ESAT Controlled Number: ESAT5.1.3.601-pj 6Mar15

DATE: March 6, 2015

Tetra Tech
Attn: **Mr. Kris Schnoes**
1 South Wacker Drive – 37th Floor
Chicago, IL 60601-4651

Site Name: West Vermont Street Water (IN) – **level 3 data validation**

Case	SDG	Lab	Samples	Matrix
45073	E5BH3	Mitkem	5	water

Analysis: TVOA

Upon receipt of data, please check each package for completeness and note any missing deliverables below.

Send this form back to Sylvia Griffin, Data Management Coordinator after filling in the blanks below.

Data Received by:_____ Date:_____

PROBLEMS:

Please indicate if data is complete, and note if there are any deliverables missing from the cases noted above.

_____

_____

Received by Data Management Coordinator, CRL for file.

Signature:_____ Date:_____

FROM: **U.S. EPA - Region 5**
Sylvia Griffin
Chicago Regional Laboratory
536 S. Clark, 10th Floor
Chicago, IL 60605

Sent By: Pat A. Joyner
Data Coordinator
ESAT Region 5 - **Techlaw Inc.**

ESAT 5.1.5.471
ACH
3-5-2015

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V
SUPERFUND DIVISION

DATE:

SUBJECT: Review of Data
Received for Review on: 17 February 2015

FROM: Timothy Prendiville, Supervisor (SR-6J)
Superfund Contract Management Section

TO: Data User: Tetra Tech
Email Address: kevin.scott@tetratech.com

Level 3 Data Validation for EDM EXES database

We have reviewed the data for the following case:

SITE Name: West Vermont Street Water (IN)

Case Number: 45073 SDG Number: E5BH3

Number and Type of Samples: 5 Water Samples (TVOA)

Sample Numbers: E5BH3 – E5BH7

Laboratory: Spectrum Analytical - Mitkem Hrs for Review:

Following are our findings:

CC: Howard Pham
Region 5 TPO
Mail Code: SA-5J

Case Number: 45073
Site Name: West Vermont Street Water (IN)

SDG Number: E5BH3
Laboratory: Mitkem

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

Five preserved water samples labeled E5BH3 – E5BH7, were shipped to Spectrum Analytical located in North Kingstown, RI. All samples were collected on 02/06/2015 and received on 02/07/15 intact and properly cooled.

All samples were analyzed for the Trace VOA list of compounds. All samples were analyzed according to CLP SOW SOM01.2 and reviewed according to the NFG for SOM01.2 and the SOP for ESAT 5/TechLaw Validation of Contract Laboratory Program Organic Data (Version 2.7).

Samples E5BH4, E5BH5, and E5BH6 were designated by the samplers to be used for laboratory QC, i.e. MS/MSD analyses. The laboratory selected sample E5BH3 for an MS/MSD analyses per direction from Region 5.

No samples were identified as field blanks. Samples E5BH3, E5BH4, and E5BH5 appear to be field duplicates based on sample collection times. See section 7 for more information on results.

Case Number: 45073
Site Name: West Vermont Street Water (IN)

SDG Number: E5BH3
Laboratory: Mitkem

1. HOLDING TIME

No Problems Found.

2. GC/MS TUNING AND GC INSTRUMENT PERFORMANCE

No Problems Found.

3. CALIBRATION

No Problems Found.

4. BLANKS

The following trace volatile samples were analyzed after a sample with compounds exceeding calibration and no intervening instrument blank. Detection of these compounds should be qualified J as they may be a result of carryover.

E5BH3DL, E5BH3MS, E5BH3MSD
Acetone

5. DEUTERATED MONITORING COMPOUND AND SURROGATE RECOVERY

The following trace volatile samples have one or more DMC/SMC recovery values less than the primary lower limit but greater than or equal to the expanded lower limit (20%) of the criteria window. Detected compounds are qualified J. Non-detected compounds are qualified UJ.

E5BH3MS, E5BH3MSD, E5BH5, E5BH6
Chlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, 1,2,4-Trichlorobenzene, 1,2,3-Trichlorobenzene

6A. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Samples E5BH4, E5BH5, and E5BH6 were designated by the samplers to be used for laboratory QC, i.e. MS/MSD analyses. The laboratory selected sample E5BH3 for an MS/MSD analyses per direction from Region 5.

No Problems Found.

6B. LABORATORY CONTROL SAMPLE

Not applicable to Trace VOA samples.

Case Number: 45073
Site Name: West Vermont Street Water (IN)

SDG Number: E5BH3
Laboratory: Mitkem

7. FIELD BLANK AND FIELD DUPLICATE

No samples were identified as field blanks. Samples E5BH3, E5BH4, and E5BH5 appear to be field duplicates based on sample collection times, however only samples E5BH3 and E5BH4 have similar results so the RPDs are calculated for these two samples only. Sample E3BH5 is non-detect for all target compounds. Results are summarized in the following table:

Sample ID **DF** **Units** **Station Location** **Collection Date/Time**	**E5BH3** 1 ug/L Olin Park 02/6/15 / 12:00	**E5BH4** 1 ug/L Olin Park 02/6/15 / 12:00	
TVOA Analytes			**RPD**
Chloromethane	0.24	0.22	9
Acetone	700	670	4
Methylene chloride	2.6	2.7	4
cis-1,2-Dichloroethene	0.12	0.11	9
Bromochloromethane	0.58	0.55	5
Chloroform	12	12	0
Bromodichloromethane	2.4	2.4	0
4-Methyl-2-pentanone	50	46	8
Toluene	1.1	1.0	10
Dibromochloromethane	0.68	0.62	9
#TVOA TICs	3	3	---

Sample ID **DF** **Units** **Station Location** **Collection Date/Time**	**E5BH3DL** **5** ug/L Olin Park 02/6/15 / 12:00	**E5BH4DL** **5** ug/L Olin Park 02/6/15 / 12:00	
TVOA Analytes			**RPD**
Acetone	780	670	15
Carbon disulfide	1.7	1.0	52
Methylene chloride	3.2	3.1	3
Chloroform	9.4	8.3	12
Bromodichloromethane	2.3	2.6	12
4-Methyl-2-pentanone	45	47	4
Toluene	0.97	1.0	3
Dibromochloromethane	0.58	0.83	36

Reviewed by: Michele Traina / Techlaw-ESAT
Date: 02/23/2015

Case Number: 45073 SDG Number: E5BH3
Site Name: West Vermont Street Water (IN) Laboratory: Mitkem

#TVOA TICs	0	0	---

Results are not qualified based upon the results of the field duplicates.

8. INTERNAL STANDARDS

No Problems Found.

9. COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms it appears that all Trace VOA compounds were properly identified.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

The following trace volatile samples have analyte concentrations below the quantitation limit (CRQL). Detected compounds are qualified J.

E5BH3, E5BH4
Chloromethane, cis-1,2-Dichloroethene

E5BH3DL
Carbon disulfide, Bromodichloromethane, Toluene, Dibromochloromethane

E5BH3MS, E5BH3MSD
Chloromethane, Carbon disulfide, Bromochloromethane,

E5BH4DL
Carbon disulfide, Toluene, Dibromochloromethane

E5BH6
Toluene, o-Xylene

E5BH7
Chloromethane, Methylene chloride, cis-1,2-Dichloroethene

A library search indicates a match at or above 85% for a TIC compound in the trace volatile sample. Detected compounds are qualified NJ.

Cas No. 420-12-2 Thiirane
E5BH3, E5BH4, E5BH7

A library search indicates a match below 85% for a TIC compound in the trace volatile sample. Detected compounds are qualified J.

Case Number: 45073
Site Name: West Vermont Street Water (IN)

SDG Number: E5BH3
Laboratory: Mitkem

Unknown @ 1.69
E5BH6

Unknown @ 2.70; Unknown @ 4.02
E5BH3, E5BH4

11. SYSTEM PERFORMANCE

GC/MS baselines indicated acceptable performance.

12. ADDITIONAL INFORMATION

The Laboratory should not have received the copy of the Chain-of-Custody forms that identify the Site by Name, their copy should have identified the Site by only the Case Number.

Manual baseline integrations were reviewed and found to be acceptable.

The following trace volatile samples have a compound concentration which exceeds the instruments calibration range. The detected results are qualified J. The results from the diluted analyses should be considered the final concentration for the affected compound.

E5BH3, E5BH4
Acetone

The following trace volatile samples have compound concentrations which exceed the instruments calibration range. The detected results are qualified J. No dilution was required because these are laboratory QC samples.

E5BH3MS, E5BH3MSD
Acetone

TICs with no CAS Numbers were not reported in the EXES Sample Summary Report for the TVOA fraction. Please refer to Word document 45073 SDG E5BH3.TIC for the validated TIC results.

Reviewed by: Michele Traina / Techlaw-ESAT
Date: 02/23/2015

Case Number: 45073
Site Name: West Vermont Street Water (IN)

SDG Number: E5BH3
Laboratory: Mitkem

CADRE Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
NJ	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.
R	The data are unusable. (The compound may or may not be present.)

Reviewed by: Michele Traina / Techlaw-ESAT
Date: 02/23/2015

Sample Summary Report

Case No:	45073	Contract:	EPW11033	SDG No:	E5BH3	Lab Code:	MITKEM
Sample Number:	E5BH3	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	Olin Park	pH:	2.0	Sample Date:	02/06/2015	Sample Time:	12:00:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloromethane	Target	0.24	J	ug/L	0.24	J	1.0	Yes	S3VE
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Acetone	Target	700	J	ug/L	700	E	1.0	Yes	S3VE
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylene chloride	Target	2.6		ug/L	2.6		1.0	Yes	S3VE
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
cis-1,2-Dichloroethene	Target	0.12	J	ug/L	0.12	J	1.0	Yes	S3VE
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Bromochloromethane	Target	0.58		ug/L	0.58		1.0	Yes	S3VE
Chloroform	Target	12		ug/L	12		1.0	Yes	S3VE
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromodichloromethane	Target	2.4		ug/L	2.4		1.0	Yes	S3VE

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
4-Methyl-2-pentanone	Target	50		ug/L	50		1.0	Yes	S3VE
Toluene	Target	1.1		ug/L	1.1		1.0	Yes	S3VE
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Dibromochloromethane	Target	0.68		ug/L	0.68		1.0	Yes	S3VE
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Thiirane	TIC				0.60	NJ	1.0	Yes	NV

Case No: 45073	Contract: EPW11033	SDG No: E5BH3	Lab Code: MITKEM
Sample Number: E5BH3DL	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: Olin Park	pH: 2.0	Sample Date: 02/06/2015	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Chloromethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Vinyl chloride	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Bromomethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Chloroethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Trichlorofluoromethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,1-Dichloroethene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Acetone	Target	780	J	ug/L	780	D	5.0	Yes	S3VE
Carbon disulfide	Target	1.7	J	ug/L	1.7	DJ	5.0	Yes	S3VE
Methyl acetate	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Methylene chloride	Target	3.2		ug/L	3.2	D	5.0	Yes	S3VE
trans-1,2-Dichloroethene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Methyl tert-butyl ether	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,1-Dichloroethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
cis-1,2-Dichloroethene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
2-Butanone	Target	25	U	ug/L	25.000000	U	5.0	Yes	S3VE
Bromochloromethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Chloroform	Target	9.4		ug/L	9.4	D	5.0	Yes	S3VE
1,1,1-Trichloroethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Cyclohexane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Carbon tetrachloride	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Benzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,2-Dichloroethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Trichloroethene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Methylcyclohexane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,2-Dichloropropane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Bromodichloromethane	Target	2.3	J	ug/L	2.3	DJ	5.0	Yes	S3VE
cis-1,3-Dichloropropene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
4-Methyl-2-pentanone	Target	45		ug/L	45	D	5.0	Yes	S3VE
Toluene	Target	0.97	J	ug/L	0.97	DJ	5.0	Yes	S3VE

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,1,2-Trichloroethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Tetrachloroethene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
2-Hexanone	Target	25	U	ug/L	25.000000	U	5.0	Yes	S3VE
Dibromochloromethane	Target	0.58	J	ug/L	0.58	DJ	5.0	Yes	S3VE
1,2-Dibromoethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Chlorobenzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Ethylbenzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
o-Xylene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
m,p-Xylene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Styrene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Bromoform	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Isopropylbenzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,1,2,2-Tetrachloroethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,3-Dichlorobenzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,4-Dichlorobenzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,2-Dichlorobenzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,2-Dibromo-3-chloropropane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,2,4-Trichlorobenzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,2,3-Trichlorobenzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE

Case No: 45073	Contract: EPW11033	SDG No: E5BH3	Lab Code: MITKEM
Sample Number: E5BH3MS	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: Olin Park	pH: 2.0	Sample Date: 02/06/2015	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethene	Spike	3.7		ug/L	3.7		1.0	Yes	S3VE
Benzene	Spike	4.5	U	ug/L	4.5		1.0	Yes	S3VE
Chloromethane	Target	0.3	J	ug/L	0.30	J	1.0	Yes	S3VE
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichloroethene	Spike	3.9		ug/L	3.9		1.0	Yes	S3VE
Toluene	Spike	0.5	U	ug/L	5.3		1.0	Yes	S3VE
Bromomethane	Target	5.3		ug/L	0.500000	U	1.0	Yes	S3VE
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chlorobenzene	Spike	4.2	J	ug/L	4.2		1.0	Yes	S3VE
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Acetone	Target	700	J	ug/L	700	E	1.0	Yes	S3VE
Carbon disulfide	Target	0.23	J	ug/L	0.23	J	1.0	Yes	S3VE
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylene chloride	Target	3.9		ug/L	3.9		1.0	Yes	S3VE
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Bromochloromethane	Target	0.44	J	ug/L	0.44	J	1.0	Yes	S3VE
Chloroform	Target	9.0		ug/L	9.0		1.0	Yes	S3VE
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromodichloromethane	Target	2.1		ug/L	2.1		1.0	Yes	S3VE
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
4-Methyl-2-pentanone	Target	58		ug/L	58		1.0	Yes	S3VE
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Dibromochloromethane	Target	0.65		ug/L	0.65		1.0	Yes	S3VE
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,3-Dichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
1,4-Dichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,4-Trichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,3-Trichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE

Case No: 45073	Contract: EPW11033	SDG No: E5BH3	Lab Code: MITKEM
Sample Number: E5BH3MSD	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: Olin Park	pH: 2.0	Sample Date: 02/06/2015	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,1-Dichloroethene	Spike	3.9		ug/L	3.9		1.0	Yes	S3VE
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloromethane	Target	0.27	J	ug/L	0.27	J	1.0	Yes	S3VE
Benzene	Spike	4.4		ug/L	4.4		1.0	Yes	S3VE
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichloroethene	Spike	3.9		ug/L	3.9		1.0	Yes	S3VE
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Toluene	Spike	5.3		ug/L	5.3		1.0	Yes	S3VE
Chlorobenzene	Spike	4.1	J	ug/L	4.1		1.0	Yes	S3VE
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Acetone	Target	660	J	ug/L	660	E	1.0	Yes	S3VE
Carbon disulfide	Target	0.32	J	ug/L	0.32	J	1.0	Yes	S3VE
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylene chloride	Target	2.4		ug/L	2.4		1.0	Yes	S3VE
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Bromochloromethane	Target	0.41	J	ug/L	0.41	J	1.0	Yes	S3VE
Chloroform	Target	12		ug/L	12		1.0	Yes	S3VE
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromodichloromethane	Target	3.4		ug/L	3.4		1.0	Yes	S3VE
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
4-Methyl-2-pentanone	Target	48		ug/L	48		1.0	Yes	S3VE
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Dibromochloromethane	Target	0.90		ug/L	0.90		1.0	Yes	S3VE
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,3-Dichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
1,4-Dichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,4-Trichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,3-Trichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE

Case No: 45073	Contract: EPW11033	SDG No: E5BH3	Lab Code: MITKEM
Sample Number: E5BH4	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: Olin Park	pH: 2.0	Sample Date: 02/06/2015	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloromethane	Target	0.22	J	ug/L	0.22	J	1.0	Yes	S3VE
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Acetone	Target	670	J	ug/L	670	E	1.0	Yes	S3VE
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylene chloride	Target	2.7		ug/L	2.7		1.0	Yes	S3VE
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
cis-1,2-Dichloroethene	Target	0.11	J	ug/L	0.11	J	1.0	Yes	S3VE
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Bromochloromethane	Target	0.55		ug/L	0.55		1.0	Yes	S3VE
Chloroform	Target	12		ug/L	12		1.0	Yes	S3VE
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromodichloromethane	Target	2.4		ug/L	2.4		1.0	Yes	S3VE
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
4-Methyl-2-pentanone	Target	46		ug/L	46		1.0	Yes	S3VE
Toluene	Target	1.0		ug/L	1.0		1.0	Yes	S3VE

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Dibromochloromethane	Target	0.62		ug/L	0.62		1.0	Yes	S3VE
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Thiirane	TIC				0.56	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE

Case No: 45073	Contract: EPW11033	SDG No: E5BH3	Lab Code: MITKEM
Sample Number: E5BH4DL	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: Olin Park	pH: 2.0	Sample Date: 02/06/2015	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Chloromethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Vinyl chloride	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Bromomethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Chloroethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Trichlorofluoromethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,1-Dichloroethene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Acetone	Target	670		ug/L	670	D	5.0	Yes	S3VE
Carbon disulfide	Target	1.0	J	ug/L	1.0	DJ	5.0	Yes	S3VE
Methyl acetate	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Methylene chloride	Target	3.1		ug/L	3.1	D	5.0	Yes	S3VE
trans-1,2-Dichloroethene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Methyl tert-butyl ether	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,1-Dichloroethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
cis-1,2-Dichloroethene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
2-Butanone	Target	25	U	ug/L	25.000000	U	5.0	Yes	S3VE
Bromochloromethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Chloroform	Target	8.3		ug/L	8.3	D	5.0	Yes	S3VE
1,1,1-Trichloroethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Cyclohexane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Carbon tetrachloride	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Benzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,2-Dichloroethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Trichloroethene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Methylcyclohexane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,2-Dichloropropane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Bromodichloromethane	Target	2.6		ug/L	2.6	D	5.0	Yes	S3VE
cis-1,3-Dichloropropene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
4-Methyl-2-pentanone	Target	47		ug/L	47	D	5.0	Yes	S3VE
Toluene	Target	1.0	J	ug/L	1.0	DJ	5.0	Yes	S3VE

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,1,2-Trichloroethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Tetrachloroethene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
2-Hexanone	Target	25	U	ug/L	25.000000	U	5.0	Yes	S3VE
Dibromochloromethane	Target	0.83	J	ug/L	0.83	DJ	5.0	Yes	S3VE
1,2-Dibromoethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Chlorobenzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Ethylbenzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
o-Xylene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
m,p-Xylene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Styrene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Bromoform	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
Isopropylbenzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,1,2,2-Tetrachloroethane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,3-Dichlorobenzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,4-Dichlorobenzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,2-Dichlorobenzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,2-Dibromo-3-chloropropane	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,2,4-Trichlorobenzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE
1,2,3-Trichlorobenzene	Target	2.5	U	ug/L	2.500000	U	5.0	Yes	S3VE

Case No: 45073	Contract: EPW11033	SDG No: E5BH3	Lab Code: MITKEM
Sample Number: E5BH5	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: Olin Park	pH: 2.0	Sample Date: 02/06/2015	Sample Time: 12:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Acetone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylene chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloroform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Toluene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,3-Dichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
1,4-Dichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,4-Trichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,3-Trichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE

Case No: 45073	Contract: EPW11033	SDG No: E5BH3	Lab Code: MITKEM
Sample Number: E5BH6	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: Olin Park	pH: 2.0	Sample Date: 02/06/2015	Sample Time: 13:30:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Acetone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylene chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloroform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Toluene	Target	0.17	J	ug/L	0.17	J	1.0	Yes	S3VE

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
o-Xylene	Target	0.12	J	ug/L	0.12	J	1.0	Yes	S3VE
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,3-Dichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
1,4-Dichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,4-Trichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,3-Trichlorobenzene	Target	0.50	UJ	ug/L	0.500000	U	1.0	Yes	S3VE

Case No: 45073	Contract: EPW11033	SDG No: E5BH3	Lab Code: MITKEM
Sample Number: E5BH7	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: Olin Park	pH: 2.0	Sample Date: 02/06/2015	Sample Time: 13:00:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloromethane	Target	0.22	J	ug/L	0.22	J	1.0	Yes	S3VE
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Acetone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylene chloride	Target	0.13	J	ug/L	0.13	J	1.0	Yes	S3VE
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
cis-1,2-Dichloroethene	Target	0.14	J	ug/L	0.14	J	1.0	Yes	S3VE
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloroform	Target	15		ug/L	15		1.0	Yes	S3VE
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromodichloromethane	Target	5.9		ug/L	5.9		1.0	Yes	S3VE
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Toluene	Target	3.0		ug/L	3.0		1.0	Yes	S3VE

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Dibromochloromethane	Target	1.6		ug/L	1.6		1.0	Yes	S3VE
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Thiirane	TIC				1.7	NJ	1.0	Yes	NV

Case No: 45073	Contract: EPW11033	SDG No: E5BH3	Lab Code: MITKEM
Sample Number: VBLKV5	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location:	pH: 7.0	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Acetone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylene chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloroform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Toluene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE

Case No: 45073	Contract: EPW11033	SDG No: E5BH3	Lab Code: MITKEM
Sample Number: VHBLKV5	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location:	pH: 7.0	Sample Date:	Sample Time:
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Acetone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylene chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chloroform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Toluene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S3VE
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S3VE

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E5BH3 **Case** 45073 **Contract** EPW11033 **Region** 5 **DDTID** 211459 **SOW** SOM01.2

Tentatively Identified Compounds

VOA_Trace Sample=E5BH7 Location=Olin Park Matrix=Water Level=Trace

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
420-12-2	Thiirane	3.924	1.7	ug/L	NJ

Fri, 13 Feb 2015 17:39:44

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E5BH3 **Case** 45073 **Contract** EPW11033 **Region** 5 **DDTID** 211459 **SOW** SOM01.2

Tentatively Identified Compounds

VOA_Trace Sample=E5BH6 Location=Olin Park Matrix=Water Level=Trace

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-01	1.689	9.3	ug/L	J

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E5BH3 **Case** 45073 **Contract** EPW11033 **Region** 5 **DDTID** 211459 **SOW** SOM01.2

Tentatively Identified Compounds

VOA_Trace Sample=E5BH4 Location=Olin Park Matrix=Water Level=Trace

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-01	2.695	1.4	ug/L	J
420-12-2	Thiirane	3.926	0.56	ug/L	NJ
	Unknown-02	4.019	2.9	ug/L	J

Fri, 13 Feb 2015 17:39:44

National Functional Guidelines Report #09

Lab MITKEM(Mitkem Laboratories) **SDG** E5BH3 **Case** 45073 **Contract** EPW11033 **Region** 5 **DDTID** 211459 **SOW** SOM01.2

Tentatively Identified Compounds

VOA_Trace Sample=E5BH3 Location=Olin Park Matrix=Water Level=Trace

CAS No.	Compound Name	RT (mins)	Concentration		Lab Qualifier
	Unknown-01	2.681	1.7	ug/L	J
420-12-2	Thiirane	3.912	0.60	ug/L	NJ
	Unknown-02	4.028	2.6	ug/L	J

Regional Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Data
Received for Review on 17 FEB 2015

FROM: Timothy Prendiville, Supervisor (**SR-6J**)
Superfund Contract Management Section

TO: Data User: Tetra Tech

We have reviewed the data for the following case:

SITE NAME: West Vermont Street Water (IN)

CASE NUMBER: 45073 SDG NUMBER: E5BH3

Number and Type of Samples: (5 water samples)

Sample Numbers: E5BH3 – E5BH7

Laboratory: Mitkem Hrs for Review:

Following are our findings:

CC: Howard Pham
Region 5 TPO
Mail Code: **SA-5J**

Contract Laboratory Program

Sample Delivery Group (SDG) Cover Sheet

SDG Number	E5BH3	Case Number	45073	Contract Number	EP-W-11-033
Lab Code	MITKEM	SDG Turnaround	7 days	Deilvery CLIN(s)	—

First Sample Received in SDG	E5BH3	Last Sample Received in SDG	E5BH7
First Sample Receipt Date	02/07/2015	Last Sample Receipt Date	02/07/2015

USEPA Sample Numbers in SDG (Listed in Numerical Order)

CLP Sample ID		Sample Type	Requested Analytical CLIN(s)/SubCLINS(s)	Solicitation Number	MA Numbers(s)
1	E5BH3	FIELD SAMPLE	0019A	NA	NA
2	E5BH3MS	MATRIX SPIKE	↓	↓	↓
3	E5BH3MSD	MATRIX SPIKE DUPLICATE	↓	↓	↓
4	E5BH4	FIELD SAMPLE	↓	↓	↓
5	E5BH5	FIELD SAMPLE	↓	↓	↓
6	E5BH6	FIELD SAMPLE	↓	↓	↓
7	E5BH7	FIELD SAMPLE	0019A	NA	NA

Note: There are a maximum of 20 field samples (excluding PE samples) in an SDG. Attach TR/COC Records to this form in alphanumeric order (the order listed above on this form).

Signature Agnes R Huntley Date 02/09/2015

SDG E5BH3

KH Case #45073

USEPA

DateShipped: 2/6/2015

CarrierName: FedEx

AirbillNo: 8992 7002 8697

CHAIN OF CUSTODY RECORD

West Vermont

Contact Name: Kevin Scott

Contact Phone: 312-201-7739

No: 5-020615-175826-0017

Case #: ~~44788~~

Lab: Spectrum Analytical Inc DBA:: MITKEM

Lab Phone:

P0161

	Lab #	Location	CLP Sample #	Tag	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
01		Olin Park	E5BH3	45047	CLP Volatiles	Ground Water	2/6/2015	12:00	6	40 ml VOA	HCl	N
02		Olin Park	E5BH4	45048	CLP Volatiles	Ground Water	2/6/2015	12:00	2	40 ml VOA	HCl	Y
03		Olin Park	E5BH5	45050	CLP Volatiles	Ground Water	2/6/2015	12:00	2	40 ml VOA	HCl	Y
04		Olin Park	E5BH6	45719	CLP Volatiles	Water	2/6/2015	13:30	2	40 ml VOA	HCl	Y
05		Olin Park	E5BH7	45049	CLP Volatiles	Ground Water	2/6/2015	13:00	2	40 ml VOA	HCl	N
			SDG - Final Sample									

Special Instructions:	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	[illegible]	2/6/15	SPECTRUM	02/07/15 10:20	2.8°C IR

SDG Narrative

Spectrum Analytical, Inc., featuring Hanibal Technology Rhode Island Division submits the enclosed data package in response to USEPA Case # 45073 and SDG# E5BH3. Analyses were performed for five aqueous samples that were received on February 7, 2015.

The analyses were performed under USEPA Contract # EP-W-11-033.

Please note that the sample-shipping cooler received on February 7 was measured at 2.8°C.

The following samples are submitted in this data package:

Client ID	Lab ID	Analysis	VOA pH
E5BH3	P0161-01A	TV	< 2
E5BH3DL	P0161-01ADL	TV	< 2
E5BH3MS	P0161-01AMS	TV	< 2
E5BH3MSD	P0161-01AMSD	TV	< 2
E5BH4	P0161-02A	TV	< 2
E5BH4DL	P0161-02ADL	TV	< 2
E5BH5	P0161-03A	TV	< 2
E5BH6	P0161-04A	TV	< 2
E5BH7	P0161-05A	TV	< 2

TV = Trace Volatiles

The analyses were performed using USEPA CLP Multi-Media, Multi-Concentration (SOM1.2_) protocols. The analyses were performed with strict adherence to the SOW with the following exceptions and observations:

SAMPLE RECEIPT:

The COC lists the analysis for this Case as VOA. This Case is scheduled for TVOA analysis. Due to the 7 day TAT, the laboratory logged in this sample as scheduled. Per Region 5, TVOA is the correct analysis. Please note the issue in the SDG Narrative and proceed with the analysis of the samples.

For samples E5BH4 through E5BH7, the laboratory only received two vials per sample. There is sufficient volume for TVOA analysis, however there may be an issue with re-analysis or re-analysis at dilution. Per Region 5, please note the issue in the SDG Narrative and proceed with the analysis of the samples.

The COC designates samples E5BH4, E5BH5, and E5BH6 as samples for laboratory QC. The laboratory only received two vials for each of these samples. This is insufficient volume for laboratory QC. However, the COC lists that six containers were sent for sample E5BH3, while the laboratory received eight vials. The laboratory would like to perform laboratory QC on sample E5BH3. Per Region 5, it is acceptable for the laboratory to use sample E5BH3 as laboratory QC. Please note the issue in the SDG Narrative and proceed with the analysis of the samples.

The COC lists the tag number as XXXXX while the actual tag numbers are 5C-XXXXX. All other information between the COC and sample matches. In accordance with previous direction from Region 5, the laboratory will note the issue in the SDG Narrative and proceed with the analysis of the sample using the sample tag number attached to the sample container.

Trace Volatiles Analysis:

I. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

II. METHODS

Samples were analyzed following procedures in laboratory test code: EPA CLP SOM 1.2 VOC TRACE

The following equation was used to calculate the concentration of target analytes for aqueous samples:

$$\text{Concentration } (\mu g/L) = \frac{(\text{Amt})(\text{DF})(\text{UF})(25)}{V_o}$$

where: Amt = on-column amount on raw data
DF = Dilution factor
UF = ng unit correction factor
V_o = Sample volume purged (mL)

The following equation was used to calculate the Amt in the previous equation:

$$Amt = \frac{(A_x)(IS)}{(A_{is})(RRF)}$$

where: A_x = area of the characteristic ion for the compound to be measured
A_{is} = area of the characteristic ion for the associated internal standard
IS = concentration of internal standard in ug/L
RRF = relative response factor

III. PREPARATION

Aqueous Samples were prepared following procedures in laboratory test code: SW5030B

IV. INSTRUMENTATION

The following instrumentation was used:

Instrument Code: V5
Instrument Type: GCMS-VOA
Description: HP6890 / HP6890
Manufacturer: Hewlett-Packard
Model: 6890 / 6890

Trap used for instrument V5: OI Anaytical #10 Trap containing 8 cm each of Tenax, silica gel and carbon molecular sieve

GC Column used: 30 m X 0.25 mm ID [1.40 um thickness] DB-624 capillary column.

V. ANALYSIS

A. Calibration:

Calibrations met the SOW acceptance criteria.

Secondary ion 65 was used in the quantitation of 1,1-dichloroethene-d2 instead of primary ion 63 due to the interference with target compound 1,1-dichloroethene in the calibration standards.

B. Blanks:

All method blanks were within the acceptance criteria.

C. DMC Recoveries:

DMC recoveries were within the QC limits with the exception of the following:

E5BH3MS: recovery is below criteria for 1,2-Dichlorobenzene-d4 at 79% with criteria of (80-131).

E5BH3MSD: recovery is below criteria for 1,2-Dichlorobenzene-d4 at 79% with criteria of (80-131).

E5BH5: recovery is below criteria for 1,2-Dichlorobenzene-d4 at 76% with criteria of (80-131).

E5BH6: recovery is below criteria for 1,2-Dichlorobenzene-d4 at 78% with criteria of (80-131).

D. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

Duplicate matrix spikes were performed on sample: E5BH3

Spike recoveries were within the advisory QC limits.

Replicate RPDs were within the advisory QC limits.

E. Internal Standards:

Internal standard peak areas were within the QC limits.

F. Dilutions:

The following samples were re-analyzed at dilution:

E5BH3: Dilution Factor: 5
E5BH4: Dilution Factor: 5

G. Samples:

cis-1,3-Dichloropropene-d4 was detected in method blanks and in samples. The volatile organic deuterated monitoring compound spike solution contains both the cis- and trans-1,3-dichloropropene isomers. cis-1,3-Dichloropropene-d4 is not a dueterated monitoring compound for SOM01.2, while the trans isomer is. The cis isomer is considered a laboratory artifact, and is not reported as a tentatively identified compound.

No other unusual observations were made for the analysis.

H. Manual Integration

No manual integrations were performed on any sample or standard.

All of the submittals to the region are originals other than logbook pages. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. Tunes, calibration verifications and initial calibrations that are shared among several cases are photocopies indicating the location of the originals.

I certify that this Sample Data Package is in compliance with the terms and condition of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy Sample Data Package and in the electronic data deliverable has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Agnes R Huntley

Agnes Huntley
CLP Project Manager
02/12/15

Agnes Huntley [Warwick]

From: Whitlee Dean [wdean9@csc.com]

Sent: Tuesday, February 10, 2015 9:32 AM

To: Agnes Huntley [RI]

Cc: Prendiville, Timothy; Roberman, Alida; Thomas, Carlene; Layne, Warren; khughes@qepi.com; kevin.scott@tetratech.com

Subject: Region 05 | Case 45073 | Lab MITKEM | Issue Multiple | FINAL

Good morning Agnes,

Discrepancies with tags, jars, and/or COC
Issue 1: The COC lists the analysis for this Case as VOA. This Case is scheduled for TVOA analysis. Due to the 7 day TAT, the laboratory logged in this sample as scheduled.
Resolution 1: Per Region 5, TVOA is the correct analysis. Please note the issue in the SDG Narrative and proceed with the analysis of the samples.

Insufficient volume
Issue 2: For samples E5BH4 through E5BH7, the laboratory only received two vials per sample. There is sufficient volume for TVOA analysis, however there may be an issue with re-analysis or re-analysis at dilution.
Resolution 2: Per Region 5, please note the issue in the SDG Narrative and proceed with the analysis of the samples.

Insufficient/inappropriate designation of laboratory QC
Issue 3: The COC designates samples E5BH4, E5BH5, and E5BH6 as samples for laboratory QC. The laboratory only received two vials for each of these samples. This is insufficient volume for laboratory QC. However, the COC lists that six containers were sent for sample E5BH3, while the laboratory received eight vials. The laboratory would like to perform laboratory QC on sample E5BH3.
Resolution 3: Per Region 5, it is acceptable for the laboratory to use sample E5BH3 as laboratory QC. Please note the issue in the SDG Narrative and proceed with the analysis of the samples.

Please let me know if you have any questions or problems. To waive any defect(s) associated with this issue, please contact your PO.
Thanks,

WHITLEE DEAN
Environmental Coordinator- Regions 3 and 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | t: 703-818-4367 | f: 703-818-4602 | wdean9@csc.com | www.csc.com

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"Layne, Warren" ---02/09/2015 06:34:45 PM---The resolutions are all OK with the region. From: Whitlee Dean [mailto:wdean9@csc.com]

From: "Layne, Warren" <layne.warren@epa.gov>
To: Whitlee Dean/USA/CSC@CSC
Cc: "Thomas, Carlene" <thomas.carlene@epa.gov>, "Prendiville, Timothy" <prendiville.timothy@epa.gov>, "Roberman, Alida" <Roberman.Alida@epa.gov>
Date: 02/09/2015 06:34 PM
Subject: RE: Region 05 | Case 45073 | Lab MITKEM | Issue Multiple

The resolutions are all OK with the region.

From: Whitlee Dean [mailto:wdean9@csc.com]
Sent: Monday, February 09, 2015 1:44 PM
To: Layne, Warren
Cc: Thomas, Carlene; Prendiville, Timothy; Roberman, Alida
Subject: Fw: Region 05 | Case 45073 | Lab MITKEM | Issue Multiple

Good afternoon,

Please advise if the proposed resolutions are acceptable. Please note that the site name is listed on the COC. MITKEM advised that there is no conflict of interest with this site.

Discrepancies with tags, jars, and/or COC
Issue 1: The COC lists the analysis for this Case as VOA. This Case is scheduled for TVOA analysis. Due to the 7 day TAT, the laboratory logged in this sample as scheduled.
PROPOSED Resolution 1: Per Region 5, TVOA is the correct analysis. Please note the issue in the SDG Narrative and proceed with the analysis of the samples.

Insufficient volume
Issue 2: For samples E5BH4 through E5BH7, the laboratory only received two vials per sample. There is sufficient volume for TVOA analysis, however there may be an issue with re-analysis or re-analysis at dilution.
PROPOSED Resolution 2: Per Region 5, please note the issue in the SDG Narrative and proceed with the analysis of the samples.

Insufficient/inappropriate designation of laboratory QC
Issue 3: The COC designates samples E5BH4, E5BH5, and E5BH6 as samples for laboratory QC. The laboratory only received two vials for each of these samples. This is insufficient volume for laboratory QC. However, the COC lists that six containers were sent for sample E5BH3, while the laboratory received eight vials. The laboratory would like to perform laboratory QC on sample E5BH3.
PROPOSED Resolution 3: Per Region 5, it is acceptable for the laboratory to use sample E5BH3 as laboratory QC. Please note the issue in the SDG Narrative and proceed with the analysis of the samples.

Please let me know if you have any questions.
Thanks,

WHITLEE DEAN
Environmental Coordinator- Regions 3 and 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | t: 703-818-4367 | f: 703-818-4602 | wdean9@csc.com | www.csc.com
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----- Forwarded by Whitlee Dean/USA/CSC on 02/09/2015 02:36 PM -----

====> **2/9/2015. 2:15pm.** Phone conversation between Keith Hughes (QEPI) and Whitlee Dean (SMO). Case 45073. Keith provided resolutions to the below issues. He confirmed for Issue 1 that the analysis should have been TVOA. For Issue 2, the laboratory can proceed with the analysis. Keith advised that he typically submitted two vials. I informed him that this should be sufficient provided that the laboratory does not run into any issues. For Issue 3, it is acceptable for the laboratory to use sample E5BH3 for laboratory QC.

From: Whitlee Dean/USA/CSC
To: kevin.scott@tetratech.com, khughes@gepi.com
Date: 02/09/2015 01:30 PM
Subject: Region 05 | Case 45073 | Lab MITKEM | Issue Multiple

---

Good afternoon,

MITKEM is reporting the following issues. Please note that the site name was included on the COC. MITKEM has advised that there is no conflict of interest with this site. Please advise how the laboratory should proceed.

Discrepancies with tags, jars, and/or COC
Issue 1: The COC lists the analysis for this Case as VOA. This Case is scheduled for TVOA analysis. Due to the 7 day TAT, the laboratory logged in this sample as scheduled.

Insufficient volume
Issue 2: For samples E5BH4 through E5BH7, the laboratory only received two vials per sample. There is sufficient volume for TVOA analysis, however there may be an issue with re-analysis or re-analysis at dilution.

Insufficient/inappropriate designation of laboratory QC
Issue 3: The COC designates samples E5BH4, E5BH5, and E5BH6 as samples for laboratory QC. The laboratory only received two vials for each of these samples. This is insufficient volume for laboratory QC. However, the COC lists that six containers were sent for sample E5BH3, while the laboratory received eight vials. The laboratory would like to perform laboratory QC on sample E5BH3.

Please let me know if you have any questions.
Thanks,

WHITLEE DEAN
Environmental Coordinator- Regions 3 and 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | t: 703-818-4367 | f: 703-818-4602 | wdean9@csc.com | www.csc.com
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"Agnes Huntley [RI]" ---02/09/2015 12:49:29 PM---Hi Whitlee, I have attached the TR/COC.
From: "Agnes Huntley [RI]" <ahuntley@spectrum-analytical.com>
To: Whitlee Dean/USA/CSC@CSC
Date: 02/09/2015 01:23 PM
Subject: RE: Case 45073

Hi Whitlee,

No.

Agnes Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
646 Camp Avenue
North Kingstown, RI 02852

(P) 401-732-3400
(F) 401-732-3499

From: Whitlee Dean [mailto:wdean9@csc.com]
Sent: Monday, February 09, 2015 1:22 PM
To: Agnes Huntley [RI]
Subject: Re: Case 45073

Hi Agnes,

I will forward your issues below to the Region. I noticed that the site name was entered on the COC. Does MITKEM have a conflict of interest with this site?

Please let me know if you have any questions.
Thanks,

WHITLEE DEAN
Environmental Coordinator- Regions 3 and 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | t: 703-818-4367 | f: 703-818-4602 | wdean9@csc.com | www.csc.com

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From: "Agnes Huntley [RI]" <ahuntley@spectrum-analytical.com>
To: Whitlee Dean/USA/CSC@CSC
Date: 02/09/2015 12:49 PM
Subject: Case 45073

Hi Whitlee,

I have attached the TR/COC.

The TR/COC lists the analysis as VOA, however, this case is scheduled for TVOA. Due to the TAT (7-day), the laboratory logged in the samples as scheduled.

For sample E5BH4 through E5BH7, the laboratory only received two VOA vials per sample. This is sufficient sample volume for TVOA analysis, however, there may be an issue with re-analysis or re-analysis at dilution.

The TR/COC designates Sample E5BH4, E5BH5 and E5BH6 as samples for lab QC. The laboratory only received two vials for these samples. This is insufficient sample volume for lab QC.

The TR/COC lists that six containers were sent for E5BH3. The laboratory received 8 vials. The lab will perform lab QC on this sample as sufficient sample volume was received.

Please call with any questions or concerns,
Agnes

Agnes Huntley
CLP Project Manager

Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
646 Camp Avenue
North Kingstown, RI 02852
(P) 401-732-3400
(F) 401-732-3499
****

Due to rising cost of rush shipments, Spectrum Analytical requests that you allow sufficient time for all sample bottle order requests, 3 days notice at a minimum. If you need an expedited bottle order request Spectrum Analytical will provide the bottles but will request that you pay for the shipping. Spectrum Analytical will continue to pay for all shipping previously agreed to, given proper notification. Thank you for your understanding and cooperation

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Agnes Huntley [Warwick]

From: Whitlee Dean [wdean9@csc.com]

Sent: Wednesday, February 11, 2015 10:23 AM

To: Agnes Huntley [RI]

Cc: Layne.warren@epa.gov; Thomas.carlene@epa.gov; prendiville.timothy@epa.gov; Roberman.alida@epa.gov

Subject: Region 05 | Case 45073 | Lab MITKEM | Issue Discrepancies with tags, jars, and/or COC | FINAL

Agnes,

Issue: The COC lists the tag number as XXXXX while the actual tag numbers are 5C-XXXXX. All other information between the COC and sample matches.
Resolution: In accordance with previous direction from Region 5, the laboratory will note the issue in the SDG Narrative and proceed with the analysis of the sample using the sample tag number attached to the sample container.

Please let me know if you have any questions or problems. To waive any defect(s) associated with this issue, please contact your PO.
Thanks,

WHITLEE DEAN
Environmental Coordinator- Regions 3 and 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | t: 703-818-4367 | f: 703-818-4602 | wdean9@csc.com | www.csc.com

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"Agnes Huntley [RI]" ---02/11/2015 10:09:33 AM---Correct. Agnes Huntley

From: "Agnes Huntley [RI]" <ahuntley@spectrum-analytical.com>
To: Whitlee Dean/USA/CSC@CSC
Date: 02/11/2015 10:09 AM
Subject: RE: Case 45073

Correct.

Agnes Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
646 Camp Avenue
North Kingstown, RI 02852
(P) 401-732-3400
(F) 401-732-3499

From: Whitlee Dean [mailto:wdean9@csc.com]

Sent: Wednesday, February 11, 2015 10:05 AM
To: Agnes Huntley [RI]
Subject: Re: Case 45073
Hi Agnes,

Just to confirm, does all of the other information between the COC and sample match, with the exception of the tag number?

Please let me know if you have any questions.
Thanks,

WHITLEE DEAN
Environmental Coordinator- Regions 3 and 5
CSC

15000 Conference Center Drive, Chantilly, VA 20151
Civil Division | t: 703-818-4367 | f: 703-818-4602 | wdean9@csc.com | www.csc.com
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"Agnes Huntley [RI]" ---02/11/2015 09:56:40 AM---Hi Whitlee, The TR/COC lists the tag numbers as XXXXX, however, the actual tag numbers are 5C-XXXXX.

From: "Agnes Huntley [RI]" <ahuntley@spectrum-analytical.com>
To: Whitlee Dean/USA/CSC@CSC
Date: 02/11/2015 09:56 AM
Subject: Case 45073

Hi Whitlee,

The TR/COC lists the tag numbers as XXXXX, however, the actual tag numbers are 5C-XXXXX.

Please call with any questions or concerns,
Agnes

Agnes Huntley
CLP Project Manager
Spectrum Analytical, featuring Hanibal Technology
Rhode Island Division
646 Camp Avenue
North Kingstown, RI 02852
(P) 401-732-3400
(F) 401-732-3499
****
Due to rising cost of rush shipments, Spectrum Analytical requests that you allow sufficient time for all sample bottle order requests, 3 days notice at a minimum. If you need an expedited bottle order request Spectrum Analytical will provide the bottles but will request that you pay for the shipping. Spectrum Analytical will continue to pay for all shipping previously agreed to, given proper notification. Thank you for your understanding and cooperation

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2A - FORM II VOA-1

WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Level: (TRACE or LOW) TRACE

	EPA SAMPLE NO.	VDMC1 (VCL) #	VDMC2 (CLA) #	VDMC3 (DCE) #	VDMC4 (BUT) #	VDMC5 (CLF) #	VDMC6 (DCA) #	VDMC7 (BEN) #
01	VBLKV5	72	92	89	72	86	81	96
02	E5BH4	87	104	87	87	97	83	92
03	E5BH6	91	106	91	82	86	88	87
04	E5BH7	77	101	99	86	101	88	84
05	E5BH3	76	92	90	96	104	91	92
06	E5BH3MS	75	91	91	86	95	89	87
07	E5BH3MSD	81	90	89	94	96	87	90
08	E5BH3DL	96	115	88	98	98	93	90
09	E5BH4DL	69	89	92	87	82	81	89
10	E5BH5	69	87	87	87	85	89	90
11	VHBLKV5	86	96	101	99	97	96	98

			QC LIMITS
VDMC1	(VCL)	= Vinyl chloride-d3	(65-131)
VDMC2	(CLA)	= Chloroethane-d5	(71-131)
VDMC3	(DCE)	= 1,1-Dichloroethene-d2	(55-104)
VDMC4	(BUT)	= 2-Butanone-d5	(49-155)
VDMC5	(CLF)	= Chloroform-d	(78-121)
VDMC6	(DCA)	= 1,2-Dichloroethane-d4	(78-129)
VDMC7	(BEN)	= Benzene-d6	(77-124)

Column to be used to flag recovery values

* Values outside of contract required QC limits

2B - FORM II VOA-2

WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Level: (TRACE or LOW) TRACE

	SAMPLE NO.	VDMC8 (DPA) #	VDMC9 (TOL) #	VDMC10 (TDP) #	VDMC11 (HEX) #	VDMC12 (TCA) #	VDMC13 (DCZ) #	VDMC14 #	TOT OUT
01	VBLKV5	93	85	80	66	79	82		0
02	E5BH4	93	87	85	76	85	81		0
03	E5BH6	95	84	79	67	78	78 *		1
04	E5BH7	90	80	80	72	82	80		0
05	E5BH3	94	88	84	84	87	81		0
06	E5BH3MS	92	84	74	81	87	79 *		1
07	E5BH3MSD	89	83	74	84	85	79 *		1
08	E5BH3DL	96	81	84	83	89	83		0
09	E5BH4DL	95	84	86	84	88	83		0
10	E5BH5	94	84	83	77	87	76 *		1
11	VHBLKV5	100	94	101	92	93	90		0

			QC LIMITS
VDMC8	(DPA)	=1,2-Dichloropropane-d6	(79-124)
VDMC9	(TOL)	=Toluene-d8	(77-121)
VDMC10	(TDP)	=trans-1,3-Dichloropropene-d4	(73-121)
VDMC11	(HEX)	=2-Hexanone-d5	(28-135)
VDMC12	(TCA)	=1,1,2,2-Tetrachloroethane-d2	(73-125)
VDMC13	(DCZ)	=1,2-Dichlorobenzene-d4	(80-131)

Column to be used to flag recovery values

* Values outside of contract required QC limits

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

3A - FORM III VOA-1

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix Spike - EPA Sample No.: E5BH3 Level: (TRACE or LOW) TRACE

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	MS CONCENTRATION (µg/L)	MS %REC	#	QC. LIMITS REC.
1,1-Dichloroethene	5.0000	0.0000	3.6927	74		61-145
Benzene	5.0000	0.0000	4.4642	89		76-127
Trichloroethene	5.0000	0.0000	3.8847	78		71-120
Toluene	5.0000	1.0882	5.2779	84		76-125
Chlorobenzene	5.0000	0.0000	4.1547	83		75-130

COMPOUND	SPIKE ADDED (µg/L)	MSD CONCENTRATION (µg/L)	MSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	5.0000	3.9017	78		6		0-14	61-145
Benzene	5.0000	4.4055	88		1		0-11	76-127
Trichloroethene	5.0000	3.9109	78		1		0-14	71-120
Toluene	5.0000	5.3232	85		1		0-13	76-125
Chlorobenzene	5.0000	4.0633	81		2		0-13	75-130

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

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
VBLKV5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Lab File ID: V5P8439.D Lab Sample ID: MB-80977

Instrument ID: V5

Matrix: (SOIL/SED/WATER) WATER Date Analyzed: 02/08/2015

Level: (TRACE or LOW/MED) TRACE Time Analyzed: 5:30

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	E5BH4	P0161-02A	V5P8441.D	6:24
02	E5BH6	P0161-04A	V5P8443.D	7:20
03	E5BH7	P0161-05A	V5P8444.D	7:47
04	E5BH3	P0161-01A	V5P8445.D	8:14
05	E5BH3MS	P0161-01AMS	V5P8446.D	8:41
06	E5BH3MSD	P0161-01AMSD	V5P8447.D	9:09
07	E5BH3DL	P0161-01ADL	V5P8449.D	10:17
08	E5BH4DL	P0161-02ADL	V5P8450.D	10:44
09	E5BH5	P0161-03A	V5P8451.D	11:11
10	VHBLKV5	VHBLKV5	V5P8452.D	11:39

COMMENTS:

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 02/05/2015 02/05/2015

EPA Sample No.(VSTD#####): VSTD005V5 Date Analyzed: 02/08/2015

Lab File ID (Standard): V5P8438.D Time Analyzed: 4:35

Instrument ID: V5 Heated Purge: (Y/N) N

		IS1 (CBZ) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (DCB) AREA #	RT #
	12 HOUR STD	218071	9.033	254065	5.666	101665	12.192
	UPPER LIMIT	305299	9.363	355691	5.996	142331	12.522
	LOWER LIMIT	130843	8.703	152439	5.336	60999	11.862
	EPA SAMPLE NO.						
01	VBLKV5	240851	9.039	298238	5.671	101660	12.198
02	E5BH4	251199	9.036	292039	5.668	107236	12.194
03	E5BH6	246806	9.040	275633	5.672	107914	12.199
04	E5BH7	252263	9.033	274699	5.677	105763	12.204
05	E5BH3	240073	9.033	274698	5.666	106044	12.204
06	E5BH3MS	232879	9.037	255616	5.669	102998	12.195
07	E5BH3MSD	241183	9.039	264160	5.671	103429	12.198
08	E5BH3DL	254087	9.033	279294	5.665	109762	12.191
09	E5BH4DL	242678	9.039	292207	5.671	99534	12.198
10	E5BH5	236235	9.035	276869	5.667	104382	12.194
11	VHBLKV5	228859	9.033	257973	5.677	98406	12.204

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (DCB) = 1,4-Dichlorobenzene-d4
AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area
AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area
RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT
RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E5BH3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-01A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8445.D

Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.24	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	700	E
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	2.6	
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.12	J
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.58	
67-66-3	Chloroform	12	
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only SOM01.2 (6/2007)

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E5BH3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-01A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8445.D

Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	2.4	
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	50	
108-88-3	Toluene	1.1	
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.68	
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E5BH3

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-01A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8445.D

Level: (TRACE or LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.681	1.7	J
02	420-12-2	Thiirane	3.912	0.60	NJ
03		Unknown-02	4.028	2.6	J
	E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E5BH3DL

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-01ADL

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8449.D

Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	2.5	U
74-87-3	Chloromethane	2.5	U
75-01-4	Vinyl chloride	2.5	U
74-83-9	Bromomethane	2.5	U
75-00-3	Chloroethane	2.5	U
75-69-4	Trichlorofluoromethane	2.5	U
75-35-4	1,1-Dichloroethene	2.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	U
67-64-1	Acetone	780	D
75-15-0	Carbon disulfide	1.7	DJ
79-20-9	Methyl acetate	2.5	U
75-09-2	Methylene chloride	3.2	D
156-60-5	trans-1,2-Dichloroethene	2.5	U
1634-04-4	Methyl tert-butyl ether	2.5	U
75-34-3	1,1-Dichloroethane	2.5	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
78-93-3	2-Butanone	25	U
74-97-5	Bromochloromethane	2.5	U
67-66-3	Chloroform	9.4	D
71-55-6	1,1,1-Trichloroethane	2.5	U
110-82-7	Cyclohexane	2.5	U
56-23-5	Carbon tetrachloride	2.5	U
71-43-2	Benzene	2.5	U
107-06-2	1,2-Dichloroethane	2.5	U

Report 1,4-Dioxane for Low-Medium VOA analysis only SOM01.2 (6/2007)

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E5BH3DL

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-01ADL

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8449.D

Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	2.5	U
108-87-2	Methylcyclohexane	2.5	U
78-87-5	1,2-Dichloropropane	2.5	U
75-27-4	Bromodichloromethane	2.3	DJ
10061-01-5	cis-1,3-Dichloropropene	2.5	U
108-10-1	4-Methyl-2-pentanone	45	D
108-88-3	Toluene	0.97	DJ
10061-02-6	trans-1,3-Dichloropropene	2.5	U
79-00-5	1,1,2-Trichloroethane	2.5	U
127-18-4	Tetrachloroethene	2.5	U
591-78-6	2-Hexanone	25	U
124-48-1	Dibromochloromethane	0.58	DJ
106-93-4	1,2-Dibromoethane	2.5	U
108-90-7	Chlorobenzene	2.5	U
100-41-4	Ethylbenzene	2.5	U
179601-23-1	m,p-Xylene	2.5	U
95-47-6	o-Xylene	2.5	U
100-42-5	Styrene	2.5	U
75-25-2	Bromoform	2.5	U
98-82-8	Isopropylbenzene	2.5	U
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U
541-73-1	1,3-Dichlorobenzene	2.5	U
106-46-7	1,4-Dichlorobenzene	2.5	U
95-50-1	1,2-Dichlorobenzene	2.5	U
96-12-8	1,2-Dibromo-3-chloropropane	2.5	U
120-82-1	1,2,4-Trichlorobenzene	2.5	U
87-61-6	1,2,3-Trichlorobenzene	2.5	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E5BH3DL

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-01ADL

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8449.D

Level: (TRACE or LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E96679E[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E5BH3MS

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-01AMS

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8446.D

Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.30	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	3.7	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	700	E
75-15-0	Carbon disulfide	0.23	J
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	3.9	
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.44	J
67-66-3	Chloroform	9.0	
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	4.5	
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E5BH3MS

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033
Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3
Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-01AMS
Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8446.D
Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015
% Moisture: not dec. Date Analyzed: 02/08/2015
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)
Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	3.9	
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	2.1	
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	58	
108-88-3	Toluene	5.3	
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.65	
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	4.2	
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E5BH3MSD

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-01AMSD

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8447.D

Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.27	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	3.9	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	660	E
75-15-0	Carbon disulfide	0.32	J
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	2.4	
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.41	J
67-66-3	Chloroform	12	
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	4.4	
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only SOM01.2 (6/2007)

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E5BH3MSD

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-01AMSD

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8447.D

Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	3.9	
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	3.4	
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	48	
108-88-3	Toluene	5.3	
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.90	
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	4.1	
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E5BH4

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-02A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8441.D

Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.22	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	670	E
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	2.7	
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.11	J
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.55	
67-66-3	Chloroform	12	
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E5BH4

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033
Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3
Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-02A
Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8441.D
Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015
% Moisture: not dec. Date Analyzed: 02/08/2015
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)
Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	2.4	
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	46	
108-88-3	Toluene	1.0	
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.62	
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E5BH4

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-02A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8441.D

Level: (TRACE or LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	2.695	1.4	J
02	420-12-2	Thiirane	3.926	0.56	NJ
03		Unknown-02	4.019	2.9	J
	E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E5BH4DL

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-02ADL

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8450.D

Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	2.5	U
74-87-3	Chloromethane	2.5	U
75-01-4	Vinyl chloride	2.5	U
74-83-9	Bromomethane	2.5	U
75-00-3	Chloroethane	2.5	U
75-69-4	Trichlorofluoromethane	2.5	U
75-35-4	1,1-Dichloroethene	2.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	U
67-64-1	Acetone	670	D
75-15-0	Carbon disulfide	1.0	DJ
79-20-9	Methyl acetate	2.5	U
75-09-2	Methylene chloride	3.1	D
156-60-5	trans-1,2-Dichloroethene	2.5	U
1634-04-4	Methyl tert-butyl ether	2.5	U
75-34-3	1,1-Dichloroethane	2.5	U
156-59-2	cis-1,2-Dichloroethene	2.5	U
78-93-3	2-Butanone	25	U
74-97-5	Bromochloromethane	2.5	U
67-66-3	Chloroform	8.3	D
71-55-6	1,1,1-Trichloroethane	2.5	U
110-82-7	Cyclohexane	2.5	U
56-23-5	Carbon tetrachloride	2.5	U
71-43-2	Benzene	2.5	U
107-06-2	1,2-Dichloroethane	2.5	U

Report 1,4-Dioxane for Low-Medium VOA analysis only SOM01.2 (6/2007)

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E5BH4DL

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-02ADL

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8450.D

Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	2.5	U
108-87-2	Methylcyclohexane	2.5	U
78-87-5	1,2-Dichloropropane	2.5	U
75-27-4	Bromodichloromethane	2.6	D
10061-01-5	cis-1,3-Dichloropropene	2.5	U
108-10-1	4-Methyl-2-pentanone	47	D
108-88-3	Toluene	1.0	DJ
10061-02-6	trans-1,3-Dichloropropene	2.5	U
79-00-5	1,1,2-Trichloroethane	2.5	U
127-18-4	Tetrachloroethene	2.5	U
591-78-6	2-Hexanone	25	U
124-48-1	Dibromochloromethane	0.83	DJ
106-93-4	1,2-Dibromoethane	2.5	U
108-90-7	Chlorobenzene	2.5	U
100-41-4	Ethylbenzene	2.5	U
179601-23-1	m,p-Xylene	2.5	U
95-47-6	o-Xylene	2.5	U
100-42-5	Styrene	2.5	U
75-25-2	Bromoform	2.5	U
98-82-8	Isopropylbenzene	2.5	U
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U
541-73-1	1,3-Dichlorobenzene	2.5	U
106-46-7	1,4-Dichlorobenzene	2.5	U
95-50-1	1,2-Dichlorobenzene	2.5	U
96-12-8	1,2-Dibromo-3-chloropropane	2.5	U
120-82-1	1,2,4-Trichlorobenzene	2.5	U
87-61-6	1,2,3-Trichlorobenzene	2.5	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E5BH4DL

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-02ADL

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8450.D

Level: (TRACE or LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 5.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E5BH5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-03A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8451.D

Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only SOM01.2 (6/2007)

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E5BH5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-03A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8451.D

Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E5BH5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-03A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8451.D

Level: (TRACE or LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E5BH6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033
Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3
Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-04A
Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8443.D
Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015
% Moisture: not dec. Date Analyzed: 02/08/2015
GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)
Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only SOM01.2 (6/2007)

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E5BH6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-04A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8443.D

Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.17	J
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.12	J
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E5BH6

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-04A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8443.D

Level: (TRACE or LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01		Unknown-01	1.689	9.3	J
	E96679E[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E5BH7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-05A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8444.D

Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.22	J
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.13	J
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.14	J
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	15	
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
E5BH7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-05A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8444.D

Level: (TRACE/LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	5.9	
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	3.0	
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	1.6	
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
E5BH7

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: P0161-05A

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8444.D

Level: (TRACE or LOW/MED) TRACE Date Received: 02/07/2015

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01	420-12-2	Thiirane	3.924	1.7	NJ
	E96679€[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
VBLKV5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-80977

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8439.D

Level: (TRACE/LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only SOM01.2 (6/2007)

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
VBLKV5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-80977

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8439.D

Level: (TRACE/LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
VBLKV5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: MB-80977

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8439.D

Level: (TRACE or LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
VHBLKV5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: VHBLKV5

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8452.D

Level: (TRACE/LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	U
75-69-4	Trichlorofluoromethane	0.50	U
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	5.0	U
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	5.0	U
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.50	U
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.50	U
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	U

Report 1,4-Dioxane for Low-Medium VOA analysis only SOM01.2 (6/2007)

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
VHBLKV5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: VHBLKV5

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8452.D

Level: (TRACE/LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L	Q
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	U
78-87-5	1,2-Dichloropropane	0.50	U
75-27-4	Bromodichloromethane	0.50	U
10061-01-5	cis-1,3-Dichloropropene	0.50	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	0.50	U
10061-02-6	trans-1,3-Dichloropropene	0.50	U
79-00-5	1,1,2-Trichloroethane	0.50	U
127-18-4	Tetrachloroethene	0.50	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	U
179601-23-1	m,p-Xylene	0.50	U
95-47-6	o-Xylene	0.50	U
100-42-5	Styrene	0.50	U
75-25-2	Bromoform	0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	U
95-50-1	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U

1J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
VHBLKV5

Lab Name: MITKEM LABORATORIES Contract: EP-W-11-033

Lab Code: MITKEM Case No.: 45073 Mod. Ref No.: SDG No.: E5BH3

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: VHBLKV5

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: V5P8452.D

Level: (TRACE or LOW/MED) TRACE Date Received:

% Moisture: not dec. Date Analyzed: 02/08/2015

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) µG/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
E966796[1]	Total Alkanes	N/A		

[1]EPA-designated Registry Number.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY ~ REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Sample Delivery Group: E5BH3 CERCLIS No: TNN000510429

Case No: 45073 Site Name/Location: West Vermont Street Water (TN)

Contractor or EPA Lab: MHKem Data User: Tetra Tech

No. of Samples: 5 Date Sampled or Date Received: 17 FEB 2015

Have Chain-of-Custody records been received? Yes X No_____
Have traffic reports or packing lists been received? Yes X No _____
If no, are traffic reports 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 X No____
No of samples claimed: 5 No. of samples received:_____

Received by: P. A. Joepner Date: 17 FEB 2015

Received by LSSS: P. A. Joepner Date: 17 FEB 2015

Review started: 2/15/15 Reviewer Signature: [illegible]

Total time spent on review: 9 Date review completed:_____

Copied by: A. C. Harvey Date: March 5, 2015

Mailed to user by: P. Joepner Date: 6 Mar 2015

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

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

_____

_____

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