

August 31, 2021



Mr. Joesph Martinez
Wisconsin Department of Natural Resources
2300 N. Dr. Martin Luther King Jr. Drive
Milwaukee, WI 53212-3128

RE: Groundwater Sampling for the Former Saukville Fabricare Property Located at 144 South Foster Street in Saukville, Wisconsin — FEC Project No. 041101; DNR FID No. 246061640; BRRTS No. 02-46-448965

Dear Mr. Martinez:

As discussed, **Friess Environmental Consulting (FEC)** has prepared this letter to justify that additional groundwater monitoring is not warranted at the above referenced site.

Project Background

As you are aware, site investigation activities have been conducted for a release of chlorinated volatile organic compounds (CVOCs) from the above referenced site. FEC submitted the results of our additional environmental services in April 2021. The DNR reviewed the documentation and has discussed additional actions, including additional groundwater monitoring, at the site.

Project Results

The DNR most recently requested additional groundwater monitoring from the downgradient monitoring wells (MW-9 and MW-10) to confirm plume stability and/or illustrate that groundwater at or above the ES will not migrate beyond the property boundary to demonstrate that natural attenuation is an appropriate remedy for the residual groundwater impacts. As such, monitoring wells MW-9 and MW-10 were sampled in July 2020. No CVOCs were detected in MW-9 and only concentrations of tetrachloroethylene (PCE) and trichloroethylene (TCE) were detected above their respective PALs at MW-10.

The results of the most recent groundwater sampling indicate low levels of CVOCs are present at MW-10; however, the historical trends at the downgradient monitoring wells and along the north and central flow paths of the plume indicate continued decreases in concentration over time and distance from the former source area. The historical results and trends are illustrated on the attached tables, diagrams, and graphs.

Based on the groundwater sampling results and continued decreasing groundwater concentrations within the plume, natural attenuation is an appropriate remedy for the residual groundwater impacts.

In addition, groundwater monitoring well MW-10 is approximately 225 feet downgradient of the former drycleaners (source area) and the property boundary is another approximately 135 feet further downgradient from MW-10. No groundwater impacts above the ESs have migrated the 225 feet to MW-10 since monitoring began at the site in 2003 (almost 20 years), and the groundwater concentrations upgradient of MW-10 continue to decrease. As such, it would appear unlikely that groundwater concentrations above ESs would migrate the additional 135 feet to reach the property boundary.

Conclusions and Recommendations

The groundwater analytical data indicates that the groundwater plume is decreasing to stable and natural attenuation is an appropriate and effective remedy for the residual impacts. In addition, based on the low concentrations along the downgradient edge of the plume and the additional distance to the downgradient property boundary, there does not appear to be any risk of migration beyond the property boundary.

As such, we request no further groundwater monitoring be required for the site to move towards closure.

Please call us at (414) 228-9815 if you have any questions.

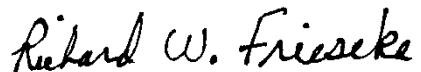
Respectfully,

FRIESS ENVIRONMENTAL CONSULTING, INC.



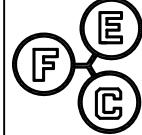
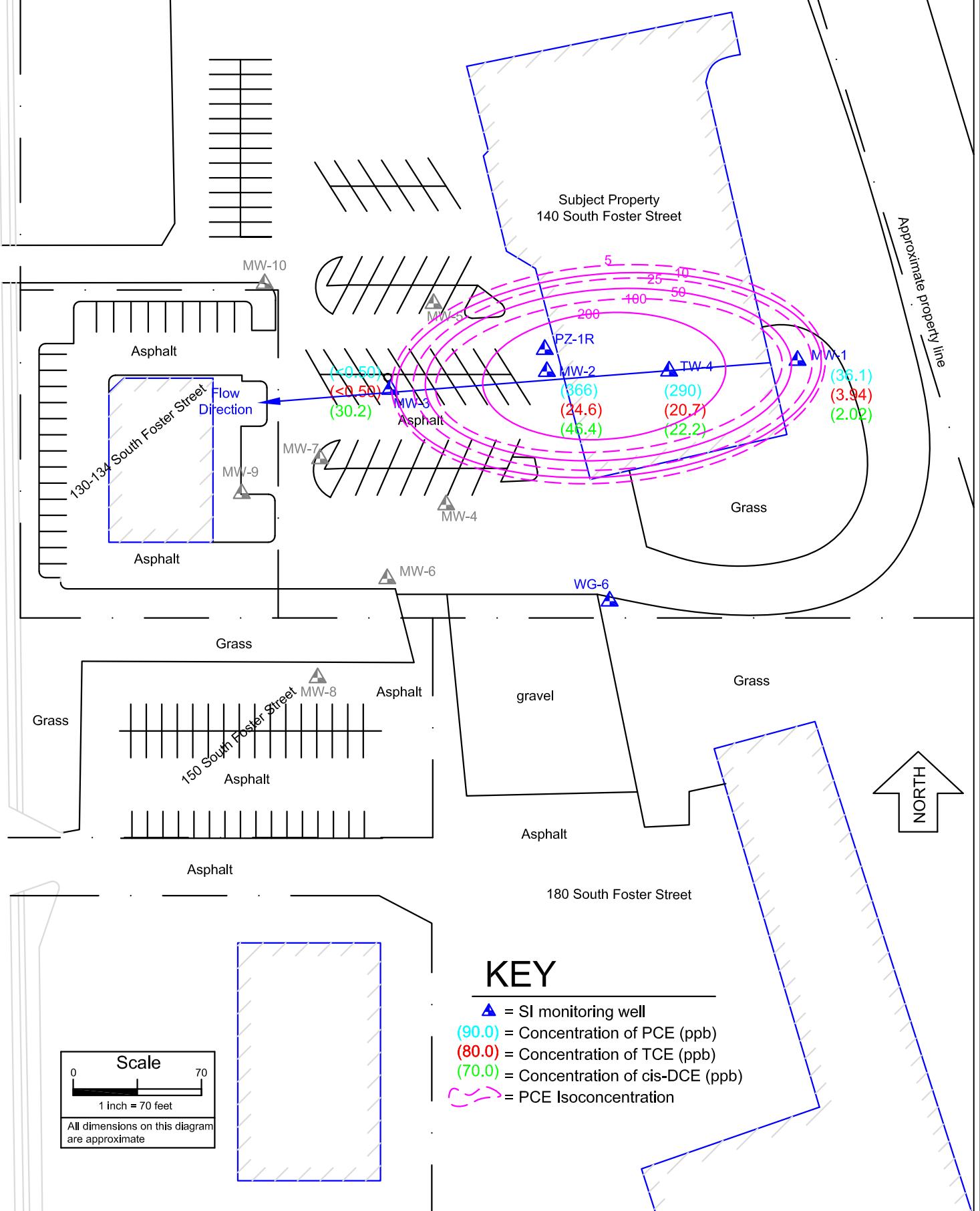
Trenton J. Ott
Project Manager

041101zl



Richard W. Frieske, P.E.
President

South Foster Street



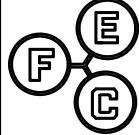
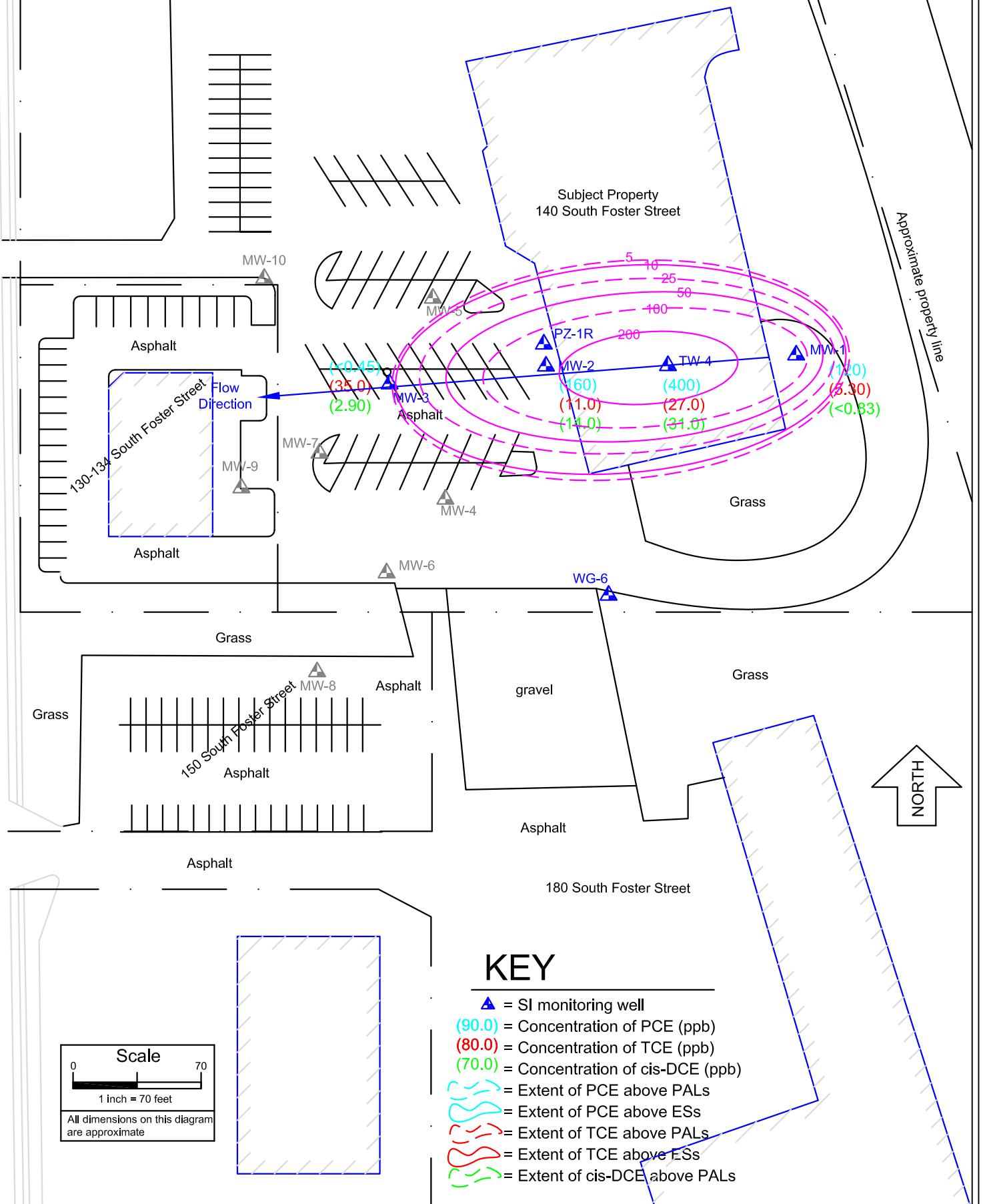
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File No.: 041101NEW
DWG Date: 1-2-2014
Rev Date:
Drawn By: MJR
Checked By (PM): TJO

B.3.b. Groundwater Isoconcentration (12-5-03)
Former Saukville Fabricare Property
140 South Foster Street
Saukville, Wisconsin

Figure
B.3.b.

South Foster Street



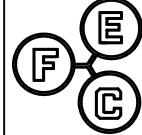
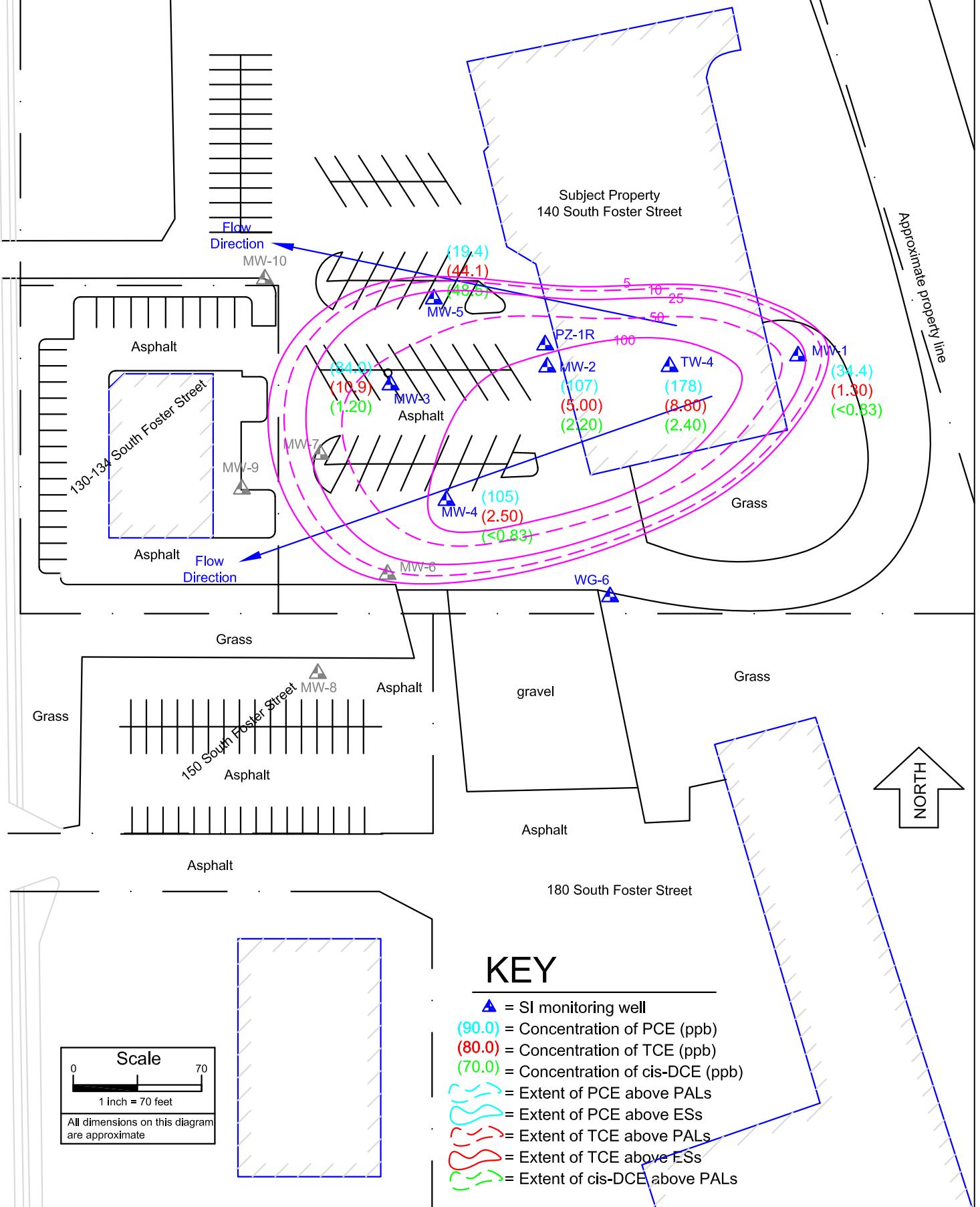
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File No.: 041101NEW
DWG Date: 1-2-2014
Rev Date:
Drawn By: MJR
Checked By (PM): TJO

B.3.b. Groundwater Isoconcentration (10-3-07)
Former Saukville Fabricare Property
140 South Foster Street
Saukville, Wisconsin

Figure
B.3.b.

South Foster Street

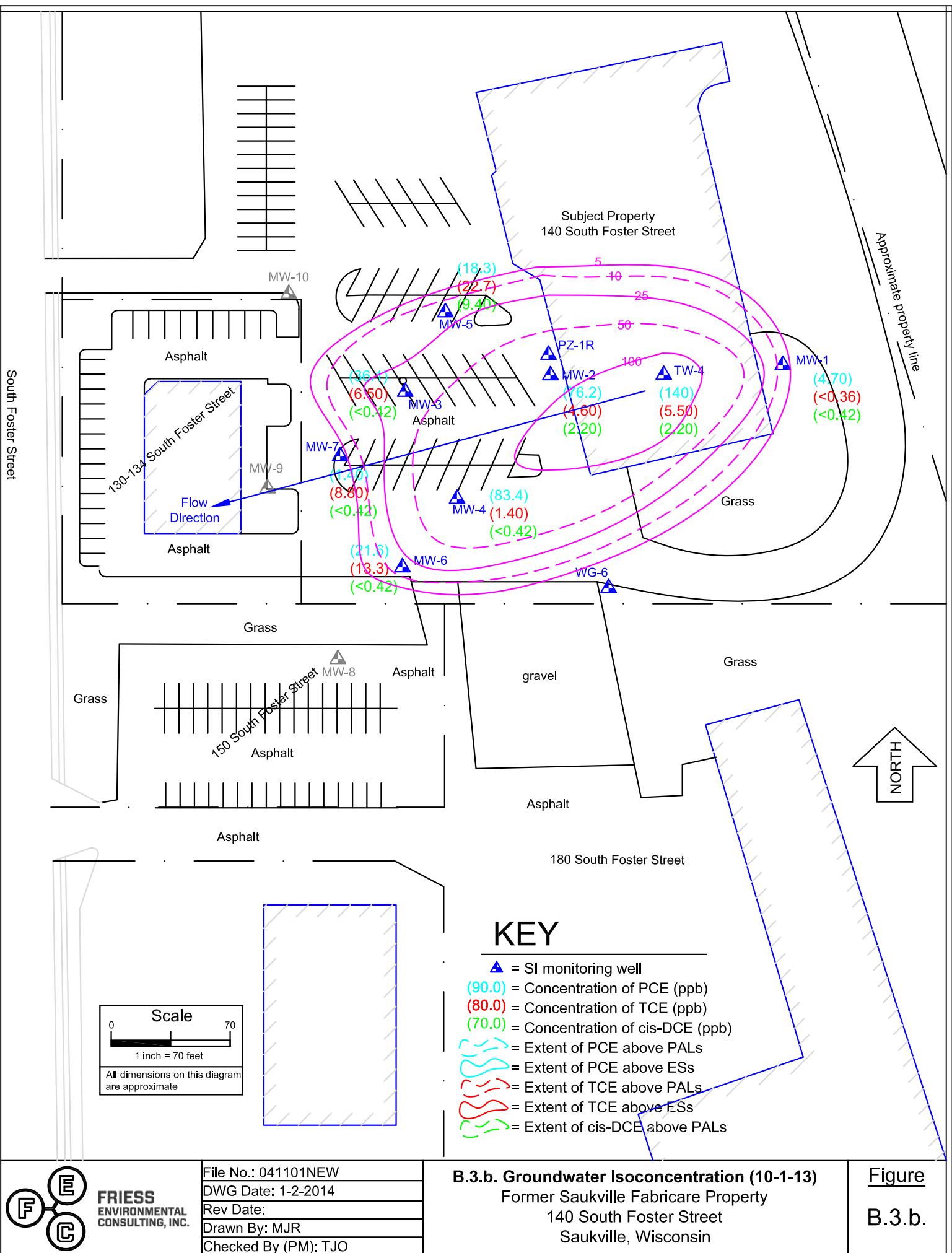


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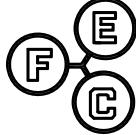
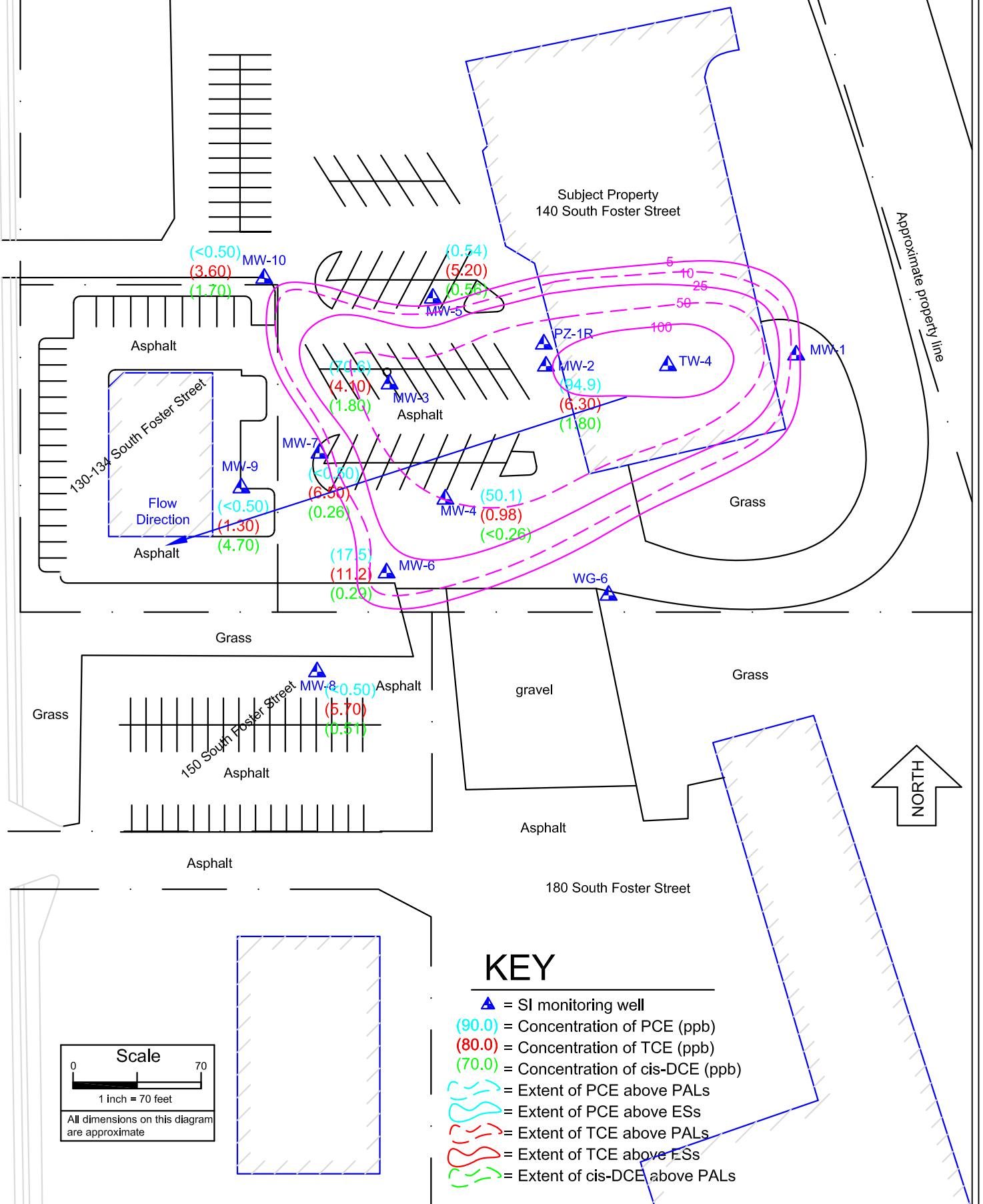
File No.: 041101NEW
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Drawn By: MJR
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B.3.b. Groundwater Isoconcentration (7-12-10)
Former Saukville Fabricare Property
140 South Foster Street
Saukville, Wisconsin

Figure
B.3.b.



South Foster Street

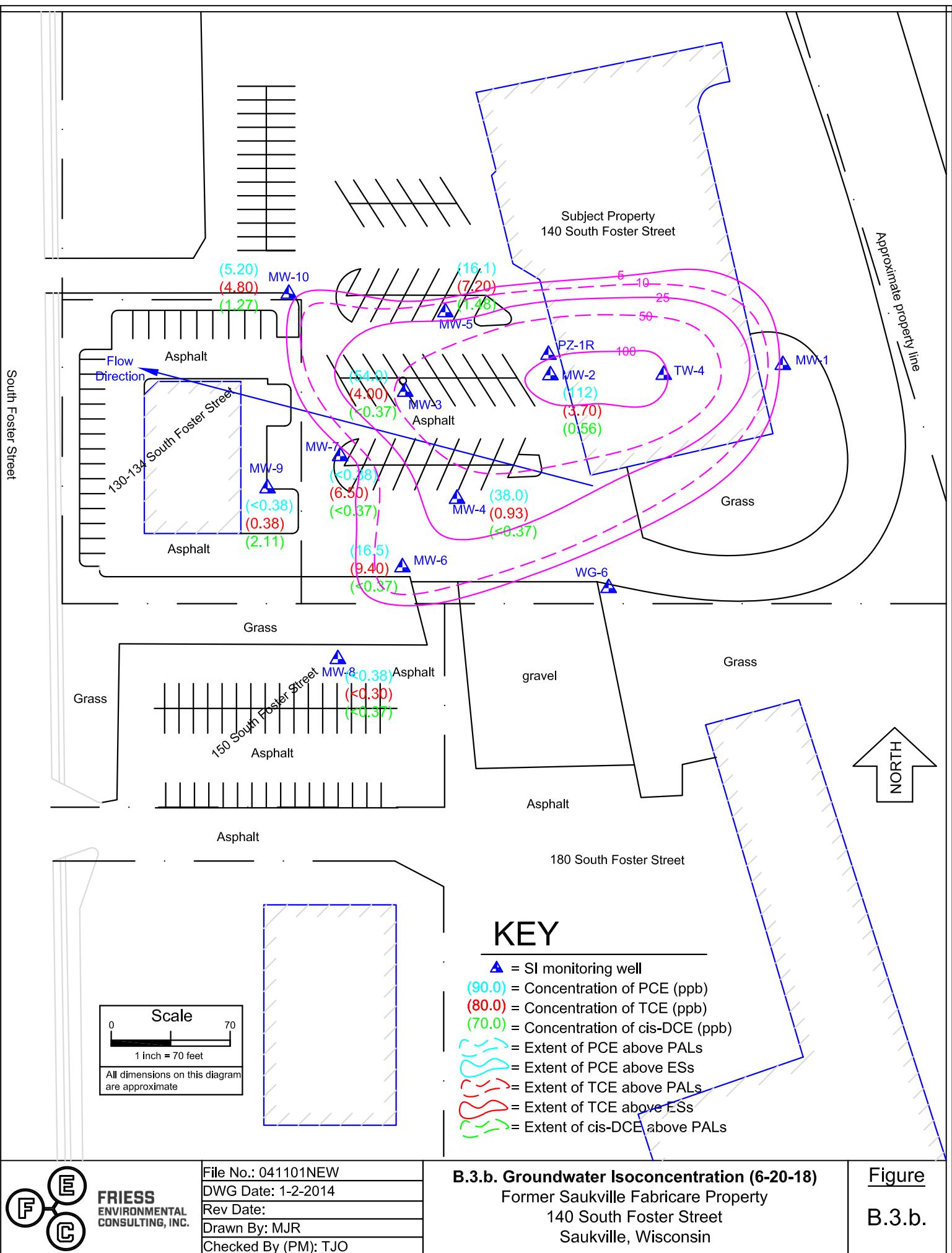


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B.3.b. Groundwater Isoconcentration (8-19-15)
Former Saukville Fabricare Property
140 South Foster Street
Saukville, Wisconsin

Figure
B.3.b.



A.1. Groundwater Analytical Table (Page 1 of 4)
Former Saukville Fabricare Property
Saukville, Wisconsin

Well ID	Sampling Date	cis-1,2-DCE (ppb)	trans-1,2-DCE (ppb)	PCE (ppb)	TCE (ppb)	Vinyl chloride (ppb)
MW-1	12/5/2003	2.02	<0.50	36.1	3.94	<0.17
	4/13/2004	7.08	<5.0	124	11.3	<0.217
	8/5/2004	30.6	<5.0	501	31.1	<0.312
	12/28/2004	<5.00	<5.0	115	4.97	<0.217
	10/3/2007	<0.83	<0.89	120	5.30	<0.18
	4/17/2009	1.20	<0.89	44.0	1.80	<0.18
	7/12/2010	<0.83	<0.89	34.4	1.30	<0.18
	4/11/2011	2.00	<0.89	59.8	2.30	<0.18
	4/13/2012	<0.83	<0.89	28.9	1.40	<0.18
	7/18/2012	<0.83	<0.89	13.1	<0.48	<0.18
	10/1/2013	<0.42	<0.37	4.70	<0.36	<0.18
	5/14/2014	<0.26	<0.24	19.5	0.75	<0.18
	8/13/2014	<0.26	<0.26	6.90	<0.33	<0.18
MW-2	12/5/2003	46.4	1.85	366	24.5	<0.17
	4/13/2004	11.6	<5.0	198	15.9	<0.217
	8/5/2004	10.0	<5.0	282	15.6	<0.312
	12/28/2004	32.2	<5.0	366	15.2	<0.217
	10/3/2007	14.0	<0.89	160	11.0	<0.18
	4/17/2009	2.70	<0.89	96.5	4.30	<0.18
	7/12/2010	2.20	<0.89	107	5.00	<0.18
	4/11/2011	3.60	<0.89	71.1	3.30	<0.18
	4/13/2012	2.10	<0.89	65.4	2.50	<0.18
	7/18/2012	3.10	<0.89	66.6	0.76	<0.18
	10/1/2013	2.20	<0.37	76.2	4.60	<0.18
	2/11/2014	4.10	<0.37	63.9	4.80	<0.18
	5/14/2014	2.90	<0.24	58.2	4.80	<0.18
	8/13/2014	2.10	<0.26	84.0	6.40	<0.18
	2/24/2015	1.30	<0.26	76.9	4.80	<0.18
	6/3/2015	3.10	<0.26	84.2	5.90	<0.18
	8/19/2015	1.80	<0.26	94.9	6.30	<0.18
	10/12/2017	0.54 J	<0.26	104	2.30	<0.18
	6/20/2018	0.56 J	<0.34	112	3.70	<0.20
MW-3	12/5/2003	30.2	3.04	<0.50	<0.50	<0.17
	4/13/2004	20.3	<5.0	0.50	<0.50	<0.217
	8/5/2004	20.6	<5.0	1.51	<0.232	<0.312
	12/28/2004	10.7	<5.0	<0.50	<0.50	<0.217
	10/3/2007	2.90	<0.89	<0.45	35.0	<0.18
	4/17/2009	1.40	<0.89	31.4	9.40	<0.18
	7/12/2010	1.20	<0.89	84.0	10.9	<0.18
	4/11/2011	<0.83	<0.89	74.6	6.50	<0.18
	4/13/2012	<0.83	<0.89	59.5	5.70	<0.18
	7/18/2012	<0.83	<0.89	71.8	7.40	<0.18
	10/1/2013	<0.42	<0.37	36.1	6.50	<0.18
	2/11/2014	0.98	<0.37	26.1	3.50	<0.18
	5/14/2014	1.40	<0.24	33.9	3.50	<0.18
	8/13/2014	1.80	<0.26	71.9	4.10	<0.18
	2/24/2015	1.70	<0.26	37.8	4.20	<0.18
	6/3/2015	1.50	<0.26	46.7	3.10	<0.18
	8/19/2015	1.80	<0.26	70.6	4.10	<0.18
	10/12/2017	<0.26	<0.26	93.9	5.60	<0.18
	6/20/2018	<0.37	<0.34	54.0	4.00	<0.20
<i>ES (ppb)</i>	-	70	100	5	5	0.2
<i>PAL (ppb)</i>	-	7	20	0.5	0.5	0.02

Notes:

- 1.) Concentrations in **red bold** exceed their respective enforcement standard (ES)
- 2.) Concentrations in **blue italics** exceed their respective preventive action limit (PAL).

A.1. Groundwater Analytical Table (Page 2 of 4)
Former Saukville Fabricare Property
Saukville, Wisconsin

Well ID	Sampling Date	cis-1,2-DCE (ppb)	trans-1,2-DCE (ppb)	PCE (ppb)	TCE (ppb)	Vinyl chloride (ppb)
MW-4	4/17/2009	<0.83	<0.89	48.0	2.40	<0.18
	7/12/2010	<0.83	<0.89	105	2.50	<0.18
	4/11/2011	<0.83	<0.89	13.7	<0.48	<0.18
	4/13/2012	<0.83	<0.89	36.8	0.78	<0.18
	7/18/2012	<0.83	<0.89	43.9	7.10	<0.18
	10/1/2013	<0.42	<0.37	83.4	1.40	<0.18
	2/11/2014	<0.42	<0.37	41.0	2.40	<0.18
	5/14/2014	<0.26	<0.24	8.70	<0.33	<0.18
	8/13/2014	<0.26	<0.26	53.3	2.80	<0.18
	2/24/2015	0.38	<0.26	26.1	5.40	<0.18
	6/3/2015	<0.26	<0.26	49.1	0.74	<0.18
	8/19/2015	<0.26	<0.26	50.1	0.98 J	<0.18
	10/12/2017	<0.26	<0.26	57.2	0.85 J	<0.18
	6/20/2018	<0.37	<0.34	38.0	0.93 J	<0.20
MW-5	4/17/2009	25.5	1.20	<0.45	32.6	<0.18
	7/12/2010	48.5	4.60	19.4	44.1	<0.18
	4/11/2011	33.9	1.30	33.3	30.6	<0.18
	4/13/2012	39.2	1.50	42.0	25.9	<0.18
	7/18/2012	4.60	<0.89	62.1	12.9	<0.18
	10/1/2013	9.40	0.62	18.3	22.7	<0.18
	2/11/2014	3.30	<0.37	31.9	7.60	<0.18
	5/14/2014	6.20	0.35	29.3	8.50	<0.18
	8/13/2014	7.40	<0.26	61.2	21.4	<0.18
	2/24/2015	3.10	<0.26	48.8	9.90	<0.18
	6/3/2015	1.30	<0.26	7.40	3.40	<0.18
	8/19/2015	0.56 J	1.00	0.54 J	5.20	<0.18
	6/20/2018	1.48	<0.34	16.1	7.20	<0.20
MW-6	4/11/2011	<0.83	<0.89	8.20	5.00	<0.18
	4/13/2012	<0.83	<0.89	12.9	8.30	<0.18
	7/18/2012	<0.83	<0.89	15.3	17.1	<0.18
	10/1/2013	<0.42	<0.37	21.6	13.3	<0.18
	2/11/2014	<0.42	<0.37	11.1	4.40	<0.18
	5/14/2014	<0.26	<0.24	9.30	6.20	<0.18
	8/13/2014	0.52	0.26	3.80	10.9	<0.18
	2/24/2015	0.61	1.30	1.40	18.8	<0.18
	6/3/2015	<0.26	<0.26	10.2	7.90	<0.18
	8/19/2015	0.29 J	<0.26	17.5	11.2	<0.18
	10/12/2017	<0.26	<0.26	6.40	12.4	<0.18
	6/20/2018	<0.37	<0.34	16.5	9.40	<0.20
MW-7	4/11/2011	<0.83	<0.89	1.90	<0.48	<0.18
	4/13/2012	<0.83	<0.89	2.50	1.10	<0.18
	7/18/2012	<0.83	<0.89	11.6	6.10	<0.18
	10/1/2013	<0.42	<0.37	1.40	8.80	<0.18
	2/11/2014	<0.42	<0.37	2.70	6.30	<0.18
	5/14/2014	<0.26	<0.24	1.20	0.99	<0.18
	8/13/2014	<0.26	<0.26	<0.50	6.20	<0.18
	2/24/2015	<0.26	<0.26	0.52	7.70	<0.18
	6/3/2015	<0.26	<0.26	<0.50	4.20	<0.18
	8/19/2015	0.26 J	<0.26	<0.50	6.50	<0.18
	10/12/2017	<0.26	0.46 J	<0.50	6.20	<0.18
	6/20/2018	<0.37	<0.34	<0.38	6.50	<0.20
<i>ES (ppb)</i>	-	70	100	5	5	0.2
<i>PAL (ppb)</i>	-	7	20	0.5	0.5	0.02

Notes:

- 1.) Concentrations in **red bold** exceed their respective enforcement standard (ES)
- 2.) Concentrations in **blue italics** exceed their respective preventive action limit (PAL).

A.1. Groundwater Analytical Table (Page 3 of 4)
Former Saukville Fabricare Property
Saukville, Wisconsin

Well ID	Sampling Date	cis-1,2-DCE (ppb)	trans-1,2-DCE (ppb)	PCE (ppb)	TCE (ppb)	Vinyl chloride (ppb)
MW-8	2/11/2014	0.50	0.69	<0.47	<i>3.70</i>	<0.18
	5/14/2014	<0.26	<0.24	<0.50	<i>0.50</i>	<0.18
	8/13/2014	<0.26	<0.26	<0.50	<0.33	<0.18
	6/3/2015	<0.26	<0.26	<0.50	<0.33	<0.18
	8/19/2015	0.51 J	0.57 J	<0.50	<i>5.70</i>	<0.18
	10/12/2017	<0.26	<0.26	<0.50	<i>0.64 J</i>	<0.18
	6/20/2018	<0.37	<0.34	<0.38	<0.30	<0.20
MW-9	2/11/2014	1.40	4.10	<0.47	<i>0.52</i>	<0.18
	5/14/2014	1.80	5.10	<0.50	<i>0.68</i>	<0.18
	8/13/2014	3.30	10.5	<0.50	<i>1.80</i>	<0.18
	2/24/2015	2.40	8.20	<0.50	<i>0.95</i>	<0.18
	6/3/2015	2.10	5.60	<0.50	<i>0.65</i>	<0.18
	8/19/2015	4.70	11.2	<0.50	<i>1.30</i>	<0.18
	10/12/2017	1.40	5.00	<0.50	<0.33	<0.18
	6/20/2018	2.11	5.90	<0.38	0.38 J	<0.20
	7/16/2020	<0.39	<0.37	<0.33	<0.37	<0.20
MW-10	2/11/2014	1.40	<0.37	<0.47	<i>3.40</i>	<0.18
	5/14/2014	1.80	<0.24	<0.50	<i>3.10</i>	<0.18
	8/13/2014	2.70	0.28	<0.50	<i>6.30</i>	<0.18
	2/24/2015	0.97	<0.26	<0.50	<i>1.70</i>	<0.18
	6/3/2015	1.80	<0.26	<0.50	<i>2.90</i>	<0.18
	8/19/2015	1.70	<0.26	<0.50	<i>3.60</i>	<0.18
	10/12/2017	0.32 J	<0.26	<i>3.80</i>	<i>5.20</i>	<0.18
	6/20/2018	1.27	<0.34	<i>5.20</i>	<i>4.80</i>	<0.20
	7/16/2020	0.63 J	<0.37	<i>3.70</i>	<i>2.70</i>	<0.20
TW-4	12/5/2003	<i>22.2</i>	1.43	<i>290</i>	<i>20.7</i>	<0.17
	4/13/2004	<i>17.1</i>	<5.0	<i>320</i>	<i>24.1</i>	<0.217
	8/5/2004	<i>10.2</i>	<5.0	<i>289</i>	<i>16.0</i>	<0.312
	12/28/2004	<i>18.6</i>	<5.0	<i>494</i>	<i>20.7</i>	<0.217
	10/3/2007	<i>31.0</i>	<4.4	<i>400</i>	<i>27.0</i>	<0.90
	4/17/2009	5.70	<0.89	<i>181</i>	<i>9.50</i>	<0.18
	7/12/2010	2.40	<0.89	<i>178</i>	<i>8.80</i>	<0.18
	4/11/2011	3.70	<0.89	<i>216</i>	<i>8.90</i>	<0.18
	4/13/2012	<0.83	<0.89	<i>132</i>	<i>6.80</i>	<0.18
	7/18/2012	<0.83	<0.89	<i>119</i>	<i>3.30</i>	<0.18
	10/1/2013	2.20	<0.37	<i>140</i>	<i>5.50</i>	<0.18
	2/11/2014	<0.42	<0.37	<i>54.6</i>	<i>2.70</i>	<0.18
	5/14/2014	<0.26	<0.24	<i>54.9</i>	<i>4.50</i>	<0.18
	8/13/2014	<0.26	<0.26	<i>132</i>	<i>4.10</i>	<0.18
PZ-1R	12/30/2003	<0.50	<0.50	<i>5.90</i>	<0.50	<0.17
	4/13/2004	<5.0	<5.0	<i>2.59</i>	<0.50	<0.217
	8/5/2004	<5.0	<5.0	<i>3.11</i>	<0.232	<0.312
	12/28/2004	<5.0	<5.0	<i>1.15</i>	<0.50	<0.217
	10/3/2007	<0.83	<0.89	<i>2.50</i>	<0.48	<0.18
	4/17/2009	<0.83	<0.89	<i>1.70</i>	<0.48	<0.18
	7/12/2010	<0.83	<0.89	<i>3.80</i>	<0.48	<0.18
ES (ppb)	-	70	100	5	5	0.2
	<i>PAL (ppb)</i>	-	7	20	0.5	0.02

Notes:

- 1.) Concentrations in ***red bold*** exceed their respective enforcement standard (ES)
- 2.) Concentrations in ***blue italics*** exceed their respective preventive action limit (PAL).

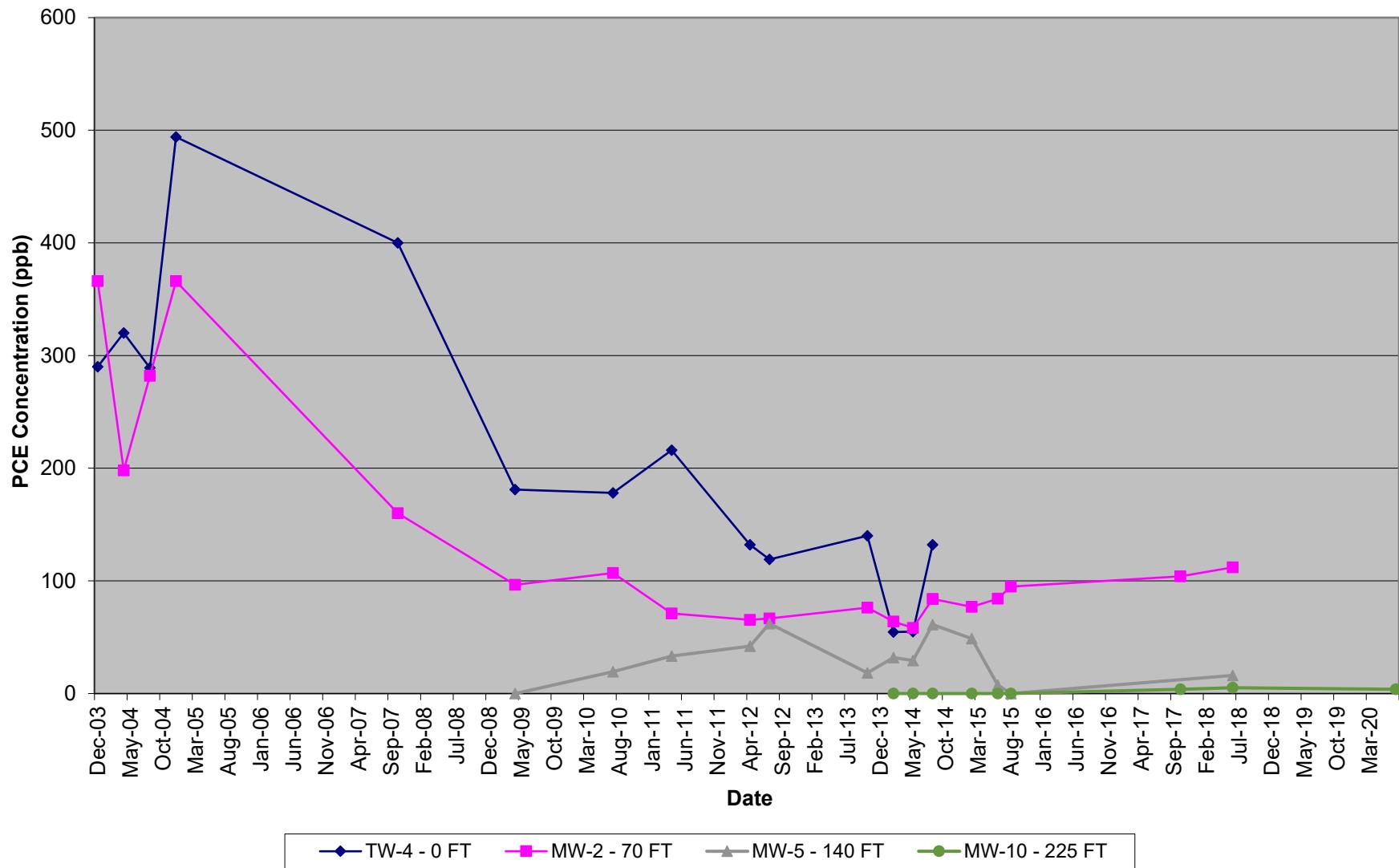
A.1. Groundwater Analytical Table (Page 4 of 4)
Former Saukville Fabricare Property
Saukville, Wisconsin

Well ID	Sampling Date	cis-1,2-DCE (ppb)	trans-1,2-DCE (ppb)	PCE (ppb)	TCE (ppb)	Vinyl chloride (ppb)
WG-1	6/12/2003	13.0	NR	230	11.0	NR
WG-2	6/12/2003	<0.83	NR	<0.45	<0.48	NR
	12/5/2003	<0.50	<0.50	1.15	<0.5	<0.17
	4/13/2004	<5.0	<5.0	<0.50	<0.50	<0.217
	8/5/2004	<5.0	<5.0	2.01	<5.0	<0.312
	12/28/2004	<5.0	<5.0	0.98	<0.5	<0.217
	4/11/2011	<0.83	<0.89	0.45	<0.48	<0.18
WG-3	6/12/2003	16.0	NR	63.0	19.0	NR
WG-4	8/15/2003	<0.83	NR	<0.45	<0.48	NR
WG-5	8/15/2003	<0.83	NR	<0.45	<0.48	NR
WG-6	8/15/2003	<0.83	NR	<0.45	<0.48	NR
	7/12/2010	<0.83	<0.89	<0.45	<0.48	<0.18
	4/11/2011	<0.83	<0.89	<0.45	<0.48	<0.18
	5/14/2014	<0.26	<0.24	<0.50	<0.33	<0.18
	8/13/2014	<0.26	<0.26	<0.50	<0.33	<0.18
WG-7	8/15/2003	<0.83	NR	<0.45	<0.48	NR
	12/28/2004	<5.0	<5.0	<0.50	<0.50	<0.217
<i>ES (ppb)</i>	-	70	100	5	5	0.2
<i>PAL (ppb)</i>	-	7	20	0.5	0.5	0.02

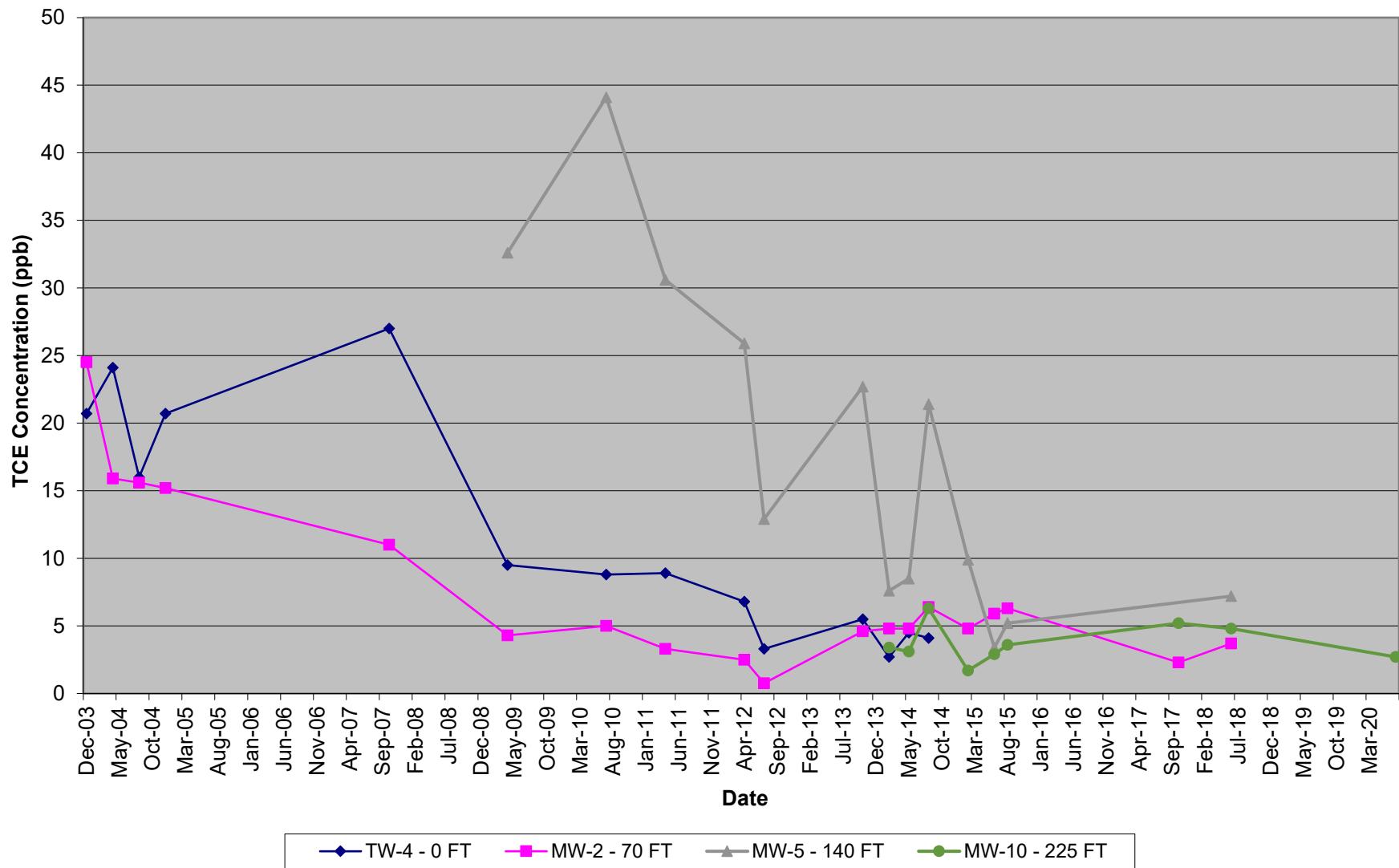
Notes:

- 1.) Concentrations in **red bold** exceed their respective enforcement standard (ES)
- 2.) Concentrations in **blue italics** exceed their respective preventive action limit (PAL).

Northerly PCE v. Time



Northerly TCE v. Time



Northerly
cis 1,2-DCE v. Time

