



August 10, 2005

General Services Administration
400 15th Street Southwest
Auburn, Washington 98001

Attn: Mr. Ron Smith

**RE: GROUNDWATER MONITORING RESULTS, FEDERAL BUILDING,
RICHLAND, WASHINGTON**

This report presents the results of a periodic groundwater monitoring event conducted at the Richland Federal Building site. Shannon & Wilson's representative collected samples from four monitoring wells on July 21, 2005. Water level measurements are summarized in Table 1, and groundwater contours are shown in Figure 1.

Sampling procedures included purging three well volumes from each well using disposable polyethylene bailers prior to sample collection. Samples were transferred to laboratory-clean bottles using disposable, slow-emptying devices to minimize the loss of volatile constituents. Sample containers were placed on ice in a cooler, logged on a chain-of-custody form, and shipped by overnight delivery to Analytical Resources, Inc. (ARI) in Tukwila, Washington.

FINDINGS

Groundwater elevations during the current sampling event are the lowest recorded during the 6.5-year period during which monitoring has been conducted at the site. Elevations are approximately 0.5 feet lower than the previous low (April 2002), and up to 2.8 feet lower than the highest elevations in June 1999. The relative pattern of elevations among the wells differs from previous readings in that the highest elevation is at MW-03 instead of MW-04. Groundwater elevations were checked again one week later, and the same relative pattern was found. Under low groundwater conditions, there is less elevation difference between water in the Columbia River and the site groundwater. Because of this, fluctuating water levels in the river (Lake Wallula) may have a more pronounced influence on groundwater flow directions.

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The groundwater samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260. Chloroform and tetrachloroethene (PCE) were the only detected compounds. Chloroform was detected in samples from all four wells, and PCE was detected in samples from MW-02 and MW-03. The chloroform concentration was highest in MW-03 (26 micrograms per liter [$\mu\text{g/L}$]). Concentrations in the other three wells ranged from 1.8 to 3.4 $\mu\text{g/L}$. The concentrations of PCE in samples from MW-02 and MW-03 were 12 and 10 $\mu\text{g/L}$, respectively. The analytical results are summarized in Table 2, and the laboratory report is attached.

As discussed in our report of August 2001, chloroform was previously detected in a sample collected from the municipal water system at the site at a concentration of 74 $\mu\text{g/L}$. Water from the municipal system is used for landscape irrigation at the site, and is a likely source of chloroform detected in the groundwater.

The PCE concentration in the sample from MW-02 (12 $\mu\text{g/L}$) is in the mid-range of detections in ten samples collected over a 6.5-year period. Historically, PCE was below the detection limit (1.0 $\mu\text{g/L}$) four times, and was detected at a maximum concentration of 53 $\mu\text{g/L}$ in March 2001. In samples from MW-03 over the same time period, the maximum PCE concentration was detected in the initial sample collected in December 1998 (130 $\mu\text{g/L}$), and was 120 $\mu\text{g/L}$ in June 1999. Concentrations of PCE in samples from MW-03 have followed a generally downward trend since that time. The 10 $\mu\text{g/L}$ concentration detected during the most recent sampling event is the lowest concentration detected to date.

LIMITATIONS

This report for prepared for the exclusive use of General Services Administration and their representatives. The findings we have presented within this report are based on limited sampling, observation, and testing. The data presented in this report should be considered representative at the time of our field observations. The analyses and sampling results can only provide you with our best judgment as to the general environmental characteristics of the property at this time and should not be construed as a definitive conclusion regarding groundwater at this site.

SHANNON & WILSON, INC.

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Please contact us if you have any questions regarding the report.

Sincerely,

SHANNON & WILSON, INC.



Donna R. Parkes
Environmental Specialist



Dee J. Burrie, P.E.
Vice President

DRP:DJB/drp

Enclosures: Table 1 - Summary of Field Measurements at Wells
Table 2 - Chloroform, TCE, and PCE in Groundwater Samples
Figure 1 - Monitoring Well Location Map
ARI Laboratory Report

08-10-05/22-1-11094-004 July 2005 report.doc/22-1-11094/drp

22-1-11094-004

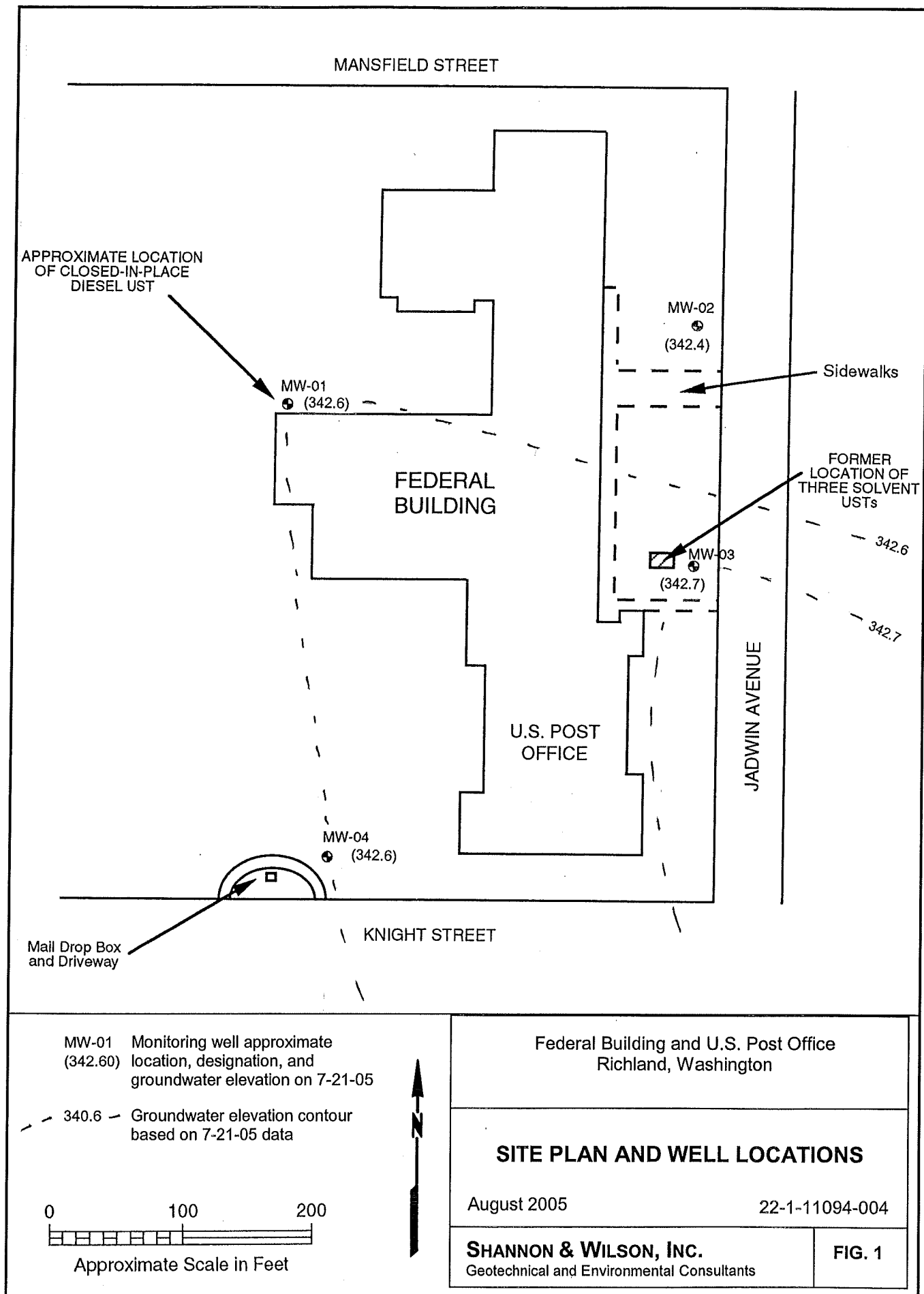


TABLE 1
SUMMARY OF FIELD MEASUREMENTS AT WELLS

Date	MW-01				MW-02				MW-03				MW-04			
	Top of Well Elev., ft.	Depth to Water ft.	Water Surface Elev., ft.	pH	Top of Well Elev., ft.	Depth to Water ft.	Water Surface Elev., ft.	pH	Top of Well Elev., ft.	Depth to Water ft.	Water Surface Elev., ft.	pH	Top of Well Elev., ft.	Depth to Water ft.	Water Surface Elev., ft.	pH
9/10/1998	357.94	12.64	345.30	--	--	--	--	--	--	--	--	--	--	--	--	--
12/9/1998	357.94	12.92	345.02	7.6	359.47	14.97	344.50	7.8	362.08	17.41	344.67	7.8	--	--	--	--
3/31/1999	357.94	12.75	345.19	7.9	359.47	14.67	344.80	7.6	362.08	17.14	344.94	7.6	--	--	--	--
6/16/1999	357.94	12.55	345.39	7.3	359.47	14.29	345.18	7.2	362.08	16.74	345.34	7.4	--	--	--	--
9/20/1999	357.94	12.72	345.22	7.4	359.47	14.60	344.87	7.0	362.08	17.03	345.05	7.2	--	--	--	--
9/12/2000	357.94	12.74	345.20	--	359.47	14.48	344.99	--	362.08	16.96	345.12	--	359.51	14.04	345.47	--
3/22/2001	357.94	13.30	344.64	8.0	359.47	15.15	344.32	7.7	362.08	17.51	344.57	7.4	359.51	14.50	345.01	7.8
7/5/2001	357.94	13.40	344.54	7.7	359.47	15.24	344.23	7.2	362.08	17.69	344.39	7.6	359.51	14.65	344.86	7.4
4/10/2002	357.94	14.74	343.20	7.8	359.47	16.76	342.71	7.5	362.08	19.26	342.82	7.6	359.51	16.00	343.51	7.6
7/8/2002	357.94	13.60	344.34	7.7	359.47	15.08	344.39	7.1	362.08	17.67	344.41	7.4	359.51	15.05	344.46	7.8
7/21/2005	357.94	15.34	342.60	7.6	359.47	17.09	342.38	7.2	362.08	19.38	342.70	7.8	359.51	16.94	342.57	7.1

TABLE 2
CHLOROFORM, TCE, AND PCE IN GROUNDWATER SAMPLES

Date Sampled	Chloroform, ug/L				TCE, ug/L				PCE, ug/L			
	MW-01	MW-02	MW-03	MW-04	MW-01	MW-02	MW-03	MW-04	MW-01	MW-02	MW-03	MW-04
12/9/1998	24	<1.0	9.9		<1.0	3.1	<1.0		3.9	22	130	
3/31/1999	23	<1.0	13		<1.0	1.9	<1.0		1.9	28	82	
6/16/1999	20	3.6	11		<1.0	<1.0	<1.0		2.9	1.2	120	
9/20/1999	23	2.6	7.1		<1.0	<1.0	<1.0		2.8	<1.0	49	
9/12/2000	24	2.1(M)	7.2	3.3	<1.0	<1.0	<1.0	<1.0	1.6	<1.0	40	20
3/22/2001	28	2.6	20	9.3	<1.0	<1.0	<1.0	<1.0	4.0	53	81	36
7/5/01*	22	3.3	15	9.2	<1.0	<1.0	<1.0	<1.0	9.4	<1.0	70	27
4/10/2002	17	3.7	14	6	<1.0	2.4	<1.0	<1.0	1.0	32	41	6.9
7/8/2002	14	1.3	6.7	7.7	<1.0	<1.0	<1.0	<1.0	11	<1.0	17	26
7/21/2005	2.2	1.8	26	3.4	<1.0	<1.0	<1.0	<1.0	<1.0	12	10	<1.0

Notes:

* A sample of the municipal water supply at the Federal Building was collected and analyzed for VOCs by Method 8260.

VOCs detected at greater than the test detection limits were:

Acetone	14
Chloroform	74
Bromodichloromethane	4.0

TCE = trichloroethene

PCE = tetrachloroethene

ug/L = micrograms per liter

MW = monitoring well

M = Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match.



Analytical Resources, Incorporated

Analytical Chemists and Consultants

28 July 2005

Donna Parkes
Shannon & Wilson, Inc.
303 Wellsian Way
Richland, WA 99352

**RE: Client Project: 22-1-11094-004, Federal Building
ARI Job No. II13**

Dear Donna:

Please find enclosed the original Chain-of-Custody (COC) record and the final results for the samples from the project referenced above. Analytical Resources, Inc received four water samples and a trip blank on July 22, 2005. The samples were received intact and there were no discrepancies in the paperwork. The samples were analyzed for VOAs as requested.

No analytical complications were noted.

As always, copies of these reports and all associated raw data will remain on file with ARI. Should you have any questions regarding these results, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Mark D. Harris
Project Manager
206/695-6210
<mark@arilabs.com>

Enclosures

cc: File II13

MDH/mdh

RECEIVED

AUG 02 2005

05-1238, to 05-12393

10.



SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

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1200 17th Street, Suite 1024
Denver, Co 80202
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CHAIN-OF-CUSTODY RECORD

Laboratory ARI Page 1 of 1
Attn: Mark Harris

 Analysis Parameters/Sample Container Description (include preservative if used) |[illegible]

Project Information		Sample Receipt	
Project Number	22-1-11094-00	Total Number of Containers	
Project Name	Fed. Bldg	COC Seals/Intact? Y/N/NA	
Contact	D. Parkes	Received Good Cond./Cold	
Ongoing Project? Yes ☒ No ☐		Delivery Method:	
Sampler	D. Parkes	(attach shipping bill, if any)	

Instructions	
Requested Turnaround Time:	Standard
Special Instructions:	Please fax or email results dop@shanwil.com

Relinquished By: 1.		Relinquished By: 2.		Relinquished By: 3.	
Signature:	Donna Parkes	Signature:		Signature:	
Printed Name:	Donna Parkes	Printed Name:		Printed Name:	
Date:	7/2/08	Date:		Date:	
Company:	Shannon & Wilson	Company:		Company:	

Received By: 1.		Received By: 2.		Received By: 3.	
Signature:	Bob Conley	Signature:		Signature:	
Printed Name:	BOB CONLEY	Printed Name:		Printed Name:	
Date:	7/2/08	Date:		Date:	
Company:	ARJ	Company:		Company:	

Distribution: White - w/shipment - returned to Shannon & Wilson w/ laboratory report
Yellow - w/shipment - for consignee files
Pink - Shannon & Wilson - Job File



Data Reporting Qualifiers

Effective 12/28/04

Inorganic Data

- U Indicates that the target analyte was not detected at the reported concentration
- * Duplicate RPD is not within established control limits
- B Reported value is less than the CRDL but $\geq$ the Reporting Limit
- N Matrix Spike recovery not within established control limits
- NA Not Applicable, analyte not spiked
- H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
- L Analyte concentration is ≤ 5 times the Reporting Limit and the replicate control limit defaults to ± 1 RL instead of the normal 20% RPD

Organic Data

- U Indicates that the target analyte was not detected at the reported concentration
- * Flagged value is not within established control limits
- B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
- J Estimated concentration when the value is less than ARI's established reporting limits
- D The spiked compound was not detected due to sample extract dilution
- NR Spiked compound recovery is not reported due to chromatographic interference
- E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte



- NA The flagged analyte was not analyzed for
- NS The flagged analyte was not spiked into the sample
- M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
- Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.
- C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
- P The analyte was detected on both chromatographic columns but the quantified values differ by $\geq 40\%$ RPD with no obvious chromatographic interference

Geotechnical Data

- SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
- SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
- W Weight of sample in some pipette aliquots was below the level required for accurate weighting
- F Samples were frozen prior to particle size determination

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-072505

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METHOD BLANK

Lab Sample ID: MB-072505

QC Report No: II13-Shannon & Wilson, Incorporated

LIMS ID: 05-12389

Project: 22-1-11094-004

Matrix: Water

Fed. Bldg.

Data Release Authorized:

Date Sampled: NA

Reported: 07/27/05

Date Received: NA

Instrument/Analyst: NT3/JLM

Sample Amount: 5.00 mL

Date Analyzed: 07/25/05 11:58

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	50	< 50	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0	U
96-18-4	1,2,3-Trichloropropane	2.0	< 2.0	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-072505

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METHOD BLANK

Lab Sample ID: MB-072505

QC Report No: II13-Shannon & Wilson, Incorporated

LIMS ID: 05-12389

Project: 22-1-11094-004

Matrix: Water

Fed. Bldg.

Date Analyzed: 07/25/05 11:58

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0	U
91-20-3	Naphthalene	5.0	< 5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	83.9%
d8-Toluene	99.2%
Bromofluorobenzene	86.2%
d4-1,2-Dichlorobenzene	92.3%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MB-072605

Page 1 of 2

METHOD BLANK

Lab Sample ID: MB-072605

LIMS ID: 05-12391

Matrix: Water

Data Release Authorized:

Reported: 07/27/05

QC Report No: II13-Shannon & Wilson, Incorporated

Project: 22-1-11094-004

Fed. Bldg.

Date Sampled: NA

Date Received: NA

Instrument/Analyst: NT3/JLM

Date Analyzed: 07/26/05 11:41

Sample Amount: 5.00 mL

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	50	< 50	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0	U
96-18-4	1,2,3-Trichloropropane	2.0	< 2.0	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Page 2 of 2

Sample ID: MB-072605

METHOD BLANK

Lab Sample ID: MB-072605

LIMS ID: 05-12391

Matrix: Water

Date Analyzed: 07/26/05 11:41

QC Report No: II13-Shannon & Wilson, Incorporated

Project: 22-1-11094-004

Fed. Bldg.

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0	U
91-20-3	Naphthalene	5.0	< 5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	85.7%
d8-Toluene	101%
Bromofluorobenzene	86.2%
d4-1,2-Dichlorobenzene	94.3%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B
Page 1 of 2

Sample ID: MW01-011
SAMPLE

Lab Sample ID: II13A

LIMS ID: 05-12389

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 07/27/05

QC Report No: II13-Shannon & Wilson, Incorporated

Project: 22-1-11094-004

Fed. Bldg.

Date Sampled: 07/21/05

Date Received: 07/22/05

Instrument/Analyst: NT3/JLM

Date Analyzed: 07/25/05 20:11

Sample Amount: 5.00 mL

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	2.2	
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	50	< 50	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0	U
96-18-4	1,2,3-Trichloropropane	2.0	< 2.0	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MW01-011

Page 2 of 2

SAMPLE

Lab Sample ID: II13A

QC Report No: II13-Shannon & Wilson, Incorporated

LIMS ID: 05-12389

Project: 22-1-11094-004

Matrix: Water

Fed. Bldg.

Date Analyzed: 07/25/05 20:11

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0	U
91-20-3	Naphthalene	5.0	< 5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	88.6%
d8-Toluene	105%
Bromofluorobenzene	90.1%
d4-1,2-Dichlorobenzene	101%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Page 1 of 2

Sample ID: MW02-011
SAMPLE

Lab Sample ID: II13B

LIMS ID: 05-12390

Matrix: Water

Data Release Authorized:

Reported: 07/27/05

QC Report No: II13-Shannon & Wilson, Incorporated

Project: 22-1-11094-004

Fed. Bldg.

Date Sampled: 07/21/05

Date Received: 07/22/05

Instrument/Analyst: NT3/JLM

Date Analyzed: 07/25/05 20:37

Sample Amount: 5.00 mL

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	1.8	
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	12	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	50	< 50	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0	U
96-18-4	1,2,3-Trichloropropane	2.0	< 2.0	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MW02-011

Page 2 of 2

SAMPLE

Lab Sample ID: II13B

QC Report No: II13-Shannon & Wilson, Incorporated

LIMS ID: 05-12390

Project: 22-1-11094-004

Matrix: Water

Fed. Bldg.

Date Analyzed: 07/25/05 20:37

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0	U
91-20-3	Naphthalene	5.0	< 5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	91.7%
d8-Toluene	106%
Bromofluorobenzene	89.6%
d4-1,2-Dichlorobenzene	102%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B
Page 1 of 2Sample ID: MW03-011
SAMPLE

Lab Sample ID: II13C

LIMS ID: 05-12391

Matrix: Water

Data Release Authorized: 

Reported: 07/27/05

QC Report No: II13-Shannon & Wilson, Incorporated

Project: 22-1-11094-004

Fed. Bldg.

Date Sampled: 07/21/05

Date Received: 07/22/05

Instrument/Analyst: NT3/JLM

Date Analyzed: 07/26/05 16:07

Sample Amount: 5.00 mL

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	26	
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	10	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	50	< 50	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0	U
96-18-4	1,2,3-Trichloropropane	2.0	< 2.0	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B
Page 2 of 2Sample ID: MW03-011
SAMPLE

Lab Sample ID: II13C

LIMS ID: 05-12391

Matrix: Water

Date Analyzed: 07/26/05 16:07

QC Report No: II13-Shannon & Wilson, Incorporated

Project: 22-1-11094-004

Fed. Bldg.

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0	U
91-20-3	Naphthalene	5.0	< 5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	87.1%
d8-Toluene	100%
Bromofluorobenzene	85.3%
d4-1,2-Dichlorobenzene	95.1%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MW04-011

Page 1 of 2

SAMPLE

Lab Sample ID: II13D

QC Report No: II13-Shannon & Wilson, Incorporated

LIMS ID: 05-12392

Project: 22-1-11094-004

Matrix: Water

Fed. Bldg.

Data Release Authorized: 

Date Sampled: 07/21/05

Reported: 07/27/05

Date Received: 07/22/05

Instrument/Analyst: NT3/JLM

Sample Amount: 5.00 mL

Date Analyzed: 07/26/05 16:33

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	3.4	
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	50	< 50	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0	U
96-18-4	1,2,3-Trichloropropane	2.0	< 2.0	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: MW04-011

Page 2 of 2

SAMPLE

Lab Sample ID: II13D

QC Report No: II13-Shannon & Wilson, Incorporated

LIMS ID: 05-12392

Project: 22-1-11094-004

Matrix: Water

Fed. Bldg.

Date Analyzed: 07/26/05 16:33

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0	U
91-20-3	Naphthalene	5.0	< 5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	85.4%
d8-Toluene	99.5%
Bromofluorobenzene	84.8%
d4-1,2-Dichlorobenzene	93.8%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: Trip Blank
SAMPLE

Page 1 of 2

Lab Sample ID: II13E

LIMS ID: 05-12393

Matrix: Water

Data Release Authorized: 

Reported: 07/27/05

QC Report No: II13-Shannon & Wilson, Incorporated

Project: 22-1-11094-004

Fed. Bldg.

Date Sampled: 05/23/05

Date Received: 07/22/05

Instrument/Analyst: NT3/JLM

Date Analyzed: 07/26/05 16:59

Sample Amount: 5.00 mL

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
1330-20-7	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	50	< 50	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0	U
96-18-4	1,2,3-Trichloropropane	2.0	< 2.0	U

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B
Page 2 of 2Sample ID: Trip Blank
SAMPLE

Lab Sample ID: II13E

QC Report No: II13-Shannon & Wilson, Incorporated

LIMS ID: 05-12393

Project: 22-1-11094-004

Matrix: Water

Fed. Bldg.

Date Analyzed: 07/26/05 16:59

CAS Number	Analyte	RL	Result	Q
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0	U
91-20-3	Naphthalene	5.0	< 5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0	U

Reported in $\mu\text{g/L}$ (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	85.7%
d8-Toluene	99.3%
Bromofluorobenzene	85.0%
d4-1,2-Dichlorobenzene	92.7%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Page 1 of 2

Sample ID: LCS-072505

LAB CONTROL SAMPLE

Lab Sample ID: LCS-072505

LIMS ID: 05-12389

Matrix: Water

Data Release Authorized: 

Reported: 07/27/05

QC Report No: II13-Shannon & Wilson, Incorporated

Project: 22-1-11094-004

Fed. Bldg.

Date Sampled: NA

Date Received: NA

Instrument/Analyst LCS: NT3/JLM

LCSD: NT3/JLM

Date Analyzed LCS: 07/25/05 11:06

LCSD: 07/25/05 11:32

Sample Amount LCS: 5.00 mL

LCSD: 5.00 mL

Purge Volume LCS: 5.0 mL

LCSD: 5.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	54.2	50.0	108%	47.3	50.0	94.6%	13.6%
Bromomethane	51.2	50.0	102%	46.8	50.0	93.6%	9.0%
Vinyl Chloride	59.0	50.0	118%	50.9	50.0	102%	14.7%
Chloroethane	53.2	50.0	106%	46.7	50.0	93.4%	13.0%
Methylene Chloride	50.2	50.0	100%	44.4	50.0	88.8%	12.3%
Acetone	263	250	105%	240	250	96.0%	9.1%
Carbon Disulfide	49.0	50.0	98.0%	47.0	50.0	94.0%	4.2%
1,1-Dichloroethene	52.3	50.0	105%	45.8	50.0	91.6%	13.3%
1,1-Dichloroethane	48.8	50.0	97.6%	43.3	50.0	86.6%	11.9%
trans-1,2-Dichloroethene	49.4	50.0	98.8%	43.9	50.0	87.8%	11.8%
cis-1,2-Dichloroethene	49.5	50.0	99.0%	44.0	50.0	88.0%	11.8%
Chloroform	46.9	50.0	93.8%	42.0	50.0	84.0%	11.0%
1,2-Dichloroethane	45.0	50.0	90.0%	40.3	50.0	80.6%	11.0%
2-Butanone	262	250	105%	239	250	95.6%	9.2%
1,1,1-Trichloroethane	44.7	50.0	89.4%	39.3	50.0	78.6%	12.9%
Carbon Tetrachloride	42.9	50.0	85.8%	38.4	50.0	76.8%	11.1%
Vinyl Acetate	46.1	50.0	92.2%	43.7	50.0	87.4%	5.3%
Bromodichloromethane	46.0	50.0	92.0%	41.0	50.0	82.0%	11.5%
1,2-Dichloropropane	49.9	50.0	99.8%	44.1	50.0	88.2%	12.3%
cis-1,3-Dichloropropene	48.9	50.0	97.8%	43.4	50.0	86.8%	11.9%
Trichloroethene	48.2	50.0	96.4%	43.5	50.0	87.0%	10.3%
Dibromochloromethane	45.4	50.0	90.8%	40.0	50.0	80.0%	12.6%
1,1,2-Trichloroethane	54.2	50.0	108%	46.6	50.0	93.2%	15.1%
Benzene	49.1	50.0	98.2%	44.6	50.0	89.2%	9.6%
trans-1,3-Dichloropropene	50.9	50.0	102%	45.6	50.0	91.2%	11.0%
2-Chloroethylvinylether	39.0	50.0	78.0%	38.3	50.0	76.6%	1.8%
Bromoform	49.1	50.0	98.2%	42.2	50.0	84.4%	15.1%
4-Methyl-2-Pentanone (MIBK)	268	250	107%	252	250	101%	6.2%
2-Hexanone	258	250	103%	240	250	96.0%	7.2%
Tetrachloroethene	50.9	50.0	102%	45.6	50.0	91.2%	11.0%
1,1,2,2-Tetrachloroethane	51.5	50.0	103%	46.0	50.0	92.0%	11.3%
Toluene	54.3	50.0	109%	49.1	50.0	98.2%	10.1%
Chlorobenzene	49.8	50.0	99.6%	44.5	50.0	89.0%	11.2%
Ethylbenzene	50.2	50.0	100%	45.0	50.0	90.0%	10.9%
Styrene	51.1	50.0	102%	45.5	50.0	91.0%	11.6%
Trichlorofluoromethane	52.9	50.0	106%	46.9	50.0	93.8%	12.0%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Sample ID: LCS-072505

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LAB CONTROL SAMPLE

Lab Sample ID: LCS-072505

QC Report No: II13-Shannon & Wilson, Incorporated

LIMS ID: 05-12389

Project: 22-1-11094-004

Matrix: Water

Fed. Bldg.

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
1,1,2-Trichloro-1,2,2-trifluoroetha	53.6	50.0	107%	51.1	50.0	102%	4.8%
m,p-Xylene	103	100	103%	91.5	100	91.5%	11.8%
o-Xylene	50.2	50.0	100%	44.4	50.0	88.8%	12.3%
1,2-Dichlorobenzene	49.9	50.0	99.8%	44.5	50.0	89.0%	11.4%
1,3-Dichlorobenzene	50.8	50.0	102%	45.3	50.0	90.6%	11.4%
1,4-Dichlorobenzene	49.7	50.0	99.4%	44.2	50.0	88.4%	11.7%
Acrolein	243	250	97.2%	224	250	89.6%	8.1%
Methyl Iodide	51.7	50.0	103%	49.3	50.0	98.6%	4.8%
Bromoethane	50.2	50.0	100%	48.5	50.0	97.0%	3.4%
Acrylonitrile	51.2	50.0	102%	49.2	50.0	98.4%	4.0%
1,1-Dichloropropene	49.2	50.0	98.4%	44.0	50.0	88.0%	11.2%
Dibromomethane	48.4	50.0	96.8%	43.0	50.0	86.0%	11.8%
1,1,1,2-Tetrachloroethane	43.6	50.0	87.2%	38.5	50.0	77.0%	12.4%
1,2-Dibromo-3-chloropropane	44.3	50.0	88.6%	36.9	50.0	73.8%	18.2%
1,2,3-Trichloropropane	48.6	50.0	97.2%	44.5	50.0	89.0%	8.8%
trans-1,4-Dichloro-2-butene	49.8	50.0	99.6%	47.9	50.0	95.8%	3.9%
1,3,5-Trimethylbenzene	53.6	50.0	107%	47.6	50.0	95.2%	11.9%
1,2,4-Trimethylbenzene	52.6	50.0	105%	46.5	50.0	93.0%	12.3%
Hexachlorobutadiene	48.8	50.0	97.6%	42.7	50.0	85.4%	13.3%
Ethylene Dibromide	51.7	50.0	103%	45.4	50.0	90.8%	13.0%
Bromochloromethane	50.2	50.0	100%	44.2	50.0	88.4%	12.7%
2,2-Dichloropropane	48.2	50.0	96.4%	42.5	50.0	85.0%	12.6%
1,3-Dichloropropane	51.0	50.0	102%	45.2	50.0	90.4%	12.1%
Isopropylbenzene	53.4	50.0	107%	47.9	50.0	95.8%	10.9%
n-Propylbenzene	55.1	50.0	110%	48.5	50.0	97.0%	12.7%
Bromobenzene	50.6	50.0	101%	45.5	50.0	91.0%	10.6%
2-Chlorotoluene	51.1	50.0	102%	46.4	50.0	92.8%	9.6%
4-Chlorotoluene	51.2	50.0	102%	44.7	50.0	89.4%	13.6%
tert-Butylbenzene	52.0	50.0	104%	46.2	50.0	92.4%	11.8%
sec-Butylbenzene	54.3	50.0	109%	48.0	50.0	96.0%	12.3%
4-Isopropyltoluene	54.9	50.0	110%	48.8	50.0	97.6%	11.8%
n-Butylbenzene	56.1	50.0	112%	48.9	50.0	97.8%	13.7%
1,2,4-Trichlorobenzene	47.6	50.0	95.2%	41.7	50.0	83.4%	13.2%
Naphthalene	47.9	50.0	95.8%	42.6	50.0	85.2%	11.7%
1,2,3-Trichlorobenzene	46.8	50.0	93.6%	41.2	50.0	82.4%	12.7%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	91.2%	87.9%
d8-Toluene	107%	104%
Bromofluorobenzene	93.7%	89.4%
d4-1,2-Dichlorobenzene	99.6%	95.6%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B

Page 1 of 2

Sample ID: LCS-072605

LAB CONTROL SAMPLE

Lab Sample ID: LCS-072605

LIMS ID: 05-12391

Matrix: Water

Data Release Authorized: *[Signature]*

Reported: 07/27/05

QC Report No: II13-Shannon & Wilson, Incorporated

Project: 22-1-11094-004

Fed. Bldg.

Date Sampled: NA

Date Received: NA

Instrument/Analyst LCS: NT3/JLM

LCSD: NT3/JLM

Date Analyzed LCS: 07/26/05 10:48

LCSD: 07/26/05 11:15

Sample Amount LCS: 5.00 mL

LCSD: 5.00 mL

Purge Volume LCS: 5.0 mL

LCSD: 5.0 mL

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	51.9	50.0	104%	48.1	50.0	96.2%	7.6%
Bromomethane	50.4	50.0	101%	47.0	50.0	94.0%	7.0%
Vinyl Chloride	57.8	50.0	116%	53.4	50.0	107%	7.9%
Chloroethane	53.1	50.0	106%	49.7	50.0	99.4%	6.6%
Methylene Chloride	49.7	50.0	99.4%	45.8	50.0	91.6%	8.2%
Acetone	243	250	97.2%	224	250	89.6%	8.1%
Carbon Disulfide	45.6	50.0	91.2%	43.1	50.0	86.2%	5.6%
1,1-Dichloroethene	52.5	50.0	105%	47.9	50.0	95.8%	9.2%
1,1-Dichloroethane	49.1	50.0	98.2%	45.0	50.0	90.0%	8.7%
trans-1,2-Dichloroethene	49.7	50.0	99.4%	45.7	50.0	91.4%	8.4%
cis-1,2-Dichloroethene	49.7	50.0	99.4%	46.2	50.0	92.4%	7.3%
Chloroform	47.5	50.0	95.0%	43.9	50.0	87.8%	7.9%
1,2-Dichloroethane	45.3	50.0	90.6%	41.8	50.0	83.6%	8.0%
2-Butanone	239	250	95.6%	226	250	90.4%	5.6%
1,1,1-Trichloroethane	43.6	50.0	87.2%	40.3	50.0	80.6%	7.9%
Carbon Tetrachloride	42.3	50.0	84.6%	39.8	50.0	79.6%	6.1%
Vinyl Acetate	42.0	50.0	84.0%	40.4	50.0	80.8%	3.9%
Bromodichloromethane	45.4	50.0	90.8%	42.8	50.0	85.6%	5.9%
1,2-Dichloropropane	49.6	50.0	99.2%	46.1	50.0	92.2%	7.3%
cis-1,3-Dichloropropene	48.0	50.0	96.0%	44.8	50.0	89.6%	6.9%
Trichloroethene	48.2	50.0	96.4%	45.2	50.0	90.4%	6.4%
Dibromochloromethane	42.8	50.0	85.6%	40.8	50.0	81.6%	4.8%
1,1,2-Trichloroethane	52.9	50.0	106%	49.2	50.0	98.4%	7.2%
Benzene	49.1	50.0	98.2%	46.6	50.0	93.2%	5.2%
trans-1,3-Dichloropropene	48.5	50.0	97.0%	43.8	50.0	87.6%	10.2%
2-Chloroethylvinylether	36.3	50.0	72.6%	34.4	50.0	68.8%	5.4%
Bromoform	47.2	50.0	94.4%	43.7	50.0	87.4%	7.7%
4-Methyl-2-Pentanone (MIBK)	250	250	100%	241	250	96.4%	3.7%
2-Hexanone	232	250	92.8%	237	250	94.8%	2.1%
Tetrachloroethene	49.5	50.0	99.0%	47.1	50.0	94.2%	5.0%
1,1,2,2-Tetrachloroethane	50.6	50.0	101%	47.3	50.0	94.6%	6.7%
Toluene	54.8	50.0	110%	50.6	50.0	101%	8.0%
Chlorobenzene	48.7	50.0	97.4%	46.0	50.0	92.0%	5.7%
Ethylbenzene	49.1	50.0	98.2%	46.5	50.0	93.0%	5.4%
Styrene	50.4	50.0	101%	47.2	50.0	94.4%	6.6%
Trichlorofluoromethane	52.8	50.0	106%	48.6	50.0	97.2%	8.3%

ORGANICS ANALYSIS DATA SHEET

Volatiles by Purge & Trap GC/MS-Method SW8260B
Page 2 of 2

Sample ID: LCS-072605

LAB CONTROL SAMPLE

Lab Sample ID: LCS-072605

LIMS ID: 05-12391

Matrix: Water

QC Report No: II13-Shannon & Wilson, Incorporated

Project: 22-1-11094-004

Fed. Bldg.

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
1,1,2-Trichloro-1,2,2-trifluoroetha	50.3	50.0	101%	46.9	50.0	93.8%	7.0%
m,p-Xylene	100	100	100%	94.6	100	94.6%	5.5%
o-Xylene	48.5	50.0	97.0%	46.2	50.0	92.4%	4.9%
1,2-Dichlorobenzene	48.8	50.0	97.6%	46.2	50.0	92.4%	5.5%
1,3-Dichlorobenzene	49.7	50.0	99.4%	46.6	50.0	93.2%	6.4%
1,4-Dichlorobenzene	49.1	50.0	98.2%	45.7	50.0	91.4%	7.2%
Acrolein	230	250	92.0%	220	250	88.0%	4.4%
Methyl Iodide	49.9	50.0	99.8%	47.4	50.0	94.8%	5.1%
Bromoethane	48.1	50.0	96.2%	44.9	50.0	89.8%	6.9%
Acrylonitrile	49.3	50.0	98.6%	45.9	50.0	91.8%	7.1%
1,1-Dichloropropene	49.3	50.0	98.6%	46.3	50.0	92.6%	6.3%
Dibromomethane	47.8	50.0	95.6%	44.0	50.0	88.0%	8.3%
1,1,1,2-Tetrachloroethane	41.1	50.0	82.2%	39.8	50.0	79.6%	3.2%
1,2-Dibromo-3-chloropropane	42.2	50.0	84.4%	38.7	50.0	77.4%	8.7%
1,2,3-Trichloropropane	47.9	50.0	95.8%	45.1	50.0	90.2%	6.0%
trans-1,4-Dichloro-2-butene	46.6	50.0	93.2%	43.1	50.0	86.2%	7.8%
1,3,5-Trimethylbenzene	51.9	50.0	104%	49.4	50.0	98.8%	4.9%
1,2,4-Trimethylbenzene	51.7	50.0	103%	47.9	50.0	95.8%	7.6%
Hexachlorobutadiene	46.2	50.0	92.4%	44.0	50.0	88.0%	4.9%
Ethylene Dibromide	50.5	50.0	101%	47.3	50.0	94.6%	6.5%
Bromochloromethane	50.5	50.0	101%	46.2	50.0	92.4%	8.9%
2,2-Dichloropropane	46.8	50.0	93.6%	42.9	50.0	85.8%	8.7%
1,3-Dichloropropane	48.5	50.0	97.0%	46.6	50.0	93.2%	4.0%
Isopropylbenzene	51.7	50.0	103%	48.9	50.0	97.8%	5.6%
n-Propylbenzene	53.2	50.0	106%	49.8	50.0	99.6%	6.6%
Bromobenzene	48.8	50.0	97.6%	47.1	50.0	94.2%	3.5%
2-Chlorotoluene	50.8	50.0	102%	46.8	50.0	93.6%	8.2%
4-Chlorotoluene	48.7	50.0	97.4%	46.4	50.0	92.8%	4.8%
tert-Butylbenzene	50.8	50.0	102%	47.4	50.0	94.8%	6.9%
sec-Butylbenzene	52.4	50.0	105%	49.1	50.0	98.2%	6.5%
4-Isopropyltoluene	53.0	50.0	106%	49.6	50.0	99.2%	6.6%
n-Butylbenzene	54.5	50.0	109%	50.8	50.0	102%	7.0%
1,2,4-Trichlorobenzene	46.4	50.0	92.8%	42.8	50.0	85.6%	8.1%
Naphthalene	47.3	50.0	94.6%	43.8	50.0	87.6%	7.7%
1,2,3-Trichlorobenzene	46.4	50.0	92.8%	42.4	50.0	84.8%	9.0%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	89.2%	82.6%
d8-Toluene	105%	98.8%
Bromofluorobenzene	89.6%	84.1%
d4-1,2-Dichlorobenzene	97.4%	91.6%