

**PALL LIFE SCIENCES  
MAPLE ROAD INTERIM RESPONSE  
PROPOSAL FOR A  
PERFORMANCE MONITORING WELL  
ON THE WEST SIDE OF MAPLE ROAD**

**Background**

The Michigan Department of Environmental Quality (MDEQ) has requested additional information regarding Pall Life Sciences' (PLS') proposal to install a well at an alternative location to the third (northern) monitoring well location in Veterans Park.

PLS has installed two of the three performance monitoring wells requested by the MDEQ (MWs-115 and 116). The third and northernmost well was not installed due to difficulties encountered during the drilling of PLS 07-09 that would not allow advancement of this boring to bedrock. As a result of these difficulties, PLS has further questioned the logic of attempting to install another well on the east side of Maple Road.

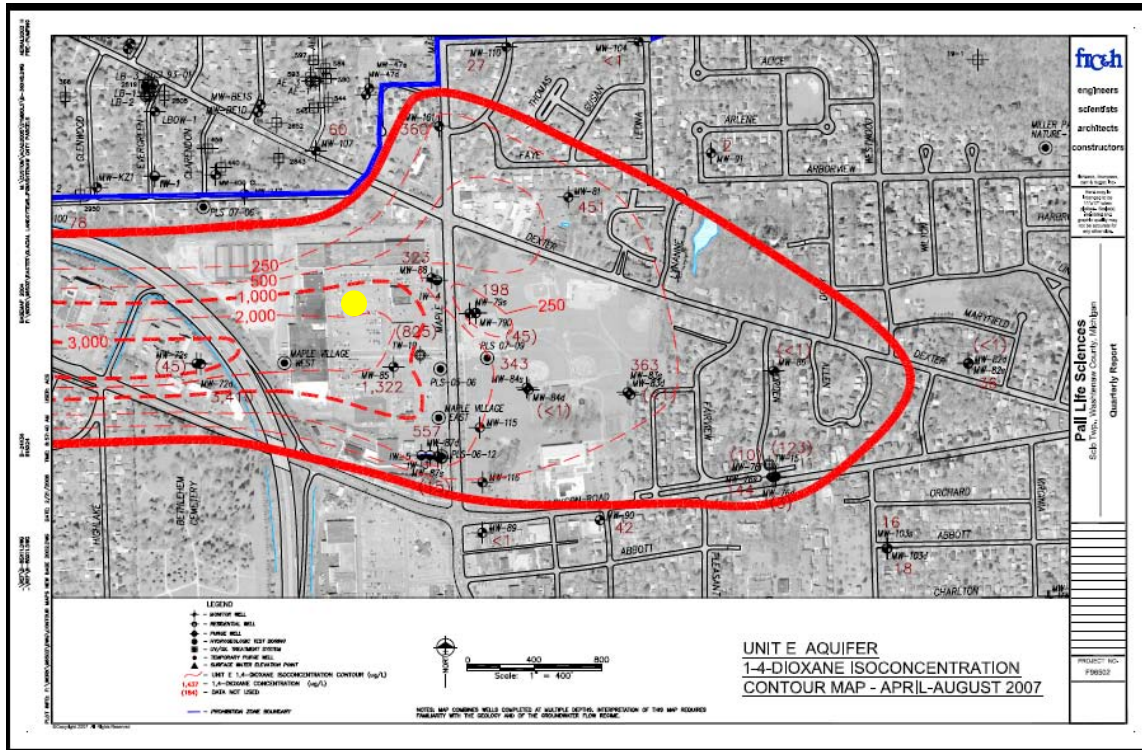
It has consistently been PLS' position that monitoring the west side of Maple Road is more logical than monitoring on the east side. The foundation of this position is that 1,4-dioxane concentrations in excess of 2,800 micrograms per liter ( $\mu\text{g/L}$ ) have not been detected at a single location east of MW-72d, and PLS has been running the Maple Road Interim Response on a voluntary basis for the sole purpose of reducing mass, not capturing the leading edge of the plume.

Additionally, data collected by PLS shows the following:

1. Monitoring wells MW-79s/d and MW-84s/d, located in the vicinity of the proposed northern performance monitoring well, are well positioned to monitor the area of the proposed northern monitoring well. A potentiometric surface map, showing the location of the wells, is attached for reference.
2. The geological conditions encountered at PLS-07-09 suggest this location may not be appropriate for a performance monitoring well. A north-south cross section, showing the new wells and the boring, is attached for reference. The presence of a lower sand/gravel at depths below the bottom of the boring is questionable. Additionally, the contaminated sand and gravel encountered at MW-115 thins considerably at the PLS-08-09 boring.

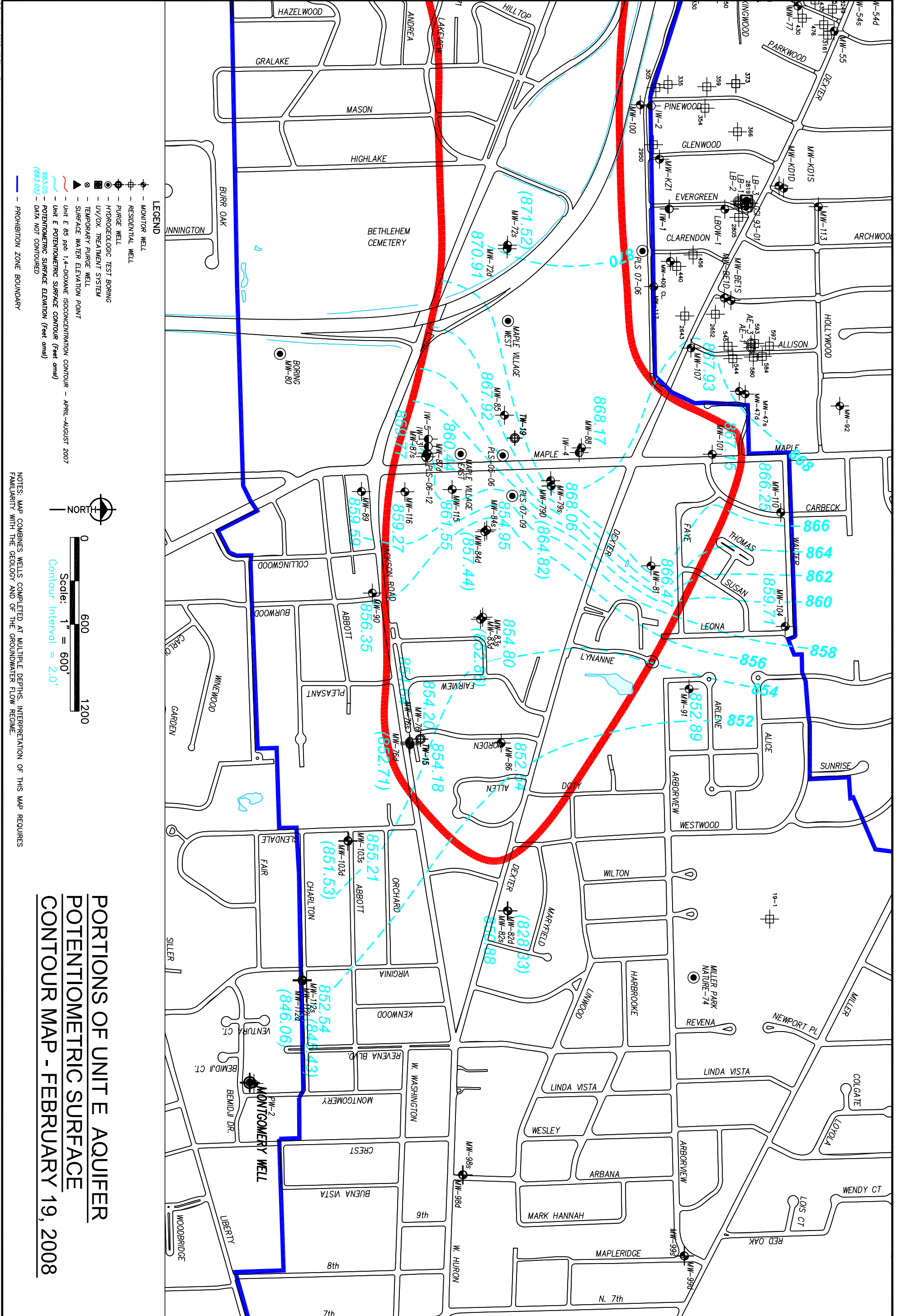
**PLS' Proposal**

PLS proposes to install a monitoring well on the west side of Maple Road, rather than attempting to install the third (northern) well in Veterans Park. The location of the proposed well is shown in yellow on the figure below.



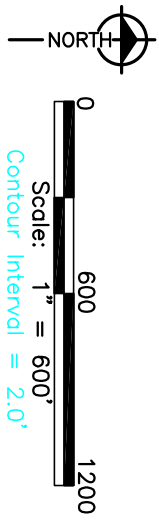
The well location should provide valuable information in an area where there are limited data. These data will be helpful to determine whether 2,800  $\mu\text{g/L}$  is migrating toward TW-19, or has the potential to migrate north of TW-19 (either between TW-19 and IW-4 or north of IW-4). The well will also serve to provide advance warning that 2,800  $\mu\text{g/L}$  may be migrating toward TW-19.

PLS can provide additional information regarding the methods to be used to install this boring/well, once there is agreement between PLS and MDEQ regarding the concept. Please note that installation of this boring/well is dependent on PLS' ability to get access to the property.



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- MONITOR WELL
- RESIDENTIAL WELL
- PURGE WELL
- HYDROGEOLOGIC TEST BORING
- UV/OX. TREATMENT SYSTEM
- TEMPORARY PURGE WELL
- SURFACE WATER ELEVATION POINT
- Unit E 85 ppb 1,4-DIOXANE ISOCOCONCENTRATION CONTOUR - APRIL-AUGUST 2007
- POTENTIOMETRIC SURFACE CONTOUR (feet amsl)
- POTENTIOMETRIC SURFACE ELEVATION (feet amsl)
- DATA NOT CONTOURED
- PROHIBITION ZONE BOUNDARY



**PORTIONS OF UNIT E AQUIFER  
POTENTIOMETRIC SURFACE  
CONTOUR MAP - FEBRUARY 19, 2008**

NOTES: MAP COMBINES WELLS COMPLETED AT MULTIPLE DEPTHS. INTERPRETATION OF THIS MAP REQUIRES FAMILIARITY WITH THE GEOLOGY AND OF THE GROUNDWATER FLOW REGIME.

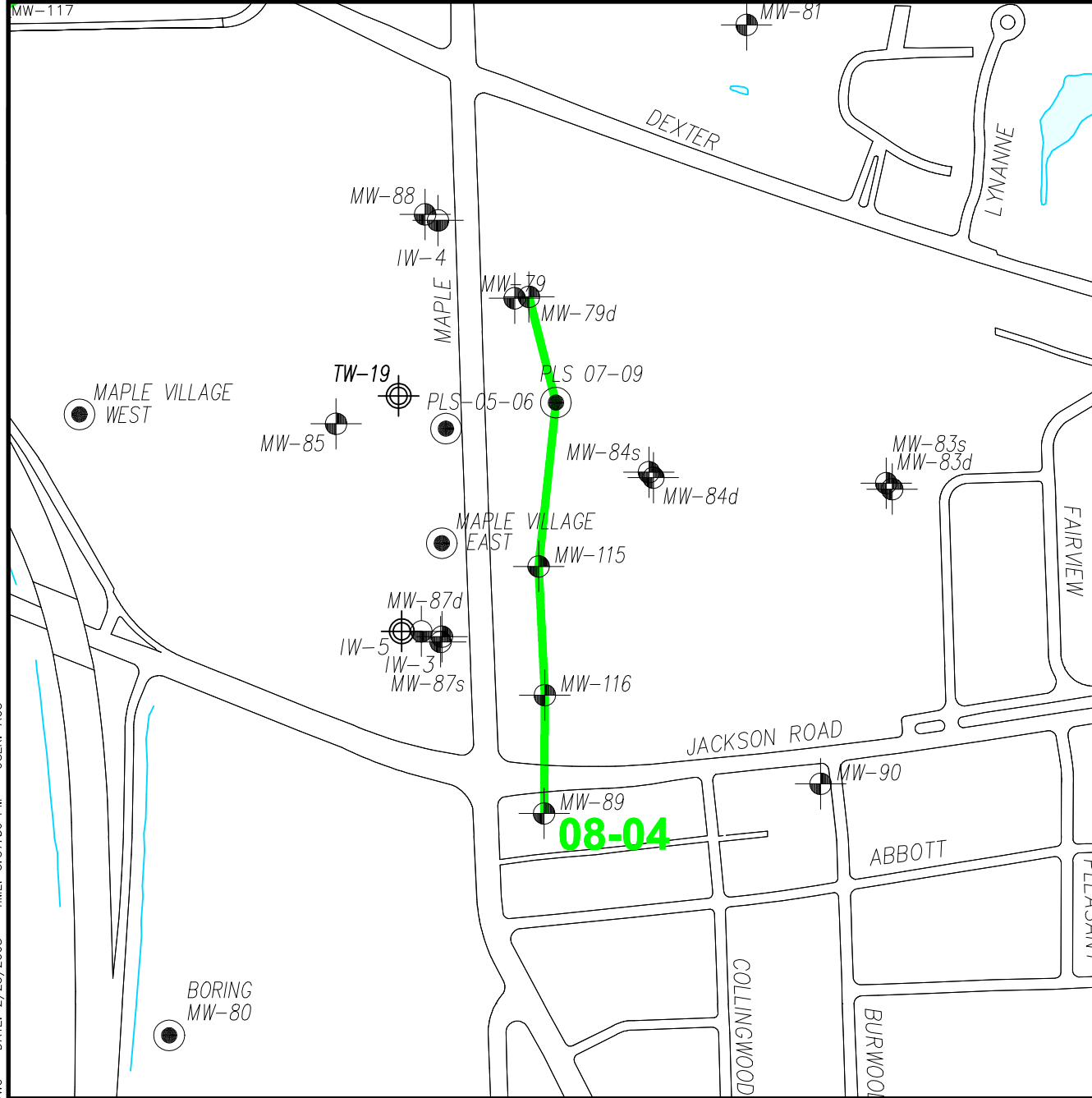
**Pall Life Sciences**  
Scio Twp., Washtenaw County, Michigan

Quarterly Report

**frc&n**  
engineers  
scientists  
architects  
constructors

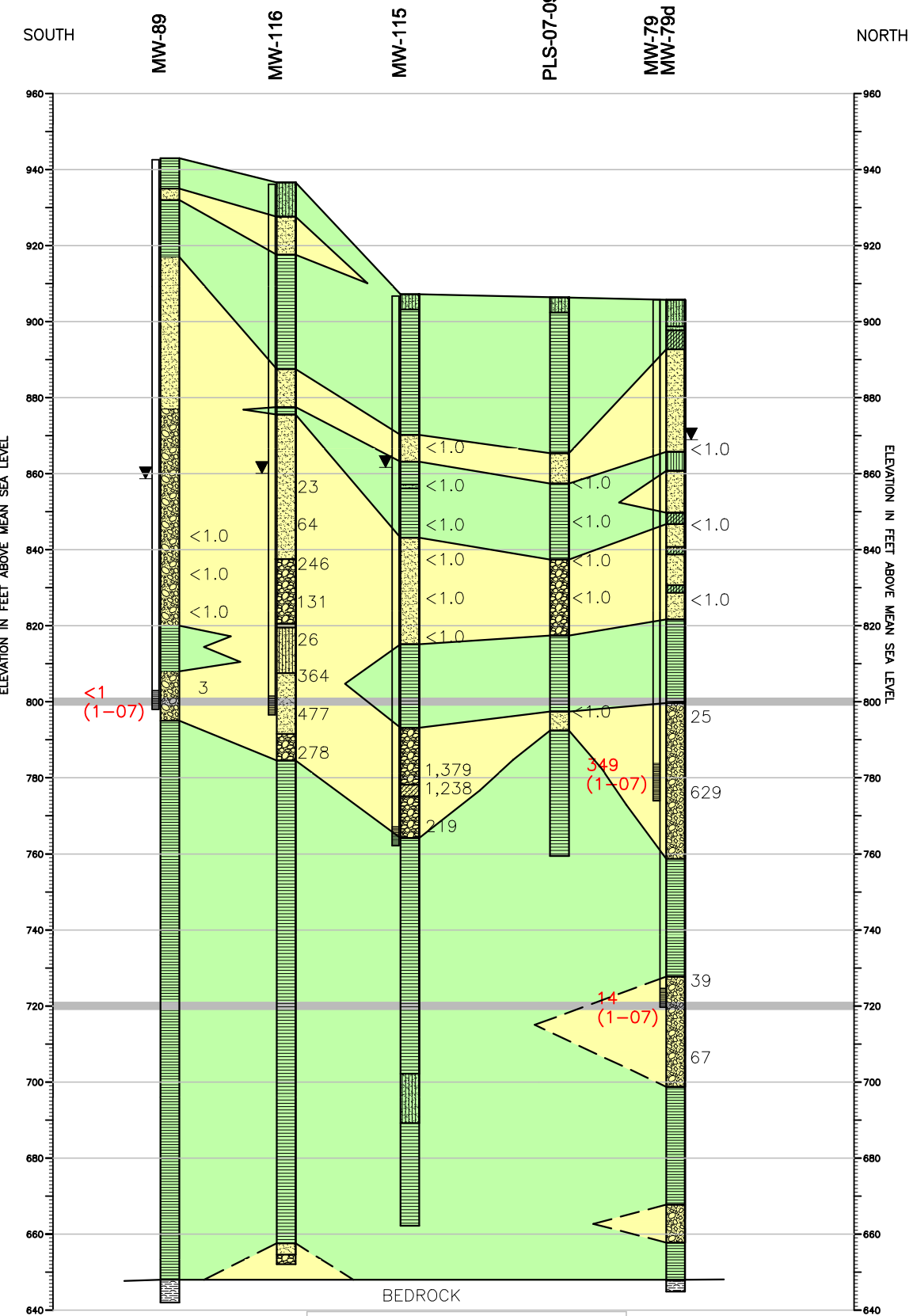
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F96502



NORTH

Scale: 1" = 400'



Scale: 1" = 400'



VERTICAL EXAGGERATION = 10X

**LEGEND**

	SAND		DIAMICTON		WELL
	CLAY		GRAVEL		STATIC WATER LEVEL
	SILT		SHALE		SCREENED INTERVAL
	PEAT				

67 1,4-DIOXANE CONCENTRATION (ppb)  
(Samples Collected By Similprobe During Installation)

131 1,4-DIOXANE CONCENTRATION (ppb)  
(1-07) DATE SAMPLED

**CROSS SECTION  
08-04**



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**Pall Life Sciences**  
Scio Twp., Washtenaw County, Michigan

PROJECT NO.  
F96502B

PLOT INFO: F:\WORK\96502\DWG\EVERGREEN\_2007\SECC EVERGREEN.MDEQ\_2007.DWG DATE: 2/25/2008 TIME: 3:37:56 PM USER: ACS

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