



Hygienic Laboratory

The University of Iowa

Date of report: 05-17-2002

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IDNR CONTAMINATED SITES
WALLACE STATE OFFICE BLDG
900 EAST GRAND AVENUE
DES MOINES IA 50319-0034

Sample Number	200203122
Date Received	05-09-2002
Project	
Date Collected	05-08-2002 10:45
Collection Site	mw-5
Collection Town	
Description	water
Reference	BREMER OIL-TRIPOLI
Collector	SULLIVAN PIPER
Phone	(515) 242-5084
Purchase Order	

Comments	No collection time on paperwork; per label 10:45. Upon receipt at the UHL sample meets standard acceptance criteria.
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Results of Analyses

Volatile Petroleum Hydrocarbons by GC/MS

Analyte	Concentration ug/L	Quantitation Limit
Methyl-t-butyl ether (MtBE)	< 15	15
Benzene	100	2
Toluene	< 2	2
Ethylbenzene	< 2	2
Total Xylenes	< 5	5

Comments	Please note that the pH of this sample was less than or equal to 2.
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Date Analyzed: 05-13-2002

Analyst: LL

Method: OA-1

Verified: TC

Description of units used within this report

ug/L - Micrograms per Liter

Quant Limit - Lowest concentration reliably measured

Iowa Laboratory Certification No. 027. AIHA, NELAP, NVLAP, USEPA, and other credentials available upon request.

If you have any questions please call Sherri Marine at 800/421-IOWA (4692) or 319/335-4500. Thank you.



Hygienic Laboratory

The University of Iowa

CHAIN-OF-CUSTODY

Contact Name Piper Sullivan		Phone (515) 242-5084		Analysis Requested										Purchase Order #							
Company IDNR		Fax (515) 281-8891												Project Name and/or Number Bremer Oil-Tripoli							
Address 502 E. 9th														Collector's Phone # (515) 242-5084							
City Des Moines		State IA		Zip 50319												Print Collector's Name Piper Sullivan					
Sample ID/Description		Date		Time		Sample Matrix W S Other												Collector's Signature <i>P. Sullivan</i>			
1. Bremer Oil WW-3		5-8-02		1030		X		X										200203121			
2. WW-5		5-8-02		1045		X		X										200203122			
3.																					
4.																					
5.																					
6.																					
7.																					
8.																					
9.																					
10.																					
Relinquished by		Date		Time		Comments															

Received at Laboratory by <i>Marcia Davis</i>		Date 5/9/02		Time 0930		Sample Receipt Comments 2 se x's 40ml vials 26°C															
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1020 Oakdale Campus, #H101 OH
Iowa City, Iowa 52242-5002
319/335-4500 Fax: 319-335-4555
http://www.uhl.uiowa.edu

H.A. Wallace Building
900 E. Grand Ave., Des Moines, Iowa 50319-0034
515/281-5371 Fax: 515/243-1349

Yellow - UHL copy
Blue - Client copy

Data File : J:\7201\DATA\5133V05.D
 Acq On : 13 May 2002 9:13 am
 Sample : 200203121 IDNR
 Misc : MW-3 SML + 2UL SSIS V1450A
 MS Integration Params: RTEINT.P
 Quant Time: May 13 9:47 2002

Position: 4
 Operator: LL
 Inst : 7201
 Multiplr: 1.00

Quant Results File: OA1.RES

Quant Method : J:\7201\METHODS\OA1.M (RTE Integrator)
 Title : GC TPH Method
 Last Update : Mon Apr 01 07:23:50 2002
 Response via : Continuing Cal File: J:\7201\DATA\5133S02.D
 DataAcq Meth : OA1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	13.07	128	118519	50.00	ug/L	0.00
5) 1,4-Difluorobenzene	14.62	TIC	1624735	50.00	ug/L	-0.05
7) Chlorbenzene-d5	22.49	117	513219	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,2-Dichloroethane-d4	14.00	65	159435	50.99	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery =	101.98%		
8) Toluene-d8	18.49	98	689649	50.01	ug/L	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	100.02%		
14) Bromofluorobenzene	24.74	95	327916	51.25	ug/L	0.00
Spiked Amount 50.000	Range 67 - 125		Recovery =	102.50%		
Target Compounds						
3) Methyl-t-butyl ether	10.61	73	164684	22.39	ug/L #	58
4) Benzene	14.35	78	2969481	192.87	ug/L	86
9) Toluene	18.72	91	51855	3.19	ug/L #	88
11) m,p-Xylene	22.75	106	34485	5.24	ug/L #	70
13) Xylene(total)	22.75	106	36635m	5.55	ug/L	

(#) = qualifier out of range (m) = manual integration

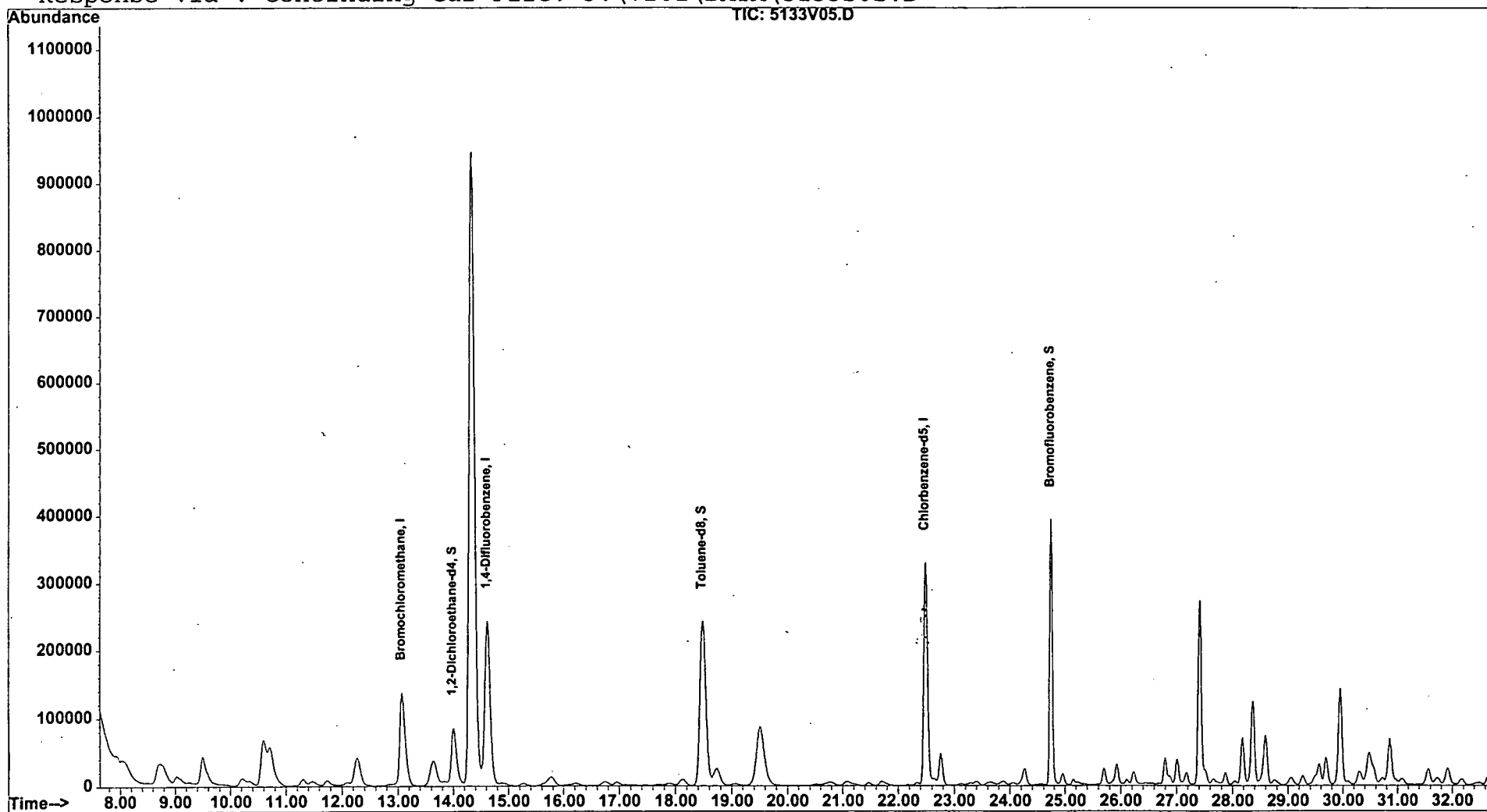
Quantitation Report

Data File : J:\7201\DATA\5133V05.D
Acq On : 13 May 2002 9:13 am
Sample : 200203121 IDNR
Misc : MW-3 5ML + 2UL SSIS V1450A
MS Integration Params: RTEINT.P
Quant Time: May 13 9:47 2002

Position: 4
Operator: LL
Inst : 7201
Multiplr: 1.00

Quant Results File: OA1.RES

Method : J:\7201\METHODS\OA1.M (RTE Integrator)
Title : GC TPH Method
Last Update : Mon Apr 01 07:23:50 2002
Response via : Continuing Cal File: J:\7201\DATA\5133S02.D



Quantitation Report (Q.R.)

Data File : J:\7201\DATA\5133V06.D
 Acq On : 13 May 2002 9:51 am
 Sample : 200203122 IDNR
 Misc : MW-5 5ML + 2UL SSIS V1450A
 MS Integration Params: RTEINT.P
 Quant Time: May 13 10:25 2002

Position: 5
 Operator: LL
 Inst : 7201
 Multiplr: 1.00

Quant Results File: OA1.RES

Quant Method : J:\7201\METHODS\OA1.M (RTE Integrator)
 Title : GC TPH Method
 Last Update : Mon Apr 01 07:23:50 2002
 Response via : Continuing Cal File: J:\7201\DATA\5133S02.D
 DataAcq Meth : OA1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	13.08	128	119276	50.00	ug/L	0.01
5) 1,4-Difluorobenzene	14.62	TIC	1522890	50.00	ug/L	-0.05
7) Chlorobenzene-d5	22.49	117	516983	50.00	ug/L	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
2) 1,2-Dichloroethane-d4		14.01	65	159378	50.65	ug/L	0.02
Spiked Amount	50.000	Range	76 - 122	Recovery	=	101.30%	
8) Toluene-d8		18.49	98	684233	49.26	ug/L	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	=	98.52%	
14) Bromofluorobenzene		24.74	95	322867	50.09	ug/L	0.00
Spiked Amount	50.000	Range	67 - 125	Recovery	=	100.18%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Methyl-t-butyl ether	10.61	73	39862	5.39	ug/L	# 92
4) Benzene	14.35	78	1593246	102.83	ug/L	87
9) Toluene	18.71	91	9170m	0.56	ug/L	
10) Ethylbenzene	22.62	106	8239	1.57	ug/L	# 92
11) m,p-Xylene	22.77	106	5219	0.79	ug/L	# 79
13) Xylene(total)	22.77	106	5219	0.79	ug/L	92

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\7201\DATA\5133V06.D

Acq On : 13 May 2002 9:51 am

Sample : 200203122 IDNR

Misc : MW-5 5ML + 2UL SSIS V1450A

MS Integration Params: RTEINT.P

Quant Time: May 13 10:25 2002

Position: 5

Operator: LL

Inst : 7201

Multiplr: 1.00

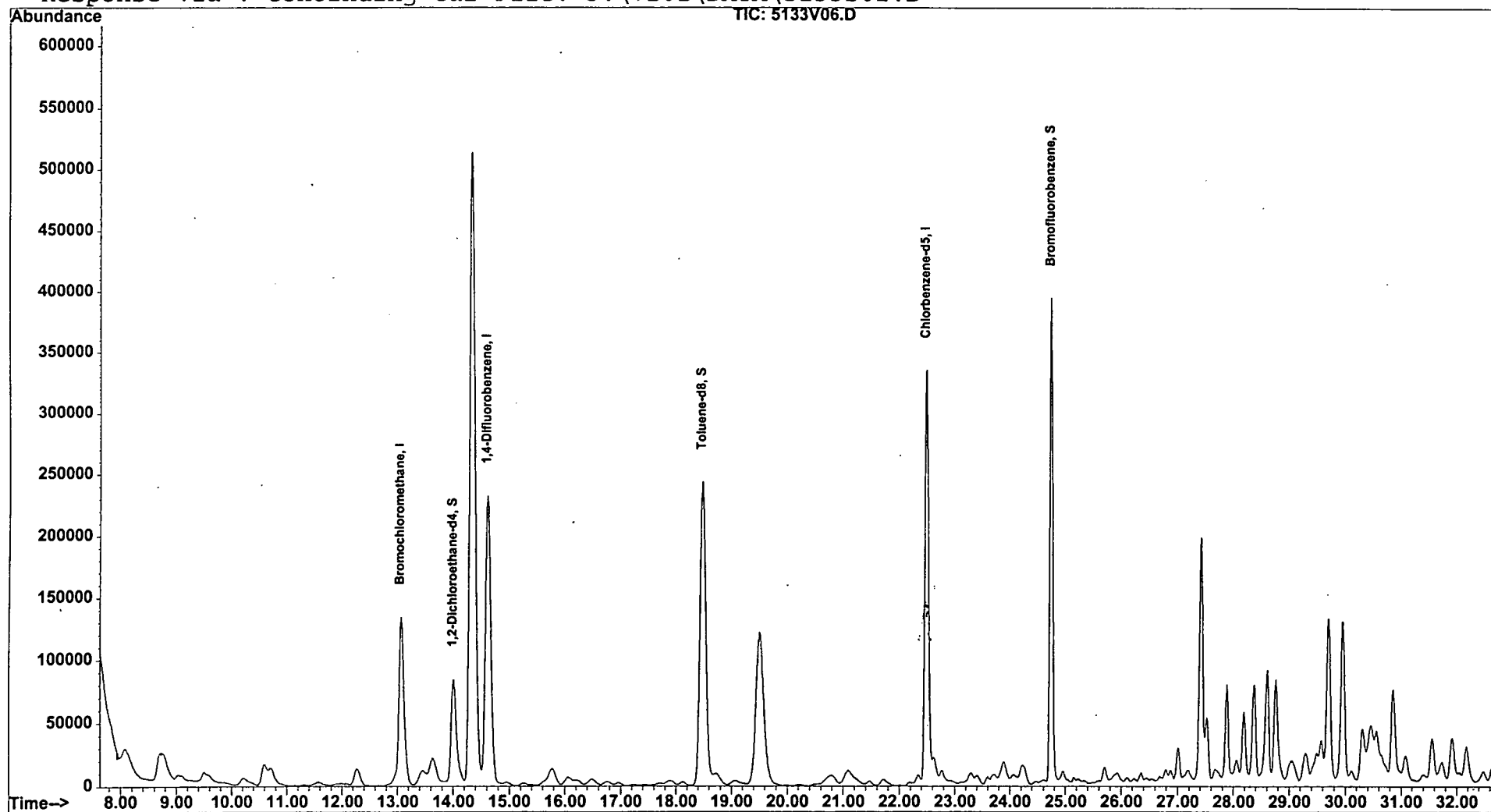
Quant Results File: OA1.RES

Method : J:\7201\METHODS\OA1.M (RTE Integrator)

Title : GC TPH Method

Last Update : Mon Apr 01 07:23:50 2002

Response via : Continuing Cal File: J:\7201\DATA\5133S02.D



Data File : J:\7201\DATA\5133S02.D

Vial: 1

Acq On : 13 May 2002 7:16 am

Operator: LL

Sample : VSTD050 CONT CAL OA-1

Inst : 7201

Misc : 5ML OF 50ML + 10UL V1450C + 2UL SSIS V14 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: May 13 7:54 2002

Quant Results File: OA1.RES

Quant Method : J:\7201\METHODS\OA1.M (RTE Integrator)

Title : GC TPH Method

Last Update : Mon Apr 01 07:23:50 2002

Response via : Continuing Cal File: J:\7201\DATA\5095S03.D

DataAcq Meth : OA1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	13.07	128	123485	50.00	ug/L	-0.04
5) 1,4-Difluorobenzene	0.00	TIC	0m	50.00	ug/L	-14.67
7) Chlorobenzene-d5	22.49	117	542199	50.00	ug/L	-0.03

System Monitoring Compounds

2) 1,2-Dichloroethane-d4	13.99	65	162890	49.91	ug/L	-0.05
Spiked Amount	50.000	Range	76 - 122	Recovery	=	99.82%
8) Toluene-d8	18.48	98	728444	49.88	ug/L	-0.04
Spiked Amount	50.000	Range	86 - 113	Recovery	=	99.76%
14) Bromofluorobenzene	24.74	95	338011	50.92	ug/L	-0.02
Spiked Amount	50.000	Range	67 - 125	Recovery	=	101.84%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) Methyl-t-butyl ether	10.59	73	383179	53.37	ug/L	99
4) Benzene	14.34	78	802075	49.35	ug/L	87
9) Toluene	18.72	91	857655	49.15	ug/L	93
10) Ethylbenzene	22.62	106	275253	47.62	ug/L #	89
11) m,p-Xylene	22.76	106	694660	95.99	ug/L #	68
12) o-Xylene	23.65	106	336523	47.73	ug/L #	83
13) Xylene(total)	22.76	106	1045569m	143.99	ug/L	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Q.R.)

Data File : J:\7201\DATA\5133S02.D

Vial: 1

Acq On : 13 May 2002 7:16 am

Operator: LL

Sample : VSTD050 CONT CAL OA-1

Inst : 7201

Misc : 5ML OF 50ML + 10UL V1450C + 2UL SSIS V14 Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: May 13 7:54 2002

Quant Results File: OA1.RES

Method : J:\7201\METHODS\OA1.M (RTE Integrator)

Title : GC TPH Method

Last Update : Mon Apr 01 07:23:50 2002

Response via : Continuing Cal File: J:\7201\DATA\5095S03.D

