TETRA TECH

175 North Corporate Drive, Suite 100
Brookfield, Wisconsin 53045
Telephone (262) 792-1282 Fax: (262) 792-1310

LETTER OF TRANSMITTAL

TO: Mr. Tom Wentland
Wisconsin Dept. of Natural Resources
1155 Pilgrim Road
Plymouth, WI 53073-4294

DATE: October 6, 2017

Tetra Tech Project Number: 117-7469002

We are sending you the following:

No of Copies	Description
1	Third Quarter 2017 Progress Report, Sta-Rite Delavan Facility Remedial Action.

Transmitted as checked below:

- ☐ For approval
- ☒ For your use
- ☐ As requested
- ☐ For review and comment
- ☐ Approved as submitted
- ☐ Approved as noted
- ☐ Returned for corrections
- ☐ Other

REMARKS:
Copy of Pentair Flow Technologies, LLC Delavan Facility Source Area Remediation third quarter 2017 Progress Report for your review and files.

Transmitted by:

- ☐ First Class Mail
- ☒ Federal Express
- ☐ Courier
- ☐ Registered Mail
- ☐ UPS
- ☐ Other

Signed: Mark A. Manthey

Mark A. Manthey, P.G.
Associate Hydrogeologist

TETRA TECH

October 6, 2017
(117-7469002.02)

Mr. Thomas Wentland
Waste Management Engineer
Wisconsin Department of Natural Resources
P.O. Box 408
Plymouth, WI 53073-0408

RE: Third Quarter 2017 Progress Report, Source Area Remedial Action, Pentair Flow Technologies, LLC Facility, 293 S. Wright Street, Delavan, Wisconsin
BRRTS# 02-65-529579, FID# 265091640

SITE NAME/ACTIVITY:
Contract No. SF-90-02
Delavan Municipal Well #4
Delavan, Wisconsin
Source Area Remediation

DATE: October 6, 2017

PERIOD: July 1 through September 30, 2017

Dear Mr. Wentland:

As requested by the Wisconsin Department of Natural Resources (WNDR) in its February 8, 2017 letter, Pentair Flow Technologies began collecting groundwater samples from monitor well TW-4 on a quarterly schedule during the first quarter of 2017 (January – March). The increase in sampling frequency of TW-4 from annual to quarterly was requested because the trichloroethene (TCE) concentration in the annual groundwater samples collected from TW-4 increased from 20 ug/L for the 2014 sample to 36 ug/L for the 2015 sample. The reported concentration of 36 ug/L for TCE in the 2015 sample exceeds the U.S. EPA Removal Management Level (RML) of 22 ug/L for TCE used to protect against commercial/industrial exposure via vapor inhalation. The annual groundwater sample collected from TW-4 in May 2016 had a reported TCE concentration of 15 ug/L, which is less than the RML of 22 ug/L. The sampling of TW-4 on a quarterly schedule is to continue until directed otherwise in writing by the WDNR.

The third quarter 2017 sample was collected from TW-4 by Tetra Tech personnel on July 13, 2017 as part of the annual groundwater monitoring event for the Delavan facility remedial action. The groundwater samples were submitted to the TestAmerica laboratory in University Park, Illinois for laboratory analysis of volatile organic compounds (VOCs) by EPA Method 8260B. Copies of the field water quality sampling and analysis forms and the laboratory analytical report are provided in Appendix A. Note, groundwater samples were not able to be collected from extraction wells EX-2R, EX-3 and EX-7, which are normally sampled as part of the annual groundwater sampling event, because the wells were shut-down so that new discharge piping from four replacement extraction wells (EX-3R, EX-4R, EX-5R and EX-7R) could be connected to the Delavan facility groundwater remediation system. The four replacement extraction wells, which were installed during the second quarter 2017, were installed to replace original extraction well EX-3, EX-4, EX-5 and EX-7 because the sustainable pumping rates of these wells had declined due to clogging of the well screens. The installation of the replacement extraction wells was

Subject

1st ¶ This is an approval

Changes to Remedial

Action Plan is Approved

Based on our Authority

SGJ

mentioned in the 2016 annual progress report for the Delavan facility remedial action. The four replacement extraction wells were brought on-line in August. Groundwater samples will be collected from EX-2R, EX-3R and EX-7R in October when the fourth quarter sample is collected from TW-4. Original extraction wells EX-3, EX-4, EX-5 and EX-7 were properly abandoned as the replacement extraction wells were brought on-line. Copies of the WDNR Well Construction Reports (Form 3300-77A) for the four replacement extraction wells and the WDNR Well Filling & Sealing Forms (Form 3300-005) for EX-3, EX-4, EX-5 and EX-7 are provided in Appendix B. The locations, ground surface elevations and top of well casing elevations of the four replacement extraction wells were surveyed by State of Wisconsin licensed surveyor on September 26th. An updated site layout figure showing the locations of the replacement extraction wells will be included with the next progress report.

Historical VOCs results and the current VOCs results for the groundwater samples collected from TW-4 are summarized on Table 1. The analytical results from the other monitoring wells will be discussed in the annual progress report. A chart showing the trends in trichloroethene (TCE) and total VOCs concentrations in TW-4 is included as Figure 1 and a site layout figure showing the location of TW-4 is included as Figure 2. As shown on Table 1 and Figure 1, the reported TCE concentration in the groundwater sample collected from TW-4 on July 13th was 19 ug/L, which is a little higher than the reported TCE concentration of 11 ug/L for the previous groundwater sample collected from TW-4 on May 17th, but still below the RML of 22 ug/L. The May 2016, March 1, 2017 May 17, 2017 and July 13, 2017 analytical results indicate there is not a vapor inhalation exposure risk at the Delavan facility at this time. The 2016 and 2017 TCE results also confirms the overall decreasing trend in TCE impacts at TW-4 (see Figure 1).

The next quarterly groundwater sample is scheduled to be collected from TW-4 by Tetra Tech personnel during the month of October. As noted above, the annual groundwater samples will also be collected from extraction well EX-2R, EX-3R and EX-7R in October. Please contact me if you require additional information or have any questions regarding these matters.

Sincerely,
Tetra Tech

Mark A. Manthey, P.G.
Associate Hydrogeologist
mark.manthey@tetratech.com

Encs.
cc: Thomas Samuel, Pentair Flow Technologies, LLC (Electronic copy via email.)
Robert Thiboldeaux, PhD, Senior Toxicologist, Wisconsin Department of Health Services (Electronic copy via email)
Michelle Heger, U.S. Environmental Protection Agency (Electronic copy via email)

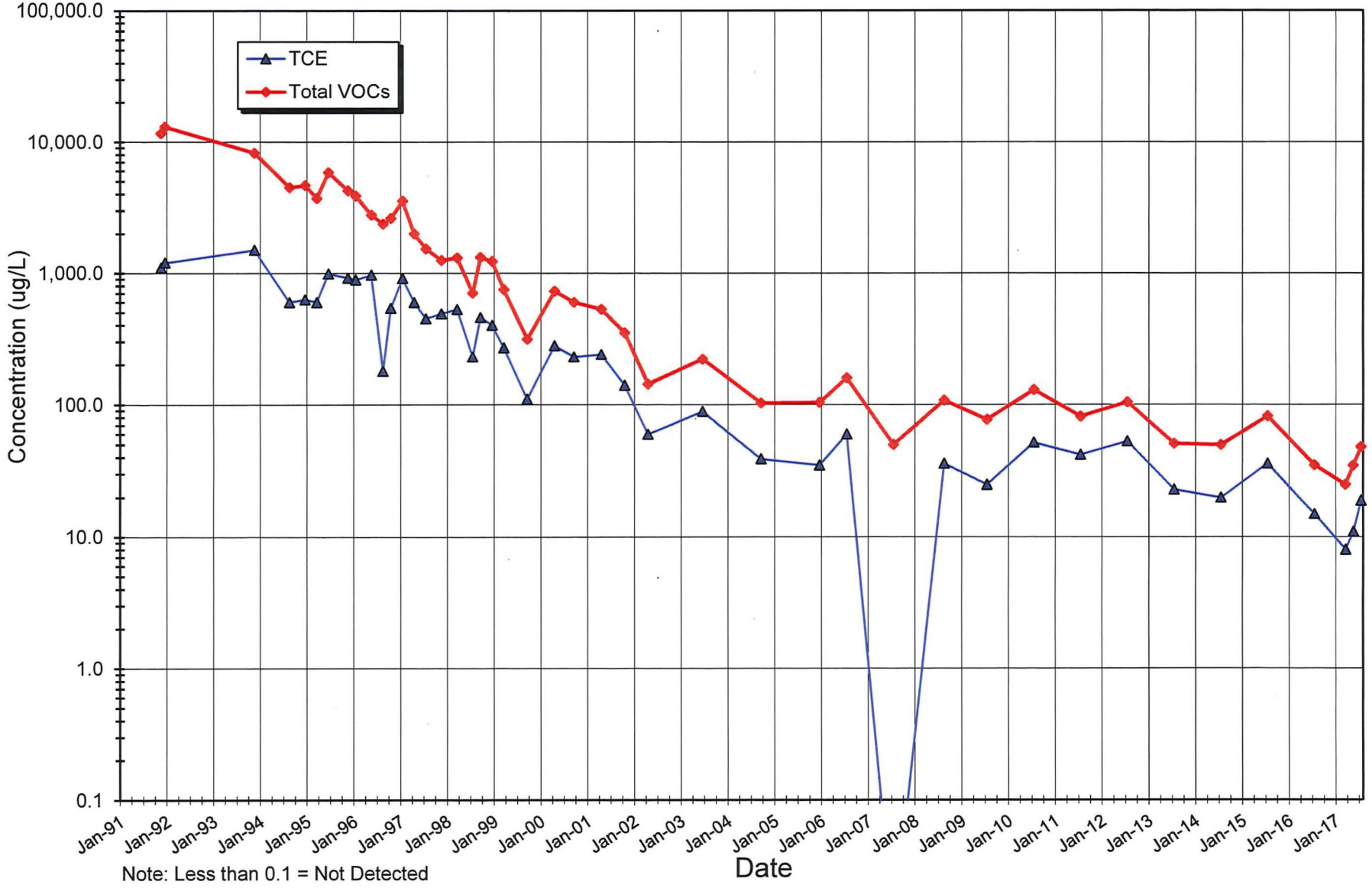
FIGURES

TABLE

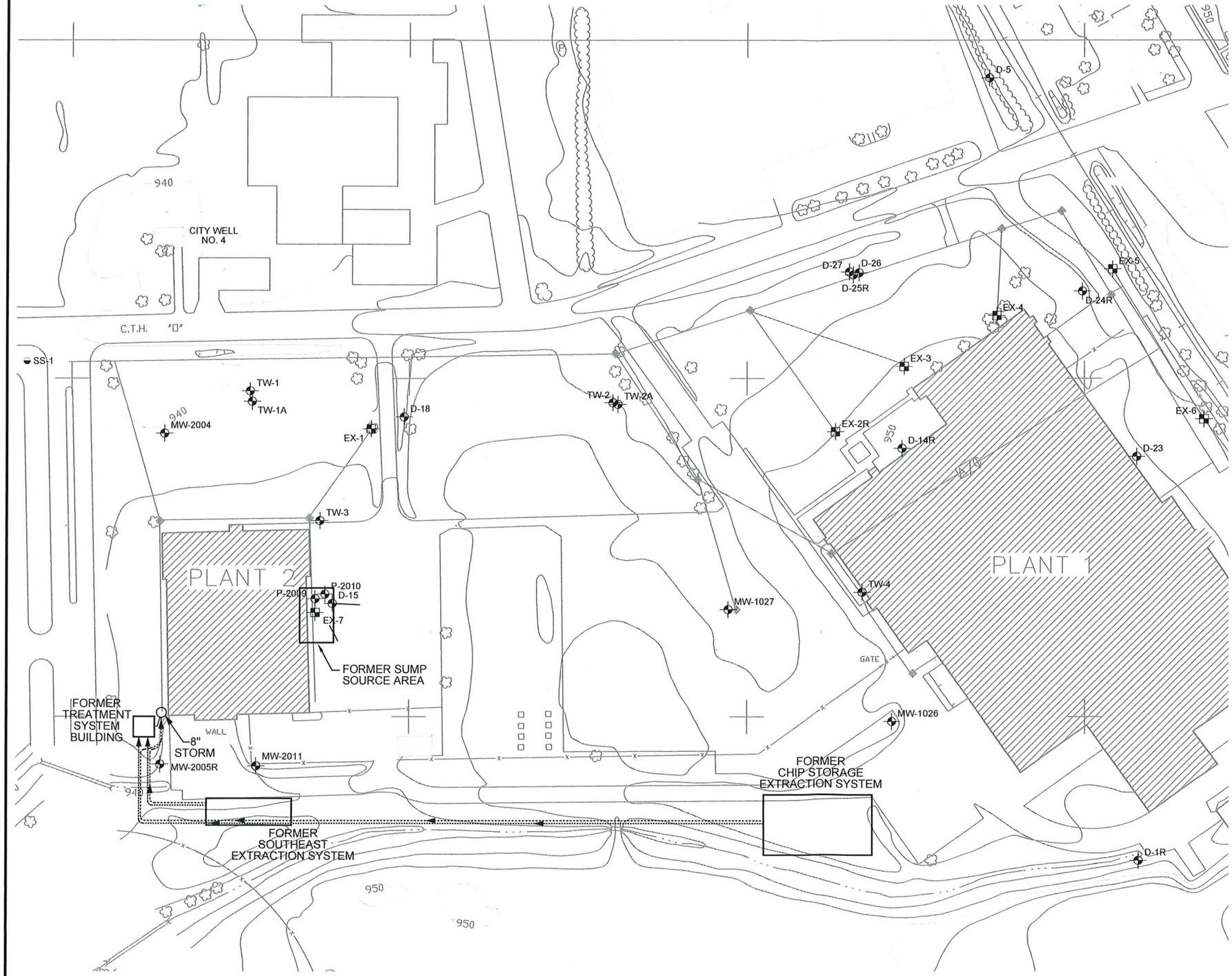
APPENDICES

FIGURES

Figure 1. Monitor Well TW-4 Trichloroethene (TCE) and Total VOCs
Time Series Chart



Note: Less than 0.1 = Not Detected



EXPLANATION

- MW-2004 — MONITOR WELL LOCATION AND DESIGNATION
- E-3 — EXTRACTION WELL LOCATION AND DESIGNATION
- SS-1 — STORM SEWER SAMPLE LOCATION AND DESIGNATION
- P-2009 — PIEZOMETER LOCATION AND DESIGNATION

N

SCALE

0 300

Feet

Base map from Areo-Metric Engineering, 4/16/88.

S:\CAD\STA-RITE\DELAVAN\1-9-17\7469002FIG2.DWG

STA-RITE INDUSTRIES, INC. DELAVAN, WISCONSIN	DATE:	3/22/17
	DESIGNED:	HJW
	CHECKED:	MAM
SITE LAYOUT	APPROVED:	MAM
	DRAWN:	HJW
	PROJ.:	117-7469002
TETRA TECH	Figure 2	

TABLE

Table 1. Summary of VOCs Groundwater Monitoring Analytical Results for Plant #1 Monitor Well TW-4

WELL	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Acetone	Benzene	Chloroform	1,1-DCA	1,2-DCA	1,1-DCE	CIS-1,2-DCE	Trans-1,2-DCE	Methylene Chloride	Ethylbenzene	Xylenes, Total	**Total VOCs**
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	9000	5.0	6	850	5	7	70	100	5	700	2000	
NR 140	PAL	0.5	40	0.5	0.5	0.02	1800	0.5	0.6	85	0.5	0.7	7	20	0.5	140	400	
TW-4	11/05/91	**0.50**	**10000**	**1100**	**5.6**	<0.3	<1.0	<0.5	**4.0**	**61**	<0.5	**440.0**	**50**	<0.5	**2.4**	<0.5	<1.0	11663.5
	12/12/91	**0.60**	**11000**	**1200**	**4.5**	<0.3	<1.0	<0.5	**3.7**	**93**	**3**	**680.0**	**52**	<0.5	<1	<0.5	<1.0	13036.8
	11/11/93	**0.80**	**6200**	**1500**	**3.2**	<0.3	<1.0	<0.5	<0.5	**26**	<0.5	**490**	**25**	<0.5	<1.0	<0.5	<1.0	8245
	08/17/94	<1	**3900**	**600**	NA	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4500
	12/14/94	<50	**4040**	**630**	NA	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4670
	03/13/95	ND	**3120**	**600**	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3720
	06/21/95	NA	**4220**	**990**	**17.6**	**5.4**	<1.0	NA	**3.8**	**113**	<0.5	**415**	**93.6**	NA	NA	NA	NA	5858.4
	11/08/95	**1.2**	**3340**	**920**	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4261.2
	01/25/96	**1.1**	**3000**	**891**	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3892.1
	05/14/96	**0.90**	**1820**	**969**	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2789.9
	08/14/96	<0.5	**2150**	**179**	**1.8**	<0.5	<1.0	<0.5	<0.5	**12**	<1.6	**36.7**	NA	<0.5	NA	<0.5	NA	2379.5
	10/08/96	**0.90**	**1850**	**541**	**6.3**	<0.5	<1.0	<0.5	**1.0**	**36.3**	<1.6	**196**	NA	<0.5	NA	<0.5	NA	2631.5
	01/21/97	<0.5	**2650**	**913**	NA	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3563
	04/01/97	**0.83**	**1400**	**600**	NA	<0.46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2000.83
	07/23/97	**0.67**	**950**	**450**	**4.4**	<0.46	**3.4**	**0.3**	**0.70**	**24**	<0.20	**66**	**36**	0.5	<0.87	<0.38	<1.1	1535.97
	11/18/97	**0.83**	**760**	**490**	NA	<0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1250.83
	03/23/98	**0.74**	**780**	**530**	NA	<0.46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1310.74
	07/27/98	<2.5	**410**	**230**	<2.5	<2.5	<20	<1.0	<2.5	**13**	<2.5	**16**	**21**	<2.5	**15**	<2.5	<5.0	705
	09/28/98	<0.63	**860**	**460**	**2.8**	<0.46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1322.8
	12/05/98	<6.3	**830**	**400**	NA	<4.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1230
	03/11/99	<6.3	**480**	**270**	NA	<4.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	750
	09/02/99	<3.2	**180**	**110**	**2.4**	<2.3	NA	<1.6	<0.90	<1.2	<1.0	**19**	**2.0**	<2.0	<4.4	<1.9	<5.5	313.4
	04/25/00	<3.2	**450**	**280**	NA	<2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.5	730
	09/26/00	<6.3	**340**	**230**	<1.5	<4.6	NA	<3.1	<1.8	**5.2**	<2.0	**15**	**10**	<3.9	<8.7	<3.8	<5.5	600.2
TW-4	04/23/01	**0.60**	**290**	**240**	NA	<0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	530.6

Table 1. Summary of VOCs Groundwater Monitoring Analytical Results for Plant #1 Monitor Well TW-4

WELL	DATE	PCE	1,1,1-TCA	TCE	1,1,2-TCA	Vinyl Chloride	Acetone	Benzene	Chloroform	1,1-DCA	1,2-DCA	1,1-DCE	CIS-1,2-DCE	Trans-1,2-DCE	Methylene Chloride	Ethylbenzene	Xylenes, Total	**Total VOCs**
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NR 140	ES	5.0	200	5	5	0.2	9000	5.0	6	850	5	7	70	100	5	700	2000	
NR 140	PAL	0.5	40	0.5	0.5	0.02	1800	0.5	0.6	85	0.5	0.7	7	20	0.5	140	400	
TW-4	10/02/01	<2.0	**190**	**140**	<2.0	<2.0	NA	<0.80	<2.0	**2.1**	<2.0	**6.8**	**3.0**	<2.0	**8.1**	<2.0	<2.0	350
	04/16/02	<0.25	**76**	**60**	**1.5**	<0.25	NA	<0.10	<0.25	**1.4**	<0.25	**2.5**	**0.76**	<0.25	**0.47**	<0.25	<0.25	142.63
	06/24/03	<1.0	**120**	**89**	**1.4**	<1.0	NA	<0.50	<0.50	**2.1**	<1.0	**4.7**	**3.7**	<1.0	<2.0	<1.0	<1.0	220.9
	09/21/04	<0.50	**64**	**39**	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	103
	12/14/05	<0.50	**65**	**35**	**0.92**	<0.20	<2.0	<0.20	<0.20	**0.76**	<0.50	**1.6**	**0.55**	<0.50	<1.0	<0.50	<0.50	103.83
	07/31/06	<0.50	**92**	**60**	**1.3**	<0.20	<2.0	<0.20	<0.20	**1.3**	<0.50	**2.9**	**1.4**	<0.50	<1.0	<0.50	<0.50	158.9
	07/31/07	<0.50	**50**	<0.20	<0.25	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50
	08/20/08	<0.50	**71**	**36**	**0.73**	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	107.73
	07/28/09	<0.50	**52**	**25**	**0.34**	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.34
	07/14/10	<0.50	**75**	**52**	**0.28**	<0.20	NA	<0.20	<0.20	<0.50	<0.50	**2.1**	<0.50	<0.50	<1.0	<0.50	<0.50	129.38
	07/21/11	<0.50	**38**	**42**	**0.28**	<0.20	NA	<0.20	<0.20	**0.52**	<0.50	**0.78**	<0.50	<0.50	<1.0	<0.50	<0.50	81.58
	07/10/12	<0.17	**48**	**53**	<0.28	<0.10	NA	<0.074	<0.20	**1.8**	<0.28	**1.8**	<0.12	<0.25	<0.68	<0.50	<0.068	104.6
	07/24/13	<0.17	**26**	**23**	<0.28	<0.10	NA	<0.074	<0.20	**0.54**	<0.28	**1.1**	<0.12	<0.25	<0.68	**0.13**	**0.20**	50.97
	07/29/14	<0.17	**29**	**20**	<0.28	<0.10	NA	<0.074	<0.20	<0.19	<0.28	**0.9**	<0.12	<0.25	<0.68	<0.13	<0.068	49.9
	07/14/15	<0.17	**30**	**36**	<0.28	<0.10	NA	<0.074	<0.20	**4.9**	<0.28	**1.4**	**1.7**	<0.25	**8.2 B**	<0.10	<0.068	82.2
TW-4	07/29/16	<0.37	**20**	**15**	<0.35	<0.20	NA	<0.15	<0.37	<0.41	<0.39	<0.39	<0.41	<0.35	<1.6	<0.18	<0.22	35
	03/01/17	<0.37	**17**	**8.0**	<0.35	<0.20	NA	<0.15	<0.37	<0.41	<0.39	<0.39	<0.41	<0.35	<1.6	<0.18	<0.22	25
	05/17/17	<0.37	**22**	**11**	<0.35	<0.20	NA	<0.15	<0.37	**0.96**	<0.39	**0.90**	<0.41	<0.35	<1.6	<0.18	<0.22	34.86
	07/13/17	<0.37	**27**	**19**	<0.35	<0.20	NA	<0.15	<0.37	**1.1**	<0.39	**1.0**	<0.41	<0.35	<1.6	<0.18	<0.22	48.1

Notes: All values listed are in parts per billion (ug/L).
VOCs = Volatile Organic Compounds
ES = Enforcement Standard, PAL = Preventative Action Limit
Orange Highlight = above ES, Yellow Highlight = above PAL
ND = not detected, NA = not analyzed or no data available

PCE = Tetrachloroethene
TCA = Trichloroethane
TCE = Trichloroethene

DCA = Dichloroethane
DCE = Dichloroethene

B = Detected in blank sample at a similar concentration.

APPENDIX A
FIELD FORMS AND
LABORATORY ANALYTICAL REPORT

TETRA TECH FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION		INSTRUMENTS	
PROJECT	Delavan Facility Remedial Action	Temp. & pH	HANNA
PROJECT NO.	117-7469002.02	Conductivity	HANNA
LOCATION	Delavan, WI	ORP	NA
PERSONNEL	Todd M. Thomson	DO	NA

SAMPLE POINT	MW-2005R	MW-2011	D-15	TW-3	MW-2004
WATER TYPE	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
DATE (month/day/year)	7-12-17	7-12-17	7-12-17	7-12-17	7-12-17
CLOCK TIME (Military)	10:30	16:20	17:30	15:30	11:30
DEPTH TO WATER (ft)*	21.35	22.61	27.62	29.09	23.86
MEASURED WELL DEPTH (ft)*	37.81	36.51	38.18	50.73	39.33
CASING VOLUME (gallons)	2.7	2.3	1.7	3.5	2.5
PURGE VOLUME (gallons)	12	10	10	15	10
DEPTH SAMPLE TAKEN (ft)*	35	32	36	40	35
SAMPLING DEVICE	HANGING BAILER				
FIELD TEMPERATURE (°C)	9.8	13.9	14.5	15.6	14.3
pH	8.01	7.69	7.66	7.63	7.94
ELEC. COND. (uS/cm) at 25° C	1392	2483	1922	1306	947
ORP (mV)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (ppm)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (% Sat.)	NA	NA	NA	NA	NA
COLOR	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR
ODOR	NONE	NONE	NONE	NONE	NONE
CLARITY	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR

SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)				
PCE, TCE, TCA, Vinyl Chloride (EPA Method 8260B)	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No

Comments:

NAME OF LABORATORY	Test America	Test America	Test America	Test America	Test America
DATE SENT TO LAB	7-13-17	7-13-17	7-13-17	7-13-17	7-13-17
SAMPLER'S NAME	TMT	TMT	TMT	TMT	TMT

*Measured from top of well casing.

TETRA TECH

TETRA TECH FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION		INSTRUMENTS	
PROJECT	Delavan Facility Remedial Action	Temp. & pH	HANNA
PROJECT NO.	117-7469002.02	Conductivity	HANNA
LOCATION	Delavan, WI	ORP	NA
PERSONNEL	Todd M. Thomson	DO	NA

SAMPLE POINT	TW-1	D-18	D-25R	MW-1027	TW-4
WATER TYPE	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
DATE (month/day/year)	7-12-17	7-12-17	7-12-17	7-13-17	7-13-17
CLOCK TIME (Military)	12:10	13:00	14:00	10:20	08:50
DEPTH TO WATER (ft)*	23.50	27.13	28.88	26.06	34.04
MEASURED WELL DEPTH (ft)*	45.50	39.90	42.39	39.98	50.52
CASING VOLUME (gallons)	3.6	2.1	2.2	2.3	2.7
PURGE VOLUME (gallons)	15	10	10	10	15
DEPTH SAMPLE TAKEN (ft)*	40	35	40	35	45
SAMPLING DEVICE	HANGING BAILER				
FIELD TEMPERATURE (°C)	14.1	11.2	15.4	14.3	14.4
pH	7.80	7.76	7.48	7.65	7.47
ELEC. COND. (uS/cm) at 25° C	1020	1038	1448	1129	2246
ORP (mV)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (ppm)	NA	NA	NA	NA	NA
DISSOLVED OXYGEN (% Sat.)	NA	NA	NA	NA	NA
COLOR	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR
ODOR	NONE	NONE	NONE	NONE	NONE
CLARITY	CLEAR	CLEAR	CLEAR	CLEAR	CLEAR

SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)				
PCE, TCE, TCA, Vinyl Chloride (EPA Method 8260B)	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; HCl; No	3 – 40 ml; G; L; HCl; No	
VOCs (EPA Method 8260B)					3 – 40 ml; G; L; HCl; No

Comments:

NAME OF LABORATORY	Test America	Test America	Test America	Test America	Test America
DATE SENT TO LAB	7-13-17	7-13-17	7-13-17	7-13-17	7-13-17
SAMPLER'S NAME	TMT	TMT	TMT	TMT	TMT

*Measured from top of well casing.

TETRA TECH FIELD WATER QUALITY SAMPLING AND ANALYSIS FORM

PROJECT INFORMATION		INSTRUMENTS	
PROJECT	Delavan Facility Remedial Action	Temp. & pH	HANNA
PROJECT NO.	117-7469002.02	Conductivity	HANNA
LOCATION	Delavan, WI	ORP	NA
PERSONNEL	Todd M. Thomson	DO	NA

SAMPLE POINT	MW-1026	EX-1	EX-2R	EX-3	EX-7
WATER TYPE	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
DATE (month/day/year)	7-13-17	7-13-17			
CLOCK TIME (Military)	12:20	12:50			
DEPTH TO WATER (ft)*	27.99	NA			
MEASURED WELL DEPTH (ft)*	36.00	NA			
CASING VOLUME (gallons)	1.3	NA			
PURGE VOLUME (gallons)	10	GRAB			
DEPTH SAMPLE TAKEN (ft)*	35	NA			
SAMPLING DEVICE	HANGING BAILER	SPIGOT			
FIELD TEMPERATURE (°C)	13.9	14.1			
pH	7.72	7.65			
ELEC. COND. (uS/cm) at 25° C	934	1295			
ORP (mV)	NA	NA			
DISSOLVED OXYGEN (ppm)	NA	NA			
DISSOLVED OXYGEN (% Sat.)	NA	NA			
COLOR	BROWN	CLEAR			
ODOR	NONE	NONE			
CLARITY	TURBID	CLEAR			

SAMPLING PARAMETERS	# OF CONTAINERS & VOLUME; CONTAINER TYPE (A = AMBER GLASS; G = GLASS; P = PLASTIC); PRESERVATIVE TYPE (L = LAB ADDED; F = FIELD ADDED) OR NEUTRAL; FILTERED (YES or NO)				
PCE, TCE, TCA, Vinyl Chloride (EPA Method 8260B)	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No	3 – 40 ml; G; L; HCl; No

Comments:

NAME OF LABORATORY	Test America	Test America	Test America	Test America	Test America
DATE SENT TO LAB	7-13-17	7-13-17			
SAMPLER'S NAME	TMT	TMT	TMT	TMT	TMT

*Measured from top of well casing.

TETRA TECH

Sta-Rite Delavan Facility Field Water Level Data Sheet

Well ID	2017 Date	Time	Depth to Groundwater (feet btoc)	Notes
Plant 1 Wells				
EX-2R	NA	NA	NA	
EX-3	NA	NA	NA	
EX-4	NA	NA	NA	
EX-5	NA	NA	NA	
EX-6	NA	NA	NA	
TW-2	7-12-17	13:15	27.38	
TW-2A	7-12-17	13:20	27.93	
TW-4	7-13-17	08:00	34.04	
D-1R	7-13-17	11:10	29.34	
D-5	7-12-17	14:25	29.40	
D-14R	NA	NA	NA	UNABLE TO LOCATE
D-23	7-13-17	11:20	28.78	
D-24R	7-13-17	11:25	26.66	
D-25R	7-12-17	13:25	28.88	
D-26	7-12-17	13:30	28.41	
D-27	7-12-17	13:35	28.57	
MW-1026	7-13-17	11:50	27.99	
MW-1027	7-13-17	09:30	26.06	
Plant 2 Wells				
EX-1	NA	NA	NA	
EX-7	NA	NA	NA	
TW-1	7-12-17	11:35	23.59	
TW-1A	7-12-17	11:40	24.78	
TW-3	7-12-17	14:55	29.09	
D-15	7-12-17	16:50	27.62	
P-2009	7-12-17	16:55	27.81	
P-2010	7-12-17	17:00	27.49	
D-18	7-12-17	12:30	27.13	
MW-2004	7-12-17	10:45	23.86	
MW-2005R	7-12-17	09:30	21.35	
MW-2011	7-12-17	11:50	27.99	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-131036-1
Client Project/Site: Pentair - Delavan 117-7469002.02

For:
Tetra Tech GEO
175 N Corporate Drive
Suite 100
Brookfield, Wisconsin 53045

Attn: Mr. Mark Manthey

Sandie Fredrick

Authorized for release by:
7/25/2017 3:56:19 PM

Sandie Fredrick, Project Manager II
(920)261-1660
sandie.fredrick@testamericainc.com

Table of Contents

Case Narrative

Client: Tetra Tech GEO
Project/Site: Pentair - Delavan 117-7469002.02

TestAmerica Job ID: 500-131036-1

Job ID: 500-131036-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-131036-1

Comments
No additional comments.

Receipt
The samples were received on 7/14/2017 9:58 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.7° C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Tetra Tech GEO
Project/Site: Pentair - Delavan 117-7469002.02

TestAmerica Job ID: 500-131036-1

Client Sample ID: MW-2005R — Lab Sample ID: 500-131036-1

No Detections.

Client Sample ID: MW-2004 — Lab Sample ID: 500-131036-2

No Detections.

Client Sample ID: TW-1 — Lab Sample ID: 500-131036-3

No Detections.

Client Sample ID: D-18 — Lab Sample ID: 500-131036-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.61		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: D-25R — Lab Sample ID: 500-131036-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.9		1.0	0.38	ug/L	1		8260B	Total/NA
Trichloroethene	2.3		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: TW-3 — Lab Sample ID: 500-131036-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.59	J	1.0	0.37	ug/L	1		8260B	Total/NA

Client Sample ID: MW-2011 — Lab Sample ID: 500-131036-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.1		1.0	0.38	ug/L	1		8260B	Total/NA
Trichloroethene	16		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: D-15 — Lab Sample ID: 500-131036-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	9.8		1.0	0.37	ug/L	1		8260B	Total/NA
Trichloroethene	12		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: TW-4 — Lab Sample ID: 500-131036-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	1.1		1.0	0.41	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	1.0		1.0	0.39	ug/L	1		8260B	Total/NA
1,1,1-Trichloroethane	27		1.0	0.38	ug/L	1		8260B	Total/NA
Trichloroethene	19		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: MW-1027 — Lab Sample ID: 500-131036-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	7.1		1.0	0.38	ug/L	1		8260B	Total/NA
Trichloroethene	27		0.50	0.16	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Tetra Tech GEO
Project/Site: Pentair - Delavan 117-7469002.02

TestAmerica Job ID: 500-131036-1

Client Sample ID: MW-1026

Lab Sample ID: 500-131036-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	14		1.0	0.38	ug/L	1		8260B	Total/NA
Trichloroethene	3.6		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: EX-1

Lab Sample ID: 500-131036-12

No Detections.

Client Sample ID: TRIP BLANK

Lab Sample ID: 500-131036-13

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Tetra Tech GEO
Project/Site: Pentair - Delavan 117-7469002.02

TestAmerica Job ID: 500-131036-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Tetra Tech GEO
Project/Site: Pentair - Delavan 117-7469002.02

TestAmerica Job ID: 500-131036-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-131036-1	MW-2005R	Water	07/12/17 10:30	07/14/17 09:58
500-131036-2	MW-2004	Water	07/12/17 11:30	07/14/17 09:58
500-131036-3	TW-1	Water	07/12/17 12:10	07/14/17 09:58
500-131036-4	D-18	Water	07/12/17 13:00	07/14/17 09:58
500-131036-5	D-25R	Water	07/12/17 14:00	07/14/17 09:58
500-131036-6	TW-3	Water	07/12/17 15:30	07/14/17 09:58
500-131036-7	MW-2011	Water	07/12/17 16:20	07/14/17 09:58
500-131036-8	D-15	Water	07/12/17 17:30	07/14/17 09:58
500-131036-9	TW-4	Water	07/13/17 08:50	07/14/17 09:58
500-131036-10	MW-1027	Water	07/13/17 10:20	07/14/17 09:58
500-131036-11	MW-1026	Water	07/13/17 12:20	07/14/17 09:58
500-131036-12	EX-1	Water	07/13/17 12:50	07/14/17 09:58
500-131036-13	TRIP BLANK	Water	07/12/17 00:00	07/14/17 09:58

Client Sample ID: MW-2005R

Lab Sample ID: 500-131036-1

Date Collected: 07/12/17 10:30
Matrix: Water
Date Received: 07/14/17 09:58

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			07/19/17 23:01	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			07/19/17 23:01	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			07/19/17 23:01	1
Trichloroethene	<0.16		0.50	0.16	ug/L			07/19/17 23:01	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			07/19/17 23:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*75 - 126*		*07/19/17 23:01*	*1*
4-Bromofluorobenzene (Surr)	*93*		*72 - 124*		*07/19/17 23:01*	*1*
Dibromofluoromethane	*93*		*75 - 120*		*07/19/17 23:01*	*1*
Toluene-d8 (Surr)	*90*		*75 - 120*		*07/19/17 23:01*	*1*

Client Sample ID: MW-2004

Lab Sample ID: 500-131036-2

Date Collected: 07/12/17 11:30
Matrix: Water
Date Received: 07/14/17 09:58

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			07/19/17 23:27	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			07/19/17 23:27	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			07/19/17 23:27	1
Trichloroethene	<0.16		0.50	0.16	ug/L			07/19/17 23:27	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			07/19/17 23:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*75 - 126*		*07/19/17 23:27*	*1*
4-Bromofluorobenzene (Surr)	*91*		*72 - 124*		*07/19/17 23:27*	*1*
Dibromofluoromethane	*95*		*75 - 120*		*07/19/17 23:27*	*1*
Toluene-d8 (Surr)	*89*		*75 - 120*		*07/19/17 23:27*	*1*

Client Sample ID: TW-1

Lab Sample ID: 500-131036-3

Date Collected: 07/12/17 12:10
Matrix: Water
Date Received: 07/14/17 09:58

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			07/19/17 23:54	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			07/19/17 23:54	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			07/19/17 23:54	1
Trichloroethene	<0.16		0.50	0.16	ug/L			07/19/17 23:54	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			07/19/17 23:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*75 - 126*		*07/19/17 23:54*	*1*
4-Bromofluorobenzene (Surr)	*95*		*72 - 124*		*07/19/17 23:54*	*1*
Dibromofluoromethane	*93*		*75 - 120*		*07/19/17 23:54*	*1*
Toluene-d8 (Surr)	*92*		*75 - 120*		*07/19/17 23:54*	*1*

Client Sample ID: D-18

Date Collected: 07/12/17 13:00
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			07/20/17 00:21	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			07/20/17 00:21	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			07/20/17 00:21	1
Trichloroethene	0.61		0.50	0.16	ug/L			07/20/17 00:21	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			07/20/17 00:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*75 - 126*		*07/20/17 00:21*	*1*
4-Bromofluorobenzene (Surr)	*94*		*72 - 124*		*07/20/17 00:21*	*1*
Dibromofluoromethane	*96*		*75 - 120*		*07/20/17 00:21*	*1*
Toluene-d8 (Surr)	*91*		*75 - 120*		*07/20/17 00:21*	*1*

Client Sample ID: D-25R

Date Collected: 07/12/17 14:00
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	2.9		1.0	0.38	ug/L			07/20/17 00:47	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			07/20/17 00:47	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			07/20/17 00:47	1
Trichloroethene	2.3		0.50	0.16	ug/L			07/20/17 00:47	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			07/20/17 00:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*75 - 126*		*07/20/17 00:47*	*1*
4-Bromofluorobenzene (Surr)	*93*		*72 - 124*		*07/20/17 00:47*	*1*
Dibromofluoromethane	*94*		*75 - 120*		*07/20/17 00:47*	*1*
Toluene-d8 (Surr)	*90*		*75 - 120*		*07/20/17 00:47*	*1*

Client Sample ID: TW-3

Date Collected: 07/12/17 15:30
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			07/20/17 02:58	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			07/20/17 02:58	1
Tetrachloroethene	0.59	J	1.0	0.37	ug/L			07/20/17 02:58	1
Trichloroethene	<0.16		0.50	0.16	ug/L			07/20/17 02:58	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			07/20/17 02:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*75 - 126*		*07/20/17 02:58*	*1*
4-Bromofluorobenzene (Surr)	*94*		*72 - 124*		*07/20/17 02:58*	*1*
Dibromofluoromethane	*95*		*75 - 120*		*07/20/17 02:58*	*1*
Toluene-d8 (Surr)	*92*		*75 - 120*		*07/20/17 02:58*	*1*

Client Sample ID: MW-2011

Lab Sample ID: 500-131036-7

Date Collected: 07/12/17 16:20
Matrix: Water
Date Received: 07/14/17 09:58

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	2.1		1.0	0.38	ug/L			07/20/17 03:25	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			07/20/17 03:25	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			07/20/17 03:25	1
Trichloroethene	16		0.50	0.16	ug/L			07/20/17 03:25	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			07/20/17 03:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*75 - 126*		*07/20/17 03:25*	*1*
4-Bromofluorobenzene (Surr)	*97*		*72 - 124*		*07/20/17 03:25*	*1*
Dibromofluoromethane	*94*		*75 - 120*		*07/20/17 03:25*	*1*
Toluene-d8 (Surr)	*90*		*75 - 120*		*07/20/17 03:25*	*1*

Client Sample ID: D-15

Lab Sample ID: 500-131036-8

Date Collected: 07/12/17 17:30
Matrix: Water
Date Received: 07/14/17 09:58

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			07/20/17 03:51	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			07/20/17 03:51	1
Tetrachloroethene	9.8		1.0	0.37	ug/L			07/20/17 03:51	1
Trichloroethene	12		0.50	0.16	ug/L			07/20/17 03:51	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			07/20/17 03:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*75 - 126*		*07/20/17 03:51*	*1*
4-Bromofluorobenzene (Surr)	*96*		*72 - 124*		*07/20/17 03:51*	*1*
Dibromofluoromethane	*94*		*75 - 120*		*07/20/17 03:51*	*1*
Toluene-d8 (Surr)	*91*		*75 - 120*		*07/20/17 03:51*	*1*

Client Sample ID: TW-4

Lab Sample ID: 500-131036-9

Date Collected: 07/13/17 08:50
Matrix: Water
Date Received: 07/14/17 09:58

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			07/20/17 04:17	1
Bromobenzene	<0.36		1.0	0.36	ug/L			07/20/17 04:17	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			07/20/17 04:17	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			07/20/17 04:17	1
Bromoform	<0.48		1.0	0.48	ug/L			07/20/17 04:17	1
Bromomethane	<0.80		2.0	0.80	ug/L			07/20/17 04:17	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			07/20/17 04:17	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			07/20/17 04:17	1
Chloroethane	<0.51		1.0	0.51	ug/L			07/20/17 04:17	1
Chloroform	<0.37		2.0	0.37	ug/L			07/20/17 04:17	1
Chloromethane	<0.32		1.0	0.32	ug/L			07/20/17 04:17	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			07/20/17 04:17	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			07/20/17 04:17	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			07/20/17 04:17	1

Client Sample ID: TW-4

Date Collected: 07/13/17 08:50
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-9

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			07/20/17 04:17	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			07/20/17 04:17	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			07/20/17 04:17	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			07/20/17 04:17	1
Dibromomethane	<0.27		1.0	0.27	ug/L			07/20/17 04:17	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			07/20/17 04:17	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			07/20/17 04:17	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			07/20/17 04:17	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			07/20/17 04:17	1
1,1-Dichloroethane	**1.1**		1.0	0.41	ug/L			07/20/17 04:17	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			07/20/17 04:17	1
1,1-Dichloroethene	**1.0**		1.0	0.39	ug/L			07/20/17 04:17	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			07/20/17 04:17	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			07/20/17 04:17	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			07/20/17 04:17	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			07/20/17 04:17	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			07/20/17 04:17	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			07/20/17 04:17	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			07/20/17 04:17	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			07/20/17 04:17	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			07/20/17 04:17	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			07/20/17 04:17	1
Naphthalene	<0.34		1.0	0.34	ug/L			07/20/17 04:17	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			07/20/17 04:17	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			07/20/17 04:17	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			07/20/17 04:17	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			07/20/17 04:17	1
Styrene	<0.39		1.0	0.39	ug/L			07/20/17 04:17	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			07/20/17 04:17	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			07/20/17 04:17	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			07/20/17 04:17	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			07/20/17 04:17	1
Toluene	<0.15		0.50	0.15	ug/L			07/20/17 04:17	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			07/20/17 04:17	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			07/20/17 04:17	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			07/20/17 04:17	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			07/20/17 04:17	1
1,1,1-Trichloroethane	**27**		1.0	0.38	ug/L			07/20/17 04:17	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			07/20/17 04:17	1
Trichloroethene	**19**		0.50	0.16	ug/L			07/20/17 04:17	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			07/20/17 04:17	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			07/20/17 04:17	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			07/20/17 04:17	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			07/20/17 04:17	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			07/20/17 04:17	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			07/20/17 04:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*72 - 124*		*07/20/17 04:17*	*1*
Dibromofluoromethane	*94*		*75 - 120*		*07/20/17 04:17*	*1*

Client Sample ID: TW-4

Date Collected: 07/13/17 08:50
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*75 - 126*		*07/20/17 04:17*	*1*
Toluene-d8 (Surr)	*91*		*75 - 120*		*07/20/17 04:17*	*1*

Client Sample ID: MW-1027

Date Collected: 07/13/17 10:20
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-10
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	7.1		1.0	0.38	ug/L			07/21/17 17:34	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			07/21/17 17:34	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			07/21/17 17:34	1
Trichloroethene	27		0.50	0.16	ug/L			07/21/17 17:34	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			07/21/17 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*75 - 126*		*07/21/17 17:34*	*1*
4-Bromofluorobenzene (Surr)	*95*		*72 - 124*		*07/21/17 17:34*	*1*
Dibromofluoromethane	*94*		*75 - 120*		*07/21/17 17:34*	*1*
Toluene-d8 (Surr)	*97*		*75 - 120*		*07/21/17 17:34*	*1*

Client Sample ID: MW-1026

Date Collected: 07/13/17 12:20
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-11
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	14		1.0	0.38	ug/L			07/21/17 18:02	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			07/21/17 18:02	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			07/21/17 18:02	1
Trichloroethene	3.6		0.50	0.16	ug/L			07/21/17 18:02	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			07/21/17 18:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*75 - 126*		*07/21/17 18:02*	*1*
4-Bromofluorobenzene (Surr)	*95*		*72 - 124*		*07/21/17 18:02*	*1*
Dibromofluoromethane	*95*		*75 - 120*		*07/21/17 18:02*	*1*
Toluene-d8 (Surr)	*97*		*75 - 120*		*07/21/17 18:02*	*1*

Client Sample ID: EX-1

Date Collected: 07/13/17 12:50
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-12
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			07/21/17 18:29	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			07/21/17 18:29	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			07/21/17 18:29	1
Trichloroethene	<0.16		0.50	0.16	ug/L			07/21/17 18:29	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			07/21/17 18:29	1

Client Sample ID: EX-1

Date Collected: 07/13/17 12:50
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-12
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*95*		*75 - 126*		*07/21/17 18:29*	*1*
4-Bromofluorobenzene (Surr)	*93*		*72 - 124*		*07/21/17 18:29*	*1*
Dibromofluoromethane	*95*		*75 - 120*		*07/21/17 18:29*	*1*
Toluene-d8 (Surr)	*97*		*75 - 120*		*07/21/17 18:29*	*1*

Client Sample ID: TRIP BLANK

Date Collected: 07/12/17 00:00
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-13
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			07/21/17 17:07	1
Bromobenzene	<0.36		1.0	0.36	ug/L			07/21/17 17:07	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			07/21/17 17:07	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			07/21/17 17:07	1
Bromoform	<0.48		1.0	0.48	ug/L			07/21/17 17:07	1
Bromomethane	<0.80		2.0	0.80	ug/L			07/21/17 17:07	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			07/21/17 17:07	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			07/21/17 17:07	1
Chloroethane	<0.51		1.0	0.51	ug/L			07/21/17 17:07	1
Chloroform	<0.37		2.0	0.37	ug/L			07/21/17 17:07	1
Chloromethane	<0.32		1.0	0.32	ug/L			07/21/17 17:07	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			07/21/17 17:07	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			07/21/17 17:07	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			07/21/17 17:07	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			07/21/17 17:07	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			07/21/17 17:07	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			07/21/17 17:07	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			07/21/17 17:07	1
Dibromomethane	<0.27		1.0	0.27	ug/L			07/21/17 17:07	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			07/21/17 17:07	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			07/21/17 17:07	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			07/21/17 17:07	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			07/21/17 17:07	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			07/21/17 17:07	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			07/21/17 17:07	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			07/21/17 17:07	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			07/21/17 17:07	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			07/21/17 17:07	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			07/21/17 17:07	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			07/21/17 17:07	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			07/21/17 17:07	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			07/21/17 17:07	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			07/21/17 17:07	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			07/21/17 17:07	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			07/21/17 17:07	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			07/21/17 17:07	1
Naphthalene	<0.34		1.0	0.34	ug/L			07/21/17 17:07	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			07/21/17 17:07	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			07/21/17 17:07	1

Client Sample ID: TRIP BLANK

Date Collected: 07/12/17 00:00
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-13

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			07/21/17 17:07	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			07/21/17 17:07	1
Styrene	<0.39		1.0	0.39	ug/L			07/21/17 17:07	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			07/21/17 17:07	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			07/21/17 17:07	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			07/21/17 17:07	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			07/21/17 17:07	1
Toluene	<0.15		0.50	0.15	ug/L			07/21/17 17:07	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			07/21/17 17:07	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			07/21/17 17:07	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			07/21/17 17:07	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			07/21/17 17:07	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			07/21/17 17:07	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			07/21/17 17:07	1
Trichloroethene	<0.16		0.50	0.16	ug/L			07/21/17 17:07	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			07/21/17 17:07	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			07/21/17 17:07	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			07/21/17 17:07	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			07/21/17 17:07	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			07/21/17 17:07	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			07/21/17 17:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*72 - 124*		*07/21/17 17:07*	*1*
Dibromofluoromethane	*93*		*75 - 120*		*07/21/17 17:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*75 - 126*		*07/21/17 17:07*	*1*
Toluene-d8 (Surr)	*97*		*75 - 120*		*07/21/17 17:07*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Tetra Tech GEO
Project/Site: Pentair - Delavan 117-7469002.02

TestAmerica Job ID: 500-131036-1

GC/MS VOA

Analysis Batch: 393613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-131036-1	MW-2005R	Total/NA	Water	8260B	
500-131036-2	MW-2004	Total/NA	Water	8260B	
500-131036-3	TW-1	Total/NA	Water	8260B	
500-131036-4	D-18	Total/NA	Water	8260B	
500-131036-5	D-25R	Total/NA	Water	8260B	
500-131036-6	TW-3	Total/NA	Water	8260B	
500-131036-7	MW-2011	Total/NA	Water	8260B	
500-131036-8	D-15	Total/NA	Water	8260B	
500-131036-9	TW-4	Total/NA	Water	8260B	
MB 500-393613/6	Method Blank	Total/NA	Water	8260B	
LCS 500-393613/4	Lab Control Sample	Total/NA	Water	8260B	
500-131036-1 MS	MW-2005R	Total/NA	Water	8260B	
500-131036-1 MSD	MW-2005R	Total/NA	Water	8260B	

Analysis Batch: 393987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-131036-10	MW-1027	Total/NA	Water	8260B	
500-131036-11	MW-1026	Total/NA	Water	8260B	
500-131036-12	EX-1	Total/NA	Water	8260B	
500-131036-13	TRIP BLANK	Total/NA	Water	8260B	
MB 500-393987/5	Method Blank	Total/NA	Water	8260B	
LCS 500-393987/4	Lab Control Sample	Total/NA	Water	8260B	

Surrogate Summary

Client: Tetra Tech GEO
Project/Site: Pentair - Delavan 117-7469002.02

TestAmerica Job ID: 500-131036-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (75-126)	BFB (72-124)	DBFM (75-120)	TOL (75-120)
500-131036-1	MW-2005R	87	93	93	90
500-131036-1 MS	MW-2005R	90	90	99	87
500-131036-1 MSD	MW-2005R	90	91	99	86
500-131036-2	MW-2004	87	91	95	89
500-131036-3	TW-1	87	95	93	92
500-131036-4	D-18	88	94	96	91
500-131036-5	D-25R	87	93	94	90
500-131036-6	TW-3	86	94	95	92
500-131036-7	MW-2011	89	97	94	90
500-131036-8	D-15	88	96	94	91
500-131036-9	TW-4	88	96	94	91
500-131036-10	MW-1027	96	95	94	97
500-131036-11	MW-1026	96	95	95	97
500-131036-12	EX-1	95	93	95	97
500-131036-13	TRIP BLANK	94	94	93	97
LCS 500-393613/4	Lab Control Sample	89	91	96	89
LCS 500-393987/4	Lab Control Sample	93	90	91	98
MB 500-393613/6	Method Blank	91	95	94	90
MB 500-393987/5	Method Blank	98	98	96	97

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-393613/6
Matrix: Water
Analysis Batch: 393613

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			07/19/17 22:35	1
Bromobenzene	<0.36		1.0	0.36	ug/L			07/19/17 22:35	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			07/19/17 22:35	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			07/19/17 22:35	1
Bromoform	<0.48		1.0	0.48	ug/L			07/19/17 22:35	1
Bromomethane	<0.80		2.0	0.80	ug/L			07/19/17 22:35	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			07/19/17 22:35	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			07/19/17 22:35	1
Chloroethane	<0.51		1.0	0.51	ug/L			07/19/17 22:35	1
Chloroform	<0.37		2.0	0.37	ug/L			07/19/17 22:35	1
Chloromethane	<0.32		1.0	0.32	ug/L			07/19/17 22:35	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			07/19/17 22:35	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			07/19/17 22:35	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			07/19/17 22:35	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			07/19/17 22:35	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			07/19/17 22:35	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			07/19/17 22:35	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			07/19/17 22:35	1
Dibromomethane	<0.27		1.0	0.27	ug/L			07/19/17 22:35	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			07/19/17 22:35	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			07/19/17 22:35	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			07/19/17 22:35	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			07/19/17 22:35	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			07/19/17 22:35	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			07/19/17 22:35	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			07/19/17 22:35	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			07/19/17 22:35	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			07/19/17 22:35	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			07/19/17 22:35	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			07/19/17 22:35	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			07/19/17 22:35	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			07/19/17 22:35	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			07/19/17 22:35	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			07/19/17 22:35	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			07/19/17 22:35	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			07/19/17 22:35	1
Naphthalene	<0.34		1.0	0.34	ug/L			07/19/17 22:35	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			07/19/17 22:35	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			07/19/17 22:35	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			07/19/17 22:35	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			07/19/17 22:35	1
Styrene	<0.39		1.0	0.39	ug/L			07/19/17 22:35	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			07/19/17 22:35	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			07/19/17 22:35	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			07/19/17 22:35	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			07/19/17 22:35	1
Toluene	<0.15		0.50	0.15	ug/L			07/19/17 22:35	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			07/19/17 22:35	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-393613/6
Matrix: Water
Analysis Batch: 393613

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			07/19/17 22:35	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			07/19/17 22:35	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			07/19/17 22:35	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			07/19/17 22:35	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			07/19/17 22:35	1
Trichloroethene	<0.16		0.50	0.16	ug/L			07/19/17 22:35	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			07/19/17 22:35	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			07/19/17 22:35	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			07/19/17 22:35	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			07/19/17 22:35	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			07/19/17 22:35	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			07/19/17 22:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*72 - 124*		*07/19/17 22:35*	*1*
Dibromofluoromethane	*94*		*75 - 120*		*07/19/17 22:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*75 - 126*		*07/19/17 22:35*	*1*
Toluene-d8 (Surr)	*90*		*75 - 120*		*07/19/17 22:35*	*1*

Lab Sample ID: LCS 500-393613/4
Matrix: Water
Analysis Batch: 393613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	44.1		ug/L		88	70 - 120
Bromobenzene	50.0	48.8		ug/L		98	70 - 122
Bromochloromethane	50.0	49.8		ug/L		100	65 - 122
Bromodichloromethane	50.0	42.6		ug/L		85	69 - 120
Bromoform	50.0	40.3		ug/L		81	56 - 132
Bromomethane	50.0	55.1		ug/L		110	40 - 130
Carbon tetrachloride	50.0	45.4		ug/L		91	65 - 122
Chlorobenzene	50.0	43.0		ug/L		86	70 - 120
Chloroethane	50.0	42.1		ug/L		84	45 - 127
Chloroform	50.0	43.8		ug/L		88	70 - 120
Chloromethane	50.0	49.2		ug/L		98	54 - 147
2-Chlorotoluene	50.0	43.2		ug/L		86	70 - 125
4-Chlorotoluene	50.0	43.0		ug/L		86	68 - 124
cis-1,2-Dichloroethene	50.0	46.4		ug/L		93	70 - 125
cis-1,3-Dichloropropene	50.0	41.0		ug/L		82	64 - 127
Dibromochloromethane	50.0	45.0		ug/L		90	68 - 125
1,2-Dibromo-3-Chloropropane	50.0	38.1		ug/L		76	56 - 123
1,2-Dibromoethane	50.0	46.9		ug/L		94	70 - 125
Dibromomethane	50.0	45.5		ug/L		91	70 - 120
1,2-Dichlorobenzene	50.0	47.2		ug/L		94	70 - 125
1,3-Dichlorobenzene	50.0	45.9		ug/L		92	70 - 125
1,4-Dichlorobenzene	50.0	45.3		ug/L		91	70 - 120
Dichlorodifluoromethane	50.0	49.5		ug/L		99	40 - 150
1,1-Dichloroethane	50.0	44.5		ug/L		89	70 - 125

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-393613/4
Matrix: Water
Analysis Batch: 393613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	50.0	43.5		ug/L		87	68 - 127
1,1-Dichloroethene	50.0	48.8		ug/L		98	67 - 122
1,2-Dichloropropane	50.0	45.2		ug/L		90	67 - 130
1,3-Dichloropropane	50.0	43.5		ug/L		87	62 - 136
2,2-Dichloropropane	50.0	48.5		ug/L		97	58 - 129
1,1-Dichloropropene	50.0	44.3		ug/L		89	70 - 121
Ethylbenzene	50.0	46.3		ug/L		93	70 - 120
Hexachlorobutadiene	50.0	44.0		ug/L		88	51 - 150
Isopropylbenzene	50.0	47.1		ug/L		94	70 - 126
Methylene Chloride	50.0	46.4		ug/L		93	69 - 125
Methyl tert-butyl ether	50.0	44.9		ug/L		90	70 - 120
Naphthalene	50.0	50.8		ug/L		102	59 - 130
n-Butylbenzene	50.0	43.5		ug/L		87	68 - 125
N-Propylbenzene	50.0	43.4		ug/L		87	69 - 127
p-Isopropyltoluene	50.0	46.4		ug/L		93	70 - 125
sec-Butylbenzene	50.0	47.1		ug/L		94	70 - 123
Styrene	50.0	45.6		ug/L		91	70 - 120
tert-Butylbenzene	50.0	46.8		ug/L		94	70 - 121
1,1,1,2-Tetrachloroethane	50.0	43.2		ug/L		86	70 - 125
1,1,2,2-Tetrachloroethane	50.0	45.0		ug/L		90	67 - 127
Tetrachloroethene	50.0	45.8		ug/L		92	70 - 128
Toluene	50.0	44.0		ug/L		88	70 - 125
trans-1,2-Dichloroethene	50.0	48.2		ug/L		96	70 - 125
trans-1,3-Dichloropropene	50.0	41.1		ug/L		82	62 - 128
1,2,3-Trichlorobenzene	50.0	52.4		ug/L		105	55 - 140
1,2,4-Trichlorobenzene	50.0	47.6		ug/L		95	66 - 127
1,1,1-Trichloroethane	50.0	45.0		ug/L		90	70 - 125
1,1,2-Trichloroethane	50.0	44.1		ug/L		88	70 - 122
Trichloroethene	50.0	50.9		ug/L		102	70 - 125
Trichlorofluoromethane	50.0	47.4		ug/L		95	70 - 126
1,2,3-Trichloropropane	50.0	44.4		ug/L		89	50 - 133
1,2,4-Trimethylbenzene	50.0	46.2		ug/L		92	70 - 123
1,3,5-Trimethylbenzene	50.0	46.2		ug/L		92	70 - 123
Vinyl chloride	50.0	44.5		ug/L		89	64 - 126
Xylenes, Total	100	84.1		ug/L		84	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*72 - 124*
Dibromofluoromethane	*96*		*75 - 120*
1,2-Dichloroethane-d4 (Surr)	*89*		*75 - 126*
Toluene-d8 (Surr)	*89*		*75 - 120*

Lab Sample ID: 500-131036-1 MS
Matrix: Water
Analysis Batch: 393613

Client Sample ID: MW-2005R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrachloroethene	<0.37		50.0	54.3		ug/L		109	70 - 128

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-131036-1 MS
Matrix: Water
Analysis Batch: 393613

Client Sample ID: MW-2005R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	<0.38		50.0	57.0		ug/L		114	70 - 125
1,1,2-Trichloroethane	<0.35		50.0	51.5		ug/L		103	70 - 122
Trichloroethene	<0.16		50.0	62.5		ug/L		125	70 - 125
Vinyl chloride	<0.20		50.0	52.3		ug/L		105	64 - 126

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*72 - 124*
Dibromofluoromethane	*99*		*75 - 120*
1,2-Dichloroethane-d4 (Surr)	*90*		*75 - 126*
Toluene-d8 (Surr)	*87*		*75 - 120*

Lab Sample ID: 500-131036-1 MSD
Matrix: Water
Analysis Batch: 393613

Client Sample ID: MW-2005R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene	<0.37		50.0	52.8		ug/L		106	70 - 128	3	20
1,1,1-Trichloroethane	<0.38		50.0	56.6		ug/L		113	70 - 125	1	20
1,1,2-Trichloroethane	<0.35		50.0	50.6		ug/L		101	70 - 122	2	20
Trichloroethene	<0.16		50.0	61.3		ug/L		123	70 - 125	2	20
Vinyl chloride	<0.20		50.0	51.3		ug/L		103	64 - 126	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*72 - 124*
Dibromofluoromethane	*99*		*75 - 120*
1,2-Dichloroethane-d4 (Surr)	*90*		*75 - 126*
Toluene-d8 (Surr)	*86*		*75 - 120*

Lab Sample ID: MB 500-393987/5
Matrix: Water
Analysis Batch: 393987

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			07/21/17 14:21	1
Bromobenzene	<0.36		1.0	0.36	ug/L			07/21/17 14:21	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			07/21/17 14:21	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			07/21/17 14:21	1
Bromoform	<0.48		1.0	0.48	ug/L			07/21/17 14:21	1
Bromomethane	<0.80		2.0	0.80	ug/L			07/21/17 14:21	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			07/21/17 14:21	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			07/21/17 14:21	1
Chloroethane	<0.51		1.0	0.51	ug/L			07/21/17 14:21	1
Chloroform	<0.37		2.0	0.37	ug/L			07/21/17 14:21	1
Chloromethane	<0.32		1.0	0.32	ug/L			07/21/17 14:21	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			07/21/17 14:21	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			07/21/17 14:21	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			07/21/17 14:21	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			07/21/17 14:21	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-393987/5
Matrix: Water
Analysis Batch: 393987

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	<0.49		1.0	0.49	ug/L			07/21/17 14:21	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			07/21/17 14:21	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			07/21/17 14:21	1
Dibromomethane	<0.27		1.0	0.27	ug/L			07/21/17 14:21	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			07/21/17 14:21	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			07/21/17 14:21	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			07/21/17 14:21	1
Dichlorodifluoromethane	<0.67		2.0	0.67	ug/L			07/21/17 14:21	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			07/21/17 14:21	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			07/21/17 14:21	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			07/21/17 14:21	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			07/21/17 14:21	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			07/21/17 14:21	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			07/21/17 14:21	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			07/21/17 14:21	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			07/21/17 14:21	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			07/21/17 14:21	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			07/21/17 14:21	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			07/21/17 14:21	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			07/21/17 14:21	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			07/21/17 14:21	1
Naphthalene	<0.34		1.0	0.34	ug/L			07/21/17 14:21	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			07/21/17 14:21	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			07/21/17 14:21	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			07/21/17 14:21	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			07/21/17 14:21	1
Styrene	<0.39		1.0	0.39	ug/L			07/21/17 14:21	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			07/21/17 14:21	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			07/21/17 14:21	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			07/21/17 14:21	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			07/21/17 14:21	1
Toluene	<0.15		0.50	0.15	ug/L			07/21/17 14:21	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			07/21/17 14:21	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			07/21/17 14:21	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			07/21/17 14:21	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			07/21/17 14:21	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			07/21/17 14:21	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			07/21/17 14:21	1
Trichloroethene	<0.16		0.50	0.16	ug/L			07/21/17 14:21	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			07/21/17 14:21	1
1,2,3-Trichloropropane	<0.41		1.0	0.41	ug/L			07/21/17 14:21	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			07/21/17 14:21	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			07/21/17 14:21	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			07/21/17 14:21	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			07/21/17 14:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*72 - 124*		*07/21/17 14:21*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-393987/5
Matrix: Water
Analysis Batch: 393987

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	*96*		*75 - 120*		*07/21/17 14:21*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*75 - 126*		*07/21/17 14:21*	*1*
Toluene-d8 (Surr)	*97*		*75 - 120*		*07/21/17 14:21*	*1*

Lab Sample ID: LCS 500-393987/4
Matrix: Water
Analysis Batch: 393987

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	42.7		ug/L		85	70 - 120
Bromobenzene	50.0	41.2		ug/L		82	70 - 122
Bromochloromethane	50.0	41.5		ug/L		83	65 - 122
Bromodichloromethane	50.0	41.3		ug/L		83	69 - 120
Bromoform	50.0	39.3		ug/L		79	56 - 132
Bromomethane	50.0	53.3		ug/L		107	40 - 130
Carbon tetrachloride	50.0	42.9		ug/L		86	65 - 122
Chlorobenzene	50.0	42.9		ug/L		86	70 - 120
Chloroethane	50.0	43.3		ug/L		87	45 - 127
Chloroform	50.0	42.6		ug/L		85	70 - 120
Chloromethane	50.0	38.5		ug/L		77	54 - 147
2-Chlorotoluene	50.0	41.9		ug/L		84	70 - 125
4-Chlorotoluene	50.0	42.8		ug/L		86	68 - 124
cis-1,2-Dichloroethene	50.0	41.6		ug/L		83	70 - 125
cis-1,3-Dichloropropene	50.0	40.8		ug/L		82	64 - 127
Dibromochloromethane	50.0	41.7		ug/L		83	68 - 125
1,2-Dibromo-3-Chloropropane	50.0	39.3		ug/L		79	56 - 123
1,2-Dibromoethane	50.0	42.7		ug/L		85	70 - 125
Dibromomethane	50.0	41.9		ug/L		84	70 - 120
1,2-Dichlorobenzene	50.0	41.7		ug/L		83	70 - 125
1,3-Dichlorobenzene	50.0	41.3		ug/L		83	70 - 125
1,4-Dichlorobenzene	50.0	41.0		ug/L		82	70 - 120
Dichlorodifluoromethane	50.0	34.8		ug/L		70	40 - 150
1,1-Dichloroethane	50.0	42.9		ug/L		86	70 - 125
1,2-Dichloroethane	50.0	42.3		ug/L		85	68 - 127
1,1-Dichloroethene	50.0	44.1		ug/L		88	67 - 122
1,2-Dichloropropane	50.0	42.7		ug/L		85	67 - 130
1,3-Dichloropropane	50.0	43.5		ug/L		87	62 - 136
2,2-Dichloropropane	50.0	42.1		ug/L		84	58 - 129
1,1-Dichloropropene	50.0	43.2		ug/L		86	70 - 121
Ethylbenzene	50.0	43.4		ug/L		87	70 - 120
Hexachlorobutadiene	50.0	37.5		ug/L		75	51 - 150
Isopropylbenzene	50.0	43.1		ug/L		86	70 - 126
Methylene Chloride	50.0	44.7		ug/L		89	69 - 125
Methyl tert-butyl ether	50.0	40.4		ug/L		81	70 - 120
Naphthalene	50.0	38.5		ug/L		77	59 - 130
n-Butylbenzene	50.0	42.9		ug/L		86	68 - 125
N-Propylbenzene	50.0	43.8		ug/L		88	69 - 127
p-Isopropyltoluene	50.0	41.9		ug/L		84	70 - 125

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-393987/4
Matrix: Water
Analysis Batch: 393987

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
sec-Butylbenzene	50.0	42.6		ug/L		85	70 - 123
Styrene	50.0	43.0		ug/L		86	70 - 120
tert-Butylbenzene	50.0	41.3		ug/L		83	70 - 121
1,1,1,2-Tetrachloroethane	50.0	41.1		ug/L		82	70 - 125
1,1,2,2-Tetrachloroethane	50.0	46.8		ug/L		94	67 - 127
Tetrachloroethene	50.0	44.4		ug/L		89	70 - 128
Toluene	50.0	44.5		ug/L		89	70 - 125
trans-1,2-Dichloroethene	50.0	43.7		ug/L		87	70 - 125
trans-1,3-Dichloropropene	50.0	40.7		ug/L		81	62 - 128
1,2,3-Trichlorobenzene	50.0	39.2		ug/L		78	55 - 140
1,2,4-Trichlorobenzene	50.0	40.1		ug/L		80	66 - 127
1,1,1-Trichloroethane	50.0	43.0		ug/L		86	70 - 125
1,1,2-Trichloroethane	50.0	42.1		ug/L		84	70 - 122
Trichloroethene	50.0	42.6		ug/L		85	70 - 125
Trichlorofluoromethane	50.0	41.2		ug/L		82	70 - 126
1,2,3-Trichloropropane	50.0	38.0		ug/L		76	50 - 133
1,2,4-Trimethylbenzene	50.0	42.1		ug/L		84	70 - 123
1,3,5-Trimethylbenzene	50.0	42.6		ug/L		85	70 - 123
Vinyl chloride	50.0	38.1		ug/L		76	64 - 126
Xylenes, Total	100	87.5		ug/L		88	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*72 - 124*
Dibromofluoromethane	*91*		*75 - 120*
1,2-Dichloroethane-d4 (Surr)	*93*		*75 - 126*
Toluene-d8 (Surr)	*98*		*75 - 120*

Lab Chronicle

Client: Tetra Tech GEO
Project/Site: Pentair - Delavan 117-7469002.02

TestAmerica Job ID: 500-131036-1

Client Sample ID: MW-2005R
Date Collected: 07/12/17 10:30
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	393613	07/19/17 23:01	EMA	TAL CHI

Client Sample ID: MW-2004
Date Collected: 07/12/17 11:30
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	393613	07/19/17 23:27	EMA	TAL CHI

Client Sample ID: TW-1
Date Collected: 07/12/17 12:10
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	393613	07/19/17 23:54	EMA	TAL CHI

Client Sample ID: D-18
Date Collected: 07/12/17 13:00
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	393613	07/20/17 00:21	EMA	TAL CHI

Client Sample ID: D-25R
Date Collected: 07/12/17 14:00
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	393613	07/20/17 00:47	EMA	TAL CHI

Client Sample ID: TW-3
Date Collected: 07/12/17 15:30
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	393613	07/20/17 02:58	EMA	TAL CHI

Lab Chronicle

Client: Tetra Tech GEO
Project/Site: Pentair - Delavan 117-7469002.02

TestAmerica Job ID: 500-131036-1

Client Sample ID: MW-2011

Lab Sample ID: 500-131036-7

Date Collected: 07/12/17 16:20
Matrix: Water
Date Received: 07/14/17 09:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	393613	07/20/17 03:25	EMA	TAL CHI

Client Sample ID: D-15

Lab Sample ID: 500-131036-8

Date Collected: 07/12/17 17:30
Matrix: Water
Date Received: 07/14/17 09:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	393613	07/20/17 03:51	EMA	TAL CHI

Client Sample ID: TW-4

Lab Sample ID: 500-131036-9

Date Collected: 07/13/17 08:50
Matrix: Water
Date Received: 07/14/17 09:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	393613	07/20/17 04:17	EMA	TAL CHI

Client Sample ID: MW-1027

Lab Sample ID: 500-131036-10

Date Collected: 07/13/17 10:20
Matrix: Water
Date Received: 07/14/17 09:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	393987	07/21/17 17:34	PJH	TAL CHI

Client Sample ID: MW-1026

Lab Sample ID: 500-131036-11

Date Collected: 07/13/17 12:20
Matrix: Water
Date Received: 07/14/17 09:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	393987	07/21/17 18:02	PJH	TAL CHI

Client Sample ID: EX-1

Lab Sample ID: 500-131036-12

Date Collected: 07/13/17 12:50
Matrix: Water
Date Received: 07/14/17 09:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	393987	07/21/17 18:29	PJH	TAL CHI

Lab Chronicle

Client: Tetra Tech GEO
Project/Site: Pentair - Delavan 117-7469002.02

TestAmerica Job ID: 500-131036-1

Client Sample ID: TRIP BLANK
Date Collected: 07/12/17 00:00
Date Received: 07/14/17 09:58

Lab Sample ID: 500-131036-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	393987	07/21/17 17:07	PJH	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Tetra Tech GEO
Project/Site: Pentair - Delavan 117-7469002.02

TestAmerica Job ID: 500-131036-1

Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTA

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53

500-131036 COC

Chain of Custody Record

Lab Job #: 500-131036

Chain of Custody Number:

Page 1 of 2

Temperature °C of Cooler: 2.7

(optional)

Report To
Contact: MARK MANTHEY
Company: TETRA TECH
Address: 175 N. CORPORATE DR. SUITE 400
Address: BROOKFIELD, WI 53045
Phone: (262) 792-1282
Fax:
E-Mail:

(optional)

Bill To
Contact: SAME AS REPORT TO
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Client: TETRA TECH
Client Project #: 117-7469002-02
Project Name: TENTAIR FLOW TECHNOLOGIES
Project Location/State: DELAVAN, WI.
Lab Project #:
Sampler: TODD M. THOMSON
Lab PM: SANDIE FREDRICK

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	Parameter: PCE	TCA	TCE	VINYL CHLORIDE	VOCs 8260					Comments
								1	1	1	1						
1		MW-2005R	7-12	10:30	3	GW		✓	✓	✓	✓						
2		MW-2004	7-12	11:30	3			✓	✓	✓	✓						
3		TW-1	7-12	12:10	3			✓	✓	✓	✓						
4		D-18	7-12	13:00	3			✓	✓	✓	✓						
5		D-25R	7-12	14:00	3			✓	✓	✓	✓						
6		TW-3	7-12	15:30	3			✓	✓	✓	✓						
7		MW-2011	7-12	16:20	3			✓	✓	✓	✓						
8		D-15	7-12	17:30	3			✓	✓	✓	✓						
9		TW-4	7-13	08:50	3							✓					
10		MW-1027	7-13	10:20	3	V		✓	✓	✓	✓						

Turnaround Time Required (Business Days) STANDARD
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date:

Sample Disposal
[ ] Return to Client [ ] Disposal by Lab [ ] Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	TETRA TECH	7-13-17	17:00		TA	7-14-17	0958
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier:
Shipped: FEDEX
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TAL-4124-500 (1209) 7/25/2017

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)

Report To
Contact: MARK MONTHEY
Company: TETRA TECH
Address: 475 CORPORATE DR. SUITE 100
Address: BROOKFIELD, WI 53045
Phone: (262) 792-1282
Fax:
E-Mail:

(optional)

Bill To
Contact: SAME AS REPORT TO
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-131036

Chain of Custody Number:

Page 2 of 2

Temperature °C of Cooler: 2.7

Client: TETRA TECH
Client Project #: 117-7469002.02
Project Name: PENTAIR FLOW TECHNOLOGIES
Project Location/State: DELAVAN, WI
Lab Project #:
Sampler: TODD THOMSON
Lab PM: SANDIE FREDRICK

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	Parameter: PCE	TCA	TCE	VINYL CHLORIDE	VOCs 8260	Comments
11		MW-1026	7-13	12:20	3	GW		✓	✓	✓	✓		
12		EX-1	7-13	12:50	3	GW		✓	✓	✓	✓	✓	
13		TRIP BLANK	—	—	2	DI							LAB PREPARED

Turnaround Time Required (Business Days): STANDARD
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date: _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	TETRA TECH	7-13-17	17:00		TA	7-14-17	0958

Lab Courier:
Shipped: FEDEX
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TAL-4124-500 (1209)

7/25/2017

Login Sample Receipt Checklist

Client: Tetra Tech GEO

Job Number: 500-131036-1

Login Number: 131036
List Number: 1
Creator: James, Jeff A

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX B

REPLACEMENT EXTRACTION WELLS

WELL CONSTRUCTION REPORTS AND

EXTRACTION WELLS EX-3, EX-4, EX-5 AND EX-7

WELL FILLING & SEALING FORMS

Well Construction Report For WISCONSIN UNIQUE WELL NUMBER YT587

State of WI - Private Water Systems - DG/2
Department of Natural Resources, Box 7921
Madison, WI 53707
Please type or Print using a black Pen
Please Use Decimals Instead of Fractions.

Form 3300-77A (R 8/00)

Property Owner: **PENTAIR** | Telephone Number: **414-852-2700**

Mailing Address: **293 WRIGHT STREET**

City: **DELEVAN** | State: **WI** | Zip Code: **53115**

County of Well Location: **Walworth** | County Well Permit No.: **W** | Well Completion Date: **06/02/2017**

1. Well Location: [X] Town [ ] City [ ] Village of **DELAVAN** | Fire # (if available): **293**

Grid or Street Address or Road Name and Number: **WRIGHT STREET**

Subdivision Name | Lot # | Block #

Well Constructor (Business Name): **SAM'S WELL DRILLING INC** | License #: **370** | Facility ID Number (Public Wells)

Address: **PO BOX 150** | Public Well Plan Approval #: **W--0601-4222**

City: **RANDOLPH** | State: **WI** | Zip Code: **53956** | Date of Approval (mm/dd/yyyy): **12/12/2016**

Hicap Permanent well #: **91930** | Common Well #: **3R** | Specific Capacity: **4** gpm/ft

Gov't Lot # | or **SW** 1/4 of **NE** 1/4 of Section **17** T **2** N; R **16** [X] E [ ] W

Latitude Deg. **42** Min. **38.064**
Longitude Deg **88** Min. **37.524**

2. Well Type: [ ] New [X] Replacement [ ] Reconstruction | Lat/Long Method: **GPS008**

of previous unique well # constructed in

Reason for replaced or Reconstructed Well? **EXTRACTION WELL EXR-3**

3. Well serves **1** # of homes and or **INDUSTRY** (e.g. barn, restaurant, church, school, industry, etc.)

High capacity Well? [ ] Yes [X] No
Property? [X] Yes [ ] No

[X] Drilled [ ] Driven Point [ ] Jetted [ ] Other:

4. Is the well located upslope or sideslope and not downslope from any contamination source, including those on neighboring properties? [X] Yes [ ] No

Well located within 1,200 feet of a quarry? [ ] Yes [ ] No If yes, distance in feet from quarry:

Well located in floodplain? [ ] Yes [X] No

Distance in Feet from Well to Nearest:

1. Landfill
2. Building Overhang
3. Septic [ ] Holding Tank [ ]
4. Sewage Absorption Unit
5. Nonconforming Pit
6. Buried Home Heating Oil Tank
7. Buried Petroleum Tank
8. Shoreline [ ] Swimming Pool [ ]
9. Downspout/Yard Hydrant
10. Privy
11. Foundation Drain to Clearwater
12. Foundation Drain to Sewer
13. Building Drain [ ] Cast Iron or Plastic [ ] Other
14. Building Sewer [ ] Gravity [ ] Pressure [ ] Cast Iron or Plastic [ ] Other
15. Collector or Street Sewer: [ ] Sanitary units in. diam. [ ] Storm [ ] =< 6 [ ] > 6
16. Clearwater Sump
17. Wastewater Sump
18. Paved Animal Barn Pen
19. Animal Yard or Shelter
20. Silo
21. Barn Gutter
22. Manure Pipe [ ] Gravity [ ] Pressure [ ] Cast Iron or Plastic [ ] Other
23. Other Manure Storage
24. Ditch
25. Other NR 812 Waste Storage

5. Drillhole Dimensions and Construction Method

Dia (in.)	From (ft.)	To (ft.)
8	0	53

Upper Enlarged Drillhole / Lower Open Bedrock

- [ ] ---1. Rotary - Mud Circulation----------
- [ ] ---2. Rotary - Air----------
- [ ] ---3. Rotary - Air and Foam----------
- [ ] ---4.Drill-Through Casing Hammer
- [ ] ---5. Reverse Rotary
- [ ] ---6. Cable-tool Bit in. dia------
- [X] 7. Dual Rotary
- [ ] 8. Temp. Outer Casing in. dia. depth (ft)
  Removed? [ ] Yes [X] No
  If no, why not?

8. Geology

Type, Caving/Noncaving, Color, Hardness, etc	From (ft.)	To (ft.)
--ZS Clay & Gravel, Sandy	0	21
--YM Sand & Gravel, Silty	21	34
--Y- Sand & Gravel	34	53
--C- CLAY	53	53

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification	From (ft.)	To (ft.)
8	STD BLK, PIPE, .320 WALL, P.E., A53B BORUSAN MANNESMANN 8X6 K PACKER, A53B	0	32
8	46" STD BLACK PIPE .280 WALL RISER,	32	35
6	¥20 SLOTTED SS (33-43) #30 SLOTTED SS (43	33	53

9. Static Water Level: ft. above ground surface **30** ft. below ground surface

10. Pump Test: Pumping Level **35** ft. below surface; Pumping at **20** GPM for **1** hours

11. Well is: [X] Above Grade [ ] Below Grade **12** in.
Developed? [X] Yes [ ] No
Disinfected? [X] Yes [ ] No
Capped? [X] Yes [ ] No

7. Grout or Other Sealing Material. Method: **MOUNDED**

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
Granular bentonite	0	53	1

12. Did you notify the owner of the need to permanently abandon and fill all unused wells on this property? [X] Yes [ ] No If no, explain:

13. Signature of the Well Constructor or Supervisory Driller: **JVG** Date signed: **06/02/2017**

Signature of Drill Rig Operator (Mandatory unless same as above): **DB** Date signed: **06/02/2017**

Make additional comments on reverse side about geology, additional screens, water quality, etc.

Variance issued [ ] Yes [X] No

Well Construction Report For WISCONSIN UNIQUE WELL NUMBER YT588

State of WI - Private Water Systems - DG/2
Department of Natural Resources, Box 7921
Madison, WI 53707
Please type or Print using a black Pen
Please Use Decimals Instead of Fractions.

Form 3300-77A
(R 8/00)

Property Owner: PENTAIR
Telephone Number: 414-852-2700
Mailing Address: 293 WRIGHT STREET
City: DELEVAN
State: WI
Zip Code: 53115
County of Well Location: Walworth
County Well Permit No.: W
Well Completion Date: 06/02/2017

1. Well Location: [X] Town [ ] City [ ] Village of DELAVAN
Fire # (if available): 293
Grid or Street Address or Road Name and Number: WRIGHT ST
Subdivision Name | Lot # | Block #

Well Constructor (Business Name): SAM'S WELL DRILLING INC
License #: 370
Facility ID Number (Public Wells):
Address: PO BOX 150
Public Well Plan Approval #: W--0601-4229
City: RANDOLPH
State: WI
Zip Code: 53956
Date of Approval (mm/dd/yyyy): 12/21/2016

Gov't Lot # | or NW 1/4 of SE 1/4 of
Section 17 T 2 N; R 16 [X] E [ ] W
Latitude Deg. 42 Min. 38.076
Longitude Deg 88 Min. 37.542

2. Well Type: [ ] New [X] Replacement [ ] Reconstruction
Lat/Long Method: GPS008
of previous unique well # constructed in
Reason for replaced or Reconstructed Well?: EXTRACTION WELL EXR-4

Hicap Permanent well #: 91931
Common Well #: 4R
Specific Capacity: 4 gpm/ft

3. Well serves 1 # of homes and or INDUSTRY (e.g. barn, restaurant, church, school, industry, etc.)
High capacity Well? [ ] Yes [X] No
Property? [X] Yes [ ] No

[X] Drilled [ ] Driven Point [ ] Jetted [ ] Other:

4. Is the well located upslope or sideslope and not downslope from any contamination source, including those on neighboring properties? [X] Yes [ ] No
Well located within 1,200 feet of a quarry? [ ] Yes [ ] No If yes, distance in feet from quarry:
Well located in floodplain? [ ] Yes [X] No
Distance in Feet from Well to Nearest:
1. Landfill
2. Building Overhang
3. Septic [ ] Holding Tank [ ]
4. Sewage Absorption Unit
5. Nonconforming Pit
6. Buried Home Heating Oil Tank
7. Buried Petroleum Tank
8. Shoreline [ ] Swimming Pool [ ]
9. Downspout/Yard Hydrant
10. Privy
11. Foundation Drain to Clearwater
12. Foundation Drain to Sewer
13. Building Drain [ ] Cast Iron or Plastic [ ] Other
14. Building Sewer [ ] Gravity [ ] Pressure [ ] Cast Iron or Plastic [ ] Other
15. Collector or Street Sewer: [ ] Sanitary units in. diam. [ ] Storm [ ] =< 6 [ ] > 6
16. Clearwater Sump
17. Wastewater Sump
18. Paved Animal Barn Pen
19. Animal Yard or Shelter
20. Silo
21. Barn Gutter
22. Manure Pipe [ ] Gravity [ ] Pressure [ ] Cast Iron or Plastic [ ] Other
23. Other Manure Storage
24. Ditch
25. Other NR 812 Waste Storage

5. Drillhole Dimensions and Construction Method

Dia (in.)	From (ft.)	To (ft.)
8	0	53

Upper Enlarged Drillhole / Lower Open Bedrock
[ ] ---1. Rotary - Mud Circulation----------
[ ] ---2. Rotary - Air----------
[ ] ---3. Rotary - Air and Foam----------
[ ] ---4.Drill-Through Casing Hammer
[ ] ---5. Reverse Rotary
[ ] ---6. Cable-tool Bit in. dia------
[X] 7. Dual Rotary
[ ] 8. Temp. Outer Casing in. dia. depth (ft)
Removed? [ ] Yes [X] No
If no, why not?

8. Geology

Type, Caving/Noncaving, Color, Hardness, etc	From (ft.)	To (ft.)
--C- Clay	0	18
--YC Sand & Gravel, Clayey	18	35
--Y- Sand & Gravel	35	53
--C- CLAY	53	53

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification	From (ft.)	To (ft.)
	8 STD BLK, PIPE, .322 WALL, P.E., A53B BORUSAN MANNESMANN	0	35
	8 STD BLK PIPE, 280 WALL, RISER, IPSCO, W-K/PACKER, A53B	34	35
6	#20 SLOTTED STAINLESS STEEL 35-49; #10 S	35	53

9. Static Water Level
ft. above ground surface
30 ft. below ground surface

10. Pump Test
Pumping Level 35 ft. below surface
Pumping at 20 GPM for 1 hours

11. Well is: [X] Above Grade 12 in. [ ] Below Grade
Developed? [X] Yes [ ] No
Disinfected? [X] Yes [ ] No
Capped? [X] Yes [ ] No

7. Grout or Other Sealing Material. Method
Method: MOUNDED
Kind of Sealing Material

	From (ft.)	To (ft.)	# Sacks Cement
GRANULAR BENTONITE	0	35	1

12. Did you notify the owner of the need to permanently abandon and fill all unused wells on this property?
[X] Yes [ ] No If no, explain:

13. Signature of the Well Constructor or Supervisory Driller: JVG — Date signed: 06/02/2017
Signature of Drill Rig Operator (Mandatory unless same as above): DB — Date signed: 06/02/2017

Make additional comments on reverse side about geology, additional screens, water quality, etc.
Variance issued [ ] Yes [X] No

Well Construction Report For WISCONSIN UNIQUE WELL NUMBER YT385

State of WI - Private Water Systems - DG/2
Department of Natural Resources, Box 7921
Madison, WI 53707
Please type or Print using a black Pen
Please Use Decimals Instead of Fractions.

Form 3300-77A
(R 8/00)

Property Owner: **PENTAIR** | Telephone Number: **608-335-5573**

Mailing Address: **293 WRIGHT STREET**

City: **DELEVAN** | State: **WI** | Zip Code: **53115**

County of Well Location: **Walworth** | County Well Permit No.: **W** | Well Completion Date: **05/31/2017**

1. Well Location: [X] Town [ ] City [ ] Village of **DELAVAN** | Fire # (if available): **293**

Grid or Street Address or Road Name and Number: **WRIGHT ST**

Subdivision Name | Lot # | Block #

Well Constructor (Business Name): **SAM'S WELL DRILLING INC** | License #: **370** | Facility ID Number (Public Wells)

Address: **PO BOX 150** | Public Well Plan Approval #: **W--0601-4229**

City: **RANDOLPH** | State: **WI** | Zip Code: **53956** | Date of Approval (mm/dd/yyyy): **12/21/2016**

Hicap Permanent well #: **91932** | Common Well #: **5R** | Specific Capacity: gpm/ft

Gov't Lot # | or **SW** 1/4 of **NE** 1/4 of Section **17** T **2** N; R **16** [X] E [ ] W

Latitude Deg. **42** Min.
Longitude Deg. **88** Min. **37.542**

2. Well Type: [ ] Replacement [X] New [ ] Reconstruction | Lat/Long Method: **GPS008**

of previous unique well # constructed in

Reason for replaced or Reconstructed Well? **EXTRACTION WELL EXR-5**

3. Well serves **1** # of homes and or **INDUSTRY** (e.g. barn, restaurant, church, school, industry, etc.)

High capacity Well? [ ] Yes [X] No
Property? [X] Yes [ ] No

[X] Drilled [ ] Driven Point [ ] Jetted [ ] Other:

4. Is the well located upslope or sideslope and not downslope from any contamination source, including those on neighboring properties? [X] Yes [ ] No

Well located within 1,200 feet of a quarry? [ ] Yes [ ] No If yes, distance in feet from quarry:

Well located in floodplain? [ ] Yes [X] No

Distance in Feet from Well to Nearest:

1. Landfill
2. Building Overhang
3. Septic [ ] Holding Tank [ ]
4. Sewage Absorption Unit
5. Nonconforming Pit
6. Buried Home Heating Oil Tank
7. Buried Petroleum Tank
8. Shoreline [ ] Swimming Pool [ ]
9. Downspout/Yard Hydrant
10. Privy
11. Foundation Drain to Clearwater
12. Foundation Drain to Sewer
13. Building Drain [ ] Cast Iron or Plastic [ ] Other
14. Building Sewer [ ] Gravity [ ] Pressure [ ] Cast Iron or Plastic [ ] Other
15. Collector or Street Sewer: [ ] Sanitary [ ] Storm units [ ] =< 6 [ ] > 6 in. diam.
16. Clearwater Sump
17. Wastewater Sump
18. Paved Animal Barn Pen
19. Animal Yard or Shelter
20. Silo
21. Barn Gutter
22. Manure Pipe [ ] Gravity [ ] Pressure [ ] Cast Iron or Plastic [ ] Other
23. Other Manure Storage
24. Ditch
25. Other NR 812 Waste Storage

5. Drillhole Dimensions and Construction Method

Dia (in.)	From (ft.)	To (ft.)
8	0	47

Upper Enlarged Drillhole / Lower Open Bedrock

- [ ] ---1. Rotary - Mud Circulation----------
- [ ] ---2. Rotary - Air----------
- [ ] ---3. Rotary - Air and Foam----------
- [ ] ---4.Drill-Through Casing Hammer
- [ ] ---5. Reverse Rotary
- [ ] ---6. Cable-tool Bit in. dia------
- [X] 7. Dual Rotary
- [ ] 8. Temp. Outer Casing in. dia. depth (ft) Removed? [ ] Yes [X] No If no, why not?

8. Geology

Type, Caving/Noncaving, Color, Hardness, etc	From (ft.)	To (ft.)
--GS Gravel/Cobbles/Boulders/Stones, Sandy	0	11
--Z- Clay & Gravel	11	30
--YM Sand & Gravel, Silty	30	36
--G- Gravel/Cobbles/Boulders/Stones	36	47
--C- CLAY	47	48

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification	From (ft.)	To (ft.)
	8 STD BLK, PIPE, .322 WALL, P.E.,	0	31
	8 STD BLK PIPE, 280 WALL, RISER, IPSCO, W-K/PACK, A53B	30	31
6	#20 SLOTTED STAINLESS	31	47

9. Static Water Level: ft. above ground surface
30 ft. below ground surface

10. Pump Test
Pumping Level **30** ft. below surface
Pumping at **10** GPM for **1** hours

11. Well is: [X] Above Grade **12** in. [ ] Below Grade
Developed? [X] Yes [ ] No
Disinfected? [X] Yes [ ] No
Capped? [X] Yes [ ] No

7. Grout or Other Sealing Material. Method
Method: **MOUNDED**

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
Granular bentonite	0	31	1

12. Did you notify the owner of the need to permanently abandon and fill all unused wells on this property? [ ] Yes [ ] No If no, explain:

13. Signature of the Well Constructor or Supervisory Driller: **JVG** Date signed: **05/31/2017**

Signature of Drill Rig Operator (Mandatory unless same as above): **DB** Date signed: **05/31/2017**

Make additional comments on reverse side about geology, additional screens, water quality, etc.

Variance issued [ ] Yes [X] No

Well Construction Report For WISCONSIN UNIQUE WELL NUMBER YT386

State of WI - Private Water Systems - DG/2
Department of Natural Resources, Box 7921
Madison, WI 53707
Please type or Print using a black Pen
Please Use Decimals Instead of Fractions.

Form 3300-77A (R 8/00)

Property Owner: PENTAIR
Telephone Number: 608-335-5573
Mailing Address: 293 WRIGHT STREET
City: DELEVAN
State: WI
Zip Code: 53115
County of Well Location: Walworth
County Well Permit No.: W
Well Completion Date: 06/01/2017

1. Well Location: [X] Town [ ] City [ ] Village of DELAVAN
Fire # (if available): 175
Grid or Street Address or Road Name and Number: WRIGHT ST
Subdivision Name | Lot # | Block #

Well Constructor (Business Name): SAM'S WELL DRILLING INC
License #: 370
Facility ID Number (Public Wells):
Address: PO BOX 150
Public Well Plan Approval #: W--0601-4229
City: RANDOLPH
State: WI
Zip Code: 53956
Date of Approval (mm/dd/yyyy): 12/21/2016
Hicap Permanent well #: 91934
Common Well #: 7R
Specific Capacity: 8 gpm/ft

Gov't Lot # | or NE 1/4 of SE 1/4 of
Section 17 T 2 N; R 16 [X] E [ ] W
Latitude Deg. 42 Min. 37.914
Longitude Deg 88 Min. 37.428

2. Well Type: [ ] Replacement [X] New [ ] Reconstruction
Lat/Long Method: GPS008
of previous unique well # constructed in
Reason for replaced or Reconstructed Well?: EXTRACTION WELL EXR-7

3. Well serves 1 # of homes and or INDUSTRY (e.g. barn, restaurant, church, school, industry, etc.)
High capacity Well? [ ] Yes [X] No
Property? [X] Yes [ ] No

[X] Drilled [ ] Driven Point [ ] Jetted [ ] Other:

4. Is the well located upslope or sideslope and not downslope from any contamination source, including those on neighboring properties? [X] Yes [ ] No
Well located within 1,200 feet of a quarry? [ ] Yes [ ] No If yes, distance in feet from quarry:
Well located in floodplain? [ ] Yes [X] No
Distance in Feet from Well to Nearest:

1. Landfill
2. Building Overhang
3. Septic [ ] Holding Tank [ ]
4. Sewage Absorption Unit
5. Nonconforming Pit
6. Buried Home Heating Oil Tank
7. Buried Petroleum Tank
8. Shoreline [ ] Swimming Pool [ ]
9. Downspout/Yard Hydrant
10. Privy
11. Foundation Drain to Clearwater
12. Foundation Drain to Sewer
13. Building Drain [ ] Cast Iron or Plastic [ ] Other
14. Building Sewer [ ] Gravity [ ] Pressure [ ] Cast Iron or Plastic [ ] Other
15. Collector or Street Sewer: [ ] Sanitary units in. diam. [ ] Storm [ ] =< 6 [ ] > 6
16. Clearwater Sump
17. Wastewater Sump
18. Paved Animal Barn Pen
19. Animal Yard or Shelter
20. Silo
21. Barn Gutter
22. Manure Pipe [ ] Gravity [ ] Pressure [ ] Cast Iron or Plastic [ ] Other
23. Other Manure Storage
24. Ditch
25. Other NR 812 Waste Storage

5. Drillhole Dimensions and Construction Method

Dia (in.)	From (ft.)	To (ft.)
8	0	50

Upper Enlarged Drillhole / Lower Open Bedrock
[ ] ---1. Rotary - Mud Circulation----------
[ ] ---2. Rotary - Air----------
[ ] ---3. Rotary - Air and Foam----------
[ ] ---4.Drill-Through Casing Hammer
[ ] ---5. Reverse Rotary
[ ] ---6. Cable-tool Bit in. dia------
[X] 7. Dual Rotary
[ ] 8. Temp. Outer Casing in. dia. depth (ft)
Removed? [ ] Yes [X] No
If no, why not?

8. Geology

Type, Caving/Noncaving, Color, Hardness, etc	From (ft.)	To (ft.)
--Y- Sand & Gravel	0	6
--XG Sand & Clay, w/Gravel/Cobbles/Boulders/S	6	36
--Y- Sand & Gravel	36	47
--YM Sand & Gravel, Silty	47	50

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification	From (ft.)	To (ft.)
8	STD BLK, PIPE, .320 WALL, P.E., A53B BORUSAM MANNESMANN	0	36
8	STD BLK PIPE, .280 WALL, RISER, IPSCO, W-K/PACK, A53B	35	36
6	#10 SLOTTED STAINLESS 36 TO 40,#20 SLOT	36	50

9. Static Water Level
ft. above ground surface
30 ft. below ground surface

10. Pump Test
Pumping Level 35 ft. below surface
Pumping at 40 GPM for 1 hours

11. Well is: [X] Above Grade 12 in. [ ] Below Grade
Developed? [X] Yes [ ] No
Disinfected? [X] Yes [ ] No
Capped? [X] Yes [ ] No

7. Grout or Other Sealing Material. Method
Method: MOUNDED

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
Granular bentonite	0	36	1

12. Did you notify the owner of the need to permanently abandon and fill all unused wells on this property? [ ] Yes [ ] No If no, explain:

13. Signature of the Well Constructor or Supervisory Driller: JVG — Date signed: 06/01/2017
Signature of Drill Rig Operator (Mandatory unless same as above): DB — Date signed: 06/01/2017

Make additional comments on reverse side about geology, additional screens, water quality, etc.

Variance issued [ ] Yes [X] No

Wisconsin Department of Natural Resources

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295 and 299, Wis. Stats., and ch. NR 141 Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295 and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose.

Date of Filling & Sealing: 08/08/2017 **Rec #: 153906**

Verification. Check only if well filling & sealing was done previously and you are just verifying that work.: No

1. Well Location Information

County:	WI Unique Well #:	DNR Hicap Well #:
Walworth		
Latitude: (DD.DDDDD°)	Longitude: (DD.DDDDD°)	GPS Method Code:
42.63434 °N	88.62541 °W	GPS008

Qtr/Qtr:	Quarter:	Section #:	Township #:	Range #:	Gov't Lot #:
			North		

Well Street Address:		Subdivision Name:
293 WRIGHT STREET		
Well City/Village/Town:	Well Zip Code:	Lot #:
DELAVAN	53115	

Reason for Filling & Sealing:	Does a new well replace this well?	WI Unique Well # of Replacement Well:
LOW PRODUCER	Yes	YT587

2. Facility / Owner Information

Facility Name: FID #: License/Permit/Monitoring #:

Original Well Owner:

Present Well Owner: Mailing Address of Present Owner:

PENTAIR 293 WRIGHT ST

City:	State:	Zip Code:
DELAVAN	WI	53115

3. Well / Drillhole / Borehole Information

Well Type:	Original Construction Date:	Construction Type:	(specify Other):
Water Well	(mm/dd/yyyy)	Drilled	
Formation Type:		Total Well Depth From Ground Surface (ft.):	
		46.00	

Casing Diameter (in.):	Lower Drillhole Diameter (in.):	Casing Depth (ft.):
8.00		

Was well annular space grouted? If yes, to what depth (ft.)? Depth to Water (ft.):

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	Yes	Liner(s) removed?	No
		If no, was liner perforated?	
Screen removed?	No	Casing/Loop left in place?	Yes
Was casing cut off below surface?	Yes	Did sealing material rise to surface?	Yes
Did material settle after 24 hours?	No	If yes, was hole retopped?	

If bentonite chips were used, were they hydrated with water from a known water source? Yes

Required Method of Placing Sealing Material: (Explain Other):

Screened & Poured (Bentonite Chips)

Water Well Sealing Materials: For Monitoring Wells and other Drillholes:

Bentonite Chips

5. Material Used to Fill Well / Drillhole

Material:	From (ft.):	To (ft.):	# and Units of Sealant:	Mix Ratio or Mud Weight:
NATIVE SOIL	Surface	3.00	NATIVE SOIL	NATIVE SOIL
BENTONITE CHIPS	3.00	46.00	22 BAGS	50# BAGS

6. Comments

FOUND 4 OLD WELL LOGS FROM 1984..... WW344, WW345, WW346, WW347..... ALL 46 FEET DEEP, ALL THE SAME CONSTRUCTION. NOT SURE WHICH ONE THIS WAS.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing: TODD HUEMANN	License #:	6138
T HUEMANN WELL & PUMP INC 39608 60TH ST BURLINGTON WI 53105-7502	Phone:	262-539-2399
	Email Address:	TODDHUEMANN1@GMAIL.COM

8. DNR Use Only

Signed On: 09/06/2017 Received On: 09/06/2017

Submitted By: eucherd1990 Approved On: 09/07/2017

Wisconsin Department of Natural Resources

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295 and 299, Wis. Stats., and ch. NR 141 Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295 and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose.

Date of Filling & Sealing: 08/08/2017 **Rec #: 153908**

Verification. Check only if well filling & sealing was done previously and you are just verifying that work.: No

1. Well Location Information

County:	WI Unique Well #:	DNR Hicap Well #:
Walworth		
Latitude: (DD.DDDDD°)	Longitude: (DD.DDDDD°)	GPS Method Code:
42.63466 °N	88.62565 °W	GPS008

Qtr/Qtr:	Quarter:	Section #:	Township #:	Range #:	Gov't Lot #:
			North		

Well Street Address:	Subdivision Name:
293 WRIGHT STREET	

Well City/Village/Town:	Well Zip Code:	Lot #:
DELAVAN	53115	

Reason for Filling & Sealing:	Does a new well replace this well?	WI Unique Well # of Replacement Well:
LOW PRODUCER	Yes	YT588

2. Facility / Owner Information

Facility Name:	FID #: License/Permit/Monitoring #:
Original Well Owner:	
Present Well Owner:	Mailing Address of Present Owner:
PENTAIR	293 WRIGHT ST

City:	State:	Zip Code:
DELAVAN	WI	53115

3. Well / Drillhole / Borehole Information

Well Type:	Original Construction Date:	Construction Type:	(specify Other):
Water Well	(mm/dd/yyyy)	Drilled	

Formation Type:	Total Well Depth From Ground Surface (ft.):
	46.50

Casing Diameter (in.):	Lower Drillhole Diameter (in.):	Casing Depth (ft.):
8.00		

Was well annular space grouted?	If yes, to what depth (ft.)?	Depth to Water (ft.):

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	Yes	Liner(s) removed?	N/A
		If no, was liner perforated?	
Screen removed?	No	Casing/Loop left in place?	Yes
Was casing cut off below surface?	Yes	Did sealing material rise to surface?	Yes
Did material settle after 24 hours?	No	If yes, was hole retopped?	

If bentonite chips were used, were they hydrated with water from a known water source? Yes

Required Method of Placing Sealing Material: (Explain Other):

Screened & Poured (Bentonite Chips)

Water Well Sealing Materials: For Monitoring Wells and other Drillholes:

Bentonite Chips

5. Material Used to Fill Well / Drillhole

Material:	From (ft.):	To (ft.):	# and Units of Sealant:	Mix Ratio or Mud Weight:
NATIVE SOIL	Surface	3.00	NATIVE SOIL	NATIVE SOIL
BENTONITE CHIPS	3.00	46.00	22 BAGS	50# BAGS

6. Comments

FOUND 4 OLD WELL LOGS: WW344, WW345, WW346, WW347..... ALL WITH SAME DEPTH AND CONSTRUCTION SPECS. NOT SURE WHICH ONE THIS ONE WAS.

I SAID 46.5 FEET DEEP ON THIS REPORT BECAUSE THE COMPUTER KICKED BACK AS "DUPLICATE REPORT."

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing: TODD HUEMANN	License #:	6138
T HUEMANN WELL & PUMP INC 39608 60TH ST BURLINGTON WI 53105-7502	Phone:	262-539-2399
	Email Address:	TODDHUEMANN1@GMAIL.COM

8. DNR Use Only

Signed On: 09/06/2017 Received On: 09/06/2017

Submitted By: eucherd1990 Approved On: 09/07/2017

The Official Internet site for the Wisconsin Department of Natural Resources

101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621

Wisconsin Department of Natural Resources

Well / Drillhole / Borehole Filling & Sealing Form 3300-005

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295 and 299, Wis. Stats., and ch. NR 141 Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295 and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose.

Date of Filling & Sealing: 09/25/2017 **Rec #: 154265**

Verification. Check only if well filling & sealing was done previously and you are just verifying that work.: No

1. Well Location Information

County:	WI Unique Well #:	DNR Hicap Well #:
Walworth		
Latitude: (DD.DDDDD°)	Longitude: (DD.DDDDD°)	GPS Method Code:
42.63515 °N	88.62593 °W	GPS008

Qtr/Qtr:	Quarter:	Section #:	Township #:	Range #:	Gov't Lot #:
			North		

Well Street Address:		Subdivision Name:
293 WRIGHT STREET		
Well City/Village/Town:	Well Zip Code:	Lot #:
DELAVAN	53115	

Reason for Filling & Sealing:	Does a new well replace this well?	WI Unique Well # of Replacement Well:
LOW PRODUCTION	Yes	YT385

2. Facility / Owner Information

Facility Name:	FID #:	License/Permit/Monitoring #:

Original Well Owner:

Present Well Owner:	Mailing Address of Present Owner:	
PENTAIR	293 WRIGHT STREET	
City:	State:	Zip Code:
DELAVAN	WI	53121

3. Well / Drillhole / Borehole Information

Well Type:	Original Construction Date:	Construction Type:	(specify Other):
Water Well	(mm/dd/yyyy)	Drilled	

Formation Type:

Total Well Depth From Ground Surface (ft.): 44.00

Casing Diameter (in.):	Lower Drillhole Diameter (in.):	Casing Depth (ft.):
8.00		

Was well annular space grouted? If yes, to what depth (ft.)?

Depth to Water (ft.): 29.00

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	Yes	Liner(s) removed?	N/A
		If no, was liner perforated?	
Screen removed?	No	Casing/Loop left in place?	Yes
Was casing cut off below surface?	No	Did sealing material rise to surface?	Yes

Did material settle after 24 hours? No If yes, was hole retopped?

If bentonite chips were used, were they hydrated with water from a known water source? Yes

Required Method of Placing Sealing Material: (Explain Other):

Conductor Pipe-Gravity

Water Well Sealing Materials: For Monitoring Wells and other Drillholes:

Bentonite Chips

5. Material Used to Fill Well / Drillhole

Material:	From (ft.):	To (ft.):	# and Units of Sealant:	Mix Ratio or Mud Weight:
NEAT CEMENT	Surface	3.00	APPROXIMATELY 1 94-POUND BAG	5/6 TO 1
BENTONITE CHIPS	3.00	44.00	21 BAGS OF BENTONITE CHIPS	50# BAGS

6. Comments

COORDINATED WITH DNR REP GREG ROANHOUSE ABOUT ABANDONING THIS WELL. THIS EXTRACTION WELL IN ON THE GROUNDS OF THE PENTAIR FACTORY IN DELAVAN, WI. THIS OLD WELL IS SURROUNDED BY A HIGH PRESSURE 2-INCH GAS LINE, 2 EACH 460-VOLT ELECTRIC LINES, AND THREE BOLLARDS CEMENTED IN THE GROUND FOR TRAFFIC SAFETY. I ASKED GREG IF WE COULD TURN THIS ABANDONED WELL INTO A BOLLARD ALSO BY FILLING THE TOP WITH NEAT CEMENT. HE SAID YES.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing: TODD HUEMANN
License #: 6138

T HUEMANN WELL & PUMP INC 39608 60TH ST
BURLINGTON WI 53105-7502
Phone: 262-539-2399
Email Address: TODDHUEMANN1@GMAIL.COM

8. DNR Use Only

Signed On: 09/27/2017 Received On: 09/27/2017

Submitted By: eucherd1990 Approved On:

The Official Internet site for the Wisconsin Department of Natural Resources

101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621

Wisconsin Department of Natural Resources

Well / Drillhole / Borehole Filling & Sealing Form 3300-005

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295 and 299, Wis. Stats., and ch. NR 141 Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295 and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose.

Date of Filling & Sealing: 09/15/2017 **Rec #: 154266**

Verification. Check only if well filling & sealing was done previously and you are just verifying that work.: No

1. Well Location Information

County:	WI Unique Well #:	DNR Hicap Well #:
Walworth		
Latitude: (DD.DDDDD°)	Longitude: (DD.DDDDD°)	GPS Method Code:
42.63191 °N	88.62406 °W	GPS008

Qtr/Qtr:	Quarter:	Section #:	Township #:	Range #:	Gov't Lot #:
			North		

Well Street Address:		Subdivision Name:
293 WRIGHT STREET		
Well City/Village/Town:	Well Zip Code:	Lot #:
DELAVAN	53115	

Reason for Filling & Sealing:	Does a new well replace this well?	WI Unique Well # of Replacement Well:
LOW PRODUCTION	Yes	YT386

2. Facility / Owner Information

Facility Name: FID #: License/Permit/Monitoring #:

Original Well Owner:

Present Well Owner: Mailing Address of Present Owner:

PENTAIR 293 WRIGHT STREET

City:	State:	Zip Code:
DELAVAN	WI	53115

3. Well / Drillhole / Borehole Information

Well Type:	Original Construction Date:	Construction Type:	(specify Other):
Water Well	(mm/dd/yyyy)	Drilled	

Formation Type: Total Well Depth From Ground Surface (ft.): 49.00

Casing Diameter (in.):	Lower Drillhole Diameter (in.):	Casing Depth (ft.):
8.00		

Was well annular space grouted? If yes, to what depth (ft.)? Depth to Water (ft.): 30.00

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	Yes	Liner(s) removed?	N/A
		If no, was liner perforated?	
Screen removed?	No	Casing/Loop left in place?	Yes
Was casing cut off below surface?	Yes	Did sealing material rise to surface?	Yes

Did material settle after 24 hours? No If yes, was hole retopped?

If bentonite chips were used, were they hydrated with water from a known water source? Yes

Required Method of Placing Sealing Material: (Explain Other):

Conductor Pipe-Gravity

Water Well Sealing Materials: For Monitoring Wells and other Drillholes:

Bentonite Chips

5. Material Used to Fill Well / Drillhole

Material:	From (ft.):	To (ft.):	# and Units of Sealant:	Mix Ratio or Mud Weight:
NATIVE SOIL	Surface	3.00	NATIVE SOIL	NATIVE SOIL
BENTONITE CHIPS	3.00	49.00	23 BAGS OF BENTONITE CHIPS 50# BAGS	

6. Comments

ON PENTAIR FACTORY GROUNDS. #7.

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing:
TODD HUEMANN

License #: 6138

T HUEMANN WELL & PUMP INC 39608 60TH ST
BURLINGTON WI 53105-7502

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