

From: Rob Hoverman <rhoverman@enviroforensics.com>
Sent: Monday, November 7, 2022 9:23 AM
To: Schultz, Josie M - DNR
Cc: Lee Amundson
Subject: RE: 1404 S Webster
Attachments: 2022.10.28_200030_Econo Care Cleaners_Draft Tables.pdf; 200030-0311-Fig. Potentiometric surface map 9-29-22.pdf; 200030-0319-Fig. Combined GW analytical results 9-22.pdf

**CAUTION: This email originated from outside the organization.
Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Josie,

I've attached the data tables, groundwater flow map, and a figure with all groundwater data.

Let me know if you have any immediate questions.

Rob Hoverman, Northern Midwest Regional Director
EnviroForensics® | 414.630.0060

From: Schultz, Josie M - DNR <josie.schultz@wisconsin.gov>
Sent: Wednesday, November 2, 2022 3:31 PM
To: Rob Hoverman <rhoverman@enviroforensics.com>
Cc: Lee Amundson <lee.amundson@ki.com>
Subject: 1404 S Webster

Rob,

Thank you for the conversation this afternoon regarding the status of the 1404 S Webster site, BRRTS # 02-05-514372. As mentioned during the call, DNR is requesting you proceed with resampling of 930 S Derby and submit a workplan as soon as possible as there is an acute health risk concern with the TCE that was detected in indoor air. This should be performed concurrently with the resampling and expansion of the sanitary sewer investigation, and resampling of the other buildings. I'm also requesting submittal of the groundwater sampling results to the DNR.

Please let me know if you have any questions or concerns moving forward.

Thanks,
Josie

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Josie M. Schultz

Hydrogeologist – Northeast Region Remediation and Redevelopment Team

Wisconsin Department of Natural Resources

2984 Shawano Avenue, Green Bay, WI 54313-6727

Cell Phone: 920-366-5685

Josie.Schultz@Wisconsin.gov



dnr.wi.gov





Legend

	Property boundary
	MW-1 Monitoring Well (By Others)
	MW-7 Monitoring Well
	611.80 Groundwater elevation contour
	613.06 Groundwater elevation (feet above mean sea level)
	632.50 Sewer Manhole surface elevation in feet
	12.0 Sewer depth in feet

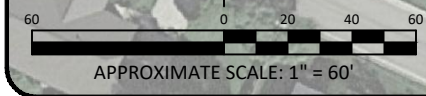
POTENTIOMETRIC SURFACE MAP
 SEPTEMBER 29, 2022
 1404 South Webster Avenue
 Green Bay, Wisconsin

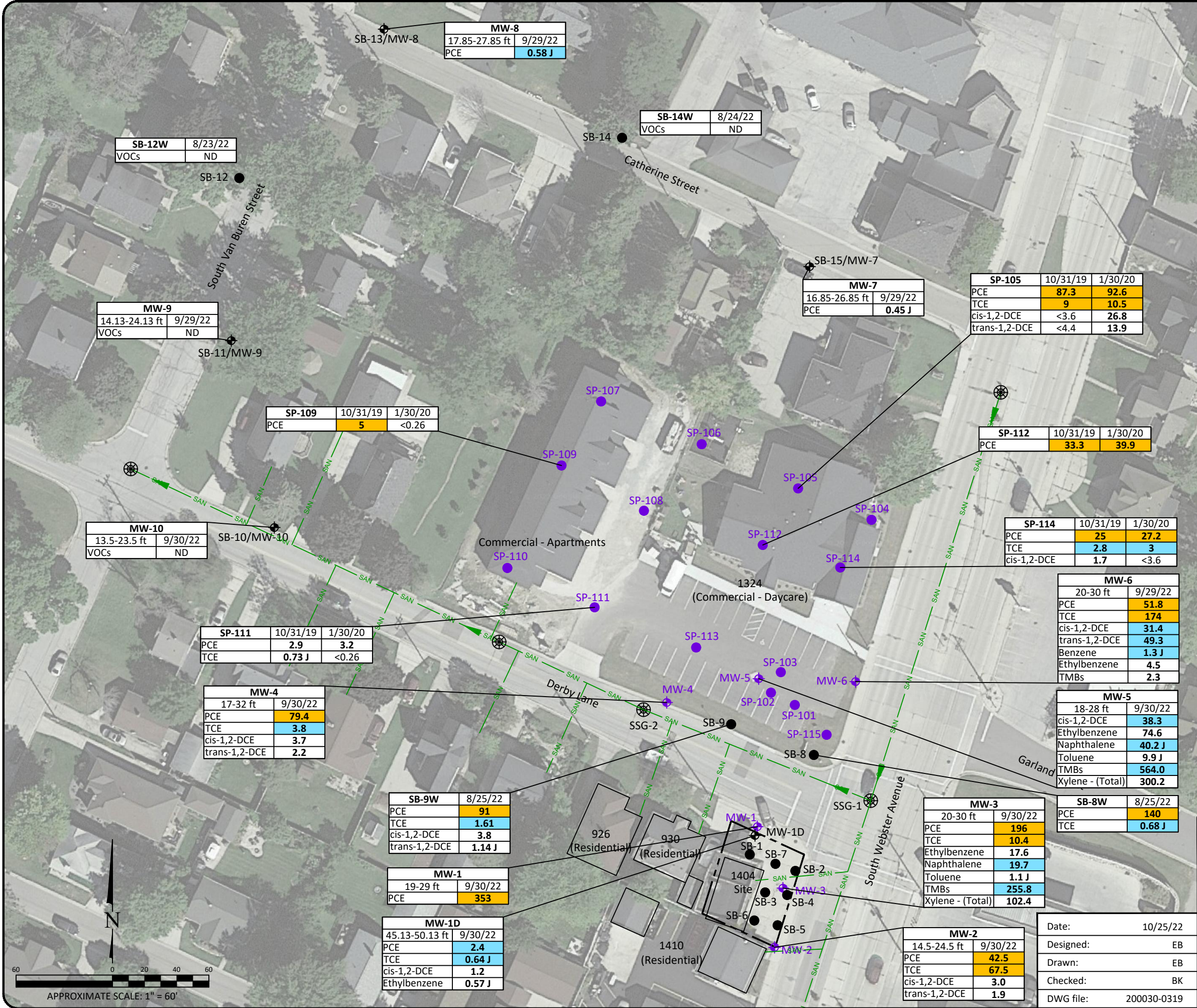
Date:	10/25/22
Designed:	EB
Drawn:	EB
Checked:	BK
DWG file:	200030-0311



825 North Capitol Avenue • Indianapolis, IN 46204
 EnviroForensics.com

Figure	*
Project	200030





Legend

- Property boundary
- Underground sanitary utility line
- Arrow for flow direction
- Manhole
- MW-1 Monitoring Well (By Others)
- MW-7 Monitoring Well
- SB-8 Soil Boring
- SP-101 Soil Boring (By Others)
- SSG-1 Sewer gas sample location / Sewer Manhole

Sewer depth in feet

Analyte	Public Health Preventive Action Limit	Public Health Enforcement Standard
PCE	0.5	5
TCE	0.5	5
cis-1,2-DCE	7	70
trans-1,2-DCE	20	100
Vinyl Chloride	0.02	0.2
Benzene	0.5	5
Ethylbenzene	140	700
Naphthalene	10	100
Toluene	200	1,000
TMBs	96	480
Xylene - (Total)	1,000	10,000

- Note:
- Bolded and orange shaded values exceed the Public Health Enforcement Standard
 - Bolded and blue shaded values exceed the Public Health Preventive Action Limit
 - Bolded values are above detection limits
 - J = Analyte concentration detected between the laboratory Reporting Limit and the laboratory Method Detection Limit
 - Samples analyzed using EPA SW-846 Method 8260
 - Samples/constituents not shown are below laboratory reporting limits
 - All results reported in units of micrograms per liter (µg/L)
 - PCE = Tetrachloroethene
 - TCE = Trichloroethene
 - cis-1,2-DCE = cis-1,2-Dichloroethene
 - trans-1,2-DCE = trans-1,2-Dichloroethene
 - TMBs = Trimethylbenzenes
 - VOCs = Volatile Organic Compounds
 - ND = Not detected

COMBINED MONITORING WELL AND GRAB GROUNDWATER ANALYTICAL RESULTS

1404 South Webster Avenue
Green Bay, Wisconsin

Date: 10/25/22

Designed: EB

Drawn: EB

Checked: BK

DWG file: 200030-0319

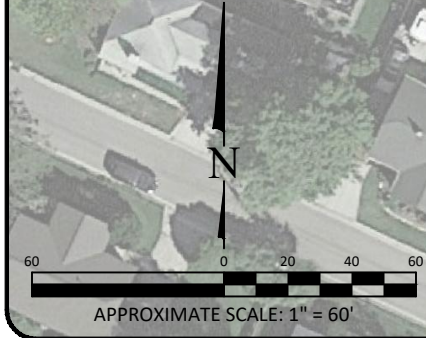
825 North Capital Avenue • Indianapolis, IN 46204
EnviroForensics.com

Figure

*

Project

200030



MONITORING WELL CONSTRUCTION DETAIL
Former Econo Care Cleaners
1404 South Webster Avenue, Allouez, Wisconsin

Monitoring Well ID	Northing	Easting	TOC	Total Depth	Screen Length	Top of Screen	Bottom of Screen
MW-1	246,958.04	2,486,048.70	633.83	29	10	614.83	604.83
MW-1D	246,955.60	2,486,047.25	634.00	50.13	5	588.87	583.87
MW-2	246,885.81	2,486,060.26	635.33	24.5	10	620.83	610.83
MW-3	246,921.48	2,486,064.77	635.02	30	10	615.02	605.02
MW-4	247,035.57	2,485,994.36	631.43	32	15	614.43	599.43
MW-5	247,050.51	2,486,051.18	632.60	28	10	614.60	604.60
MW-6	247,048.71	2,486,111.97	633.90	30	10	613.90	603.90
MW-7	247,309.55	2,486,081.22	632.47	26.85	10	615.62	605.62
MW-8	247,457.30	2,485,816.36	628.91	27.85	10	611.06	601.06
MW-9	247,263.50	2,485,721.28	625.98	24.13	10	611.85	601.85
MW-10	247,147.18	2,485,748.09	628.27	23.5	10	614.77	604.77

GROUNDWATER ELEVATION DATA
Former Econo Care Cleaners
1404 South Webster Avenue, Allouez, Wisconsin

Monitoring Well ID	Date	TOC	Depth to Water	Groundwater Elevation
MW-1	01/31/17	633.86	21.26	612.60
	04/20/17		20.86	613.00
	05/30/18		20.78	613.08
	11/26/18		20.28	613.58
	02/24/22		21.70	612.16
	09/29/22		20.80	613.06
MW-2	01/31/17	635.37	22.56	612.81
	04/20/17		22.21	613.16
	05/30/18		22.08	613.29
	11/26/18		21.85	613.52
	02/24/22		23.04	612.33
	09/29/22		22.09	613.28
MW-3	01/31/17	635.04	22.29	612.75
	04/20/17		21.86	613.18
	05/30/18		21.69	613.35
	11/26/18		21.41	613.63
	02/24/22		22.78	612.26
	09/29/22		21.86	613.18
MW-4	01/31/17	631.45	19.37	612.08
	04/20/17		18.98	612.47
	05/30/18		18.83	612.62
	11/26/18		18.48	612.97
	02/24/22		19.89	611.56
	09/29/22		18.89	612.56
MW-5	01/31/17	632.63	20.59	612.04
	04/20/17		20.24	612.39
	05/30/18		20.13	612.50
	11/26/18		19.71	612.92
	02/24/22		20.94	611.69
	09/29/22		20.11	612.52
MW-6	01/31/17	633.93	21.56	612.37
	04/20/17		21.14	612.79
	05/30/18		21.03	612.90
	11/26/18		20.77	613.16
	02/24/22		21.98	611.95
	09/29/22		21.17	612.76
MW-7	9/29/2022	632.47	21.37	611.1
MW-8	9/29/2022	628.91	20.06	608.85
MW-9	9/29/2022	625.98	15.82	610.16
MW-10	9/29/2022	628.27	15.97	612.3
MW-1D	9/29/2022	634.00	21.00	613.00

GRAB GROUNDWATER ANALYTICAL RESULTS
Former Econo Care Cleaners
1404 South Webster Avenue, Allouez, Wisconsin

Sample ID	Date Sampled	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl chloride
Enforcement Standard		5	5	70	100	0.2
Preventive Action Limit		0.5	0.5	7	20	0.02
TW-1	12/19/12	28.9	7.7	3.11	<0.79	<0.18
TW-2	12/19/12	253	<2.35	<3.7	<3.95	<0.9
TW-3	12/29/12	440	32	11.1	<7.9	<1.8
TW-4	12/19/12	93	480	281	<15.8	<3.6
G-1-W	11/29/16	197	<0.47	<0.45	<0.54	<0.17
G-2-W	11/29/16	85	<0.47	<0.45	<0.54	<0.17
G-3-W	11/29/16	140	<0.47	<0.45	<0.54	<0.17
G-4-W	11/29/16	106	2.11	<0.45	<0.54	<0.17
G-5-W	11/29/16	174	<0.47	<0.45	<0.54	<0.17
G-8-W	11/29/16	450	<0.47	<0.45	<0.54	>0.17
G-9-W	11/29/16	109	58	3.4	6.7	<0.17
SP-105	10/31/19	87.3	9	<3.6	<4.4	<0.17
SP-105	01/30/20	92.6	10.5	26.8	13.9	<0.17
SP-109	10/31/19	5	<0.26	<0.27	<1.1	<0.17
SP-109	01/30/20	<0.33	<0.26	<0.27	<1.1	<0.17
SP-111	10/31/19	2.9	0.73 J	<0.27	<1.1	<0.17
SP-111	01/30/20	3.2	<0.26	<0.27	<1.1	<0.17
SP-112	10/31/19	33.3	<0.26	<0.27	<1.1	<0.17
SP-112	01/30/20	39.9	<0.26	<3.6	<4.4	<0.17
DUP SP-112	10/31/19	43.6	<0.26	<0.27	<1.1	<0.17
SP-114	10/31/19	25	2.8	1.7	<1.1	<0.17
SP-114	01/30/20	27.2	3	<3.6	<4.4	<0.17

Notes:

µg/L = micrograms per liter

Samples analyzed using EPA SW-846 Method 8260

Samples/constituents not shown are below laboratory reporting limits

Bolded values are above detection limits

Bolded and orange shaded values are above Public Health Enforcement Standards

Bolded and blue shaded values are above Public Health Preventive Action Limits

J = Analyte concentration detected between the laboratory Reporting Limit and Method Detection Limit

NE = Not Established

SOIL ANALYTICAL RESULTS
Former Econo Care Cleaners
1404 South Webster Avenue, Allouez, Wisconsin

Boring Identification	Sample Depth (feet bgs)	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
Residual Contaminant Level - Industrial			145,000	8,410	2,340,000	1,850,000	2,080
Residual Contaminant Level - Non Industrial			33,000	1,300	156,000	1,560,000	67
Residual Contaminant Level - Soil to Groundwater			4.5	3.6	41.2	62.6	0.1
G-1-1	3.5	11/29/16	NA	NA	NA	NA	NA
G-1-3	12.0	11/29/16	NA	NA	NA	NA	NA
G-1-6	21.0	11/29/16	NA	NA	NA	NA	NA
G-2-1	3.5	11/29/16	NA	NA	NA	NA	NA
G-2-4	12.0	11/29/16	NA	NA	NA	NA	NA
G-2-9	21.0	11/29/16	NA	NA	NA	NA	NA
G-3-1	3.5	11/29/16	NA	NA	NA	NA	NA
G-3-3	12.0	11/29/16	NA	NA	NA	NA	NA
G-3-7	21.0	11/29/16	NA	NA	NA	NA	NA
G-4-1	3.5	11/29/16	NA	NA	NA	NA	NA
G-4-3	12.0	11/29/16	NA	NA	NA	NA	NA
G-4-7	21.0	11/29/16	NA	NA	NA	NA	NA
G-5-2	8.0	11/29/16	NA	NA	NA	NA	NA
G-5-5	14.0	11/29/16	NA	NA	NA	NA	NA
G-5-9	21.0	11/29/16	NA	NA	NA	NA	NA
G-8-1	3.5	11/29/16	NA	NA	NA	NA	NA
G-8-4	12.0	11/29/16	NA	NA	NA	NA	NA
G-8-9	21.0	11/29/16	800	<42	<21	<24	<1
G-9-1	3.5	11/29/16	NA	NA	NA	NA	NA
G-9-4	12.0	11/29/16	NA	NA	NA	NA	NA
G-9-9	21.0	11/29/16	NA	NA	NA	NA	NA
G-9-10	24.0	11/29/16	NA	NA	NA	NA	NA
MW-2-1	3.5	11/29/16	NA	NA	NA	NA	NA
MW-2-4	12.0	11/29/16	NA	NA	NA	NA	NA
MW-2-9	24.0	11/29/16	NA	NA	NA	NA	NA
MW-1D	17.5-20	08/01/22	295	<39	<27	<30	<36
MW-1D	20-22.5	08/01/22	360	<39	<27	<30	<36
MW-1D	45-47.5	08/01/22	<39	<39	<27	<30	<36
SB-1	7.5-10	08/02/22	197	<39	<27	<30	<36
SB-1	17.5-20	08/02/22	370	<39	<27	<30	<36
SB-1	20-22	08/02/22	350	<39	<27	<30	<36
SB-2	7.5-10	08/02/22	242	<39	<27	<30	<36
SB-2	15-17.5	08/02/22	283	<39	<27	<30	<36
SB-2	17.5-19.5	08/02/22	243	<39	<27	<30	<36

SOIL ANALYTICAL RESULTS
Former Econo Care Cleaners
1404 South Webster Avenue, Allouez, Wisconsin

Boring Identification	Sample Depth (feet bgs)	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
Residual Contaminant Level - Industrial			145,000	8,410	2,340,000	1,850,000	2,080
Residual Contaminant Level - Non Industrial			33,000	1,300	156,000	1,560,000	67
Residual Contaminant Level - Soil to Groundwater			4.5	3.6	41.2	62.6	0.1
SB-3	0-2.5	08/02/22	9,400	58 J	<27	<30	<36
SB-3	12.5-15	08/02/22	142 J	<39	<27	<30	<36
SB-3	17.5-19.5	08/02/22	153 J	<39	<27	<30	<36
SB-4	12.5-15	08/02/22	142 J	<39	<27	<30	<36
SB-4	15-17.5	08/02/22	136 J	<39	<27	<30	<36
SB-4	20-21	08/02/22	251	<39	<27	<30	<36
SB-5	10-12.5	08/02/22	75 J	<39	<27	<30	<36
SB-5	15-17.5	08/02/22	156 J	<39	<27	<30	<36
SB-5	17.5-20	08/02/22	110 J	<39	<27	<30	<36
SB-6	12.5-15	08/02/22	88 J	<39	<27	<30	<36
SB-6	15-17.5	08/02/22	138 J	<39	<27	<30	<36
SB-6	20-20.5	08/02/22	130 J	<39	<27	<30	<36
SB-7	5-7.5	08/02/22	370 J	<195	<135	<150	<180
SB-7	10-11	08/02/22	176	<39	<27	<30	<36
SB-7	17.5-20	08/02/22	192	<39	<27	<30	<36
SB-8	2.5-5	08/23/22	<39	<39	<27	<30	<36
SB-8	12.5-15	08/23/22	<39	<39	<27	<30	<36
SB-8	17.5-20	08/23/22	181	<39	<27	<30	<36
SB-9	12.5-15	08/25/22	<39	<39	<27	<30	<36
SB-9	20-21	08/25/22	<39	<39	<27	<30	<36
SB-10	12.5-15	08/23/22	<39	<39	<27	<30	<36
SB-10	15-17.5	08/23/22	<39	<39	<27	<30	<36
SB-11	5-7.5	08/23/22	<39	<39	<27	<30	<36
SB-11	12.5-15	08/23/22	<39	<39	<27	<30	<36
SB-12	15-17.5	08/23/22	<39	<39	<27	<30	<36
SB-12	17.5-19	08/23/22	<39	<39	<27	<30	<36
SB-13	12.5-15	08/24/22	<39	<39	<27	<30	<36
SB-13	20-21	08/24/22	<39	<39	<27	<30	<36
SB-14	15-17.5	08/24/22	<39	<39	<27	<30	<36
SB-14	17.5-19	08/24/22	<39	<39	<27	<30	<36
SB-15	7.5-10	08/24/22	<39	<39	<27	<30	<36
SB-15	20-22	08/24/22	<39	<39	<27	<30	<36
SP-101	0.5-1.5	10/25/19	<25	<25	<25	<25	<25
SP-101	8-10	10/25/19	57.0 J	<25	<25	<25	<25
SP-101	18-20	10/25/19	<25	<25	<25	<25	<25

SOIL ANALYTICAL RESULTS
Former Econo Care Cleaners
1404 South Webster Avenue, Allouez, Wisconsin

Boring Identification	Sample Depth (feet bgs)	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
Residual Contaminant Level - Industrial			145,000	8,410	2,340,000	1,850,000	2,080
Residual Contaminant Level - Non Industrial			33,000	1,300	156,000	1,560,000	67
Residual Contaminant Level - Soil to Groundwater			4.5	3.6	41.2	62.6	0.1
SP-102	0.5-1.5	10/25/19	59.5 J	<25	<25	<25	<25
SP-102	19-20	10/25/19	<25	<25	<25	<25	<25
SP-102	19-20D	10/25/19	<25	<25	<25	<25	<25
SP-102-N	0.5-1	03/20/20	<38.7	<25	<25	<25	<25
SP-102-E	0.5-1	03/20/20	<38.7	<25	<25	<25	<25
SP-102-S	0.5-1	03/20/20	<38.7	<25	<25	<25	<25
SP-102-W	0.5-1	03/20/20	<38.7	<25	<25	<25	<25
SP-103	0.5-1.5	10/25/19	<25	<25	<25	<25	<25
SP-103	12-14	10/25/19	<25	<25	<25	<25	<25
SP-103	18-20	10/25/19	277	<25	<25	<25	<25
SP-104	0.5-1.5	10/25/19	30.1 J	<25	<25	<25	<25
SP-104	18-19	10/25/19	63.7	<25	<25	<25	<25
SP-104-N	0.5-1.5	03/20/20	<38.7	<25	<25	<25	<25
SP-104-E	0.5-1.5	03/20/20	<38.7	<25	<25	<25	<25
SP-104-S	0.5-1.5	03/20/20	<38.7	<25	<25	<25	<25
SP-104W	0.5-1.5	03/20/20	<38.7	<25	<25	<25	<25
SP-105	0.5-1.5	10/25/19	<38.7	<25	<25	<25	<25
SP-105	20-21	10/25/19	<25	<25	<25	<25	<25
SP-105	26-27	10/25/19	69.5 J	<25	<25	<25	<25
SP-106	0.5-1.5	10/25/19	<25	<25	<25	<25	<25
SP-106	10-12	10/25/19	64.9	<25	<25	<25	<25
SP-106	18-19	10/25/19	59.4 J	<25	<25	<25	<25
SP-108	0.5-1.5	10/25/19	<25	<25	<25	<25	<25
SP-108	19-20	10/25/19	<25	<25	<25	<25	<25
SP-108	19-20D	10/25/19	<25	<25	<25	<25	<25
SP-109	0.5-1.5	10/25/19	<25	<25	<25	<25	<25
SP-109	18-19	10/25/19	<25	<25	<25	<25	<25
SP-110	0.5-1.5	10/25/19	<25	<25	<25	<25	<25
SP-110	18-19	10/25/19	<25	<25	<25	<25	<25
SP-111	0.5-1.5	10/25/19	<25	<25	<25	<25	<25
SP-111	20-21	10/25/19	<25	<25	<25	<25	<25
SP-112	0.5-1.5	10/25/19	<25	<25	<25	<25	<25
SP-112	21-22	10/25/19	77.4	<25	<25	<25	<25

SOIL ANALYTICAL RESULTS
Former Econo Care Cleaners
1404 South Webster Avenue, Allouez, Wisconsin

Boring Identification	Sample Depth (feet bgs)	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
Residual Contaminant Level - Industrial			145,000	8,410	2,340,000	1,850,000	2,080
Residual Contaminant Level - Non Industrial			33,000	1,300	156,000	1,560,000	67
Residual Contaminant Level - Soil to Groundwater			4.5	3.6	41.2	62.6	0.1
SP-113	0.5-1.5	10/25/19	<25	<25	<25	<25	<25
SP-113	22-23	10/25/19	<25	<25	<25	<25	<25
SP-114	0.5-1.5	10/25/19	<25	<25	<25	<25	<25
SP-114	21-22	10/25/19	<25	<25	<25	<25	<25
SP-115	0.5-1.5	10/24/19	<25	<25	<25	<25	<25
SP-115	10-12	10/24/19	169	<25.5	<25.5	<25.5	<25.5
SP-115	18-20	10/24/19	368	<25	<25	<25	<25

Notes:

µg/kg = micrograms per kilogram

Samples/constituents not shown are below laboratory reporting limits

Bolded values are above detection limits

Bolded and orange shaded values are above Industrial Residual Contaminant Levels

Bolded and green shaded values are above Non Industrial Residual Contaminant Levels

Bolded and blue shaded values are above Soil to Groundwater Residual Contaminant Levels

bgs = below ground surface

J = Analyte concentration detected between the laboratory Reporting Limit and Method Detection Limit

NA= Not Analyzed

GROUNDWATER ANALYTICAL RESULTS
Former Econo Care Cleaners
1404 South Webster Avenue, Allouez, Wisconsin

Monitoring Well Sample ID	Screened Interval (feet bgs)	Date Sampled	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
Enforcement Standard			5	5	70	100	0.2
Preventive Action Limit			0.5	0.5	7	20	0.02
MW-1	19-29	01/31/17	570	5.2 J	<2.05	<1.75	<0.95
		04/20/17	187	82	29.1	91	<1.9
		05/30/18	267	35	51	62	<2
		11/26/18	540	<3	<3.7	<3.4	<2
		02/23/22	142	0.72 J	<0.32	<0.5	<0.15
		09/30/22	353	<1.6	<2.4	<2.6	<0.87
		DUP 9/30	370	<1.6	<2.4	<2.6	<0.87
MW-2	14.5-24.5	01/31/17	70	52	1.94	0.66	<0.19
		04/20/17	40	53	4.8	1.22	0.23 J
		05/30/18	59	35	5.4	1.11	0.28 J
		11/26/18	125	34	3.08	0.75	<0.2
		02/25/22	60	64	7.2	5.2	<0.15
		09/30/22	42.5	67.5	3.0	1.9	<0.17
MW-3	20-30	01/31/17	213	106	4.9	5.3	<0.19
		04/20/17	107	118	<4.1	4.2	<1.9
		05/30/18	81	110	<3.7	<3.4	<2
		11/26/18	293	7.3 J	<3.7	<3.4	<2
		02/23/22	147	88	7.5	7.5	0.34 J
		09/30/22	196	10.4	<0.94	<1.1	<0.35
MW-4	17-32	01/31/17	31.1	<0.45	<0.41	<0.35	<0.19
		04/20/17	45	<0.45	<0.41	<0.35	<0.19
		05/30/18	93	0.76 J	1.07	1.02	<0.2
		11/26/18	96	1.91	1.59	1.97	<0.2
		10/31/19	85.5	2.2	<3.6	<4.4	<0.17
		01/30/20	65.7	1.8	1.3	<1.1	<0.17
		02/23/22	48	2.12	2.01	1.33 J	<0.15
		09/30/22	79.4	3.8	3.7	2.2	<0.17
MW-5	18-28	01/31/17	16.4	16.4	26	54	<0.95
		04/20/17	13.4 J	9.2	24.4	62	<1.9
		05/30/18	<3.8	<3	85	4.1	<2
		11/26/18	3.8 J	<1.5	76	5.0	<1
		10/31/19	4.2 J	<1.3	79.7	10.6 J	<0.87
		01/30/20	1.9 J	<1.3	85.5	8.3 J	<0.87
		02/23/22	1.72 J	1.03 J	47	7.1	<0.15
		09/30/22	<4.1	<3.2	38.3	<5.3	<1.7

GROUNDWATER ANALYTICAL RESULTS
Former Econo Care Cleaners
1404 South Webster Avenue, Allouez, Wisconsin

Monitoring Well Sample ID	Screened Interval (feet bgs)	Date Sampled	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
Enforcement Standard			5	5	70	100	0.2
Preventive Action Limit			0.5	0.5	7	20	0.02
MW-6	20-30	01/31/17	122	78	35	66	0.28 J
		04/20/17	126	79	41	73	0.55 J
		05/30/18	115	132	57	127	0.64 J
		11/26/18	55	93	45	89	0.44 J
		10/31/19	101	212	48.4	100	<0.70
		01/30/20	113	251	<14.5	<17.5	<0.70
		02/23/22	185	202	35	66	0.42 J
		09/29/22	51.8	174	31.4	49.3	<0.35
MW-7	16.85-26.85	09/29/22	0.45 J	<0.32	<0.47	<0.53	<0.17
MW-8	17.85-27.85	09/29/22	0.58 J	<0.32	<0.47	<0.53	<0.17
MW-9	14.13-24.13	09/29/22	<0.41	<0.32	<0.47	<0.53	<0.17
MW-10	13.5-23.5	09/30/22	<0.41	<0.32	<0.47	<0.53	<0.17
		DUP 9/30	0.42 J	<0.32	<0.47	<0.53	<0.17
MW-1D	45.13-50.13	9/30/2022	2.4	0.64 J	1.2	<0.53	<0.17

Notes:

µg/L = micrograms per liter

Samples analyzed using EPA SW-846 Method 8260

Bolded values are above detection limits

Bolded and orange shaded values are above Public Health Enforcement Standards

Bolded and blue shaded values are above Public Health Preventive Action Limits

Samples/constituents not shown are below laboratory reporting limits

bgs = below ground surface

J = Analyte concentration detected between the laboratory Reporting Limit and the laboratory Method

Detection Limit

NS= Not Sampled

GROUNDWATER GEOCHEMICAL ANALYTICAL RESULTS

Former Econo Care Cleaners

1404 South Webster Avenue, Allouez, Wisconsin

Monitoring Well Identification	Sample Date	Dissolved Gases			Dehalococcoides (DHC)				Inorganic Parameters					Field-Measured Parameters						
		Ethane	Ethene	Methane	DHC	tceA Reductase	BAV1 Vinyl Chloride Reductase	Vinyl Chloride Reductase	Dissolved Iron	Total Iron	Sulfate	Nitrite plus Nitrate	Chloride	Total Organic Carbon	Temperature	pH	Specific Conductance	Oxidation-Reduction Potential	Turbidity	Dissolved Oxygen
Units		µg/L	µg/L	µg/L	cells/mL	cells/mL	cells/mL	cells/mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	°C	S.U.	mS/cm	mV	NTU	mg/L
MW-1	9/30/2022	<0.39	<0.25	<0.58	<5.00E-01	<8.30E+00	<8.30E+00	<5.00E-01	<56.7	5,190	37.3	4.10	232	1.1	14.54	7.51	1.42	-10.7	101.3	10.41
MW-2	9/30/2022	0.49 J	<0.25	159	<5.00E-01	<8.30E+00	<8.30E+00	<5.00E-01	<56.7	49,800	294	<0.059	1080	1.6	14.65	7.47	3.73	-33.9	1800.1	4.26
MW-10	9/30/2022	<0.39	<0.25	<0.58	<5.00E-01	<8.30E+00	<8.30E+00	<5.00E-01	<56.7	1,700	46.7	11.6	210	1.4	15.99	7.18	1.06	110.6	63.85	9.97

VAPOR INTRUSION ASSESSMENT RESULTS SUMMARY

Former Econo Care Cleaners
1404 South Webster Avenue, Allouez, Wisconsin

Address	Sample Identification	Sample Location	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	
INDOOR/OUTDOOR AIR									
Residential Vapor Action Level				42	2.1	NE	42	1.7	
Small Commercial Vapor Action Level				180	8.8	NE	180	28	
1324 S Webster	IA-1/AMB-1	Zone 1	8/19/2021	<0.278	<0.237	<0.197	<0.231	<0.148	
			2/23/2022	<3.19	<1.07	<19.8	<39.6	<1.28	
	IA-2/AMB-2	Zone 4	8/19/2021	<0.278	<0.237	<0.197	<0.231	<0.148	
			2/23/2022	<3.19	<1.07	<19.8	<39.6	<1.28	
	Kitchen	Kitchen	9/16/2021	<2.3	<1.9	NA	NA	NA	
	Play Area	Play Area	9/16/2021	<2.3	<1.9	NA	NA	NA	
Outdoor	Outdoor	9/16/2021	<2.3	<1.9	NA	NA	NA		
1404 S Webster	IA-1	Back Hallway	2/23/2022	<3.19	<1.07	<19.8	<39.6	<1.28	
926 Derby	IA-B	Basement	4/12/2022	0.66 J	0.34 J	<0.30	<0.26	<0.13	
			8/2/2022	1.0 J		<0.29	<0.25	<0.13	
	IA-1	Spare Bedroom	4/12/2022	0.52 J		<0.30	<0.30	1.4	<0.13
			8/2/2022	3.1		<0.29	<0.25	<0.13	
930 Derby	IA-B	Basement	2/24/2022	<3.19	<1.07	<19.8	<39.6	<1.28	
			8/25/2022	3.2	5.2	<0.28	<0.25	<0.13	
	IA-1	1st Floor	2/24/2022	<3.19	<1.07	<19.8	<39.6	<1.28	
			8/25/2022	2.3	2.9	<0.38	<0.81	<1.28	
	IA-2	2nd Floor	2/24/2022	<3.19	<1.07	<19.8	<39.6	<1.28	
			8/25/2022	2.9	2.8	<0.38	<0.81	<0.13	
1410 S Webster	IA-B	Basement	2/25/2022	<3.19	<1.07	<19.8	<39.6	<1.28	
	IA-1	1st Floor	2/25/2022	<3.19	<1.07	<19.8	<39.6	<1.28	
	IA-2	2nd Floor	2/25/2022	<3.19	<1.07	<19.8	<39.6	<1.28	
Outdoor Air	OA	Outside	2/24/2022	<3.19	<1.07	<19.8	<39.6	<1.28	
SUB-SLAB VAPOR									
Residential Vapor Risk Screening Level				1,400	70	NE	1,400	57	
Small Commercial Vapor Risk Screening Level				5,800	290	NE	5,800	930	
1324 S Webster	VP-1	Between Zone 3 & 4	8/19/2021	3.5	<0.237	<0.197	<0.231	<0.148	
			2/23/2022	<31.9	<10.7	<198	<396	<12.8	
	VP-2	Between Zone 1 & 2	8/19/2021	0.61 J	<0.237	<0.197	<0.231	<0.148	
			2/23/2022	133	<10.7	<198	<396	<12.8	
1404 S Webster	SSV-1	Closet	2/23/2022	<31.9	<10.7	<198	<396	<12.8	
			8/2/2022	368	4.4	0.70 J	<0.32	<0.16	
926 Derby	SSV-1	Basement	4/12/2022	44.0	5.4	<0.39	<0.33	<0.17	
			8/2/2022	323	3.7	<0.38	<0.33	<0.17	
930 Derby	SSV-1	Basement	2/24/2022	111	<10.7	<198	<396	<12.8	
930 Derby	SSV-1	Basement	8/25/2022	128	1.8	<0.38	<0.81	<0.16	
1410 S Webster	SSV-1	Storage Closet	2/25/2022	<31.9	<10.7	<198	<396	<12.8	
SUMP VAPOR									
Residential Vapor Risk Screening Level				1,400	70	NE	1,400	57	
930 Derby	SUMP	Basement	2/24/2022	<31.9	<10.7	<198	<396	<12.8	
SANITARY SEWER GAS									
Residential Vapor Risk Screening Level				1,400	70	NE	1,400	57	
Small Commercial Vapor Risk Screening Level				5,800	290	NE	5,800	930	
S Webster Ave	SSG-1	Webster Ave	2/24/2022	<31.9	<10.7	<198	<396	<12.8	
Derby Lane	SSG-2	Derby Ln	2/24/2022	690	32.8	<198	<396	<12.8	

Notes:

Vapor Action and Risk Screening Levels are calculated according to WDNR Publication RR-800 and subsequent vapor intrusion guidance

Results reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

Samples analyzed according to EPA Method TO-15

NE = Screening/action level not established

Bolded values are above detection limits

Bolded and shaded values exceed the applicable screening or action level

J = Analyte concentration detected between the laboratory Reporting Limit and the laboratory Method Detection Limit