain)	
<i>8°C</i>	