
From: Mark Davidson <mdavidson@msa-ps.com>
Sent: Thursday, December 12, 2019 10:20 AM
To: Richard, Philip E - DNR
Subject: 902 Belknap sampling results
Attachments: December 2019 sampling results.pdf; 902 Belknap trend graph.pdf

Phil,

Attached are the results from the 902/904 Belknap indoor air sampling. As you can see only TCE is currently the only contaminant constituent that is above small commercial indoor air VALs. I have also put a draft trend graph together indicating that TCE concentration in the basement should drop below its VAL relatively soon. We will need additional sampling events to confirm this trend but it looks like the system is working and we are moving in the right direction. Let me know if you have any questions.

Thanks,
Mark



Mark Davidson, PG | Senior Project Hydrogeologist

MSA Professional Services, Inc.

+1 (218) 499-3184



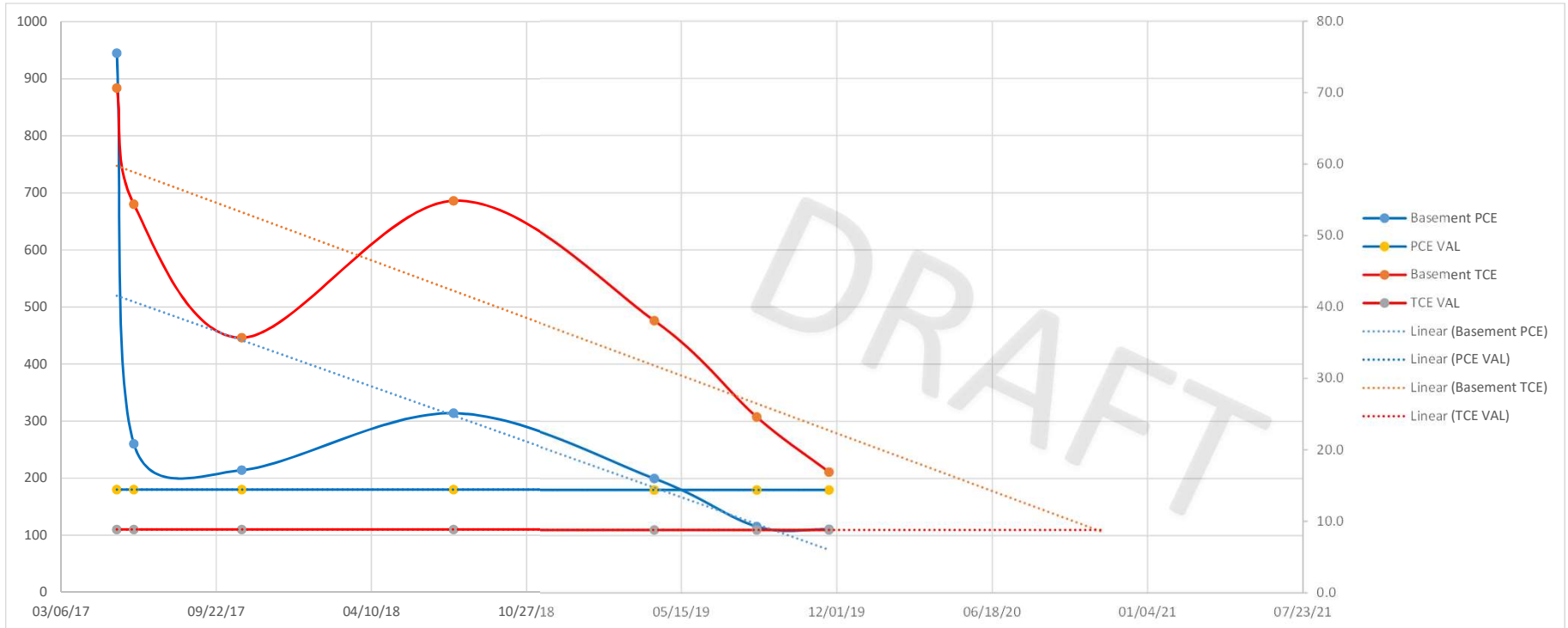


Table 3
Indoor Air Sampling Analytical Results
902/904 Belknap
Superior, WI
17711000
BRRTS Site #02-16-560359

Compound/Parameter	CAS No.	Residential		Small Commercial		Sample Identifier and Date Collected					
		Wisconsin Indoor Air VAL	Wisconsin Subslab Vapor VRSL	Wisconsin Indoor Air VAL	Wisconsin Subslab VRSL	Building - Main Office Space					
						IA-1	INDOOR AIR-9/7/17	IA-7	IA-11	IA-14	IA-19
						05/17/17	09/07/17	10/25/17	07/25/18	08/20/19	11/21/19
Result	Result	Result	Result	Result	Result						
Wisconsin Quick Look Up Compounds		Volatile Organic Compounds (VOCs) reported in ug/m3 -Detected Compounds Only									
Benzene	71-43-2	3.6	120	16	530	0.772	0.732	<0.489	0.732	0.814	<0.489
Carbon tetrachloride	56-23-5	4.7	160	20	670	<1.26	<1.26	<1.23	<1.23	<1.23	<1.23
Chloroform	67-66-3	1.2	40	5.3	180	<0.973	<0.973	<0.93	<0.930	<0.930	<0.930
Chloromethane	74-87-3	94	3,100	390	13,000	1.2	1.33	1.15	1.16	1.26	1.04
Dichlorodifluoromethane	75-71-8	100	3,300	440	15,000	1.73	3.2	1.33	2.00	2.68	2.74
1,1-Dichloroethane (1,1 DCA)	75-34-3	18	600	77	2,600	<0.802	<0.802	<0.685	<0.685	<0.685	<0.685
1,2-Dichloroethane (1,2 DCA)	107-06-2	1.1	37.0	4.7	160.0	<0.81	<0.81	<0.83	<0.830	<0.830	<0.830
1,1-Dichloroethene (1,1 DCE)	75-35-4	210	7,000	880	29,000	<0.793	<0.793	<0.646	<0.646	<0.646	<0.646
cis-1,2-Dichloroethene	156-59-2	NA	NA	NA	NA	34.2	7.51	2.82	<0.515	<0.515	0.884
trans-1,2-Dichloroethene	156-60-5	NA	NA	NA	NA	<0.793	<0.793	<0.614	<0.614	<0.614	<0.614
Ethylbenzene	100-41-4	11.0	370	49.0	1,600	<0.867	10.6	<0.733	10.6	1.28	<0.733
Methylene chloride (Dichloromethane)	75-09-2	630	21,000	2,600	87,000	4.15	3.04	0.582	<0.538	1.1	0.847
Methyl-tert-butyl ether (Isopropyl ether or MTBE)	1634-04-4	110	3,700	470	16,000	<0.721	<0.721	<0.605	<0.605	<0.605	<0.605
Naphthalene	91-20-3	0.83	28	3.6	120	<3.3	<3.3	<2.69	<2.69	<2.69	<2.69
Tetrachloroethene (PCE)	127-18-4	42	1,400	180	6,000	199	27.7	10.7	3.44	2.95	3.71
Toluene	108-88-3	5,200	170,000	22,000	730,000	12.9	15.7	5.15	2.88	6.14	1.73
1,1,1-Trichloroethane (1,1,1 TCA)	71-55-6	5,200	170,000	22,000	730,000	<1.09	<1.09	<1.21	<1.21	<1.21	<1.21
Trichloroethene (TCE)	79-01-6	2.1	70	8.8	290	20	4.53	3.15	<0.975	<0.975	<0.975
Trichlorofluoromethane	75-69-4	NA	NA	NA	NA	1.38	1.29	<1.26	1.31	1.39	1.52
1,2,4-Trimethylbenzene	95-63-6	63	2,100	260	8,700	1.42	1.42	<0.79	1.27	1.48	<0.790
1,3,5-Trimethylbenzene	108-67-8	63	2,100	260	8,700	<0.982	<0.982	<1.03	<1.03	<1.03	<1.03
Vinyl chloride	75-01-4	1.7	57	28	930	3.29	0.519	0.759	<0.389	<0.389	<0.389
Total Xylenes	179601-23-1	100	3,300	440	15,000	4.26	49.6	1.85	3.414	6.01	<2.285
Detected Compounds		Volatile Organic Compounds (VOCs) reported in ug/m3 -Detected Compounds Only									
1,1-Difluoroethane	75-36-7	42,000		180,000		79.7	<0.802	13.8	8.07	25.2	239
1,2,3-Trimethylbenzene	526-73-8	63		260		<0.982	--	<0.531	<0.531	<0.531	<0.531
2,2,4-Trimethylpentane	540-84-1	NE		NE		2.09	10.8	1.25	1.41	2.03	<0.710
2-Butanone (MEK)	78-93-3	5,200		22,000		<3.69	4.68	3.16	4.16	7.82	0.637
2-Propanol	67-63-0	NE		NE		4.92	33.8	3.00	9.85	14.9	1.12
4-Ethyltoluene	622-96-8	NE		NE		1	<0.982	<1.09	<1.09	<1.09	<1.09
4-Methyl-Pentanone (MIBK)	108-10-1					<5.12	<5.12	<0.888	<0.888	<0.888	1.15
Acetone	67-64-1	32,000		140,000		30.3	61	28.1	112	107	6.75
Carbon Disulfide	75-15-0	730		3,100		<0.622	<0.622	<0.563	<0.563	<0.563	<0.563
Chlorodifluoromethane	75-45-6	52,000		220,000		5.16	--	2.01	3.38	8.53	1.99
Chloroethane	75-00-3	NE		NE		<0.528	<0.528	<0.43	<0.430	<0.430	<0.430
Cyclohexane	110-82-7	6,300		26,000		9.36	1.06	0.769	<0.613	<0.613	<0.613
Ethanol	64-17-5	NE		NE		294	289	137	76.7	152	56.4
Ethyl Acetate	141-78-6	73		310		<0.72	--	<0.389	<0.389	26.3	0.594
Heptane	142-82-5	420		1,800		2.43	1.46	1.31	0.857	<0.855	1.95
Isopropylbenzene (Cumene)	98-82-8	420		1,800		<0.983	<0.983	<0.924	<0.924	<0.924	<0.924
Methyl Cyclohexane	108-87-2					1.4	--	<0.434	<0.434	<0.434	<0.434
Methyl Methacrylate	80-62-6	730		3,100		<0.819	<0.819	<1.06	<1.06	<1.06	<1.06
N-Hexane	110-54-3	730		3,100		4.69	1.78	0.627	1.57	3.54	<0.536
Styrene	100-42-5	1000		4,400		<0.851	2.09	<0.659	0.73	1.23	<0.659
Tetrahydrofuran	109-99-9	NE		NE		<0.59	1.02	<0.498	<0.498	<0.498	<0.498
GRO (TPH (GC/MS) Low Fraction)		NE		NE		486	--	191	143	3,520	<95.0

Notes:
Wisconsin Quick Look UP and Detected Compounds Only
Based on May 2018 US EPA Regional Screening Levels
Bold = Detected Concentration
Exceedance
EPA = Environmental Protection Agency
VAL = Vapor Action Level
VRSL = Vapor Risk Screening Level
NE = Vapor Action Level determined by 2017 EPA Vapor Risk Calculator Spreadsheet
<0.02 = Not Detected above laboratory reporting limits
-- = Not Analyzed
^a = Exceedance calculated using 2017 EPA Vapor Risk Calculator Spreadsheet
All measurements in ug/m³

Table 3
 Indoor Air Sampling Analytical Results
 902/904 Belknap
 Superior, WI
 17711000
 BRRTS Site #02-16-560359

Compound/Parameter	CAS No.	Residential		Small Commercial		Sample Identifier and Date Collected				
		Wisconsin Indoor Air VAL	Wisconsin Subslab Vapor VRSL	Wisconsin Indoor Air VAL	Wisconsin Subslab VRSL	Upstairs Apartment				
						IA-3 05/17/17 Result	IA-5 10/25/17 Result	IA-10 07/25/18 Result	IA-15 08/20/19 Result	IA-21 11/21/19 Result
Wisconsin Quick Look Up Compounds						Volatile Organic Compounds (VOCs) reported in ug/m3 -Detected Compounds Only				
Benzene	71-43-2	3.6	120	16	530	0.708	<0.489	<0.489	0.625	<0.489
Carbon tetrachloride	56-23-5	4.7	160	20	670	<1.26	<1.23	<1.23	<1.23	<1.23
Chloroform	67-66-3	1.2	40	5.3	180	<0.973	<0.93	<0.930	<0.930	<0.930
Chloromethane	74-87-3	94	3,100	390	13,000	1.260	1.01	1.19	1.30	0.95
Dichlorodifluoromethane	75-71-8	100	3,300	440	15,000	1.83	1.24	1.96	2.40	2.91
1,1-Dichloroethane (1,1 DCA)	75-34-3	18	600	77	2,600	<0.802	<0.685	<0.685	<0.685	<0.685
1,2-Dichloroethane (1,2 DCA)	107-06-2	1.1	37.0	4.7	160.0	<0.81	<0.83	<0.830	2.01	<0.830
1,1-Dichloroethene (1,1 DCE)	75-35-4	210	7,000	880	29,000	<0.793	<0.646	<0.646	<0.646	<0.646
cis-1,2-Dichloroethene	156-59-2	NA	NA	NA	NA	21.5	1.97	<0.515	<0.515	1.26
trans-1,2-Dichloroethene	156-60-5	NA	NA	NA	NA	<0.793	<0.614	<0.614	<0.614	<0.614
Ethylbenzene	100-41-4	11.0	370	49.0	1,600	1.04	<0.733	<0.733	<0.733	<0.733
Methylene chloride (Dichloromethane)	75-09-2	630	21,000	2,600	87,000	2.65	<0.538	2.36	1.23	1.14
Methyl-tert-butyl ether (Isopropyl ether or MTBE)	1634-04-4	110	3,700	470	16,000	<0.721	<0.605	<0.605	<0.605	<0.605
Naphthalene	91-20-3	0.83	28	3.6	120	<3.3	<2.69	<2.69	<2.69	<2.69
Tetrachloroethene (PCE)	127-18-4	42	1,400	180	6,000	141	6.55	4.00	<1.13	5.11
Toluene	108-88-3	5,200	170,000	22,000	730,000	13.4	4.38	2.55	5.95	1.45
1,1,1-Trichloroethane (1,1,1 TCA)	71-55-6	5,200	170,000	22,000	730,000	<1.09	<1.21	<1.21	<1.21	<1.21
Trichloroethene (TCE)	79-01-6	2.1	70	8.8	290	13.2	1.08	<0.975	<0.975	<0.975
Trichlorofluoromethane	75-69-4	NA	NA	NA	NA	1.23	<1.26	1.34	1.27	1.49
1,2,4-Trimethylbenzene	95-63-6	63	2,100	260	8,700	<0.982	<0.79	1.31	0.92	<0.790
1,3,5-Trimethylbenzene	108-67-8	63	2,100	260	8,700	<0.982	<1.03	<1.03	<1.03	<1.03
Vinyl chloride	75-01-4	1.7	57	28	930	1.27	<0.389	<0.389	<0.389	<0.389
Total Xylenes	179601-23-1	100	3,300	440	15,000	3.88	1.69	<2.285	1.91	<2.285
Detected Compounds						Volatile Organic Compounds (VOCs) reported in ug/m3 -Detected Compounds Only				
1,1-Difluoroethane	75-36-7	42,000		180,000		66.1	8.58	2.18	20.9	75.4
1,2,3-Trimethylbenzene	526-73-8	63		260		<0.982	<0.531	<0.531	<0.531	<0.531
2,2,4-Trimethylpentane	540-84-1	NE		NE		<0.934	1.62	0.72	1.22	<0.710
2-Butanone (MEK)	78-93-3	5,200		22,000		<3.69	1.01	2.07	2.59	<0.484
2-Propanol	67-63-0	NE		NE		9.37	2.38	5.42	17.2	1.2
4-Ethyltoluene	622-96-8	NE		NE		<0.982	<1.09	<1.09	<1.09	<1.09
4-Methyl-Pentanone (MIBK)	108-10-1					<5.12	<0.888	<0.888	<0.888	<0.888
Acetone	67-64-1	32,000		140,000		38.3	19.3	40.9	46.9	5.5
Carbon Disulfide	75-15-0	730		3,100		0.771	<0.563	<0.563	<0.563	<0.563
Chlorodifluoromethane	75-45-6	52,000		220,000		5.66	<0.382	3.6	6.8	2.44
Chloroethane	75-00-3	NE		NE		<0.528	<0.43	<0.430	<0.430	<0.430
Cyclohexane	110-82-7	6,300		26,000		2.83	<0.613	<0.613	<0.613	<0.613
Ethanol	64-17-5	NE		NE		654	197	686	81.9	29.8
Ethyl Acetate	141-78-6	73		310		1.15	<0.389	<0.389	2.39	<0.389
Heptane	142-82-5	420		1,800		0.926	1.07	<0.855	<0.855	0.998
Isopropylbenzene (Cumene)	98-82-8	420		1,800		<0.983	<0.924	<0.924	<0.924	<0.924
Methyl Cyclohexane	108-87-2					<0.803	<0.434	<0.434	<0.434	<0.434
Methyl Methacrylate	80-62-6	730		3,100		<0.819	<1.06	<1.06	<1.06	<1.06
N-Hexane	110-54-3	730		3,100		<0.705	<0.536	1.08	0.98	<0.536
Styrene	100-42-5	1000		4,400		<0.851	<0.659	<0.659	<0.659	<0.659
Tetrahydrofuran	109-99-9	NE		NE		1.33	<0.498	<0.498	<0.498	<0.498
GRO (TPH (GC/MS) Low Fraction)		NE		NE		350	306	133	153	<95.0

Notes:
Wisconsin Quick Look UP and Detected Compounds Only
 Based on May 2018 US EPA Regional Screening Levels
Bold = Detected Concentration
Exceedance
 EPA = Environmental Protection Agency
 VAL = Vapor Action Level
 VRSL = Vapor Risk Screening Level
 NE = Vapor Action Level determined by 2017 EPA Vapor Risk Calculator Spreadsheet
 <0.02 = Not Detected above laboratory reporting limits
 -- = Not Analyzed
 * = Exceedance calculated using 2017 EPA Vapor Risk Calculator Spreadsheet
 All measurements in ug/m³

Table 3
 Indoor Air Sampling Analytical Results
 902/904 Belknap
 Superior, WI
 17711000
 BRRTS Site #02-16-560359

Compound/Parameter	CAS No.	Residential		Small Commercial		Sample Identifier and Date Collected				
		Wisconsin Indoor Air VAL	Wisconsin Subslab Vapor VRSL	Wisconsin Indoor Air VAL	Wisconsin Subslab VRSL	904 Belknap				
						IA-4	IA-6	IA-9	IA-17	IA-18
						05/17/17	10/25/17	07/25/18	08/20/19	11/21/19
Result	Result	Result	Result	Result						
Wisconsin Quick Look Up Compounds						Volatile Organic Compounds (VOCs) reported in ug/m3 -Detected Compounds Only				
Benzene	71-43-2	3.6	120	16	530	2.32	<0.489	0.593	0.676	<0.489
Carbon tetrachloride	56-23-5	4.7	160	20	670	<1.26	<1.23	<1.23	<1.23	<1.23
Chloroform	67-66-3	1.2	40	5.3	180	<0.973	<0.93	<0.930	<0.930	<0.930
Chloromethane	74-87-3	94	3,100	390	13,000	2.45	1.12	1.18	1.22	1.08
Dichlorodifluoromethane	75-71-8	100	3,300	440	15,000	1.86	1.3	1.87	2.46	2.53
1,1-Dichloroethane (1,1 DCA)	75-34-3	18	600	77	2,600	<0.802	<0.685	<0.685	<0.685	<0.685
1,2-Dichloroethane (1,2 DCA)	107-06-2	1.1	37.0	4.7	160.0	<0.81	<0.83	<0.830	<0.830	<0.830
1,1-Dichloroethene (1,1 DCE)	75-35-4	210	7,000	880	29,000	<0.793	<0.646	<0.646	<0.646	<0.646
cis-1,2-Dichloroethene	156-59-2	NA	NA	NA	NA	11.3	1.54	<0.515	<0.515	1.45
trans-1,2-Dichloroethene	156-60-5	NA	NA	NA	NA	<0.793	<0.614	<0.614	<0.614	<0.614
Ethylbenzene	100-41-4	11.0	370	49.0	1,600	675	<0.733	<0.733	<0.733	<0.733
Methylene chloride (Dichloromethane)	75-09-2	630	21,000	2,600	87,000	1.98	0.952	0.625	0.875	0.955
Methyl-tert-butyl ether (Isopropyl ether or MTBE)	1634-04-4	110	3,700	470	16,000	<0.721	<0.605	<0.605	<0.605	<0.605
Naphthalene	91-20-3	0.83	28	3.6	120	24.2	<2.69	<2.69	<2.69	<2.69
Tetrachloroethene (PCE)	127-18-4	42	1,400	180	6,000	67.2	6.19	73	1.82	6.46
Toluene	108-88-3	5,200	170,000	22,000	730,000	325	7.44	2.70	2.88	1.65
1,1,1-Trichloroethane (1,1,1 TCA)	71-55-6	5,200	170,000	22,000	730,000	<1.09	<1.21	<1.21	<1.21	<1.21
Trichloroethene (TCE)	79-01-6	2.1	70	8.8	290	6.86	<0.975	<0.975	<0.975	1.11
Trichlorofluoromethane	75-69-4	NA	NA	NA	NA	1.44	<1.26	1.36	<1.26	1.57
1,2,4-Trimethylbenzene	95-63-6	63	2,100	260	8,700	3,340	<0.79	1.5	<0.790	<0.790
1,3,5-Trimethylbenzene	108-67-8	63	2,100	260	8,700	1,210	<1.03	<1.03	<1.03	<1.03
Vinyl chloride	75-01-4	1.7	57	28	930	0.96	<0.389	<0.389	<0.389	<0.389
Total Xylenes	179601-23-1	100	3,300	440	15,000	8,050	<2.285	1.88	1.60	<2.285
Detected Compounds						Volatile Organic Compounds (VOCs) reported in ug/m3 -Detected Compounds Only				
1,1-Difluoroethane	75-36-7	42,000		180,000		47.6	10.1	7.1	38.3	675
1,2,3-Trimethylbenzene	526-73-8	63		260		491*	<0.531	<0.531	<0.531	<0.531
2,2,4-Trimethylpentane	540-84-1	NE		NE		498	1.02	0.98	2.26	<0.710
2-Butanone (MEK)	78-93-3	5,200		22,000		55.4	<0.484	1.85	1.67	0.852
2-Propanol	67-63-0	NE		NE		30.5	2.64	58.5	7.9	2.25
4-Ethyltoluene	622-96-8	NE		NE		3,750	<1.09	1.16	<1.09	<1.09
4-Methyl-Pentanone (MIBK)	108-10-1					<5.12	<0.888	<0.888	<0.888	3.8
Acetone	67-64-1	32,000		140,000		209	16.7	418	32	9.62
Carbon Disulfide	75-15-0	730		3,100		<0.622	<0.563	<0.563	<0.563	<0.563
Chlorodifluoromethane	75-45-6	52,000		220,000		10.8	1.5	3.1	4.1	<0.382
Chloroethane	75-00-3	NE		NE		1.06	<0.43	<0.430	<0.430	<0.430
Cyclohexane	110-82-7	6,300		26,000		9.19	<0.613	<0.613	<0.613	<0.613
Ethanol	64-17-5	NE		NE		1,060	611	234	286	209
Ethyl Acetate	141-78-6	73		310		<0.72	<0.389	5.17	5.64	0.626
Heptane	142-82-5	420		1,800		66.2	<0.855	1.02	1.35	9.24
Isopropylbenzene (Cumene)	98-82-8	420		1,800		168	<0.924	<0.924	<0.924	<0.924
Methyl Cyclohexane	108-87-2					48.6	<0.434	<0.434	<0.434	0.859
Methyl Methacrylate	80-62-6	730		3,100		<0.819	<1.06	<1.06	<1.06	<1.06
N-Hexane	110-54-3	730		3,100		12.7	<0.536	1.09	0.89	<0.536
Styrene	100-42-5	1000		4,400		<0.851	<0.659	<0.659	<0.659	<0.659
Tetrahydrofuran	109-99-9	NE		NE		107	<0.498	<0.498	<0.498	<0.498
GRO (TPH (GC/MS) Low Fraction)		NE		NE		31,500	279	197	156	146

Notes:
 Wisconsin Quick Look UP and Detected Compounds Only
 Based on May 2018 US EPA Regional Screening Levels
 Bold = Detected Concentration
 Exceedance
 EPA = Environmental Protection Agency
 VAL = Vapor Action Level
 VRSL = Vapor Risk Screening Level
 NE = Vapor Action Level determined by 2017 EPA Vapor Risk Calculator Spreadsheet
 <0.02 = Not Detected above laboratory reporting limits
 -- = Not Analyzed
 * = Exceedance calculated using 2017 EPA Vapor Risk Calculator Spreadsheet
 All measurements in ug/m³

Table 3
Indoor Air Sampling Analytical Results
902/904 Belknap
Superior, WI
17711000
BRRTS Site #02-16-560359

Compound/Parameter	CAS No.	Residential		Small Commercial		Sample Identifier and Date Collected						
		Wisconsin Indoor Air VAL	Wisconsin Subslab Vapor VRSL	Wisconsin Indoor Air VAL	Wisconsin Subslab VRSL	Basement						
						IA-2	BASEMENT ROOM	IA-8	IA-12	IA-13	IA-16	IA-20
						05/17/17	06/08/17	10/25/17	07/25/18	04/10/19	08/20/19	11/21/19
Result	Result	Result	Result	Result	Result	Result	Result					
Wisconsin Quick Look Up Compounds						Volatile Organic Compounds (VOCs) reported in ug/m3 -Detected Compounds Only						
Benzene	71-43-2	3.6	120	16	530	0.830	<0.639	<0.489	0.661	2.88	0.682	1.54
Carbon tetrachloride	56-23-5	4.7	160	20	670	<1.26	<1.26	<1.23	<1.23	<1.23	<1.23	<1.23
Chloroform	67-66-3	1.2	40	5.3	180	<0.973	<0.973	1.04	2.82	<0.930	<0.930	<0.930
Chloromethane	74-87-3	94	3,100	390	13,000	0.965	1.13	0.902	1.1	0.834	1.18	0.89
Dichlorodifluoromethane	75-71-8	100	3,300	440	15,000	1.73	1.49	1.44	2.10	<0.382	2.46	2.69
1,1-Dichloroethane (1,1 DCA)	75-34-3	18	600	77	2,600	<0.802	<0.802	<0.685	<0.685	<0.685	<0.685	<0.685
1,2-Dichloroethane (1,2 DCA)	107-06-2	1.1	37.0	4.7	160.0	<0.81	<0.81	<0.83	<0.830	<0.830	<0.830	<0.830
1,1-Dichloroethene (1,1 DCE)	75-35-4	210	7,000	880	29,000	<0.793	<0.793	<0.646	<0.646	<0.646	<0.646	<0.646
cis-1,2-Dichloroethene	156-59-2	NA	NA	NA	NA	130.0	76.1	66.9	72.7	52.9	37.2	27.2
trans-1,2-Dichloroethene	156-60-5	NA	NA	NA	NA	0.835	<0.793	0.68	0.75	<0.614	<0.614	<0.614
Ethylbenzene	100-41-4	11.0	370	49.0	1,600	1.66	4.3	1.56	0.92	2.41	0.823	1.5
Methylene chloride (Dichloromethane)	75-09-2	630	21,000	2,600	87,000	17.6	19.9	6.97	11	117	44.5	31.2
Methyl-tert-butyl ether (Isopropyl ether or MTBE)	1634-04-4	110	3,700	470	16,000	<0.721	<0.721	<0.605	<0.605	<0.605	1.28	<0.605
Naphthalene	91-20-3	0.83	28	3.6	120	<3.3	<3.3	<2.69	<2.69	<2.69	<2.69	<2.69
Tetrachloroethene (PCE)	127-18-4	42	1,400	180	6,000	945	260	214	314	200	116	111
Toluene	108-88-3	5,200	170,000	22,000	730,000	15.3	51.7	16.4	11.1	37.9	12.4	18.5
1,1,1-Trichloroethane (1,1,1 TCA)	71-55-6	5,200	170,000	22,000	730,000	<1.09	<1.09	<1.21	<1.21	<1.21	<1.21	<1.21
Trichloroethene (TCE)	79-01-6	2.1	70	8.8	290	70.7	54.4	35.7	54.9	38.1	24.6	16.9
Trichlorofluoromethane	75-69-4	NA	NA	NA	NA	1.36	1.28	1.57	1.91	1.3	1.45	1.48
1,2,4-Trimethylbenzene	95-63-6	63	2,100	260	8,700	2.98	2.56	5.06	2.88	5.5	1.19	1.96
1,3,5-Trimethylbenzene	108-67-8	63	2,100	260	8,700	<0.982	<0.982	<1.03	<1.03	1.55	<1.03	<1.03
Vinyl chloride	75-01-4	1.7	57	28	930	8.07	4.49	7.49	2.83	1.68	1.19	<0.389
Total Xylenes	179601-23-1	100	3,300	440	15,000	9.27	21.97	10.58	5.32	12.57	3.822	7.66
Detected Compounds						Volatile Organic Compounds (VOCs) reported in ug/m3 -Detected Compounds Only						
1,1-Difluoroethane	75-36-7	42,000		180,000		265	136	332	232	95.7	71.2	104
1,2,3-Trimethylbenzene	526-73-8	63		260		1.1	<0.982	<0.531	0.903	1.2	<0.531	0.57
2,2,4-Trimethylpentane	540-84-1	NE		NE		<0.934	6.73	4.87	1.68	1.4	2.03	8.13
2-Butanone (MEK)	78-93-3	5,200		22,000		6.35	6.26	<0.484	<0.484	<0.484	3.46	6.84
2-Propanol	67-63-0	NE		NE		<3.07	41	1.54	10.3	2.79	4.94	2.21
4-Ethyltoluene	622-96-8	NE		NE		2.21	2.05	4.36	1.93	4.14	<1.09	1.79
4-Methyl-Pentanone (MIBK)	108-10-1					<5.12	<5.12	<0.888	<0.888	<0.888	<0.888	<0.888
Acetone	67-64-1	32,000		140,000		28	54.2	35.8	154	50	36.5	21.2
Carbon Disulfide	75-15-0	730		3,100		0.746	<0.622	<0.563	<0.563	<0.563	<0.563	<0.563
Chlorodifluoromethane	75-45-6	52,000		220,000		6.93	16.5	5.35	4.99	<0.382	5.74	1.99
Chloroethane	75-00-3	NE		NE		<0.528	<0.528	<0.43	<0.430	<0.430	<0.430	<0.430
Cyclohexane	110-82-7	6,300		26,000		<0.689	1.11	<0.613	<0.613	0.831	<0.613	<0.613
Ethanol	64-17-5	NE		NE		11.5	48	11.7	47.7	29.1	52.7	14.3
Ethyl Acetate	141-78-6	73		310		<0.72	4.8	<0.389	<0.389	<0.367	0.946	<0.389
Heptane	142-82-5	420		1,800		<0.818	1.73	1.80	0.875	2.37	0.982	1.37
Isopropylbenzene (Cumene)	98-82-8	420		1,800		<0.983	<0.983	<0.924	<0.924	<0.924	<0.924	<0.924
Methyl Cyclohexane	108-87-2					<0.803	4.00	<0.434	<0.434	1.48	0.692	0.622
Methyl Methacrylate	80-62-6	730		3,100		<0.819	<0.819	<1.06	<1.06	<1.06	<1.06	<1.06
N-Hexane	110-54-3	730		3,100		<0.705	2.07	0.544	1.16	6.04	4.76	1.60
Styrene	100-42-5	1000		4,400		<0.851	3.79	<0.659	0.92	0.907	0.717	<0.659
Tetrahydrofuran	109-99-9	NE		NE		2.98	2.84	2.74	1.64	5.46	2.67	5.78
GRO (TPH (GC/MS) Low Fraction)		NE		NE		1,070	887	943	491	622	334	330

Notes:
Wisconsin Quick Look UP and Detected Compounds Only
Based on May 2018 US EPA Regional Screening Levels
Bold = Detected Concentration
Exceedance
EPA = Environmental Protection Agency
VAL = Vapor Action Level
VRSL = Vapor Risk Screening Level
NE = Vapor Action Level determined by 2017 EPA Vapor Risk Calculator Spreadsheet
<0.02 = Not Detected above laboratory reporting limits
-- = Not Analyzed
^a = Exceedance calculated using 2017 EPA Vapor Risk Calculator Spreadsheet
All measurements in ug/m³