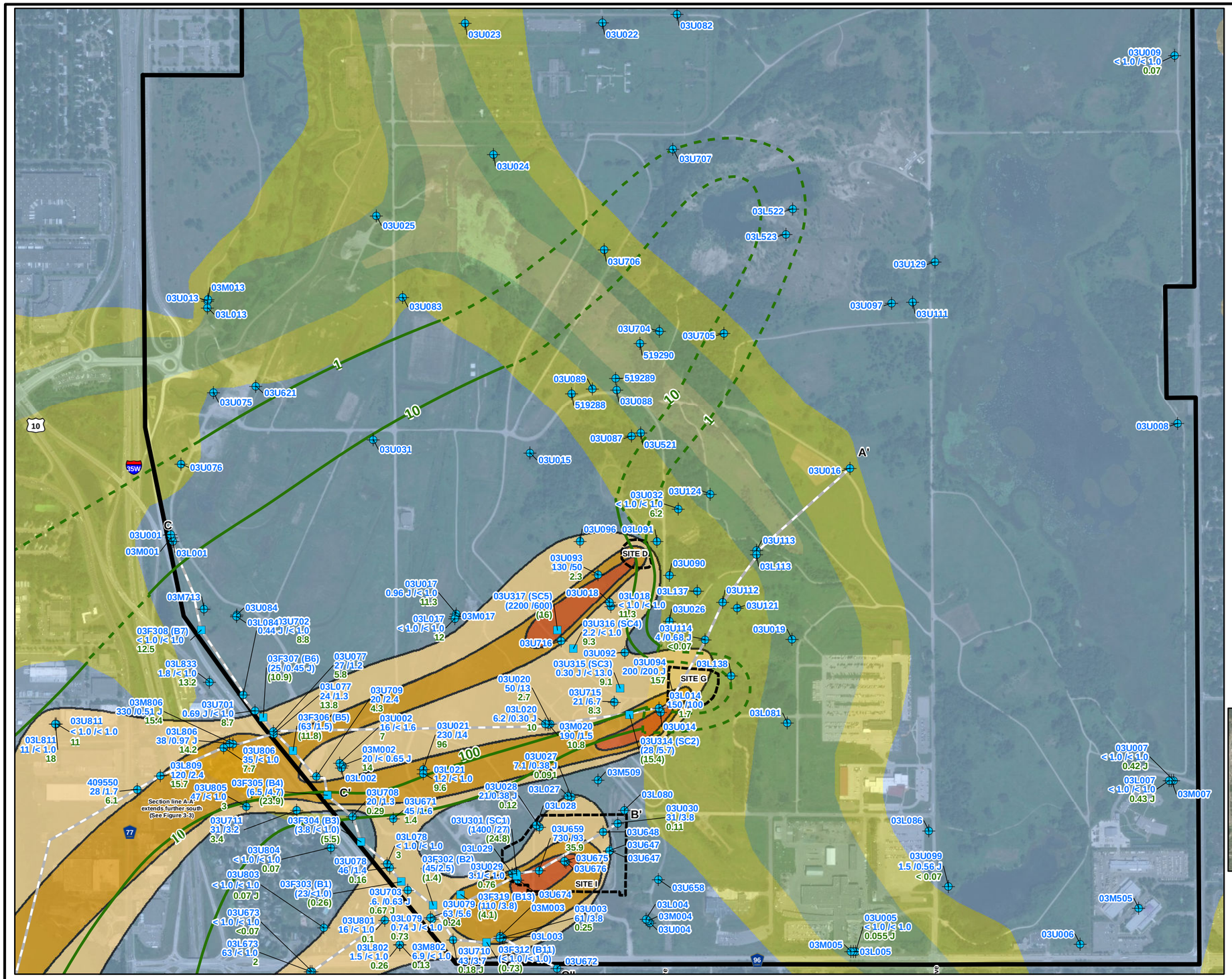


Legend

- Monitoring Well Location
- 03U093 Monitoring Well ID
- 130/55 Trichloroethene/1,1,1-Trichloroethane Concentration (Õg/L)
- 1.6 1,4-Dioxane Concentration (Õg/L)
- Extraction Well Location
- Cross-Section Line
- Site Boundary
- 2019 1,4 Dioxane Concentration Contour (Õg/L)

2019 Trichloroethene Concentrations (Õg/L)

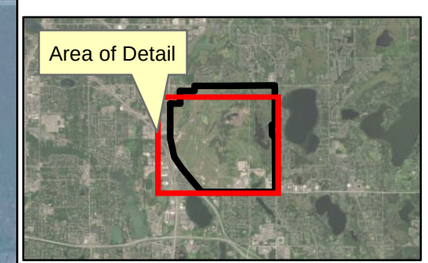
Upper and Lower Unit 3

- 5-100
- 100-1,000
- 1,000+
- Operable Unit 2

Bedrock Geology

- St. Peter Sandstone
- Prairie du Chien Group
- Jordan Sandstone
- St. Lawrence Formation
- Tunnel City Group

Notes:
1. 03F and 03U extraction wells are shown with data in parentheses, but concentrations were not used for contouring (except for SC-3 and SC-4, which were used for contouring since they are being sampled as monitoring wells and since they are screened only within Upper Unit 3).
2. Results are from groundwater samples collected in June 2019.
3. 2016 Aerial Photograph (Source: DigitalGlobe, Vivid - USA)
4. Mossler, John H.. (2013). M-194 Bedrock Geology of the Twin Cities Ten-County Metropolitan Area, Minnesota. Retrieved from the University of Minnesota Digital Conservancy, http://hdl.handle.net/11299/154925
5. Õg/L = micrograms per liter



N

1,000 500 0 1,000 Feet

Path: F:\TCAAP\RegEdits\2020_07\F12_6_OU2_QA_TCE_DIOX_2019.mxd

ANNUAL PERFORMANCE REPORT	PIKA ARCADIS a joint venture	FY 2019
OU2, Upper and Lower Unit 3 Combined, Trichloroethene and 1,4-Dioxane Isoconcentration Map, Summer 2019		Figure 12-6

Table 12.11

1,4-Dioxane Concentrations in Monitoring Wells
Fiscal Year 2019
TGRS, OU2
Arden Hills, Minnesota

			1,4-Dioxane
Screening Criteria (HRL)			**1.0**
Location	**Date**	**Dup**	**Õg/L**
03L802	6/18/2019		0.33
03L806	6/17/2019		13.5
03M802	6/18/2019		0.16
03M806	6/17/2019		16.3
03U093	6/17/2019		2.2
03U093	6/17/2019	D	2.3
03U099	6/14/2019		< 0.07
03U677	6/17/2019		0.32
03U708	6/17/2019		1.3
03U801	6/19/2019		0.12
03U806	6/17/2019		9.4
04J077	6/14/2019		12.5
04U711	6/19/2019		7.6
04U802	6/18/2019		0.34
04U806	6/18/2019		13.9
04U806	6/18/2019	D	13.2
04U833	6/17/2019		12.7
PJ#806	6/18/2019		14.2

Notes:

HRL - Health Risk Limit (Minnesota Department of Health).
Shading indicates exceedence of the HRL.

D - Field Duplicate

Table 12-8

Groundwater Quality Data
Fiscal Year 2019
TGRS, OU2
Arden Hills, Minnesota

			1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	cis-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene
TGRS Cleanup Level[(1)]			**200**	**70**	**6.0**	**4.0**	**70**	**5.0**	**5.0**
Location	**Date**	**Dup**	**Õg/L**	**Õg/L**	**Õg/L**	**Õg/L**	**Õg/L**	**Õg/L**	**Õg/L**
03L802	6/18/2019		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.4
03L806	6/17/2019		0.99 JP	< 1.0	0.58 JP	< 1.0	< 1.0	< 1.0	30
03M802	6/18/2019		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	7.2
03M806	6/17/2019		0.94 JP	44	28	0.57 JP	9.8	< 1.0	410
03U093	6/17/2019		57	0.52 JP	4.8	< 1.0	2.8	< 1.0	120
03U093	6/17/2019	D	56	0.54 JP	4.5	< 1.0	2.8	< 1.0	120
03U099	6/14/2019		0.52 JP	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.5
03U677	6/17/2019		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
03U708	6/17/2019		1.5	< 1.0	0.61 JP	< 1.0	< 1.0	7.4	< 1.0
03U801	6/19/2019		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	14
03U806	6/17/2019		< 1.0	0.57 JP	0.46 JP	< 1.0	< 1.0	0.70 JP	33
04J077	6/14/2019		0.84 JP	2.3	2.3	< 1.0	0.82 JP	< 1.0	58
04U711	6/19/2019		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
04U802	6/18/2019		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.40 JP
04U806	6/18/2019		0.85 JP	1.4	1.4	< 1.0	0.54 JP	< 1.0	40
04U806	6/18/2019	D	0.89 JP	1.4	1.3	< 1.0	0.55 JP	< 1.0	40
04U833	6/17/2019		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.50 JP
PJ#806	6/18/2019		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	12

Notes:

(1) - Cleanup levels for TGRS are from the OU2 ROD. Shading indicates exceedence of the cleanup level.
D - Field Duplicate
JP - Result is qualified as estimated since the detection is below the laboratory reporting limit
JL - Result is qualified as estimated based on outlying lab control sample recovery
(# following JL is actual % recovery)

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