EPA Region 5 Records Ctr.
255861

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PA/SI

INTEGRATED ASSESSMENT REPORT (PASI EQUIVALENT) FOR TOWN OF PINES GROUNDWATER PLUME

TOWN OF PINES, INDIANA
PORTER COUNTY
U.S. EPA ID: INN000508071
VOLUME 2 OF 2

APPENDIX D
Chemical Analysis

Regional Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Data
Received for Review on 10-5-00

FROM: Stephen L. Ostrodka, Chief (SMF-4J)
Superfund Field Services Section

for Stephen Ostrodka
Richard L Byrnes
10/26/00

TO: Data User: IDEM

We have reviewed the data for the following case:

SITE NAME: Town of Pines GW Plume (IN)

CASE NUMBER: 28538 SDG NUMBER: E0501

Number and Type of Samples: 10 (WATER)

Sample Numbers: E0501-2, E05L2-3, E05L5, E05L9, E05M0-1, E05M9, E05P3

Laboratory: MITKEM Hrs for Review: 4

Following are our findings:

the volatile and semivolatile data are useable and acceptable with the qualifications described in the attached narrative. the pesticide data may not be defensible, because the lab quantitated the pesticide samples with the mid-point standard from after the samples were analyzed.

Richard L Byrnes

CC: Cecilia Moore
Region 5 TPO
Mail Code: SM-5J

Laboratory: MITKEM Case: 28538
Site: Town of Pines Groundwater PLU SDG: E0501

Below is a summary of the out-of-control audits and possible effects on t data for this Case/SDG:

Ten (10) water samples, numbered E0501, E0502, E05L2, E05L3, E05L5, E05L E05M0, E05M1, E05M9, and E0593, were collected on September 20, and 21, 2000. T lab received the samples on September 22, 2000 in good condition. All sampl were analyzed for the full list of organic analytes except for E05P3, which w only analyzed for VOAs. All were analyzed according to CLP SOW OLC02.1.

The VOA analyses were performed within the technical holding times of 14 da after sample collection; therefore the results are acceptable. All pesticides a semivolatile sample extractions were performed within seven (7) days and a analyses were performed within forty (40) days after extraction; therefore t results are acceptable

Reviewed by: T. Sedlacek Lockheed/ESAT
Date: October 25, 2000

Laboratory: MITKEM Case: 28538
Site: Town of Pines Groundwater PLU SDG: E0501

1. HOLDING TIME

Ten (10) water samples, numbered E0501, E0502, E05L2, E05L3, E05L5, E05L9, E05M0, E05M1, E05M9, and E0593, were collected on September 20, and 21, 2000. The lab received the samples on September 22, 2000 in good condition. All samples were analyzed for the full list of organic analytes except for E05P3, which was only analyzed for VOAs. All were analyzed according to CLP SOW OLC02.1.

The VOA analyses were performed within the technical holding times of 14 days after sample collection; therefore the results are acceptable. All pesticides and semivolatile sample extractions were performed within seven (7) days and all analyses were performed within forty (40) days after extraction; therefore the results are acceptable.

2. GC/MS TUNING AND GC INSTRUMENT PERFORMANCE

All GC/MS tuning complied with mass list and ion abundance criteria for BFB, and all samples were analyzed within the twelve (12) hour periods for instrument performance checks.

All GC/MS tuning complied with mass list and ion abundance criteria for TPP, and all samples were analyzed within the twelve (12) hour periods for instrument performance checks.

GC resolution Check Mixtures met the 60% resolution criteria. Endrin and DDT degradation checks using the PEM Mix on DB-1701 and DB-608 columns were <20% and the combined total <30%; Therefore the results are acceptable.
The Florisil Cartridge Check check met the QC criteria; therefore the results are acceptable.

3. CALIBRATION

Initial and continuing calibrations of the Volatile, Semivolatile and Pest/PCB standards were evaluated for target compound list and outliers are recorded on the forms included as part of this narrative.

4. BLANKS

VBLK1D and VBLK1E are the low level water matrix volatile method blanks. the blank result. VBLK1D and VBLK1E contained no target compounds or TICs. The Volatile method blank summary (FORM IV VOA) lists the samples associated with each blank.

SBLK1A and SBLK1X are the low level water matrix semivolatile method blanks. SBLK1A and SBLK1X contained no target compounds or TICs. The semivolatile method blank summary (FORM IV SVOA) lists the samples associated with each blank.

Reviewed by: T. Sedlacek Lockheed/ESAT
Date: October 25, 2000

PBLK02 is the low level pesticide water method blank. PBLK02 contained ... contaminants. The pesticide method blank summary (FORM IV PEST) lists the samples associated with each blank. There are 4 Pesticide instrument blanks, none of which contained any target compounds. No samples are associated with the instrument blanks.

5. SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

The volatile system monitoring compounds were within QC required limits for recovery and retention time; therefore the results are acceptable.

The semivolatile surrogate compounds were within QC required limits for recovery and retention time; therefore the results are acceptable.

The pesticide surrogate compounds were within QC required limits for recovery and retention time; the results are acceptable.

6. LABORATORY CONTROL SAMPLE

All spike recoveries in sample VLCS1D were within QC limits; therefore the results for the sample are acceptable.

All spike recoveries in sample SLCS1X were within QC limits; therefore the results for the samples are acceptable.

All spike recoveries in sample PLCS02 were within QC limits; therefore the results for the samples are acceptable.

7. FIELD BLANK AND FIELD DUPLICATE

There was no designated field blank or field duplicate submitted with this data set. Results are not qualified based upon the results of the field blank or field duplicates.

8. INTERNAL STANDARDS

The internal standards retention times and area counts for the VOA fraction were all within the required QC limits: therefore the results are acceptable.

The internal standards retention times and area counts for the SVOA fraction were all within the required QC limits: therefore the results are acceptable.

9. COMPOUND IDENTIFICATION

Target compounds (TCLs) and Tentatively Identified Compounds (TICs) were identified using a "best fit" library search method.

Reviewed by: T. Sedlacek Lockheed/ESAT
Date: October 19, 2000

Laboratory: MITKEM Case: 28538
Site: Town of Pines Groundwater PLU SDG: E0501

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All samples were waters. All VOAs, SVOAs and Pesticides target CRQLs were properly reported. All target compound quantitation was properly reported.

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance. The GC baseline for pesticide analysis was acceptable.

12. ADDITIONAL INFORMATION

In the pesticide/PCB fraction many of the chromatograms had apparent low level hits for the Aroclors, but were not reported or is there any indication as to why the lab did not report these compounds.

The analysis of the Pesticide fraction is not in compliance with the SOW OLC02.1. Paragraph 11.2.3 states: " The Contractor must quantitate each single component analyte and surrogate based on the calibration factor from the most recent initial calibration midpoint standard mixture analysis. Do not use the analysis of the Individual Standard Mixtures used to demonstrate calibration verification for quantitation of samples." The lab updated the calibration method used for all Pesticide samples in this data case with the mid point standard run after all sample analysis. Although this might not change any of the reported results, it does affect the defensibly of the pesticide fraction data.

Reviewed by: T. Sedlacek Lockheed/ESAT
Date: October 19, 2000

LOW CONCENTRATION WATER VOLATILE TCL COMPOUNDS

(page 1 of 1)

CASE\SAS#: 24358
COLUMN:
HEATED PURGE(Y/N): N

LABORATORY: MITKEM
SITENAME: Town of Pike's Bluff

Instrument#	V1		Initial cal.			Contin. cal			Contin. Cal			Contin. Cal.			Contin. Cal.	
Date/Time:			9/24/98 1536			9/29/98 1035			9/30/98 1117							
	RF		rf	%rsd		rf	%d		rf	%d		rf	%d		rf	%d
Chloromethane	0.01															
Bromomethane	0.10															
Vinyl chloride	0.10															
Chloroethane	0.01															
Methylene chloride	0.01		0.187			0.249	33.2	J/UT	0.249	33.2	J/UT					
Acetone	0.01															
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
cis-1,2-Dichloroethene	0.10															
trans-1,2-Dichloroethene	0.10															
Chloroform	0.20															
1,2-Dichloroethane	0.10															
2-Butanone	0.01															
Bromochloromethane	0.05															
1,1,1-Trichloroethane	0.10															
Carbon tetrachloride	0.10		0.603			0.793	36.5	J/UT								
Bromodichloromethane	0.20															
1,2-Dichloropropane	0.01															
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.40															
trans-1,3-Dichloropropene	0.10															
Bromoform	0.05															
4-Methyl-2-Pentanone	0.01															
2-Hexanone	0.01															
Tetrachloroethene	0.10															
1,1,2,2-Tetrachloroethane	0.10															
1,2-Dibromoethane	0.10															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
1,2-Dibromo-3-chloropropane	0.10															
1,3-Dichlorobenzene	0.40															
1,4-Dichlorobenzene	0.40															
1,2-Dichlorobenzene	0.40															
1,2,4-Trichlorobenzene	0.40															
4-Bromofluorobenzene	0.20															

Samples affected:					
		VBLKID	VBLKIE	VBLKIF	
		EOSL9	EOSP3		
		EOSM1	VHBLKIE		
		EOSL2			
		EOSM9			
		EOSM0			
		EOSL5			
		EOSO1			
		VLESIJ			
		EOSL3			
		EOSOL			

Reviewer's Init./Date: DBS 10/19/00

J/R= All positive results are estimated "J" and non-detected results are unusable "R"

* = These flags should be applied to the analytes on the sample data sheets

= = Minimum Relative Response Factor

CALIBRATION OUTLIER
LOW CONCENTRATION WATER SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS#: 24534
COLUMN:

LABORATORY: MITKEM
SITE NAME: Townos Pines GW Plume

Instrument# S1		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		9/27/00 1131			9/27/00 1547			9/28/00 0425			9/28/00 1039			10/03/00 1729		
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(2-chloroethyl) Ether	0.70															
2-Chlorophenol	0.70															
2-Methylphenol	0.70															
2,2'-Oxybis(1-chl-propane)	0.01															
4-Methylphenol	0.60															
N-nitroso-di-n-propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2-Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis-(2-chloroethoxyl)methane	0.30															
2,4-Dichlorophenol	0.20															
1,2,4-Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01															
4-Chloro-3-methylphenol	0.20															
2-Methylnaphthalene	0.40															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5-Trichlorophenol	0.20															
2-Chloronaphthalene	0.80															
2-Nitroaniline	0.01															
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3-Nitroaniline	0.01															
Acenaphthene	0.30															
2,4-Dinitrophenol	0.01	0.144	26.0	J/ut												
4-Nitrophenol	0.01															
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															

Affected samples:

SBLH1X	E05L5	E05L2	SALK1A
SLCS1X	E05M0	E05L4	E05O2
		E05M1	
		E05M9	
		E05O1	
		E05L3	

Reviewer's Init/Date: DMS 10/19/00

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

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CALIBRATION OUTLIER
LOW CONCENTRATION WATER SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS#: 26536
COLUMN: _____

LABORATORY: MITKEM
SITE NAME: Town of Pilings GW Area

Instrument# 31		Initial Cal.			Contin Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		9/27/00 1131			9/28/00 1547			9/29/00 0459			9/29/00 1634			10/03/00 1729		
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0.01															
4-Chlorophenyl-phenylether	0.40															
Fluorene	0.90															
4-Nitroaniline	0.01															
4,6-Dinitro-2-methylphenol	0.01															
N-nitrosodiphenylamine	0.01															
4-Bromophenyl-phenylether	0.10															
Hexachlorobenzene	0.10															
Pentachlorophenol	0.05	0.169	21.0	P/ast												
Phenanthrene	0.70															
Anthracene	0.70															
Di-n-butylphthalate	0.01															
Fluoranthene	0.60															
Pyrene	0.60															
Butylbenzylphthalate	0.01															
3,3'-Dichlorobenzidine	0.01	0.273												0.157	-36.5	P/ast
Benzo(a)anthracene	0.80															
Chrysene	0.70															
bis(2-Ethylhexyl)phthalate	0.01															
Di-n-octyl phthalate	0.01	0.336	23.6	P/ast												
Benzo(b)fluoranthene	0.70															
Benzo(k)fluoranthene	0.70															
Benzo(a)pyrene	0.70															
Indeno(1,2,3-cd)pyrene	0.50															
Dibenz(a,h)anthracene	0.40															
Benzo(g,h,i)perylene	0.50															
Nitrobenzene-d5	0.01															
2-Fluorobiphenyl	0.70															
Terphenyl-d14	0.50															
Phenol-d5	0.80															
2-Fluorophenol	0.60															
2,4,6-Tribromophenol	0.01															

Reviewer's Init/Date: _____

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

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CALIBRATION OUTLIER
PESTICIDE/PCB TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 245346
COLUMN: DB608

LABORATORY: MITKEM
SITE NAME: Town of Pines 64 Acre

Instrument# FC4		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		9/22/04 1621			9/24/04 1044											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
alpha-BHC	0.01															
beta-BHC	0.40															
delta-BHC	0.90															
gamma-BHC	0.01															
Heptachlor	0.01															
Aldrin	0.01															
Heptachlor epoxide	0.10															
Endosulfan I	0.10															
Dieldrin	0.05															
4, 4'-DDE	0.70															
Endrin	0.70															
Endosulfan II	0.01															
4, 4'-DDD	0.60															
Endosulfan sulfate	0.60															
4, 4'-DDT	0.01															
Methoxychlor	0.01															
Endrin ketone	0.80															
Endrin aldehyde	0.70															
alpha chlordane	0.01															
gamma chlordane	0.01															
Aroclor 1016																
Aroclor 1221																
Aroclor 1232																
Aroclor 1242																
Aroclor 1248																
Aroclor 1254																
Aroclor 1260																

Affected samples:

PBLK02				
PLCS02				
FC04L9				
FC05M1				
FC05L2				
FC05M9				
FC05M0				
FC05L3				
FC05L5				
FC05D1				
FC05D2				

Reviewer's Init/Date: DAS 10/14/04

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CALIBRATION OUTLIER
PESTICIDE/PCB TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 28534
COLUMN: DB 1701

LABORATORY: MITKEL
SITE NAME: Townsend Pines Bu Plume

Instrument# E4		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		9/27/10 1527			9/29/10 1045											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
alpha-BHC	0.01															
beta-BHC	0.40															
delta-BHC	0.90															
gamma-BHC	0.01															
Heptachlor	0.01															
Aldrin	0.01															
Heptachlor epoxide	0.10															
Endosulfan I	0.10															
Dieldrin	0.05															
4, 4'-DDE	0.70															
Endrin	0.70															
Endosulfan II	0.01															
4, 4'-DDD	0.60															
Endosulfan sulfate	0.60															
4, 4'-DDT	0.01															
Methoxychlor	0.01															
Endrin ketone	0.80															
Endrin aldehyde	0.70															
alpha chlordane	0.01															
gamma chlordane	0.01															
Arochlor 1016																
Arochlor 1221																
Arochlor 1232																
Arochlor 1242																
Arochlor 1248																
Arochlor 1254																
Arochlor 1260																

Affected samples:

	PALK02			
	PRES02			
	E05L9			
	E05M1			
	E05L5			
	E05M9			
	E05M0			
	E05L3			
	E05L5			
	E05D1			
	E05D2			

Reviewer's Init/Date: DB 10/19/10

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V
ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Sample Delivery Group: ED501 CERCLIS No: _____

Case No: 28538 Site Name/Location: Town of Pines GW Plume

Contractor or EPA Lab: MITKem Data User: IDEM

No. of Samples: 10 Date Sampled or Date Received: 10-5-00

Have Chain-of-Custody records been received? Yes ✓ No ____
Have traffic reports or packing lists been received? Yes ✓ No ____
If no, are traffic report or packing list numbers written on the Chain-of-Custody Record?
Yes ____ No ____
If no, which traffic report or packing list numbers are missing?

_____ _____ _____ _____
_____ _____ _____ _____

Are basic data forms in? Yes ✓ No ____
No of samples claimed: 10 No. of samples received: 10

Received by: Eva M. Dixon/ESAT Date: 10-5-00

Received by LSSS: Eva M. Dixon/ESAT Date: 10-5-00

Review started: 10/19/00 Reviewer Signature: [signature]

Total time spent on review: 4 Date review completed: 10/19/00

Copied by: _____ Date: _____

Mailed to user by: _____ Date: _____

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ML-10C

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete	[ ] Suitable for Intended Purpose [ ] ✓ if OK
Organic Data Complete	[ ] Suitable for Intended Purpose [ ] ✓ if OK
Dioxin data Complete	[ ] Suitable for Intended Purpose [ ] ✓ if OK
SAS Data Complete	[ ] Suitable for Intended Purpose [ ] ✓ if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

_____
_____

Received by Data Mgmt. Coordinator for Files. Date: _____

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SDG No. E0501 ~~E05L2~~ am 10/3/00

Case No 28538

1. Matrix (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. PE-water 7. PE-soil 8. Other (specify in Column A)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Ice only 6. CH3OH 7. Other (specify in Column D) N. Not Preserved

3. Region No. 5 | Sampling Co. IDEM

Sampler (Name) M. JANOKSKI

Sampler Signature [signature]

4. Purpose** Lead: SF, PRP, ST, FED, BZ | Early Action: IA, PA, REM, RI, SI, ESI | Long-Term Action: RIFS, RD, RA, O&M

5. Date Shipped 9-21-00 | Carrier FED EX

Airbill Number 820588868390

6. Ship To: MITKEM CORPORATION
175 METRO CENTER BLVD
WARWICK, RI 02886
ATTN: HGNG NG

7. Date Received--Received by: 9/22/00 Nathan Reynolds

Laboratory Contract No. 68-D6-0063 | Unit Price $498.75

8. Transfer to: | Date Received

Received by:

Contract Number | Price

LL 22	CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other	B Conc.: Low Med	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	TA (circle one) PR* 7 14 21 BNA	TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
01	E05L9	2	L	G	1	X			5-021394	RW-11	9/20/00 3:50pm		RG	
02	E05M1	2	L	G	1	X			5-178777	RW-12	" 4:45pm		RG	
03	E05L2	2	L	G	1	X			5-178460	RW-15	" 5:40pm		GO	
~~04~~	E05M5	2	L	G	1	X			5-178461	RW-14	" 5:45pm		GO	
05	E05M0	2	L	G	1	X			5-178462	RW-13	9/20/00 5:50pm		GO	
06	E05L3	2	L	G	1	X			5-178469	RW-18	9/20/00 [illegible]		GO	
07	E05L5	2	L	G	1	X			5-178470	RW-19	9/20/00 7:00pm		GO	

Shipment for Case Complete? (Y/N) [signature] | Page 2 of 2

VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures: RG AD KA GO

Chain of Custody Seal Number(s): 20677 / 20678

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	9-24-00 3:35				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [signature]	Date / Time 9/22/00 0845	Remarks: is custody seal intact? Y/N/none 0°C	

Distribution: Blue - Region Copy; White - L[illegible]y for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Stand[illegible] Instructions
**See Reverse for Purpose Co[illegible]nitions

EI[illegible]orm 9110.2 (2/00)

2LCA

LOW CONC. WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

	EPA SAMPLE NO.	BFB %REC #	OTHER	TOT OUT
01	VBLK1D	112		0
02	E05L9	94		0
03	E05M1	92		0
04	E05L2	92		0
05	E05M9	96		0
06	E05M0	94		0
07	E05L5	95		0
08	E0501	93		0
09	VLCS1D	106		0
10	E05L3	113		0
11	E0502	103		0
12	VBLK1E	99		0
13	E05P3	90		0
14	VHBLK1E	94		0
15				
16				
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20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

QC LIMITS %REC

BFB = Bromofluorobenzene (80-120)

Column to be used to flag recovery values.
* Values outside of contract required QC limits.

Organic Traffic Report & Chain of Custody Record

EPA United States Environmental Protection Agency
Contract Laboratory Program

(For Organic CLP Analysis)

SDG No: E05Ø1 ~~E05L2~~ am 10/3/00

Case No: 24538

1. Matrix (Enter in Column A): 1. Surface Water; 2. Ground Water; 3. Leachate; 4. Field QC; 5. Soil/Sediment; 6. PE-water; 7. PE-soil; 8. Other (specify in Column A)

2. Preservative (Enter in Column D): 1. HCl; 2. HNO3; 3. NaHSO4; 4. H2SO4; 5. Ice only; 6. CH3OH; 7. Other (specify in Column D); N. Not Preserved

3. Region No.: 1 | Sampling Co.: IDEM

Sampler (Name): MARK STAWORSKI

Sampler Signature: Mark Staworski

4. Purpose**: Lead: SF, PRP, ST, FED, BZ; Early Action: IA, PA, REM, RI, SI, ESI; Long Term Action: RIFS, RD, RA, O&M

5. Date Shipped: 9-21-00 | Carrier: FED EX

Airbill Number: [illegible]

6. Ship To:
MITKEM CORPORATION
175 METRO CENTER BOULEVARD
WARWICK, RI 02886

ATTN: AGNES NG

7. Date Received--Received by: 9/22/00 Nathan Reynolds

Laboratory Contract No: 68-D6-0063 | Unit Price: 3498.75

8. Transfer to: | Date Received:

Received by:

Contract Number: | Price:

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other	B Conc.: Low Med	C Sample Type: Comp./ Grab	D Preser-vative (from Box 2) Other:	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	E RAS Analysis TA (circle one) PR* 7 14 21 BNA	E RAS Analysis TA (circle one) PR* 7 14 21 Pest/ PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
E05Ø1	2	L	G	1	X			5-178826	RW-28	9/21/00 2:11pm		MS	
E05Ø2	2	L	G	1	X			5-178827	RW-29	9/21/00 2:27pm		MS	
E05Ø3	2	L	G	1	X			5-178841	RW-30	9/20/00 1:00pm		MS	

LC 20 08 09 10 SDG-Final Sample

Shipment for Case Complete? (Y/N): Y | Page 1 of 1

VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures:

Chain of Custody Seal Number(s):

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Mark Staworski	9-21-00 4:30				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		Nathan Reynolds	9/22/00 0845		

Distribution: Blue - Region Copy; White - [illegible] for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions

**See Reverse for Purpose Co[illegible]

E [illegible] orm 9110-2 (2/99)

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SDG No: E0501 ~~E05L2~~ am 10/3/00

Case No.: 28538

1. Matrix: 1. Surface Water; 2. Ground Water; 3. Leachate; 4. Field QC; 5. Soil/Sediment; 6. PE water; 7. PE soil; 8. Other (specify in Column A)

2. Preservative: 1. HCl; 2. HNO3; 3. NaHSO4; 4. H2SO4; 5. Ice only; 6. CH3OH; 7. Other (specify in Column D); N. Not Preserved

3. Region No.: 5 | Sampling Co.: IDEM

Sampler (Name): M. JAWORSKY

Sampler Signature: [signature]

4. Purpose**: Lead: SF, PRP, ST, FED, BZ; Early Action: IA, PA, REM, RI, SI, ESI; Long-Term Action: RIFS, RD, RA, O&M

5. Date Shipped: 9-21-00 | Carrier: FED EX

Airbill Number: 820588868493

6. Ship To: MITKEM CORPORATION, 175 METRO CENTER BLVD., WARWICK, RI 02886

ATTN: AGNES NG

7. Date Received–Received by: 9/22/00 Nathan Reynolds

Laboratory Contract No.: 68-D6-0063 | Unit Price: $498.75

8. Transfer to: | Date Received:

Received by:

Contract Number: | Price:

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other:	E RAS Analysis: TA (circle one) PR* 7 14 21 VOA	TA (circle one) PR* 7 14 21 BNA	TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
E05L0	2	L	G	N			X	5-178793	RW-10	9/20/00 4:21pm		RG	
E05L0	2	L	G	N			X	5-178794	"	" "		"	
E05L0	2	L	G	N		X		5-178796	"	" "		"	
E05L0	2	L	G	N		X		5-178795	"	" "		"	
E05L9	2	L	G	N		X		5-178795	RW-11	9/20/00 3:58pm		RG	
E05L9	2	L	G	N		X		5-178652	RW-11	" "		"	
E05L9	2	L	G	N			X	5-021395	"	" "		"	
E05L9	2	L	G	N			X	5-021396	"	" "		"	

Original w/ SDG E05L0

Shipment for Case Complete? (Y/N): N | Page 1 of 1

VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures: RG, CC, AD

Chain of Custody Seal Number(s): 20601, 20602

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	9-21-00 3:35PM				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [signature]	Date / Time 9/22/00 8:45	Remarks: Is custody seal intact? Y/N/none SC	

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions
**See Reverse for Purpose Code Definitions

EPA Form 9110-2 (2/99)

CLASS-9-002

Organic Traffic Report & Chain of Custody Record

EPA — United States Environmental Protection Agency, Contract Laboratory Program

(For Organic CLP Analysis)

SDG No.: E05D1 ~~E05L2~~ am 10/3/00

Case No.: 28538

1. Matrix (Enter in Column A): 1. Surface Water; 2. Ground Water; 3. Leachate; 4. Field QC; 5. Soil/Sediment; 6. PE-water; 7. PE-soil; 8. Other (specify in Column A)

2. Preservative (Enter in Column D): 1. HCl; 2. HNO3; 3. NaHSO4; 4. H2SO4; 5. Ice only; 6. CH3OH; 7. Other (specify in Column D); N. Not Preserved

3. Region No.: 5 — Sampling Co.: IDEM

5. Date Shipped: 9-21-00 — Carrier: FED EX

7. Date Received--Received by: 9/22/00 Nathan Reynolds

Sampler (Name): M. Jaworski

Airbill Number: 8205 6886 6471

Laboratory Contract No.: 68-D6-0063 — Unit Price: $498.75

Sampler Signature: Mark Jaworski

6. Ship To: MITKEM CORPORATION, 175 METRO CENTER BLVD, WARWICK, RI 02886, ATTN: HGNES NG

8. Transfer to: — Date Received:

Received by:

Contract Number: — Price:

4. Purpose**: Lead: SF, PRP, ST, FED, BZ; Early Action: IA, PA, REM, RI, SI (X), ESI; Long Term Action: RIFS, RD, RA, O&M

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other	B Conc.: Low Med	C Sample Type: Comp./ Grab	D Preservative (from Box 2) Other	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	E RAS Analysis TA (circle one) PR* 7 14 21 BNA	E RAS Analysis TA (circle one) PR* 7 14 21 Pest/ PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
E05M1	2	L	G	N		X		5-178776	RW-12	9/21/00 1145		MG	
E05M1	2	L	G	N		X		5-178776	"	" "		MG	
E05M1	2	L	G	N			X	5-178773	"	" "		MG	
E05M1	2	L	G	N			X	5-178774	"	" "		MG	
E05M0	2	L	G	N			X	5-178663	RW-13	9/21/00 1550		MG	
E05M0	2	L	G	N			X	5-178662	"	" "		MG	
E05M0	2	L	G	N		Y		5-178771	"	" "		MG	
E05M0	2	L	G	N		Y		5-178772	"	" "		MG	

Shipment for Case Complete? (Y/N): Y — Page 1 of 1

VOA MS/MSD Required? Y/N Sample #:

BNA MS/MSD Required? Y/N Sample #:

Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures:

Chain of Custody Seal Number(s): 20644, 20615

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	9-21-00 5:35PM				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		[signature]	[illegible]	Y	

Distribution: Blue - Region Copy; White - [illegible]y for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions

**See Reverse for Purpose Co[illegible]initions

F[illegible] crm 9110.2 (2/90)

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SDG No: E0501 ~~E05L2~~ am 10/3/00
Case No: 28538

1. Matrix (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. PE-water 7. PE-soil 8. Other (specify in Column A)
2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Ice only 6. CH3OH 7. Other (specify in Column D) N. Not Preserved

3. Region No.: 5
Sampling Co.: IDEM
5. Date Shipped: 9-21-00
Carrier: FED EX
7. Date Received--Received by: 9/22/00 Nathan Reynolds
Sampler (Name): M. JAKOPSKI
Airbill Number: 820588868482
Laboratory Contract No.: 68-D6-0063
Unit Price: $498.75
Sampler Signature: [signature]
6. Ship To: MITKEM CORPORATION 175 METRO CENTER BLVD WARWICK, RI 02886
ATTN: AYNES NG
8. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

4. Purpose**: Lead: SF, PRP, ST, FED, BZ; Early Action: IA, PA, REM, RI, SI, ESI; Long Term Action: RIFS, RD, RA, O&M

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other	B Conc.: Low Med	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	E TA (circle one) PR* 7 14 21 BNA	E TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
E05M9	2	L	G	N			X	178597	RW-14	9/20/00 [illegible]		GO	
E05M9	2	L	G	N			X	5-178666	"	" "		GO	
E05M9	2	L	G	N		X		5-178398	"	" "		GO	
E05M9	2	L	G	N		X		5-178455	"	" "		GO	
E05L2	2	L	G	N		X		5-178456	RW-15	9/20/00 [illegible]		GO	
E05L2	2	L	G	N		X		5-178457	"	" "		GO	
E05L2	2	L	G	N			X	5-178458	"	" "		GO	
E05L2	2	L	G	N			X	5-178459	"	" "		GO	

Shipment for Case Complete? (Y/N): N
Page 1 of 1
VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:
Additional Sampler Signatures: AD, EO, RG
Chain of Custody Seal Number(s): 20692, 20693

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	9-21-00 2:00 PM				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [signature]	Date / Time 9/22/00 0845	Remarks: Is custody seal intact? Y/N/none 3°C	

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions
**See Reverse for Purpose Code Definitions

EPA Form 9110-2 (2/99)

Organic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
Contract Laboratory Program

(For Organic CLP Analysis)

SDG No.: E0501 ~~E0512~~ am 10/3/00

Case No.: 28538

1. Matrix: 1=Surface Water, 2=Ground Water, 3=Leachate, 4=Field QC, 5=Soil/Sediment, 6=PE-water, 7=PE-soil, 8=Other (Specify in Column A)

2. Preservative: 1=Cool, 2=HNO3, 3=NaHSO4, 4=H2SO4, 5=Ice only, 6=NaOH, 7=Other (Specify in Column D), 8=Not Preserved

3. Region No.	Sampling Co.	5. Date Shipped	Carrier	7. Date Received--Received by:
5	IDEM		FED EX	9/22/00 Nathan Reynolds

Sampler (Name)	Airbill Number	Laboratory Contract No.	Unit Price
M. JAWORSKI	820588868450	68-D6-0063	$498.75

Sampler Signature	6. Ship To:	8. Transfer to:	Date Received
M. Jaworski	MITKEM CORPORATION 175 METRO CENTER BOULEVARD WARWICK, RI 02886 ATTN: AGNES NG		

4. Purpose**: Lead: SF, PRP, ST, FED, BZ / Early Action: IA, PA, REM, RI, SI, ESI / Long-Term Action: RIFS, RD, RA, O&M

Received by:	
Contract Number	Price

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med	C Sample Type: Comp / Grab	D Preservative (from Box 2) Other:	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	E RAS Analysis TA (circle one) PR* 7 14 21 BNA	E RAS Analysis TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
E05L3	2	L	G	N		X		5-178603	RW-18	Water Temp		JH	
E05L3	"	"	"	"		X		5-178604	"	" "		KL	
E05L3	"	"	"	"			X	5-178605	"	" "		RL	
E05L3	"	"	"	"			X	5-178606	"	" "		RL	
E05L4	"	"	"	"			X	5-178607	RW-16	9/20/00 5:51pm		RL	
E05L4	"	"	"	"			X	5-178608	RW-16	" "		RL	
E05L4	"	"	"	"		X		5-178609	"	" "		RL	
E05L4	"	"	"	"		X		5-178610	"	" "		RL	

Original for SDG E0501 E0512

Shipment for Case Complete? (Y/N): Y

Page 1 of 1

VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures: RSH, JH

Chain of Custody Seal Number(s): 20698, 20697

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
M. Jaworski	9-21-00 7:00PM				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		Nathan Reynolds	9/22/00 0845		

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions

**See Reverse for Purpose Code Definitions

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SDG No E05Ø1 ~~E01B~~ ~~E05L2~~ am 10/3/00

Case No 28538

1. Matrix (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. PE Water 7. PE soil 8. Other (specify in Column A)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Ice only 6. CH3OH 7. Other (specify in Column D) N. Not Preserved

3. Region No. | Sampling Co. IDEM

5. Date Shipped 9-21-00 | Carrier FED EX

7. Date Received–Received by: 9/22/00 Nathan Reynolds

Sampler (Name) M. Jaworski

Airbill Number 820588868449

Laboratory Contract No. 68-D6-0063 | Unit Price $498.75

Sampler Signature [signature]

6. Ship To: MITKEM CORPORATION
175 METRO CENTER BOULEVARD
WARWICK, RI 02886
ATTN: AGNES AG

8. Transfer to: | Date Received

Received by:

Contract Number | Price

4. Purpose**: Lead: SF, PRP, ST, FED, BZ | Early Action: IA, PA, REM, RI, SI, ESI | Long-Term Action: RIFS, RD, RA, O&M

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other:	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	TA (circle one) PR* 7 14 21 BNA	TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
E05L5	2	L	G	H			X	5178611	RW-19	9/20/00 7:00		RG	
E05L5	"	"	"	"			X	5-178612	"	" "		"	
E05L5	"	"	"	"		X		5-178613	"	" "		"	
E05L5	"	"	"	"		X		5-178614	"	" "		"	
E05L6	"	"	"	"		X		5-178615	RW-17	" 6:45		"	
E05L6	"	"	"	"		X		5-178616	"	" "		"	
E05L6	"	"	"	"			X	5-178617	"	" "		"	
E05L6	"	"	"	"			X	5-178618	"	" "		"	

Original w/ SDG E05L0

Shipment for Case Complete? (Y/N) N | Page 1 of 1

VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures [signature]

Chain of Custody Seal Number(s) 20700 20604

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	9-21-00 3:35 PM				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [signature]	Date / Time 9/22/00 0545	Remarks: Is custody seal intact? Y/N/none 3 °C	

Distribution: Blue - Region Copy, White - Lab Copy for Return to SMO, Pink - SMO Copy, Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions
**See Reverse for Purpose Code Definitions

EPA Form 9110-2 (2/99)

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SDG No: E0501 ~~E05L2~~ am 10/3/01

Case No.: 28538

3. Region No.	Sampling Co.: IDEM
5. Date Shipped	Carrier: FED EX
7. Date Received--Received by:	9/22/00 Nathan Reynolds
Sampler (Name):	MARK JAWORSKI
Airbill Number:	8205888 68379
Laboratory Contract No.:	68-D6-0063
Unit Price:	$498 75
Sampler Signature:	Mark Jaworski
6. Ship To:	MITKEM CORPORATION 175 METRO CENTER BOULEVARD WARWICK RI 02886 ATTN: AGNES NG
8. Transfer to:	
Date Received	
Received by:	
Contract Number	
Price	

4. Purpose**: Lead: SF, PRP, ST, FED, BZ; Early Action: IA, PA, REM, RI, SI, ESI; Long Term Action: RIFS, RD, RA, O&M

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other:	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	TA (circle one) PR* 7 14 21 BNA	TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
E0501	2	L	G	1			X	5-178829	RW-28	9/21/00 2:11 pm		RG	
E0501	"	"	"	"			X	5-178830	"	" "		"	
E0501	"	"	"	"		X		5-178831	"	" "		"	
E0501	"	"	"	"		X		5-178832	"	" "		"	
E05NO	"	"	"	"		X		5-178833	RW-27	9/21/00 1:55 pm		"	
E05NO	"	"	"	"		X		5-178834	"	" "		"	
E05NO	"	"	"	"			X	5-178836	"	" "		"	
E05NO	"	"	"	"			X	5-178835	"	" "		"	

Original w/ SDG E05L2

Shipment for Case Complete? (Y/N)	Page		Additional Sampler Signatures	Chain of Custody Seal Number(s)
N	1 of 1	VOA MS/MSD Required? Y/N Sample #: BNA MS/MSD Required? Y/N Sample #: Pest/PCB MS/MSD Required? Y/N Sample #:	AG, AD, OC	

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Mark Jaworski	9-21-00 4:30				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		Nathan Reynolds	9/22/00 0845	3°C	

Distribution: Blue - Region Copy; White - [illegible] Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions
**See Reverse for Purpose Or [illegible] Definitions

E[illegible] Form 9140-2 (2/99)

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SDG No. E0501 ~~E05L2~~ am 10/3/00

Case No. 28528

1. Matrix (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. PE-water 7. PE-soil 8. Other (specify in Column A)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Ice only 6. CH3OH 7. Other (specify in Column D) N. Not Preserved

3. Region No.: Sampling Co.: IDEM

5. Date Shipped: 9-21-00 Carrier: FED EX

7. Date Received--Received by: 9/22/00 Nathan Reynolds

Sampler (Name): MARK JAWORSKI

Airbill Number: 6209588 66 357

Laboratory Contract No.: 68-D6-0063 Unit Price: $498.75

Sampler Signature: Mark Jaworski

6. Ship To: MITKEM CORPORATION
175 METRO CENTER BOULEVARD
WARWICK, RI 02886
ATTN: AGNES NG

8. Transfer to: Date Received:

Received by:

Contract Number: Price:

4. Purpose**: Lead: SF, PRP, ST, FED, BZ; Early Action: IA, PA, REM, RI, SI, ESI; Long-Term Action: RIFS, RD, RA, O&M

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other	B Conc.: Low Med	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other	E RAS Analysis: TA (circle one) PR* 7 14 21 VOA	TA (circle one) PR* 7 14 21 BNA	TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
E0502	2	L	G	N			X	5-178837	RW-29	9/21/00 2:27pm		RG	
E0502	"	"	"	"			X	5-178838	"	" "		"	
E0502	"	"	"	"		X		5-178839	"	" "		"	
E0502	"	"	"	"		X		5-178840	"	" "		"	

Shipment for Case Complete? (Y/N) Y

Page 1 of 1

VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures: AD, RG, CC

Chain of Custody Seal Number(s): [illegible]

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Mark Jaworski	9-21-00 4:30PM				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Nathan Reynolds	Date / Time 9/22/00 0845	Remarks: Is custody seal intact? Y/N/none 5°	

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions
**See Reverse for Purpose Code Definitions

EPA Form 9110-2 (2/99)

CLASS-93-012

012

ORGANIC DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature used in this document, the following code letters and associated definitions are provided:

VALUE - when/if the result of a value is greater than or equal to the Contract Required Quantitation Limit (CRQL).

U Indicates that the compound was analyzed for, but not detected. The sample quantitation limit corrected for dilution and percent moisture is reported.

J Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of a compound where the result is less than the sample quantitation limit, but greater than zero. The flag is also used to indicate a reported result having an associated QC problem.

R Indicates the data are unusable. (NOTE: The analyte may or may not be present.)

N Indicates presumptive evidence of a compound. This flag is only used for a tentatively identified compound, where the identification is based on a mass spectral library search.

P Indicates a pesticide/Aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two GC columns. The lower of the two results is reported.

C Indicates pesticide results that have been confirmed by GC/MS.

B Indicates the analyte is detected in the associated blank as well as in the sample.

E Indicates compounds whose concentrations exceed the calibration range of the instrument.

D Indicates an identified compound in an analysis has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analysis.

A Indicates tentatively identified compounds that are suspected to be aldol condensation products.

G Indicates the TCLP Matrix Spike Recovery was greater than the upper limit of the analytical method.

L Indicates the TCLP Matrix Spike Recovery was less than the lower limit of the analytical method.

T Indicates the analyte is found in the associated TCLP extraction blank as well as in the sample.

X,Y,Z are reserved for laboratory defined flags.

SDG Narrative

Mitkem Corporation submits the enclosed data package in response to USEPA Case # 28538 and SDG# E0501. Analyses were performed for tven aqueous samples that were received on September 22, 2000. The analyses were performed under USEPA Contract # 68-D6-0063. Please note that the cooler was measured at 3°C.

The following samples are submitted in this data package:

Client ID	Lab ID	Analysis	VOA pH
E05L9	71522001	V, S, P	<2
E05M1	71522002	V, S, P	<2
E05L2	71522003	V, S, P	<2
E05M9	71522004	V, S, P	<2
E05M0	71522005	V, S, P	<2
E05L3	71522006	V, S, P	<2
E05L5	71522007	V, S, P	<2
E0501	71522008	V, S, P	<2
E0502	71522009	V, S, P	<2
E05P3	71522010	V	<2

V = Volatiles
S = Semivolatiles
P = Pesticides/PCB

The analyses were performed using USEPA CLP Low Concentration Water (OLC02.1) protocols. The analyses were performed with strict adherence to the SOW with the following exceptions and observations:

1. Overall Observation:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required.

2. Volatile Analysis:

Trap used for instrument V1: OI Analytical #10 trap containing 8 cm each of Tenax, silica gel and carbon molecular sieve

GC column used: 30 m x 0.25 mm id (1.4 um film thickness) DB-624 capillary column.

Sample E05L3 was analyzed at 10x dilution due to target analytes above the instrument calibration range.

No other unusual observation was made for the analysis.

3. Semivolatile Analysis:

GC column: 30 m x 0.25 mm id (0.5 um film thickness) DB-5MS capillary column

No unusual observation was made for the analysis.

4. Pesticides/PCB Analysis:

GC column used: 30 m x 0.53 mm id (0.81 um film thickness) DB-608 and 30 m x 0.53 mm id (0.5 um film thickness) DB-1701 megabore columns

No unusual observation was made for the analysis.

All of the submittals to the region are originals other than log book pages and copies of tunes and standard files which are shared by many other cases. For these, the original copies are archived in the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Agnes Ng
CLP Project Manager
10/4/00

3LCA

LOW CONC. WATER VOLATILE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

VLCS1D

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: V1L0929A LCS Lot No.:

Lab File ID: V1D4606 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

LCS Aliquot: 10 (ul)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	%REC #	QC LIMITS
Vinyl chloride	125	110	88	60-140
1,2-Dichloroethane	125	134	107	60-140
Carbon tetrachloride	125	119	95	60-140
1,2-Dichloropropane	125	125	100	60-140
Trichloroethene	125	116	93	60-140
1,1,2-Trichloroethane	125	128	102	60-140
Benzene	125	122	98	60-140
cis-1,3-Dichloropropene	125	133	106	60-140
Bromoform	125	132	106	60-140
Tetrachloroethene	125	120	96	60-140
1,2-Dibromoethane	125	130	104	60-140
1,4-Dichlorobenzene	125	124	99	60-140

Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.

LCS Recovery: 0 outside limits out of 12 total.

COMMENTS: _____

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE METHOD BLANK SUMMARY

VBLK1D

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: V1B0929A Date Analyzed: 09/29/00

Lab File ID: V1D4592 Time Analyzed: 1206

Instrument ID: V1

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E05L9	71522001	V1D4598	1518
02	E05M1	71522002	V1D4599	1546
03	E05L2	71522003	V1D4600	1615
04	E05M9	71522004	V1D4601	1645
05	E05M0	71522005	V1D4602	1715
06	E05L5	71522007	V1D4604	1814
07	E0501	71522008	V1D4605	1842
08	VLCS1D	V1L0929A	V1D4606	2135
09	E05L3	71522006	V1D4607	2200
10	E0502	71522009	V1D4608	2225
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COMMENTS: _____

4LCA

LOW CONC. WATER VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK1E

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: V1B1002A Date Analyzed: 10/02/00

Lab File ID: V1D4622 Time Analyzed: 1150

Instrument ID: V1

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E05P3	71522010	V1D4623	1223
02	VHBLK1E	V1B1002B	V1D4633	1920
03				
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COMMENTS: _____

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1D

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: V1B0929A Date Received: _____

Lab File ID: V1D4592 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK1D

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: V1B0929A Date Received: _____

Lab File ID: V1D4592 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q.
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LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1E

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: V1B1002A Date Received: _____

Lab File ID: V1D4622 Date Analyzed: 10/02/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK1E

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: V1B1002A Date Received: _____

Lab File ID: V1D4622 Date Analyzed: 10/02/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
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LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0501

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522008 Date Received: 09/22/00

Lab File ID: V1D4605 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	3	J
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	J
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	12	
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0501

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522008 Date Received: 09/22/00

Lab File ID: V1D4605 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
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LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0502

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522009 Date Received: 09/22/00

Lab File ID: V1D4608 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E0502

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522009 Date Received: 09/22/00

Lab File ID: V1D4608 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522006 Date Received: 09/22/00

Lab File ID: V1D4607 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 10.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	20	U
67-64-1	Acetone	50	U
75-15-0	Carbon disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	7	J
78-93-3	2-Butanone	50	U
74-97-5	Bromochloromethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	170	
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-88-3	Toluene	6	J
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	140	
100-42-5	Styrene	10	U
1330-20-7	Xylenes (total)	250	
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlcrobenzene	10	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05L3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522006 Date Received: 09/22/00

Lab File ID: V1D4607 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 10.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 10

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.		UNKNOWN	2.56	29	J
2.		UNKNOWN	3.18	39	J
3.	96-37-7	CYCLOPENTANE, METHYL-	5.84	25	NJ
4.	110-82-7	CYCLOHEXANE	6.63	24	NJ
5.	98-82-8	BENZENE, (1-METHYLETHYL)-	12.38	25	NJ
6.	103-65-1	BENZENE, PROPYL-	12.88	38	NJ
7.	611-14-3	BENZENE, 1-ETHYL-2-METHYL-	13.02	61	NJ
8.	611-14-3	BENZENE, 1-ETHYL-2-METHYL-	13.33	36	NJ
9.	108-67-8	BENZENE, 1,3,5-TRIMETHYL-	13.53	100	NJ
10.	873-49-4	BENZENE, CYCLOPROPYL-	14.26	50	NJ
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LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522007 Date Received: 09/22/00

Lab File ID: V1D4604 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05L5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522007 Date Received: 09/22/00

Lab File ID: V1D4604 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522001 Date Received: 09/22/00

Lab File ID: V1D4598 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05L9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522001 Date Received: 09/22/00

Lab File ID: V1D4598 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522005 Date Received: 09/22/00

Lab File ID: V1D4602 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522005 Date Received: 09/22/00

Lab File ID: V1D4602 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
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1LCA

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

E05M1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522002 Date Received: 09/22/00

Lab File ID: V1D4599 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E05M1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522002 Date Received: 09/22/00

Lab File ID: V1D4599 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
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LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522004 Date Received: 09/22/00

Lab File ID: V1D4601 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522004 Date Received: 09/22/00

Lab File ID: V1D4601 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05P3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522010 Date Received: 09/22/00

Lab File ID: V1D4623 Date Analyzed: 10/02/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	0.5	J
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05P3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522010 Date Received: 09/22/00

Lab File ID: V1D4623 Date Analyzed: 10/02/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLK1E

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: V1B1002B Date Received: 09/22/00

Lab File ID: V1D4633 Date Analyzed: 10/02/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLK1E

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: V1B1002B Date Received: 09/22/00

Lab File ID: V1D4633 Date Analyzed: 10/02/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VLCS1D

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: V1L0929A Date Received: _____

Lab File ID: V1D4606 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (ng)	Q
74-87-3	Chloromethane	25	U
74-83-9	Bromomethane	25	U
75-01-4	Vinyl chloride	110	
75-00-3	Chloroethane	25	U
75-09-2	Methylene chloride	50	U
67-64-1	Acetone	120	U
75-15-0	Carbon disulfide	25	U
75-35-4	1,1-Dichloroethene	25	U
75-34-3	1,1-Dichloroethane	25	U
156-59-2	cis-1,2-Dichloroethene	25	U
156-60-5	trans-1,2-Dichloroethene	25	U
67-66-3	Chloroform	25	U
107-06-2	1,2-Dichloroethane	130	
78-93-3	2-Butanone	120	U
74-97-5	Bromochloromethane	25	U
71-55-6	1,1,1-Trichloroethane	25	U
56-23-5	Carbon tetrachloride	120	
75-27-4	Bromodichloromethane	25	U
78-87-5	1,2-Dichloropropane	120	
10061-01-5	cis-1,3-Dichloropropene	130	
79-01-6	Trichloroethene	120	
124-48-1	Dibromochloromethane	25	U
79-00-5	1,1,2-Trichloroethane	130	
71-43-2	Benzene	120	
10061-02-6	trans-1,3-Dichloropropene	25	U
75-25-2	Bromoform	130	
108-10-1	4-Methyl-2-pentanone	120	U
591-78-6	2-Hexanone	120	U
127-18-4	Tetrachloroethene	120	
79-34-5	1,1,2,2-Tetrachloroethane	25	U
106-93-4	1,2-Dibromoethane	130	
108-88-3	Toluene	25	U
108-90-7	Chlorobenzene	25	U
100-41-4	Ethylbenzene	25	U
100-42-5	Styrene	25	U
1330-20-7	Xylenes (total)	25	U
541-73-1	1,3-Dichlorobenzene	25	U
106-46-7	1,4-Dichlorobenzene	120	
95-50-1	1,2-Dichlorobenzene	25	U
96-12-8	1,2-Dibromo-3-chloropropane	25	U
120-82-1	1,2,4-Trichlorobenzene	25	U

2LCB
LOW CONC. WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

	EPA SAMPLE NO.	NBZ %REC #	FBP %REC #	TPH %REC #	PHL %REC #	2FP %REC #	TBP %REC #	OTHER	TOT OUT
01	SBLK1X	75	72	92	38	38	43		0
02	SLCS1X	74	70	83	36	35	39		0
03	E05L5	61	61	83	26	26	36		0
04	E05M0	73	73	94	36	36	45		0
05	E05L2	64	65	80	32	31	40		0
06	E05L9	74	71	88	35	36	46		0
07	E05M1	73	70	85	36	36	44		0
08	E05M9	71	71	73	35	36	44		0
09	E0501	80	74	83	40	40	47		0
10	E05L3	76	42	86	38	36	47		0
11	SBLK1A	80	81	103	39	42	46		0
12	E0502	77	76	92	26	30	43		0
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		QC LIMITS %REC
NBZ	= Nitrobenzene-d5	(23-120)
FBP	= 2-Fluorobiphenyl	(30-115)
TPH	= Terphenyl-d14	(18-140)
PHL	= Phenol-d5	(15-115)
2FP	= 2-Fluorophenol	(15-121)
TBP	= 2,4,6-Tribromophenol	(15-130)

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

3LCB

LOW CONC. WATER SEMIVOLATILE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

SLCS1X

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: S0923-LW1 LCS Lot No.:

Lab File ID: S1B7709 Date Extracted: 09/23/00

LCS Aliquot: 1000 (ul) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	%REC #	QC LIMITS
Phenol	40	27	68	40-120
bis(-2-Chloroethyl)Ether	20	14	70	50-110
2-Chlorophenol	40	28	70	50-110
N-Nitroso-di-n-propylamine	20	14	70	30-110
Hexachloroethane	20	12	60	20-110
Isophorone	20	14	70	50-110
Naphthalene	20	14	70	30-110
4-Chloroaniline	40	33	82	10-120
2,4,6-Trichlorophenol	40	27	68	40-120
2,4-Dinitrotoluene	20	13	65	30-120
Diethylphthalate	20	15	75	50-120
N-nitrosodiphenylamine (1)	20	14	70	30-110
Hexachlorobenzene	20	14	70	40-120
Benzo(a)pyrene	20	13	65	50-120

Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.

LCS Recovery: 0 outside limits out of 14 total.

COMMENTS: _____

4LCB

LOW CONC. WATER SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK1A

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: S0926-BW3 Date Extracted: 09/26/00

Lab File ID: S1B7790 Date Analyzed: 10/03/00

Instrument ID: S1 Time Analyzed : 1844

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES and LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	E0502	71522009	S1B7791	10/03/00
02				
03				
04				
05				
06				
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COMMENTS: _____

4LCB

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE METHOD BLANK SUMMARY

SBLK1X

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: S0923-BW1 Date Extracted: 09/23/00

Lab File ID: S1B7707 Date Analyzed: 09/27/00

Instrument ID: S1 Time Analyzed : 1628

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES and LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SLCS1X	S0923-LW1	S1B7709	09/27/00
02	E05L5	71522007	S1B7734	09/28/00
03	E05M0	71522005	S1B7735	09/28/00
04	E05L2	71522003	S1B7752	09/28/00
05	E05L9	71522001	S1B7754	09/28/00
06	E05M1	71522002	S1B7755	09/28/00
07	E05M9	71522004	S1B7756	09/28/00
08	E0501	71522008	S1B7757	09/28/00
09	E05L3	71522006	S1B7759	09/28/00
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COMMENTS: _____

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1A

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: S0926-BW3 Date Received: _____

Lab File ID: S1B7790 Date Extracted: 09/26/00

Sample Volume: 1000.00 (mL) Date Analyzed: 10/03/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1A

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: S0926-BW3 Date Received: _____

Lab File ID: S1B7790 Date Extracted: 09/26/00

Sample Volume: 1000.00 (mL) Date Analyzed: 10/03/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	*Fluorene*	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK1A

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: S0926-BW3 Date Received: _____

Lab File ID: S1B7790 Date Extracted: 09/26/00

Sample Volume: 1000.00 (mL) Date Analyzed: 10/03/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
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1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1X

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: S0923-BW1 Date Received: _____

Lab File ID: S1B7707 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1X

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: S0923-BW1 Date Received: _____

Lab File ID: S1B7707 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SBLK1X

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: S0923-BW1 Date Received: _____

Lab File ID: S1B7707 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
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LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0501

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522008 Date Received: 09/22/00

Lab File ID: S1B7757 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0501

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522008 Date Received: 09/22/00

Lab File ID: S1B7757 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0501

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522008 Date Received: 09/22/00

Lab File ID: S1B7757 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 28

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.		UNKNOWN	2.14	79	J
2.		UNKNOWN	2.99	14	J
3.		UNKNOWN	4.11	4	J
4.		UNKNOWN	5.65	4	J
5.		UNKNOWN	5.82	9	J
6.		UNKNOWN	6.80	3	J
7.		UNKNOWN	6.89	5	J
8.		UNKNOWN	6.93	4	J
9.		UNKNOWN	7.52	6	J
10.		UNKNOWN	8.02	10	J
11.		UNKNOWN	8.16	6	J
12.		UNKNOWN	9.33	6	J
13.		UNKNOWN	10.28	4	J
14.		UNKNOWN	11.20	8	J
15.		UNKNOWN	11.36	5	J
16.		UNKNOWN	11.88	10	J
17.		UNKNOWN	11.97	2	J
18.		UNKNOWN	12.01	7	J
19.		UNKNOWN	12.37	2	J
20.		UNKNOWN	12.85	3	J
21.		UNKNOWN	13.06	2	J
22.		UNKNOWN	13.10	4	J
23.		UNKNOWN	13.16	6	J
24.		UNKNOWN	13.73	19	J
25.		UNKNOWN	14.74	4	J
26.		UNKNOWN	14.94	2	J
27.		UNKNOWN	15.03	4	J
28.		UNKNOWN	16.17	3	J
29.					
30.					

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0502

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522009 Date Received: 09/22/00

Lab File ID: S1B7791 Date Extracted: 09/26/00

Sample Volume: 1000.00 (mL) Date Analyzed: 10/03/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0502

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522009 Date Received: 09/22/00

Lab File ID: S1B7791 Date Extracted: 09/26/00

Sample Volume: 1000.00 (mL) Date Analyzed: 10/03/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E0502

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522009 Date Received: 09/22/00

Lab File ID: S1B7791 Date Extracted: 09/26/00

Sample Volume: 1000.00 (mL) Date Analyzed: 10/03/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 5

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.		UNKNOWN	2.30	4	J
2.		UNKNOWN	3.10	39	J
3.		UNKNOWN	3.26	11	J
4.		UNKNOWN	5.01	8	J
5.		UNKNOWN	5.48	11	J
6.					
7.					
8.					
9.					
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LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522003 Date Received: 09/22/00

Lab File ID: S1B7752 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522003 Date Received: 09/22/00

Lab File ID: S1B7752 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05L2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522003 Date Received: 09/22/00

Lab File ID: S1B7752 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.		UNKNOWN	6.72	3	J
2.					
3.					
4.					
5.					
6.					
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LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522006 Date Received: 09/22/00

Lab File ID: S1B7759 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	1	J
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	27	
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	4	J
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522006 Date Received: 09/22/00

Lab File ID: S1B7759 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05L3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522006 Date Received: 09/22/00

Lab File ID: S1B7759 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 28

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.		UNKNOWN	2.14	86	J
2.		UNKNOWN	2.99	20	J
3.	95-47-6	BENZENE, 1,2-DIMETHYL-	4.59	25	NJ
4.	103-65-1	BENZENE, PROPYL-	5.54	15	NJ
5.	611-14-3	BENZENE, 1-ETHYL-2-METHYL-	5.70	18	NJ
6.	611-14-3	BENZENE, 1-ETHYL-2-METHYL-	5.91	24	NJ
7.	95-36-3	1,2,4-TRIMETHYLBENZENE	6.16	40	NJ
8.		UNKNOWN	6.39	28	J
9.	496-11-7	INDANE	6.75	24	NJ
10.		UNKNOWN	7.28	58	J
11.		UNKNOWN	7.93	190	J
12.		UNKNOWN	7.99	24	J
13.		UNKNOWN	8.04	29	J
14.	108-68-9	PHENOL, 3,5-DIMETHYL-	8.63	20	NJ
15.		UNKNOWN	9.39	47	J
16.		UNKNOWN	10.30	18	J
17.	104-55-2	2-PROPENAL, 3-PHENYL-	10.42	57	NJ
18.		UNKNOWN	10.74	54	J
19.		UNKNOWN	10.79	17	J
20.		UNKNOWN	10.93	36	J
21.		UNKNOWN	11.33	33	J
22.		UNKNOWN	11.63	130	J
23.		UNKNOWN	11.75	33	J
24.		UNKNOWN	12.05	27	J
25.		UNKNOWN	12.13	25	J
26.		UNKNOWN	12.18	30	J
27.		UNKNOWN	12.69	25	J
28.		UNKNOWN	13.21	26	J
29.					
30.					

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522007 Date Received: 09/22/00

Lab File ID: S1B7734 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522007 Date Received: 09/22/00

Lab File ID: S1B7734 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E05L5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522007 Date Received: 09/22/00

Lab File ID: S1B7734 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 3

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.		UNKNOWN	4.76	3	J
2.		UNKNOWN	6.64	4	J
3.	872-50-4	2-PYRROLIDINONE, 1-METHYL-	6.71	8	NJ
4.					
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LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522001 Date Received: 09/22/00

Lab File ID: S1B7754 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522001 Date Received: 09/22/00

Lab File ID: S1B7754 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05L9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522001 Date Received: 09/22/00

Lab File ID: S1B7754 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
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1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522005 Date Received: 09/22/00

Lab File ID: S1B7735 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522005 Date Received: 09/22/00

Lab File ID: S1B7735 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522005 Date Received: 09/22/00

Lab File ID: S1B7735 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
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LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522002 Date Received: 09/22/00

Lab File ID: S1B7755 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522002 Date Received: 09/22/00

Lab File ID: S1B7755 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522002 Date Received: 09/22/00

Lab File ID: S1B7755 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
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LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522004 Date Received: 09/22/00

Lab File ID: S1B7756 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522004 Date Received: 09/22/00

Lab File ID: S1B7756 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522004 Date Received: 09/22/00

Lab File ID: S1B7756 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.		UNKNOWN	12.65	2	J
2.					
3.					
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EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SLCS1X

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: S0923-LW1 Date Received: _____

Lab File ID: S1B7709 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	27	
111-44-4	bis(-2-Chloroethyl)Ether	14	
95-57-8	2-Chlorophenol	28	
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	14	
67-72-1	Hexachloroethane	12	
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	14	
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	14	
106-47-8	4-Chloroaniline	33	
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	27	
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SLCS1X

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: S0923-LW1 Date Received: _____

Lab File ID: S1B7709 Date Extracted: 09/23/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	13	
84-66-2	Diethylphthalate	15	
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	14	
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	14	
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	U
205-99-2	Benzo(b)fluoranthene	5	U
207-08-9	Benzo(k)fluoranthene	5	U
50-32-8	Benzo(a)pyrene	13	
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

2LCC

LOW CONC. WATER PESTICIDE SURROGATE RECOVERY

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

GC Column(1): DB-1701 ID: 0.53 (mm) GC Column(2): DB-608 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX(1) %REC #	TCX(2) %REC #	DCB(1) %REC #	DCB(2) %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK02	100	80	94	99			0
02	PLCS02	103	78	94	101			0
03	E05L9	94	86	95	97			0
04	E05M1	100	77	91	95			0
05	E05L2	108	83	97	104			0
06	E05M9	77	59	64	70			0
07	E05M0	118	107	91	97			0
08	E05L3	90	97	86	96			0
09	E05L5	103	92	100	108			0
10	E0501	86	82	86	93			0
11	E0502	113	75	90	98			0
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

QC LIMITS

		%REC
S1 TCX	= Tetrachloro-m-xylene	(30-150)
S2 DCB	= Decachlorobiphenyl	(30-150)

Column to be used to flag recovery values.
* Values outside of QC limits.
D Surrogate diluted out.

3LCC

LOW CONC. WATER PESTICIDE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

PLCS02

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: P0925-LW1 LCS Lot No.:

LCS Aliquot: 1000 (uL) Date Extracted: 09/25/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y

Instrument ID(1): E4 GC Column(1):DB-1701 ID:0.53 (mm)

COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	%REC #	QC LIMITS
gamma-BHC (Lindane)	100	80.7	81	50-120
Heptachlor epoxide	100	84.5	84	50-150
Dieldrin	200	180.0	90	30-130
4,4'-DDE	200	169.0	84	50-150
Endrin	200	218.0	109	50-120
Endosulfan sulfate	200	144.0	72	50-120
gamma-Chlordane	100	87.3	87	30-130

Instrument ID(2): E4 GC Column(2):DB-608 ID:0.53 (mm)

COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	%REC #	QC LIMITS
gamma-BHC (Lindane)	100	81.2	81	50-120
Heptachlor epoxide	100	86.9	87	50-150
Dieldrin	200	185.0	92	30-130
4,4'-DDE	200	175.0	88	50-150
Endrin	200	221.0	110	50-120
Endosulfan sulfate	200	143.0	72	50-120
gamma-Chlordane	100	88.5	88	30-130

Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.
LCS Recovery: 0 outside limits out of 14 total.

COMMENTS: _____

4LCC

LOW CONC. WATER PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK02

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Date Extracted: 09/25/00 Lab Sample ID: P0925-BW1

Date Analyzed (1): 09/29/00 Date Analyzed (2): 09/29/00

Time Analyzed (1): 1456 Time Analyzed (2): 1456

Instrument ID (1): E4 Instrument ID (2): E4

GC Column (1): DB-1701 ID: 0.53(mm) GC Column (2): DB-608 ID: 0.53(mm)

Sulfur Cleanup (Y/N) Y Extraction: (SepF/Cont) SEPF

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PLCS02	P0925-LW1	09/29/00	09/29/00
02	E05L9	71522001	09/29/00	09/29/00
03	E05M1	71522002	09/29/00	09/29/00
04	E05L2	71522003	09/29/00	09/29/00
05	E05M9	71522004	09/29/00	09/29/00
06	E05M0	71522005	09/29/00	09/29/00
07	E05L3	71522006	09/29/00	09/29/00
08	E05L5	71522007	09/29/00	09/29/00
09	E0501	71522008	09/29/00	09/29/00
10	E0502	71522009	09/29/00	09/29/00
11				
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25				
26				

COMMENTS: _____

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK02

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: P0925-BW1 Date Received: _____

Sample Volume: 1000.00 (mL) Date Extracted: 09/25/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0501

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522008 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/25/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0502

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522009 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/25/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522003 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/25/00

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522006 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/25/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

EPA SAMPLE NO.

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

E05L5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522007 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/25/00

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522001 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/25/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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EPA SAMPLE NO.

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

E05M0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522005 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/25/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522002 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/25/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M9

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: 71522004 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/25/00

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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EPA SAMPLE NO.

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

PLCS02(1)

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: P0925-LW1 Date Received: _____

Sample Volume: 1000.00 (mL) Date Extracted: 09/25/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.081	
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.084	
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.18	
72-55-9	4,4'-DDE	0.17	
72-20-8	Endrin	0.22	
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.14	
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.087	
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLCS02(2)

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E0501

Lab Sample ID: P0925-LW1 Date Received: _____

Sample Volume: 1000.00 (mL) Date Extracted: 09/25/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.081	
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.087	
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.18	
72-55-9	4,4'-DDE	0.17	
72-20-8	Endrin	0.22	
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.14	
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.088	
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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2000

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PAGE 1 OF 1

Regional Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Data
Received for Review on 10-5-00

FROM: Stephen L. Ostrodka, Chief (SMF-4J)
Superfund Field Services Section

for Stephen L Ostrodka
Richard L Byrnes
10/26/00

TO: Data User: IDem

We have reviewed the data for the following case:

SITE NAME: Town of Pines GW Plume (IN)

CASE NUMBER: 28538 SDG NUMBER: E05L0

Number and Type of Samples: 20 (Water)

Sample Numbers: E05L0-1, E05L4, E05L6-8, E05H2-6, E05H8, E05N0-7

Laboratory: MIT Kem Hrs for Review:

Following are our findings:

The data are accurate and acceptable with the qualifications described in the attached narrative.

Richard L Byrnes

CC: Cecilia Moore
Region 5 TPO
Mail Code: SM-5J

NARRATIVE

LABORATORY: MITKEM CORP.

SDG: E05L0 **CASE: 28538**

SITE: TOWN OF PINES GW PL

This review covers twenty (20) low concentration water samples, numbered E05M2 - E05M6, E05M8, E05L0 - E05L1, E05L4, E05L5, E05L7, E05L8, E05N0 - E05N7, were collected on 09/20 - 21/2000. The Mitken Corp., of Warwick, RI received the samples on Sept. 22, 2000, in good condition. The samples were analyzed for low concentration VOAs, SVOAs and pesticide/PCBs. All samples were analyzed per CLP SOW OLC02.1.

Laboratory Control Samples (LCS) Identified as VLCS1C (VOA), SLCS1Y (SVOA) and PLCS01 (pest/PCB) were analyzed in place of matrix spike/matrix spike duplicate (MS/MSD) samples.

The VOA samples were analyzed within the holding time of fourteen (14) days for preserved water samples and the SVOA and pest/PCB samples were extracted within the required holding time of seven days. The analysis of the semivolatile and pesticide/PCB extracts were performed within forty (40) days. Therefore, the results for the VOA, SVOA and pest/PCB fractions are acceptable.

The reviewer's narrative and data qualifiers are noted in the following pages.

Reviewed by: W. Ira Wilson__Lockheed Martin/ESAT

Date:__October 17 , 2000

NARRATIVE

LABORATORY: MITKEM CORP.

SDG: E05L0 **CASE: 28538**

SITE: TOWN OF PINES GW PL

Below is a summary of the out-of-control audits and the possible effect on the data for this case.

1. HOLDING TIME

This review covers twenty (20) low concentration water samples, numbered E05M2 - E05M6, E05M8, E05L0, E05L1, E05L4, E05L5, E05L7, E05L8, E05N0 - E05N7, were collected on 09/20 - 21/2000. The Mitken Corp., of Warwick, RI received the samples on Sept. 22, 2000 in good condition. The samples were analyzed for low concentration VOAs, SVOAs and pest/PCBs. All samples were analyzed per CLP SOW OLC02.1.

The VOA samples were analyzed within the holding time of fourteen (14) days for preserved water samples; therefore, the results are acceptable.

The SVOA and pest/PCB samples were extracted within the holding time of seven (7) days. The extracts were promptly analyzed within the required 40 days criteria. Therefore; the results are acceptable.

2. GC/MS TUNING AND GC PERFORMANCE

GC/MS tuning complied with the mass list and ion abundance criteria for BFB and DFTPP.

The GC resolution Ckeck Mixes met the 60% resolution criteria. Therefore, the results are acceptable.

The DDT and Endrin degradation check using Performance Evaluation Mix on GC columns DB-608 and DB-1701 were acceptable, less than (<20%).

The Florisil Cartridge Check met the required QC criteria. Therefore, the results are acceptable.

Reviewed by: W. Ira Wilson__Lockheed Martin/ESAT

Date:__October 17 , 2000

3. CALIBRATION

Initial and continuing calibration standards of VOA, SVOA and pesticide/PCB were evaluated for the Target Compounds List (TCL) and outliers were recorded on the outlier forms included as a part of this narrative.

4. METHOD BLANK

Blanks VBLK1C, VBLK1D and VBLK1E are the low concentration water Volatile Method Blanks. The Method Blanks were clean, no TCLs or TICs reported. Blank VHBLK1E is identified as a Holding Blank sample which was also clean.

Blanks SBLK1Y is the low conc. water Semivolatile Method Blanks. The Blank reported no TCLs and no TICs.

Blank PBLK01 is the pesticide/PCB Method Blanks. The Blanks were clean.

Please refer to Form-IV LCV, Form-IV LCSV and Form-IV LCP for a list of associated samples.

5. SURROGATE RECOVERY AND SYSTEM MONITORING COMPOUNDS

The low concentration recovery of the system monitoring spiking Compound (BFB = Bromofluorobenzene) for the volatile analysis, the surrogate compounds for the semivolatile and pest/PCB analysis met the required QC limits for all samples; therefore, all results are acceptable.

6. MATRIX SPIKE/MSD SAMPLES

A Laboratory Control (LCS) Samples identified as VLCS1C (for volatile), SLCS1Y (for semivolatile) and PLCS01 were used in place of a matrix spike/matrix spike duplicate sample for the low concentration analysis. All spike recoveries were within the QC limits and the results are acceptable

Reviewed by: W. Ira Wilson__Lockheed Martin/ESAT

Date:__October 17 , 2000

7. FIELD BLANK AND FIELD DUPLICATE

No samples were identified as Trips Blanks, Field Blanks or Duplicates. Results are not qualified based upon the results of the Field Blanks or Duplicates.

8. INTERNAL STANDARD

The internal standard retention times and area counts for the low concentration volatile and semivolatile samples were within the required QC limits; therefore, the results are acceptable.

9. COMPOUND IDENTIFICATION

Target compounds and TICs were correctly identified by "best fit" library search method.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

VOA,SVOA and pest/PCB Target Compounds (TCLs) and Tentative Identified Compounds (TICs) were properly quantitated; therefore, the results are acceptable.

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance.
GC baseline for pest/PCB analysis indicated acceptable performance.

12. ADDITIONAL INFORMATION

None

Reviewed by: W. Ira Wilson__Lockheed Martin/ESAT

Date:__October 17 , 2000

CALIBRATION OUTLIERS
LOW CONCENTRATION WATER VOLATILE TCL COMPOUNDS
(page 1 of 1)

CASE/SAS#: 29538
COLUMN: VBL24
HEATED PURGE(Y/N):

LABORATORY: MITKEM
SITENAME: TOWN OF DIVES GW.PL

Instrument: VI		Initial cal.		Contin. cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		9/24/00 1639		9/27/00 - 1001			9/29/00 - 1135			10/1/00 - 1117					
	#	ri	%rsc	ri	%d		ri	%d		ri	%d		ri	%d	
Chloromethane	0.01														
Bromomethane	0.10														
Vinyl chloride	0.10														
Chloroethane	0.01														
Methylene chloride	0.01	0.187		0.357	44	J	0.249	33.2	J	0.249	33.2	J			
Acetone	0.01														
Carbon disulfide	0.01														
1,1-Dichloroethene	0.10														
1,1-Dichloroethane	0.20														
cis-1,2-Dichloroethene	0.10														
trans-1,2-Dichloroethene	0.10														
Chloroform	0.20														
1,2-Dichloroethane	0.10														
2-Butanone	0.01														
Bromochloromethane	0.05														
1,1,1-Trichloroethane	0.10	0.607					0.179	24.3	J	0.228					
Carbon tetrachloride	0.10	0.605					0.193	31.5	J	0.158	25.7	J			
Bromodichloromethane	0.20														
1,2-Dichloropropane	0.01														
cis-1,3-Dichloropropene	0.20														
Trichloroethene	0.30														
Dibromochloromethane	0.10														
1,1,2-trichloroethane	0.10														
Benzene	0.40														
trans-1,3-Dichloropropene	0.10														
Bromoform	0.05														
4-Methyl-2-Pentanone	0.01														
2-Hexanone	0.01														
Tetrachloroethene	0.10														
1,1,2,2-Tetrachloroethane	0.10														
1,2-Dibromoethane	0.10														
Toluene	0.40														
Chlorobenzene	0.50														
Ethylbenzene	0.10														
Styrene	0.30														
Xylene (total)	0.30														
1,2-Dibromo-3-chloropropane	0.10														
1,3-Dichlorobenzene	0.40														
1,4-Dichlorobenzene	0.40														
1,2-Dichlorobenzene	0.40														
1,2,4-Trichlorobenzene	0.40														
4-Bromofluorobenzene	0.20														

Samples affected:				
		VBLK1C	VBLK1D	VBLK1E
		EOSM2-6	EOSL4	VIHBLK1E
		EOSM8	EOSN7	
		EOSL0,L1	EOSN5	
		EOSL7,L8	EOSN4	
		EOSL6	EOSNC	
		EOSN1-N3		
		EOSN6		
		VLCSIC		

Reviewer's Init./Date: [signature] 10/11/00

J/R= All positive results are estimated "J" and non-detected results are unusable "R"
* = These flags should be applied to the analytes on the sample data sheets
# = Minimum Relative Response Factor

CALIBRATION OUTLIER
LOW CONCENTRATION WATER SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS#: 28538
COLUMN: _____

LABORATORY: MITKEN
SITE NAME: TOWN OF PINES

[9/27/00]

Instrument# S1	Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:	9/27/00 - 1131			9/27/x - 1547			9/28/x - 0424			9/28/x - 1039					
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(2-chloroethyl) Ether	0.70															
2-Chlorophenol	0.70															
2-Methylphenol	0.70															
2,2'-Oxybis(1-chl-propane)	0.01															
4-Methylphenol	0.60															
N-nitroso-di-n-propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2-Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis-(2-chloroethoxyl)methane	0.30															
2,4-Dichlorophenol	0.20															
1,2,4-Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01															
4-Chloro-3-methylphenol	0.20															
2-Methylnaphthalene	0.40															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5-Trichlorophenol	0.20															
2-Chloronaphthalene	0.80															
2-Nitroaniline	0.01															
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3-Nitroaniline	0.01															
Acenaphthene	0.30															
2,4-Dinitrophenol	0.01															
4-Nitrophenol	0.01															
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															

Affected samples:

SBLK1V	EOSN3-N5	EOSN6
SLCS1V	EOSN7	
EOSM2-M6	EOSN8	
EOSM8		
EOSL0-L1		
EOSL3 L7 L8		
~~EOSL~~ EOSL4		
EOSN1, N2		

Reviewer's Init/Date: [signature] 10/17/00

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

* = These flags should be applied to the analytes on the sample data sheets.
# = Minimum Relative Response Factor

CALIBRATION OUTLIER
LOW CONCENTRATION WATER SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS#: 28538
COLUMN: _____

LABORATORY: MITKEM
SITE NAME: TOWN OF PINES

Instrument# 91		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		9/27/00 1113			9/27/00 1547			9/28/00 0429			9/29/00 1039					
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0.01															
4-Chlorophenyl-phenylether	0.40															
Fluorene	0.90															
4-Nitroaniline	0.01															
4,6-Dinitro-2-methylphenol	0.01															
N-nitrosodiphenylamine	0.01															
4-Bromophenyl-phenylether	0.10															
Hexachlorobenzene	0.10															
Pentachlorophenol	0.05															
Phenanthrene	0.70															
Anthracene	0.70															
Di-n-butylphthalate	0.01															
Fluoranthene	0.60															
Pyrene	0.60															
Butylbenzylphthalate	0.01															
3,3'-Dichlorobenzidine	0.01															
Benzo(a)anthracene	0.80															
Chrysene	0.70															
bis(2-Ethylhexyl)phthalate	0.01															
Di-n-octyl phthalate	0.01															
Benzo(b)fluoranthene	0.70															
Benzo(k)fluoranthene	0.70															
Benzo(a)pyrene	0.70															
Indeno(1,2,3-cd)pyrene	0.50															
Dibenz(a,h)anthracene	0.40															
Benzo(g,h,i)perylene	0.50															
Nitrobenzene-d5	0.01															
2-Fluorobiphenyl	0.70															
Terphenyl-d14	0.50															
Phenol-d5	0.80															
2-Fluorophenol	0.60															
2,4,6-Tribromophenol	0.01															

Reviewer's Init/Date: 10/11/00

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

* = These flags should be applied to the analytes on the sample data sheets.
# = Minimum Relative Response Factor

CALIBRATION OUTLIER
PESTICIDE/PCB TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 28538
COLUMN: DB-1701

LABORATORY: MITKEN
SITE NAME: TOWN OF PINES

Instrument# E4		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		9/27/00-1556			9/28/00-0457			9/29/00-1109								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
alpha-BHC	0.01															
beta-BHC	0.40															
delta-BHC	0.90															
gamma-BHC	0.01															
Heptachlor	0.01															
Aldrin	0.01															
Heptachlor epoxide	0.10															
Endosulfan I	0.10															
Dieldrin	0.05															
4, 4'-DDE	0.70															
Endrin	0.70															
Endosulfan II	0.01															
4, 4'-DDD	0.60															
Endosulfan sulfate	0.60															
4, 4'-DDT	0.01															
Methoxychlor	0.01															
Endrin ketone	0.80															
Endrin aldehyde	0.70															
alpha chlordane	0.01															
gamma chlordane	0.01															
Arochlor 1016																
hlor 1221																
ochlor 1232																
Arochlor 1242																
Arochlor 1248																
Arochlor 1254																
Arochlor 1260																

Affected samples:

PBLK01	E05L0
PLCS01	E05L4
E05M3	E05L6
E05M2	E05N0-N7
E05M4-6	
E05M3	
E05L1	
E05L7	
E05L8	

Reviewer's Init/Date: 10/17/01

* These flags should be applied to the analytes on the sample data sheets.
# Minimum Relative Response Factor

CALIBRATION OUTLIER

PESTICIDE/PCB TCL COMPOUNDS

(Page 1 of 1)

CASE\SAS#: 28538
COLUMN: DB608

LABORATORY: MITKEN
SITE NAME: TOWN OF PINES

Instrument# E4		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		9/27/01-1854			9/28/01-0457			9/29/01-0109								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
alpha-BHC	0.01															
beta-BHC	0.40															
delta-BHC	0.90															
gamma-BHC	0.01															
Heptachlor	0.01															
Aldrin	0.01															
Heptachlor epoxide	0.10															
Endosulfan I	0.10															
Dieldrin	0.05															
4, 4'-DDE	0.70															
Endrin	0.70															
Endosulfan II	0.01															
4, 4'-DDD	0.60															
Endosulfan sulfate	0.60															
4, 4'-DDT	0.01															
Methoxychlor	0.01															
Endrin ketone	0.80															
Endrin aldehyde	0.70															
alpha chlordane	0.01															
gamma chlordane	0.01															
Arochlor 1016																
Arochlor 1221																
Arochlor 1232																
Arochlor 1242																
Arochlor 1248																
Arochlor 1254																
Arochlor 1260																

Affected samples:

PBLK01	E05L0
PLCS01	E05L4
E05N3	E05L6
E05M2	E05N0-N7
E05M4-6	
E05M8	
E05L1	
E05L7	
E05L8	

Reviewer's Init/Date: 10/17/01

* These flags should be applied to the analytes on the sample data sheets.

Minimum Relative Response Factor

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V
ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Sample Delivery Group: E05L0 CERCLIS No: _____

Case No: 28538 Site Name/Location: TOWN OF PINES GW Plume

Contractor or EPA Lab: MITKem Data User: IDem

No. of Samples: 20 Date Sampled or Date Received: 10-5-00

Have Chain-of-Custody records been received? Yes ✓ No ____
Have traffic reports or packing lists been received? Yes ✓ No ____
If no, are traffic report or packing list numbers written on the Chain-of-Custody Record?
Yes ____ No ____
If no, which traffic report or packing list numbers are missing?

_____ _____ _____ _____
_____ _____ _____ _____

Are basic data forms in? Yes ✓ No ____
No of samples claimed: 20 No. of samples received: 20

Received by: Ena M. Dixon/ESAT Date: 10-5-00

Received by LSSS: Ena M. Dixon/ESAT Date: 10-5-00

Review started: 10/16/00 Reviewer Signature: [signature]

Total time spent on review: 8.0 Date review completed: 10/17/00

Copied by: _____ Date: _____

Mailed to user by: _____ Date: _____

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ML-10C

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete	[ ] Suitable for Intended Purpose [ ] ✓ if OK
Organic Data Complete	[ ] Suitable for Intended Purpose [ ] ✓ if OK
Dioxin data Complete	[ ] Suitable for Intended Purpose [ ] ✓ if OK
SAS Data Complete	[ ] Suitable for Intended Purpose [ ] ✓ if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

_____
_____

Received by Data Mgmt. Coordinator for Files. Date: _____

ORGANIC DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature used in this document, the following code letters and associated definitions are provided:

VALUE - when/if the result of a value is greater than or equal to the Contract Required Quantitation Limit (CRQL).

U Indicates that the compound was analyzed for, but not detected. The sample quantitation limit corrected for dilution and percent moisture is reported.

J Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of a compound where the result is less than the sample quantitation limit, but greater than zero. The flag is also used to indicate a reported result having an associated QC problem.

R Indicates the data are unusable. (NOTE: The analyte may or may not be present.)

N Indicates presumptive evidence of a compound. This flag is only used for a tentatively identified compound, where the identification is based on a mass spectral library search.

P Indicates a pesticide/Aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two GC columns. The lower of the two results is reported.

C Indicates pesticide results that have been confirmed by GC/MS.

B Indicates the analyte is detected in the associated blank as well as in the sample.

E Indicates compounds whose concentrations exceed the calibration range of the instrument.

D Indicates an identified compound in an analysis has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analysis.

A Indicates tentatively identified compounds that are suspected to be aldol condensation products.

G Indicates the TCLP Matrix Spike Recovery was greater than the upper limit of the analytical method.

L Indicates the TCLP Matrix Spike Recovery was less than the lower limit of the analytical method.

T Indicates the analyte is found in the associated TCLP extraction blank as well as in the sample.

X,Y,Z are reserved for laboratory defined flags.

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SDG No.: E05L0

Case No.: 28538

1. Matrix (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Field QC
   5. Soil/Sediment
   6. PE-water
   7. PE-soil
   8. Other (specify in Column A)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NaHSO4
   4. H2SO4
   5. Ice only
   6. CH3OH
   7. Other (specify in Column D)
   N. Not Preserved

3. Region No.: 5
Sampling Co.: IDEM
Sampler (Name): M. JANOSKI
Sampler Signature:

4. Purpose**
Lead: SF, PRP, ST, FED, BZ
Early Action: IA, PA, REM, RI, SI, ESI
Long-Term Action: RIFS, RD, RA, O&M

5. Date Shipped: 9-21-00
Carrier: FED EX
Airbill Number: 8205 8986 8390

6. Ship To: MITKEM CORPORATION
175 METRO CENTRE BLVD
WARWICK, RI 02886
ATTN: AGNES NG

7. Date Received--Received by: 9/22/00 Nathan Reynolds
Laboratory Contract No.: 68-D6-0063
Unit Price: $498.75

8. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

	CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other:	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	TA (circle one) PR* 7 14 21 BNA	TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
01	E05M1	2	L	G	1	X			5-178762	RW-2	[illegible]		[illegible]	
02	E05M2	2	L	G	1	Y			5-178664	RW-1	" [illegible]		[illegible]	
03	E05M4	2	L	G	1	Y			5-178655	RW-3	" [illegible]		[illegible]	
04	E05M5	2	L	G	1	Y			5-178754	RW-4	" [illegible]		[illegible]	
05	E05M6	2	L	G	1	Y			5-178753	RW-5	" [illegible]		[illegible]	
06	E05L1	2	L	G	1	Y			5-178752	RW-6	" [illegible]		[illegible]	
07	E05L7	2	L	G	1	Y			5-178762	RW-7	" [illegible]		[illegible]	
08	E05L8	2	L	G	1	Y			5-178763	RW-8	" [illegible]		[illegible]	
09	E05M9	2	L	G	1	Y			5-178751	RW-9	" [illegible]		[illegible]	
10	E05L0	2	L	G	1	X			5-178752	RW-10	" [illegible]		[illegible]	

Shipment for Case Complete? (Y/N): Y
Page 1 of 2
VOA MS/MSD Required? Y/N Sample #: E05L5
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures: AD RL BM GO

Chain of Custody Seal Number(s): 206[illegible]

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	9-21-00 3:55				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [signature]	Date / Time: 9/22/00 1845	Remarks: Is custody seal intact? Y/N/none	

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions
**See Reverse for Purpose Code Definitions

E Form 9110-2 (2/99)

CLASS 99-002

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SDG No.: E05L0

Case No.: 28538

1. Matrix (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. PE-water 7. PE-soil 8. Other (specify in Column A)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Ice only 6. CH3OH 7. Other (specify in Column D) N. Not Preserved

3. Region No.: Sampling Co.: IDEM

5. Date Shipped: 9-21-00 Carrier: FED EX

7. Date Received--Received by: 9/22/00 Nathan Reynolds

Sampler (Name): MARK JAWORSKI

Airbill Number: [illegible]

Laboratory Contract No.: 68-D6-0063 Unit Price: $498.75

Sampler Signature: Mark Jaworski

6. Ship To: MITKEM CORPORATION
175 METRO CENTER BOULEVARD
WARWICK RI 02886
ATTN: AGNES NG

8. Transfer to: Date Received:

Received by:

Contract Number: Price:

4. Purpose**: Lead: SF, PRP, ST, FED, BZ; Early Action: IA, PA, REM, RI, SI, ESI; Long-Term Action: RIFS, RD, RA, O&M

	CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other:	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	TA (circle one) PR* 7 14 21 BNA	TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
520														
11	E05L4	2	L	G	1	X			5-178472	RW-16	9/20/00 5:51pm		[illegible]	
12	E05L6	2	L	G	1	X			5-178601	RW-17	9/20/00 6:45pm		[illegible]	
13	E05N1	2	L	G	1	X			5-178620	RW-20	9/21/00 9:10am		RG	
14	E05N2	2	L	G	1	X			5-178801	RW-21	9/21/00 10:30am		RG	
15	E05N3	2	L	G	1	X			5-178802	RW-22	9/21/00 11:00am		RG	
16	E05N6	2	L	G	1	X			5-178814	RW-24	9/21/00 10:37am		RG	
17	E05N7	2	L	G	1	X			5-178813	RW-23	9/21/00 11:[illegible]		RG	
18	E05N5	2	L	G	1	X			5-178454	RW-26	9/21/00 12:11pm		RG	
19	E05N4	2	L	G	1	X			5-178453	RW-25	9/21/00 12:[illegible]		RG	
20	E05N0	2	L	G	1	X			5-178822	RW-27	9/21/00 1:55pm		RG	

Shipment for Case Complete? (Y/N): N

Page 1 of 1

VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures: GD, [illegible], HD

Chain of Custody Seal Number(s): [illegible]

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Mark Jaworski	9-21-00 4:30				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Nathan Reynolds	Date / Time 9/22/00 0845	Remarks: Is custody seal intact? Y/N/none 3°C	

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions
**See Reverse for Purpose Code Definitions

EPA Form 9110-2 (2/99)

CLASS-99-002

389636

SDG-Final Sample

731

Organic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
Contract Laboratory Program

(For Organic CLP Analysis)

SDG No.: E05L0

Case No.: 2855 38

1. Matrix (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Field QC
   5. Soil/Sediment
   6. PE-water
   7. PE-soil
   8. Other (specify in Column A)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NaHSO4
   4. H2SO4
   5. Ice only
   6. CH3OH
   7. Other (specify in Column D)
   N. Not Preserved

3. Region No.: 15 | Sampling Co.: TDEM

Sampler (Name): MARK [illegible]

Sampler Signature: [signature]

4. Purpose** / Early Action / Long-Term Action
   - Lead: SF, PRP, ST, FED, BZ
   - Early Action: IA, PA, REM, RI, SI, ESI
   - Long-Term Action: RIFS, RD, RA, O&M

5. Date Shipped: | Carrier: FED EX

Airbill Number: 820588863410

6. Ship To:
MITKEM CORPORATION
175 METRO CENTER BLVD
WARWICK, RI 02886
ATTN: AGNES NG

7. Date Received--Received by: 9/22/00 Nathan Reynolds

Laboratory Contract No.: 68-D6-0063 | Unit Price: $498.75

8. Transfer to: | Date Received

Received by:

Contract Number | Price

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med	C Sample Type: Comp./ Grab	D Preservative (from Box 2) Other:	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	E RAS Analysis TA (circle one) PR* 7 14 21 BNA	E RAS Analysis TA (circle one) PR* 7 14 21 Pest/ PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		X		[illegible]	[illegible]	[illegible]		[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		X		[illegible]	[illegible]	[illegible]		[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			X	[illegible]	[illegible]	[illegible]		[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			X	[illegible]	[illegible]	[illegible]		[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			X	[illegible]	[illegible]	[illegible]		[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		X		[illegible]	[illegible]	[illegible]		[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			X	[illegible]	[illegible]	[illegible]		[illegible]	

Shipment for Case Complete? (Y/N): Y

Page 1 of 1

VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures: [illegible]

Chain of Custody Seal Number(s): 20696, 20677

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	9-21-00 2:00PM				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		[signature]	9-22-00 0845	3E	

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions

**See Reverse for Purpose Code Definitions

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SDG No.: E05L0

Case No.: 28538

1. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. PE-water
7. PE-soil
8. Other (specify in Column A)

2. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaHSO4
4. H2SO4
5. Ice only
6. CH3OH
7. Other (specify in Column D)
N. Not Preserved

3. Region No.: 5
Sampling Co.: IDEM
Sampler (Name): M. [illegible]
Sampler Signature: [illegible]

4. Purpose**
Lead: SF, PRP, ST, FED, BZ
Early Action: IA, PA, REM, RI, SI, ESI
Long-Term Action: RIFS, RD, RA, O&M

5. Date Shipped: 9-21-00
Carrier: FED EX
Airbill Number: 8205 8886 8405

6. Ship To:
MITKEM CORPORATION
175 METRO CENTER BLVD
WARWICK, RI 02886
ATTN: AGNES NG

7. Date Received--Received by: 9/22/00 Nathan Reynolds
Laboratory Contract No.: 68-D6-0063
Unit Price: $498.75

8. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other:	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	TA (circle one) PR* 7 14 21 BNA	TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
E05M4	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	5-178703	[illegible]	[illegible]		[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	N			X	5-178701	[illegible]	[illegible]		[illegible]	
E05M4	[illegible]	[illegible]	[illegible]	V		X		5-178700	[illegible]	[illegible]		[illegible]	
E05M4	[illegible]	[illegible]	[illegible]	N		X		5-178699	[illegible]	[illegible]		[illegible]	
E05M5		[illegible]	[illegible]	[illegible]		X		5-178698	[illegible]	[illegible]		[illegible]	
E05M5	[illegible]	[illegible]	G	[illegible]		X		5-178697	[illegible]	[illegible]		[illegible]	
E05M5	[illegible]	[illegible]	G	[illegible]			X	5-178696	[illegible]	[illegible]		[illegible]	
E05M5	[illegible]	[illegible]	G	[illegible]			X	5-178695	[illegible]	[illegible]		[illegible]	

Shipment for Case Complete? (Y/N): [illegible]
Page 1 of 1
VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures: [illegible]

Chain of Custody Seal Number(s): 20607 / 20608

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	9-21-00				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [illegible]	Date / Time 9/22/00 0845	Remarks: Is custody seal intact? Y/N/none	

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions
**See Reverse for Purpose Code Definitions

EPA Form 9110-2 (2/99)

CLASS-99-002

389613

EPA — Organic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
Contract Laboratory Program

(For Organic CLP Analysis)

SDG No.: E05LQ

Case No.: 28538

1. Matrix (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Field QC
   5. Soil/Sediment
   6. PE-water
   7. PE-soil
   8. Other (specify in Column A)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NaHSO4
   4. H2SO4
   5. Ice only
   6. CH3OH
   7. Other (specify in Column D)
   N. Not Preserved

3. Region No.: 5
Sampling Co.: EBEM

5. Date Shipped: 9-21-00
Carrier: FED EX

7. Date Received--Received by: 9/22/00 Nathan Reynolds

Sampler (Name): M. J. Jaworski

Airbill Number: 820588868508

Laboratory Contract No.: 68-D6-0063
Unit Price: $498.75

Sampler Signature:

6. Ship To:
METREM CORPORATION
145 METRO CENTER BLVD
WARWICK, RI 02886
ATTN:

8. Transfer to:
Date Received

Received by:

Contract Number
Price

4. Purpose**
Lead: SF, PRP, ST, FED, BZ
Early Action: IA, PA, REM, RI, SI, ESI
Long-Term Action: RIFS, RD, RA, O&M

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other	B Conc.: Low Med	C Sample Type: Comp./ Grab	D Preservative (from Box 2) Other	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	E RAS Analysis TA (circle one) PR* 7 14 21 BNA	E RAS Analysis TA (circle one) PR* 7 14 21 Pest/ PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition

Shipment for Case Complete? (Y/N)

Page 1 of 1

VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures:

Chain of Custody Seal Number(s): 20687, 20697

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	9-21-00 3:35PM				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
			9/22/00 1845		

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions
**See Reverse for Purpose Code Definitions

EPA Form 9110-2 (2/99)

CLASS 99 002

Organic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
Contract Laboratory Program

(For Organic CLP Analysis)

SDG No.: E05L0

Case No.: 26538

1. Matrix (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Field QC
   5. Soil/Sediment
   6. PE-water
   7. PE-soil
   8. Other (specify in Column A)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO_3
   3. $NaHSO_4$
   4. H_2SO_4
   5. Ice only
   6. CH_3OH
   7. Other (specify in Column D)
   N. Not Preserved

3. Region No.: 5 | Sampling Co.: IDEM

5. Date Shipped | Carrier: FED EX

7. Date Received--Received by: 9/22/00 Nathan Reynolds

Sampler (Name): M. JAWORSKI

Airbill Number: 820568868416

Laboratory Contract No.: 68-D6-0063 | Unit Price: $498.75

Sampler Signature:

6. Ship To: MILLIKEN CORPORATION, 175 METRO CENTER BLVD, WARWICK, RI 02886, ATTN: JAMES NG

8. Transfer to: | Date Received

Received by:

Contract Number | Price

4. Purpose**
   Lead: SF, PRP, ST, FED, BZ
   Early Action: IA, PA, REM, RI, SI, ESI
   Long-Term Action: RIFS, RD, RA, O&M

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other:	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	E RAS Analysis TA (circle one) PR* 7 14 21 BNA	E RAS Analysis TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
E05L1	2	L	G	N		X		5-178749	RW-6	9/21/00 3:25pm		MJ	
E05L1	2	L	G	N		X		5-178756	RW-6	" "		MJ	
E05L1	2	L	G	N			X	5-178714	RW-6	" "		MJ	
E05L1	2	L	G	N			X	5-178757	RW-6	" "		MJ	
E05L7	2	L	G	N			X	5-178756	RW-7	9/21/00 2:35pm		MJ	
E05L7	2	L	G	N			X	5-178758	RW-7	" "		MJ	
E05L7	2	L	G	N		X			RW-7	" "		MJ	
E05L7	2	L	G	N		X			RW-7	" "		MJ	

Shipment for Case Complete? (Y/N): N

Page: 1 of 1

VOA MS/MSD Required? Y/N Sample #:

BNA MS/MSD Required? Y/N Sample #:

Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures: LB KM AM JA

Chain of Custody Seal Number(s): 20605 / 20606

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	9-21-00 7:00PM				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		[signature]	9/22/00 0852	SE	

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions

**See Reverse for Purpose Code Definitions

EPA Form 9110-2 (2/99)

CLASS-99-002

389620

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SDG No.: E05L0

Case No.: 28538

1. Matrix (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. PE-water 7. PE-soil 8. Other (specify in Column A)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Ice only 6. CH3OH 7. Other (specify in Column D) N. Not Preserved

3. Region No.: 5 | Sampling Co.: IDEM

Sampler (Name): [illegible]

Sampler Signature: [illegible]

4. Purpose**: Lead: SF, PRP, ST, FED, BZ | Early Action: IA, PA, REM, RI, SI, ESI | Long-Term Action: RIFS, RD, RA, O&M

5. Date Shipped: [illegible] | Carrier: FED EX

Airbill Number: [illegible]

6. Ship To: MITKEM CORPORATION 175 METRO CENTER BLVD. WARWICK, RI 02886 ATTN: AGNES NG

7. Date Received--Received by: 9/22/00 Nathan Reynolds

Laboratory Contract No.: 68-D6-0063 | Unit Price: $498.75

8. Transfer to: | Date Received:

Received by:

Contract Number: | Price:

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other:	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	TA (circle one) PR* 7 14 21 BNA	TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
E05L8	2	L	G	N			X	5-178783	RW-8	[illegible] 3:00pm		[illegible]	
E05L8	2	L	G	N			X	5-178782	"	" "		"	
E05L8	2	L	G	N		X		5-178788	"	" "		"	
E05L8	2	L	G	N		X		5-178787	"	" "		"	
E05M8	2	L	G	N			X	5-178789	RW-9	" 4:00pm		"	
E05M8	2	L	G	N			X	5-178784	"	" "		"	
E05M8	2	L	G	N		X		5-178785	"	" "		"	
E05M8	2	L	G	N		X		5-178786	"	" "		"	

OLC 7520

08

09

Shipment for Case Complete? (Y/N): [illegible] | Page 1 of 1

VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures: [illegible]

Chain of Custody Seal Number(s): 20079 [illegible]

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	[illegible]				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [signature]	Date / Time 9/22/00 0845	Remarks: Is custody seal intact? Yes/none 3°C	

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions
**See Reverse for Purpose Code Definitions

Form 9110-2 (2/99)

CLASS-99-002

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SDG No.: E05L0

Case No.: 28538

1. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. PE-water
7. PE-soil
8. Other (specify in Column A)

2. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaHSO4
4. H2SO4
5. Ice only
6. CH3OH
7. Other (specify in Column D)
N. Not Preserved

3. Region No.: 5
Sampling Co.: IDEM
Sampler (Name): Mr. Thursky
Sampler Signature: [signature]

4. Purpose**
Lead: SF, PRP, ST, FED, BZ
Early Action: IA, PA, REM, RI, SI, ESI
Long-Term Action: RIFS, RD, RA, O&M

5. Date Shipped: 9-21-00
Carrier: FED EX
Airbill Number: 820588868493

6. Ship To: MITKEM CORPORATION
175 METRO CENTER BLVD.
WARWICK, RI 02886
ATTN: AGNES NG

7. Date Received--Received by: 9/22/00 Nathan Reynolds
Laboratory Contract No.: 68-D6-0063
Unit Price: $498.75

8. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other:	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	TA (circle one) PR* 7 14 21 BNA	TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
E05L0	2	L	G	N			X	5-178793	[illegible]	[illegible]		[illegible]	
E05L0	2	L	[illegible]	N			X	5-178794	"	" "		"	
E05L0	2	L	"	N		X		5-178796	"	" "		"	
E05L0	2	L	"	N		X		5-178795	"	" "		"	
E05L9	2	L	G	N		X		5-178797	[illegible]	[illegible]		RA	
E05L9	2	L	G	N		X		5-178652	[illegible]	" "			
E05L9	2	L	G	N			X	5-021395	"	" "		"	
E05L9	2	L	G	N			X	5-021396	"	" "		"	

Shipment for Case Complete? (Y/N): N
Page 1 of 1
VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures: [signature]

Chain of Custody Seal Number(s): 20601, 20602

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	9-21-00 3:35pm				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [signature]	Date / Time 9/22/00 0845	Remarks: Is custody seal intact? Y/N/none 3E	

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions
**See Reverse for Purpose Code Definitions

EPA Form 9110-2 (2/99)

CLASS 99-002

389616

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SDG No.: E05L0

Case No.: 28538

1. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. PE-water
7. PE-soil
8. Other (specify in Column A)

2. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaHSO4
4. H2SO4
5. Ice only
6. CH3OH
7. Other (specify in Column D)
N. Not Preserved

3. Region No.: 5
Sampling Co.: IDEM
Sampler (Name): M. [illegible]
Sampler Signature: [illegible]

4. Purpose**
Lead: SF, PRP, ST, FED, BZ
Early Action: IA, PA, REM, RI, SI, ESI
Long-Term Action: RIFS, RD, RA, O&M

5. Date Shipped
Carrier: FED EX
Airbill Number: 8205888 68450

6. Ship To:
MITKEM CORPORATION
175 METRO CENTER BOULEVARD
WARWICK, RI 02886
ATTN: AGNES AG

7. Date Received--Received by: 9/22/00 Nathan Reynolds
Laboratory Contract No.: 68-D6-0063
Unit Price: $498.75

8. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other	B Conc.: Low Med	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	E RAS Analysis TA (circle one) PR* 7 14 21 BNA	E RAS Analysis TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
E05L3	2	L	G	N		X		[illegible]	[illegible]	[illegible]		[illegible]	
E05L3	"	"	"	"		X		[illegible]	"	"		[illegible]	
E05L3	"		"	"			X	[illegible]	"	"		[illegible]	
E05L3	"	"	"	"			X	[illegible]	"	"		[illegible]	
E05L4	"	"	"	"			X	[illegible]	[illegible]	[illegible]		[illegible]	
E05L4	"	"	"	"			X	[illegible]	[illegible]	"		[illegible]	
E05L4	"	"	"	"		X		[illegible]	"	"		[illegible]	
E05L4	"	"	"	"		X		[illegible]	"	"		[illegible]	

OCC

1520

11

Shipment for Case Complete? (Y/N): N
Page 1 of 1
VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:
Additional Sampler Signatures: [illegible]
Chain of Custody Seal Number(s): 20678, 20671

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	9-21-01 2:00PM				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [illegible]	Date / Time 9/22/00 0845	Remarks: Is custody seal intact? Y/N/none 38	

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions
**See Reverse for Purpose Code Definitions

Form 9110-2 (2/99)

CLASS-99-002

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SDG No.: E05L0

Case No.: [illegible]

1. Matrix (Enter in Column A)	2. Preservative (Enter in Column D)	3. Region No.	Sampling Co.	5. Date Shipped	Carrier	7. Date Received--Received by
1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. PE-water 7. PE-soil 8. Other (specify in Column A)	1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Ice only 6. CH3OH 7. Other (specify in Column D) N. Not Preserved		[illegible]	[illegible]	[illegible]	9/22/00 Nathan Reynolds
		Sampler (Name): [illegible]		Airbill Number: [illegible]		Laboratory Contract No.: 68-D6-0063 / Unit Price: $498.75
		Sampler Signature: [illegible]		6. Ship To: [illegible] CORPORATION [illegible] CENTER BOULEVARD WARWICK RI 02886		8. Transfer to: / Date Received
		4. Purpose** Lead: SF, PRP, ST, FED, BZ; Early Action: IA, PA, REM, RI, SI, ESI; Long Term Action: RIFS, RD, RA, O&M		ATTN: [illegible]		Received by
						Contract Number / Price

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other	B Conc. Low Med	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	E RAS Analysis TA (circle one) PR* 7 14 21 BNA	E RAS Analysis TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
[illegible]	[illegible]	L	G	11			Y	[illegible]	[illegible]	[illegible]		[illegible]	
[illegible]		"	"	"			Y	[illegible]	"	" "			
[illegible]	"		"	"		Y		[illegible]	"	" "		"	
[illegible]	"	"	"	"		Y		[illegible]	"	" "		"	
[illegible]	"	"	"	"		Y		[illegible]	[illegible]	[illegible]		"	
[illegible]	"	"	"	"		Y		[illegible]	"	" "		"	
[illegible]	"	"	"	"			Y	[illegible]	"	" "		"	
[illegible]	"	"	"	"			Y	[illegible]	"	" "		"	

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2

Shipment for Case Complete? (Y/N)	Page 1 of 1	VOA MS/MSD Required? Y/N Sample #:	Additional Sampler Signatures	Chain of Custody Seal Number(s)
[illegible]		BNA MS/MSD Required? Y/N Sample #:	[illegible]	[illegible]
		Pest/PCB MS/MSD Required? Y/N Sample #:		

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	[illegible]				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [illegible]	Date / Time 9/22/00 8:45	Remarks: Is custody seal intact? Y/N/none 35	

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions
**See Reverse for Purpose Code Definitions

EPA Form 9110-2 (2/99)

CLASS 99-002

389635

Organic Traffic Report & Chain of Custody Record

EPA United States Environmental Protection Agency
Contract Laboratory Program

(For Organic CLP Analysis)

SDG No.: E05L0

Case No:

1. Matrix (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Field QC
   5. Soil/Sediment
   6. PE-water
   7. PE-soil
   8. Other (specify in Column A)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NaHSO4
   4. H2SO4
   5. Ice only
   6. CH3OH
   7. Other (specify in Column D)
   N. Not Preserved

3. Region No.: [illegible] Sampling Co.: [illegible]

5. Date Shipped: [illegible] Carrier: [illegible]

7. Date Received--Received by: 9/22/00 Nathan Reynolds

Sampler (Name): [illegible]

Airbill Number: [illegible]

Laboratory Contract No.: 68-D6-0063 Unit Price: $498.75

Sampler Signature: [illegible]

6 Ship To: [illegible]

ATTN: [illegible]

8. Transfer to: Date Received:

Received by:

Contract Number: Price:

4. Purpose**
   Lead: SF, PRP, ST, FED, BZ
   Early Action: IA, PA, REM, RI, SI, ESI
   Long Term Action: RIFS, RD, RA, O&M

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other	B Conc: Low Med	C Sample Type: Comp./ Grab	D Preser-vative (from Box 2) Other	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	E TA (circle one) PR* 7 14 21 BNA	E TA (circle one) PR* 7 14 21 Pest/ PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
[illegible]	2	L	G	M			V	[illegible]	[illegible]	[illegible]		[illegible]	
[illegible]	"	"	"	"			V	[illegible]	"	"		"	
[illegible]	"	"	"	"				[illegible]	"	"		"	
[illegible]	"	"	"	"		V		[illegible]	"	"		"	
[illegible]	"	"	"	"		V		[illegible]	"	"		"	
[illegible]	"	"	"	"		V		[illegible]	"	"		"	
[illegible]	"	"	"	"			V	[illegible]	"	"		"	
[illegible]	"	"	"	"			V	[illegible]	"	"		"	

Shipment for Case Complete? (Y/N): Y

Page 1 of 1

VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures: [illegible]

Chain of Custody Seal Number(s): [illegible]

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	[illegible]				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		[illegible]	[illegible]		

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions

**See Reverse for Purpose Code Definitions

EPA Form 9110-2 (2/99)

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic R[illegible]t & Chain of Custody Record

(For Organic CLP Analysis)

SDG No.: E05L0

Case No: [illegible]

1. Matrix (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Field QC
   5. Soil/Sediment
   6. PE-water
   7. PE-soil
   8. Other (specify in Column A)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NaHSO4
   4. H2SO4
   5. Ice only
   6. CH3OH
   7. Other (specify in Column D)
   N. Not Preserved

3. Region No: [illegible] Sampling Co.: TREAT

5. Date Shipped: 9-[illegible]-00 Carrier: FED EX

7. Date Received--Received by: 9/22/00 Nathan Reynolds

Sampler (Name): [illegible]

Airbill Number: 5[illegible]

Laboratory Contract No: 68-D6-0063 Unit Price: $498.75

Sampler Signature: [illegible]

6. Ship To: MITKEM CORPORATION
175 METRO CENTER BOULEVARD
WARWICK RI 02886
ATTN: [illegible]

8. Transfer to: Date Received

Received by:

Contract Number: Price

4. Purpose**
   Lead: SF, PRP, ST, FED, BZ
   Early Action: IA, PA, REM, RI, SI, ESI
   Long Term Action: RIFS, RD, RA, O&M

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other	B Conc Low Med	C Sample Type: Comp / Grab	D Preservative (from Box 2) Other	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	E RAS Analysis TA (circle one) PR* 7 14 21 BNA	E RAS Analysis TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
[illegible]	W	L	G	N		Y		1781.44	[illegible]	[illegible]		[illegible]	
[illegible]	W	L	G	N		Y		1781645	"	"		"	
[illegible]	W	L	G	N				1781646	"	"		"	
[illegible]	W	L	G	N				1781647	"	"		"	
[illegible]	W	L	G	N		Y		1781649	[illegible]	[illegible]		"	
[illegible]	W	L	G	N		Y		1781650	"	"		"	
[illegible]	W	L	G	N				1781799	"	"		"	
[illegible]	W	L	G	N				1782[illegible]	"	"		"	

Shipment for Case Complete? (Y/N): Y

Page 1 of 1

VOA MS/MSD Required? Y/N Sample #:

BNA MS/MSD Required? Y/N Sample #: 1781.42

Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures: [illegible]

Chain of Custody Seal Number(s): [illegible]

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	9/21/2000				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		Nathan Reynolds	9/22/00		

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions

**See Reverse for Purpose Code Definitions

EPA Form 9110-2 (2/99)

CLASS 99 INC

389631

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SDG No.: E05L0

Case No.: 28538

1. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. PE-water
7. PE-soil
8. Other (specify in Column A)

2. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaHSO4
4. H2SO4
5. Ice only
6. CH3OH
7. Other (specify in Column D)
N. Not Preserved

3. Region No.: 5
Sampling Co.: IDEM
Sampler (Name): M. Janowski
Sampler Signature: [signature]

4. Purpose**
Lead: SF, PRP, ST, FED, BZ
Early Action: IA, PA, REM, RI, SI, ESI
Long-Term Action: RIFS, RD, RA, O&M

5. Date Shipped:
Carrier: FED EX
Airbill Number: 820588868436

6. Ship To:
MITKEM CORPORATION
175 METRO CENTER BOULEVARD
WARWICK RI 02886
ATTN: AGNES NG

7. Date Received--Received by: 9/22/00 Nathan Reynolds
Laboratory Contract No: 68-D6-0063
Unit Price: $498.75

8. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other	B Conc. Low Med	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	E TA (circle one) PR* 7 14 21 BNA	E TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
E05N6	2	L	G	N		Y		5-178865	RW-24	9/21/00 11:37am		KMT	
E05N6	"	"	"	"		Y		5-178866	"	" "		"	
E05N6	"	"	"	"			X	5-178867	"	" "		"	
E05N6	"	"	"	"			Y	5-178868	"	" "		"	
E05N7	"	"	"	"			X	5-178869	RW-23	" 11:00am		"	
E05N7	"	"	"	"			X	5-178810	"	" "		"	
E05N7	"	"	"	"		Y		5-178811	"	" "		"	
E05N7	"	"	"	"		Y		5-178812	"	" "		"	

OCC 1520 16 17 SDG-Final Sample

Shipment for Case Complete? (Y/N): N
Page 1 of 1
VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:
Additional Sampler Signatures: [signature]
Chain of Custody Seal Number(s): 20681 20603

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	9-21-00 2:00PM				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [signature]	Date / Time 9/22/00 0845	Remarks: Is custody seal intact? Y/N/none 3°C	

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions
**See Reverse for Purpose Code Definitions

F Form 9110-2 (2/99)

CLASS-99-002

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic R[illegible]rt & Chain of Custody Record
(For Organic CLP Analysis)

SDG No. E05L0

Case No. [illegible]

1. Matrix (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Field QC
   5. Soil/Sediment
   6. PE-water
   7. PE-soil
   8. Other (specify in Column A)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NaHSO4
   4. H2SO4
   5. Ice only
   6. CH3OH
   7. Other (specify in Column D)
   N. Not Preserved

3. Region No. | Sampling Co. [illegible]

5. Date Shipped. [illegible] | Carrier [illegible]

7. Date Received--Received by: 9/22/00 Nathan Reynolds

Sampler (Name) [illegible]

Airbill Number 820588865380

Laboratory Contract No 68-D6-0063 | Unit Price $498.75

Sampler Signature [illegible]

6. Ship To: [illegible] CORPORATION
175 METRO [illegible] BOULEVARD
WARWICK RI 02886
ATTN: [illegible]

8. Transfer to: | Date Received

Received by:

Contract Number | Price

4. Purpose**
Lead: SF, PRP, ST, FED, BZ
Early Action: IA, PA, REM, RI, SI, ESI
Long-Term Action: RIFS, RD, RA, O&M

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other	B Conc. Low Med	C Sample Type Comp./Grab	D Preservative (from Box 2) Other	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	TA (circle one) PR* 7 14 21 BNA	TA (circle one) PR* 7 14 21 Pest/PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
[illegible]	2	L	G	N			Y	[illegible] 178815	[illegible]	[illegible]		[illegible]	
[illegible]	2	L	G	N			Y	[illegible] 178816	"	" "		[illegible]	
[illegible]	2	L	G	N		Y		[illegible] 178817	"	" "		[illegible]	
[illegible]		L	G	N		Y		[illegible] 178818	"	" "		[illegible]	
[illegible]		L	G	N		Y		[illegible] 178820	[illegible]	[illegible]		[illegible]	
[illegible]	2	L	G	N		Y		[illegible] 178819	"	" "		[illegible]	
[illegible]	2	L	G	N			Y	[illegible] 178821	"	"		[illegible]	
[illegible]	2	L	G	N			Y	[illegible] 178822	"	" "		[illegible]	

Shipment for Case Complete? (Y/N) N

Page 1 of 1

VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures [illegible]

Chain of Custody Seal Number(s) [illegible]

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	9-[illegible]				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) [illegible]	Date / Time 9/22/00 0845	Remarks: Is custody seal intact? Y/N/none 3c	

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions
**See Reverse for Purpose Code Definitions

EPA Form 9110-2 (2/99)

389632

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SDG No.: EQ5LQ

Case No.:

1. Matrix (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Field QC
   5. Soil/Sediment
   6. PE-water
   7. PE-soil
   8. Other (specify in Column A)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NaHSO4
   4. H2SO4
   5. Ice only
   6. CH3OH
   7. Other (specify in Column D)
   N. Not Preserved

3. Region No.: [illegible] | Sampling Co.: [illegible]

5. Date Shipped: [illegible] | Carrier: [illegible]

7. Date Received--Received by: 9/22/00 Nathan Reynolds

Sampler (Name): MARK [illegible]

Airbill Number: [illegible]

Laboratory Contract No.: 68-D6-0063 | Unit Price: $498.75

Sampler Signature: [illegible]

6. Ship To: [illegible]

8. Transfer to: | Date Received:

4. Purpose**
   Lead: SF, PRP, ST, FED, BZ
   Early Action: IA, PA, REM, RI, SI, ESI
   Long-Term Action: RIFS, RD, RA, O&M

Received by:

ATTN: [illegible]

Contract Number: | Price:

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other	B Conc. Low Med	C Sample Type Comp./ Grab	D Preservative (from Box 2) Other	E RAS Analysis TA (circle one) PR* 7 14 21 VOA	E RAS Analysis TA (circle one) PR* 7 14 21 BNA	E RAS Analysis TA (circle one) PR* 7 14 21 Pest/ PCB	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Sample Condition
[illegible]	2	L	G	1			V	[illegible]	[illegible]	[illegible]			
[illegible]	"	"	"	"			V	[illegible]	"	"			
[illegible]	"	"	"	"		V		[illegible]	"	"			
[illegible]	"	"	"	"		V		[illegible]	"	"			
[illegible]	"	"	"	"		V		[illegible]	[illegible]	[illegible]			
[illegible]	"		"	"		V		[illegible]	"	"			
[illegible]	"		"	"				[illegible]	"	"			
[illegible]	"		"	"			V	[illegible]	"	"			

Shipment for Case Complete? (Y/N): N

Page 1 of 1

VOA MS/MSD Required? Y/N Sample #:
BNA MS/MSD Required? Y/N Sample #:
Pest/PCB MS/MSD Required? Y/N Sample #:

Additional Sampler Signatures: [illegible]

Chain of Custody Seal Number(s):

*PR provides 7-day data turnaround in addition to preliminary results. Requests for preliminary results will increase analytical costs.

Chain of Custody Record

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	9/21/00 20:[illegible]				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		[illegible]	9/22/00 8:[illegible]	SC	

Distribution: Blue - Region Copy; White - Lab Copy for Return to SMO; Pink - SMO Copy; Yellow - Lab Copy for Return to Region

See Reverse for Additional Standard Instructions
**See Reverse for Purpose Code Definitions

EPA Form 9110-2 (2/99)

CLASS [illegible]

OCT 0 5 2000

SDG Narrative

Mitkem Corporation submits the enclosed data package in response to USEPA Case # 28538 and SDG# E05L0. Analyses were performed for twenty aqueous samples that were received on September 22, 2000. The analyses were performed under USEPA Contract # 68-D6-0063. Please note that all the coolers were measured at 3°C.

The following samples are submitted in this data package:

Client ID	Lab ID	Analysis	VOA pH
E05M3	71520001	V, S, P	<2
E05M2	71520002	V, S, P	<2
E05M4	71520003	V, S, P	<2
E05M5	71520004	V, S, P	<2
E05M6	71520005	V, S, P	<2
E05L1	71520006	V, S, P	<2
E05L7	71520007	V, S, P	<2
E05L8	71520008	V, S, P	<2
E05M8	71520009	V, S, P	<2
E05L0	71520010	V, S, P	<2
E05L4	71520011	V, S, P	<2
E05L5	71520012	V, S, P	<2
E05N1	71520013	V, S, P	<2
E05N2	71520014	V, S, P	<2
E05N3	71520015	V, S, P	<2
E05N6	71520016	V, S, P	<2
E05N7	71520017	V, S, P	<2
E05N5	71520018	V, S, P	<2
E05N4	71520019	V, S, P	<2
E05N0	71520020	V, S, P	<2

V = Volatiles
S = Semivolatiles
P = Pesticides/PCB

The analyses were performed using USEPA CLP Low Concentration Water (OLC02.1) protocols. The analyses were performed with strict adherence to the SOW with the following exceptions and observations:

1. Overall Observation:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required.

2. Volatile Analysis:

Trap used for instrument V1: OI Analytical #10 trap containing 8 cm each of Tenax, silica gel and carbon molecular sieve

GC column used: 30 m x 0.25 mm id (1.4 um film thickness) DB-624 capillary column.

No unusual observation was made for the analysis.

3. Semivolatile Analysis:

GC column: 30 m x 0.25 mm id (0.5 um film thickness) DB-5MS capillary column

No unusual observation was made for the analysis.

4. Pesticides/PCB Analysis:

GC column used: 30 m x 0.53 mm id (0.81 um film thickness) DB-608 and 30 m x 0.53 mm id (0.5 um film thickness) DB-1701 megabore columns

No unusual observation was made for the analysis.

All of the submittals to the region are originals other than log book pages and copies of tunes and standard files which are shared by many other cases. For these, the original copies are archived in the laboratory.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed

above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Agnes Ng
CLP Project Manager
10/4/00

2LCA
LOW CONC. WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

	EPA SAMPLE NO.	BFB %REC #	OTHER	TOT OUT
01	VBLK1C	100		0
02	E05M3	86		0
03	E05M2	98		0
04	E05M4	110		0
05	E05M5	112		0
06	E05M6	112		0
07	E05L1	118		0
08	E05L7	115		0
09	E05L8	117		0
10	E05M8	115		0
11	E05L0	118		0
12	E05L6	113		0
13	E05N1	111		0
14	E05N2	115		0
15	E05N3	111		0
16	E05N6	116		0
17	VLCS1C	112		0
18	VBLK1D	112		0
19	E05L4	90		0
20	E05N7	99		0
21	E05N5	118		0
22	E05N4	101		0
23	E05N0	102		0
24	VBLK1E	99		0
25	VHBLK1E	94		0
26				
27				
28				
29				
30				

QC LIMITS
%REC
BFB = Bromofluorobenzene (80-120)

Column to be used to flag recovery values.
* Values outside of contract required QC limits.

3LCA

LOW CONC. WATER VOLATILE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

VLCS1C

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: V1L0927A LCS Lot No.:

Lab File ID: V1D4580 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

LCS Aliquot: 10 (ul)

COMPOUND	AMOUNT ADDED (NG)	AMOUNT RECOVERED (NG)	%REC #	QC LIMITS
Vinyl chloride	125	94	75	60-140
1,2-Dichloroethane	125	146	117	60-140
Carbon tetrachloride	125	137	110	60-140
1,2-Dichloropropane	125	118	94	60-140
Trichloroethene	125	125	100	60-140
1,1,2-Trichloroethane	125	137	110	60-140
Benzene	125	115	92	60-140
cis-1,3-Dichloropropene	125	137	110	60-140
Bromoform	125	143	114	60-140
Tetrachloroethene	125	128	102	60-140
1,2-Dibromoethane	125	144	115	60-140
1,4-Dichlorobenzene	125	125	100	60-140

Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.

LCS Recovery: 0 outside limits out of 12 total.

COMMENTS: _____

4LCA

LOW CONC. WATER VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK1C

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: V1B0927A Date Analyzed: 09/27/00

Lab File ID: V1D4563 Time Analyzed: 1205

Instrument ID: V1

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E05M3	71520001	V1D4564	1352
02	E05M2	71520002	V1D4565	1416
03	E05M4	71520003	V1D4566	1441
04	E05M5	71520004	V1D4567	1506
05	E05M6	71520005	V1D4568	1531
06	E05L1	71520006	V1D4569	1556
07	E05L7	71520007	V1D4570	1621
08	E05L8	71520008	V1D4571	1646
09	E05M8	71520009	V1D4572	1711
10	E05L0	71520010	V1D4573	1736
11	E05L6	71520012	V1D4575	1825
12	E05N1	71520013	V1D4576	1850
13	E05N2	71520014	V1D4577	1915
14	E05N3	71520015	V1D4578	1940
15	E05N6	71520016	V1D4579	2005
16	VLCS1C	V1L0927A	V1D4580	2030
17				
18				
19				
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COMMENTS: _____

4LCA

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE METHOD BLANK SUMMARY

VBLK1D

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: V1B0929A Date Analyzed: 09/29/00

Lab File ID: V1D4592 Time Analyzed: 1206

Instrument ID: V1

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E05L4	71520011	V1D4593	1246
02	E05N7	71520017	V1D4594	1318
03	E05N5	71520018	V1D4595	1351
04	E05N4	71520019	V1D4596	1421
05	E05N0	71520020	V1D4597	1450
06				
07				
08				
09				
10				
11				
12				
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COMMENTS: _____

4LCA

LOW CONC. WATER VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK1E

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: V1B1002A Date Analyzed: 10/02/00

Lab File ID: V1D4622 Time Analyzed: 1150

Instrument ID: V1

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VHBLK1E	V1B1002B	V1D4633	1920
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
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COMMENTS: _____

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1C

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: V1B0927A Date Received: _____

Lab File ID: V1D4563 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK1C

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: V1B0927A Date Received: _____

Lab File ID: V1D4563 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
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30.					

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1D

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: V1B0929A Date Received: _____

Lab File ID: V1D4592 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK1D

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: V1B0929A Date Received: _____

Lab File ID: V1D4592 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
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27.					
28.					
29.					
30.					

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1E

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: V1B1002A Date Received: _____

Lab File ID: V1D4622 Date Analyzed: 10/02/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK1E

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: V1B1002A Date Received: _____

Lab File ID: V1D4622 Date Analyzed: 10/02/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLK1E

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: V1B1002B Date Received: 09/22/00

Lab File ID: V1D4633 Date Analyzed: 10/02/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLK1E

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: V1B1002B Date Received: 09/22/00

Lab File ID: V1D4633 Date Analyzed: 10/02/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VLCS1C

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: V1L0927A Date Received: _____

Lab File ID: V1D4580 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl chloride	4	
75-00-3	Chloroethane	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	6	
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	5	
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	5	
10061-01-5	cis-1,3-Dichloropropene	5	
79-01-6	Trichloroethene	5	
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	5	
71-43-2	Benzene	4	
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	6	
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	5	
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	6	
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	5	
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlcrobenzene	1	U

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520010 Date Received: 09/22/00

Lab File ID: V1D4573 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCB

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E05L0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520010 Date Received: 09/22/00

Lab File ID: V1D4573 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520006 Date Received: 09/22/00

Lab File ID: V1D4569 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05L1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520006 Date Received: 09/22/00

Lab File ID: V1D4569 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520012 Date Received: 09/22/00

Lab File ID: V1D4575 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

R W1 M

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	5	
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05L6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520012 Date Received: 09/22/00

Lab File ID: V1D4575 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.	98-82-8	BENZENE, (1-METHYLETHYL)-	12.41	3	NJ
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L7

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520007 Date Received: 09/22/00

Lab File ID: V1D4570 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05L7

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520007 Date Received: 09/22/00

Lab File ID: V1D4570 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520008 Date Received: 09/22/00

Lab File ID: V1D4571 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05L8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520008 Date Received: 09/22/00

Lab File ID: V1D4571 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520011 Date Received: 09/22/00

Lab File ID: V1D4593 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	U
67-64-1	Acetone	3	J
75-15-0	Carbon disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05L4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520011 Date Received: 09/22/00

Lab File ID: V1D4593 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520002 Date Received: 09/22/00

Lab File ID: V1D4565 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520002 Date Received: 09/22/00

Lab File ID: V1D4565 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520001 Date Received: 09/22/00

Lab File ID: V1D4564 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520001 Date Received: 09/22/00

Lab File ID: V1D4564 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520003 Date Received: 09/22/00

Lab File ID: V1D4566 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520003 Date Received: 09/22/00

Lab File ID: V1D4566 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520004 Date Received: 09/22/00

Lab File ID: V1D4567 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520004 Date Received: 09/22/00

Lab File ID: V1D4567 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520005 Date Received: 09/22/00

Lab File ID: V1D4568 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520005 Date Received: 09/22/00

Lab File ID: V1D4568 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
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3.					
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520009 Date Received: 09/22/00

Lab File ID: V1D4572 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520009 Date Received: 09/22/00

Lab File ID: V1D4572 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.					
2.					
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520020 Date Received: 09/22/00

Lab File ID: V1D4597 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05N0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520020 Date Received: 09/22/00

Lab File ID: V1D4597 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520013 Date Received: 09/22/00

Lab File ID: V1D4576 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05N1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520013 Date Received: 09/22/00

Lab File ID: V1D4576 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520014 Date Received: 09/22/00

Lab File ID: V1D4577 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E05N2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520014 Date Received: 09/22/00

Lab File ID: V1D4577 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520015 Date Received: 09/22/00

Lab File ID: V1D4578 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05N3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520015 Date Received: 09/22/00

Lab File ID: V1D4578 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520019 Date Received: 09/22/00

Lab File ID: V1D4596 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05N4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520019 Date Received: 09/22/00

Lab File ID: V1D4596 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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26.					
27.					
28.					
29.					
30.					

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520018 Date Received: 09/22/00

Lab File ID: V1D4595 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05N5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520018 Date Received: 09/22/00

Lab File ID: V1D4595 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

RW 10

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.		UNKNOWN	12.78	3	J
2.					
3.					
4.					
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30.					

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520016 Date Received: 09/22/00

Lab File ID: V1D4579 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05N6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520016 Date Received: 09/22/00

Lab File ID: V1D4579 Date Analyzed: 09/27/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
5.					
6.					
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1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N7

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520017 Date Received: 09/22/00

Lab File ID: V1D4594 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

CAS NO.	COMPOUND	CONCENTRATION (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	1	U
75-09-2	Methylene chloride	2	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
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	0.5	J
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylenes (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05N7

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520017 Date Received: 09/22/00

Lab File ID: V1D4594 Date Analyzed: 09/29/00

Purge Volume: 25 (mL) Dilution Factor: 1.0

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
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29.					
30.					

2LCB
LOW CONC. WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

	EPA SAMPLE NO.	NBZ %REC #	FBP %REC #	TPH %REC #	PHL %REC #	2FP %REC #	TBP %REC #	OTHER	TOT OUT
01	SBLK1Y	76	72	85	38	38	42		0
02	SLCS1Y	77	74	88	38	38	42		0
03	E05M3	73	70	75	37	37	44		0
04	E05M2	70	66	75	36	35	43		0
05	E05M4	75	73	75	38	38	44		0
06	E05M5	72	70	88	36	36	45		0
07	E05M6	77	72	91	39	39	43		0
08	E05L1	76	73	84	38	38	45		0
09	E05L7	66	63	81	32	32	39		0
10	E05L8	77	71	88	39	38	44		0
11	E05M8	78	72	75	38	38	44		0
12	E05L0	73	70	85	38	37	43		0
13	E05L4	80	77	88	40	39	44		0
14	E05L6	74	69	85	37	37	45		0
15	E05N1	79	73	86	39	39	45		0
16	E05N2	79	75	88	39	39	44		0
17	E05N3	77	78	96	38	39	44		0
18	E05N7	59	59	82	29	29	39		0
19	E05N5	75	75	90	37	38	45		0
20	E05N4	80	79	95	39	40	46		0
21	E05N0	72	72	81	35	35	42		0
22	E05N6	78	77	83	39	40	46		0
23									
24									
25									
26									
27									
28									
29									
30									

		QC LIMITS %REC
NBZ	= Nitrobenzene-d5	(23-120)
FBP	= 2-Fluorobiphenyl	(30-115)
TPH	= Terphenyl-d14	(18-140)
PHL	= Phenol-d5	(15-115)
2FP	= 2-Fluorophenol	(15-121)
TBP	= 2,4,6-Tribromophenol	(15-130)

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

3LCB

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE LAB CONTROL SAMPLE RECOVERY

SLCS1Y

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: S0922-LW1 LCS Lot No.:

Lab File ID: S1B7710 Date Extracted: 09/22/00

LCS Aliquot: 1000 (ul) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	%REC #	QC LIMITS
Phenol	40	29	72	40-120
bis(-2-Chloroethyl)Ether	20	16	80	50-110
2-Chlorophenol	40	30	75	50-110
N-Nitroso-di-n-propylamine	20	15	75	30-110
Hexachloroethane	20	13	65	20-110
Isophorone	20	15	75	50-110
Naphthalene	20	15	75	30-110
4-Chloroaniline	40	37	92	10-120
2,4,6-Trichlorophenol	40	28	70	40-120
2,4-Dinitrotoluene	20	13	65	30-120
Diethylphthalate	20	16	80	50-120
N-nitrosodiphenylamine (1)	20	15	75	30-110
Hexachlorobenzene	20	16	80	40-120
Benzo(a)pyrene	20	14	70	50-120

Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.

LCS Recovery: 0 outside limits out of 14 total.

COMMENTS: _____

4LCB

LOW CONC. WATER SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK1Y

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: S0922-BW1 Date Extracted: 09/22/00

Lab File ID: S1B7708 Date Analyzed: 09/27/00

Instrument ID: S1 Time Analyzed : 1709

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES and LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SLCS1Y	S0922-LW1	S1B7710	09/27/00
02	E05M3	71520001	S1B7711	09/27/00
03	E05M2	71520002	S1B7712	09/27/00
04	E05M4	71520003	S1B7713	09/27/00
05	E05M5	71520004	S1B7714	09/27/00
06	E05M6	71520005	S1B7715	09/27/00
07	E05L1	71520006	S1B7716	09/27/00
08	E05L7	71520007	S1B7717	09/27/00
09	E05L8	71520008	S1B7718	09/27/00
10	E05M8	71520009	S1B7719	09/28/00
11	E05L0	71520010	S1B7720	09/28/00
12	E05L4	71520011	S1B7721	09/28/00
13	E05L6	71520012	S1B7722	09/28/00
14	E05N1	71520013	S1B7723	09/28/00
15	E05N2	71520014	S1B7724	09/28/00
16	E05N3	71520015	S1B7729	09/28/00
17	E05N7	71520017	S1B7730	09/28/00
18	E05N5	71520018	S1B7731	09/28/00
19	E05N4	71520019	S1B7732	09/28/00
20	E05N0	71520020	S1B7733	09/28/00
21	E05N6	71520016	S1B7753	09/28/00
22				
23				
24				
25				
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30				

COMMENTS: _____

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1Y

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: S0922-BW1 Date Received: _____

Lab File ID: S1B7708 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1Y

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: S0922-BW1 Date Received: _____

Lab File ID: S1B7708 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SBLK1Y

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: S0922-BW1 Date Received: _____

Lab File ID: S1B7708 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
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26.					
27.					
28.					
29.					
30.					

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SLCS1Y

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: S0922-LW1 Date Received: _____

Lab File ID: S1B7710 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	29	
111-44-4	bis(-2-Chloroethyl)Ether	16	
95-57-8	2-Chlorophenol	30	
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	15	
67-72-1	Hexachloroethane	13	
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	15	
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	15	
106-47-8	4-Chloroaniline	37	
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	28	
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SLCS1Y

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: S0922-LW1 Date Received: _____

Lab File ID: S1B7710 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	13	
84-66-2	Diethylphthalate	16	
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	15	
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	16	
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	U
205-99-2	Benzo(b)fluoranthene	5	U
207-08-9	Benzo(k)fluoranthene	5	U
50-32-8	Benzo(a)pyrene	14	
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

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520010 Date Received: 09/22/00

Lab File ID: S1B7720 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520010 Date Received: 09/22/00

Lab File ID: S1B7720 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLCS01(1)

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: P0922-LW1 Date Received: _____

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/28/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.084	
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.087	
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.18	
72-55-9	4,4'-DDE	0.17	
72-20-8	Endrin	0.22	
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.15	
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.090	
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLCS01(2)

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: P0922-LW1 Date Received: _____

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/28/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.084	
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.088	
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.19	
72-55-9	4,4'-DDE	0.18	
72-20-8	Endrin	0.22	
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.15	
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.091	
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520010 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520006 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 09/28/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520011 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520012 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.011	P
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L7

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520007 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/28/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520008 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/28/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520003 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/28/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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EPA SAMPLE NO.

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

E05M5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520004 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 09/28/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520020 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520013 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520005 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 09/28/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520009 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/28/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520019 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

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LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520018 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

1LCD

EPA SAMPLE NO.

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

PBLK01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: P0922-BW1 Date Received: _____

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/28/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

4LCC

EPA SAMPLE NO.

LOW CONC. WATER PESTICIDE METHOD BLANK SUMMARY

PBLK01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Date Extracted: 09/22/00 Lab Sample ID: P0922-BW1

Date Analyzed (1): 09/28/00 Date Analyzed (2): 09/28/00

Time Analyzed (1): 1740 Time Analyzed (2): 1740

Instrument ID (1): E4 Instrument ID (2): E4

GC Column (1): DB-1701 ID: 0.53(mm) GC Column (2): DB-608 ID: 0.53(mm)

Sulfur Cleanup (Y/N) Y Extraction: (SepF/Cont) SEPF

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PLCS01	P0922-LW1	09/28/00	09/28/00
02	E05M3	71520001	09/28/00	09/28/00
03	E05M2	71520002	09/28/00	09/28/00
04	E05M4	71520003	09/28/00	09/28/00
05	E05M5	71520004	09/28/00	09/28/00
06	E05M6	71520005	09/28/00	09/28/00
07	E05L1	71520006	09/28/00	09/28/00
08	E05L7	71520007	09/28/00	09/28/00
09	E05L8	71520008	09/28/00	09/28/00
10	E05M8	71520009	09/28/00	09/28/00
11	E05L0	71520010	09/29/00	09/29/00
12	E05L4	71520011	09/29/00	09/29/00
13	E05L6	71520012	09/29/00	09/29/00
14	E05N1	71520013	09/29/00	09/29/00
15	E05N2	71520014	09/29/00	09/29/00
16	E05N3	71520015	09/29/00	09/29/00
17	E05N6	71520016	09/29/00	09/29/00
18	E05N7	71520017	09/29/00	09/29/00
19	E05N5	71520018	09/29/00	09/29/00
20	E05N4	71520019	09/29/00	09/29/00
21	E05N0	71520020	09/29/00	09/29/00
22				
23				
24				
25				
26				

COMMENTS: _____

3LCC

LOW CONC. WATER PESTICIDE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

PLCS01

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: P0922-LW1 LCS Lot No.:

LCS Aliquot: 1000 (uL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/28/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y

Instrument ID(1): E4 GC Column(1):DB-1701 ID:0.53 (mm)

COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	%REC #	QC LIMITS
gamma-BHC (Lindane)	100	84.3	84	50-120
Heptachlor epoxide	100	87.4	87	50-150
Dieldrin	200	184.0	92	30-130
4,4'-DDE	200	173.0	86	50-150
Endrin	200	219.0	110	50-120
Endosulfan sulfate	200	154.0	77	50-120
gamma-Chlordane	100	89.8	90	30-130

Instrument ID(2): E4 GC Column(2):DB-608 ID:0.53 (mm)

COMPOUND	AMOUNT ADDED ng	AMOUNT RECOVERED ng	%REC #	QC LIMITS
gamma-BHC (Lindane)	100	83.9	84	50-120
Heptachlor epoxide	100	87.6	88	50-150
Dieldrin	200	190.0	95	30-130
4,4'-DDE	200	180.0	90	50-150
Endrin	200	223.0	112	50-120
Endosulfan sulfate	200	154.0	77	50-120
gamma-Chlordane	100	90.7	91	30-130

Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.
LCS Recovery: 0 outside limits out of 14 total.

COMMENTS: _____

2LCC
LOW CONC. WATER PESTICIDE SURROGATE RECOVERY

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

GC Column(1): DB-1701 ID: 0.53 (mm) GC Column(2): DB-608 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX(1) %REC #	TCX(2) %REC #	DCB(1) %REC #	DCB(2) %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK01	112	91	91	94			0
02	PLCS01	104	84	94	98			0
03	E05M3	95	101	88	92			0
04	E05M2	88	81	86	96			0
05	E05M4	92	90	85	89			0
06	E05M5	90	79	79	83			0
07	E05M6	90	79	89	88			0
08	E05L1	90	81	89	95			0
09	E05L7	82	78	72	76			0
10	E05L8	99	86	83	89			0
11	E05M8	89	89	93	98			0
12	E05L0	93	79	93	98			0
13	E05L4	88	86	91	97			0
14	E05L6	84	75	96	100			0
15	E05N1	84	72	89	94			0
16	E05N2	94	83	93	98			0
17	E05N3	100	92	98	101			0
18	E05N6	98	95	83	86			0
19	E05N7	95	83	94	100			0
20	E05N5	96	85	94	99			0
21	E05N4	95	83	95	100			0
22	E05N0	101	83	96	101			0
23								
24								
25								
26								
27								
28								
29								
30								

QC LIMITS

		%REC
S1 TCX	= Tetrachloro-m-xylene	(30-150)
S2 DCB	= Decachlorobiphenyl	(30-150)

Column to be used to flag recovery values.
* Values outside of QC limits.
D Surrogate diluted out.

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05N7

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520017 Date Received: 09/22/00

Lab File ID: S1B7730 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 2

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.		UNKNOWN	3.71	3	J
2.	10544-50-0	SULFUR, MOL. (S8)	17.57	5	NJ
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
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27.					
28.					
29.					
30.					

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N7

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520017 Date Received: 09/22/00

Lab File ID: S1B7730 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	J
117-84-0	Di-n-octylphthalate	5	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

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N7

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520017 Date Received: 09/22/00

Lab File ID: S1B7730 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05N6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520016 Date Received: 09/22/00

Lab File ID: S1B7753 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

RW24

Number TICs found: 3

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.		UNKNOWN	3.75	2	J
2.		UNKNOWN	18.36	2	J
3.		UNKNOWN	19.79	3	J
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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14.					
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27.					
28.					
29.					
30.					

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520016 Date Received: 09/22/00

Lab File ID: S1B7753 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

RW24

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	
117-84-0	Di-n-octylphthalate	5	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

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520016 Date Received: 09/22/00

Lab File ID: S1B7753 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05N5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520018 Date Received: 09/22/00

Lab File ID: S1B7731 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
5.					
6.					
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27.					
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1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520018 Date Received: 09/22/00

Lab File ID: S1B7731 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	3	J
117-84-0	Di-n-octylphthalate	5	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

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520018 Date Received: 09/22/00

Lab File ID: S1B7731 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05N4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520019 Date Received: 09/22/00

Lab File ID: S1B7732 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 2

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.		UNKNOWN	2.12	2	J
2.		UNKNOWN	3.71	15	J
3.					
4.					
5.					
6.					
7.					
8.					
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10.					
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1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520019 Date Received: 09/22/00

Lab File ID: S1B7732 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

RW25

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520019 Date Received: 09/22/00

Lab File ID: S1B7732 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E05N3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520015 Date Received: 09/22/00

Lab File ID: S1B7729 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

RW 2Y

Number TICs found: 3

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.		UNKNOWN	3.71	3	J
2.		UNKNOWN	18.36	3	J
3.		UNKNOWN	19.79	4	J
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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16.					
17.					
18.					
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20.					
21.					
22.					
23.					
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25.					
26.					
27.					
28.					
29.					
30.					

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520015 Date Received: 09/22/00

Lab File ID: S1B7729 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	3	J
117-84-0	Di-n-octylphthalate	5	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

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520015 Date Received: 09/22/00

Lab File ID: S1B7729 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05N2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520014 Date Received: 09/22/00

Lab File ID: S1B7724 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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16.					
17.					
18.					
19.					
20.					
21.					
22.					
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24.					
25.					
26.					
27.					
28.					
29.					
30.					

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520014 Date Received: 09/22/00

Lab File ID: S1B7724 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520014 Date Received: 09/22/00

Lab File ID: S1B7724 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05N1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520013 Date Received: 09/22/00

Lab File ID: S1B7723 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
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26.					
27.					
28.					
29.					
30.					

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520013 Date Received: 09/22/00

Lab File ID: S1B7723 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520013 Date Received: 09/22/00

Lab File ID: S1B7723 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05N0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520020 Date Received: 09/22/00

Lab File ID: S1B7733 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.		UNKNOWN	3.71	6	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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16.					
17.					
18.					
19.					
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21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520020 Date Received: 09/22/00

Lab File ID: S1B7733 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	J
117-84-0	Di-n-octylphthalate	5	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

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520020 Date Received: 09/22/00

Lab File ID: S1B7733 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520009 Date Received: 09/22/00

Lab File ID: S1B7719 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.	10544-50-0	SULFUR, MOL. (S8)	17.57	6	NJ
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520009 Date Received: 09/22/00

Lab File ID: S1B7719 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520009 Date Received: 09/22/00

Lab File ID: S1B7719 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520005 Date Received: 09/22/00

Lab File ID: S1B7715 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
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21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520005 Date Received: 09/22/00

Lab File ID: S1B7715 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520005 Date Received: 09/22/00

Lab File ID: S1B7715 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520004 Date Received: 09/22/00

Lab File ID: S1B7714 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
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17.					
18.					
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21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520004 Date Received: 09/22/00

Lab File ID: S1B7714 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M5

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520004 Date Received: 09/22/00

Lab File ID: S1B7714 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520003 Date Received: 09/22/00

Lab File ID: S1B7713 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

RW3

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.		UNKNOWN	19.80	2	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520003 Date Received: 09/22/00

Lab File ID: S1B7713 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

JCU

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520003 Date Received: 09/22/00

Lab File ID: S1B7713 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520001 Date Received: 09/22/00

Lab File ID: S1B7711 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520001 Date Received: 09/22/00

Lab File ID: S1B7711 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520001 Date Received: 09/22/00

Lab File ID: S1B7711 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05M2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520002 Date Received: 09/22/00

Lab File ID: S1B7712 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
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26.					
27.					
28.					
29.					
30.					

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520002 Date Received: 09/22/00

Lab File ID: S1B7712 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCB

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

E05M2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520002 Date Received: 09/22/00

Lab File ID: S1B7712 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05L8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520008 Date Received: 09/22/00

Lab File ID: S1B7718 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520008 Date Received: 09/22/00

Lab File ID: S1B7718 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L8

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520008 Date Received: 09/22/00

Lab File ID: S1B7718 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05L7

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520007 Date Received: 09/22/00

Lab File ID: S1B7717 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.		UNKNOWN	6.63	3	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L7

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520007 Date Received: 09/22/00

Lab File ID: S1B7717 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L7

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520007 Date Received: 09/22/00

Lab File ID: S1B7717 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E05L6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520012 Date Received: 09/22/00

Lab File ID: S1B7722 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 30

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.		UNKNOWN	2.13	94	J
2.		UNKNOWN	2.99	15	J
3.		UNKNOWN	4.90	8	J
4.		UNKNOWN	6.27	14	J
5.		UNKNOWN	7.07	38	J
6.		UNKNOWN	7.18	36	J
7.		UNKNOWN	7.68	33	J
8.		UNKNOWN	8.03	15	J
9.		UNKNOWN	8.23	12	J
10.		UNKNOWN	8.96	3	J
11.		UNKNOWN	9.26	4	J
12.		UNKNOWN	9.35	7	J
13.		UNKNOWN	10.20	4	J
14.		UNKNOWN	10.29	7	J
15.		UNKNOWN	10.41	10	J
16.		UNKNOWN	11.22	7	J
17.	480-63-7	BENZOIC ACID, 2,4,6-TRIMETHY	11.59	61	NJ
18.		UNKNOWN	11.65	4	J
19.		UNKNOWN	11.78	9	J
20.		UNKNOWN	11.89	4	J
21.		UNKNOWN	12.05	8	J
22.		UNKNOWN	12.14	4	J
23.		UNKNOWN	12.41	6	J
24.		UNKNOWN	12.64	8	J
25.		UNKNOWN	12.86	6	J
26.		UNKNOWN	13.13	7	J
27.		UNKNOWN	13.19	9	J
28.		UNKNOWN	13.73	7	J
29.		UNKNOWN	13.92	6	J
30.		UNKNOWN	14.77	5	J

1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520012 Date Received: 09/22/00

Lab File ID: S1B7722 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520012 Date Received: 09/22/00

Lab File ID: S1B7722 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05L4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520011 Date Received: 09/22/00

Lab File ID: S1B7721 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 2

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.		UNKNOWN	2.13	2	J
2.		UNKNOWN	6.71	6	J
3.					
4.					
5.					
6.					
7.					
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1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520011 Date Received: 09/22/00

Lab File ID: S1B7721 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

RW10

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L4

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520011 Date Received: 09/22/00

Lab File ID: S1B7721 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05L1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520006 Date Received: 09/22/00

Lab File ID: S1B7716 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
5.					
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1LCC

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520006 Date Received: 09/22/00

Lab File ID: S1B7716 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	N-nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	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

1LCB

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05L1

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520006 Date Received: 09/22/00

Lab File ID: S1B7716 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/27/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(-2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(-2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

E05L0

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520010 Date Received: 09/22/00

Lab File ID: S1B7720 Date Extracted: 09/22/00

Sample Volume: 1000.00 (mL) Date Analyzed: 09/28/00

Concentrated Extract Volume: 1000(uL) Dilution Factor: 1.0

Injection Volume: 1 (uL)

Number TICs found: 0

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.					
2.					
3.					
4.					
5.					
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1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N7

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520017 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

RECEIVED

2000

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N6

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520016 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520002 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/28/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05M3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520001 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/28/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N2

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520014 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E05N3

Lab Name: MITKEM CORPORATION Contract: 68-D6-0063

Lab Code: MITKEM Case No.: 28538 SAS No.: SDG No.: E05L0

Lab Sample ID: 71520015 Date Received: 09/22/00

Sample Volume: 1000.00 (mL) Date Extracted: 09/22/00

Concentrated Extract Volume: 2000(uL) Date Analyzed: 09/29/00

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Date: 31 October 2000

Subject: WAM Review of ESAT ICP Data for Town of Pines, Batch 20000072

From: John V. Morris, Chemist JVM
Central Regional Laboratory

To: File: 20000072

The metals analyses for Town of Pines, batch 20000072, consisting of 29 water samples, were performed by ESAT chemists. For the dual view (axial/radial) ICP method, the reporting limits for all metals except lead were adequate to meet the project objectives. This ICP package was selected for a full review by the WAM.

Problems had been noted by the ESAT analyst in the first analysis of the batch. The main problem centered on the final quality control calibration check sample (LCM1). Iron, manganese, and zinc were well below 90% of the true value for this check sample. In addition, sodium was in excess of the calibration for a number of samples, so many were run diluted in an abbreviated method on the JY 138. An attempt was made to reanalyze on the Optima 3300 DV for the other metals, but no improvement in data quality was obtained, according to the analyst.

The iron appeared to be a problem of a contaminated calibration blank, as the low bias in all LCMs and LFMs appeared to be of the same magnitude as the negative blanks, both instrument (LCB) and digestion (LRB). It can be concluded that the iron is biased low by 80-100 µg/L. Iron was either in the mg/L range, or near 100 µg/L or less, so it is unlikely that this bias will significantly affect conclusions from the data. Manganese and zinc, however, did not show this behavior. Instead, the data for the LCM1 fell below 90% only for the 4th LCM1, and no significant baseline drift was observed. Manganese could be qualified for the limited range of samples 2000IN05S28 through 2000IN05S41. Zinc, however, was observed in the digestion blanks above the reporting limit, and in fact above many of the samples, so the data should be qualified for zinc throughout the run. The internal standards were examined, and no obvious explanation was found for the decrease in the recovery for the LCM1. It was observed that the %RSD did increase from ~1% to as much as 3%. This noise may have some bearing on the drop in signal, but is not likely to be the whole cause. This reviewer was unable to determine the reason for the change in signal, as most causes should have been corrected by the internal standard. Since the internal standard is added in-line by a separate pump after the sample pump, a partial plug at the autosampler probe might cause such an effect, but not for just a few elements. A sampler error of that nature would manifest itself across the range of analytes.

The data is useable with the exceptions of low bias for the noted elements.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: OCT 31 2000

Subject: Review of Region 5 Data for Town of Pines

From: ESAT , Chemist
Region 5 Central Regional Laboratory

To: Mark Jaworski
IDEM

Attached are the results for Site: Town of Pines
CRL Data Set Number: 20000072
for analyses of : ICP Metals
Results are reported for sample numbers: 2000IN05S01, 2000IN05S08, 2000IN05S09, 2000IN05S11, 2000IN05S12, 2000IN05S13, 2000IN05S14, 2000IN05S15, 2000IN05S16, 2000IN05S17, 2000IN05S18, 2000IN05S19, 2000IN05S20, 2000IN05S21, 2000IN05S22, 2000IN05S23, 2000IN05S24, 2000IN05S25, 2000IN05S26, 2000IN05S27, 2000IN05S28, 2000IN05S29, 2000IN05S30, 2000IN05S36, 2000IN05S37, 2000IN05S38, 2000IN05S39, 2000IN05S40 and 2000IN05S41

Results Status:
(x) Acceptable for Use for most metals
(x) Data Qualified, but Acceptable for use for metals as noted.
( ) Data Unacceptable for Use

RECEIVED
2000
DEPARTMENT OF ENVIRONMENT

Sylvia Griffin OCT 31 2000

CRL Data Management Coordinator and Date Received

Date Transmitted: OCT 31 2000

Please have the US EPA project leader fill out the customer survey form on the Region 5 Intranet: http://www.r5intra.epa.gov/crl/qa.html, (← by clicking on this link, or call George Schupp, CRL Sample Coordinator, at 3-1226).

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML - 10C

Received by and Date

Comments:

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S01

ANALYZED: 17-Oct-00

STATION: RW-5

COMPOUND	AMOUNT				(Units)
Aluminum	40	U			(ug/L)
Antimony	9	U			(ug/L)
Arsenic	11	U			(ug/L)
Barium	2	U			(ug/L)
Beryllium	0.3	U			(ug/L)
Cadmium	0.4	U			(ug/L)
Calcium	78.7		B	J	(ug/L)
Chromium	3	U			(ug/L)
Cobalt	1	U			(ug/L)
Copper	2	U			(ug/L)
Iron	11	U		J	(ug/L)
Magnesium	22.2				(ug/L)
Manganese	2	U		J	(ug/L)
Nickel	2	U			(ug/L)
Potassium	804		B	J	(ug/L)
Selenium	12	U			(ug/L)
Silver	1	U			(ug/L)
Sodium	169000	D			(ug/L)
Thallium	2.6	M			(ug/L)
Vanadium	8.2	M	B		(ug/L)
Zinc	40.6		B	J	(ug/L)

ANALYZED BY: _____ 10-27-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S08

ANALYZED: 17-Oct-00

STATION: RW-3

COMPOUND	*AMOUNT*			*(Units)*
Aluminum	40 U			(ug/L)
Antimony	9 U			(ug/L)
Arsenic	11 U			(ug/L)
Barium	4.7	B	J	(ug/L)
Beryllium	0.3 U			(ug/L)
Cadmium	0.2 M	B		(ug/L)
Calcium	8380			(ug/L)
Chromium	3 U			(ug/L)
Cobalt	1 U			(ug/L)
Copper	11.3	B	J	(ug/L)
Iron	984		J	(ug/L)
Magnesium	2280			(ug/L)
Manganese	61.3		J	(ug/L)
Nickel	2 U			(ug/L)
Potassium	1350	B	J	(ug/L)
Selenium	12 U			(ug/L)
Silver	1 U			(ug/L)
Sodium	110000 D			(ug/L)
Thallium	9 U			(ug/L)
Vanadium	9.8	B	J	(ug/L)
Zinc	28	B	J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S09

ANALYZED: 17-Oct-00

STATION: RW-4

COMPOUND	AMOUNT				(Units)
Aluminum	135		B	J	(ug/L)
Antimony	9	U			(ug/L)
Arsenic	23.9				(ug/L)
Barium	34		B	J	(ug/L)
Beryllium	0.5				(ug/L)
Cadmium	0.4	U			(ug/L)
Calcium	276000	D		J	(ug/L)
Chromium	3	U			(ug/L)
Cobalt	1	U			(ug/L)
Copper	0.8	M	B		(ug/L)
Iron	5380			J	(ug/L)
Magnesium	166000				(ug/L)
Manganese	80.2			J	(ug/L)
Nickel	1.1	M			(ug/L)
Potassium	4940		B	J	(ug/L)
Selenium	17.7		B	J	(ug/L)
Silver	1	U			(ug/L)
Sodium	62300			J	(ug/L)
Thallium	4.1	M			(ug/L)
Vanadium	8.3	M	B		(ug/L)
Zinc	40.9		B	J	(ug/L)

ANALYZED BY: RD 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S12

ANALYZED: 17-Oct-00

STATION: RW-15

COMPOUND	AMOUNT				(Units)
Aluminum	48.9		B	J	(ug/L)
Antimony	9	U			(ug/L)
Arsenic	14.3				(ug/L)
Barium	148				(ug/L)
Beryllium	0.3	U			(ug/L)
Cadmium	0.4	U			(ug/L)
Calcium	69300				(ug/L)
Chromium	3	U			(ug/L)
Cobalt	1	U			(ug/L)
Copper	56.5				(ug/L)
Iron	11	U		J	(ug/L)
Magnesium	15100				(ug/L)
Manganese	96.5			J	(ug/L)
Nickel	0.8	M			(ug/L)
Potassium	4260		B	J	(ug/L)
Selenium	4.9	M	B		(ug/L)
Silver	1	U			(ug/L)
Sodium	678000	D			(ug/L)
Thallium	3.5	M			(ug/L)
Vanadium	6.2	M	B		(ug/L)
Zinc	52		B	J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S11

ANALYZED: 17-Oct-00

STATION: RW-9

COMPOUND	AMOUNT				(Units)
Aluminum	36	M	B		(ug/L)
Antimony	9	U			(ug/L)
Arsenic	11.2				(ug/L)
Barium	44.8		B	J	(ug/L)
Beryllium	0.3	U			(ug/L)
Cadmium	0.4	U			(ug/L)
Calcium	37000				(ug/L)
Chromium	3	U			(ug/L)
Cobalt	1	U			(ug/L)
Copper	2.1		B	J	(ug/L)
Iron	2150			J	(ug/L)
Magnesium	12600				(ug/L)
Manganese	123			J	(ug/L)
Nickel	2	U			(ug/L)
Potassium	4200		B	J	(ug/L)
Selenium	4.3	M	B		(ug/L)
Silver	1	U			(ug/L)
Sodium	16300			J	(ug/L)
Thallium	9	U			(ug/L)
Vanadium	6.6	M	B		(ug/L)
Zinc	32.2		B	J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S13

ANALYZED: 17-Oct-00

STATION: RW-14

COMPOUND	AMOUNT				(Units)
Aluminum	67		B	J	(ug/L)
Antimony	9	U			(ug/L)
Arsenic	12.8				(ug/L)
Barium	116				(ug/L)
Beryllium	0.3	U			(ug/L)
Cadmium	0.4	U			(ug/L)
Calcium	54800				(ug/L)
Chromium	3	U			(ug/L)
Cobalt	1	U			(ug/L)
Copper	4.1		B	J	(ug/L)
Iron	5570			J	(ug/L)
Magnesium	17300				(ug/L)
Manganese	554			J	(ug/L)
Nickel	0.9	M			(ug/L)
Potassium	13700		B	J	(ug/L)
Selenium	4.8	M	B		(ug/L)
Silver	1	U			(ug/L)
Sodium	171000	D			(ug/L)
Thallium	3.1	M			(ug/L)
Vanadium	8	M	B		(ug/L)
Zinc	432		B	J	(ug/L)

ANALYZED BY: 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S14

ANALYZED: 17-Oct-00

STATION: RW-13

COMPOUND	AMOUNT				(Units)
Aluminum	1070				(ug/L)
Antimony	9	U			(ug/L)
Arsenic	11	U			(ug/L)
Barium	68.2		B	J	(ug/L)
Beryllium	0.4				(ug/L)
Cadmium	0.2	M	B		(ug/L)
Calcium	8020				(ug/L)
Chromium	3	U			(ug/L)
Cobalt	1	U			(ug/L)
Copper	47.4				(ug/L)
Iron	11	U		J	(ug/L)
Magnesium	7070				(ug/L)
Manganese	186			J	(ug/L)
Nickel	2	U			(ug/L)
Potassium	1030		B	J	(ug/L)
Selenium	4.4	M	B		(ug/L)
Silver	1	U			(ug/L)
Sodium	7090		B	J	(ug/L)
Thallium	9	U			(ug/L)
Vanadium	5	M	B		(ug/L)
Zinc	29.1		B	J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S15

ANALYZED: 17-Oct-00

STATION: RW-1

COMPOUND	*AMOUNT*			*(Units)*
Aluminum	133	B	J	(ug/L)
Antimony	9	U		(ug/L)
Arsenic	1110			(ug/L)
Barium	133			(ug/L)
Beryllium	0.1	M		(ug/L)
Cadmium	0.2	M	B	(ug/L)
Calcium	167000	D	J	(ug/L)
Chromium	3	U		(ug/L)
Cobalt	1	U		(ug/L)
Copper	1.7	M	B	(ug/L)
Iron	13300		J	(ug/L)
Magnesium	36200			(ug/L)
Manganese	365		J	(ug/L)
Nickel	0.8	M		(ug/L)
Potassium	28600		J	(ug/L)
Selenium	5.2	M	B	(ug/L)
Silver	1	U		(ug/L)
Sodium	81300		J	(ug/L)
Thallium	3.6	M		(ug/L)
Vanadium	12.1		B J	(ug/L)
Zinc	41		B J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S16

ANALYZED: 17-Oct-00

STATION: RW-2

COMPOUND	*AMOUNT*			*(Units)*
Aluminum	151	B	J	(ug/L)
Antimony	9	U		(ug/L)
Arsenic	1180			(ug/L)
Barium	135			(ug/L)
Beryllium	0.2	M		(ug/L)
Cadmium	0.2	M	B	(ug/L)
Calcium	174000	D	J	(ug/L)
Chromium	3	U		(ug/L)
Cobalt	1	U		(ug/L)
Copper	2.6	B	J	(ug/L)
Iron	14500		J	(ug/L)
Magnesium	36000			(ug/L)
Manganese	365		J	(ug/L)
Nickel	0.8	M		(ug/L)
Potassium	28700		J	(ug/L)
Selenium	5	M	B	(ug/L)
Silver	1	U		(ug/L)
Sodium	80900		J	(ug/L)
Thallium	4.1	M		(ug/L)
Vanadium	18.5	B	J	(ug/L)
Zinc	47.6	B	J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S17

ANALYZED: 17-Oct-00

STATION: RW-7

COMPOUND	AMOUNT				(Units)
Aluminum	42.6		B	J	(ug/L)
Antimony	9	U			(ug/L)
Arsenic	11.1				(ug/L)
Barium	92.6		B	J	(ug/L)
Beryllium	0.3	U			(ug/L)
Cadmium	0.4	U			(ug/L)
Calcium	59800				(ug/L)
Chromium	3	U			(ug/L)
Cobalt	1	U			(ug/L)
Copper	122				(ug/L)
Iron	11	U		J	(ug/L)
Magnesium	21600				(ug/L)
Manganese	42.9			J	(ug/L)
Nickel	0.6	M			(ug/L)
Potassium	2950		B	J	(ug/L)
Selenium	6.3	M	B		(ug/L)
Silver	1	U			(ug/L)
Sodium	205000	D			(ug/L)
Thallium	3.5	M			(ug/L)
Vanadium	9	U			(ug/L)
Zinc	23.3	M	B	J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S18

ANALYZED: 17-Oct-00

STATION: RW-8

COMPOUND	AMOUNT			(Units)
Aluminum	81.8	B	J	(ug/L)
Antimony	9 U			(ug/L)
Arsenic	17.2			(ug/L)
Barium	237			(ug/L)
Beryllium	0.3 U			(ug/L)
Cadmium	0.4 U			(ug/L)
Calcium	111000 D		J	(ug/L)
Chromium	3 U			(ug/L)
Cobalt	0.4 M			(ug/L)
Copper	106			(ug/L)
Iron	600		J	(ug/L)
Magnesium	32800			(ug/L)
Manganese	509		J	(ug/L)
Nickel	2.5			(ug/L)
Potassium	6020	B	J	(ug/L)
Selenium	8.6 M	B		(ug/L)
Silver	1 U			(ug/L)
Sodium	523000 D			(ug/L)
Thallium	3.7 M			(ug/L)
Vanadium	9 U			(ug/L)
Zinc	73	B	J	(ug/L)

ANALYZED BY: [signature] 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S19

ANALYZED: 17-Oct-00

STATION: RW-11

COMPOUND	*AMOUNT*			*(Units)*
Aluminum	179			(ug/L)
Antimony	9	U		(ug/L)
Arsenic	25.3			(ug/L)
Barium	194			(ug/L)
Beryllium	0.3	U		(ug/L)
Cadmium	0.4	U		(ug/L)
Calcium	281000	D	J	(ug/L)
Chromium	3	U		(ug/L)
Cobalt	0.9	M		(ug/L)
Copper	25			(ug/L)
Iron	513		J	(ug/L)
Magnesium	85100			(ug/L)
Manganese	3720		J	(ug/L)
Nickel	12.3			(ug/L)
Potassium	11500	B	J	(ug/L)
Selenium	14.4	B	J	(ug/L)
Silver	1	U		(ug/L)
Sodium	313000	D		(ug/L)
Thallium	7.7	M		(ug/L)
Vanadium	9	U		(ug/L)
Zinc	56.8	B	J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S20

ANALYZED: 17-Oct-00

STATION: RW-10

COMPOUND	AMOUNT				(Units)
Aluminum	114		B	J	(ug/L)
Antimony	9	U			(ug/L)
Arsenic	22.7				(ug/L)
Barium	50		B	J	(ug/L)
Beryllium	0.3	U			(ug/L)
Cadmium	0.4	U			(ug/L)
Calcium	159000	D		J	(ug/L)
Chromium	3	U			(ug/L)
Cobalt	1	U			(ug/L)
Copper	2.2		B	J	(ug/L)
Iron	153			J	(ug/L)
Magnesium	39900				(ug/L)
Manganese	1770			J	(ug/L)
Nickel	2.5				(ug/L)
Potassium	24900			J	(ug/L)
Selenium	9.7	M	B		(ug/L)
Silver	1	U			(ug/L)
Sodium	145000	D			(ug/L)
Thallium	5.8	M			(ug/L)
Vanadium	9	U			(ug/L)
Zinc	38.4		B	J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S21

ANALYZED: 17-Oct-00

STATION: RW-12

COMPOUND	AMOUNT			(Units)
Aluminum	106	B	J	(ug/L)
Antimony	9 U			(ug/L)
Arsenic	21.2			(ug/L)
Barium	107	B	J	(ug/L)
Beryllium	0.3 U			(ug/L)
Cadmium	0.4 U			(ug/L)
Calcium	162000 D		J	(ug/L)
Chromium	3 U			(ug/L)
Cobalt	1 U			(ug/L)
Copper	4.2	B	J	(ug/L)
Iron	11.4		J	(ug/L)
Magnesium	42400			(ug/L)
Manganese	1790		J	(ug/L)
Nickel	4.9			(ug/L)
Potassium	8480	B	J	(ug/L)
Selenium	12.9	B	J	(ug/L)
Silver	1 U			(ug/L)
Sodium	410000 D			(ug/L)
Thallium	2.9 M			(ug/L)
Vanadium	9 U			(ug/L)
Zinc	189	B	J	(ug/L)

ANALYZED BY: RD 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S22

ANALYZED: 17-Oct-00

STATION: RW-6

COMPOUND	AMOUNT			(Units)
Aluminum	89.7	B	J	(ug/L)
Antimony	9 U			(ug/L)
Arsenic	21.2			(ug/L)
Barium	160			(ug/L)
Beryllium	0.3 U			(ug/L)
Cadmium	0.4 U			(ug/L)
Calcium	141000 D		J	(ug/L)
Chromium	3 U			(ug/L)
Cobalt	0.6 M			(ug/L)
Copper	16.8			(ug/L)
Iron	11 U		J	(ug/L)
Magnesium	30400			(ug/L)
Manganese	1260		J	(ug/L)
Nickel	2.8			(ug/L)
Potassium	10500	B	J	(ug/L)
Selenium	7.6 M	B		(ug/L)
Silver	1 U			(ug/L)
Sodium	1020000 D			(ug/L)
Thallium	9 U			(ug/L)
Vanadium	9 U			(ug/L)
Zinc	59.7	B	J	(ug/L)

ANALYZED BY: 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S23

ANALYZED: 17-Oct-00

STATION: RW-18

COMPOUND	AMOUNT			(Units)
Aluminum	40.4	B	J	(ug/L)
Antimony	9 U			(ug/L)
Arsenic	19.7			(ug/L)
Barium	139			(ug/L)
Beryllium	0.3 U			(ug/L)
Cadmium	0.4 U			(ug/L)
Calcium	79300			(ug/L)
Chromium	3 U			(ug/L)
Cobalt	1.4			(ug/L)
Copper	5.5	B	J	(ug/L)
Iron	150		J	(ug/L)
Magnesium	20000			(ug/L)
Manganese	2300		J	(ug/L)
Nickel	4.1			(ug/L)
Potassium	8300	B	J	(ug/L)
Selenium	12 U			(ug/L)
Silver	1 U			(ug/L)
Sodium	298000 D			(ug/L)
Thallium	9 U			(ug/L)
Vanadium	9 U			(ug/L)
Zinc	30.5	B	J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S24

ANALYZED: 17-Oct-00

STATION: RW-16

COMPOUND	AMOUNT				(Units)
Aluminum	40	U			(ug/L)
Antimony	9	U			(ug/L)
Arsenic	7.1	M			(ug/L)
Barium	49.6		B	J	(ug/L)
Beryllium	0.3	U			(ug/L)
Cadmium	0.4	U			(ug/L)
Calcium	27500				(ug/L)
Chromium	3	U			(ug/L)
Cobalt	1	U			(ug/L)
Copper	1.9	M	B		(ug/L)
Iron	11	U		J	(ug/L)
Magnesium	6290				(ug/L)
Manganese	1080			J	(ug/L)
Nickel	2	U			(ug/L)
Potassium	6770		B	J	(ug/L)
Selenium	5.2	M	B		(ug/L)
Silver	1	U			(ug/L)
Sodium	149000	D			(ug/L)
Thallium	9	U			(ug/L)
Vanadium	9	U			(ug/L)
Zinc	80.1		B	J	(ug/L)

ANALYZED BY: [signature] 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S25

ANALYZED: 17-Oct-00

STATION: RW-19

COMPOUND	AMOUNT				(Units)
Aluminum	41.1		B	J	(ug/L)
Antimony	9	U			(ug/L)
Arsenic	11.6				(ug/L)
Barium	59.6		B	J	(ug/L)
Beryllium	0.3	U			(ug/L)
Cadmium	0.4	U			(ug/L)
Calcium	37300				(ug/L)
Chromium	3	U			(ug/L)
Cobalt	3				(ug/L)
Copper	1.6	M	B		(ug/L)
Iron	11	U		J	(ug/L)
Magnesium	5680				(ug/L)
Manganese	560			J	(ug/L)
Nickel	5				(ug/L)
Potassium	7250		B	J	(ug/L)
Selenium	12	U			(ug/L)
Silver	1	U			(ug/L)
Sodium	127000	D			(ug/L)
Thallium	9	U			(ug/L)
Vanadium	3.4	M	B		(ug/L)
Zinc	20.3	M	B	J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S26

ANALYZED: 17-Oct-00

STATION: RW-17

COMPOUND	AMOUNT				(Units)
Aluminum	23.8	M	B		(ug/L)
Antimony	9	U			(ug/L)
Arsenic	13.1				(ug/L)
Barium	45		B	J	(ug/L)
Beryllium	0.3	U			(ug/L)
Cadmium	0.4	U			(ug/L)
Calcium	33900				(ug/L)
Chromium	3	U			(ug/L)
Cobalt	1	U			(ug/L)
Copper	41				(ug/L)
Iron	11	U		J	(ug/L)
Magnesium	5370				(ug/L)
Manganese	584			J	(ug/L)
Nickel	2	U			(ug/L)
Potassium	6600		B	J	(ug/L)
Selenium	12	U			(ug/L)
Silver	1	U			(ug/L)
Sodium	126000	D			(ug/L)
Thallium	9	U			(ug/L)
Vanadium	9	U			(ug/L)
Zinc	26.3		B	J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S27

ANALYZED: 17-Oct-00

STATION: RW-20

COMPOUND	AMOUNT			(Units)
Aluminum	57.3	B	J	(ug/L)
Antimony	9 U			(ug/L)
Arsenic	13.2			(ug/L)
Barium	73.9	B	J	(ug/L)
Beryllium	0.3 U			(ug/L)
Cadmium	0.4 U			(ug/L)
Calcium	53000			(ug/L)
Chromium	3 U			(ug/L)
Cobalt	0.9 M			(ug/L)
Copper	4.6	B	J	(ug/L)
Iron	11 U		J	(ug/L)
Magnesium	12900			(ug/L)
Manganese	208		J	(ug/L)
Nickel	0.8 M			(ug/L)
Potassium	7790	B	J	(ug/L)
Selenium	4.5 M	B		(ug/L)
Silver	1 U			(ug/L)
Sodium	346000 D			(ug/L)
Thallium	9 U			(ug/L)
Vanadium	9 U			(ug/L)
Zinc	26.4	B	J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S28

ANALYZED: 17-Oct-00

STATION: RW-21

COMPOUND	AMOUNT			(Units)
Aluminum	60.7	B	J	(ug/L)
Antimony	9 U			(ug/L)
Arsenic	19.2			(ug/L)
Barium	76.9	B	J	(ug/L)
Beryllium	0.3 U			(ug/L)
Cadmium	0.4 U			(ug/L)
Calcium	87100			(ug/L)
Chromium	3 U			(ug/L)
Cobalt	1 U			(ug/L)
Copper	15.2			(ug/L)
Iron	11 U		J	(ug/L)
Magnesium	29200			(ug/L)
Manganese	127		J	(ug/L)
Nickel	0.9 M			(ug/L)
Potassium	13600	B	J	(ug/L)
Selenium	8.2 M	B		(ug/L)
Silver	1 U			(ug/L)
Sodium	203000 D			(ug/L)
Thallium	9 U			(ug/L)
Vanadium	9 U			(ug/L)
Zinc	91.9	B	J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S29

ANALYZED: 17-Oct-00

STATION: RW-24

COMPOUND	AMOUNT				(Units)
Aluminum	186				(ug/L)
Antimony	9	U			(ug/L)
Arsenic	27.5				(ug/L)
Barium	62.3		B	J	(ug/L)
Beryllium	0.2	M			(ug/L)
Cadmium	0.5		B	J	(ug/L)
Calcium	299000	D		J	(ug/L)
Chromium	3	U			(ug/L)
Cobalt	5.1				(ug/L)
Copper	31.8				(ug/L)
Iron	17000			J	(ug/L)
Magnesium	109000				(ug/L)
Manganese	1880			J	(ug/L)
Nickel	2.3				(ug/L)
Potassium	29000			J	(ug/L)
Selenium	9.5	M	B		(ug/L)
Silver	1	U			(ug/L)
Sodium	191000	D			(ug/L)
Thallium	5.4	M			(ug/L)
Vanadium	9	U			(ug/L)
Zinc	63.5		B	J	(ug/L)

ANALYZED BY: 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S30

ANALYZED: 17-Oct-00

STATION: RW-23

COMPOUND	AMOUNT			(Units)
Aluminum	142	B	J	(ug/L)
Antimony	9 U			(ug/L)
Arsenic	22.3			(ug/L)
Barium	355			(ug/L)
Beryllium	0.3 U			(ug/L)
Cadmium	0.4 U			(ug/L)
Calcium	202000 D		J	(ug/L)
Chromium	3 U			(ug/L)
Cobalt	1 U			(ug/L)
Copper	436			(ug/L)
Iron	1030		J	(ug/L)
Magnesium	59200			(ug/L)
Manganese	153		J	(ug/L)
Nickel	0.9 M			(ug/L)
Potassium	6960	B	J	(ug/L)
Selenium	10 M	B		(ug/L)
Silver	1 U			(ug/L)
Sodium	544000 D			(ug/L)
Thallium	4.3 M			(ug/L)
Vanadium	9 U			(ug/L)
Zinc	52.5	B	J	(ug/L)

ANALYZED BY: 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S36

ANALYZED: 17-Oct-00

STATION: RW-22

COMPOUND	AMOUNT				(Units)
Aluminum	16.9	M	B		(ug/L)
Antimony	9	U			(ug/L)
Arsenic	16				(ug/L)
Barium	143				(ug/L)
Beryllium	0.3	U			(ug/L)
Cadmium	0.4	U			(ug/L)
Calcium	56300				(ug/L)
Chromium	3	U			(ug/L)
Cobalt	1	U			(ug/L)
Copper	3		B	J	(ug/L)
Iron	11	U		J	(ug/L)
Magnesium	14600				(ug/L)
Manganese	2	U		J	(ug/L)
Nickel	0.8	M			(ug/L)
Potassium	8470		B	J	(ug/L)
Selenium	8.2	M	B		(ug/L)
Silver	1	U			(ug/L)
Sodium	190000	D			(ug/L)
Thallium	4	M			(ug/L)
Vanadium	9	U			(ug/L)
Zinc	1320			J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S37

ANALYZED: 17-Oct-00

STATION: RW-25

COMPOUND	AMOUNT				(Units)
Aluminum	50.7		B	J	(ug/L)
Antimony	9	U			(ug/L)
Arsenic	18.7				(ug/L)
Barium	151				(ug/L)
Beryllium	0.3	U			(ug/L)
Cadmium	0.4	U			(ug/L)
Calcium	106000	D		J	(ug/L)
Chromium	3	U			(ug/L)
Cobalt	1	U			(ug/L)
Copper	1.5	M	B		(ug/L)
Iron	503			J	(ug/L)
Magnesium	39100				(ug/L)
Manganese	206			J	(ug/L)
Nickel	2.1				(ug/L)
Potassium	4740		B	J	(ug/L)
Selenium	12.1		B	J	(ug/L)
Silver	1	U			(ug/L)
Sodium	214000	D			(ug/L)
Thallium	3.7	M			(ug/L)
Vanadium	9	U			(ug/L)
Zinc	21.8	M	B	J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S38

ANALYZED: 17-Oct-00

STATION: RW-26

COMPOUND	AMOUNT				(Units)
Aluminum	50.9		B	J	(ug/L)
Antimony	9	U			(ug/L)
Arsenic	18.1				(ug/L)
Barium	152				(ug/L)
Beryllium	0.3	U			(ug/L)
Cadmium	0.4	U			(ug/L)
Calcium	110000	D		J	(ug/L)
Chromium	3	U			(ug/L)
Cobalt	1	U			(ug/L)
Copper	1.1	M	B		(ug/L)
Iron	496			J	(ug/L)
Magnesium	39700				(ug/L)
Manganese	208			J	(ug/L)
Nickel	2.4				(ug/L)
Potassium	3520		B	J	(ug/L)
Selenium	9.4	M	B		(ug/L)
Silver	1	U			(ug/L)
Sodium	217000	D			(ug/L)
Thallium	5	M			(ug/L)
Vanadium	9	U			(ug/L)
Zinc	23	M	B	J	(ug/L)

ANALYZED BY: _____ 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S39

ANALYZED: 17-Oct-00

STATION: RW-27

COMPOUND	AMOUNT				(Units)
Aluminum	36.8	M	B		(ug/L)
Antimony	9	U			(ug/L)
Arsenic	20.3				(ug/L)
Barium	62.4		B	J	(ug/L)
Beryllium	0.3	U			(ug/L)
Cadmium	0.4	U			(ug/L)
Calcium	94900				(ug/L)
Chromium	3	U			(ug/L)
Cobalt	1	U			(ug/L)
Copper	15.1				(ug/L)
Iron	11	U		J	(ug/L)
Magnesium	26600				(ug/L)
Manganese	1350			J	(ug/L)
Nickel	4				(ug/L)
Potassium	7280		B	J	(ug/L)
Selenium	9.8	M	B		(ug/L)
Silver	1	U			(ug/L)
Sodium	403000	D			(ug/L)
Thallium	9	U			(ug/L)
Vanadium	9	U			(ug/L)
Zinc	18.5	M	B	J	(ug/L)

ANALYZED BY: RD 10-25-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

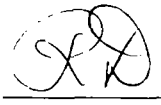
SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S40

ANALYZED: 17-Oct-00

STATION: RW-28

COMPOUND	AMOUNT				(Units)
Aluminum	12.8	M	B		(ug/L)
Antimony	9	U			(ug/L)
Arsenic	11	M			(ug/L)
Barium	85.6		B	J	(ug/L)
Beryllium	0.3	U			(ug/L)
Cadmium	0.4	U			(ug/L)
Calcium	34700				(ug/L)
Chromium	3	U			(ug/L)
Cobalt	1.8				(ug/L)
Copper	8		B	J	(ug/L)
Iron	11	U		J	(ug/L)
Magnesium	8950				(ug/L)
Manganese	3970			J	(ug/L)
Nickel	5.8				(ug/L)
Potassium	13200		B	J	(ug/L)
Selenium	5.7	M	B		(ug/L)
Silver	0.3	M			(ug/L)
Sodium	215000	D			(ug/L)
Thallium	9	U			(ug/L)
Vanadium	9	U			(ug/L)
Zinc	29.1		B	J	(ug/L)

ANALYZED BY:  10-26-00

EPA CRL - REGION V
ICP FINAL RESULTS REPORT

REPORT PRODUCED ON: 23-Oct-00

SAMPLE ORGANIZATION:

SAMPLE BATCH ID: 20000072

LABORATORY: REGION 5 CRL

SAMPLE FACILITY: Town of Pines Groundwater Plume

SAMPLE: 2000IN05S41

ANALYZED: 17-Oct-00

STATION: RW-29

COMPOUND	AMOUNT				(Units)
Aluminum	40	U			(ug/L)
Antimony	9	U			(ug/L)
Arsenic	13.1				(ug/L)
Barium	105		B	J	(ug/L)
Beryllium	0.3	U			(ug/L)
Cadmium	0.4	U			(ug/L)
Calcium	45800				(ug/L)
Chromium	3	U			(ug/L)
Cobalt	1	U			(ug/L)
Copper	3.1		B	J	(ug/L)
Iron	11	U		J	(ug/L)
Magnesium	11700				(ug/L)
Manganese	2610			J	(ug/L)
Nickel	1	M			(ug/L)
Potassium	6610		B	J	(ug/L)
Selenium	6.4	M	B		(ug/L)
Silver	1	U			(ug/L)
Sodium	283000	D			(ug/L)
Thallium	9	U			(ug/L)
Vanadium	9	U			(ug/L)
Zinc	27.7		B	J	(ug/L)

ANALYZED BY: RD 10-25-00

Lockheed Martin Services Group
Environmental Services & Technologies Region 5
536 South Clark Street #1050 Chicago, IL 60605
Telephone 312-353-8302 Facsimile 312-353-8307

LOCKHEED MARTIN

Date: October 25, 2000

To: John V. Morris, EPA WAM

From: Richard Dilg, ESAT Chemist RD 10-27-00

Thru: Ziyad Rajabi, ESAT Team Manager ZR

Copies: John Ganz, ESAT Inorganic Group Leader
Jay Thakkar, ESAT Contract RPO

Ref: TDF# 5104-303
WA# 05-00-4-04
Contract # 68D60002

SUBJECT: Data Set SF20000072: ICP Analyses for Town of Pines Groundwater Plume samples using CRL Method **200.7**

Attached is the deliverable for Data Set SF20000072 for ICP analysis of 29 water samples.

If you have any question please feel free to contact ESAT.

RD
10-27-00

Method Number: 200.7 Site Name: Town of Pines Groundwater Plume

Date Generated: October 25, 2000 Work Unit Number: 05-00-4-04

Author: R.Dilg,Lockheed-ESAT TDF Number: 5104-303

Charge Number: ESE-51-051

Batch ID No.: 20000072

Parameter: ICP

ICP NARRATIVE

This narrative covers the analysis of 29 water samples from the named site sampled for ICP metals analysis.

Sample Nos.	Sample Station ID's	Sample collected	Analysis dates
2000IN05S01	RW-5	9-20-2000	10-17,19-2000
2000IN05S08	RW-3	9-20-2000	10-17,19-2000
2000IN05S09	RW-4	9-20-2000	10-17,19-2000
2000IN05S11	RW-9	9-20-2000	10-17,19-2000
2000IN05S12	RW-15	9-21-2000	10-17,19-2000
2000IN05S13	RW-14	9-20-2000	10-17,19-2000
2000IN05S14	RW-13	9-20-2000	10-17,19-2000
2000IN05S15	RW-1	9-20-2000	10-17,19-2000
2000IN05S16	RW-2	9-20-2000	10-17,19-2000
2000IN05S17	RW-7	9-20-2000	10-17,19-2000
2000IN05S18	RW-8	9-20-2000	10-17,19-2000
2000IN05S19	RW-11	9-20-2000	10-17,19-2000
2000IN05S20	RW-10	9-20-2000	10-17,19-2000
2000IN05S21	RW-12	9-20-2000	10-17,19-2000
2000IN05S22	RW-6	9-20-2000	10-17,19-2000
2000IN05S23	RW-18	9-20-2000	10-17,19-2000
2000IN05S24	RW-16	9-20-2000	10-17,19-2000
2000IN05S25	RW-19	9-20-2000	10-17,19-2000
2000IN05S26	RW-17	9-20-2000	10-17,19-2000
2000IN05S27	RW-20	9-21-2000	10-17,19-2000
2000IN05S28	RW-21	9-21-2000	10-17,19-2000
2000IN05S29	RW-24	9-21-2000	10-17,19-2000
2000IN05S30	RW-23	9-21-2000	10-17,19-2000
2000IN05S36	RW-22	9-21-2000	10-17,19-2000
2000IN05S37	RW-25	9-21-2000	10-17,19-2000
2000IN05S38	RW-26	9-21-2000	10-17,19-2000
2000IN05S39	RW-27	9-21-2000	10-17,19-2000
2000IN05S40	RW-28	9-21-2000	10-17,19-2000
2000IN05S41	RW-29	9-21-2000	10-17,19-2000

RD 10-27-00

Routine CRL hot block (water) digestion procedures were used to prepare the water samples for ICP analysis. The digested samples were analyzed using the Optima 3300 DV ICP unit using analysis run method water_080300_ESAT and the JY138 ICP unit using an abbreviated JYSED5 analysis run method. ICP results were stored to file 20000072 10172000 for Optima results and to file R1225D for JY results.

The majority of samples needed Ca and Na results to be rerun since the Optima 3300 DV values for these analytes exceeded the Optima 3300 DV upper linear range limits. Twofold (2X) dilutions of the digests were made with some additional acid added for matrix matching and the resulting dilutions were analyzed using the JY138 ICP for Ca and Na.

ICP RUN RESULTS

Analyte mdl's determined and rl values calculated earlier in the year for ESAT analysis work for both the Optima 3300 DV and the JY138 were used. The calculated rl values were used in reporting sample analysis results for this data case.

For the rl check audit, the reporting limit (rl) check solution was used for the analysis runs. Since many of the ESAT calculated rl values were close to the CRL rl values, the CRL RL check solution was used as the check solution for the Optima 3300 DV analysis run.

Presently no "control" actions are associated with the observed rl analyte values actually determined during the analysis runs. RL check solution values currently are being analyzed for purposes of generating a benchmark set of values which can be used to monitor the appropriateness of any given RL level of analyte concentration.

An ambiguously stated flag in SOP HK005 is the "B" flag. Although a "more than 10 times" rule was mentioned for blanks for considering data as useable, it was not clearly stated whether or not the "B" flag should be used. As a matter of fact, to this analyst, from reading the wording used in the SOP the flow or intent seems to imply (but is not specifically stated to do so) to always use the "B" flag regardless of the sample level if a control audit blank is above an MDL level ! This analyst used the "B" flag for those analyte cases where the MDL value was exceeded but the 10 times value was not exceeded.

Also, to better help understand the use of the "B" flag, let it be pointed out to the data user that the "B" flag is by definition a warning flag only. For estimated data, an additional flag (either an "M" or a "J" flag") is used to denote that the flagged result is in fact estimated.

RD
10-27-00

Analysis RUN 1225 - Optima 3300 DV

29 analyte lines out of a possible 78 lines available using the Optima 3300 DV method were chosen by a plan agreed upon by Dr. J. V. Morris. These are to be used for routine reporting of analyte values that appear in the QA summary reports. Of these, only the designated ones from TDF instruction were reported for the samples with the exception of Pb for which GFAA analysis results were used (see separate report for GFAA analysis results).

The following lists the case pertinent out-of-control QC audit check results:

RUN 1225:

Blanks:	Instr blk 1:	Be313	- 0.15	µg/L
		Cd226	0.16	"
		Co228	- 0.62	"
		Cr267	1.3	"
		Fe259	- 83.5	"
		Mn257	- 0.45	"
		V 310	6.1	"
		Zn213	-11.3	"
	Digest blk 1:	Ag328	- 0.3	"
		Ba455	11.2	"
		Be313	- 0.12	"
		Ca315	47.2	"
		Cd226	0.14	"
		Co228	- 0.61	"
		Cu327	0.83	"
		Fe259	- 96.3	"
		Mg280	91.7	"
		Mn257	- 0.64	"
		V 310	6.6	"
		Zn213	68.8	"
	Instr blk 2:	Al396	12.5	"
		Be313	- 0.31	"
		Co228	- 0.93	"
		Cr267	1.3	"
		Fe259	-103.	"
		Mg280	3.8	"
		Mn257	- 0.83	"
		Na589	150.	"
		Ni231	- 0.46	"
		Se196	3.6	"

RB
10-27-00

Analysis RUN 1225 - Optima 3300 DV (continued)

Digest blk 2:	Be313	- 0.23	µg/L
	Cd226	- 0.20	"
	Cu327	1.1	"
	Fe259	-109.	"
	Mg280	4.9	"
	Mn257	- 0.97	"
	Na589	102.	"
	Ni231	- 0.94	"
	Se196	4.1	"
	Zn213	73.2	"
Instr blk 3:	Al396	17.2	"
	Be313	- 0.52	"
	Co228	- 0.79	"
	Cr267	1.4	"
	Fe259	-107.	"
	K 766	1431.	"
	Mg280	4.1	"
	Mn257	- 0.92	"
	Na589	1485.	"
	Ni231	- 0.47	"
	Zn213	8.8	"
Instr blk 4:	Be313	- 0.34	"
	Co228	- 1.0	"
	Cr267	1.2	"
	Cu327	- 0.85	"
	Fe259	-117.	"
	K 766	298.	"
	Mn257	- 1.1	"
	Na589	579.	"
	Ni231	- 1.1	"
	Se196	3.6	"

Mid range: LCM1's: QC's	LCM1-2:	Fe259	-11.6	% deviation
		Na589	21.6	"
	LCM1-3:	Fe259	-14.4	"
		K 766	12.0	"
		Na589	82.1	"
	LCM1-4:	Fe259	-19.2	"
		K 766	13.5	"
		Mn257	-10.2	"
		Na589	91.2	"
		Zn213	-13.5	"

10-27-00

Analysis RUN 1225 - Optima 3300 DV (continued)

Matrix spikes:

2000IN05S18:	K 766	122 %R
	Na589	#

spike audit not valid; sample conc > twice added spike conc

For Al, all sample results except for 2000IN05S01, S08, S14, S19, S24, S29, and S41 are flagged "B" indicating they may have been affected by possible contamination indicated by blank analysis data. Of these sample results all except 2000IN05S11, S26, S36, S39, and S40 are flagged "J" indicating possible high bias due to the blank contamination just noted and are estimated. Sample results for 2000IN05S11, S26, S36, S39, and S40 are flagged "M" indicating they had a result between the MDL and the RL value and they are estimated because of this.

For As, the sample results for 2000IN05S24 and S40 are flagged "M" indicating they had a result between the MDL and the RL value and they are estimated because of this.

For Ba, sample results for 2000IN05S08, S09, S11, S14, S17, S20, S21, S24, S25, S26, S27, S28, S29, S39, S40, and S41 are flagged "B" indicating they may have been affected by possible contamination indicated by blank analysis data. All of these sample results are flagged "J" indicating possible high bias due to the blank contamination just noted and are estimated.

For Be, the sample results for 2000IN05S15, S16, and S29 are flagged "M" indicating they had a result between the MDL and the RL value and they are estimated because of this. Some blank audit checks were less than twice the negative rl value but none were all were within ± the primary drinking water of 4 µg/L. Except for those noted above, all Be sample results should useable.

For Ca, Optima 3300 DV results were reported for all samples except for 2000IN05S09, S15, S16, S18, S19, S20, S21, S22, S29, S30, S37, and S38. All Optima 3300 DV Ca sample results are useable except for 2000IN05S01 which is flagged "B" and is estimated "J" because of possible high bias due to blank contamination results.

10-27-00

Analysis RUN 1225 - Optima 3300 DV (continued)

For Cd, sample results for 2000IN05S08, S14, S15, S16, and S29 are flagged "B" indicating they may have been affected by possible contamination indicated by blank analysis data. The sample result for 2000IN05S29 is estimated "J" indicating possible high bias due to the blank contamination just noted and are estimated. Sample results for 2000IN05S08, S14, S15, and S16 are flagged "M" indicating they had a result between the MDL and the RL value and they are estimated because of this.

For Co, the sample results for 2000IN05S18, S19, S22, and S27 are flagged "M" indicating they had a result between the MDL and the RL value and they are estimated because of this.

For Cu, sample results for 2000IN05S08, S09, S11, S13, S15, S16, S20, S21, S23, S24, S25, S27, S36, S37, S38, S40, and S41 are flagged "B" indicating they may have been affected by possible contamination indicated by blank analysis data. Of these sample results the ones for 2000IN05S08, S11, S13, S16, S20, S21, S23, S27, S36, S40, and S41 are flagged "J" indicating possible high bias due to the blank contamination just noted and are estimated. Sample results for 2000IN05S09, S15, S24, S25, S37, and S38 are flagged "M" indicating they had a result between the MDL and the RL value and they are estimated because of this.

For Fe, all sample results are estimated "J" because of very low bias indicated by low mid range instrument QC check audit results.

For Mn, all sample results are estimated "J" because of low bias indicated by mid range instrument QC check audit results exceeding control limit values.

For Ni, the sample results for 2000IN05S09, S12, S13, S15, S16, S17, S27, S28, S30, S36, and S41 are flagged "M" indicating they had a result between the MDL and the RL value and they are estimated because of this.

For K, all sample results are estimated "J" due to possible high bias indicated from high matrix spike recovery and biased high mid range instrument QC audit results. Also, all sample results except for 2000IN05S15, S16, S20, and S29 are flagged "B" indicating they may have been affected by possible contamination indicated by blank analysis data.

QD
10-27-00

Analysis RUN 1225 - Optima 3300 DV (continued)

For Se, all sample results except for 2000IN05S01, S08, S23, S25, and S26 are flagged "B" indicating they may have been affected by possible contamination indicated by blank analysis data. Of these sample results the ones for 2000IN05S09, S19, S21, and S37 are flagged "J" indicating possible high bias due to the blank contamination just noted and are estimated. Sample results for 2000IN05S11, S12, S13, S14, S15, S16, S17, S18, S20, S22, S24, S27, S28, S29, S30, S36, S38, S39, S40, and S41 are flagged "M" indicating they had a result between the MDL and the RL value and they are estimated because of this.

For Ag, the sample result for 2000IN05S40 is flagged "M" indicating it had a result between the MDL and the RL value and it is estimated because of this.

For Na, Optima DV results were reported only for samples 2000IN05S09, S11, S14, S15, and S16. Sample 2000IN05S14 is flagged "B" indicating it may have been affected by possible contamination indicated by blank analysis data. All five of these sample results are flagged "J" indicating possible high bias due to mid range instrument check audit results exceeding QA control limits and are estimated.

For Tl, the sample results for 2000IN05S01, S09, S12, S13, S15, S16, S17, S18, S19, S20, S21, S29, S30, S36, S37, and S38 are flagged "M" indicating they had a result between the MDL and the RL value and they are estimated because of this.

For V, sample results for 2000IN05S01, S08, S09, S11, S12, S13, S14, S15, S16, and S25 are flagged "B" indicating they may have been affected by possible contamination indicated by blank analysis data. The sample results for 2000IN05S08, S15, and S16 are flagged "J" indicating possible high bias due to the blank contamination just noted and are estimated. Sample results for 2000IN05S01, S09, S11, S12, S13, S14, and S25 are flagged "M" indicating they had a result between the MDL and the RL value and they are estimated because of this.

For Zn, all sample results are estimated "J" because of low bias indicated by mid range instrument QC check audit results exceeding control limit values. Also, all samples except for 2000IN05S36 are flagged "B" and may be affected by high bias due to possible contamination indicated by blank analysis data. Samples 2000IN05S17, S25, S37, S38, and S39 are flagged "M" indicating they had a result between the MDL and the RL value; they would be estimated because of this but they are already estimated as noted above.

QD
10-27-00

Analysis RUN 1225D - JY138

The following lists the case pertinent out-of-control QC audit check results:

RUN 1225D:

Blanks:	Instr blk 1:	Na588.9	- 27.8	µg/L
	Digest blk 1:	Ca393	42.5	"
		Na588.9	- 28.9	"
	Instr blk 2:	Ca315	- 59.4	"
		Na588.9	16.5	"
	Digest blk 2:	Ca315	- 46.3	"
		Na588.9	17.5	"
	Instr blk 3:	Ca315	- 73.9	"
		Na588.9	63.0	"
	Instr blk 4:	Ca315	-120.	"
		Na588.9	40.3	"

Laboratory duplicates: 2000IN05S09: Ca315 14.4 %RPD

matrix spikes:	2000IN05S09:	Ca315	#
	2000IN05S18:	Ca393	*
	2000IN05S28:	Ca393	*

* alternate line used for QC audit
\# spike audit not valid; sample conc > twice added spike conc

For Ca, JY138 results were reported for 2000IN05S09, S15, S16, S18, S19, S20, S21, S22, S29, S30, S37, and S38. These results are estimated "J" because of poor lab analysis precision.

For Na, JY138 results were reported for all samples except for S09, S11, S14, S15, and S16; the JY results are usable.

10-27-c

Other Comments

One additional rerun analysis using the Optima 3300 DV was attempted for samples 2000IN05S28 through S41. However, the results obtained were no better and in some instances were worse than the initial analysis run results. Because of this outcome, the rerun data was not reported nor included with the deliverables for this case.

R5CRL Files

The following pathways were used for storing analysis information to the R5CRL file server for the this data set:

Optima 3300 DV results:

(Vol 3 on 'R5crl')[H:]\metals\Rdilg\20000072\Icp\Optima 3300DV\Methods_ESAT
(Vol 3 on 'R5crl')[H:]\metals\Rdilg\20000072\Icp\Optima 3300DV\narrative
(Vol 3 on 'R5crl')[H:]\metals\Rdilg\20000072\Icp\Optima 3300DV\Results_ESAT
(Vol 3 on 'R5crl')[H:]\metals\Rdilg\20000072\Icp\Optima 3300DV\SIFs_ESAT
(Vol 3 on 'R5crl')[H:]\metals\Rdilg\20000072\Icp\Optima 3300DV\SS processed data

JY 138 results:

(Vol 3 on 'R5crl')[H:]\metals\Rdilg\20000072\Icp\JY138 Ultrace\Interim Lotus SS data
(Vol 3 on 'R5crl')[H:]\metals\Rdilg\20000072\Icp\JY138 Ultrace\narrative
(Vol 3 on 'R5crl')[H:]\metals\Rdilg\20000072\Icp\JY138 Ultrace\QA and sample reports
(Vol 3 on 'R5crl')[H:]\metals\Rdilg\20000072\Icp\JY138 Ultrace\Raw data

CRL Data Review Qualification Codes

QUALIFIER	DESCRIPTION
B	This flag is used when the analyte is found in the associated *B*lank as well as the sample. It indicates possible blank contamination and warns the user to take appropriate action while assessing the data. See the case narrative for a discussion of common lab contaminants and/or the relative concentration of contamination in the samples and blanks for relevance.
D	This flag is used when the analyte concentration results from a required *D*ilution of the sample, extract or digestate.
E	This flag is used to identify analyte concentrations *E*xceeding the upper calibration range of the analytical instrument after dilution of the sample, extract or digestate. The reported value is considered to be estimated
J	This flag is used when the analyte is estimated due to quality control limit(s) being exceeded. This flag accompanies all GC/MS tentatively identified compounds (TICs). This flag also applies to a suspected, unidentified interference. This flag is placed on affected detected results as well as non-detected (i.e., "U" flagged) results. (*J* is the flag used in the Superfund CLP SOW and Data Review Functional Guidelines and is used by CRL for consistency.)
M	This flag is used when the analyte is confirmed to be qualitatively present in the sample, extract or digestate, at or above the CRL *M*ethod Detection Limit (MDL) but below the CRL reporting limit (RL). This flag applies to all values in this concentration range and indicates the quantitated value is estimated due to its presence in this concentration range.
N	This flag applies to GC/MS Te*N*tatively Identified Compounds (TICs) that have a mass spectral library match.
Q	This flag applies to analyte data that are severely estimated due to quality control and/or *Q*uantitation problems, but are confirmed to be qualitatively present in the sample. No value is reported with this qualification flag.
R	This flag applies to analyte data that are *R*ejected and unusable due to severe quality control, quantitation and/or qualitative identification problems. No other qualification flags are reported for this analyte. No value is reported with this qualification flag.
U	This flag in used when the analyte was analyzed but *U*ndetected in the sample. The CRL RL for the analyte accompanies this flag. As with sample results that are positive, the value is corrected for dry weight, dilution and/or sample weight or volume.

4/11/00

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: OCT 20 2000

Subject: Review of Region 5 Data for Town of Pines

From: ESAT , Chemist
Region 5 Central Regional Laboratory

To: Mark Jaworski
IDEM

Attached are the results for Site: Town of Pines
CRL Data Set Number: 20000072
for analyses of : Lead
Results are reported for sample numbers: 2000IN05S01, 2000IN05S08, 2000IN05S09, 2000IN05S11, 2000IN05S12, 2000IN05S13, 2000IN05S14, 2000IN05S15, 2000IN05S16, 2000IN05S17, 2000IN05S18, 2000IN05S19, 2000IN05S20, 2000IN05S21, 2000IN05S22, 2000IN05S23, 2000IN05S24, 2000IN05S25, 2000IN05S26, 2000IN05S27, 2000IN05S28, 2000IN05S29, 2000IN05S30, 2000IN05S36, 2000IN05S37, 2000IN05S38, 2000IN05S39, 2000IN05S40 and 2000IN05S41

Results Status:
(x) Acceptable for Use
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use

Sylvia Griffin OCT 20 2000

CRL Data Management Coordinator and Date Received

Date Transmitted: OCT 20 2000

Please have the US EPA project leader fill out the customer survey form on the Region 5 Intranet: http://www.r5intra.epa.gov/crl/qa.html, (← by clicking on this link, or call George Schupp, CRL Sample Coordinator, at 3-1226).

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML - 10C

Received by and Date

Comments:

Method: GFAA for Water
Site: Town of Pines GW Plume
Date: October 16, 2000
Prepared by: Stephen Connet

TDF: 5104-303
PWO: ESE51051
WAD: 05-00-4-04
Data Set: 20000072

NARRATIVE

Twenty nine (29) water samples from the Town of Pines Groundwater Plume site [2000IN05S01 (RW-5), S08 (RW-3), S09 (RW-4), S11 (RW-9), S12 (RW-15), S13 (RW-14), S14 (RW-13), S15 (RW-1), S16 (RW-2), S17 (RW-7), S18 (RW-8), S19 (RW-11), S20 (RW-10), S21 (RW-12), S22 (RW-6), S23 (RW-18), S24 (RW-16), S25 (RW-19), S26 (RW-17), S27 (RW-20), S28 (RW-21), S29 (RW-24), S30 (RW-23), S36 (RW-22), S37 (RW-25), S38 (RW-26), S39 (RW-27), S40 (RW-28), S41 (RW-29)] were collected on September 20-21, 2000 and were received properly preserved by CRL on September 22, 2000. The samples were submitted to ESAT for analysis of lead by GFAA. Required reporting limits were such that antimony, arsenic, cadmium, selenium, and thallium (traditionally run on GFAA) could be reported from ICP.

The samples were digested following standard CRL 200.2 hot block water digestion protocols on October 2, 2000 (digestion batch 1222). All analyses were performed using 200.9 methods on the SIMAA 6000 using the SePb program. Only lead was reported from the runs.

Non-detect results are reported to the reporting limit (RL). Results between the method detection limit (MDL) and the RL are reported as the instrument value with an "M" flag.

Analytical results were stored in the following database files:
H:\r5crl\vol3\metals\sconnet\20000072\6000-Pb\101300, and \101600 for lead.

This narrative, the QC Summary and Results spreadsheets are stored in:
H:\r5crl\vol3\metals\sconnet\20000072\Reports\GFAA Narrative.wpd
H:\r5crl\vol3\metals\sconnet\20000072\Reports\QCReport.wk4
H:\r5crl\vol3\metals\sconnet\20000072\Reports\GFAA Results.wpd

Since RLIMS was unavailable, the AA metals analysis results are reported in a word-processing spreadsheet only. Time will be necessary in the future to enter all analysis results into RLIMS.

10-16-00

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: METALS

DIVISION/BRANCH: SUPERFUND **SAMPLING DATE:** 9/20-21/00 **LAB ARRIVAL DATE:** 9/22/00 **DUE DATE:** 10/23/00
DU NUMBER: 50108D **DATASET NUMBER:** 20000072 **STUDY:** Town of Pines GW Plume **PRIORITY:** Routine **LABORATORY :**ESAT

	CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER Lead (ug/L)	FLAGS
1	2000IN05S01	RW-5	4	U
2	2000IN05S08	RW-3	4	U
3	2000IN05S09	RW-4	4	U
4	2000IN05S11	RW-9	4	U
5	2000IN05S12	RW-15	4	U
6	2000IN05S13	RW-14	4	U
7	2000IN05S14	RW-13	11	
8	2000IN05S15	RW-1	4	U
9	2000IN05S16	RW-2	4	U
10	2000IN05S17	RW-7	2	M
11	2000IN05S18	RW-8	4	U
12	2000IN05S19	RW-11	4	U
13	2000IN05S20	RW-10	4	U
14	2000IN05S21	RW-12	4	U
15	2000IN05S22	RW-6	4	U
DATE OF ANALYSIS			10/13,16/00	
ANALYST		10-16-00	S. Connet	

Reviewed by: M. Matta Date: 10/19/00

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: METALS

DIVISION/BRANCH: SUPERFUND **SAMPLING DATE:** 9/20-21/00 **LAB ARRIVAL DATE:** 9/22/00 **DUE DATE:** 10/23/00
DU NUMBER: 50108D **DATASET NUMBER:** 20000072 **STUDY:** Town of Pines GW Plume **PRIORITY:** Routine **LABORATORY :**ESAT

	CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER Lead (ug/L)	FLAGS	
16	2000IN05S23	RW-18	4	U	
17	2000IN05S24	RW-16	4	U	
18	2000IN05S25	RW-19	4	U	
19	2000IN05S26	RW-17	7		✓
20	2000IN05S27	RW-20	4	U	
21	2000IN05S28	RW-21	2	M	✓
22	2000IN05S29	RW-24	4	U	
23	2000IN05S30	RW-23	3	M	✓
24	2000IN05S36	RW-22	4	U	
25	2000IN05S37	RW-25	4	U	
26	2000IN05S38	RW-26	4	U	
27	2000IN05S39	RW-27	4	U	
28	2000IN05S40	RW-28	4	U	
29	2000IN05S41	RW-29	4	U	
DATE OF ANALYSIS			10/13,16/00		
ANALYST		10-16-00	S. Connet		

Reviewed by: M. Mattop Date: 10/19/00

2000C072 5C108D

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

DIVISION/BRANCH SUPERFUND SAMPLE DATE 9/20-21/00 LAB ARRIVAL DATE 9/22/00 DUE DATE 10/23/00

DU NUMBER 5C108D DATA SET NUMBER 2000 C072 STUDY TOWN OF DIMOCK (Groundwater Plume) PRIORITY N CONTRACTOR IDEM

CRL LOG NUMBER	SAMPLE DESCRIPTION	TOTAL METALS WATER TOTAL ICAP UG/L MET111	TOTAL METALS WATER AS UG/L MET181	TOTAL METALS WATER PB UG/L MET1191	TOTAL METALS WATER SB UG/L MET1201	TOTAL METALS WATER SE UG/L MET1211	TOTAL METALS WATER TL UG/L MET1221
2000 INUS S01	RW-5 5-178661	X	X	X	X	X	X
2000 INUS S08	RW-3 5-178686	X	X	X	X	X	X
2000 INUS S09	RW-4 5-178659-660	X	X	X	X	X	X
2000 INUS S11	RW-9 5-178790	X	X	X	X	X	X
2000 INUS S12	RW-15 5-178464	X	X	X	X	X	X
2000 INUS S13	RW-14 5-178465	X	X	X	X	X	X
2000 INUS S14	RW-13 5-178463	X	X	X	X	X	X
2000 INUS S15	RW-1 5-178705	X	X	X	X	X	X
2000 INUS S16	RW-2 5-178704	X	X	X	X	X	X
2000 INUS S17	RW-7 5-178760	X	X	X	X	X	X
2000 INUS S18	RW-8 5-178761	X	X	X	X	X	X
2000 INUS S19	RW-11 5-178664	X	X	X	X	X	X
2000 INUS S20	RW-10 5-178797	X	X	X	X	X	X
2000 INUS S21	RW-12 5-021336	X	X	X	X	X	X
2000 INUS S22	RW-6 5-178751	X	X	X	X	X	X
2000 INUS S23	RW-18 5-178466	X	X	X	X	X	X
2000 INUS S24	RW-16 5-178467	X	X	X	X	X	X
2000 INUS S25	RW-19 5-178602	X	X	X	X	X	X

2000 0072 501087

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

DIVISION/BRANCH SUPERFUND SAMPLE DATE 9/20-21/00 LAB ARRIVAL DATE 9/22/00 DUE DATE 10/23/00

DU NUMBER 501087 DATA SET NUMBER 2000 0072 STUDY TOWN OF PINES GROUNDWATER PLUME PRIORITY N CONTRACTOR IDEM

CHL LOG NUMBER	SAMPLE DESCRIPTION	TOTAL METALS WATER TOTAL ICAP UG/L MET111	TOTAL METALS WATER AS UG/L MET161	TOTAL METALS WATER PB UG/L MET1101	TOTAL METALS WATER SB UG/L MET1201	TOTAL METALS WATER SE UG/L MET1211	TOTAL METALS WATER TL UG/L MET1221
2000 IN05 S26	RW-17 5-178468	X	X	X	X	X	X
2000 IN05 S27	RW-20 5-178619	X	X	X	X	X	X
2000 IN05 S28	RW-21 5-178638-639	X	X	X	X	X	X
2000 IN05 S29	RW-24 5-178804	X	X	X	X	X	X
2000 IN05 S30	RW-23 5-178803	X	X	X	X	X	X
2000 IN05 S36	RW-22 5-178648	X	X	X	X	X	X
2000 IN05 S37	RW-25 5-178451	X	X	X	X	X	X
2000 IN05 S38	RW-26 5-178452	X	X	X	X	X	X
2000 IN05 S39	RW-27 5-178823	X	X	X	X	X	X
2000 IN05 S40	RW-28 5-178824	X	X	X	X	X	X
2000 IN05 S41	RW-29 5-178825	X	X	X	X	X	X

CRL Data Review Qualification Codes

QUALIFIER	DESCRIPTION
B	This flag is used when the analyte is found in the associated *B*lank as well as the sample. It indicates possible blank contamination and warns the user to take appropriate action while assessing the data. See the case narrative for a discussion of common lab contaminants and/or the relative concentration of contamination in the samples and blanks for relevance.
D	This flag is used when the analyte concentration results from a required *D*ilution of the sample, extract or digestate.
E	This flag is used to identify analyte concentrations *E*xceeding the upper calibration range of the analytical instrument after dilution of the sample, extract or digestate. The reported value is considered to be estimated
J	This flag is used when the analyte is estimated due to quality control limit(s) being exceeded. This flag accompanies all GC/MS tentatively identified compounds (TICs). This flag also applies to a suspected, unidentified interference. This flag is placed on affected detected results as well as non-detected (i.e., "U" flagged) results. (*J* is the flag used in the Superfund CLP SOW and Data Review Functional Guidelines and is used by CRL for consistency.)
M	This flag is used when the analyte is confirmed to be qualitatively present in the sample, extract or digestate, at or above the CRL *M*ethod Detection Limit (MDL) but below the CRL reporting limit (RL). This flag applies to all values in this concentration range and indicates the quantitated value is estimated due to its presence in this concentration range.
N	This flag applies to GC/MS Te*N*tatively Identified Compounds (TICs) that have a mass spectral library match.
Q	This flag applies to analyte data that are severely estimated due to quality control and/or *Q*uantitation problems, but are confirmed to be qualitatively present in the sample. No value is reported with this qualification flag.
R	This flag applies to analyte data that are *R*ejected and unusable due to severe quality control, quantitation and/or qualitative identification problems. No other qualification flags are reported for this analyte. No value is reported with this qualification flag.
U	This flag in used when the analyte was analyzed but *U*ndetected in the sample. The CRL RL for the analyte accompanies this flag. As with sample results that are positive, the value is corrected for dry weight, dilution and/or sample weight or volume.

4/11/00

Appendix E
Chemical Analysis Data

State Form 4336

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

INDIANAPOLIS

OFFICE MEMORANDUM

Date: December 8, 2000

To: Mark Jaworski
Site Assessment Group

Thru: Wilfred Michira 12.11.00
Barry Steward for BS 12-11-00

From: Michael Richardson MLR 12.8.00
OLQ Chemistry Section

Subject: Analytical Results for Town of Pines Groundwater Plume
Pines, Porter Co., Indiana
Sampled: November 14-16, 2000
Sample Numbers: RO7097-RO7135
Heritage Environmental Services

The analytical results for the samples identified above have been validated according to the quality criteria contained in the BAA 97-018 and the EPA Methods and Guidance For Analysis of Water. Based on the evaluation, it has been determined that the results are partially acceptable for use. Reasons that data are qualified as estimated or unusable are explained below. This memorandum should remain attached to the original laboratory reports for reference.

General Comments:

The purpose of this event was to sample for determination of the extent of groundwater contamination. The collected samples were analyzed for volatile organic compounds (VOCs), antimony, arsenic, barium, beryllium, cadmium, chromium, mercury, nickel, sodium, selenium, thallium, copper, lead, aluminum, iron, magnesium, manganese, zinc, silver, calcium, cobalt, potassium, and vanadium.

Sampling Quality Assurance/Quality Control:

Field documentation did allow for interpretation of the data. Chain-of-custody records, the sample request form, and sample field sheets were provided with the analytical results.

Field duplicate samples are used to establish the representativeness of field sampling (i.e., the homogeneity and sample variability). Field duplicates were collected from sampling locations RO7107, RO7117, and RO7130. The groundwater duplicate samples for this study were not in good agreement for all constituents. Duplicate samples for RO7107 were outside of control limits for toluene, methylene chloride, hexachlorobutadiene, lead, thallium, copper, and zinc. Duplicate samples for RO7130 were outside of control limits for 1,3,5-trimethylbenzene, copper, iron, and zinc. Due to the variances for each sample taken, the field duplicates cannot be used as an accurate comparison of the sampling procedures for the entire sampling event. Therefore, it is determined that sample results for duplicate samples RO7107 and RO7130 alone are qualified as estimated for the above mentioned constituents.

Field blanks (trip and/or equipment) are used to identify sample contamination resulting from sampling equipment, sample containers, chemical preservatives, and the handling and transportation of samples. The trip blank did not contain any constituents above detectable levels. There were no field blanks collected or required for this sampling event.

Laboratory Quality Assurance/Quality Control:

The laboratory performed all quality assurance/quality control (QA/QC) measures necessary to validate the analytical results for this sampling event. The data was determined to be valid. Based on the validation of the analytical results, the following comments and/or qualifications are made regarding the data:

Volatile Organic Analysis

Samples were analyzed for VOCs by U.S. EPA Water Method 524.2.

Matrix spike and matrix spike duplicate (MS/MSD) analysis resulted in percent recoveries for 1,1-dichloroethene, bromomethane, methylene chloride, and trichlorofluoromethane below control limits and 1,1,2,2-tetrachloroethane above control limits for the MS. Percent recoveries for 1,1-dichloroethene, methylene chloride, and trichlorofluoromethane were below control limits and carbon tetrachloride, 1,2-dichloroethane, and 1,1,2,2-tetrachloroethane were above control limits for the MSD. Relative percent differences (RPDs) for the MS/MSD were outside of control limits for carbon tetrachloride, styrene, and 1,2,4-trimethylbenzene. Surrogate recovery results for the MSD were above acceptable control criteria for 1,2-dichloroethane-d4. Therefore, the MSD results are biased high and qualified as estimated. Laboratory control sample (LCS) results were within control limits for VOCs. Methylene chloride was the only associated constituent detected in the submitted samples. Therefore, it is determined that the system was operating in control and the results for methylene chloride are biased low and qualified as estimated due to possible matrix interferences.

All other laboratory QA/QC performed for VOC analysis was within the acceptable control criteria.

ICP and AA Metals Analysis

Samples were analyzed for metals by ICP with U.S. EPA Water Method 200.7, except for mercury by CVAA with U.S. EPA Water Method 245.1.

Levels of potassium were detected in the continuing calibration blanks associated with analysis of samples RO7119-RO7126. Therefore, detected levels of potassium found in samples RO7119-RO7126 are qualified as estimated due to possible sample contamination.

Analysis of the RO7120 MS/MSD samples resulted in percent recoveries above the control limit for potassium. Therefore, it is determined that detected levels of potassium found in associated samples RO7119-RO7126 are biased high and qualified as estimated due to possible matrix interferences. It is unknown whether the potassium levels are elevated due to matrix interferences or laboratory sample contamination.

ICP serial dilution analysis for sample RO7107 resulted in potassium, sodium, and zinc outside of control limits. Serial dilution analyses for samples RO7098, RO7132, and RO7120 resulted in potassium outside of control limits. Serial dilution analysis for sample RO7119 resulted in sodium outside of control limits. There were no post-digestion spike analyses performed on these samples. Therefore, it is determined that sample results associated with the above mentioned serial dilution results are qualified as estimated for the appropriate constituents due to possible chemical or physical interferences.

There were no laboratory control samples (LCSs) performed for metal analyses by ICP. A LCS analysis was performed for mercury analysis by CVAA. It is determined that due to the remaining QA/QC found in control, which adequately confirmed that the system was operating in control, the LCS analysis would not have provided enough additional verification to merit qualification of the sample results in it's absence. Furthermore, any constituent that was determined by the present QA/QC to be operating in an out of control manner and would expectedly have been qualified by the LCS has been qualified as estimated appropriately.

All other laboratory QA/QC performed for metals analysis by ICP was within the acceptable control criteria.

ICP/MS Metals Analysis

Samples were analyzed for metals by ICP/MS with U.S. EPA Water Method 200.8.

Interference check sample (ICS) analyses performed on November 21, 2000 for all samples except RO7135 resulted in arsenic below, nickel above, and zinc above the acceptable control criteria. Therefore, all sample results except RO7135 are qualified as estimated for the above mentioned constituents. Detectable sample results only are qualified as estimated for nickel and zinc. ICS analyses performed on November 22, 2000 for sample RO7135 resulted in chromium and zinc above the acceptable control limits. Therefore, detectable sample results only for RO7135 are qualified as estimated for chromium and zinc.

Serial dilution analyses performed on samples RO7098, RO7132, and RO7119 resulted in copper outside of control limits. There were no post-digestion spike analyses performed on these samples. Therefore, it is determined that sample results associated with the above mentioned serial dilution results are qualified as estimated for copper due to possible chemical or physical interferences.

There were no laboratory control samples (LCSs) performed for metal analyses by ICP/MS. It is determined that due to the remaining QA/QC found in control, which adequately confirmed that the system was operating in control, the LCS analysis would not have provided enough additional verification to merit qualification of the sample results in it's absence. Furthermore, any constituent that was determined by the present QA/QC to be operating in an out of control manner and would expectedly have been qualified by the LCS has been qualified as estimated appropriately.

All other laboratory QA/QC performed for metals analysis by ICP/MS was within the acceptable control criteria.

Results:

Volatile organic analysis resulted in detectable levels of benzene, ethylbenzene, toluene, xylenes, methylene chloride, 1,2,3-trichloropropane, hexachlorobutadiene, isopropylbenzene, 4-isopropyltoluene, naphthalene, n-propylbenzene, sec-butylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and methyl tertiary butyl ether (MTBE). Detected VOCs were concentrated to only five of the sampling locations. Benzene was detected in samples RO7098, RO7107, RO7108, RO7130, and RO7130 duplicate (RO7129) above U.S. EPA Maximum Contaminant Levels (MCLs). MTBE was compared to the IDEM RISC Tier 1 Default Residential limit and was found to be below the levels. There were no other detected VOCs above the regulatory levels.

Metals analysis resulted in detectable levels of arsenic, barium, cadmium, lead, selenium, antimony, nickel, thallium, aluminum, calcium, copper, iron, magnesium, manganese, potassium, sodium, vanadium, and zinc. Lead was compared to and found in samples RO7130 and it's duplicate only above the U.S. EPA Removal Action Levels (RALs). Arsenic was detected in sample RO7135 only above MCLs. Iron and manganese were detected in numerous well locations above the secondary MCLs, which may be indicative of typical hard water commonly found in wells. There were no other detected metals above the regulatory levels.

Conclusions:

The data are usable for the overall project goal. The residential wells are reportedly screened from 15 to 35 feet below the surface. If a sampled well was screened below the surface of the groundwater then the floating VOCs such as benzene would not be detected or the results would be biased low. Therefore, the nature and extent of contamination has not been established and further groundwater sampling and analysis is required to attain this. Levels of benzene above the

regulatory levels appear to be concentrated to one area. This area requires further groundwater sampling to fully delineate the plume and possible source. One possible option is to attempt an extensive Geoprobe groundwater sampling and analysis event.

Elevated levels of metals are scattered and may be delineated individually or attributed to naturally occurring conditions, such as iron and manganese, but only with additional supporting data. The sampler reports letting the water run about 15 minutes prior to sampling. Therefore, the analytical results are more likely to be associated with the aquifer and not the home plumbing system.

Attachments

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

Metals

Site Name: Town of Pines Groundwater Plume **Water**
Site Number: 0000000
Location: Pines, Porter Co
Date Sampled: 15-Nov-00
Date Reported: 02-Dec-00
Sample Numbers: RO7097-RO7135
Lab. Heritage Environmental Services UNITS. **mg/L**

Sample #		Type/ID#	As	Ba	Cd	Cr	Pb	Hg	Se	Ag	Sb	Be	Ni	Tl
Lab	IDEM	R.L.>	0.001	0.006	0.00025	0.007	0.0001	0.0002	0.0015	0.007	0.00025	0.002	0.005	0.0001
MCL >			*0.05*	*2*	*0.005*	*0.1*	*0.015 (RAL)*	*0.002*	*0.05*	*0.1*	*0.006*	*0.004*	*0.1*	*0.002*
A537991	RO7097	groundwater	**0.0011**				0.0061						**0.012**	
A537992	RO7098	groundwater		0.11			0.00022						**0.0096**	
A537993	RO7099	groundwater		0.06			0.0015		0.0026					
A537994	RO7100	groundwater		0.1			0.0014							
A537995	RO7101	groundwater		0.025			0.00044							
A537996	RO7102	groundwater		0.088			0.0029							
A537997	RO7103	groundwater		0.048			0.0026		0.0034					
A537998	RO7104	groundwater		0.064			0.0052							
A538146	RO7105	groundwater		0.14			0.0016		0.0016				**0.044**	
A538147	RO7106	groundwater		0.059										0.00011
A537982	RO7107	groundwater		0.28			**0.001**						**0.0054**	**0.00021**
A537983	RO7108	**RO7107		0.28			**0.00062**							**0.00015**
A537984	RO7109	groundwater		0.067			0.00041							
A537985	RO7110	groundwater		0.082			0.0021							
A537986	RO7111	groundwater		0.092			0.0048						**0.07**	
A537987	RO7112	groundwater		0.031			0.0005							
A537988	RO7113	groundwater		0.13	0.00039		0.0013		0.0034					
A537989	RO7114	groundwater		0.26			0.0023							
A537990	RO7115	groundwater		0.089			0.00091		0.0018		0.0003			
A538148	RO7116	groundwater		0.17			0.0033						**0.014**	0.00011
A538149	RO7117	groundwater		0.064										
A538150	RO7118	*RO7117		0.065										
A538151	RO7119	groundwater		0.32										
A538152	RO7120	groundwater		0.12							0.00034			
A538153	RO7121	groundwater	**0.001**	0.1			0.00023		0.01		0.00047			
A538154	RO7122	groundwater		0.15			0.01				0.0003			
A538155	RO7123	groundwater		0.042										
A538156	RO7124	groundwater		0.034			0.0049							
A538157	RO7125	groundwater	**0.0016**	0.15			0.00011							
A538158	RO7126	groundwater		0.093										
A538007	RO7127	*trip	**NR**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
A538006	RO7128	groundwater		0.059			0.004						**0.0061**	
A538005	RO7129	**RO7130		0.053			**0.023**							
A538004	RO7130	groundwater		0.055			**0.025**							
A538003	RO7131	groundwater		0.14			0.00045							
A538002	RO7132	groundwater		0.47									**0.014**	
A538001	RO7133	groundwater	**0.001**	0.098			0.0082							
A538000	RO7134	groundwater		0.26			0.00081				0.00025			
A537999	RO7135	groundwater	**0.86**	0.16			0.00034							

* BLANK (Type indicated) Empty Box indicates NON-DETECTABLE **Estimated**
** FIELD DUPLICATE Strikethrough indicates DIFFERENT MATRIX SET **Bold = above MCL**
NR = NOT RUN NA=NOT AVAILABLE

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

Metals

Site Name:	**Town of Pines Groundwater Plume**	**Water**	
Site Number:	0000000		
Location:	Pines, Porter Co.		
Date Sampled:	15-Nov-00		
Date Reported:	02-Dec-00		
Sample Numbers:	RO7097-RO7135		
Lab:	Heritage Environmental Services	UNITS:	**mg/L**

Sample #		Type/ID#	Al	Ca	Co	Cu	Fe	Mg	Mn	K	Na	V	Zn
Lab	IDEM	R.L >	0.05	0.1	0.006	0.002	0.025	0.1	0.01	0.1	0.1	0.005	0.02
	MCL >		*0.2*	*NA*	*NA*	*1.3*	*0.3*	*NA*	*0.05*	*NA*	*NA*	*NA*	*5*
A537991	RO7097	groundwater		3.8		0.032	0.18	1.6		**1.3**	**890**		0.07
A537992	RO7098	groundwater		35		**0.0061**	0.072	9.2	**8.2**	**21**	210		
A537993	RO7099	groundwater		87		**0.019**	0.04	31	**0.26**	**14**	150		0.038
A537994	RO7100	groundwater		44		**0.0084**	0.19	12	**3**	**7.5**	310		0.047
A537995	RO7101	groundwater		12		**0.017**		4.8	0.032	**2.5**	44		
A537996	RO7102	groundwater		62		**0.067**		14	**0.63**	**12**	190		0.027
A537997	RO7103	groundwater		66		**0.039**		19		**12**	230		0.05
A537998	RO7104	groundwater		110		**0.17**	**0.36**	31	**1.7**	**9.1**	410		0.065
A538146	RO7105	groundwater		64		**0.0077**		18		**8.7**	160		1.8
A538147	RO7106	groundwater		170		**0.0036**	0.16	41	**1.8**	**34**	140		
A537982	RO7107	groundwater		140		**0.021**	0.043	43	**5**	**13**	**420**		0.075
A537983	RO7108	**RO7107		140		**0.013**	0.044	43	**5**	**13**	**410**		0.037
A537984	RO7109	groundwater		46		0.0042	0.065	10	**2**	**5.6**	**140**		0.17
A537985	RO7110	groundwater		58		0.016	0.1	14	**0.24**	**8.6**	**360**		
A537986	RO7111	groundwater		31		0.0096	0.22	7.3	**7.5**	**6.7**	**300**		
A537987	RO7112	groundwater		15		0.014		3.8	**0.15**	**2.8**	**66**		
A537988	RO7113	groundwater		170		0.011	0.26	45	**1.7**	**10**	**500**		0.46
A537989	RO7114	groundwater		130		0.038	0.057	34	**1.6**	**7.8**	**510**		0.026
A537990	RO7115	groundwater		58		0.036	0.041	14	**0.13**	**9.7**	**200**		0.035
A538148	RO7116	groundwater		260		**0.08**	**0.51**	82	**4.8**	**18**	340		
A538149	RO7117	groundwater		39		**0.0034**	**0.86**	12	**0.27**	**1.9**	200		
A538150	RO7118	**RO7117		39		**0.0034**	**0.8**	12	**0.27**	**1.9**	200		
A538151	RO7119	groundwater		160		**0.0088**	**0.53**	56	**0.14**	**8.8**	**600**		0.034
A538152	RO7120	groundwater		56		**0.016**	0.077	14		**9.2**	**500**		0.22
A538153	RO7121	groundwater		48		**0.073**	0.17	10	0.034	**3.2**	**250**		0.75
A538154	RO7122	groundwater		70		**0.11**		16	**0.16**	**4.4**	**550**		0.18
A538155	RO7123	groundwater	0.086	20			0.034	9.1	**0.24**	**1.8**	**13**		0.041
A538156	RO7124	groundwater		64		**0.083**		20	**1**	**2.6**	**28**		0.03
A538157	RO7125	groundwater		170		**0.0039**	**2.2**	36	**0.7**	**4**	**150**		
A538158	RO7126	groundwater		94			**1.7**	67	0.026	**3.9**	**38**		
A538007	RO7127	*trip	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
A538006	RO7128	groundwater		36		**0.0063**		6.7	**0.83**	**7.9**	130		
A538005	RO7129	*RO7130		36		**0.058**	**0.12**	6.7	**1.1**	**8**	130		
A538004	RO7130	groundwater		37		**0.038**	**0.082**	7	**1.1**	**8.4**	130		0.028
A538003	RO7131	groundwater		31		**0.014**	**0.78**	19		**5.3**	110		0.25
A538002	RO7132	groundwater		140			**7**	63	**0.42**	**19**	100		
A538001	RO7133	groundwater		53		**0.14**	0.081	19	0.044	**2.6**	200		0.1
A538000	RO7134	groundwater		120		**0.1**	**0.39**	35	**0.48**	**7.7**	520		
A537999	RO7135	groundwater		200			**12**	43	**0.48**	**37**	83	0.006	0.04

BLANK (Type indicated) Empty Box indicates NON-DETECTABLE **Estimated**

* FIELD DUPLICATE Strikethrough indicates DIFFERENT MATRIX SET **Bold = above MCL**

NR = NOT RUN NA=NOT AVAILABLE

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

Volatile Organic Analysis

Site Name:	**Town of Pines Groundwater Plume**	**Water**	
Site Number:	0000000		
Location:	Pines, Porter Co.		
Date Sampled:	15-Nov-00		
Date Reported:	02-Dec-00		
Sample Numbers:	RO7097-RO7135		
Lab:	Heritage Environmental Services	UNITS:	**ug/L**

Sample #		Type/ID#	naphthalene	n-propylbenzene	sec-butylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	MTBE
Lab	IDEM							
		R.L.>	0.5	0.5	0.5	0.5	0.5	0.5
	MCL >		*NA*	*NA*	*NA*	*NA*	*NA*	*45 (RISC)*
A537991	RO7097	groundwater						
A537992	RO7098	groundwater						5.8
A537993	RO7099	groundwater	NR	NR	NR	NR	NR	NR
A537994	RO7100	groundwater						
A537995	RO7101	groundwater						1.4
A537996	RO7102	groundwater						8.7
A537997	RO7103	groundwater						
A537998	RO7104	groundwater						
A538146	RO7105	groundwater	NR	NR	NR	NR	NR	NR
A538147	RO7106	groundwater	NR	NR	NR	NR	NR	NR
A537982	RO7107	groundwater	2.6	13	0.98	78	1.1	
A537983	RO7108	**RO7107	3.1	15	1.1	88	1.3	
A537984	RO7109	groundwater						
A537985	RO7110	groundwater						
A537986	RO7111	groundwater						
A537987	RO7112	groundwater						
A537988	RO7113	groundwater						
A537989	RO7114	groundwater						
[illegible]7990	RO7115	groundwater						
[illegible]8148	RO7116	groundwater						
A538149	RO7117	groundwater						
A538150	RO7118	*RO7117						
A538151	RO7119	groundwater						
A538152	RO7120	groundwater						
A538153	RO7121	groundwater						
A538154	RO7122	groundwater	NR	NR	NR	NR	NR	NR
A538155	RO7123	groundwater	NR	NR	NR	NR	NR	NR
A538156	RO7124	groundwater	NR	NR	NR	NR	NR	NR
A538157	RO7125	groundwater	NR	NR	NR	NR	NR	NR
A538158	RO7126	groundwater	NR	NR	NR	NR	NR	NR
A538007	RO7127	*trip						
A538006	RO7128	groundwater						
A538005	RO7129	**RO7130					1	
A538004	RO7130	groundwater					1.4	
A538003	RO7131	groundwater						
A538002	RO7132	groundwater						
A538001	RO7133	groundwater						
A538000	RO7134	groundwater						
A537999	RO7135	groundwater	NR	NR	NR	NR	NR	

* BLANK (Type indicated)
** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE
Strikethrough indicates DIFFERENT MATRIX SET
NR = NOT RUN NA=NOT AVAILABLE

Estimated
Bold = above MCL

OLQ CHEMISTRY - REFER TO ATTACHED MEMO

Volatile Organic Analysis

Site Name:	**Town of Pines Groundwater Plume**	**Water**	
Site Number:	0000000		
Location:	Pines, Porter Co		
Date Sampled:	15-Nov-00		
Date Reported:	07-Dec-00		
Sample Numbers:	R07097-RO7135		
Lab:	Heritage Environmental Services	UNITS	**ug/L**

Sample #		Type/ID#	benzene	ethylbenzene	toluene	o-xylene	m,p-xylene	methylene chloride	1,2,3-trichloropropane	hexachlorobutadiene	isopropylbenzene	4-isopropyltoluene
Lab	IDEM											
		R.L.>	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	MCL>		*5*	*700*	*1000*	*10,000*		*5*	*NA*	*NA*	*NA*	*NA*
A537991	RO7097	groundwater										
A537992	RO7098	groundwater	**27**						0.69			
A537993	RO7099	groundwater	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
A537994	RO7100	groundwater										
A537995	RO7101	groundwater										
A537996	RO7102	groundwater										
A537997	RO7103	groundwater										
A537998	RO7104	groundwater										
A538146	RO7105	groundwater	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
A538147	RO7106	groundwater	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
A537982	RO7107	groundwater	**150**	71	**1.2**	31	100			**0.74**	9.6	0.53
A537983	RO7108	* RO7107	**180**	78	**1.6**	37	110	**0.75**			11	0.59
A537984	RO7109	groundwater										
A537985	RO7110	groundwater										
A537986	RO7111	groundwater										
A537987	RO7112	groundwater										
A537988	RO7113	groundwater										
A537989	RO7114	groundwater										
A537990	RO7115	groundwater										
8148	RO7116	groundwater										
8149	RO7117	groundwater										
A538150	RO7118	**RO7117										
A538151	RO7119	groundwater										
A538152	RO7120	groundwater										
A538153	RO7121	groundwater										
A538154	RO7122	groundwater	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
A538155	RO7123	groundwater	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
A538156	RO7124	groundwater	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
A538157	RO7125	groundwater	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
A538158	RO7126	groundwater	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
A538007	RO7127	trip										
A538006	RO7128	groundwater										
A538005	RO7129	**RO7130	**6.6**						0.56		3	
A538004	RO7130	groundwater	**7.6**						0.55		2.9	
A538003	RO7131	groundwater										
A538002	RO7132	groundwater										
A538001	RO7133	groundwater										
A538000	RO7134	groundwater										
A537999	RO7135	groundwater	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

* BLANK (Type indicated)
** FIELD DUPLICATE

Empty Box indicates NON-DETECTABLE
Strikethrough indicates DIFFERENT MATRIX SET
NR = NOT RUN NA=NOT AVAILABLE

Estimated
Bold = above MCL

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537982
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	02-DEC-00	15-NOV-00 14:11	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7107
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 17-NOV-00 12:19 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	EX	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	EX	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	1.2	0.50	ug/L
O-XYLENE	31	0.50	ug/L
M/P-XYLENE	EX	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

HERITAGE ENVIRONMENTAL SERVICES, LLC **Sample ID: A537982 R07107**

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	.74	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	9.6	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	.53	0.50	ug/L
NAPHTHALENE	2.6	0.50	ug/L
N-PROPYLBENZENE	13	0.50	ug/L
SEC-BUTYLBENZENE	.98	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	EX	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	1.1	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	105		% Rec
TOLUENE-D8	92		% Rec
4-BROMOFLUOROBENZENE	104		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

2-METHYLBUTANE	J 48. RT=1.75		ug/L
CIS-1,2-DIMETHYLCYCLOPROPANE	J 37. RT=2.11		ug/L
2,3-DIMETHYLBUTANE	J 23. RT=2.56		ug/L
METHYLCYCLOPENTANE	J 34. RT=3.66		ug/L
CYCLOHEXANE	J 38. RT=4.52		ug/L
1-ETHYL-2-METHYLBENZENE	J 58. RT=16.25		ug/L
UNKNOWN	J 77 RT=16.96		ug/L
2,3-DIHYDRO-4-METHYL-1H-INDENE	*J 22. RT=22.94*		*ug/L*
2,3-DIHYDRO-1H-INDENE	J 31 RT=19.07		ug/L
1,2,3,5-TETRAMETHYLBENZENE	J 24 RT=21.81		ug/L

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 18-NOV-00 13:37 Instrument: GC/MS VOA Test: 0516.9.1

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS	BDL		
BENZENE	150	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	2.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	2.0	ug/L
VINYL CHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
ETHYL BENZENE	71	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
O-XYLENE	38	5.0	ug/L
M/P-XYLENE	100	5.0	ug/L
1,2,4-TRICHLOROBENZENE	BDL	5.0	ug/L
UNREGULATED - MONITORING REQUIRED	BDL		
BROMOBENZENE	BDL	5.0	ug/L
BROMODICHLOROMETHANE	BDL	5.0	ug/L
BROMOFORM	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CHLORODIBROMOMETHANE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	5.0	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	5.0	ug/L
DIBROMOMETHANE	BDL	5.0	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
1,1-DICHLOROPROPENE	BDL	5.0	ug/L
1,3-DICHLOROPROPANE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
2,2-DICHLOROPROPANE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,2,3-TRICHLOROPROPANE	BDL	5.0	ug/L
MONITORED AT STATE'S DISCRETION	BDL		
BROMOCHLOROMETHANE	*BDL*	5.0	ug/L
N-BUTYLBENZENE	BDL	5.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	5.0	ug/L

Parameter	Result	Det. Limit	Units
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
HEXACHLOROBUTADIENE	BDL	5.0	ug/L
ISOPROPYLBENZENE (CUMENE)	10	5.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	5.0	ug/L
NAPHTHALENE	BDL	5.0	ug/L
N-PROPYLBENZENE	13	5.0	ug/L
SEC-BUTYLBENZENE	BDL	5.0	ug/L
TERT-BUTYLBENZENE	BDL	5.0	ug/L
1,2,3-TRICHLOROBENZENE	BDL	5.0	ug/L
1,2,4-TRIMETHYLBENZENE	78	5.0	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	5.0	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	5.0	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	5.0	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	100		% Rec
TOLUENE-D8	104		% Rec
4-BROMOFLUOROBENZENE	107		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

2-METHYLBUTANE	J 82. RT=1.75		ug/L
PENTANE	J 40. RT=1.92		ug/L
DIMETHYLCYCLOPROPANE	J 56. RT=2.11		ug/L
UNKNOWN	J 34. RT=2.62		ug/L
METHYLCYCLOPENTANE	J 49. RT=3.65		ug/L
CYCLOHEXANE	J 50. RT=4.5		ug/L
UNKNOWN	J 96. RT=16.25		ug/L
UNKNOWN	J 74 RT=16.95		ug/L
2,3-DIHYDRO-1H-INDENE	J 28 RT=19.08		ug/L

1:10 Dilution

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 16-NOV-00 22:30 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:14 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:14 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:04 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.28	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:04 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:14 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:04 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:04 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	0.0054	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 18:09 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	420	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:14 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:14 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	0.21	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:14 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	21.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:14 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	1.0	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:04 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:04 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.043	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:04 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	43.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:04 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	5.0	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:04 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.075	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:04 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:04 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	140	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:04 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 15:04 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	13.	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:04 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit
EX Exceeds calibration range. See Replicate
J Estimated
RT Retention Time

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : H. Burch QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537983
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	04-DEC-00	15-NOV-00 14:11	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07108
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 17-NOV-00 12:54 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
REGULATED CONTAMINANTS			
BENZENE	EX	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	.75	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	EX	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	1.6	0.50	ug/L
O-XYLENE	37	0.50	ug/L
M/P-XYLENE	EX	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L
CHLOROETHANE	BDL	0.50	ug/L

HERITAGE ENVIRONMENTAL SERVICES, LLC **Sample ID: A537983 R07108**

Parameter	Result	Det. Limit	Units
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	11	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	.59	0.50	ug/L
NAPHTHALENE	3.1	0.50	ug/L
N-PROPYLBENZENE	15	0.50	ug/L
SEC-BUTYLBENZENE	1.1	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	EX	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	1.3	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	95		% Rec
TOLUENE-D8	115		% Rec
4-BROMOFLUOROBENZENE	119		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

BUTANE	J 36. RT=1.44		ug/L
2-METHYLBUTANE	J 48. RT=1.75		ug/L
CIS-1,2-DIMETHYLCYCLOPROPANE	J 37. RT=2.11		ug/L
METHYLCYCLOPENTANE	J 34. RT=3.66		ug/L
CYCLOHEXANE	J 38. RT=4.52		ug/L
1-ETHYL-2-METHYLBENZENE	J 41. RT=16.25		ug/L
1-ETHYL-2-METHYLBENZENE	J 52. RT=16.95		ug/L
1,2,3,5-TETRAMETHYLBENZENE	J 17. RT=21.81		ug/L
2,3-DIHYDRO-1H-INDENE	J 21 RT=19.08		ug/L
(1-METHYL-1-PROPENYL)BENZENE	J 16 RT=22.94		ug/L

HERITAGE ENVIRONMENTAL SERVICES, LLC Sample ID: A537983 R07108

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 18-NOV-00 14:12 Instrument: GC/MS VOA Test: 0516.9.1

Parameter	Result	Det. Limit	Units
REGULATED CONTAMINANTS	BDL		
BENZENE	180	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	2.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	2.0	ug/L
VINYL CHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
ETHYL BENZENE	78	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
O-XYLENE	42	5.0	ug/L
M/P-XYLENE	110	5.0	ug/L
1,2,4-TRICHLOROBENZENE	BDL	5.0	ug/L
UNREGULATED - MONITORING REQUIRED	BDL		
BROMOBENZENE	BDL	5.0	ug/L
BROMODICHLOROMETHANE	BDL	5.0	ug/L
BROMOFORM	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CHLORODIBROMOMETHANE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	5.0	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	5.0	ug/L
DIBROMOMETHANE	BDL	5.0	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
1,1-DICHLOROPROPENE	BDL	5.0	ug/L
1,3-DICHLOROPROPANE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
2,2-DICHLOROPROPANE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,2,3-TRICHLOROPROPANE	BDL	5.0	ug/L
MONITORED AT STATE'S DISCRETION	BDL		
BROMOCHLOROMETHANE	BDL	5.0	ug/L
N-BUTYLBENZENE	BDL	5.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
HEXACHLOROBUTADIENE	BDL	5.0	ug/L

Parameter	Result	Det. Limit	Units
ISOPROPYLBENZENE (CUMENE)	11	5.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	5.0	ug/L
NAPHTHALENE	BDL	5.0	ug/L
N-PROPYLBENZENE	15	5.0	ug/L
SEC-BUTYLBENZENE	BDL	5.0	ug/L
TERT-BUTYLBENZENE	BDL	5.0	ug/L
1,2,3-TRICHLOROBENZENE	BDL	5.0	ug/L
1,2,4-TRIMETHYLBENZENE	88	5.0	ug/L
1,3,5-TRIMETHYLBENZENE	24	5.0	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	5.0	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	5.0	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	104		% Rec
TOLUENE-D8	99		% Rec
4-BROMOFLUOROBENZENE	108		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

2-METHYLBUTANE	J 87. RT=1.76		ug/L
2-METHYL-2-BUTENE	J 59. RT=2.11		ug/L
METHYLCYCLOPENTANE	J 59. RT=3.66		ug/L
CYCLOHEXANE	J 56. RT=4.52		ug/L
UNKNOWN	J 30. RT=6.56		ug/L
UNKNOWN	J 87 RT=16.95		ug/L
UNKNOWN	J 33. RT=19.07		ug/L

1:10 Dilution

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:47 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:47 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7

Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.28	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:47 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 18:25 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
SODIUM	410	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:47 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:47 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
THALLIUM	0.15	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:47 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
COPPER	13.	2.0	ug/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	140	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 15:20 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	13.	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit
EX Exceeds calibration range. See Replicate
J Estimated
RT Retention Time

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : JC Burch QAO

HERITAGE ENVIRONMENTAL SERVICES, LLC **Sample ID: A537983 R07108**

LEAD ICP/MS EPA 200.8
Analyst: M. STOCKBURGER Analysis Date: 21-NOV-00 17:47 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
LEAD	0.62	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
IRON	0.044	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	43.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
MANGANESE	5.0	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
ZINC	0.037	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
CALCIUM	140	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 13:20 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
POTASSIUM	13.	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M438.3.0

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC	16-NOV-00		A537983
COMMERCIAL LABORATORY OPERATIONS	Complete	PO Number	
7901 W. MORRIS ST.	01-DEC-00	98-653088-289A*.....	
INDIANAPOLIS, IN 46231	Printed	Sampled	
(317)243-8304	07-DEC-00	15-NOV-00 14:11	

Report To	Bill To
STEVE SOMMER	DEBBIE HILTON
INDIANA DEPARTMENT OF ENVIRONMENTAL MGT.	INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN
100 NORTH SENATE AVENUE	100 N. SENATE AVENUE
ROOM 1101	PO BOX 6015
INDIANAPOLIS, IN 46204	INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7108
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2
Analyst: R. SHAMP Analysis Date: 17-NOV-00 12:54 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
REGULATED CONTAMINANTS			
BENZENE	EX	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	.75	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	EX	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	1.6	0.50	ug/L
O-XYLENE	37	0.50	ug/L
M/P-XYLENE	EX	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L
CHLOROETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	11	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	.59	0.50	ug/L
NAPHTHALENE	3.1	0.50	ug/L
N-PROPYLBENZENE	15	0.50	ug/L
SEC-BUTYLBENZENE	1.1	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	EX	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	1.3	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			
DICHLOROETHANE-D4	95		% Rec
TOLUENE-D8	115		% Rec
4-BROMOFLUOROBENZENE	119		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			
BUTANE	J 36. RT=1.44		ug/L
2-METHYLBUTANE	J 48. RT=1.75		ug/L
CIS-1,2-DIMETHYLCYCLOPROPANE	J 37. RT=2.11		ug/L
METHYLCYCLOPENTANE	J 34. RT=3.66		ug/L
CYCLOHEXANE	J 38. RT=4.52		ug/L
1-ETHYL-2-METHYLBENZENE	J 41. RT=16.25		ug/L
1-ETHYL-2-METHYLBENZENE	J 52. RT=16.95		ug/L
1,2,3,5-TETRAMETHYLBENZENE	J 17. RT=21.81		ug/L
2,3-DIHYDRO-1H-INDENE	J 21 RT=19.08		ug/L
(1-METHYL-1-PROPENYL)BENZENE	J 16 RT=22.94		ug/L

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 18-NOV-00 14:12 Instrument: GC/MS VOA Test: 0516.9.1

Parameter	Result	Det. Limit	Units
REGULATED CONTAMINANTS	BDL		
BENZENE	180	5.0	ug/L
CARBON TETRACHLORIDE	BDL	5.0	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	2.0	ug/L
1,2-DICHLOROETHANE	BDL	5.0	ug/L
1,1-DICHLOROETHENE	BDL	5.0	ug/L
1,1,1-TRICHLOROETHANE	BDL	5.0	ug/L
TRICHLOROETHENE	BDL	2.0	ug/L
VINYL CHLORIDE	BDL	5.0	ug/L
CHLOROBENZENE	BDL	5.0	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	5.0	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
CIS-1,2-DICHLOROETHENE	BDL	5.0	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	5.0	ug/L
1,2-DICHLOROPROPANE	BDL	5.0	ug/L
ETHYL BENZENE	78	5.0	ug/L
STYRENE	BDL	5.0	ug/L
1,1,2-TRICHLOROETHANE	BDL	5.0	ug/L
TETRACHLOROETHENE	BDL	5.0	ug/L
TOLUENE	BDL	5.0	ug/L
O-XYLENE	42	5.0	ug/L
M/P-XYLENE	110	5.0	ug/L
1,2,4-TRICHLOROBENZENE	BDL	5.0	ug/L
UNREGULATED - MONITORING REQUIRED	BDL		
BROMOBENZENE	BDL	5.0	ug/L
BROMODICHLOROMETHANE	BDL	5.0	ug/L
BROMOFORM	BDL	5.0	ug/L
BROMOMETHANE	BDL	5.0	ug/L
CHLORODIBROMOMETHANE	BDL	5.0	ug/L
CHLOROETHANE	BDL	5.0	ug/L
CHLOROFORM	BDL	5.0	ug/L
CHLOROMETHANE	BDL	5.0	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	5.0	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	5.0	ug/L
DIBROMOMETHANE	BDL	5.0	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	5.0	ug/L
1,1-DICHLOROETHANE	BDL	5.0	ug/L
1,1-DICHLOROPROPENE	BDL	5.0	ug/L
1,3-DICHLOROPROPANE	BDL	5.0	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	5.0	ug/L
2,2-DICHLOROPROPANE	BDL	5.0	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	5.0	ug/L
1,2,3-TRICHLOROPROPANE	BDL	5.0	ug/L
MONITORED AT STATE'S DISCRETION	BDL		
BROMOCHLOROMETHANE	BDL	5.0	ug/L
N-BUTYLBENZENE	BDL	5.0	ug/L
DICHLORODIFLUOROMETHANE	BDL	5.0	ug/L
TRICHLOROFLUOROMETHANE	BDL	5.0	ug/L
HEXACHLOROBUTADIENE	BDL	5.0	ug/L

Parameter	Result	Det. Limit	Units
ISOPROPYLBENZENE (CUMENE)	11	5.0	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	5.0	ug/L
NAPHTHALENE	BDL	5.0	ug/L
N-PROPYLBENZENE	15	5.0	ug/L
SEC-BUTYLBENZENE	BDL	5.0	ug/L
TERT-BUTYLBENZENE	BDL	5.0	ug/L
1,2,3-TRICHLOROBENZENE	BDL	5.0	ug/L
1,2,4-TRIMETHYLBENZENE	88	5.0	ug/L
1,3,5-TRIMETHYLBENZENE	24	5.0	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	5.0	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	5.0	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	5.0	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	104		% Rec
TOLUENE-D8	99		% Rec
4-BROMOFLUOROBENZENE	108		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

2-METHYLBUTANE	J 87. RT=1.76		ug/L
2-METHYL-2-BUTENE	J 59. RT=2.11		ug/L
METHYLCYCLOPENTANE	J 59. RT=3.66		ug/L
CYCLOHEXANE	J 56. RT=4.52		ug/L
UNKNOWN	J 30. RT=6.56		ug/L
UNKNOWN	J 87 RT=16.95		ug/L
UNKNOWN	J 33. RT=19.07		ug/L

1:10 Dilution

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1
Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:47 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:47 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.28	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:47 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 18:25 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
SODIUM	410	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:47 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:47 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
THALLIUM	0.15	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:47 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
COPPER	13.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:47 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
LEAD	0.62	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
IRON	0.044	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	43.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
MANGANESE	5.0	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
ZINC	0.037	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
CALCIUM	140	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 15:20 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
POTASSIUM	13.	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:20 Instrument: ICP Test: M438.3.0

HERITAGE ENVIRONMENTAL SERVICES, LLC **Sample ID: A537983 RO7108**

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit
EX Exceeds calibration range. See Replicate
J Estimated
RT Retention Time

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : Jack Copy

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537984
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	02-DEC-00	15-NOV-00 14:57	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07109
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 17-NOV-00 13:28 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

HERITAGE ENVIRONMENTAL SERVICES, LLC **Sample ID: A537984 R07109**

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	99		% Rec
TOLUENE-D8	118		% Rec
4-BROMOFLUOROBENZENE	118		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

UNKNOWN	J 5.1 RT=16.27		ug/L

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 16-NOV-00 22:30 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

HERITAGE ENVIRONMENTAL SERVICES, LLC — Sample ID: A537984 R07109

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER | Analysis Date: 21-NOV-00 17:52 | Instrument: ICP/MS | Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER | Analysis Date: 21-NOV-00 17:52 | Instrument: ICP/MS | Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK | Analysis Date: 21-NOV-00 18:24 | Instrument: ICP | Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.067	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK | Analysis Date: 21-NOV-00 18:24 | Instrument: ICP | Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER | Analysis Date: 21-NOV-00 17:52 | Instrument: ICP/MS | Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK | Analysis Date: 21-NOV-00 18:24 | Instrument: ICP | Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK | Analysis Date: 17-NOV-00 13:00 | Instrument: PREP | Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL | Analysis Date: 20-NOV-00 09:07 | Instrument: CVAA | Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK | Analysis Date: 21-NOV-00 18:24 | Instrument: ICP | Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 18:28 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	140	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:52 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:52 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:52 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	4.2	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:52 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	0.41	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:24 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:24 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.065	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:24 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	10.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:24 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	2.0	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:24 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.17	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:24 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:24 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	46.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:24 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 15:23 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	5.6	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:24 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit
J Estimated
RT Retention Time

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : G A Buck, QA

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537985
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	02-DEC-00	15-NOV-00 15:17	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7110
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 17-NOV-00 14:03 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	97		% Rec
TOLUENE-D8	116		% Rec
4-BROMOFLUOROBENZENE	118		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

UNKNOWN	J 12. RT=15.16		ug/L

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A537985 R07110

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER | Analysis Date: 21-NOV-00 17:58 | Instrument: ICP/MS | Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8

Analyst: A. STOCKBURGER | Analysis Date: 21-NOV-00 17:58 | Instrument: ICP/MS | Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7

Analyst: J. LEAK | Analysis Date: 21-NOV-00 18:27 | Instrument: ICP | Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.082	0.0060	mg/L

BERYLLIUM ICP EPA 200.7

Analyst: J. LEAK | Analysis Date: 21-NOV-00 18:27 | Instrument: ICP | Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8

Analyst: A. STOCKBURGER | Analysis Date: 21-NOV-00 17:58 | Instrument: ICP/MS | Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7

Analyst: J. LEAK | Analysis Date: 21-NOV-00 18:27 | Instrument: ICP | Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1

Analyst: T. VONEHRENKROOK | Analysis Date: 17-NOV-00 13:00 | Instrument: PREP | Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1

Analyst: R. DALAL | Analysis Date: 20-NOV-00 09:07 | Instrument: CVAA | Test: M420.2.0

Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7

Analyst: J. LEAK | Analysis Date: 21-NOV-00 18:27 | Instrument: ICP | Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 18:32 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	360	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:58 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:58 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:58 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	16.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 17:58 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	2.1	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:27 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:27 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.10	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:27 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	14.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:27 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	0.24	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:27 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	BDL	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:27 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:27 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	58.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:27 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 15:27 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	8.6	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:27 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit
J Estimated
RT Retention Time

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : H. Busch, PhD

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537986
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	02-DEC-00	15-NOV-00 15:42	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7111
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 17-NOV-00 14:38 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

HERITAGE ENVIRONMENTAL SERVICES, LLC **Sample ID: A537986 R07111**

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	105		% Rec
TOLUENE-D8	114		% Rec
4-BROMOFLUOROBENZENE	120		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

UNKNOWN	J 1.1 RT=18.19		ug/L

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:03 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:03 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:30 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.092	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:30 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:03 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:30 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:30 Instrument: ICP Test: M422.3.0

HERITAGE ENVIRONMENTAL SERVICES, LLC — Sample ID: A537986 R07111

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	0.070	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 30-NOV-00 18:35 — Instrument: ICP — Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	300	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER — Analysis Date: 21-NOV-00 18:03 — Instrument: ICP/MS — Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER — Analysis Date: 21-NOV-00 18:03 — Instrument: ICP/MS — Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER — Analysis Date: 21-NOV-00 18:03 — Instrument: ICP/MS — Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	9.6	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER — Analysis Date: 21-NOV-00 18:03 — Instrument: ICP/MS — Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	4.8	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 18:30 — Instrument: ICP — Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 18:30 — Instrument: ICP — Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.22	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 18:30 — Instrument: ICP — Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	7.3	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:30 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	7.5	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:30 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	BDL	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:30 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:30 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	31.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:30 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 15:30 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	6.7	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:30 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit
J Estimated
RT Retention Time

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved H. Busch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537987
	Complete 01-DEC-00	PO Number 98-653088-289A*.....	
	Printed 02-DEC-00	Sampled 15-NOV-00 16:52	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7112
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 17-NOV-00 15:12 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	106		% Rec
TOLUENE-D8	99		% Rec
4-BROMOFLUOROBENZENE	106		% Rec
TENTATIVELY IDENTIFIED COMPOUNDS			
NONE DETECTED			

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:09 Instrument: ICP/MS Test: V402.3.0

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A537987 R07112

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:09 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:33 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.031	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:33 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:09 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:33 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:33 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 18:38 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	66.	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:09 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:09 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:09 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	14.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:09 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	0.50	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:33 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:33 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	BDL	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:33 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	3.8	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:33 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	0.15	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:33 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	BDL	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:33 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:33 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	15.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:33 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 15:33 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	2.8	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:33 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved Jan Busch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537988
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	02-DEC-00	15-NOV-00 17:40	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7113
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 17-NOV-00 15:47 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	114		% Rec
TOLUENE-D8	99		% Rec
4-BROMOFLUOROBENZENE	105		% Rec
TENTATIVELY IDENTIFIED COMPOUNDS			
NONE DETECTED			

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 16-NOV-00 22:30 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:14 Instrument: ICP/MS Test: V402.3.0

HERITAGE ENVIRONMENTAL SERVICES, LLC — Sample ID: A537988 R07113

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER — Analysis Date: 21-NOV-00 18:14 — Instrument: ICP/MS — Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 18:37 — Instrument: ICP — Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.13	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 18:37 — Instrument: ICP — Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER — Analysis Date: 21-NOV-00 18:14 — Instrument: ICP/MS — Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	0.39	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 18:37 — Instrument: ICP — Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK — Analysis Date: 17-NOV-00 13:00 — Instrument: PREP — Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL — Analysis Date: 20-NOV-00 09:07 — Instrument: CVAA — Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 18:37 — Instrument: ICP — Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 01-DEC-00 11:09 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	500	0.50	mg/L
DILUTION 1:5			

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:14 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	3.4	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:14 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:14 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	11.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:14 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	1.3	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:37 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:37 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.26	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:37 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	45.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:37 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	1.7	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:37 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.46	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:37 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:37 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	170	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:37 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 15:37 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	10.	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:37 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested

Sample Comments

or to the sample as received by the lab.

Approved GABusch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537989
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	02-DEC-00	15-NOV-00 18:20	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7114
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 17-NOV-00 16:21 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

HERITAGE ENVIRONMENTAL SERVICES, LLC **Sample ID: A537989 R07114**

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	117		% Rec
TOLUENE-D8	104		% Rec
4-BROMOFLUOROBENZENE	118		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

DODECANE	J 1.5 RT=23.24		ug/L
2-UNDECANONE	J 1.1 RT=26.92		ug/L
EICOSANE	J 1. RT=28.2		ug/L
2-DODECANONE	J 2.3 RT=29.09		ug/L
DIBUTYL DISULFIDE	J 3.4 RT=27.02		ug/L

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH *Analysis Date: 16-NOV-00 22:30* *Test: G602.6.0*

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:20 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:20 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:40 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.26	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:40 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:20 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:40 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:40 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 01-DEC-00 11:12 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	510	0.50	mg/L
DILUTION 1:5			

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:20 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:20 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:20 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	38.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:20 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	2.3	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:40 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:40 Instrument: ICP Test: M415.3.0

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A537989 R07114

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.057	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:40 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	34.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:40 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	1.6	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:40 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.026	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:40 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:40 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	130	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:40 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 15:40 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	7.8	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:40 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample Comments

J Estimated
RT Retention Time

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : K A Burch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537990
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	02-DEC-00	15-NOV-00 18:40	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7115
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 18-NOV-00 11:19 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	104		% Rec
TOLUENE-D8	114		% Rec
4-BROMOFLUOROBENZENE	113		% Rec
TENTATIVELY IDENTIFIED COMPOUNDS			
NONE DETECTED			

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 16-NOV-00 22:30 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:26 Instrument: ICP/MS Test: V402.3.0

HERITAGE ENVIRONMENTAL SERVICES, LLC — Sample ID: A537990 R07115

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	0.30	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER — Analysis Date: 21-NOV-00 18:26 — Instrument: ICP/MS — Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 18:43 — Instrument: ICP — Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.089	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 18:43 — Instrument: ICP — Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER — Analysis Date: 21-NOV-00 18:26 — Instrument: ICP/MS — Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 18:43 — Instrument: ICP — Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK — Analysis Date: 17-NOV-00 13:00 — Instrument: PREP — Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL — Analysis Date: 20-NOV-00 09:07 — Instrument: CVAA — Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 18:43 — Instrument: ICP — Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 18:48 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	200	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:26 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	1.8	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:26 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:26 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	36.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:26 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	0.91	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:43 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:43 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.041	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:43 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	14.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:43 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	0.13	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:43 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.035	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:43 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:43 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	58.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:43 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 15:43 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	9.7	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:43 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved: H.A. Busch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537991
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	02-DEC-00	15-NOV-00 14:30	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7097
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 17-NOV-00 17:31 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	120		% Rec
TOLUENE-D8	109		% Rec
4-BROMOFLUOROBENZENE	113		% Rec
TENTATIVELY IDENTIFIED COMPOUNDS			
NONE DETECTED			

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1
Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:31 Instrument: ICP/MS Test: V402.3.0

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A537991 R07097

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:31 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	1.1	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:46 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	BDL	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:46 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:31 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:46 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:46 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	0.012	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 01-DEC-00 11:16 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	890	0.50	mg/L
DILUTION 1:5			

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:31 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:31 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:31 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	32.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:31 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	6.1	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:46 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:46 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.18	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:46 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	1.6	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:46 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	BDL	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:46 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.070	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:46 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:46 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	3.8	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:46 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 15:46 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	1.3	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 18:46 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested

Sample Comments

or to the sample as received by the lab.

Approved : _____

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537992
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	02-DEC-00	15-NOV-00 15:05	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07098
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 17-NOV-00 07:30 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	27	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	.69	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	5.8	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	116		% Rec
TOLUENE-D8	88		% Rec
4-BROMOFLUOROBENZENE	100		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

2-METHYLBUTANE	J 2.3 RT=1.76		ug/L
1-PENTENE	J 5.4 RT=2.63		ug/L
2,3-DIMETHYL-2-BUTANOL	J 6.8 RT=8.22		ug/L
UNKNOWN	J 2.1 RT=13.05		ug/L
2,3-DIHYDRO-1-METHYL-1H-INDENE	J 2.5 RT=20.73		ug/L
5,5-DIMETHYL-1,3-HEXADIENE	J 1.8 RT=9.81		ug/L

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH *Analysis Date: 16-NOV-00 22:30* *Test: G602.6.0*

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:53 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:53 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:00 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.11	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:00 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:53 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:00 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:00 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	0.0096	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 19:04 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	210	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:53 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:53 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:53 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	6.1	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 18:53 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	0.22	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:00 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:00 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.072	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:00 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	9.2	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:00 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	8.2	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:00 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	BDL	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:00 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:00 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	35.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:00 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:00 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	21.	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:00 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit
J Estimated
RT Retention Time

Sample was received on ice.

Sample Comments

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : G. Burch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537993
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	02-DEC-00	15-NOV-00 15:35	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07099
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1
Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:27 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:27 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:16 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.060	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:16 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:27 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:16 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:16 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 19:21 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	150	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:27 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	2.6	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:27 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:27 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	19.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A STOCKBURGER Analysis Date: 21-NOV-00 19:27 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	1.5	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:16 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:16 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.040	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:16 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	31.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:16 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	0.26	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:16 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.038	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:16 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:16 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	87.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:16 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:16 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	14.	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:16 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : _____

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537994
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	02-DEC-00	15-NOV-00 16:05	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7100
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 18-NOV-00 11:53 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	119		% Rec
TOLUENE-D8	96		% Rec
4-BROMOFLUOROBENZENE	106		% Rec
TENTATIVELY IDENTIFIED COMPOUNDS			
NONE DETECTED			

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1
Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:32 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:32 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:19 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.10	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:19 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:32 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:19 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:19 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: . . LEAK Analysis Date: 30-NOV-00 19:24 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	310	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:32 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:32 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:32 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	8.4	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:32 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	1.4	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:19 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:19 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.19	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:19 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	12.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:19 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	3.0	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:19 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.047	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:19 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:19 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	44.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:19 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:19 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	7.5	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:19 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : JA Busch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537995
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	02-DEC-00	15-NOV-00 16:35	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07101
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 18-NOV-00 12:28 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	1.4	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	119		% Rec
TOLUENE-D8	97		% Rec
4-BROMOFLUOROBENZENE	97		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

UNKNOWN	J 1.8 RT=27.02		ug/L

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:38 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:38 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:23 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.025	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:23 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:38 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:23 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:23 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 19:27 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	44.	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:38 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:38 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:38 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	17.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:38 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	0.44	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:23 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:23 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	BDL	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:23 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	4.8	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:23 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	0.032	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:23 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	BDL	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:23 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:23 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	12.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:23 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:23 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	2.5	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:23 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit
J Estimated
RT Retention Time

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved: H. Burch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537996
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	02-DEC-00	15-NOV-00 17:00	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07102
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 13-NOV-00 13:03 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	8.7	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	105		% Rec
TOLUENE-D8	97		% Rec
4-BROMOFLUOROBENZENE	108		% Rec
TENTATIVELY IDENTIFIED COMPOUNDS			
NONE DETECTED			

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 16-NOV-00 22:30 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:43 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:43 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:26 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.088	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:26 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:43 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:26 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:26 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 19:31 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	190	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:43 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:43 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:43 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	67.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:43 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	2.9	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:26 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:26 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	BDL	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:26 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	14.	0.10	mg/L

HERITAGE ENVIRONMENTAL SERVICES, LLC Sample ID: A537996 R07102

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:26 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	0.63	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:26 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.027	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:26 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:26 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	62.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:26 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:26 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	12.	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:26 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : G A Busch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537997
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	02-DEC-00	15-NOV-00 17:25	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07103
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 18-NOV-00 14:46 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	102		% Rec
TOLUENE-D8	101		% Rec
4-BROMOFLUOROBENZENE	104		% Rec
TENTATIVELY IDENTIFIED COMPOUNDS			
NONE DETECTED			

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 16-NOV-00 22:30 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:49 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:49 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:29 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.048	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:29 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:49 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:29 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:29 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 19:34 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	230	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:49 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	3.4	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:49 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:49 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	39.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:49 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	2.6	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:29 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:29 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	BDL	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:29 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	19.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:29 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	BDL	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:29 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.050	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:29 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:29 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	66.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:29 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:29 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	12.	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:29 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : Ha Busch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537998
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	02-DEC-00	15-NOV-00 18:00	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07104
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 18-NOV-00 15:21 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	102		% Rec
TOLUENE-D8	104		% Rec
4-BROMOFLUOROBENZENE	112		% Rec
TENTATIVELY IDENTIFIED COMPOUNDS			
NONE DETECTED			

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1
Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	0.73	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:54 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:54 Instrument: ICP/MS Test: M403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:32 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.064	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:32 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:54 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:32 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:32 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 19:37 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	410	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:54 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:54 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:54 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	170	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 19:54 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	5.2	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:32 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:32 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.36	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:32 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	31.	0.10	mg/L

HERITAGE ENVIRONMENTAL SERVICES, LLC — Sample ID: A537998 R07104

MANGANESE ICP EPA 200.7
Analyst: J. LEAK | Analysis Date: 21-NOV-00 19:32 | Instrument: ICP | Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	1.7	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK | Analysis Date: 21-NOV-00 19:32 | Instrument: ICP | Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.065	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK | Analysis Date: 21-NOV-00 19:32 | Instrument: ICP | Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK | Analysis Date: 21-NOV-00 19:32 | Instrument: ICP | Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	110	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK | Analysis Date: 21-NOV-00 19:32 | Instrument: ICP | Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK | Analysis Date: 21-NOV-00 19:32 | Instrument: ICP | Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	9.1	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK | Analysis Date: 21-NOV-00 19:32 | Instrument: ICP | Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : Jeff Busch, QA/QC

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A537999
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	02-DEC-00	15-NOV-00 15:06	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07135
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1
Analyst: L. SMITH Analysis Date: 16-NOV-00 22:30 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:00 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 22-NOV-00 20:00 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	860	10.	ug/L
DILUTION 1:10			

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:36 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.16	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:36 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:00 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:36 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:36 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 19:41 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	83.	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:00 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	40.	ug/L

Detection limit raised due to matrix interference.

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:00 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:00 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	BDL	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:00 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	0.34	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:36 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:36 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	12.	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:36 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	43.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:36 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	0.48	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:36 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.040	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:36 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:36 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	200	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:36 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:36 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	37.	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:36 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	0.0060	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : H. Burch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538000
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	04-DEC-00	15-NOV-00 15:33	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7134
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 18-NOV-00 15:56 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L
CHLOROETHANE	BDL	0.50	ug/L

HERITAGE ENVIRONMENTAL SERVICES, LLC **Sample ID: A538000 R07134**

Parameter	Result	Det. Limit	Units
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	102		% Rec
TOLUENE-D8	103		% Rec
4-BROMOFLUOROBENZENE	108		% Rec
TENTATIVELY IDENTIFIED COMPOUNDS			
NONE DETECTED			

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 16-NOV-00 22:30 Test: G602.6.0

Parameter	Result	Det. Limit	Units
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:05 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
ANTIMONY	0.25	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:05 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	2.0	ug/L

Detection limit raised due to high RSD.

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:39 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.26	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:39 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:05 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:39 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:39 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 01-DEC-00 11:19 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
SODIUM	520	1.0	mg/L

DILUTION 1:10

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:05 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:05 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:05 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
COPPER	100	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:05 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
LEAD	0.81	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:39 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:39 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
IRON	0.39	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:39 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	35.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:39 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.48	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:39 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:39 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:39 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
CALCIUM	120	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:39 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:39 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
POTASSIUM	7.7	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:39 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : _____

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538001
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	04-DEC-00	15-NOV-00 16:20	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7133
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 13-NOV-00 16:30 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L
CHLOROETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	99		% Rec
TOLUENE-D8	96		% Rec
4-BROMOFLUOROBENZENE	105		% Rec
TENTATIVELY IDENTIFIED COMPOUNDS			
NONE DETECTED			

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 16-NOV-00 22:30 Test: G602.6.0

Parameter	Result	Det. Limit	Units
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:11 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:11 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
ARSENIC	1.0	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:42 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.098	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:42 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:11 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:42 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:42 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 19:47 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
SODIUM	200	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:11 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:11 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:11 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
COPPER	140	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:11 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
LEAD	8.2	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:42 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:42 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
IRON	0.081	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:42 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	19.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:42 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.044	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:42 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
ZINC	0.10	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:42 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:42 Instrument: ICP Test: M409.3.0

HERITAGE ENVIRONMENTAL SERVICES, LLC **Sample ID: A538001 R07133**

Parameter	Result	Det. Limit	Units
CALCIUM	53.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:42 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:42 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
POTASSIUM	2.6	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:42 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : _____

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538002
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	04-DEC-00	15-NOV-00 16:50	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7132
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 18-NOV-00 17:05 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L
CHLOROETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	99		% Rec
TOLUENE-D8	104		% Rec
4-BROMOFLUOROBENZENE	107		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

DIETHYL ETHER	J 2. RT=2.04		ug/L

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 16-NOV-00 22:30 Test: G602.6.0

Parameter	Result	Det. Limit	Units
TURBIDITY	0.62	0.5	ntu

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:33 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:33 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:55 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.47	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:55 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:33 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:55 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:55 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
NICKEL	0.014	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 20:00 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
SODIUM	100	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:33 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:33 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:33 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 20:33 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:55 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:55 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
IRON	7.0	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:55 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	63.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:55 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.42	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:55 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 16:55 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:55 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
CALCIUM	140	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:55 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:55 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
POTASSIUM	19.	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 19:55 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit
J Estimated
RT Retention Time

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : H. Busch, QAC

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538003
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	04-DEC-00	15-NOV-00 17:45	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7131
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 18-NOV-00 17:40 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L
CHLOROETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	102		% Rec
TOLUENE-D8	98		% Rec
4-BROMOFLUOROBENZENE	107		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

DIBUTYL DISULFIDE	J 1.3 RT=27.03		ug/L

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1
Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:07 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:07 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:12 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.14	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:12 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:07 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:12 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:12 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 20:21 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
SODIUM	110	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:07 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:07 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:07 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
COPPER	14.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:07 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
LEAD	0.45	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:12 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:12 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
IRON	0.78	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:12 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	19.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:12 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
MANGANESE	BDL	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:12 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
ZINC	0.25	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 17:12 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:12 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
CALCIUM	31.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:12 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:12 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
POTASSIUM	5.3	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:12 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit
J Estimated
RT Retention Time

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : _____

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538004
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	04-DEC-00	15-NOV-00 18:20	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7130
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 19-NOV-00 12:49 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
REGULATED CONTAMINANTS			
BENZENE	7.6	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L
CHLOROETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	.55	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	2.9	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	1.4	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	98		% Rec
TOLUENE-D8	104		% Rec
4-BROMOFLUOROBENZENE	98		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

2-METHYLBUTANE	J 1.4 RT=1.75		ug/L
UNKNOWN	J 2.2 RT=2.55		ug/L
1-PENTENE	J 2.9 RT=2.64		ug/L
2,3-DIMETHYL-2-BUTANOL	J 2.7 RT=8.24		ug/L
METHYLENECYCLOHEXANE	J 1.5 RT=8.42		ug/L
UNKNOWN	J 1.4 RT=13.07		ug/L
2,3-DIHYDRO-1-METHYLINDENE	J 1.9 RT=20.76		ug/L
4-METHYLCYCLOHEXENE	J 2.0 RT=7.32		ug/L
1,2,3-TRIMETHYLCYCLOPENTENE	J 1.9 RT=9.83		ug/L
2,3-DIHYDRO-1H-INDENE	J 1.4 RT=19.08		ug/L

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1
Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:12 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:12 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:15 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.055	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:15 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:12 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:15 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:15 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.0050	mg/L

HERITAGE ENVIRONMENTAL SERVICES, LLC — Sample ID: A538004 R07130

SODIUM ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 30-NOV-00 20:24 — Instrument: ICP — Test: M431.3.0

Parameter	Result	Det. Limit	Units
SODIUM	130	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER — Analysis Date: 21-NOV-00 21:12 — Instrument: ICP/MS — Test: V428.3.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER — Analysis Date: 21-NOV-00 21:12 — Instrument: ICP/MS — Test: V434.3.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER — Analysis Date: 21-NOV-00 21:12 — Instrument: ICP/MS — Test: V412.3.0

Parameter	Result	Det. Limit	Units
COPPER	38.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER — Analysis Date: 21-NOV-00 21:12 — Instrument: ICP/MS — Test: V416.3.0

Parameter	Result	Det. Limit	Units
LEAD	25.	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 20:15 — Instrument: ICP — Test: M401.3.0

Parameter	Result	Det. Limit	Units
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 20:15 — Instrument: ICP — Test: M415.3.0

Parameter	Result	Det. Limit	Units
IRON	0.082	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 20:15 — Instrument: ICP — Test: M418.3.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	7.0	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 20:15 — Instrument: ICP — Test: M419.3.0

Parameter	Result	Det. Limit	Units
MANGANESE	1.1	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 20:15 — Instrument: ICP — Test: M439.3.0

Parameter	Result	Det. Limit	Units
ZINC	0.028	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 27-NOV-00 17:15 — Instrument: ICP — Test: M430.3.0

HERITAGE ENVIRONMENTAL SERVICES, LLC **Sample ID: A538004 R07130**

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:15 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
CALCIUM	37.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:15 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:15 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
POTASSIUM	8.4	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:15 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit
J Estimated
RT Retention Time

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : JA Burch QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538005
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	04-DEC-00	15-NOV-00 18:20	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07129
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 19-NOV-00 13:24 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
REGULATED CONTAMINANTS			
BENZENE	6.6	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L
CHLOROETHANE	BDL	0.50	ug/L

HERITAGE ENVIRONMENTAL SERVICES, LLC **Sample ID: A538005 R07129**

Parameter	Result	Det. Limit	Units
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	.56	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	3.0	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	1.0	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	94		% Rec
TOLUENE-D8	98		% Rec
4-BROMOFLUOROBENZENE	106		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

UNKNOWN	J 2.5 RT=3.7		ug/L
1-METHYLCYCLOHEXENE	J 1.5 RT=8.44		ug/L
UNKNOWN	J 1.4 RT=13.08		ug/L
2,3-DIHYDRO-1-METHYLINDENE	J 1.9 RT=20.76		ug/L
METHYLCYCLOBUTANE	J 2.8 RT=2.63		ug/L
1-METHYL-2-METHYLENECYCLOPENTANE	J 1.2 RT=7.72		ug/L
2-METHYL-2-PENTANOL	J 3.0 RT=8.23		ug/L
1-METHYLCYCLOHEXENE	J 1.5 RT=8.44		ug/L
1,2,3-TRIMETHYLCYCLOPENTENE	J 2.4 RT=9.84		ug/L
2,3-DIHYDRO-1H-INDENE	J 1.5 RT=19.09		ug/L

HERITAGE ENVIRONMENTAL SERVICES, LLC — Sample ID: A538005 R07129

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1
Analyst: L. SMITH — Analysis Date: 17-NOV-00 12:00 — Test: G602.6.0

Parameter	Result	Det. Limit	Units
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER — Analysis Date: 21-NOV-00 21:18 — Instrument: ICP/MS — Test: V402.3.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER — Analysis Date: 21-NOV-00 21:18 — Instrument: ICP/MS — Test: V403.3.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 20:18 — Instrument: ICP — Test: M404.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.053	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 20:18 — Instrument: ICP — Test: M405.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER — Analysis Date: 21-NOV-00 21:18 — Instrument: ICP/MS — Test: V408.3.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 20:18 — Instrument: ICP — Test: M410.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK — Analysis Date: 17-NOV-00 13:00 — Instrument: PREP — Test: P131.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL — Analysis Date: 20-NOV-00 09:07 — Instrument: CVAA — Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK — Analysis Date: 21-NOV-00 20:18 — Instrument: ICP — Test: M422.3.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 20:28 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
SODIUM	130	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:18 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:18 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:18 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
COPPER	58.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:18 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
LEAD	23.	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:18 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:18 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
IRON	0.12	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:18 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	6.7	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:18 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
MANGANESE	1.1	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:18 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 17:18 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:18 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
CALCIUM	36.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:18 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:18 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
POTASSIUM	8.0	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:18 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit
J Estimated
RT Retention Time

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : H A Burck, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538006
	Complete	PO Number	
	01-DEC-00	98-653088-289A*.....	
	Printed	Sampled	
	04-DEC-00	15-NOV-00 18:25	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07128
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 19-NOV-00 13:59 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L
CHLOROETHANE	BDL	0.50	ug/L

HERITAGE ENVIRONMENTAL SERVICES, LLC **Sample ID: A538006 R07128**

Parameter	Result	Det. Limit	Units
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	104		% Rec
TOLUENE-D8	96		% Rec
4-BROMOFLUOROBENZENE	98		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

DIBUTYL DISULFIDE	J 1.7 RT=27.05		ug/L

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1
Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:23 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:23 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:22 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.059	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:22 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:23 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:22 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:22 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
NICKEL	0.0061	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 20:31 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
SODIUM	130	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:23 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:23 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:23 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
COPPER	6.3	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:23 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
LEAD	4.0	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:22 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:22 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
IRON	BDL	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:22 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	6.7	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:22 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.83	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:22 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 17:22 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:22 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
CALCIUM	36.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:22 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:22 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
POTASSIUM	7.9	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:22 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit
J Estimated
RT Retention Time

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : G.A. Buck, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538007
	Complete	PO Number	
	27-NOV-00	98-653088-289A*.....	
	Printed	Sampled	
	27-NOV-00	14-NOV-00 15:30	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7127
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 18-NOV-00 18:15 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L
CHLOROETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	107		% Rec
TOLUENE-D8	96		% Rec
4-BROMOFLUOROBENZENE	106		% Rec
TENTATIVELY IDENTIFIED COMPOUNDS			
NONE DETECTED			

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : H.A. Busch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538146
	Complete 01-DEC-00	PO Number 98-653088-289B.....	
	Printed 02-DEC-00	Sampled 16-NOV-00 10:15	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07105
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:29 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:29 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7

Analyst: J. LEAK Analysis Date: 21-NOV-00 20:25 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.14	0.0060	mg/L

BERYLLIUM ICP EPA 200.7

Analyst: J. LEAK Analysis Date: 21-NOV-00 20:25 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:29 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:25 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:25 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	0.044	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 20:34 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	160	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:29 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	1.6	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:29 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:29 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	7.7	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:29 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	1.6	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:25 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:25 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	BDL	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:25 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	18.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:25 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	BDL	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:25 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	1.8	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 17:25 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:25 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	64.	0.10	mg/L

COBALT ICP EPA 200.7

Analyst: J. LEAK Analysis Date: 21-NOV-00 20:25 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7

Analyst: J. LEAK Analysis Date: 21-NOV-00 20:25 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	8.7	0.10	mg/L

VANADIUM ICP EPA 200.7

Analyst: J. LEAK Analysis Date: 21-NOV-00 20:25 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : Gene Busch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538147
	Complete	PO Number	
	01-DEC-00	98-653088-289B.....	
	Printed	Sampled	
	02-DEC-00	16-NOV-00 10:40	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07106
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1
Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:34 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:34 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:28 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.059	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:28 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:34 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.40	ug/L
Detection limit raised due to high RSD.			

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:28 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:28 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 20:37 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	140	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:34 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:34 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	0.11	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:34 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	3.6	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:34 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	BDL	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:28 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:28 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.16	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:28 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	41.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:28 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	1.8	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:28 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	BDL	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 17:28 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:28 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	170	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:28 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:28 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	34.	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:28 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved: H.A. Buck, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538148
	Complete	PO Number	
	01-DEC-00	98-653088-2898.....	
	Printed	Sampled	
	02-DEC-00	16-NOV-00 10:53	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07116
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 19-NOV-00 14:33 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	102		% Rec
TOLUENE-D8	95		% Rec
4-BROMOFLUOROBENZENE	101		% Rec
TENTATIVELY IDENTIFIED COMPOUNDS			
NONE DETECTED			

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:40 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:40 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:31 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.17	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:31 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:40 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:31 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:31 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	0.014	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 20:41 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	340	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:40 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:40 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	0.11	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:40 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	80.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:40 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	3.3	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:31 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:31 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.51	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:31 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	82.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:31 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	4.8	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:31 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	BDL	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 17:31 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:31 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	260	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:31 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:31 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	18.	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:31 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : G.W. Busch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538149
	Complete	PO Number	
	01-DEC-00	98-653088-2898.....	
	Printed	Sampled	
	04-DEC-00	16-NOV-00 11:25	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07117
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 19-NOV-00 15:08 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L
CHLOROETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	96		% Rec
TOLUENE-D8	101		% Rec
4-BROMOFLUOROBENZENE	103		% Rec
TENTATIVELY IDENTIFIED COMPOUNDS			
NONE DETECTED			

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1
Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
TURBIDITY	0.79	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:45 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:45 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:35 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.064	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:35 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:45 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:35 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:35 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 20:44 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
SODIUM	200	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:45 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:45 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:45 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
COPPER	3.4	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:45 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:35 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:35 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
IRON	0.86	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:35 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
MAGNESIUM	12.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:35 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.27	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:35 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 17:35 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:35 Instrument: ICP Test: M409.3.0

HERITAGE ENVIRONMENTAL SERVICES, LLC **Sample ID: A538149 R07117**

Parameter	Result	Det. Limit	Units
CALCIUM	39.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:35 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:35 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
POTASSIUM	1.9	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:35 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : H A Busch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538150
	Complete	PO Number	
	01-DEC-00	98-653088-289B.....	
	Printed	Sampled	
	02-DEC-00	16-NOV-00 11:25	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07118
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 19-NOV-00 15:43 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	103		% Rec
TOLUENE-D8	104		% Rec
4-BROMOFLUOROBENZENE	104		% Rec
TENTATIVELY IDENTIFIED COMPOUNDS			
NONE DETECTED			

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1
Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	0.68	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:51 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:51 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:38 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.065	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:38 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:51 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:38 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:38 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 20:47 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	200	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:51 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:51 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:51 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	3.4	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 21:51 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	BDL	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:38 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:38 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.80	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:38 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	12.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:38 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	0.27	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:38 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	BDL	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 17:38 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:38 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	39.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:38 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:38 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	1.9	0.10	mg/L

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:38 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : H A Burch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538151
	Complete	PO Number	
	01-DEC-00	98-653088-2898.....	
	Printed	Sampled	
	02-DEC-00	16-NOV-00 12:40	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07119
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 19-NOV-00 16:18 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	98		% Rec
TOLUENE-D8	99		% Rec
4-BROMOFLUOROBENZENE	103		% Rec
TENTATIVELY IDENTIFIED COMPOUNDS			
NONE DETECTED			

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1
Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:13 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:13 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	2.0	ug/L

Detection limit raised due to high RSD.

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:51 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.32	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:51 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:13 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:51 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:51 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 28-NOV-00 16:45 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	600	0.50	mg/L
DILUTION 1:5			

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:13 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:13 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:13 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	8.8	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:13 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	BDL	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 17:51 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:51 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.53	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:51 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	56.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:51 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	0.14	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:51 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.034	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:51 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:51 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	160	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:51 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 21:19 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	8.8	0.10	mg/L

There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria.

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 20:51 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

Sample Comments

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : G A Busch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538152
	Complete	PO Number	
	01-DEC-00	98-653088-2898.....	
	Printed	Sampled	
	02-DEC-00	16-NOV-00 12:56	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07120
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 19-NOV-00 16:52 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	99		% Rec
TOLUENE-D8	101		% Rec
4-BROMOFLUOROBENZENE	105		% Rec
...			
TENTATIVELY IDENTIFIED COMPOUNDS			

NONE DETECTED			

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

HERITAGE ENVIRONMENTAL SERVICES, LLC Sample ID: A538152 R07120

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:46 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	0.34	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:46 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	2.0	ug/L

Detection limit raised due to high RSD.

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:08 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.12	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:08 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:46 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:08 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:08 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 28-NOV-00 17:07 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	500	1.0	mg/L
DILUTION 1:10			

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:46 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	2.0	ug/L
Detection limit raised due to high RSD.			

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:46 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:46 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	16.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:46 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	BDL	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 18:08 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:08 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.077	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:08 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	14.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:08 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	BDL	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:08 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.22	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:08 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:08 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	56.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:08 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 21:02 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	9.2	0.10	mg/L

There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria.

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:08 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample Comments

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : G A Burch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538153
	Complete	PO Number	
	01-DEC-00	98-653088-2898.....	
	Printed	Sampled	
	02-DEC-00	16-NOV-00 10:05	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07121
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

REGULATED & UNREGULATED VOC'S IN DRINKING WATER EPA 524.2

Analyst: R. SHAMP Analysis Date: 19-NOV-00 17:27 Instrument: GC/MS VOA Test: 0516.9.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
REGULATED CONTAMINANTS			
BENZENE	BDL	0.50	ug/L
CARBON TETRACHLORIDE	BDL	0.50	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.20	ug/L
1,2-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROETHENE	BDL	0.50	ug/L
1,1,1-TRICHLOROETHANE	BDL	0.50	ug/L
TRICHLOROETHENE	BDL	0.20	ug/L
VINYL CHLORIDE	BDL	0.50	ug/L
CHLOROBENZENE	BDL	0.50	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.50	ug/L
TRANS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
CIS-1,2-DICHLOROETHENE	BDL	0.50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.50	ug/L
1,2-DICHLOROPROPANE	BDL	0.50	ug/L
ETHYL BENZENE	BDL	0.50	ug/L
STYRENE	BDL	0.50	ug/L
1,1,2-TRICHLOROETHANE	BDL	0.50	ug/L
TETRACHLOROETHENE	BDL	0.50	ug/L
TOLUENE	BDL	0.50	ug/L
O-XYLENE	BDL	0.50	ug/L
M/P-XYLENE	BDL	0.50	ug/L
1,2,4-TRICHLOROBENZENE	BDL	0.50	ug/L
UNREGULATED - MONITORING REQUIRED			
BROMOBENZENE	BDL	0.50	ug/L
BROMODICHLOROMETHANE	BDL	0.50	ug/L
BROMOFORM	BDL	0.50	ug/L
BROMOMETHANE	BDL	0.50	ug/L
CHLORODIBROMOMETHANE	BDL	0.50	ug/L

Parameter	Result	Det. Limit	Units
CHLOROETHANE	BDL	0.50	ug/L
CHLOROFORM	BDL	0.50	ug/L
CHLOROMETHANE	BDL	0.50	ug/L
2-CHLOROTOLUENE (O-CHLOROTOLUENE)	BDL	0.50	ug/L
4-CHLOROTOLUENE (P-CHLOROTOLUENE)	BDL	0.50	ug/L
DIBROMOMETHANE	BDL	0.50	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	0.50	ug/L
1,1-DICHLOROETHANE	BDL	0.50	ug/L
1,1-DICHLOROPROPENE	BDL	0.50	ug/L
1,3-DICHLOROPROPANE	BDL	0.50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.50	ug/L
2,2-DICHLOROPROPANE	BDL	0.50	ug/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.50	ug/L
1,2,3-TRICHLOROPROPANE	BDL	0.50	ug/L
MONITORED AT STATE'S DISCRETION			
BROMOCHLOROMETHANE	BDL	0.50	ug/L
N-BUTYLBENZENE	BDL	0.50	ug/L
DICHLORODIFLUOROMETHANE	BDL	0.50	ug/L
TRICHLOROFLUOROMETHANE	BDL	0.50	ug/L
HEXACHLOROBUTADIENE	BDL	0.50	ug/L
ISOPROPYLBENZENE (CUMENE)	BDL	0.50	ug/L
4-ISOPROPYLTOLUENE (P-ISOPROPYLTOLUENE)	BDL	0.50	ug/L
NAPHTHALENE	BDL	0.50	ug/L
N-PROPYLBENZENE	BDL	0.50	ug/L
SEC-BUTYLBENZENE	BDL	0.50	ug/L
TERT-BUTYLBENZENE	BDL	0.50	ug/L
1,2,3-TRICHLOROBENZENE	BDL	0.50	ug/L
1,2,4-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,3,5-TRIMETHYLBENZENE	BDL	0.50	ug/L
1,2-DIBROMOETHANE (EDB)	BDL	0.50	ug/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.50	ug/L
METHYL-T-BUTYL ETHER (MTBE)	BDL	0.50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	100		% Rec
TOLUENE-D8	99		% Rec
4-BROMOFLUOROBENZENE	102		% Rec
TENTATIVELY IDENTIFIED COMPOUNDS			
NONE DETECTED			

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:52 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	0.47	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:52 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	1.0	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:11 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.10	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:11 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:52 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:11 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:11 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 28-NOV-00 17:11 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	250	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:52 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	10.	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:52 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:52 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	73.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:52 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	0.23	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 18:14 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:11 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.17	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:11 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	10.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:11 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	0.034	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:11 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.75	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:11 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:11 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	48.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:11 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 21:22 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	3.2	0.10	mg/L

There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria.

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:11 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : G A Burch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538154
	Complete	PO Number	
	01-DEC-00	98-653088-2898.....	
	Printed	Sampled	
	02-DEC-00	16-NOV-00 10:45	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07122
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:57 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	0.30	0.25	ug/L

ARSENIC ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:57 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7

Analyst: J. LEAK Analysis Date: 21-NOV-00 21:14 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.15	0.0060	mg/L

BERYLLIUM ICP EPA 200.7

Analyst: J. LEAK Analysis Date: 21-NOV-00 21:14 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:57 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:14 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:14 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 18:17 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	550	1.0	mg/L
DILUTION 1:10			

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:57 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:57 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:57 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	110	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 22:57 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	10.	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 18:17 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:14 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	BDL	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:14 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	16.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:14 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	0.16	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:14 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.18	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:14 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:14 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	70.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:14 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 21:25 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	4.4	0.10	mg/L

There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria.

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:14 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

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The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : H. Burch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538155
	Complete	PO Number	
	01-DEC-00	98-653088-2898.....	
	Printed	Sampled	
	02-DEC-00	16-NOV-00 11:23	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07123
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1
Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:03 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:03 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:18 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.042	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:18 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:03 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:18 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: P. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:18 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 28-NOV-00 17:22 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	13.	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:03 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:03 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:03 Instrument: ICP/MS Test: V412.3.0

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A538155 R07123

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	BDL	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:03 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	BDL	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 18:24 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	0.086	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:18 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	0.034	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:18 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	9.1	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:18 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	0.24	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:18 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.041	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:18 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:18 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	20.	0.10	mg/L

COBALT ICP EPA 200.7

Analyst: J. LEAK Analysis Date: 21-NOV-00 21:18 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7

Analyst: J. LEAK Analysis Date: 30-NOV-00 21:28 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	1.8	0.10	mg/L

There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria.

VANADIUM ICP EPA 200.7

Analyst: J. LEAK Analysis Date: 21-NOV-00 21:18 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : G A Busch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538156
	Complete	PO Number	
	01-DEC-00	98-653088-2898.....	
	Printed	Sampled	
	02-DEC-00	16-NOV-00 11:45	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: RO7124
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1
Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:09 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:09 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:21 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.034	0.0060	mg/L

BERYLLIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:21 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:09 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:21 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:21 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 28-NOV-00 17:25 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	28.	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:09 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:09 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:09 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	83.	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:09 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	4.9	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 18:27 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:21 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	BDL	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:21 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	20.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:21 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	1.0	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:21 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	0.030	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:21 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:21 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	64.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:21 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 21:32 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	2.6	0.10	mg/L

There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria.

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:21 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.

Approved : H. V. Busch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538157
	Complete	PO Number	
	01-DEC-00	98-653088-2898.....	
	Printed	Sampled	
	02-DEC-00	16-NOV-00 12:15	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07125
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:14 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:14 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	1.6	1.0	ug/L

BARIUM ICP EPA 200.7

Analyst: J. LEAK Analysis Date: 21-NOV-00 21:24 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.15	0.0060	mg/L

BERYLLIUM ICP EPA 200.7

Analyst: J. LEAK Analysis Date: 21-NOV-00 21:24 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:14 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:24 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:24 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 28-NOV-00 17:29 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	150	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:14 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:14 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:14 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	3.9	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: J. STOCKBURGER Analysis Date: 21-NOV-00 23:14 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	0.11	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 18:31 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:24 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	2.2	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:24 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	36.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:24 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	0.70	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:24 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	BDL	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:24 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:24 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	170	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:24 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 21:35 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	4.0	0.10	mg/L

There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria.

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:24 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

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Approved : H. Busch, QAO

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-NOV-00		A538158
	Complete	PO Number	
	01-DEC-00	98-653088-2898.....	
	Printed	Sampled	
	02-DEC-00	16-NOV-00 13:00	

Report To	Bill To
STEVE SOMMER INDIANA DEPARTMENT OF ENVIRONMENTAL MGT. 100 NORTH SENATE AVENUE ROOM 1101 INDIANAPOLIS, IN 46204	DEBBIE HILTON INDIANA DEPT. OF ENVIRONMENTAL MANAGEMEN 100 N. SENATE AVENUE PO BOX 6015 INDIANAPOLIS, IN 46206-6015

Sample Description

CLIENT ID: R07126
MATRIX TYPE: DRINKING WATER, PUBLIC OR PRIVATE SUPPLY

TURBIDITY (NEPHELOMETRIC MODIFIED) EPA 180.1

Analyst: L. SMITH Analysis Date: 17-NOV-00 12:00 Test: G602.6.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
TURBIDITY	BDL	0.5	ntu

ANTIMONY ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:20 Instrument: ICP/MS Test: V402.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ANTIMONY	BDL	0.25	ug/L

ARSENIC ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:20 Instrument: ICP/MS Test: V403.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ARSENIC	BDL	1.0	ug/L

BARIUM ICP EPA 200.7

Analyst: J. LEAK Analysis Date: 21-NOV-00 21:27 Instrument: ICP Test: M404.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BARIUM	0.093	0.0060	mg/L

BERYLLIUM ICP EPA 200.7

Analyst: J. LEAK Analysis Date: 21-NOV-00 21:27 Instrument: ICP Test: M405.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
BERYLLIUM	BDL	0.0020	mg/L

CADMIUM ICP/MS EPA 200.8

Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:20 Instrument: ICP/MS Test: V408.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CADMIUM	BDL	0.25	ug/L

CHROMIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:27 Instrument: ICP Test: M410.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CHROMIUM	BDL	0.0070	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1
Analyst: T. VONEHRENKROOK Analysis Date: 17-NOV-00 13:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1
Analyst: R. DALAL Analysis Date: 20-NOV-00 09:07 Instrument: CVAA Test: M420.2.0
Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 P131.2.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MERCURY	BDL	0.00020	mg/L

NICKEL ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:27 Instrument: ICP Test: M422.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
NICKEL	BDL	0.0050	mg/L

SODIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 28-NOV-00 17:33 Instrument: ICP Test: M431.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SODIUM	38.	0.10	mg/L

SELENIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:20 Instrument: ICP/MS Test: V428.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SELENIUM	BDL	1.5	ug/L

THALLIUM ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:20 Instrument: ICP/MS Test: V434.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
THALLIUM	BDL	0.10	ug/L

COPPER ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:20 Instrument: ICP/MS Test: V412.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COPPER	BDL	2.0	ug/L

LEAD ICP/MS EPA 200.8
Analyst: A. STOCKBURGER Analysis Date: 21-NOV-00 23:20 Instrument: ICP/MS Test: V416.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
LEAD	BDL	0.10	ug/L

ALUMINUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 27-NOV-00 18:34 Instrument: ICP Test: M401.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ALUMINUM	BDL	0.050	mg/L

IRON ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:27 Instrument: ICP Test: M415.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
IRON	1.7	0.025	mg/L

MAGNESIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:27 Instrument: ICP Test: M418.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MAGNESIUM	67.	0.10	mg/L

MANGANESE ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:27 Instrument: ICP Test: M419.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
MANGANESE	0.026	0.010	mg/L

ZINC ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:27 Instrument: ICP Test: M439.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
ZINC	BDL	0.020	mg/L

SILVER ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:27 Instrument: ICP Test: M430.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
SILVER	BDL	0.0070	mg/L

CALCIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:27 Instrument: ICP Test: M409.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
CALCIUM	94.	0.10	mg/L

COBALT ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:27 Instrument: ICP Test: M411.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
COBALT	BDL	0.0060	mg/L

POTASSIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 30-NOV-00 21:38 Instrument: ICP Test: M426.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
POTASSIUM	3.9	0.10	mg/L

There was matrix interference for this element. Both the matrix spike and matrix spike duplicate results were outside control limit criteria.

VANADIUM ICP EPA 200.7
Analyst: J. LEAK Analysis Date: 21-NOV-00 21:27 Instrument: ICP Test: M438.3.0

Parameter	Result	Det. Limit	Units
WET WEIGHT RESULTS			
VANADIUM	BDL	0.0050	mg/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice.

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Approved : H. Brack, QAO