Smith, Ralph N - DNR

From: Brian Hegge <bhegge@msa-ps.com>
Sent: Wednesday, March 07, 2018 11:07 AM
To: Smith, Ralph N - DNR; Erica Klingfus
Subject: RE: May 12, 2017 Webster VOC Contamination Case Closure Denial Letter
Attachments: 17644000 Analytical Data Table.xlsx

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Ralph,

I just wanted to give you a short update on this project. We just completed our second round of vapor intrusion sampling around the project and are moving towards installation of two sub-slab systems. One in the Murray Apartment and one at the Tap Bar. By the time we try and justify the two inconsistent results at the Tap Bar, we would spend what it takes to install the sub-slab system. What I'd like to know is whether we need to do anything as far as notification to the Department before we proceed with the installations? I don't think so but wanted to check.

We have also completed the groundwater sampling and will be adding those results to an updated closure request, along with more historical information we have from the area. This request will be submitted once we have the sub-slab systems installed and the vapor intrusion issues dealt with.

That's what I know today. I've attached the excel folder with all data we have up to now just in case you're interested.

Brian

From: Smith, Ralph N - DNR [mailto:Ralph.Smith@wisconsin.gov]
Sent: Friday, May 12, 2017 3:35 PM
To: Erica Klingfus <eklingfus@msa-ps.com>; Brian Hegge <bhegge@msa-ps.com>
Subject: May 12, 2017 Webster VOC Contamination Case Closure Denial Letter

Hi Erica & Brian,

Here is this scanned Case Closure Denial Letter, and the hard copy is in the mail.

If we can be of further assistance, contact us anytime.

We are committed to service excellence.
Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Ralph N. Smith
Hydrogeologist – Remediation and Redevelopment Program
Division of Environmental Management
Wisconsin Department of Natural Resources
101 S. Webster St., PO Box 7921
Madison, WI 53707-7921
Phone: (608) 261-6543
Fax: (608) 267-7646
Ralph.Smith@wisconsin.gov

Attachment A.2. Soil Analytical Table
Webster Quik Wash
BRRTS# 02-07-000337

SAMPLE/BORING #	GP-1	GP-3	GP-3	GP-4			
DEPTH to Water Table (ft BGS)							
Date Collected	07/05/2016	07/05/2016	07/05/2016	07/05/2016			
DEPTH (ft BGS)	10	10	20	10	Soil RCLs (mg/kg)		
SATURATED OR UNSATURATED	UNSAT	UNSAT	UNSAT	UNSAT			
SOIL TYPE	sand	sand	sand	sand	July 2015 DNR Table		Background
	Soil Concentrations in mg/kg (or ppm)				Non-Industrial Direct Contact	Soil to GW	Surficial BTV
VOC ANALYTES							
Benzene	<0.0046	<0.0047	<0.0044	<0.0047	1.49	0.0051	
n-Butylbenzene	<0.0128	<0.0131	<0.0122	<0.0133	108	NS	
sec-Butylbenzene	<0.0125	<0.0127	<0.0119	<0.0129	145	NS	
Ethylbenzene	<0.0168	<0.0172	<0.0161	<0.0174	7.47	1.57	
p-Isopropylbenzene	<0.0188	<0.0192	<0.0180	<0.0195	NS	NS	
Methyl tert butyl ether	<0.0099	<0.0101	<0.0095	<0.0103	59.4	0.027	
Naphthalene	<0.0128	<0.0131	<0.0122	<0.0133	0.854	0.6587	
n-Propylbenzene	<0.0158	<0.0161	<0.0151	<0.0163	264	NS	
Tetrachloroethene	*<0.0202*	*<0.0206*	*<0.0193*	*<0.0209*	30.7	0.0045	
Trichloroethene	*<0.0151*	*<0.0154*	*<0.0145*	*<0.0157*	1.26	0.0036	
Toluene	<0.0168	<0.0172	<0.0161	<0.0174	818	1.1072	
1,2,3-Trichlorobenzene	<0.0152	<0.0155	<0.0146	<0.0158	48.9	NS	
1,2,4-Trimethylbenzene	<0.0116	<0.0119	<0.0111	<0.0120	89.8	1.3821*	
1,3,5-Trimethylbenzene	<0.0122	<0.0124	<0.0116	<0.0126	182	1.3821*	
Xylene (Total)	<0.0423	<0.0432	<0.0404	<0.0438	258*	3.96*	
No. of Individual Exceedances (DC)	0	0	0	0			
Cumulative Hazard Index (DC)	0	0	0	0			
Cumulative Cancer Risk (DC)	0	0	0	0			

Exceedance Highlights:
BOLD font indicates DC RCL exceedance, and BTV exceedance for metals.
Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.
Blanks indicate parameter was not analyzed.
NS: No published standard.

Table Notes:
J: Indicates the analyte was detected between the Laboratory Limit of Detection and Laboratory Limit of Quantitation.
<: Indicates the analyte was not detected above the Laboratory Limit of Quantitation.
*: Indicates total xylenes (m-,o-,p- combined) and total trimethylbenzenes (1,2,4- and 1,3,5- combined).

Attachment A.2. Soil Analytical Table
Webster Quik Wash
BRRTS# 02-07-000337

SAMPLE/BORING #	GP-1	GP-3	GP-3	GP-4	OW-1						OW-2							
DEPTH to Water Table (ft BGS)																		
Date Collected	07/05/2016	07/05/2016	07/05/2016	07/05/2016														
DEPTH (ft BGS)	10	10	20	10	5	15	25	30	35	45	5	15	25	30	35	40	Soil RCLs (mg/kg)	
SATURATED OR UNSATURATED	UNSAT	UNSAT	UNSAT	UNSAT														
SOIL TYPE	sand	sand	sand	sand													July 2015 DNR Table	Background
	Soil Concentrations in mg/kg (or ppm)																Non-Industrial Direct Contact	Soil to GW	Surficial BTV
VOC ANALYTES																			
Benzene	<0.0046	<0.0047	<0.0044	<0.0047	<0.4	<0.4	<0.4	<0.4	<0.4	*0.6*	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	1.49	0.0051	
n-Butylbenzene	<0.0128	<0.0131	<0.0122	<0.0133	--	--	--	--	--	--	--	--	--	--	--	--	108	NS	
sec-Butylbenzene	<0.0125	<0.0127	<0.0119	<0.0129	--	--	--	--	--	--	--	--	--	--	--	--	145	NS	
Ethylbenzene	<0.0168	<0.0172	<0.0161	<0.0174	*29.6*	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	7.47	1.57	
p-Isopropylbenzene	<0.0188	<0.0192	<0.0180	<0.0195	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS	
Methylene chloride																			
Methyl tert butyl ether	<0.0099	<0.0101	<0.0095	<0.0103	--	--	--	--	--	--	--	--	--	--	--	--	59.4	0.027	
Naphthalene	<0.0128	<0.0131	<0.0122	<0.0133	--	--	--	--	--	--	--	--	--	--	--	--	0.854	0.6587	
n-Propylbenzene	<0.0158	<0.0161	<0.0151	<0.0163	--	--	--	--	--	--	--	--	--	--	--	--	264	NS	
Tetrachloroethene	*<0.0202*	*<0.0206*	*<0.0193*	*<0.0209*	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	30.7	0.0045	
Trichloroethene	*<0.0151*	*<0.0154*	*<0.0145*	*<0.0157*	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	1.26	0.0036	
Toluene	<0.0168	<0.0172	<0.0161	<0.0174	*45.7*	<0.2	0.3	0.3	0.8	1.2	<0.2	0.2	0.4	0.5	0.3	<0.2	818	1.1072	
1,2,3-Trichlorobenzene	<0.0152	<0.0155	<0.0146	<0.0158	--	--	--	--	--	--	--	--	--	--	--	--	48.9	NS	
1,2,4-Trimethylbenzene	<0.0116	<0.0119	<0.0111	<0.0120	--	--	--	--	--	--	--	--	--	--	--	--	89.8	1.3821*	
1,3,5-Trimethylbenzene	<0.0122	<0.0124	<0.0116	<0.0126	--	--	--	--	--	--	--	--	--	--	--	--	182	1.3821*	
Xylene (Total)	<0.0423	<0.0432	<0.0404	<0.0438	*111.7*	<2.0	<2.0	<2.0	<2.0	*8.9*	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	258*	3.96*	
No. of Individual Exceedances (DC)	0	0	0	0						0	0	0	0	0	0	0			
Cumulative Hazard Index (DC)	0	0	0	0						0	0	0	0	0	0	0			
Cumulative Cancer Risk (DC)	0	0	0	0						0	0.0	0	0	0	0	0			

Exceedance Highlights:
BOLD font indicates DC RCL exceedance, and BTV exceedance for metals.
Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.
Blanks indicate parameter was not analyzed.
NS: No published standard.

Table Notes:
J: Indicates the analyte was detected between the Laboratory Limit of Detection and Laboratory Limit of Quantitation.
<: Indicates the analyte was not detected above the Laboratory Limit of Quantitation.
*: Indicates total xylenes (m-,o-,p- combined) and total trimethylbenzenes (1,2,4- and 1,3,5- combined).

Attachment A.2. Soil Analytical Table
Webster Quik Wash
BRRTS# 02-07-000337

SAMPLE/BORING #	OW-3			OW-4		OW-5		OW-6			OW-7			OW-8			OW-9		Soil RCLs (mg/kg)		
DEPTH to Water Table (ft BGS)																					
Date Collected	7/1986			7/1986		7/1986		7/1986			7/1986			7/1986			7/1986				
DEPTH (ft BGS)	5	10	40	5	45	5	45	5	10	45	5	10	45	5	10	45	5	40			
SATURATED OR UNSATURATED																					
SOIL TYPE																			July 2015 DNR Table		Background
	Soil Concentrations in mg/kg (or ppm)																		Non-Industrial Direct Contact	Soil to GW	Surficial BTV
VOC ANALYTES																					
Benzene	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	1.49	0.0051	
n-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	108	NS	
sec-Butylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	145	NS	
Ethylbenzene	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	7.47	1.57	
p-Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NS	NS	
Methylene chloride																					
Methyl tert butyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	59.4	0.027	
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.854	0.6587	
n-Propylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	264	NS	
Tetrachloroethene	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	30.7	0.0045	
Trichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	1.26	0.0036	
Toluene	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	818	1.1072	
1,2,3-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	48.9	NS	
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	89.8	1.3821*	
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	182	1.3821*	
Xylene (Total)	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	258*	3.96*	
No. of Individual Exceedances (DC)					0													0			
Cumulative Hazard Index (DC)					0													0			
Cumulative Cancer Risk (DC)					0													0			

Exceedance Highlights:
BOLD font indicates DC RCL exceedance, and BTV exceedance for metals.
Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.
Blanks indicate parameter was not analyzed.
NS: No published standard.

Table Notes:
J: Indicates the analyte was detected between the Laboratory Limit of Detection and Laboratory Limit of Quantitation.
<: Indicates the analyte was not detected above the Laboratory Limit of Quantitation.
*: Indicates total xylenes (m-,o-,p- combined) and total trimethylbenzenes (1,2,4- and 1,3,5- combined).

Attachment A.2. Soil Analytical Table
Webster Quik Wash
BRRTS# 02-07-000337

SAMPLE/BORING #	SB-1		SB-2		SB-3	SB-4			SB-5	SB-6		SB-7			SB-8
DEPTH to Water Table (ft BGS)															
Date Collected															
DEPTH (ft BGS)	9-11	34-36	24-26	34-36	34-36	34-36	44-46	69-71	34-36	34-36	8-11	38-40	60-62	64-66	34-36
SATURATED OR UNSATURATED															
SOIL TYPE															
VOC ANALYTES															
Benzene															
n-Butylbenzene															
sec-Butylbenzene															
Ethylbenzene															
p-Isopropylbenzene															
Methylene chloride	<9.8	<9.8	<9.8	<9.8	<9.8	42.9	49.2	43.1	<9.8	<9.8	<9.8	<9.8	13.7	22.4	
Methyl tert butyl ether															
Naphthalene															
n-Propylbenzene															
Tetrachloroethene	<2.0	34.9	<2.0	<2.0	<2.0	<2.0	<2.0	5.8	<2.0	2.4	<2.0	<2.0	<2.0	<2.0	
Trichloroethene															
Toluene	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
1,2,3-Trichlorobenzene															
1,2,4-Trimethylbenzene															
1,3,5-Trimethylbenzene															
Xylene (Total)															
No. of Individual Exceedances (DC)															
Cumulative Hazard Index (DC)															
Cumulative Cancer Risk (DC)															

Exceedance Highlights:
BOLD font indicates DC RCL exceedance, and BTV exceedance for metals.
Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.
Blanks indicate parameter was not analyzed.
NS: No published standard.

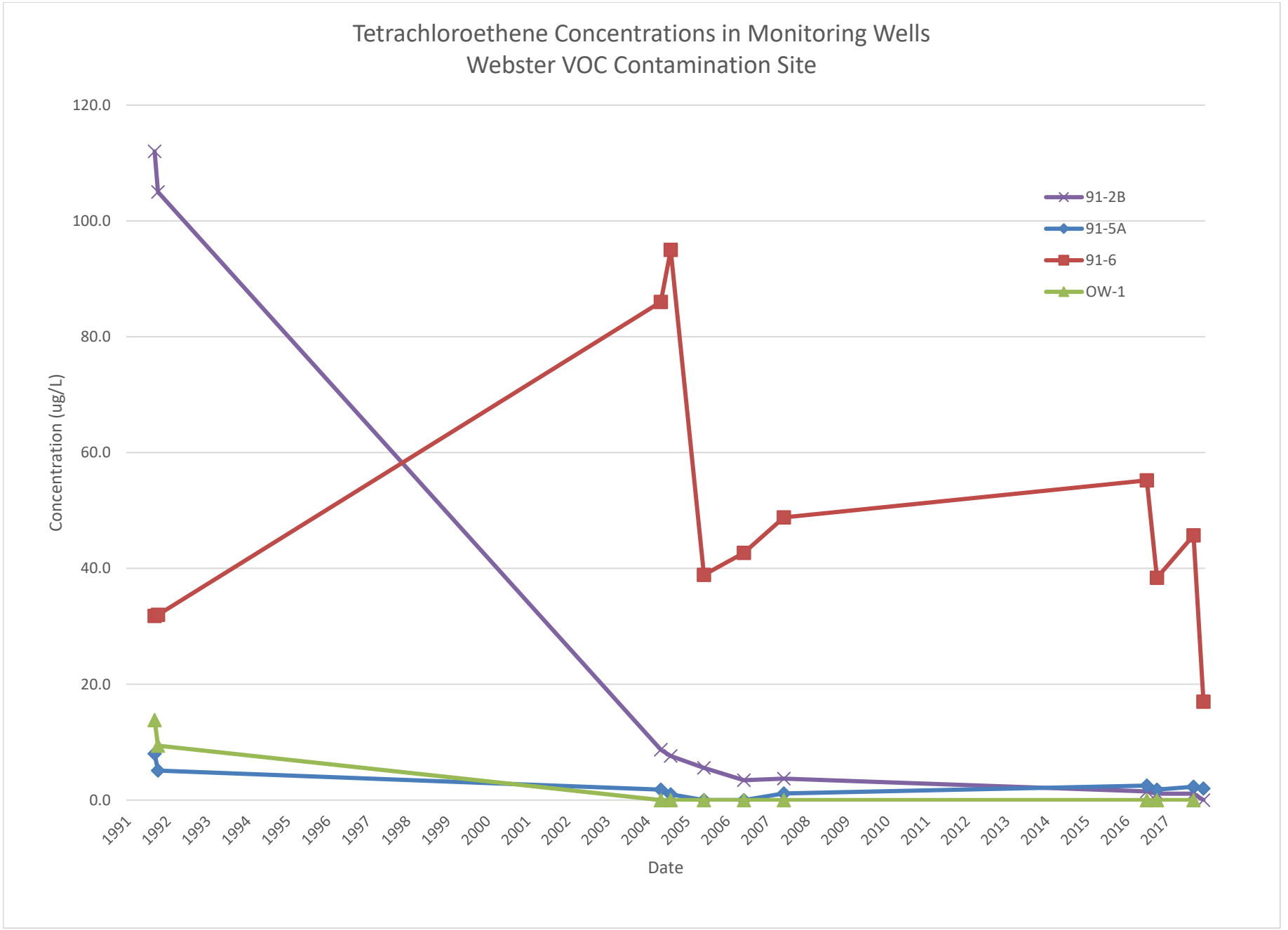
Table Notes:
J: Indicates the analyte was detected between the Laboratory Limit of Detection and Laboratory Limit of Quantitation.
<: Indicates the analyte was not detected above the Laboratory Limit of Quantitation.
*: Indicates total xylenes (m-,o-,p- combined) and total trimethylbenzenes (1,2,4- and 1,3,5- combined).

Attachment A.1. Groundwater Analytical Table
Webster Quik Wash
BRRTS# 02-07-000337

	Acetone	Benzene	sec-Butylbenzene	2-Butanone (MEK)	Chloroform	Chloromethane	Ethylbenzene	Methylene chloride	1,1,2-Trichloroethane	n-Propylbenzene	1,1,2-Trichloroethane	Naphthalene	Tert-ethylbenzene	Toluene	Trichloroethene	Xylenes	Groundwater Elevation
NR 140 ES	**9000**	**5**		**4000**	**6**	**30**	**700**	**1000**	**600**		**5**	**100**	**5**	**800**	**5**	**2000**	
NR 140 PAL	*1800*	*0.5*		*800*	*0.6*	*3*	*140*	*200*	*60*		*0.3*	*10*	*0.5*	*160*	*0.5*	*400*	
	Groundwater Concentrations in ug/l (or ppb)																
91-1																	
09/17/1991		<0.2							<1.0		<0.5		<0.5		<0.5	<0.2	947.23
10/14/1991		0.6					<1.0		<1.0		<0.5		<0.5	1.0	<0.2	<1.0	947.39
05/01/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
08/12/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
06/22/2005		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.71	<0.3	<0.5	<0.62	949.04
06/21/2006		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.71	<0.3	<0.5	<0.62	949.08
06/12/2007		<0.20	<0.20		<0.20		<0.10		<0.60	<0.20		<1.0	<0.50	<0.40	<0.20	<0.40	948.21
06/12/2008	1.3 J	<0.042		<1.1	<0.21	<0.080		<0.075				<0.064	<0.13	<0.059	<0.053		950.78
10/03/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23				<0.17	<0.20	<0.25	<0.14	<0.052	951.35
09/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	<0.16	<0.17	<0.18	<0.24	952.75
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	<0.50	<0.50	<0.33	<1.50	951.76
91-2A																	
09/17/1991		<0.2							<1.0		<0.5		<0.5	<0.5	<0.2		947.44
10/14/1991		0.5					<1.0		<1.0		<0.5		<0.5	0.9	<0.2	<1.0	947.56
05/01/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	1.4	<0.20	<0.20	<0.50	
08/12/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
06/22/2005		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	0.711	<0.3	<0.5	<0.62	948.57
06/21/2006		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	2.19	ND	ND	<0.62	949.09
06/12/2007		<0.20	<0.20		<0.20		<0.10		<0.60	<0.20		<1.0	1.78	<0.40	<0.20	<0.40	947.80
07/05/2016	1.9 J	<0.042		<1.1	<0.21	0.187 J		<0.075			0.167 J	<0.064	7.30 J	<0.059	<0.053		950.93
10/03/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	0.367 J	<0.14	<0.052		950.98
09/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	<0.16	<0.17	<0.18	<0.24	951.36
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	<0.50	<0.50	<0.33	<1.50	951.24
91-2B																	
09/17/1991		0.3							1.4		<0.5		**112.0**	<0.5	**4.1**		947.62
10/14/1991		<0.2					<1.0		1.4		<0.5		**105.0**	<0.5	**7.3**	<1.0	947.55
05/01/2004		0.2	0.85	0.85	<0.20		<0.50		0.24	0.66		<0.25	**67**	<0.20	0.47	0.47	
08/12/2004		0.23	0.91	0.91	<0.20		<0.50		0.27	0.67		<0.25	**74**	<0.20	0.52	0.52	
06/22/2005		0.377	1.6	1.6	<0.2		<0.5		<0.60	<0.4		<0.8	**1.17**	<0.3	<0.5	<0.5	949.75
06/21/2006		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	2.42	<0.3	<0.5	<0.5	950.26
06/12/2007		0.184 J	<0.20		<0.20		<0.10		<0.60	<0.20		<1.0	1.73	<0.40	0.50		948.56
07/05/2016	2.4 J	<0.042		<1.1	<0.21	<0.080		<0.075			0.0991 J	<0.064	1.5	<0.059	<0.053		951.47
10/03/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	1.2	<0.14	<0.052		952.07
09/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	1.1	<0.17	<0.18	<0.24	952.49
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	<0.50	<0.50	<0.33	<1.50	952.45
91-5A																	
09/17/1991		<0.2							<1.0		<0.5		**4**	<0.5	<0.2		947.92
10/14/1991		0.6					<1.0		<1.0		<0.5		**5.1**	0.8	<0.2	<1.0	947.93
05/01/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	1.8	<0.20	<0.20	<0.50	
08/12/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	1.7	<0.20	<0.20	<0.50	
06/22/2005		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.71	<0.3	<0.5	<0.62	949.11
06/21/2006		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.71	<0.3	<0.5	<0.62	950.17
06/12/2007		<0.20	<0.20		<0.20		<0.10		<0.60	<0.20		<1.0	<0.50	<0.40	<0.20	<0.40	948.56
07/05/2016	<0.64	<0.042		<1.1	<0.21	<0.080		<0.075			0.121 J	<0.064	2.5	<0.059	<0.053		951.33
10/03/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	2.6	<0.14	<0.052		951.91
09/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	3.3	<0.17	<0.18	<0.24	952.21
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	2	<0.50	<0.33	<1.50	952.24
91-5B																	
09/17/1991		<0.2							<1.0		<0.5		<0.5	<0.5	<0.2		947.91
10/14/1991		0.4					<1.0		<1.0		0.8		<0.5	<0.5	<0.2	<1.0	947.93
05/01/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
08/12/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
06/22/2005		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	0.918 J	<0.3	<0.5	<0.62	949.13
06/21/2006		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.71	<0.3	<0.5	<0.62	950.14
06/12/2007		<0.20	<0.20		<0.20		<0.10		<0.60	<0.20		<1.0	<0.50	<0.40	<0.20	<0.40	948.56
07/05/2016	<0.64	<0.042		<1.1	<0.21	<0.080		<0.075			0.139 J	<0.064	<0.13	<0.059	<0.053		951.25
10/03/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	<0.25	<0.14	<0.052		951.85
09/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	<0.16	<0.17	<0.18	<0.24	952.18
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	<0.50	<0.50	<0.33	<1.50	952.22
91-6																	
09/17/1991		<0.2							<1.0		<0.5		**23.8**	<0.5	2.4		948.05
10/14/1991		0.3					<1.0		<1.0		<0.5		**32.8**	<0.5	2.7	<1.0	948.05
05/01/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	**56**	<0.20	1.23	<0.50	
08/12/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	**95**	<0.20	2.3	<0.50	
06/22/2005		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	**58.9**	<0.3	<0.5	<0.62	949.75
06/21/2006		<1.53	<2.0		<1.0		<2.5		<3.0	<2.0		<4.0	**43.7**	<1.5	<2.5	<3.1	950.18
06/12/2007		<1.0	<1.0		<1.0		<0.5		<3.0	<1.0		<5.0	**49.8**	<2.0	<1.0	<2.0	948.66
07/06/2016	<0.64	<0.042		<1.1	<0.21	<0.080		<0.075			0.127 J	<0.064	**25.3**	<0.059	<0.053		951.36
10/03/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	**19.4**	<0.14	0.64		951.88
09/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	**49.7**	<0.17	0.72	<0.24	952.19
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	**17**	<0.50	<0.33	<1.50	952.21
91-7																	
09/17/1991		<0.2							<1.0		<0.5		<0.5	<0.5	<0.2		948.05
10/14/1991		<0.2					<1.0		<1.0		<0.5		0.8	<0.5	<0.2	<1.0	948.08
05/01/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
08/12/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
06/22/2005		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.71	<0.3	<0.5	<0.62	949.09
06/21/2006		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.71	<0.3	<0.5	<0.62	950.11
06/12/2007		<0.20	<0.20		<0.20		<0.10		<0.60	<0.20		<1.0	<0.50	<0.40	<0.20	<0.40	948.03
07/06/2016	2.8 J	<0.042		<1.1	<0.21	<0.080		<0.075			<0.072	<0.064	1.6	<0.059	<0.053		951.32
10/03/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	<0.25	<0.14	<0.052		951.84
09/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	<0.16	<0.17	<0.18	<0.24	952.19
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	<0.50	<0.50	<0.33	<1.50	952.18
OW-1																	
08/04/1986		0.5									<0.3		<0.6	<0.1	<0.1		
05/22/1986		<0.3									<0.3		0.7	<0.1	<0.1		
09/17/1991		<0.2							<1.0		<0.5		**13.8**	<0.5	<0.2		947.25
10/14/1991		1.3					3.3		<1.0		<0.5		**5.4**	0.5	<0.2	1.1	947.43
05/01/2004		<0.20	<0.25		1.3		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
08/12/2004		<0.20	<0.25		0.69		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
06/22/2005		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.45	<0.3	<0.5	<0.62	949.22
06/21/2006		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.71	<0.3	<0.5	<0.62	949.86
06/12/2007		<0.20	<0.20		<0.20		<0.10		<0.60	<0.20		<1.0	<0.50	<0.40	<0.20	<0.40	948.48
07/06/2016	<0.64	<0.042		<1.1	<0.21	<0.080		<0.075			0.134 J	<0.064	<0.13	<0.059	<0.053		951.01
10/03/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	<0.25	<0.14	<0.052		951.69
09/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	<0.16	<0.17	<0.18	<0.24	952.02
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	<0.50	<0.50	<0.33	<1.50	952.07
OW-2																	
09/23/1986		<0.2									<0.3		0.7	<0.1	<0.1		
09/17/1991		<0.2							<1.0		4.4		2.9	<0.5	<0.2		947.25
10/14/1991		0.2					<1.0		<1.0				2.2	<0.5	<0.2	<1.0	947.35
05/01/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	4.2	<0.20	<0.20	<0.50	
08/12/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	<0.5	<0.20	<0.20	<0.50	
06/22/2005		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.45	<0.3	<0.5	<0.62	949.24
06/21/2006		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.71	<0.3	<0.5	<0.62	949.84
06/12/2007		<0.20	<0.20		<0.20		<0.10		<0.60	<0.20		<1.0	<0.50	<0.40	<0.20	<0.40	948.47
07/06/2016	<0.64	<0.042		<1.1	<0.21	<0.080		<0.075			0.0981 J	<0.064	<0.13	<0.059	<0.053		950.94
10/03/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	<0.25	<0.14	<0.052		951.70
09/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	<0.16	<0.17	<0.18	<0.24	952.04
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	<0.50	<0.50	<0.33	<1.50	952.07
GP-1																	
07/05/2016	7.3 J	0.694 J		1.3 J	0.33 J	<0.080		0.217 J			0.157 J	0.14 J	**19**	0.13 J	0.28 J		

Exceedance Highlights:
BOLD font indicates NR 140 Enforcement Standard (ES) exceedance.
Italic font indicates NR 140 Preventative Action Limit (PAL) exceedance.
BTEX and other VOC compounds detected in at least one sample are included in table. See laboratory report for all results.
NS: No published standard.

Table Notes:
<: Indicates the analyte was not detected above the Laboratory Limit of Quantitation.
*: Indicates total xylenes (m-,o-,p- combined) and total trimethylbenzenes (1,2,4- and 1,3,5- combined).
NA: Indicates constituent was not analyzed.
J: Laboratory qualifier indicating the estimated concentration at or above the Limit of Detection and below the Limit of Quantitation.


Tetrachloroethene Concentrations in Monitoring Wells
Webster VOC Contamination Site
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Concentration (ug/L)
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
Date
91-2B
91-5A
91-6
OW-1

Attachment A.6. Water Level Elevations
Webster Quik Wash
BRRTS# 02-07-000337

91-1		
Surface Elevation		
Top of Casing Elevation		983.22
Top of Screen Elevation		
Bottom of Screen Elevation		940.76
Measurement Date	DTW (Casing)	Groundwater Elevation
07/05/2016	32.44	950.78
10/03/2016	31.87	951.35
09/26/2017	31.47	951.75
12/13/2017	31.46	951.76

91-2A		
Surface Elevation		
Top of Casing Elevation		983.69
Top of Screen Elevation		
Bottom of Screen Elevation		941.34
Measurement Date	DTW (Casing)	Groundwater Elevation
07/05/2016	33.38	950.31
10/03/2016	32.81	950.88
09/26/2017	32.43	951.26
12/13/2017	32.45	951.24

91-2B		
Surface Elevation		
Top of Casing Elevation		984.28
Top of Screen Elevation		
Bottom of Screen Elevation		913.13
Measurement Date	DTW (Casing)	Groundwater Elevation
07/05/2016	32.81	951.47
10/03/2016	32.21	952.07
09/26/2017	31.85	952.43
12/13/2017	31.83	952.45

91-5A		
Surface Elevation		
Top of Casing Elevation		980.49
Top of Screen Elevation		
Bottom of Screen Elevation		940.79
Measurement Date	DTW (Casing)	Groundwater Elevation
07/05/2016	29.16	951.33
10/03/2016	28.58	951.91
09/26/2017	28.28	952.21
12/13/2017	28.25	952.24

91-5B		
Surface Elevation		
Top of Casing Elevation		980.48
Top of Screen Elevation		
Bottom of Screen Elevation		911.13
Measurement Date	DTW (Casing)	Groundwater Elevation
07/05/2016	29.23	951.25
10/03/2016	28.63	951.85
09/26/2017	28.30	952.18
12/13/2017	28.26	952.22

91-6		
Surface Elevation		
Top of Casing Elevation		982.01
Top of Screen Elevation		
Bottom of Screen Elevation		942.73
Measurement Date	DTW (Casing)	Groundwater Elevation
07/05/2016	30.65	951.36
10/03/2016	30.13	951.88
09/26/2017	28.82	953.19
12/13/2017	29.80	952.21

91-7		
Surface Elevation		
Top of Casing Elevation		980.99
Top of Screen Elevation		
Bottom of Screen Elevation		912.94
Measurement Date	DTW (Casing)	Groundwater Elevation
07/05/2016	29.67	951.32
10/03/2016	29.15	951.84
09/26/2017	28.84	952.15
12/13/2017	28.81	952.18

OW-1		
Surface Elevation		
Top of Casing Elevation		983.36
Top of Screen Elevation		
Bottom of Screen Elevation		936.83
Measurement Date	DTW (Casing)	Groundwater Elevation
07/05/2016	32.35	951.01
10/03/2016	31.67	951.69
09/26/2017	31.34	952.02
12/13/2017	31.29	952.07

OW-2		
Surface Elevation		
Top of Casing Elevation		983.48
Top of Screen Elevation		
Bottom of Screen Elevation		938.46
Measurement Date	DTW (Casing)	Groundwater Elevation

Table Notes:
DTW: Depth to water.
All measurements are in feet.

07/05/2016	32.54	950.94
10/03/2016	31.78	951.70
09/26/2017	31.44	952.04
12/13/2017	31.41	952.07

Attachment A.3. Residual Soil Contamination Table
Webster Quik Wash
BRRTS# 02-07-000337

SAMPLE/BORING #	OW-1	OW-1	OW-7	SB-1	SB-4[1]			SB-6	SB-7[1]		SB-9[1]	SB-13	SB-14[1]	SB-18		
DEPTH to Water Table (ft BGS)																
Date Collected	07/15/1986	07/15/1986	07/15/1986	06/17/1991	06/17/1991			06/17/1991	06/17/1991		06/17/1991	06/17/1991	06/17/1991	06/17/1991		
DEPTH (ft BGS)	5	45	45	34-36	34-36	44-46	69-71	34-36	60-62	64-66	60-62	34-36	34-36	34-36	Soil RCLs (mg/kg)	
SATURATED OR UNSATURATED																
SOIL TYPE															July 2015 DNR Table	Background
Soil Concentrations in mg/kg (or ppm)															Non-Industrial Direct Contact	Soil to GW	Surficial BTV
VOC ANALYTES																	
Acetone																	
Benzene	<0.4	*0.6*	<1.0												1.49	0.0051	
n-Butylbenzene															108	NS	
sec-Butylbenzene															145	NS	
Ethylbenzene	*29.6*	<0.4	<1.0												7.47	1.57	
p-Isopropylbenzene															NS	NS	
Methylene chloride				<9.8	*42.9*	*49.2*	*43.1*	<9.8	*13.7*	*22.4*	*14.6*	<9.8	*13.5*	<9.8	60.7	0.0026	
Methyl tert butyl ether															59.4	0.027	
Naphthalene															0.854	0.6587	
n-Propylbenzene															264	NS	
Tetrachloroethylene	<0.2	<0.2	<0.5	*34.9*	<2.0	<2.0	*5.8*	*2.4*	<2.0	<2.0	<2.0	<2.0	<2.0	*9.3*	30.7	0.0045	
Trichloroethylene															1.26	0.0036	
Trichlorofluoromethane	<0.4	<0.4	*11.3*												1,230	4.4775	
Toluene	*45.7*	*1.2*	<0.5	<2.0	<2.0	<2.0	<2.0	<2.0	*<2.0*	*<2.0*	*<2.0*	*4.2*	*<2.0*	*<2.0*	818	1.1072	
1,2,3-Trichlorobenzene															48.9	NS	
1,2,4-Trimethylbenzene															89.8	1.3793*	
1,3,5-Trimethylbenzene															182	1.3793*	
Xylene (Total)	*101.7*	*8.9*	*<5.0*												258*	3.94*	
No. of Individual Exceedances (DC)																	
Cumulative Hazard Index (DC)																	
Cumulative Cancer Risk (DC)																	

Exceedance Highlights:

BOLD font indicates DC RCL exceedance within four feet of the ground surface, and BTV exceedance for metals.

Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.

Table Notes:

<: Indicates the analyte was not detected above the Laboratory Limit of Quantitation.

*: Indicates total xylenes (m-,o-,p- combined) and total trimethylbenzenes (1,2,4- and 1,3,5- combined).

J: Indicates the analyte was detected between the Laboratory Limit of Detection and Laboratory Limit of Quantitation.

Blank cells indicate that the analyte was not analyzed/there was no data was available for these analytes.

[1]The January 1992 Investigation Report prepared by RREM, Inc. indicated that methylene chloride detections in SB-4, SB-7, SB-9, and SB-14 were believed to be the result of laboratory contamination during sample analysis.

Attachment A.4. Vapor Analytical Table
Former Webster Quik Wash
BRRTS# 02-07-000337

	Vapor Samples								
Location	Murray Apt	Murray Apt	Jaeger Apt	Jaeger Crawl Space	VP-1 (Church utility room north)		VP-2 (Church storage area south)		VP (Fire station g
Duration or Depth Collected	Sub Slab	24 hour	24 hour	24 hour	Sub Slab		Sub Slab		Sub
Date	07/05/2016	7/5/2016-7/6/2016	7/5/2016-7/6/2016	7/5/2016-7/6/2016	09/26/2017	12/12/2017	09/26/2017	12/12/2018	09/26/2017
1,1-Dichloroethene	<0.44	<0.38	<0.37	<0.37	<0.38	<0.40	<33.2	<0.43	<0.41
cis-1,2-Dichloroethene	<0.45	<0.40	<0.38	<0.38	<0.55	<0.57	<47.7	<0.62	<0.60
trans-1,2-Dichloroethene	<0.70	<0.62	<0.60	<0.60	<0.47	<0.50	<41.3	<0.54	<0.52
Tetrachloroethene	**8,180**	2.5	1.1	12.7	15.6	2.2	170	102	68.4
Trichloroethene	5.2	<0.44	<0.43	<0.43	<0.43	<0.45	<37.5	<0.49	<0.47
Vinyl chloride	<0.36	<0.31	<0.30	<0.30	<0.42	<0.21	<17.6	<0.23	<0.22

All concentrations reported in micrograms per cubic meter (ug/m^3).

Vapor Action Levels (VALs) based on the Wisconsin Department of Natural Resources (DNR) Guidance Document Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin (PUB-RR-800), and the Environmental Protectio
Soil Gas Concentrations.

Vapor Action Levels (VALs) and Vapor Risk Screening Levels (VRSLs) obtained from the WDNR Indoor Air Vapor Action Levels and Vapor Risk Screening Levels Table based on June 2017 USEPA Regional Screening Level Tables
NS = Constituent has no published standard.
<0.28 = Constituent was not detected above the laboratory limit of detection (LOD).
Concentrations in **Bold** text exceed a VAL/VRSL
Soil gas VALS are calculated from the Residual Indoor Air VALs/0.01 (attenuation factor for deep soil gas)

Location	Vapor Samples					Residential Indoor Air VALs	Residential Sub-Slab Vapor VRSL	Small Commercial Indoor Air VALs	Small Commercial Sub-Slab Vapor VRSL
	VP-4 (Fire station garage south)		VP-5 (The Tap Bar basement)		VP-6 (Shawn's Service Garage)				
Duration or Depth Collected	Sub Slab		Sub Slab		Sub Slab				
Date	09/26/2017	12/12/2017	09/26/2017	12/12/2017	12/12/2017				
1,1-Dichloroethene	<4.0	<4.0	<31.9	<17.7	<0.46	210	7,000	880	29,000
cis-1,2-Dichloroethene	<5.7	<5.7	<45.8	<25.4	<0.65	NS	NS	NS	NS
trans-1,2-Dichloroethene	<5.0	<5.0	<39.6	<22.0	<0.57	NS	NS	NS	NS
Tetrachloroethene	424	596	**7,260**	2,580	201	42	1,400	180	6,000
Trichloroethene	<4.5	<4.5	<36.0	<20.0	2.3	2.1	70	8.8	290
Vinyl chloride	<2.1	<2.1	<16.9	<9.4	<0.24	1.7	57	28	930

')-3 (garage north) Slab 12/12/2017	Residential Indoor Air VALs	Residential Sub-Slab Vapor VRSL	Small Commercial Indoor Air VALs	Small Commercial Sub-Slab Vapor VRSL
<0.40	210	7,000	880	29,000
<0.57	NS	NS	NS	NS
<0.50	NS	NS	NS	NS
12	42	1,400	180	6,000
<0.45	2.1	70	8.8	290
<0.21	1.7	57	28	930

n Agency (EPA) Vapor Intrusion Screening Level (VISL) Calculator for Residential Indoor Air Concentrations and Exterior

Attachment A.3. Residual Soil Contamination Table
Webster Quik Wash
BRRTS# 02-07-000337

SAMPLE/BORING #	GP-1	GP-3	GP-3	GP-4	SB-1	SB-4			SB-6	SB-18		
DEPTH to Water Table (ft BGS)												
Date Collected	07/05/2016	07/05/2016	07/05/2016	07/05/2016	06/17/1991	06/17/1991			06/17/1991	06/17/1991		
DEPTH (ft BGS)	10	10	20	10	34-36	34-36	44-46	69-71	34-36	34-36	Soil RCLs (mg/kg)	
SATURATED OR UNSATURATED	UNSAT	UNSAT	UNSAT	UNSAT	SAT	SAT	SAT	SAT		SAT		
SOIL TYPE	sand	sand	sand	sand							July 2015 DNR Table I	
Soil Concentrations in mg/kg (or ppm)											Non-Industrial Direct Contact	Soil to GW
VOC ANALYTES												
Acetone												
Benzene	<0.0046	<0.0047	<0.0044	<0.0047							1.49	0.0051
n-Butylbenzene	<0.0128	<0.0131	<0.0122	<0.0133							108	NS
sec-Butylbenzene	<0.0125	<0.0127	<0.0119	<0.0129							145	NS
Ethylbenzene	<0.0168	<0.0172	<0.0161	<0.0174							7.47	1.57
p-Isopropylbenzene	<0.0188	<0.0192	<0.0180	<0.0195							NS	NS
Methylene chloride					<9.8	*42.9*	*49.2*	*43.1*	<9.8	<9.8	60.7	0.0026
Methyl tert butyl ether	<0.0099	<0.0101	<0.0095	<0.0103							59.4	0.027
Naphthalene	<0.0128	<0.0131	<0.0122	<0.0133							0.854	0.6587
n-Propylbenzene	<0.0158	<0.0161	<0.0151	<0.0163							264	NS
Tetrachloroethylene	*<0.0202*	*<0.0206*	*<0.0193*	*<0.0209*	*0.0349*	<0.002	<0.002	*0.0058*	*2.4*	*0.0093*	30.7	0.0045
Trichloroethylene	*<0.0151*	*<0.0154*	*<0.0145*	*<0.0157*							1.26	0.0036
Toluene	<0.0168	<0.0172	<0.0161	<0.0174	<0.002			<0.002		<0.002	818	1.1072
1,2,3-Trichlorobenzene	<0.0152	<0.0155	<0.0146	<0.0158					<2.0		48.9	NS
1,2,4-Trimethylbenzene	<0.0116	<0.0119	<0.0111	<0.0120							89.8	1.3793*
1,3,5-Trimethylbenzene	<0.0122	<0.0124	<0.0116	<0.0126							182	1.3793*
Xylene (Total)	<0.0423	<0.0432	<0.0404	<0.0438							258*	3.94*
No. of Individual Exceedances (DC)												
Cumulative Hazard Index (DC)												
Cumulative Cancer Risk (DC)												

Exceedance Highlights:

BOLD font indicates DC RCL exceedance, and BTV exceedance for metals.

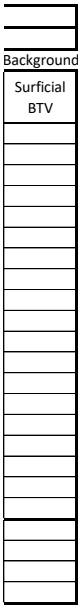
Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.

Table Notes:

<: Indicates the analyte was not detected above the Laboratory Limit of Quantitation.

*: Indicates total xylenes (m-,o-,p- combined) and total trimethylbenzenes (1,2,4- and 1,3,5- combined).

J: Indicates the analyte was detected between the Laboratory Limit of Detection and Laboratory Limit of Quantitation.


Background
Surficial
BTV