



August 22, 2013

Byung Maeng  
Washington State Department of Ecology  
Northwest Regional Office  
3190 160th Avenue SE  
Bellevue WA 98008-5452

**RE: MAY 2013 SEMIANNUAL GROUNDWATER MONITORING REPORT  
BOEING DEVELOPMENTAL CENTER, TUKWILA, WASHINGTON**

Dear Byung:

This letter and attached data constitutes the semiannual letter report for groundwater monitoring at The Boeing Company Developmental Center in Tukwila, WA. The report covers the period following the November 2012 semiannual sampling event (and corresponding report) through the semiannual event in May 2013. This report provides a brief summary of the data and of remedial activities performed at the site during the reporting period. Remedial actions are underway in Solid Waste Management Unit (SWMU)-20, SWMU-17, and Area of Concern (AOC)-05. Groundwater monitoring data from SWMU-20 wells following the February 2012 condensate line leak is also presented. All other SWMUs and AOCs identified in the 1994 RFA have been excluded from further investigation based on determinations that they do not pose a threat to human health or the environment.

Groundwater monitoring during the reporting period was performed in February/May 2013 at SWMU-17, AOC-05, and the four SWMU-20 wells monitored related to the condensate line leak; and in May 2013 at other SWMU-20 wells. Analytical data for SWMU-20, SWMU-17, and AOC-05 are enclosed for your review and include sample results summary tables and laboratory data packages. Summary figures, historical analytical summary data, and volatile organic compounds (VOCs) concentration trend charts are provided for key constituents present in SWMU-20; a summary table of cyclohexylamine groundwater results is also provided for the four wells monitored related to the condensate line leak. Included for AOC-05 are a well location figure; cumulative tables for total petroleum hydrocarbons (TPH); benzene, toluene, ethylbenzene, and xylenes (BTEX); and conventional parameters; as well as trend plots for TPH-Gasoline (TPH-G) and BTEX, and nitrate. A well location figure and tables of current data and cumulative data are provided for SWMU-17. Summary tables include proposed cleanup levels (CULs) from the May 7, 2013 *Proposed Cleanup Standards and Comparison to Site Data* document.

At SWMU-20, *in situ* anaerobic bioremediation continues for treatment of tetrachloroethene (PCE), trichloroethene (TCE), and breakdown products following the last electron donor injection performed in August 2008. Groundwater monitoring results indicate that treatment continues to be enhanced at and near injection wells, as indicated by the persistence of sulfate-reducing methanogenic aquifer redox conditions,

total organic carbon (TOC) levels generally above 10 milligrams per liter (mg/L), and the detection of end product ethane at a few wells (see SWMU-20 Cleanup Action Summary table). At all source-zone wells, PCE and TCE remain below reporting limits and breakdown products cis-1,2-dichloroethene (cDCE) and vinyl chloride (VC) are either below reporting limits or at very low concentrations. cDCE is below the proposed CUL (134 µg/L) at all locations. All VC detections at source zone wells are at or below the proposed CUL (2.4 µg/L), with the exception of well MW-06B where VC was detected in May 2013 at 4.3 µg/L. Following the successful source zone bioremediation that resulted from donor injection to source-zone wells, the highest PCE and TCE concentrations are now present at wells located crossgradient (north) (MW-13A and MW-17A) or upgradient (east) (MW-16A) of the treated source zone and the highest VC concentrations are at downgradient wells (see SWMU-20 Non-Source Zone Wells Summary table). PCE is less than the proposed CUL (5.3 µg/L) at all wells and TCE detections exceed the proposed CUL (1.4 µg/L) at only three wells (MW-13A, MW-16A, and MW-17A), ranging from 1.5 to 2.8 µg/L. The proposed CUL for VC is exceeded at two downgradient wells (MW-10C and MW-16C). Semiannual monitoring will continue in SWMU-20 to evaluate potential source zone rebound and trends at crossgradient wells. Ongoing semiannual groundwater monitoring in SWMU-20 constitutes MNA with enhancement of natural attenuation due to residual effects of prior bioremediation injections. Additional injections within SWMU-20 are not anticipated at this time.

Cyclohexlyamine has not been detected in groundwater at the four wells monitored related to the condensate line leak (see SWMU-20 Cyclohexylamine Data table). Quarterly sampling was performed for four quarters, September 2012 through May 2013, as agreed to with Ecology. Based on no detections at any of the wells, cyclohexylamine sampling is completed.

At AOC-05, *in situ* anaerobic bioremediation continues for treatment of TPH-G and BTEX. The eighth injection of nitrate electron acceptor solution took place (at well BDC-103 only) in October 2012. At downgradient wells BDC-101 and BDC-102, and at previously impacted well BDC-104, TPH-G and BTEX remained below detection limits in May 2013. At BDC-103, TPH-G and BTEX concentrations have decreased substantially following a notable rebound in these contaminants in November 2011 that coincided with a high water table condition and a decrease in nitrate to below reporting limits; in May 2013, all compounds were below proposed CULs with the exception of benzene. Nitrate monitoring is performed at the two nearest downgradient wells and at four wells located farther downgradient. Nitrate concentrations have been above the 10 mg/L action level for the last five quarters at downgradient well BDC-101 and during 4 of the last 5 quarters, including both sampling events in 2013, at downgradient well BDC-102. However, nitrate continued to be below the action level at the four wells farther downgradient (BDC-05-04<sup>1</sup>, MW-17A, MW-18A, and MW-21A). Additional nitrate injections will continue, as needed, to treat remaining sorbed- and non-aqueous phase liquid-phase (NAPL) contamination that can lead to a rebound in aqueous-phase concentrations.

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<sup>1</sup> Well BDC-05-04 was inadvertently not sampled for nitrate in May 2013 due to nitrate being discontinued for other SWMU-17 wells monitoring the SWMU-17 groundwater remediation.

Groundwater sampling at AOC-05 wells will continue on a quarterly basis to evaluate contaminant treatment and nitrate consumption. Semiannual monitoring for nitrate at the four wells farther downgradient will also continue until nitrate remains below 10 mg/L for two consecutive semiannual events at downgradient wells BDC-101 and BDC-102. Nitrate remains elevated (161 mg/L) at injected well BDC-103 indicating that additional injection is not necessary at this time.

At SWMU-17, groundwater monitoring results from February and May 2013 show that *in situ* anaerobic bioremediation continues to be enhanced following the August 2011 electron donor injection. Increases in one or more breakdown or end products (*c*DCE, VC, and ethene) were observed at all injection wells following injection. PCE, TCE, and *c*DCE concentrations have decreased to below proposed CULs at all wells, with the exception of TCE at crossgradient well BDC-05-18 (5.2 µg/L). Final breakdown product VC was present at ten wells above the proposed CUL (2.4 µg/L) in May, ranging from 2.9 to 16 µg/L. Complete reductive dechlorination beyond VC continues to be indicated by detection of end products ethene and/or ethane at eleven wells. Low sulfate and elevated concentrations of methane at most wells indicate occurrence of the highly reduced aquifer redox conditions required for complete dechlorination. TOC remains elevated at injection wells (10 to 51 mg/L) and adequate for continued biotreatment. Quarterly and semiannual monitoring will continue for evaluation of treatment progress. Additional donor injection within SWMU-17 is not necessary at this time.

Please call or email me if you have any questions or if you would like to discuss any of the sampling results in more detail.

LANDAU ASSOCIATES, INC.



Clinton L. Jacob, P.E., L.G.  
Principal Engineer

CLJ/tam

Enclosures: Developmental Center Groundwater Monitoring – May 2013

SWMU-20 Data Tables, Maps, and Trend Charts  
SWMU-17 Data Tables and Map  
AOC-05 Data Table, Trend Charts, and Map  
Groundwater Elevation Table  
Groundwater Sample Collection Forms and Analytical Data (CD)

cc: James Bet, Boeing EHS Remediation (elec. w/o data)  
Susanne McIlveen, Boeing Defense, Space & Security, EHS Manager (elec. w/o data)

***DEVELOPMENTAL CENTER  
GROUNDWATER MONITORING  
MAY 2013***

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GROUNDWATER MONITORING  
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**SWMU-20 VOA/CONVENTIONALS DATA TABLES**

**SWMU-20 SUMMARY DATA**

- **SWMU-20 VOC SUMMARY MAPS**
- **SWMU-20 ANALYTICAL RESULTS SUMMARY  
(January 1994 through Present)**
- **SWMU-20 VOC CONCENTRATION TREND CHARTS  
(January 1994 through Present)**
- **SWMU-20 CLEANUP ACTION SUMMARY – SOURCE  
ZONE**
- **SWMU-20 CLEANUP ACTION SUMMARY – NON-  
SOURCE ZONE**
- **SWMU-20 CYCLOHEXYLAMINE DATA**

**SWMU-20 VOA/CONVENTIONALS DATA  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
MAY 2013**

Page 1 of 4

Sample Name:	DC-MW-6A	DC-MW-6B	DC-MW-9A	DC-MW-10A	DC-MW-10C	DC-MW-11A	DC-MW-12A	DC-MW-13A	DC-MW-13C	DC-MW-14A
Lab SDG:	1391733	1391733	1391733	1391733	1391733	1391733	1391733	1391733	1391733	1391733
Lab Sample ID:	7065585	7065587	7065575	7065573	7065572	7065571	7065570	7065577	7065578	7065580
Sample Date:	5/21/2013	5/21/2013	5/21/2013	5/21/2013	5/21/2013	5/21/2013	5/21/2013	5/21/2013	5/21/2013	5/21/2013
<b>Test ID: VOA SW8260C (µg/L)</b>										
Acetone	5.0 U	5.0 U	50 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	50 U	5.0 U
Acrolein	25 U	25 U	250 UJ	25 UJ	25 UJ	250 UJ	25 UJ	25 UJ	250 UJ	25 U
Acrylonitrile	5.0 U	5.0 U	50 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	50 U	5.0 U
<b>Benzene</b>	0.5 U	0.5 U	2.0 U	0.2 U	0.2 U	2.0 U	0.2 U	0.2 U	2.0 U	0.5 U
Bromobenzene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
<b>Bromochloromethane</b>	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
Bromodichloromethane	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
Bromoform	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
Bromomethane	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
2-Butanone	5.0 U	5.0 U	50 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	50 U	5.0 U
n-Butylbenzene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
sec-Butylbenzene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
tert-Butylbenzene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
Carbon Disulfide	0.5 UJ	0.5 UJ	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 UJ
Carbon Tetrachloride	0.5 U	0.5 U	2.0 U	0.2 U	0.2 U	2.0 U	0.2 U	0.2 U	2.0 U	0.5 U
Chlorobenzene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
Chloroethane	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
Chloroform	0.5 U	0.5 U	2.0 U	0.2 U	0.2 U	2.0 U	0.2 U	0.3	2.0 U	0.5 U
Chloromethane	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
2-Chlorotoluene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
4-Chlorotoluene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
1,2-Dibromo-3-chloropropane	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
Dibromochloromethane	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
Dibromomethane	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
trans-1,4-Dichloro-2-butene	5.0 UJ	5.0 UJ	50 UJ	5.0 UJ	5.0 UJ	50 UJ	5.0 UJ	5.0 UJ	50 UJ	5.0 UJ
1,2-Dichlorobenzene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
1,3-Dichlorobenzene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
1,4-Dichlorobenzene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
1,1-Dichloroethane	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
1,2-Dichloroethane	0.5 U	0.5 U	2.0 U	0.2 U	0.2 U	2.0 U	0.2 U	0.2 U	2.0 U	0.5 U
<b>1,1-Dichloroethene</b>	0.5 U	0.5 U	2.0 U	0.2 U	0.2 U	2.0 U	0.2 U	0.2 U	2.0 U	0.5 U
<b>cis-1,2-Dichloroethene</b>	0.5 U	0.5 U	2.0 U	0.2	6.0	22	0.5	0.5	2.0 U	0.5 U
<b>trans-1,2-Dichloroethene</b>	0.5 U	0.5 U	2.0 U	0.2	0.4	2.0 U	0.2 U	0.2 U	2.0 U	0.5 U
1,2-Dichloropropane	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
1,3-Dichloropropane	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
<b>2,2-Dichloropropane</b>	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
1,1-Dichloropropene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
cis-1,3-Dichloropropene	0.5 U	0.5 U	2.0 U	0.2 U	0.2 U	2.0 U	0.2 U	0.2 U	2.0 U	0.5 U
trans-1,3-Dichloropropene	0.5 U	0.5 U	2.0 U	0.2 U	0.2 U	2.0 U	0.2 U	0.2 U	2.0 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
Ethylene Dibromide	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
Hexachlorobutadiene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
2-Hexanone	5.0 U	5.0 U	50 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	50 U	5.0 U
Isopropylbenzene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
4-Isopropyltoluene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
Methyl Iodide	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U

**SWMU-20 VOA/CONVENTIONALS DATA  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
MAY 2013**

Page 2 of 4

Sample Name:	DC-MW-6A	DC-MW-6B	DC-MW-9A	DC-MW-10A	DC-MW-10C	DC-MW-11A	DC-MW-12A	DC-MW-13A	DC-MW-13C	DC-MW-14A
Lab SDG:	1391733	1391733	1391733	1391733	1391733	1391733	1391733	1391733	1391733	1391733
Lab Sample ID:	7065585	7065587	7065575	7065573	7065572	7065571	7065570	7065577	7065578	7065580
Sample Date:	5/21/2013	5/21/2013	5/21/2013	5/21/2013	5/21/2013	5/21/2013	5/21/2013	5/21/2013	5/21/2013	5/21/2013
4-Methyl-2-Pentanone (MIBK)	5.0 U	5.0 U	50 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	50 U	5.0 U
Methylene Chloride	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
<b>Naphthalene</b>	0.5 U	0.5 U	56	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
n-Propylbenzene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
Styrene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
1,1,1,2-Tetrachloroethane	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
1,1,2,2-Tetrachloroethane	0.5 U	0.5 U	2.0 U	0.2 U	0.2 U	2.0 U	0.2 U	0.2 U	2.0 U	0.5 U
<b>Tetrachloroethene</b>	0.5 U	0.5 U	2.0 U	0.2 U	0.2 U	2.0 U	0.2 U	4.5	2.0 U	0.5 U
Toluene	0.5 U	0.5 U	2.0 U	0.2 U	0.2 U	2.0 U	0.2 U	0.2 U	2.0 U	0.5 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
1,2,3-Trichlorobenzene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
1,2,4-Trichlorobenzene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
1,1,1-Trichloroethane	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
1,1,2-Trichloroethane	0.5 U	0.5 U	2.0 U	0.2 U	0.2 U	2.0 U	0.2 U	0.2 U	2.0 U	0.5 U
<b>Trichloroethene</b>	0.5 U	0.5 U	2.0 U	0.2 U	0.2 U	2.0 U	0.2 U	2.5	2.0 U	0.5 U
Trichlorofluoromethane	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
1,2,3-Trichloropropane	1.0 U	1.0 U	10 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	10 U	1.0 U
<b>1,2,4-Trimethylbenzene</b>	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
1,3,5-Trimethylbenzene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
Vinyl Acetate	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
<b>Vinyl Chloride</b>	1.3	4.3	2.0 U	0.3	4.5	2.0 U	0.2 U	0.2 U	2.0 U	0.5 U
m,p-Xylene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
o-Xylene	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	5.0 U	0.5 U
<b>NATURAL ATTENUATION PARAMETERS</b>										
Method Modified RSK175 (µg/L)										
Methane	5200	720	24000	26000						18000
Ethane	1.0 U	1.0 U	16	3.0 U						4.8 J
Ethene	1.0 U	1.0 U	1.0 U	1.0 U						1.0 U
<b>Conventional Parameters</b>										
Nitrate (mg/L) (EPA 300.0)										
Sulfate (mg/L) (EPA 300.0)	3.3	20.1	0.30 U	0.30 U						2.3
Total Organic Carbon (mg/L) (SM20 5310C)	8.8	11.0	33.0	29.5						6.5

**SWMU-20 VOA/CONVENTIONALS DATA  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
MAY 2013**

Page 3 of 4

Sample Name:	DC-MW-14C	DC-MW-15A	DC-MW-15C	DC-MW-16A	DC-MW-16C	DC-MW17A	DC-MW-20C	DC-MW-22A	TRIP BLANK
Lab SDG:	1391733	1391733	1391733	1391733	1391733	1391733	1391733	1391733	
Lab Sample ID:	7065579	7065582	7065583	7065589	7065590	7065567	7065584	7065568	7065591
Sample Date:	5/21/2013	5/21/2013	5/21/2013	5/21/2013	5/21/2013	5/20/2013	5/21/2013	5/20/2013	5/21/2013
<b>Test ID: VOA SW8260C (µg/L)</b>									
Acetone	50 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U
Acrolein	250 U	25 U	250 U	25 U	25 U	25 UJ	250 UJ	25 UJ	25 UJ
Acrylonitrile	50 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U
<b>Benzene</b>	2.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.2 U	5.0 U	0.5	0.5 U
Bromobenzene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
<b>Bromochloromethane</b>	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
Bromodichloromethane	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
Bromoform	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
Bromomethane	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
2-Butanone	50 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U
n-Butylbenzene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
sec-Butylbenzene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
tert-Butylbenzene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
Carbon Disulfide	5.0 U	0.5 UJ	5.0 UJ	0.5 UJ	0.5 UJ	0.5 U	5.0 UJ	0.5 U	0.5 U
Carbon Tetrachloride	2.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.2 U	5.0 U	0.2 U	0.5 U
Chlorobenzene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
Chloroethane	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
Chloroform	2.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.4	5.0 U	0.2 U	0.5 U
Chloromethane	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
2-Chlorotoluene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
4-Chlorotoluene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
1,2-Dibromo-3-chloropropane	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
Dibromochloromethane	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
Dibromomethane	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
trans-1,4-Dichloro-2-butene	50 U	5.0 UJ	50 UJ	5.0 UJ	5.0 UJ	5.0 UJ	50 UJ	5.0 UJ	5.0 UJ
1,2-Dichlorobenzene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
1,3-Dichlorobenzene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
1,4-Dichlorobenzene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
1,1-Dichloroethane	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
1,2-Dichloroethane	2.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.2 U	5.0 U	0.2 U	0.5 U
<b>1,1-Dichloroethene</b>	2.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.2 U	5.0 U	0.2 U	0.5 U
<b>cis-1,2-Dichloroethene</b>	2.0 U	0.6	5.0 U	0.5 U	3.9	0.8	5.0 U	0.4	0.5 U
<b>trans-1,2-Dichloroethene</b>	2.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.2 U	5.0 U	0.2 U	0.5 U
1,2-Dichloropropane	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
1,3-Dichloropropane	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
<b>2,2-Dichloropropane</b>	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
1,1-Dichloropropene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	2.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.2 U	5.0 U	0.2 U	0.5 U
trans-1,3-Dichloropropene	2.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.2 U	5.0 U	0.2 U	0.5 U
Ethylbenzene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	2.6	0.5 U
Ethylene Dibromide	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
Hexachlorobutadiene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
2-Hexanone	50 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U
Isopropylbenzene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5	0.5 U
4-Isopropyltoluene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
Methyl Iodide	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U

**SWMU-20 VOA/CONVENTIONALS DATA  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
MAY 2013**

Sample Name:	DC-MW-14C	DC-MW-15A	DC-MW-15C	DC-MW-16A	DC-MW-16C	DC-MW17A	DC-MW-20C	DC-MW-22A	TRIP BLANK
Lab SDG:	1391733	1391733	1391733	1391733	1391733	1391733	1391733	1391733	1391733
Lab Sample ID:	7065579	7065582	7065583	7065589	7065590	7065567	7065584	7065568	7065591
Sample Date:	5/21/2013	5/21/2013	5/21/2013	5/21/2013	5/21/2013	5/20/2013	5/21/2013	5/20/2013	5/21/2013
4-Methyl-2-Pentanone (MIBK)	50 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U
Methylene Chloride	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
<b>Naphthalene</b>	5.0 U	84	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	11	0.5 U
n-Propylbenzene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
Styrene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
1,1,1,2-Tetrachloroethane	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	2.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.2 U	5.0 U	0.2 U	0.5 U
<b>Tetrachloroethene</b>	2.0 U	0.5 U	5.0 U	1.4	0.5 U	3.6	5.0 U	0.2 U	0.5 U
Toluene	2.0 U	0.5	5.0 U	0.5 U	0.5 U	0.2 U	5.0 U	1.4	0.5 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
1,1,1-Trichloroethane	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
1,1,2-Trichloroethane	2.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.2 U	5.0 U	0.2 U	0.5 U
<b>Trichloroethene</b>	2.0 U	0.5 U	5.0 U	1.5	0.5 U	2.8	5.0 U	0.2 U	0.5 U
Trichlorofluoromethane	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
1,2,3-Trichloropropane	10 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
<b>1,2,4-Trimethylbenzene</b>	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	6.3	0.5 U
1,3,5-Trimethylbenzene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
Vinyl Acetate	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U
<b>Vinyl Chloride</b>	2.0 U	1.1	5.0 U	0.5 U	2.8	0.2 U	5.0 U	2.0	0.5 U
m,p-Xylene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	1.6	0.5 U
o-Xylene	5.0 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	4.2	0.5 U
<b>NATURAL ATTENUATION PARAMETERS</b>									
Method Modified RSK175 ( $\mu\text{g/L}$ )									
Methane								6100	
Ethane								1.6 J	
Ethene								1.0 U	
<b>Conventional Parameters</b>									
Nitrate (mg/L) (EPA 300.0)									
Sulfate (mg/L) (EPA 300.0)								0.30 U	
Total Organic Carbon (mg/L) (SM20 5310C)								24.6	

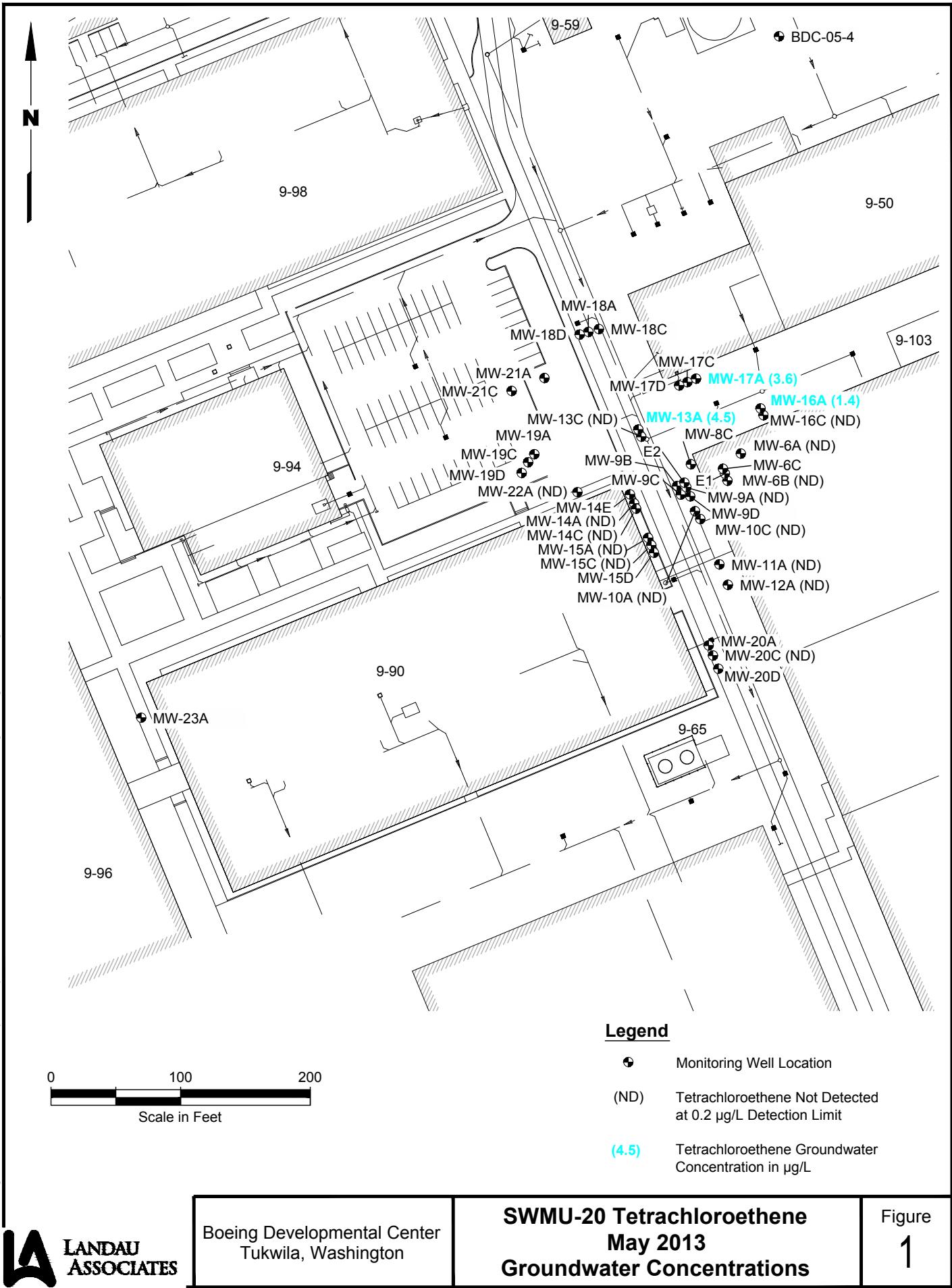
U = Indicates compound was analyzed for, but was not detected at the given detection limit.

J = Indicates the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UU = The analyte was not detected in the sample; the reported sample reporting limit is an estimate.

$\mu\text{g/L}$  = micrograms per liter

mg/L = milligrams per liter

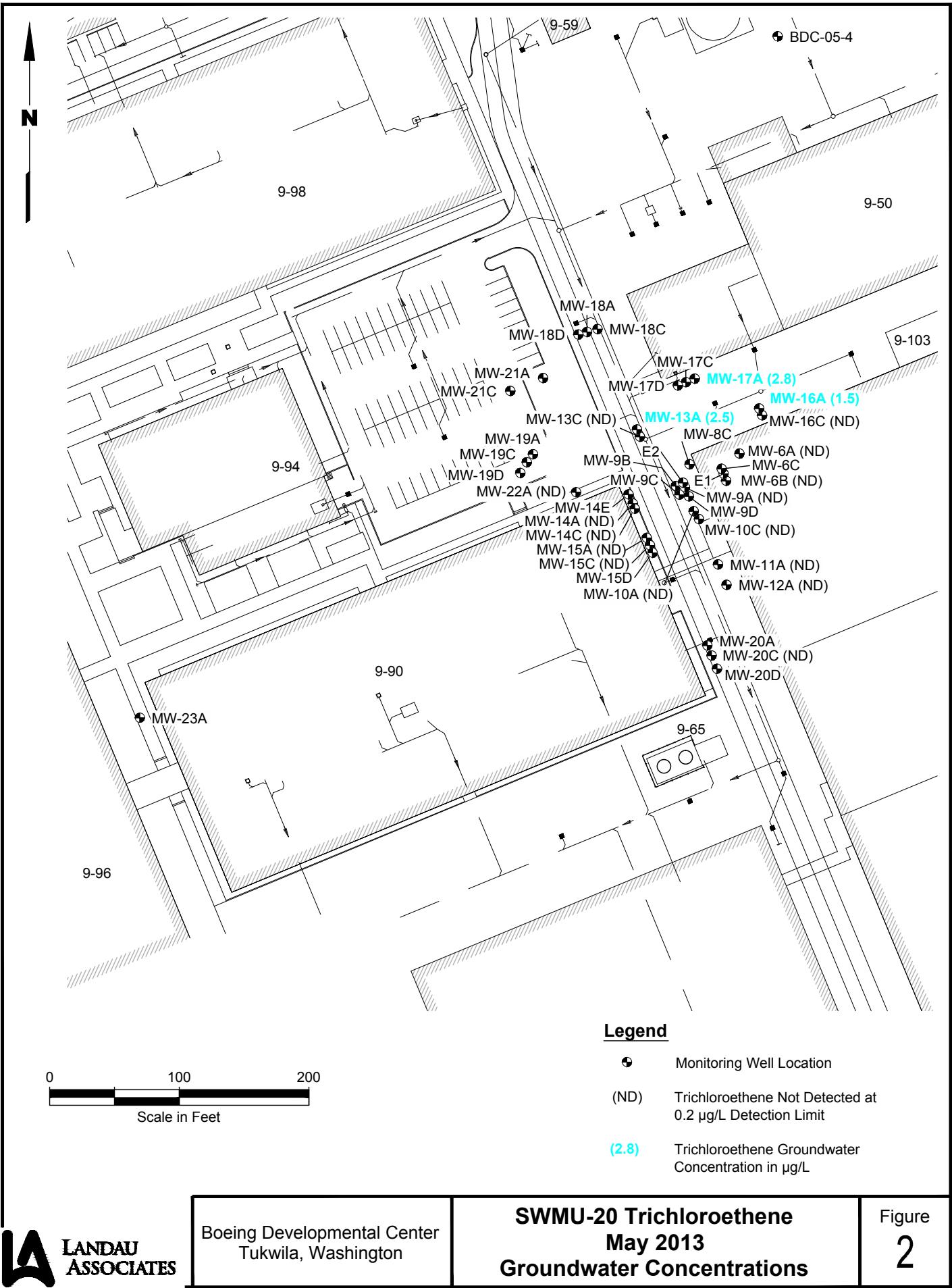


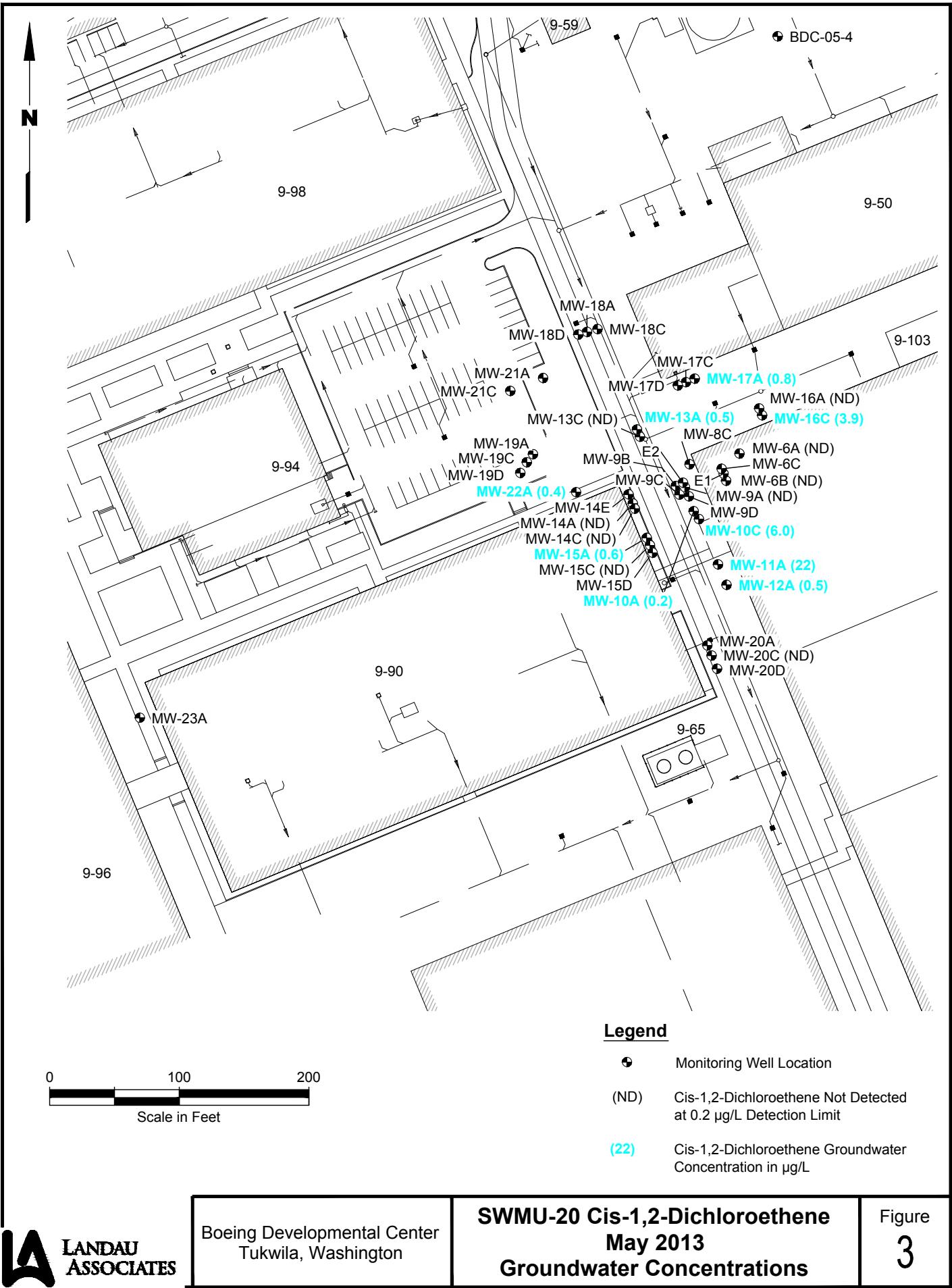
LANDAU  
ASSOCIATES

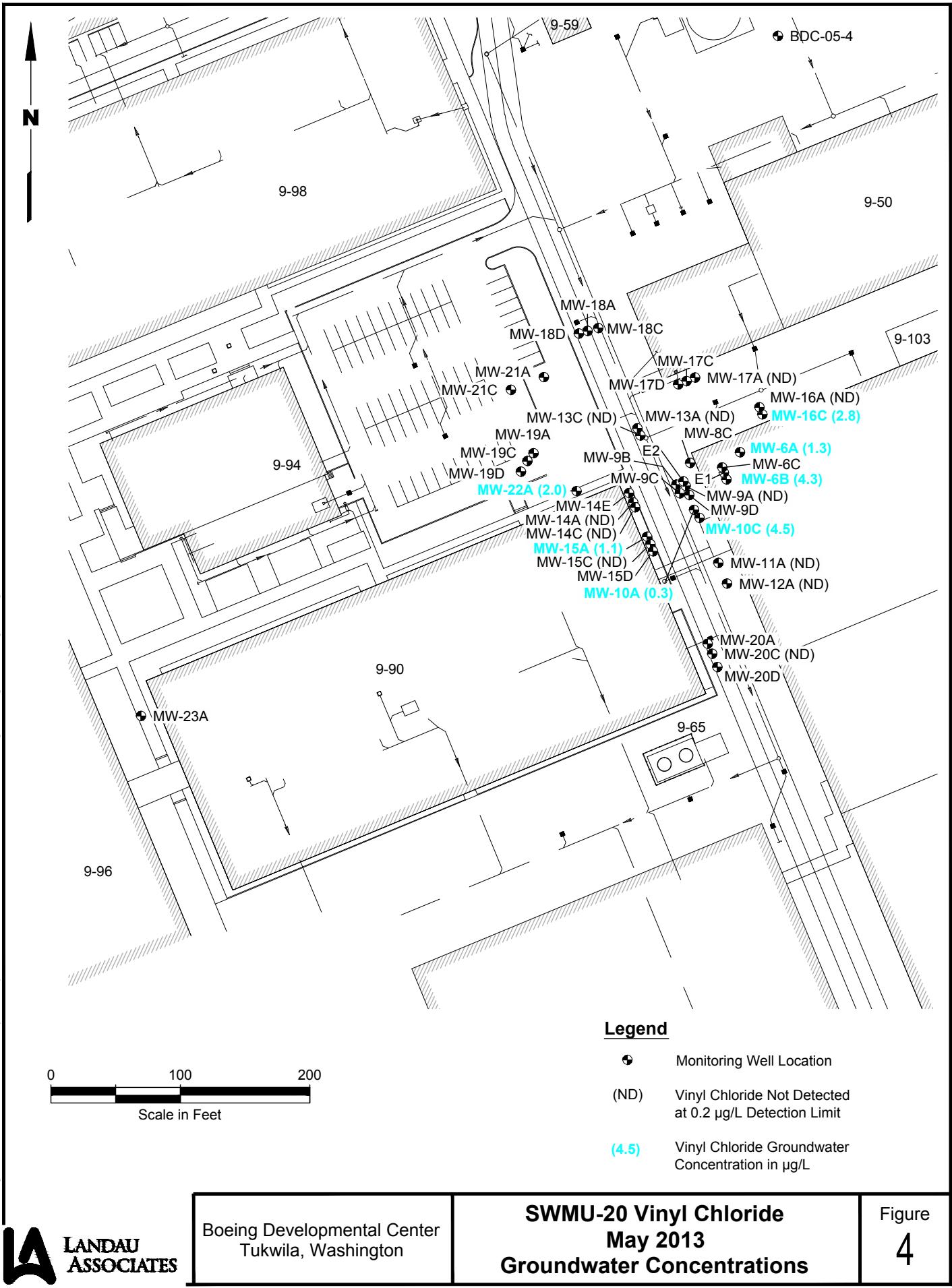
Boeing Developmental Center  
Tukwila, Washington

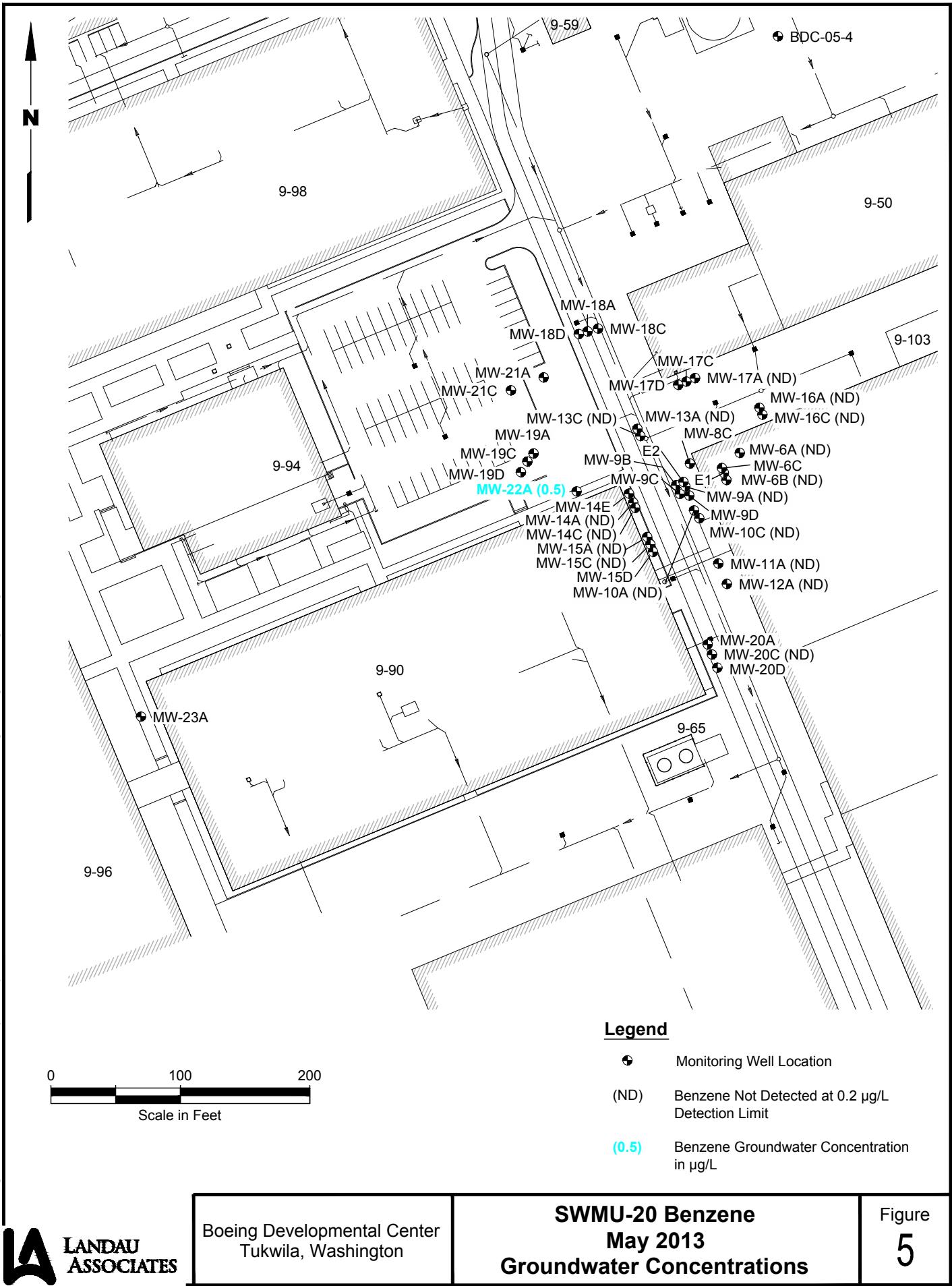
**SWMU-20 Tetrachloroethene  
May 2013  
Groundwater Concentrations**

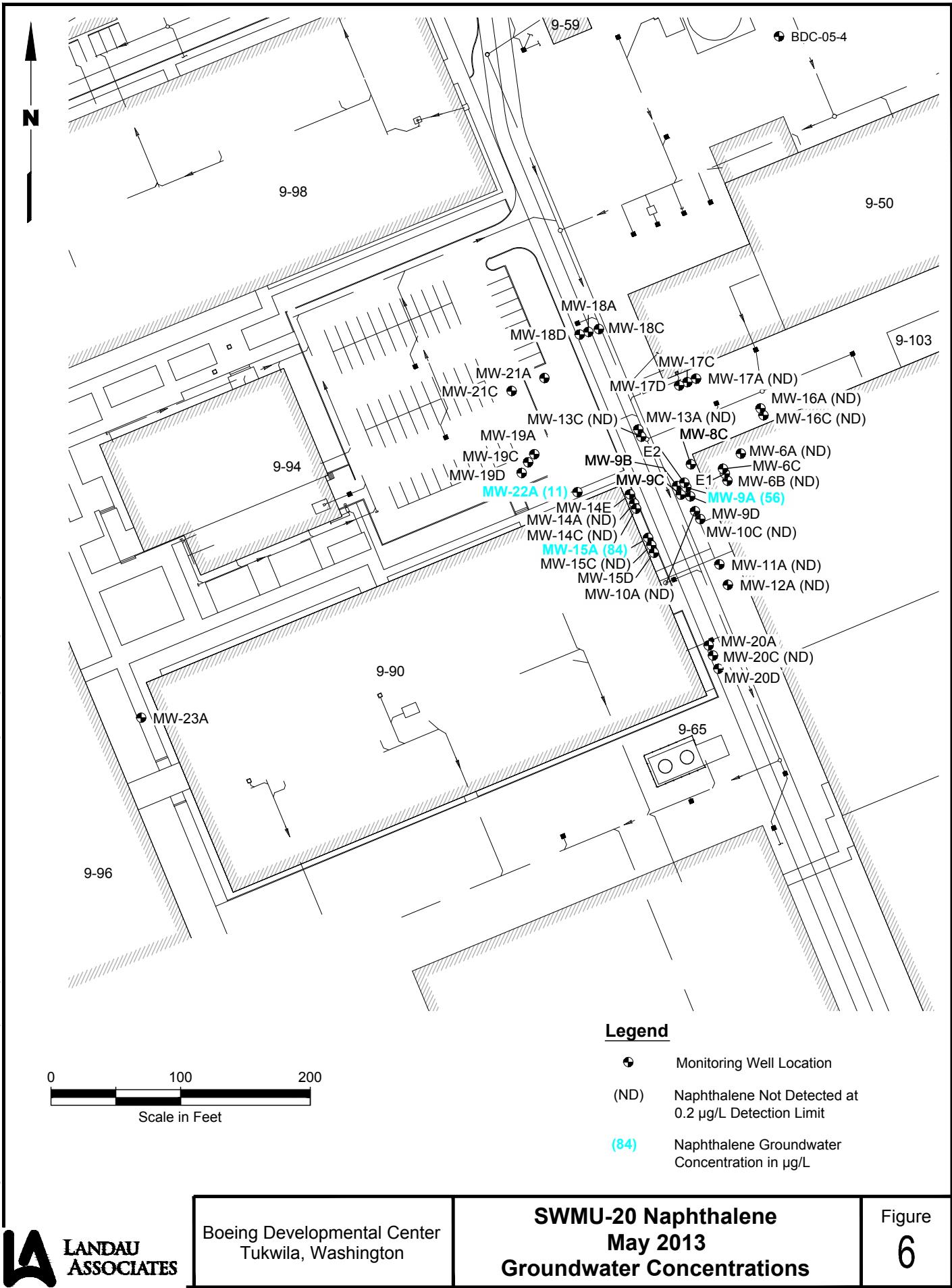
Figure  
**1**











**SWMU-20 ANALYTICAL RESULTS SUMMARY  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
JANUARY 1994 THROUGH PRESENT**

Page 1 of 2

**TETRACHLOROETHENE (µg/L)**

	Jan-94	May-95	Oct-95	Feb-96	May-96	Aug-96	Nov-96	Feb-97	May-97	Aug-97	Nov-97	Jun-98	Oct-98	Jun-99	Nov-99	Jun-00	Dec-00	Jun-01	Dec-01	Jun-02	Dec-02	Jun-03	Nov-03	May-04	Aug-04	Oct-04	Feb-05	Mar-05	May-05
06A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.0	<1.0	<1.0	<1.0	nt	<1.0
06B	<b>27</b>	<b>5.87</b>	<b>14.4</b>	<b>9.62 J</b>	<b>26.18</b>	<b>13.7</b>	<b>14.3</b>	<b>21.5</b>	<b>21.3</b>	<b>17</b>	<b>16.9</b>	<b>18.9</b>	<b>16.3</b>	<b>22.6</b>	<b>2.3</b>	<b>6</b>	<b>10.19</b>	<b>2.6</b>	<b>2.4</b>	<b>10</b>	<b>10</b>	<b>7.9</b>	<b>3.9</b>	<b>9.5</b>	<b>1.9</b>	<1.0	<1.0	nt	<2.0
06C	<b>22</b>	<1.00	<10.00	<10.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0
08C	<b>16</b>	<1.00	<5.00	<5.00	<3.33	<10.00	<b>13.5</b>	<5.00	<4.00	<4.00	<b>7.8</b>	<5.00	<1.00	<2.00	<2.00	<2.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	nt	<1.0	nt	<1.0
09A	<b>420</b>	<b>2568.25</b>	<b>1589</b>	<b>1970</b>	<b>785.7</b>	<b>114</b>	<b>272</b>	<b>98</b>	<b>76</b>	<b>96.9</b>	<b>56.6</b>	<b>39.4</b>	<b>94</b>	<b>5.1</b>	<b>38</b>	<b>40</b>	<b>36.6</b>	<b>12.65</b>	<b>16</b>	<b>14</b>	<b>540</b>	<b>1800</b>	<b>1000</b>	<b>150</b>	<3.0	<5.0	<10	nt	<1.0
09B	<b>820</b>	<b>1972.65</b>	<b>668.1</b>	<b>1266</b>	<b>934.6</b>	<b>78.9</b>	<b>75.9</b>	<b>44.3</b>	<b>35</b>	<b>10.9</b>	<b>21.5</b>	<b>31.3</b>	<10.00	<b>6.74</b>	<b>3.6</b>	<2.00	<b>6.62</b>	<b>1.18</b>	<b>2.1</b>	<1.0	<1.0	<b>1.0</b>	<b>250</b>	<3.0	<5.0	<10	nt	<1.0	
09C	nd	<b>11.32</b>	<5.00	<10.00	<b>1.24</b>	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	
09D	<b>8.8</b>	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0		
10A	<b>180</b>	<b>635.8</b>	<b>754 E</b>	<b>468.85</b>	<b>242.1</b>	<b>114</b>	<b>342</b>	<b>67.5</b>	<b>77.8</b>	<b>76.5</b>	<b>70.3</b>	<b>72.5</b>	<b>86.4</b>	<b>38</b>	<b>21.5</b>	<b>16.6</b>	<b>21.63</b>	<b>30.3</b>	<b>11</b>	<b>24</b>	<b>24</b>	<b>34</b>	<b>58</b>	<b>29</b>	<b>14</b>	<b>15</b>	<b>4.7</b>	nt	<b>4.2</b>
10C	<b>6.9</b>	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0	
11A	<b>5.2</b>	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0	
12A	<b>3.9</b>	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0	
13A	<b>10</b>	<b>4.17</b>	<5.00	<5.00	<b>6.82</b>	<b>3</b>	<b>2.1</b>	<b>3.2</b>	<b>2.1</b>	<b>1.7</b>	<b>1.5</b>	<b>1.6</b>	<b>1.3</b>	<1.00	<1.00	<b>1.2</b>	<1.00	<1.00	<b>1.6</b>	<b>2.7</b>	<b>2.4</b>	<b>3.4</b>	<b>3.0</b>	<b>5.1</b>	nt	<b>4.3</b>	nt	nt	<b>6.1</b>
13C	<b>5.1</b>	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0	
14A	<b>410</b>	<b>4.42</b>	<5.00	<b>133.57</b>	<b>96.06</b>	<b>11.2</b>	<5.00	<4.00	<2.00	<2.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<10	nt	
14C	<b>7.2</b>	<b>9.02</b>	<b>10.53</b>	<b>8.64 J</b>	<b>5.44</b>	<b>6.1</b>	<1.00	<10.00	<10.00	<10.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0
14E	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0	
15A	<b>11</b>	<1.00	<5.00	<5.00	<2.00	<1.00	<4.00	<2.00	<1.00	<2.00	<3.33	<10.00	<1.00	<10.00	<10.00	<10.00	<10.00	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	nt	<5.0	nt	<5.0		
15C	<b>13</b>	<1.00	<33.30	<5.00	<1.00	<b>1.1</b>	<1.00	<2.00	<10.00	<10.00	<10.00	<3.33	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0	
15D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	
16A	<b>1.6</b>	<b>1.10</b>	<5.00	<5.00	<1.00	<b>1.7</b>	<1.00	<b>1.1</b>	<1.00	<1.00	<1.00	<b>1.64</b>	<b>1.03</b>	<b>1.3</b>	<b>2.3</b>	<b>2.2</b>	<1.00	<1.00	<1.0	<1.0	<b>1.2</b>	<b>1.2</b>	<b>1.1</b>	<b>1.2</b>	nt	nt	<b>1.2</b>		
16C	nd	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0	
17A	<b>36</b>	1.39	<5.00	<5.00	<b>1.55</b>																								

**SWMU-20 ANALYTICAL RESULTS SUMMARY  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
JANUARY 1994 THROUGH PRESENT**

**TETRACHLOROETHENE (µg/L)**

	Aug-05	Nov-05	Feb-06	May-06	Aug-06	Nov-06	Feb-07	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Nov-11	May-12	Nov-12	May-13
06A	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.5
06B	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.5
06C	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	nt								
08C	nt	<1.0	nt	<10	nt	<5.0	nt	<3.0	<5.0	<5.0	<1.0	<3.0	nt							
09A	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<b>1.9</b>	<10	<5.0	<1.0	<1.0	<2.0	<0.2	<0.2	<2.0	<2.0	<2.0	<2.0
09B	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	nt								
09C	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<3.0	nt								
09D	nt	<1.0	nt	<1.0	nt	<1.0	nt	<1.0	<0.2	<1.0	<1.0	nt								
10A	<b>2.7</b>	<b>3.3</b>	<b>3.7</b>	<b>1.8</b>	<b>1.6</b>	<0.2	<b>1.2</b>	<b>1.1</b>	<b>1.2</b>	<1.0	<2.0	<1.0	<1.0	<2.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
10C	nt	<1.0	nt	<1.0	nt	<0.2	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2
11A	nt	<1.0	nt	<1.0	nt	<1.0	nt	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0	<2.0	<2.0
12A	nt	<1.0	nt	<1.0	nt	<0.2	nt	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<b>0.2</b>	<0.2	<0.2	<0.2
13A	nt	<b>6.0</b>	nt	<b>7.1</b>	nt	<b>8.3</b>	nt	<b>8.2</b>	<b>6.4</b>	<b>8.7</b>	<b>6.5</b>	<b>7.7</b>	<b>9.2</b>	<b>9.4</b>	<b>3.6</b>	<b>3.9</b>	<b>1.6</b>	<b>2.3</b>	<b>2.2</b>	<b>4.5</b>
13C	nt	<1.0	nt	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<2.0	<2.0	<2.0
14A	<10	<3.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.5	
14C	nt	<1.0	nt	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<2.0	<2.0	<2.0
14E	nt	<1.0	nt	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt
15A	nt	<5.0	nt	<5.0	nt	<3.0	nt	<1.0	<1.0	<3.0	<1.0	<3.0	<1.0	<1.0	<1.0	<10	<0.2	<0.1	<0.2	<0.5
15C	nt	<1.0	nt	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0	<5.0
15D	nt	<1.0	nt	<1.0	nt	<1.0	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
16A	nt	<b>1.3</b>	nt	<b>1.0</b>	nt	<0.2	nt	<b>1.1</b>	<b>1.7</b>	<b>1.2</b>	<b>1.5</b>	<b>1.6</b>	<b>2.2</b>	<b>1.4</b>	<b>1.3</b>	<b>1.6</b>	<b>1.4</b>	<b>1.6</b>	<b>1.1</b>	<b>1.4</b>
16C	nt	<1.0	nt	<1.0	nt	<b>1.2</b>	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.5
17A	nt	<b>4.0</b>	nt	<b>4.2</b>	nt	<b>2.2</b>	nt	<b>4.7</b>	<b>4.2</b>	<b>4.3</b>	<b>4.2</b>	<b>3.2</b>	<b>3.7</b>	<b>4.0</b>	<b>2.3</b>	<b>3.1</b>	<b>2.6</b>	<b>3.1</b>	<b>2.8</b>	<b>3.6</b>
17C	nt																			
17D	nt																			
18A	nt																			
18C	nt	<1.0	nt	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
18D	nt																			
19A	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
19C	nt	<1.0	nt	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
19D	nt																			
20A	nt																			
20C	nt	<1.0	nt	<1.0	nt	<0.2	nt	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<2.0	<5.0
20D	nt																			
21A	nt																			
21C	nt																			
22A	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2
23A	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt

nd = Not Detected.

nt = Not Tested.

J = Indicates the analyte was positively identified; the associated numerical value is the approximate

**SWMU-20 ANALYTICAL RESULTS SUMMARY  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
JANUARY 1994 THROUGH PRESENT**

Page 1 of 2

**TRICHLOROETHENE ( $\mu\text{g/L}$ )**

	Jan-94	May-95	Oct-95	Feb-96	May-96	Aug-96	Nov-96	Feb-97	May-97	Aug-97	Nov-97	Jun-98	Oct-98	Jun-99	Nov-99	Jun-00	Dec-00	Jun-01	Dec-01	Jun-02	Dec-02	Jun-03	Nov-03	May-04	Aug-04	Oct-04	Feb-05	Mar-05	May-05		
06A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	1.0	<1.0	<1.0	<1.0	nt	<1.0		
06B	<b>4.2</b>	<b>3.57</b>	<b>6.00 J</b>	<5.00	<b>7.37</b>	<b>3.5</b>	<b>2.5</b>	<b>4.9</b>	<b>4.7</b>	<b>4.6</b>	<b>6.5</b>	<b>3.5</b>	<b>2.6</b>	<b>4.54</b>	<b>2.2</b>	<b>4.7</b>	<b>8.71</b>	<b>5.83</b>	<b>4.7</b>	<b>5.9</b>	<b>4.5</b>	<b>2.9</b>	<b>1.0</b>	<b>3.2</b>	<b>1.2</b>	<1.0	<1.0	nt	<2.0		
06C	<b>1.6</b>	<1.00	<b>31.36</b>	<10.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<b>91.6</b>	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	
08C	<b>21</b>	<b>3.16</b>	<5.00	<5.00	<3.33	<10.00	<b>26.2</b>	<5.00	<4.00	<4.00	<b>26.6</b>	<5.00	<1.00	<2.00	<2.00	<2.00	<2.00	<1.00	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	nt	<1.0	nt	<1.0		
09A	<b>500</b>	<b>1796.5</b>	<b>1507</b>	<b>2318</b>	<b>1160</b>	<b>90.8</b>	<b>191</b>	<b>49.3</b>	<b>51.1</b>	<b>69.2</b>	<b>56.4</b>	<b>15.4</b>	<b>77</b>	<b>3.5</b>	<b>35</b>	<b>23</b>	<b>24.3</b>	<b>25.21</b>	<b>32</b>	<b>24</b>	<b>580</b>	<b>990</b>	<b>1500</b>	<b>230</b>	<b>11</b>	<b>19</b>	<10	nt	<1.0		
09B	<b>160</b>	<b>1463</b>	<b>524.7</b>	<b>1206</b>	<b>554</b>	<b>58.6</b>	<b>35.2</b>	<b>28.7</b>	<b>31.5</b>	<b>4.9</b>	<b>15.4</b>	<b>20.65</b>	<10.00	<b>7.5</b>	<b>4.8</b>	<b>2.6</b>	<b>11.2</b>	<b>5.79</b>	<b>4.8</b>	<b>2.5</b>	<b>12</b>	<b>9.7</b>	<b>370</b>	<b>4.2</b>	<b>16</b>	<b>17</b>	<10	nt	<1.0		
09C	nd	<b>19.41</b>	<5.00	<10.00	<b>3.54</b>	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	
09D	<b>2.2</b>	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	
10A	<b>120</b>	<b>333.23</b>	<b>411 E</b>	<b>268.41</b>	<b>115.3</b>	<b>56.7</b>	<b>128</b>	<b>28.4</b>	<b>38.2</b>	<b>36.6</b>	<b>48.8</b>	<b>23.8</b>	<b>33.9</b>	<b>19.2</b>	<b>14</b>	<b>8.3</b>	<b>13.11</b>	<b>17.02</b>	<b>18</b>	<b>24</b>	<b>29</b>	<b>32</b>	<b>49</b>	<b>27</b>	<b>12</b>	<b>15</b>	<b>4.8</b>	nt	<b>5.4</b>		
10C	<b>3.9</b>	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0
11A	<b>7</b>	<b>2.41</b>	<5.00	<5.00	<b>2.54</b>	<b>1.9</b>	<b>1</b>	<1.00	<1.00	<b>1.2</b>	<b>1.6</b>	<1.00	<b>1.03</b>	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<b>1.9</b>	<b>2.2</b>	<b>2.2</b>	<b>2.8</b>	<b>2.1</b>	nt	<b>2.0</b>	nt	nt	<b>2.0</b>		
12A	<b>5.5</b>	<b>1.13</b>	<5.00	<5.00	<1.00	<b>1.7</b>	<b>1.2</b>	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0	
13A	<b>31</b>	<b>12.23</b>	<5.00	<b>9.57 J</b>	<b>16.52</b>	<b>3.4</b>	<b>3.4</b>	<b>2</b>	<b>1.5</b>	<b>2.9</b>	<b>3</b>	<b>1.1</b>	<b>1.7</b>	<b>1.8</b>	<b>2.3</b>	<b>2.4</b>	<b>2.12</b>	<b>1.28</b>	<1.0	<b>3.4</b>	<b>3.3</b>	<b>3.9</b>	<b>3.8</b>	<b>4.6</b>	nt	<b>4.0</b>	nt	nt	<b>4.6</b>		
13C	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0	
14A	<b>600</b>	<b>6.25</b>	<5.00	<b>151.58</b>	<b>146.72</b>	<b>84.1</b>	<b>2.8</b>	<4.00	<2.00	<2.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
14C	<b>6.6</b>	<b>14.41</b>	<b>21.93</b>	<b>13.33</b>	<b>7.61</b>	<b>12.5</b>	<1.00	<10.00	<10.00	<10.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0
14E	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0
15A	<b>7.5</b>	<1.00	<5.00	<5.00	<5.00	<2.00	<1.00	<4.00	<2.00	<1.00	<3.33	<10.00	<1.00	<10.00	<10.00	<10.00	<10.00	<10.00	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	nt	<5.0	nt	<5.0	nt	<5.0	
15C	<b>12</b>	<1.00	<33.30	<5.00	<1.00	<b>7.5</b>	<1.00	<2.00	<b>12</b>	<10.00	<10.00	<3.33	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0
15D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0	
16A	<b>4.4</b>	<b>5.02</b>	<5.00	<5.00	<b>2.57</b>	<b>4</b>	<b>2.1</b>	<b>2.6</b>	<b>2</b>	<b>1.9</b>	<1.00	<1.00	<b>1.01</b>	<b>1.4</b>	<b>1.2</b>	<b>1.08</b>	<1.00	<1.0	<1.0	<b>1.5</b>	<b>1.3</b>										

**SWMU-20 ANALYTICAL RESULTS SUMMARY  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
JANUARY 1994 THROUGH PRESENT**

Page 2 of 2

**TRICHLOROETHENE ( $\mu\text{g/L}$ )**

	Aug-05	Nov-05	Feb-06	May-06	Aug-06	Nov-06	Feb-07	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Nov-11	May-12	Nov-12	May-13
06A	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.5	
06B	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.5	
06C	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	nt								
08C	nt	<1.0	nt	<10	nt	<5.0	nt	<3.0	<5.0	<5.0	<1.0	<3.0	nt							
09A	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<b>0.2</b>	<b>4.6</b>	<10	<1.0	<1.0	<1.0	<2.0	<0.2	<0.2	<2.0	<2.0	<2.0	
09B	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	nt								
09C	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<3.0	nt								
09D	nt	<1.0	nt	<1.0	nt	<1.0	nt	<1.0	<0.2	<1.0	<1.0	nt								
10A	<b>6.3</b>	<b>6.7</b>	<b>9.6</b>	<b>3.7</b>	<b>1.6</b>	<0.2	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0	<0.2	<0.2	<0.2	<0.2	<0.2	
10C	nt	<1.0	nt	<1.0	nt	<0.2	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	
11A	nt	<b>2.0</b>	nt	<b>1.1</b>	nt	<b>1.5</b>	nt	<b>1.5</b>	<b>1.1</b>	<b>1.2</b>	<1.0	<b>1.0</b>	<b>1.1</b>	<1.0	<b>0.5</b>	<b>0.7</b>	<2.0	<2.0	<2.0	
12A	nt	<1.0	nt	<1.0	nt	<b>0.7</b>	nt	<1.0	<1.0	<b>0.6</b>	<1.0	<1.0	<1.0	<1.0	<b>0.6</b>	<0.2	<b>0.4</b>	<0.2	<0.2	
13A	nt	<b>4.5</b>	nt	<b>4.6</b>	nt	<b>6.5</b>	nt	<b>7.0</b>	<b>4.2</b>	<b>6.8</b>	<b>3.7</b>	<b>5.6</b>	<b>6.0</b>	<b>5.3</b>	<b>2.8</b>	<b>2.4</b>	<1.0	<b>0.8</b>	<b>0.8</b>	<b>2.5</b>
13C	nt	<1.0	nt	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<2.0	<2.0	
14A	<10	<3.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.5	
14C	nt	<1.0	nt	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0	<2.0	
14E	nt	<1.0	nt	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	
15A	nt	<5.0	nt	<5.0	nt	<3.0	nt	<1.0	<1.0	<3.0	<1.0	<3.0	<1.0	<1.0	<1.0	<10	<0.2	<1.0	<0.2	<0.5
15C	nt	<1.0	nt	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<b>3.2</b>	<5.0	
15D	nt	<1.0	nt	<1.0	nt	<1.0	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	
16A	nt	<b>2.2</b>	nt	<b>1.4</b>	nt	<b>0.8</b>	nt	<b>1.3</b>	<b>1.2</b>	<b>1.3</b>	<b>1.4</b>	<b>1.6</b>	<b>1.5</b>	<b>1.4</b>	<b>1.1</b>	<b>1.4</b>	<b>1.3</b>	<b>1.7</b>	<b>1.5</b>	<b>1.5</b>
16C	nt	<1.0	nt	<1.0	nt	<b>2.3</b>	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.5
17A	nt	<b>5.4</b>	nt	<b>4.4</b>	nt	<b>6.3</b>	nt	<b>5.3</b>	<b>4.3</b>	<b>5.1</b>	<b>5.2</b>	<b>4.9</b>	<b>4.5</b>	<b>3.1</b>	<b>4.8</b>	<b>2.2</b>	<b>2.8</b>	<b>2.0</b>	<b>3.5</b>	<b>2.8</b>
17C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	
17D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	
18A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	
18C	nt	<1.0	nt	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	
18D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	
19A	<1.0	<1.0	<1.0	<1.0	<b>0.2</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	
19C	nt	<1.0	nt	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	
19D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	
20A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	
20C	nt	<1.0	nt	<1.0	nt	<b>0.2</b>	nt	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<2.0	<5.0	
20D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	
21A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	
21C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	
22A	<1.0	<1.0	<1.0	<1.0	<1.0	<b>0.3</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	
23A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	

nd = Not Detected.

nt = Not Tested.

J = Indicates the analyte was positively identified; the associated numerical value is the approximate approximate concentration of the analyte in the sample.

E = Estimated concentration calculated for an analyte response above the valid instruction calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Bold = Detected compound.

**SWMU-20 ANALYTICAL RESULTS SUMMARY  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
JANUARY 1994 THROUGH PRESENT**

Page 1 of 2

**CIS-1,2-DICHLOROETHENE (µg/L)**

	Jan-94	May-95	Oct-95	Feb-96	May-96	Aug-96	Nov-96	Feb-97	May-97	Aug-97	Nov-97	Jun-98	Oct-98	Jun-99	Nov-99	Jun-00	Dec-00	Jun-01	Dec-01	Jun-02	Dec-02	Jun-03	Nov-03	May-04	Aug-04	Oct-04	Feb-05	Mar-05	May-05
06A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	23	45	2.6	3.3	nt	2.6
06B	<b>23</b>	<b>43.71</b>	<b>53.75</b>	<b>29.45</b>	<b>58.31</b>	<b>46.3</b>	<b>30.5</b>	<b>37.4</b>	<b>60.9</b>	<b>61.8</b>	<b>76.4</b>	<b>66.7</b>	<b>9.9</b>	<b>70.1</b>	<b>49.7</b>	<b>71.5</b>	<b>91.77</b>	<b>63.94</b>	<b>27</b>	<b>40</b>	<b>23</b>	<b>13</b>	<b>11</b>	<b>10</b>	<b>13</b>	<b>10</b>	<b>11</b>	nt	<b>5.5</b>
06C	<b>7.9</b>	<b>14.57</b>	<b>99.09</b>	<10.00	<b>1.01</b>	<b>107</b>	<b>1.9</b>	<b>3.1</b>	<b>22.1</b>	<b>28.3</b>	<b>12.3</b>	<b>1.1</b>	<b>181 E</b>	<2.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<b>1.1</b>
08C	<b>44</b>	<b>14.95</b>	<5.00	<b>5.55 J</b>	<b>8</b>	<b>1.1</b>	<b>37.6</b>	<5.00	<b>37.3</b>	<b>46.1</b>	<b>42.3</b>	<b>38.4</b>	<5.00	<b>1.1</b>	<2.00	<b>3.2</b>	<2.00	<1.00	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<1.0	nt	nt	<1.0
09A	<b>2500</b>	<b>5790.9</b>	<b>3286</b>	<b>7484</b>	<b>6143</b>	<b>443</b>	<b>816</b>	<b>520</b>	<b>258</b>	<b>206.E</b>	<b>199</b>	<b>94.3</b>	<b>680</b>	<b>15.5</b>	<b>187</b>	<b>421</b>	<b>60.75</b>	<b>266.6</b>	<b>100</b>	<b>280</b>	<b>1600</b>	<b>2300</b>	<b>2300</b>	<b>970</b>	<b>370</b>	<b>460</b>	<b>41</b>	nt	<1.0
09B	<b>940</b>	<b>5010.35</b>	<b>1307 E</b>	<b>3407 E</b>	<b>1521</b>	<b>207</b>	<b>142</b>	<b>164 E</b>	<b>510</b>	<b>35.1</b>	<b>111</b>	<b>939 E</b>	<b>178</b>	<b>122.04</b>	<b>41.2</b>	<b>102.4</b>	<b>135.2</b>	<b>112.3</b>	<b>100</b>	<180	<b>180</b>	<b>140</b>	<b>850</b>	<b>250</b>	<b>530</b>	<b>300</b>	<b>890</b>	nt	<b>12</b>
09C	<b>520</b>	<b>431.66</b>	<b>159.69</b>	<b>70</b>	<b>33.67</b>	<b>29.8</b>	<b>1.6</b>	<b>4.6</b>	<b>2.6</b>	<b>2</b>	<b>1.7</b>	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.1	<b>6.7</b>	<b>2.7</b>	<b>4.1</b>	<b>8.9</b>	<b>4.0</b>	<b>1.7</b>	<1.0	nt	<b>1.2</b>	
09D	<b>5.1</b>	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0		
10A	<b>470</b>	<b>421.26</b>	<b>297 E</b>	<b>249.16</b>	<b>159.2</b>	<b>90.1</b>	<b>17.8</b>	<b>29</b>	<b>66.1</b>	<b>58.5</b>	<b>74.1</b>	<b>29.3</b>	<b>6.9</b>	<b>33.3</b>	<b>20.6</b>	<b>10.6</b>	<b>14.14</b>	<b>14.09</b>	<b>36</b>	<b>80</b>	<b>110</b>	<b>88</b>	<b>98</b>	<b>80</b>	<b>170</b>	<b>100</b>	<b>24</b>	nt	<b>26</b>
10C	<b>14</b>	<b>1.93</b>	<5.00	<5.00	<b>1.01</b>	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<b>3.7</b>	<b>3.3</b>	<b>14</b>	<b>6.2</b>	<b>4.3</b>	nt	<b>6.4</b>	nt	nt	<b>4.0</b>	
11A	<b>54</b>	<b>15.86</b>	<b>10.82</b>	<b>7.17 J</b>	<b>10.27</b>	<b>9.3</b>	<b>6.4</b>	<b>4.9</b>	<b>6.6</b>	<b>6.1</b>	<b>4.2</b>	<b>2.8</b>	<b>2.3</b>	<b>2.1</b>	<b>1.1</b>	<b>1.5</b>	<b>1.55</b>	<b>1.27</b>	<b>2.1</b>	<b>6.0</b>	<b>12</b>	<b>17</b>	<b>18</b>	<b>21</b>	nt	nt	<b>20</b>		
12A	<b>20</b>	<b>2.30</b>	<5.00	<b>1.09</b>	<b>9.5</b>	<b>6.6</b>	<1.00	<b>6.1</b>	<b>3.7</b>	<b>3</b>	<b>1.7</b>	<b>1.7</b>	<b>1.8</b>	<b>1.03</b>	<b>1.9</b>	<b>2.07</b>	<b>1.46</b>	<b>2.2</b>	<b>1.8</b>	<b>3.3</b>	<b>1.4</b>	<b>4</b>	<b>1.8</b>	nt	<b>4.4</b>	nt	nt	<b>2.0</b>	
13A	<b>8.2</b>	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0		
13C	<b>16</b>	<b>1.14</b>	<5.00	<5.00	<1.00	<b>1.3</b>	<1.00	<b>1.3</b>	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0		
14A	<b>590</b>	<b>15.50</b>	<b>9.83 J</b>	<b>294.36</b>	<b>115.94</b>	<b>249</b>	<b>114</b>	<b>6.4</b>	<b>24.2</b>	<b>18.3</b>	<b>9.5</b>	<b>4.9</b>	<b>3.7</b>	<b>7</b>	<b>3.2</b>	<b>3.8</b>	<1.00	<1.00	<1.00	<1.0	<b>7.2</b>	<b>23</b>	<b>170</b>	<b>140</b>	<b>560</b>	<b>1200</b>	<b>300</b>	nt	<10
14C	<b>110</b>	<b>187.91</b>	<b>1017.82</b>	<b>237.4</b>	<b>70.06</b>	<b>326</b>	<b>211</b>	<b>183</b>	<b>163</b>	<b>136</b>	<b>82.7</b>	<b>25.6</b>	<b>21.7</b>	<b>6.2</b>	<1.00	<b>1.2</b>	<b>2.83</b>	<b>1.64</b>	<1.0	<b>1.5</b>	<b>2.4</b>	<b>31</b>	<b>13</b>	<b>63</b>	nt	<b>22</b>	nt	nt	<b>11</b>
14E	<b>1.1</b>	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0		
15A	<b>9.1</b>	<b>3.29</b>	<5.00	<5.00	<5.00	<b>3.6</b>	<b>3.5</b>	<b>4.5</b>	<b>5</b>	<b>5.5</b>	<b>5.5</b>	<b>15.65</b>	<10.00	<1.00	<10.00	<10.00	<10.00	<b>4.99</b>	<b>4.9</b>	<b>2.8</b>	<b>2.8</b>	<5.0	<5.0	<5.0	<5.0	nt	nt	<5.0	
15C	<b>92</b>	<b>69.14</b>	<b>640.52</b>	<b>93.62</b>	<b>1.47</b>	<b>463</b>	<b>532</b>	<b>187</b>	<b>1470</b>	<b>1100</b>	<b>719</b>	<b>785 E</b>	<b>90.5</b>	<b>53.2</b>	<b>28.4</b>	<b>1.01</b>	<b>2.53</b>	<1.00	<b>1.1</b>	<1.0	<1.0	<b>2.9</b>	<b>5.7</b>	<b>9.1</b>	nt	nt	<b>11</b>	nt	<b>13</b>
15D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	<1.0	
16A	<b>5.5</b>	<b>12.63</b>	<b>5.38 J</b>	<5.00	<b>25.39</b>	<b>12</b>	<b>3.2</b>	<b>6.2</b>	<b>2.4</b>	<b>1.7</b>	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<b>1.76</b>	<b>1.82</b>	<b>2.6</b>	<1.0	<b>1.2</b>	<b>2.4</b>	<b>1.3</b>	<b>2.3</b>	nt	<b>1.8</b>	nt	nt	<b>2.6</b>
16C																													

**SWMU-20 ANALYTICAL RESULTS SUMMARY  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
JANUARY 1994 THROUGH PRESENT**

Page 2 of 2

## CIS-1,2-DICHLOROETHENE ( $\mu\text{g/L}$ )

	Aug-05	Nov-05	Feb-06	May-06	Aug-06	Nov-06	Feb-07	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Nov-11	May-12	Nov-12	May-13	
06A	<b>1.6</b>	<b>1.3</b>	<b>1.4</b>	<1.0	<1.0	<b>0.4</b>	<1.0	<1.0	<0.2	<1.0	<b>1.7</b>	<4.0	<b>1.9</b>	<b>1.3</b>	<1.0	<1.0	<b>0.3</b>	<b>0.4</b>	<b>0.3</b>	<0.5	
06B	<b>1.8</b>	<b>1.1</b>	<1.0	<1.0	<1.0	<b>1.4</b>	<b>3.8</b>	<b>1.4</b>	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<b>0.5</b>	<0.2	<0.5
06C	<b>1.1</b>	<b>1.1</b>	<1.0	<1.0	<1.0	<b>0.3</b>	<1.0	<1.0	<b>0.2</b>	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt	
08C	nt	<1.0	nt	<10	nt	<5.0	nt	<3.0	<5.0	<5.0	<5.0	<1.0	<3.0	nt							
09A	<1.0	<1.0	<1.0	<1.0	<1.0	<b>0.3</b>	<1.0	<1.0	<1.0	<b>110</b>	<b>160</b>	<10	<5.0	<1.0	<1.0	<2.0	<b>0.2</b>	<b>0.2</b>	<2.0	<2.0	
09B	<1.0	<1.0	<1.0	<1.0	<1.0	<b>0.3</b>	<1.0	<1.0	<1.0	<b>0.2</b>	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt	
09C	<b>7.6</b>	<b>1.2</b>	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<3.0	nt							
09D	nt	<1.0	nt	<1.0	nt	<1.0	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	nt						
10A	<b>48</b>	<b>47</b>	<b>42</b>	<b>63</b>	<b>38</b>	<b>7.4</b>	<b>32</b>	<b>28</b>	<b>22</b>	<b>22</b>	<b>1.6</b>	<2.0	<1.0	<1.0	<1.0	<2.0	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.2</b>	
10C	nt	<1.0	nt	<b>1.5</b>	nt	<b>1.9</b>	nt	<b>6.7</b>	<b>7.2</b>	<b>15</b>	<b>8.5</b>	<1.0	<1.0	<1.0	<1.0	<b>3.5</b>	<b>5.8</b>	<b>3.7</b>	<b>5.4</b>	<b>6.1</b>	<b>6.0</b>
11A	nt	<b>22</b>	nt	<b>20</b>	nt	<b>24</b>	nt	<b>26</b>	<b>27</b>	<b>26</b>	<b>33</b>	<b>26</b>	<b>30</b>	<b>26</b>	<b>22</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>22</b>	
12A	nt	<b>3.8</b>	nt	<b>1.5</b>	nt	<b>4.4</b>	nt	<b>2.4</b>	<b>3.2</b>	<b>3.2</b>	<b>4.7</b>	<b>1.4</b>	<b>4.7</b>	<1.0	<b>4.3</b>	<1.0	<b>3.1</b>	<0.2	<b>2.1</b>	<b>0.5</b>	
13A	nt	<1.0	nt	<1.0	nt	<b>0.3</b>	nt	<b>0.4</b>	<1.0	<b>0.3</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<b>0.5</b>	
13C	nt	<1.0	nt	<1.0	nt	<b>0.8</b>	nt	<b>0.8</b>	<1.0	<b>0.2</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<2.0	<2.0	
14A	<10	<b>6.0</b>	<1.0	<b>2.1</b>	<b>3.0</b>	<1.0	<1.0	<b>1.5</b>	<b>1.6</b>	<b>1.2</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>0.6</b>	<b>0.3</b>	<b>0.6</b>	<0.5	
14C	nt	<1.0	nt	<1.0	nt	<0.2	nt	<1.0	<b>1.1</b>	<b>1.4</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0	<2.0
14E	nt	<1.0	nt	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt						
15A	nt	<5.0	nt	<5.0	nt	<3.0	nt	<b>1.4</b>	<1.0	<3.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<10	<b>0.3</b>	<1.0	<b>0.4</b>	<b>0.6</b>
15C	nt	<1.0	nt	<1.0	nt	<0.2	nt	<1.0	<1.0	<b>1.8</b>	<b>1.9</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0	<5.0
15D	nt	<1.0	nt	<1.0	nt	<1.0	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt						
16A	nt	<b>2.1</b>	nt	<b>2.3</b>	nt	<b>4.2</b>	nt	<b>1.9</b>	<b>1.2</b>	<b>1.2</b>	<b>1.0</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>0.5</b>	<b>0.5</b>	<b>0.6</b>	<0.5
16C	nt	<b>4.6</b>	nt	<b>5.2</b>	nt	<b>2.0</b>	nt	<b>8.8</b>	<b>7</b>	<b>7.8</b>	<b>5.3</b>	<b>5.0</b>	<b>4.9</b>	<b>3.7</b>	<b>3.3</b>	<b>3.7</b>	<b>3.3</b>	<b>4.8</b>	<b>4.9</b>	<b>3.9</b>	
17A	nt	<b>1.1</b>	nt	<1.0	nt	<b>1.0</b>	nt	<b>1.0</b>	<1.0	<b>0.8</b>	<b>1.2</b>	<b>1.4</b>	<b>1.1</b>	<1.0	<b>2.3</b>	<b>1.5</b>	<b>1.0</b>	<b>0.5</b>	<b>0.9</b>	<b>0.8</b>	
17C	nt																				
17D	nt																				
18A	nt																				
18C	nt	<1.0	nt	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	nt						
18D	nt	nt	nt		nt																
19A	<1.0	<1.0	<1.0	<1.0	<1.0	<b>0.3</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt						
19C	nt	<1.0	nt	<1.0	nt	<b>0.3</b>	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt						
19D	nt																				
20A	nt																				
20C	nt	<b>2.1</b>	nt	<b>1.8</b>	nt	<b>2.1</b>	nt	<b>1.6</b>	<b>1.6</b>	<b>1.6</b>	<b>1.5</b>	<b>1.4</b>	<b>1.7</b>	<b>1.3</b>	<b>1.4</b>	<b>1.1</b>	<b>1.3</b>	<b>1.2</b>	<2.0	<5.0	
20D	nt																				
21A	nt																				
21C	nt																				
22A	<b>2.3</b>	<b>1.4</b>	<b>1.4</b>	<b>2.4</b>	<b>1.8</b>	<b>2.2</b>	<b>2.5</b>	<b>2.5</b>	<b>2</b>	<b>2.6</b>	<b>2.2</b>	<b>2.5</b>	<b>2.1</b>	<b>1.7</b>	<b>1.2</b>	<b>1.1</b>	<b>0.9</b>	<b>0.6</b>	<b>0.5</b>	<b>0.4</b>	
23A	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<b>0.3</b>	<1.0	<1.0	<1.0	<1.0	<1.0	nt						

nd = Not Detected.

nt = Not Tested.

J = Indicates the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

E = Estimated concentration calculated for an analyte response above the valid instruction calibration range. A dilution is required to obtain an accurate quantification of the analyte.

**Bold** = Detected compound.

**SWMU-20 ANALYTICAL RESULTS SUMMARY  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
JANUARY 1994 THROUGH PRESENT**

Page 1 of 2

## VINYL CHLORIDE ( $\mu\text{g/L}$ )

	Jan-94	May-95	Oct-95	Feb-96	May-96	Aug-96	Nov-96	Feb-97	May-97	Aug-97	Nov-97	Jun-98	Oct-98	Jun-99	Nov-99	Jun-00	Dec-00	Jun-01	Dec-01	Jun-02	Dec-02	Jun-03	Nov-03	May-04	Aug-04	Oct-04	Feb-05	Mar-05	May-05	Aug-05	Nov-05	Feb-06	
06A	nt	4.0	5.9	31	<1.0	nt	<1.0	1.2	4.8																								
06B	13	36.53	31.8	52.29	44.78	54.5	49.4	63.7	88.7	55	62.7	46.3	4.2	48.4	25.9	8	21.58	10.62	8.9	12	11	8.4	17	9.4	2.3	3.6	<1.0	nt	<2.0	1.6	1.3	1.4	
06C	30	20.89	34.09	38.34	22.06	164	12	18.3	50.3	39.5	26.1	6	54.6	4.4	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
08C	130	42.13	32.69	35.33	35.96	129	41.2	201	488	256	210	20.6	<5.00	49.7	21.4	2.4	<2.00	<1.00	<1.0	<1.0	<1.0	<3.0	<5.0	2.8	nt	3.5	nt	<1.0	nt	<1.0	nt	nt	
09A	240	917.05	449	1385	844.9	124	228	80.9	185	127	135	83.8	425	14	278	499	17.95	86.44	7.8	46	150	120	180	37	150	220	37	nt	<1.0	<1.0	<1.0	<1.0	<1.0
09B	140	648.6	175.6	836	228.2	104	62.6	41.7	270	20.9	50.7	439.56	132	152.36	66.6	82.6	146.7	78.9	110	7.6	27	19	360	<3.0	100	340	520	nt	24	1.7	<1.0	1.3	
09C	190	233.79	185 E	71.74	50.13	106	19.4	59.8	147	102.5	87.8	1.1	<1.00	59	16.4	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	
09D	nd	1.37	<5.00	<5.00	<1.00	1	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt			
10A	120	116.25	16.12	31.6	651.2	80.9	16.7	48.2	33.4	9.8	8.8	8.7	1.3	12.1	3.5	3	3.32	3.32	2.9	28	54	36	9.1	6.4	4.0	23	6.8	nt	7.2	76	73	150	
10C	39	28.29	33.16	40.41	18.69	11.6	10.1	9	<1.00	4.3	3.8	1.7	1.6	2.8	1.4	2.1	<1.00	<1.00	<1.0	8.4	15	15	8.8	4.0	nt	11	nt	nt	1.9	nt	1.0	nt	
11A	39	26.80	8.37 J	12.14	14.04	3.8	1.8	<1.00	<1.00	<1.00	3.4	<1.00	<1.00	1.1	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
12A	14	<1.00	17.16	<5.00	<1.00	2.9	8.6	<1.00	9.4	6.7	1.1	1.3	<1.00	2.7	1.06	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		
12A	12	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00			
13C	760	3.03	<5.00	15.24	11.48	3.6	1.9	2.5	2.2	<1.00	<1.00	1	1.6	1.8	<1.00	<1.00	<1.00	<1.00	<1.00	1.6	3.3	4.9	2.2	2.5	nt	nt	nt	<1.00	nt	3.8	nt		
14A	170	11.38	30.32	44.4	36.4	339	232	162	270	158	70	29.1	13.74	58.2	20.9	19.7	<1.00	<1.00	<1.00	<1.00	<1.00	69	28	240	110	180	650	1000	nt	<10	<10	<3.0	<1.0
14C	120	103.49	1587.3	1477	134.78	414	175	1296	307	148	144	39.4	56.4	30.2	<1.00	<1.00	4.67	1.21	<1.00	<1.00	4.4	50	35	44	nt	75	nt	nt	6.1	nt	1.8	nt	
14E	10	1.43	<5.00	<5.00	<1.00	1.3	<1.00	<1.00	1.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00			
15A	16	13.84	31.2	54.62	19.45	19.4	23	20.4	23.5	17.4	18.6	61.61	17.2	2.9	37	16	<10.00	3.86	1.8	2.0	3.3	<5.0	<5.0	<5.0	nt	nt	<5.0	nt	<5.0	nt	<5.0	nt	
15C	38	38.79	142.38	69.81	5.12	104	220	69	598	519	500	772 E	194 E	121.2	49.2	1.4	21.32	<1.00	1.5	<1.00	1.3	5.6	16	11	nt	17	nt	nt	6.4	nt	<1.00	nt	
15D	nt	8.6	5.2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00													
16A	6	9.18	<5.00	<5.00	8.42	4.4	<1.00	<1.00	2.2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00			
16C	15	23.46	38.59	45.16	31.71	20.8	11.8	11.3	9.1	3	<1.00	1.4	<1.00	1.9	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.4	3.8	2.6	5.4	nt	8.5	nt	nt	7.7	nt	12	nt
17A	nd	<1.00	<5.00	<5.00	<1.00	1	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00			
17C	10	2.32	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt													
17D	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt													
18A	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt													
18C	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt													
18D	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt													
19A	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	<1.0	<1.0	<1.0	<1.0									
19C	5.5	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00			
19D	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt												
20A	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt												
20C	47	20.12	12.63	13.77	8.32	6.7	3.4	3.4	<1.00	<1.00	1.6	1.8	<1.00	1.9	<1.00	1.06	<1.00	<1.00	1.4	2.7	4.0	3.1	2.4	nt	nt	2.3	nt	2.9	nt				
20D	nd	6.98	<5.00	<5.00	31.12	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt														
21A	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00																					
21C	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00																					
22A	nt	2.0	2.9	3.2	2.2	3.3																											
23A	nt	<1.0	<1.0	<1.0	<1.0	<1.0																											

**SWMU-20 ANALYTICAL RESULTS SUMMARY  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
JANUARY 1994 THROUGH PRESENT**

Page 2 of 2

**VINYL CHLORIDE (µg/L)**

	May-06	Aug-06	Nov-06	Feb-07	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Nov-11	May-12	Nov-12	May-13
06A	<b>1.6</b>	<b>1.5</b>	<b>2.1</b>	<b>6.7</b>	<b>2.9</b>	<b>1.2</b>	<b>1.4</b>	<1.0	<4.0	<1.0	<b>1.9</b>	<b>1.7</b>	<b>1.4</b>	<b>0.8</b>	<b>1.2</b>	<b>0.8</b>	<b>1.3</b>
06B	<b>1.3</b>	<b>1.1</b>	<b>2.6</b>	<b>9.5</b>	<b>6.5</b>	<b>1</b>	<1.0	<1.0	<1.0	<1.0	<b>4.2</b>	<b>5.4</b>	<b>5.2</b>	<b>0.8</b>	<b>6.0</b>	<b>3.7</b>	<b>4.3</b>
06C	<1.0	<1.0	<0.2	<1.0	<1.0	<b>0.3</b>	<1.0	<1.0	<1.0	nt							
08C	<10	nt	<5.0	nt	<3.0	<5.0	<5.0	<5.0	<1.0	<3.0	nt						
09A	<1.0	<b>1.2</b>	<b>1.1</b>	<1.0	<b>2.8</b>	<1.0	<b>85</b>	<b>42</b>	<10	<5.0	<1.0	<1.0	<2.0	<0.2	<0.2	<2.0	<2.0
09B	<1.0	<1.0	<b>0.5</b>	<1.0	<1.0	<b>0.4</b>	<1.0	<1.0	<1.0	nt							
09C	<1.0	<1.0	<0.2	<1.0	<1.0	<b>0.2</b>	<1.0	<1.0	<3.0	nt							
09D	<1.0	nt	<1.0	nt	<1.0	<0.2	<1.0	<1.0	<1.0	nt							
10A	<b>19</b>	<b>20</b>	<b>9.2</b>	<b>35</b>	<b>44</b>	<b>78</b>	<b>180</b>	<b>5.0</b>	<2.0	<1.0	<1.0	<1.0	<2.0	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.3</b>
10C	<b>2.2</b>	nt	<b>2.6</b>	nt	<b>5.8</b>	<b>5.6</b>	<b>6.9</b>	<b>7.5</b>	<1.0	<1.0	<1.0	<b>4.4</b>	<b>4.7</b>	<b>4.3</b>	<b>4.0</b>	<b>4.4</b>	<b>4.5</b>
11A	<1.0	nt	<1.0	nt	<1.0	<1.0	<b>0.2</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<b>0.4</b>	<b>0.4</b>	<2.0	<2.0	<2.0
12A	<1.0	nt	<0.2	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2
13A	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2
13C	<b>2.2</b>	nt	<b>3.4</b>	nt	<b>4.4</b>	<b>2</b>	<b>0.6</b>	<b>2.2</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>0.3</b>	<2.0	<2.0
14A	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<b>0.2</b>	<0.2	<0.5
14C	<1.0	nt	<b>1.0</b>	nt	<b>2.5</b>	<b>11</b>	<b>22</b>	<b>4.3</b>	<b>1.1</b>	<1.0	<1.0	<1.0	<1.0	<0.2	<2.0	<2.0	<2.0
14E	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	nt							
15A	<5.0	nt	<3.0	nt	<b>2.6</b>	<b>1.3</b>	<3.0	<2.0	<3.0	<b>1.4</b>	<b>1.6</b>	<b>1.4</b>	<10	<b>1.0</b>	<b>1.2</b>	<b>0.8</b>	<b>1.1</b>
15C	<1.0	nt	<0.2	nt	<b>2.2</b>	<b>2.5</b>	<b>6.6</b>	<b>6.6</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0	<5.0
15D	<1.0	nt	<1.0	nt	<1.0	<1.0	<1.0	<1.0	<1.0	nt							
16A	<1.0	nt	<0.2	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.5
16C	<b>6.3</b>	nt	<0.2	nt	<b>10</b>	<b>8.9</b>	<b>7.9</b>	<b>8.8</b>	<b>6.3</b>	<b>5.6</b>	<b>3.4</b>	<b>2.8</b>	<b>3.2</b>	<b>2.5</b>	<b>4.2</b>	<b>3.8</b>	<b>2.8</b>
17A	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2
17C	nt																
17D	nt																
18A	nt																
18C	<1.0	nt	<0.2	nt	<b>0.2</b>	<1.0	<b>0.2</b>	<1.0	<1.0	<1.0	nt						
18D	nt																
19A	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt						
19C	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt						
19D	nt																
20A	nt																
20C	<b>1.6</b>	nt	<b>1.5</b>	nt	<b>1.8</b>	<b>1.3</b>	<b>2.5</b>	<b>2.7</b>	<b>2.0</b>	<b>2.3</b>	<b>1.8</b>	<b>1.4</b>	<b>1.8</b>	<b>2.1</b>	<b>1.5</b>	<2.0	<5.0
20D	nt																
21A	nt																
21C	nt																
22A	<b>1.7</b>	<b>2.4</b>	<b>2.4</b>	<b>2.3</b>	<b>2.7</b>	<b>1.3</b>	<b>1.9</b>	<b>3.1</b>	<b>2.5</b>	<b>1.8</b>	<b>1.7</b>	<b>2.7</b>	<b>2.2</b>	<b>1.7</b>	<b>2.0</b>	<b>1.8</b>	<b>2.0</b>
23A	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	nt						

nd = Not Detected.

nt = Not Tested.

J = Indicates the analyte was positively identified; the associated numerical value is the approximate approximate concentration of the analyte in the sample.

E = Estimated concentration calculated for an analyte response above the valid instruction calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Bold = Detected compound.

**SWMU-20 ANALYTICAL RESULTS SUMMARY  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
JANUARY 1994 THROUGH PRESENT**

Page 1 of 2

**BENZENE (µg/L)**

	Jan-94	May-95	Oct-95	Feb-96	May-96	Aug-96	Nov-96	Feb-97	May-97	Aug-97	Nov-97	Jun-98	Oct-98	Jun-99	Jun-00	Dec-00	Jun-01	Dec-01	Jun-02	Dec-02	Jun-03	Nov-03	May-04	Aug-04	Oct-04	Feb-05	Mar-05	May-05	Aug-05	Nov-05	Feb-06	
06A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.0	<1.0	<1.0	<1.0	nt	<1.0	<1.0	<1.0	<1.0	
06B	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<2.0	<1.0	<1.0	<1.0			
06C	nd	<b>8.64</b>	<b>230.09</b>	<b>29.96</b>	<b>13.7</b>	<b>5.6</b>	<b>2.9</b>	<b>3.4</b>	<b>4.6</b>	<b>4.1</b>	<b>4.2</b>	<b>4.2</b>	<b>5.7</b>	<b>2.8</b>	<b>2.7</b>	<b>&lt;1.00</b>	<b>2.76</b>	<b>1.94</b>	<b>1.7</b>	<b>&lt;1.00</b>	<b>&lt;1.00</b>	<b>2.2</b>	<b>&lt;1.00</b>	<b>&lt;1.00</b>	<b>1.9</b>	<b>1.2</b>	nt	<b>1.7</b>	<b>1.9</b>	<b>1.9</b>	<b>1.3</b>	
08C	nd	<b>225.74</b>	<b>135.58</b>	<b>104.73</b>	<b>104.6</b>	<b>31.8</b>	<b>121</b>	<b>27.5</b>	<b>6.1</b>	<b>&lt;4.00</b>	<b>&lt;4.00</b>	<b>13.6</b>	<b>&lt;5.00</b>	<b>&lt;1.00</b>	<b>&lt;2.00</b>	<b>15.8</b>	<b>&lt;2.00</b>	<b>&lt;1.00</b>	<b>&lt;1.00</b>	<b>5.4</b>	<b>4.4</b>	<b>&lt;3.0</b>	<b>&lt;5.0</b>	<b>2.0</b>	nt	<b>1.3</b>	nt	nt	<1.0	nt	<1.0	nt
09A	nd	<1.00	<5.00	<500.00	<50.00	<3.33	<10.00	<4.00	<5.00	<1.00	<4.00	<1.00	<10.00	<1.00	<10.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<15	<20	<20	<3.0	<5.0	<10	nt	<1.0	<1.0	<1.0	<1.0
09B	nd	<b>19.76</b>	<b>&lt;33.30</b>	<b>&lt;50.00</b>	<b>&lt;10.00</b>	<b>2.5</b>	<b>&lt;1.00</b>	<b>&lt;1.00</b>	<b>7.5</b>	<b>3.1</b>	<b>3.3</b>	<b>&lt;3.33</b>	<b>&lt;10.00</b>	<b>&lt;2.00</b>	<b>&lt;2.00</b>	<b>&lt;2.00</b>	<b>&lt;1.00</b>	<b>1.2</b>	<b>&lt;1.00</b>													
09C	nd	<1.00	<5.00	<10.00	<1.00	9.6	2.4	6.3	9.3	4.8	3.6	1.7	2.5	1.7	<1.00	1.5	1.36	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
09D	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	<1.00	<1.00	nt			
10A	nd	<1.00	<5.00	<50.00	<10.00	<1.00	<3.33	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		
10C	nd	1.15	<5.00	<5.00	1.33	1.4	1.4	1.5	1.4	1.2	1.3	1.3	1.1	1.1	<1.00	1.4	1.23	<1.00	1.3	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	<1.00	nt	<1.00		
11A	nd	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	<1.00	nt	<1.00			
12A	nd	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	<1.00	nt	<1.00			
13A	nd	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	<1.00	nt	<1.00			
13C	nd	<b>4.88</b>	<b>69.66</b>	<b>33.56</b>	<b>25.76</b>	<b>75</b>	<b>34.1</b>	<b>36.5</b>	<b>20.5</b>	<b>7.6</b>	<b>6.8</b>	<b>3.9</b>	<b>3</b>	<b>&lt;1.00</b>	<b>2</b>	<b>2.31</b>	<b>1.16</b>	<b>&lt;1.00</b>	<b>&lt;1.00</b>	<b>3.6</b>	<b>6.9</b>	<b>2.7</b>	<b>4.2</b>	nt	<b>1.3</b>	nt	nt	<b>1.9</b>	nt	<b>3.0</b>		
14A	nd	<1.00	<5.00	<20.00	<1.00	<10.00	<5.00	<4.00	<2.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		
14C	nd	<1.00	<5.00	<5.00	<b>26.44</b>	<b>22</b>	<b>11.7</b>	<b>&lt;10.00</b>	<b>&lt;10.00</b>	<b>4.3</b>	<b>2.8</b>	<b>4.64</b>	<b>2.5</b>	<b>1.2</b>	<b>1.4</b>	<b>1.33</b>	<b>&lt;1.00</b>	<b>&lt;1.00</b>	<b>&lt;1.00</b>	<b>1.1</b>	<b>&lt;1.00</b>	<b>&lt;1.00</b>	<b>&lt;1.00</b>	<b>&lt;1.00</b>	nt	<b>&lt;1.00</b>	nt	<1.00	nt	<1.00		
14E	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	<1.00	nt	<1.00			
15A	nd	<1.00	<5.00	<5.00	<2.00	<1.00	<1.00	<4.00	<2.00	<2.00	<1.00	<3.33	<10.00	<1.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	nt	<5.00	<5.00	<5.00	<5.00	<5.00		
15C	nd	<1.00	<33.30	<5.00	<1.00	<3.33	<1.00	<2.00	<10.00	<10.00	<3.33	5.2	5.2	5.4	<1.00	4.28	2.92	3.2	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	<1.00	nt	<1.00			
15D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	<1.00	nt	<1.00			
16A	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	2	<1.00	10.9	49.8	1.6</td																	

**SWMU-20 ANALYTICAL RESULTS SUMMARY  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
JANUARY 1994 THROUGH PRESENT**

Page 2 of 2

**BENZENE (µg/L)**

	May-06	Aug-06	Nov-06	Feb-07	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Nov-11	May-12	Nov-12	May-13	
06A	<1.0	<1.0	<b>0.4</b>	<1.0	<1.0	<b>0.3</b>	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.5	
06B	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.5	
06C	<b>1.3</b>	<b>1.2</b>	<b>1.2</b>	<1.0	<1.0	<b>0.9</b>	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt	nt	nt	
08C	<10	nt	<5.0	nt	<3.0	<5.0	<5.0	<5.0	<1.0	<3.0	nt	nt	nt	nt	nt	nt	nt	
09A	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<10	<5.0	<1.0	<1.0	<2.0	<0.2	<0.2	<2.0	<2.0		
09B	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt	nt		
09C	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<3.0	nt	nt	nt	nt	nt	nt	nt		
09D	<1.0	nt	<1.0	nt	<1.0	<0.2	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt	nt		
10A	<1.0	<1.0	<b>0.3</b>	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0	<0.2	<0.2	<0.2	<0.2		
10C	<1.0	nt	<b>0.2</b>	nt	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2		
11A	<1.0	nt	<1.0	nt	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0	<2.0		
12A	<1.0	nt	<0.2	nt	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2		
13A	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2		
13C	<b>2.1</b>	nt	<b>2.1</b>	nt	<b>1.2</b>	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<2.0	<2.0		
14A	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.5		
14C	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0	<2.0		
14E	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<0.2		
15A	<5.0	nt	<3.0	nt	<1.0	<1.0	<3.0	<1.0	<3.0	<1.0	<1.0	<1.0	<10	<b>0.4</b>	<1.0	<b>0.4</b>	<0.5	
15C	<1.0	nt	<b>0.4</b>	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0	<5.0		
15D	<1.0	nt	<1.0	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt		
16A	<1.0	nt	<0.2	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.5		
16C	<1.0	nt	<0.2	nt	<1.0	<1.0	<b>0.2</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.5		
17A	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2		
17C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt		
17D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt		
18A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt		
18C	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt		
18D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt		
19A	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt		
19C	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt		
19D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt		
20A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt		
20C	<1.0	nt	<b>0.5</b>	nt	<b>0.6</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>0.4</b>	<2.0	<5.0		
20D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt		
21A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt		
21C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt		
22A	<1.0	<1.0	<b>0.4</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>0.2</b>	<b>0.4</b>	<b>0.4</b>	<b>0.5</b>	
23A	<1.0	<1.0	<0.2	<1.0	<1.0	<b>0.2</b>	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt		

nd = Not Detected.

nt = Not Tested.

J = Indicates the analyte was positively identified; the associated numerical value is the approximate approximate concentration of the analyte in the sample.

E = Estimated concentration calculated for an analyte response above the valid instruction calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Bold = Detected compound.

**SWMU-20 ANALYTICAL RESULTS SUMMARY  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
JANUARY 1994 THROUGH PRESENT**

Page 1 of 2

## NAPHTHALENE ( $\mu\text{g/L}$ )

**SWMU-20 ANALYTICAL RESULTS SUMMARY  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
JANUARY 1994 THROUGH PRESENT**

Page 2 of 2

**NAPHTHALENE (µg/L)**

	May-06	Aug-06	Nov-06	Feb-07	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Nov-11	May-12	Nov-12	May-13
06A	<5.0	<5.0	<0.5	<5.0	<0.5	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5
06B	<5.0	<5.0	<b>0.6</b>	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5
06C	<5.0	<5.0	<b>5.0</b>	<5.0	<5.0	<b>4.6</b>	<5.0	<5.0	<5.0	nt	nt	nt	nt	nt	nt	nt	nt
08C	<b>910</b>	nt	<b>440</b>	nt	<b>500</b>	<b>540</b>	<b>180</b>	<b>1100</b>	<b>62</b>	<b>65</b>	nt	nt	nt	nt	nt	nt	nt
09A	<5.0	<5.0	<0.5	<5.0	<5.0	<0.5	<5.0	<50	<25	<5.0	<5.0	<5.0	<b>5.3</b>	<b>9.5</b>	<b>7.5</b>	<b>56</b>	
09B	<5.0	<5.0	<0.5	<5.0	<5.0	<b>0.6</b>	<5.0	<5.0	<5.0	nt	nt	nt	nt	nt	nt	nt	
09C	<5.0	<5.0	<b>14</b>	<b>18</b>	<b>5.5</b>	<5.0	<b>6.7</b>	<5.0	<b>56</b>	<b>69</b>	nt	nt	nt	nt	nt	nt	
09D	<5.0	nt	<2.5	nt	<5.0	<0.5	<5.0	<5.0	<5.0	nt	nt	nt	nt	nt	nt	nt	
10A	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	
10C	<5.0	nt	<0.5	nt	<5.0	<5.0	<0.5	<5.0	<b>100</b>	39	12	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5
11A	<5.0	nt	<5.0	nt	<5.0	<5.0	<0.5	<5.0	<5.0	nt	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	
12A	<5.0	nt	<0.5	nt	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	
13A	<5.0	nt	<0.5	nt	<0.5	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	
13C	<5.0	nt	<b>16</b>	nt	<b>16</b>	<5.0	<b>0.5</b>	<5.0	<b>&lt;5.0</b>	22	<b>6.5</b>	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5
14A	<10	<5.0	<b>7.0</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<b>0.5</b>	<0.5	<b>0.8</b>	<0.5	
14C	<5.0	nt	<b>6.3</b>	nt	<b>6.2</b>	<5.0	<5.0	<5.0	<5.0	<b>&lt;5.0</b>	15	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5
14E	<5.0	nt	<0.5	nt	<5.0	<5.0	<5.0	<5.0	<5.0	nt	nt	nt	nt	nt	nt	nt	
15A	<b>220</b>	nt	<b>180</b>	nt	<b>72</b>	<b>170</b>	<b>180</b>	<b>230</b>	<b>170</b>	<b>190</b>	<b>310</b>	<b>240</b>	<b>210</b>	<b>190</b>	<b>170</b>	<b>120</b>	<b>84</b>
15C	<5.0	nt	<0.5	nt	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	
15D	<5.0	nt	<2.5	nt	<5.0	<5.0	<5.0	<5.0	<5.0	nt	nt	nt	nt	nt	nt	nt	
16A	<5.0	nt	<0.5	nt	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	
16C	<5.0	nt	<0.5	nt	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	
17A	<5.0	nt	<0.5	nt	<0.5	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	
17C	nt	nt	nt	nt	nt	nt	nt	nt	nt								
17D	nt	nt	nt	nt	nt	nt	nt	nt	nt								
18A	nt	nt	nt	nt	nt	nt	nt	nt	nt								
18C	<5.0	nt	<0.5	nt	<b>0.6</b>	<5.0	<0.5	<b>86</b>	<b>47</b>	<b>&lt;5.0</b>	nt	nt	nt	nt	nt	nt	
18D	nt	nt	nt	nt	nt	nt	nt	nt	nt								
19A	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	nt	nt	nt	nt	nt	nt	
19C	<5.0	nt	<b>0.5</b>	nt	<5.0	<5.0	<5.0	<5.0	<5.0	nt	nt	nt	nt	nt	nt	nt	
19D	nt	nt	nt	nt	nt	nt	nt	nt	nt								
20A	nt	nt	nt	nt	nt	nt	nt	nt	nt								
20C	<5.0	nt	<b>0.8</b>	nt	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	
20D	nt	nt	nt	nt	nt	nt	nt	nt	nt								
21A	nt	nt	nt	nt	nt	nt	nt	nt	nt								
21C	nt	nt	nt	nt	nt	nt	nt	nt	nt								
22A	<b>120</b>	<b>200</b>	<b>140</b>	<b>110</b>	<b>100</b>	<b>25</b>	<b>41</b>	<b>32</b>	<b>51</b>	<b>15</b>	<b>14</b>	<b>16</b>	<b>20</b>	<b>12</b>	<b>15</b>	<b>9.2</b>	<b>11</b>
23A	<b>69</b>	<b>140</b>	<b>9.0</b>	<b>26</b>	<b>36</b>	<b>6.1</b>	<b>5.3</b>	<5.0	<b>9.8</b>	<b>&lt;5.0</b>	nt	nt	nt	nt	nt	nt	nt

nd = Not Detected.

nt = Not Tested.

J = Indicates the analyte was positively identified; the associated numerical value is the approximate approximate concentration of the analyte in the sample.

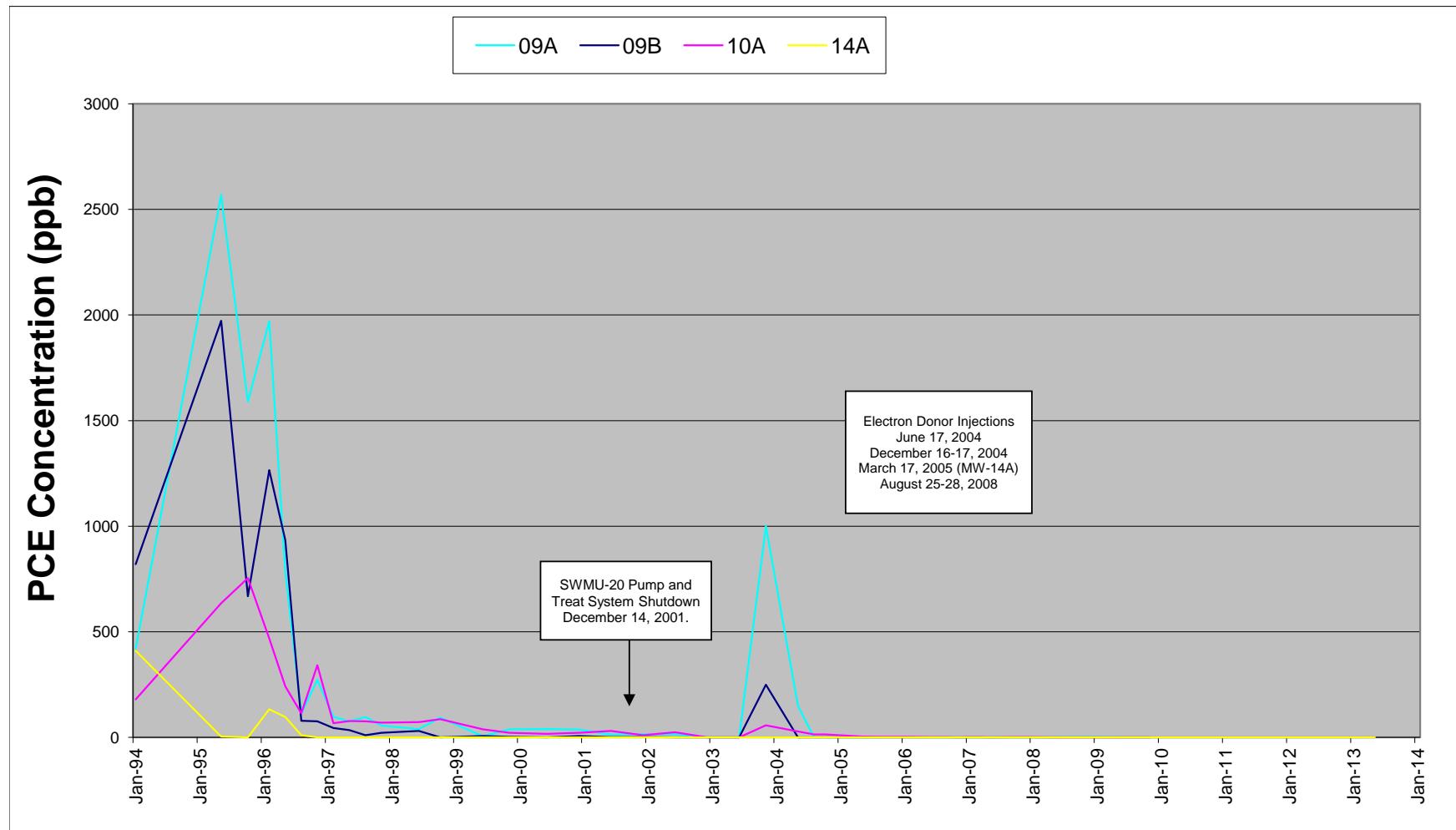
E = Estimated concentration calculated for an analyte response above the valid instruction calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Bold = Detected compound.

# DEVELOPMENTAL CENTER WELLS

## TETRACHLOROETHENE CONCENTRATIONS

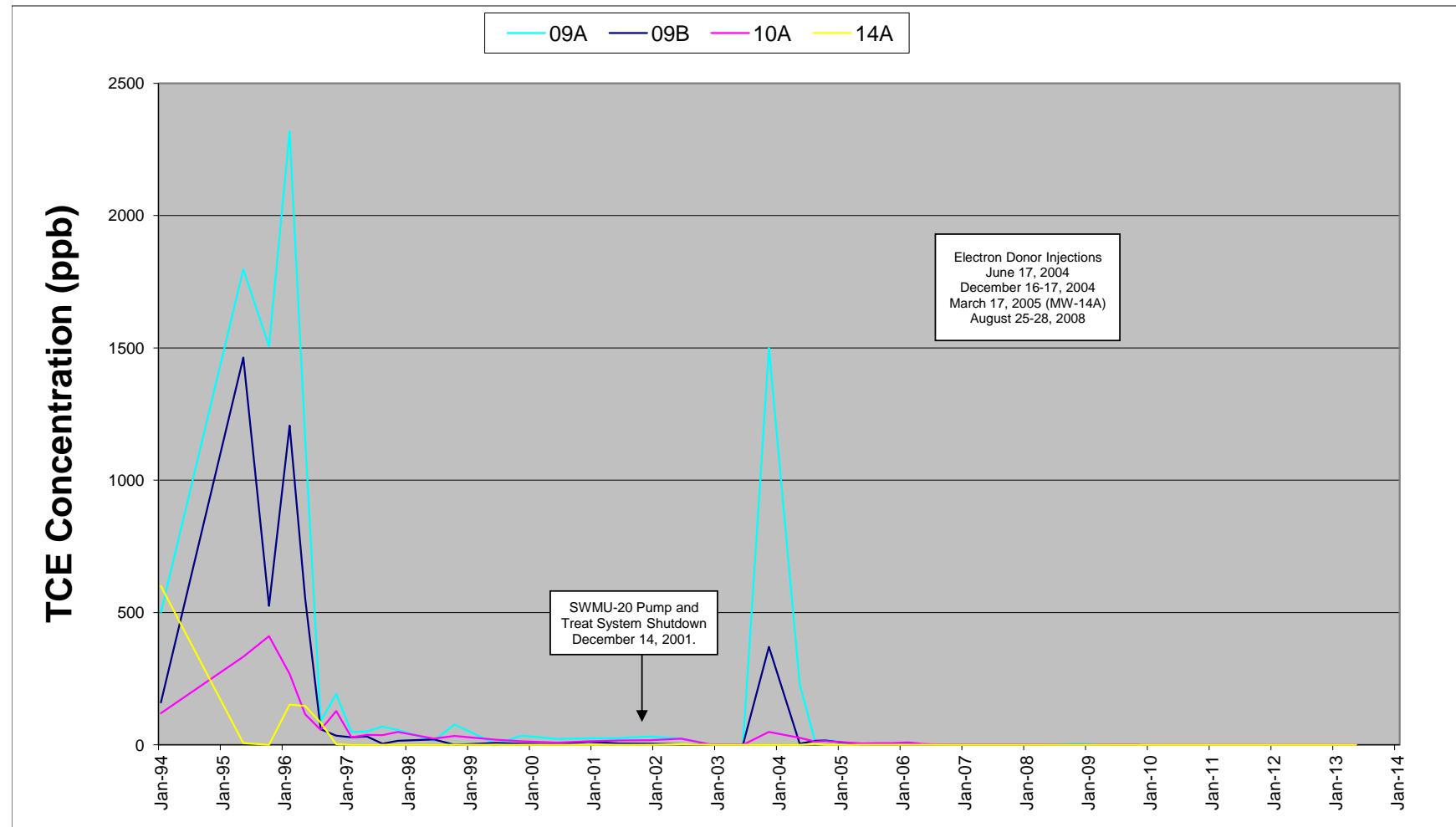
### (Wells with PCE Historically Detected over 50 ppb)



# DEVELOPMENTAL CENTER WELLS

## TRICHLOROETHENE CONCENTRATIONS

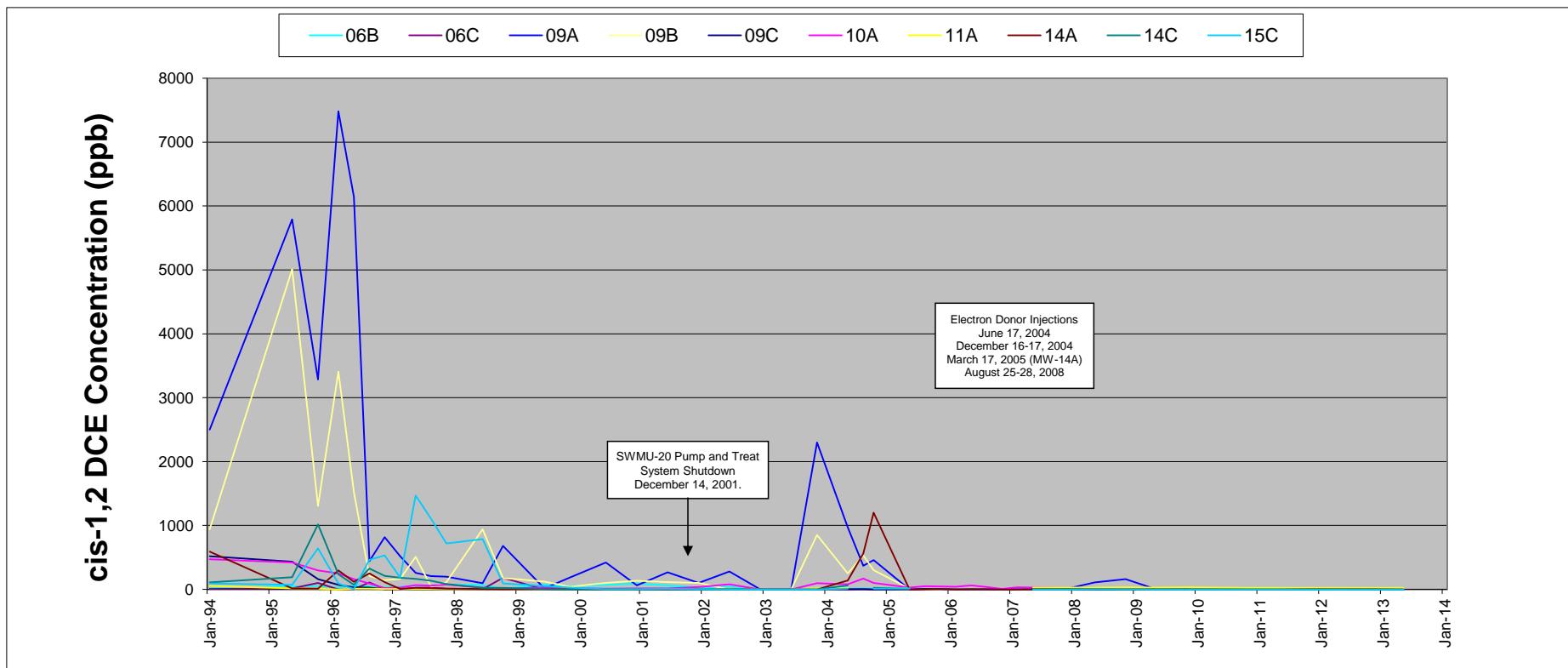
### (Wells with TCE Historically Detected over 50 ppb)



# DEVELOPMENTAL CENTER WELLS

## CIS-1,2 DICHLOROETHENE CONCENTRATIONS

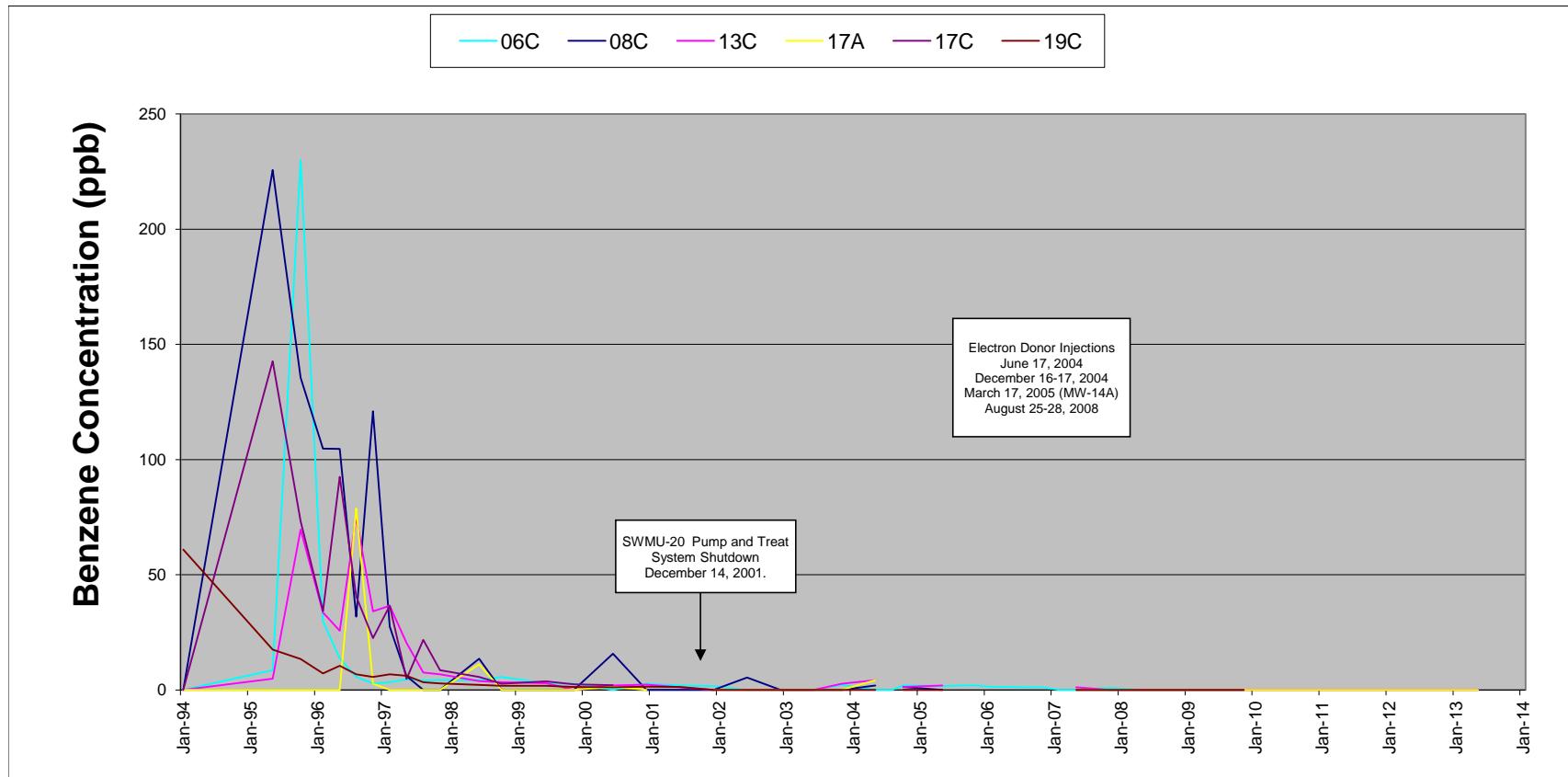
### (Wells with cis-1,2 DCE Historically Detected over 50 ppb)



# DEVELOPMENTAL CENTER WELLS

## BENZENE CONCENTRATIONS

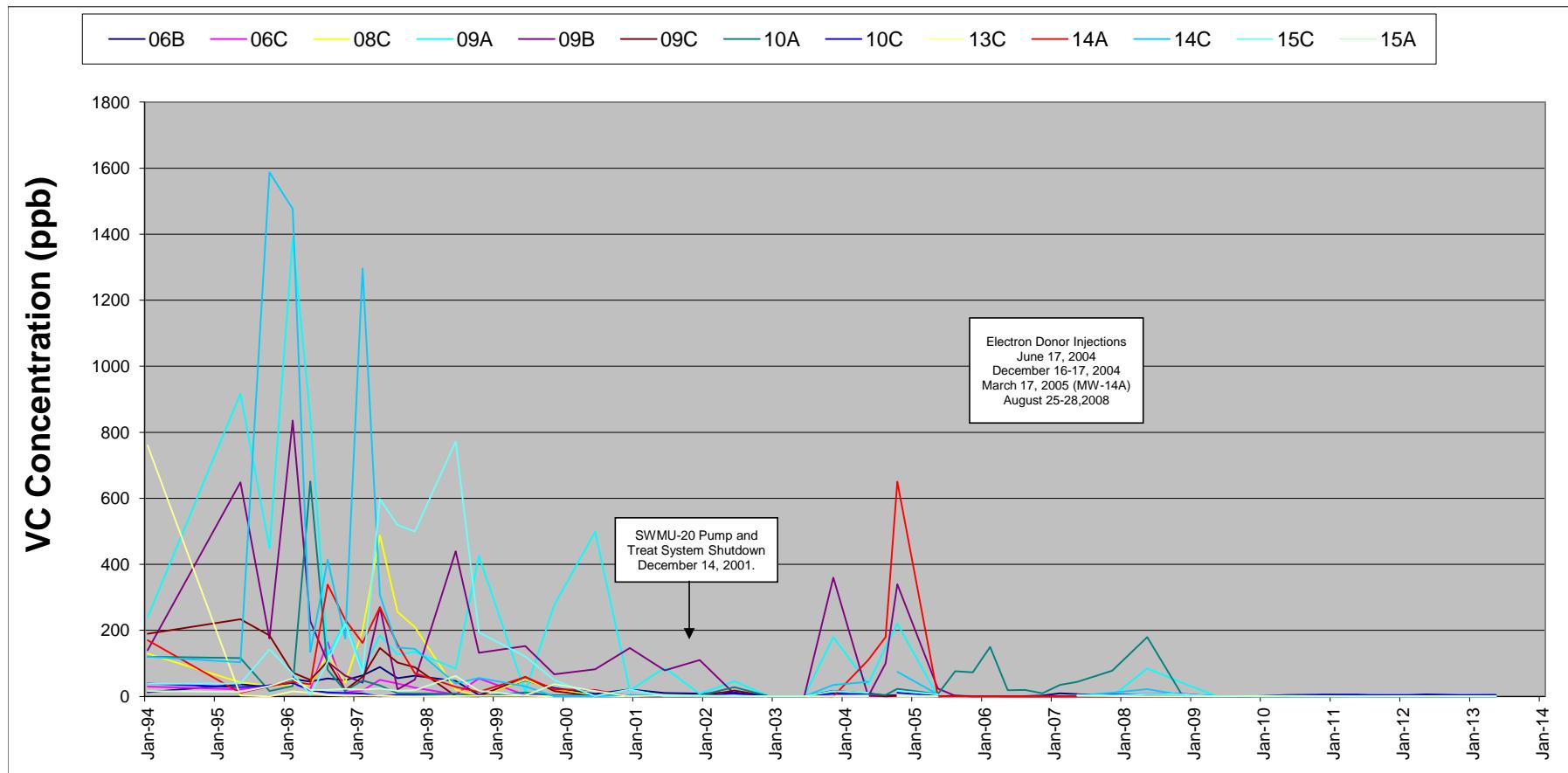
### (Wells with Benzene Historically Detected over 50 ppb)



# DEVELOPMENTAL CENTER WELLS

## VINYL CHLORIDE CONCENTRATIONS

### (Wells with VC Historically Detected over 50 ppb)



**SWMU-20 CLEANUP ACTION SUMMARY - SOURCE ZONE  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds						Aquifer Redox Conditions					Donor Parameters		Notes
						Proposed Groundwater Cleanup Levels (d)											pH	TOC (mg/L)	
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)	DO (mg/L)	ORP (mV)	Iron II mg/L	Sulfate (mg/L)	Methane (µg/L)	pH	TOC (mg/L)	
06A (c)	06/15/2004	-2				<1.0	1.0	23	4.0	<0.50	<0.50	6.34	-19.6	0.8	58.9	<0.50	6.5	18.8	---
06A (c)	08/23/2004	67				<1.0	<1.0	45	5.9	<0.50	<0.50	0.46	92	3.5	40.7	21	7.0	288	Hazy brown
06A (c)	10/19/2004	124	-58			<1.0	<1.0	2.6	31	<0.50	<0.50	0.70	54	3.0	44.8	530	6.8	80.8	---
06A (c)	02/22/2005	250	68			<1.0	<1.0	3.3	<1.0	<0.50	<0.50	1.15	187	2.4	<0.1	130	6.8	244	---
06A (c)	05/16/2005	333	151			<1.0	<1.0	2.6	<1.0	<0.50	<0.50	1.25	58	3.0	0.1	10000	6.9	145	---
06A (c)	08/22/2005	431	249			<1.0	<1.0	1.6	<1.0	<0.50	<0.50	1.26	212	2.7	3.1	390	6.8	54.2	Clear, with yellow tint
06A (c)	11/14/2005	515	333			<1.0	<1.0	1.3	1.2	<0.50	<0.50	0.93	108	3.0	0.1	3700	6.9	31.8	---
06A (c)	02/22/2006	615	433			<1.0	<1.0	1.4	4.8	<11.4	<12.3	0.80	186	2.6	60.4	10100	6.4	15.5	---
06A (c)	05/18/2006	700	518			<1.0	<1.0	<1.0	1.6	<11	<12	6.41	1	3.0	20.9	16000	6.6	23.9	---
06A (c)	08/16/2006	790	608			<1.0	<1.0	<1.0	1.5	<1.1	<1.2	0.89	240	2.2	23.1	18800	6.5	23.2	---
06A (c)	11/29/2006	895	713			<0.2	<0.2	0.4	2.1	<1.1	<1.2	2.09	102	2.6	33.1	20200	6.5	31.4	---
06A (c)	02/23/2007	981	799			<1.0	<1.0	<1.0	6.7	<1.1	<1.2	0.65	97	4.5	26.2	17400	6.5	24.6	---
06A (c)	05/24/2007	1071	889			<1.0	<1.0	<1.0	2.9	<1.1	<1.2	0.56	184	4.0	21.0	18300	6.7	21.5	---
06A (c)	11/30/2007	1261	1079			<0.2	<0.2	<0.2	1.2	<1.1	2.2	0.80	173	3.0	29.1	21900	6.7	22.6	---
06A (c)	05/21/2008	1434	1252	-96		<1.0	<1.0	<1.0	1.4	<1.1	1.3	2.11	-82	2.5	21.0	13200	6.9	20.1	---
06A (c)	11/25/2008	1622	1440	92		<1.0	<1.0	1.7	<1.0	<1.1	<1.2	1.71	-73	3.4	0.1	19700	6.5	150	---
06A (c)	05/20/2009	1798	1616	268		<4.0	<4.0	<4.0	<4.0	<1.1	<1.2	0.52	-45	4.0	<0.5	19500	6.8	38.2	---
06A (c)	11/19/2009	1981	1799	451		<1.0	<1.0	1.9	<1.0	<1.1	<1.2	2.66	6	2.8	0.8	20100	6.2	25.4	---
06A (c)	5/24/2010	2167	1985	637		<1.0	<1.0	1.3	1.9	<1.1	<1.2	3.56	448	2.0	16	19900	6.6	19.3	---
06A (c)	11/11/2010	2338	2156	808		<1.0	<1.0	<1.0	1.7	<1.1	<1.2	4.75	106	2.6	0.4	24700	7.0	20.2	---
06A (c)	5/4/2011	2512	2330	982		<1.0	<1.0	<1.0	1.4	<1.1	<1.2	2.14	22	2.5	<0.2	21400	7.1	13.6	---
06A (c)	11/13/2011	2705	2523	1175		<0.2	<0.2	0.3	0.8	<1.1	<1.2	5.80	-54	1.0	0.3	6370	7.2	12.7	---
06A (c)	5/15/2012	2889	2707	1359		<0.2	<0.2	0.4	1.2	<1.0	<1.0	0.08	66	2.0	4.3	13000	6.7	11.6	---
06A (c)	11/14/2012	3072	2890	1542		<0.2	<0.2	0.3	0.8	<1.0	<4.0	0.02	-0.5	1.5	<0.30	13000	6.9	9.0	---
06A (c)	5/21/2013	3260	3078	1730		<0.5	<0.5	<0.5	1.3	<1.0	<1.0	0.17	-434	2.6	3.3	5200	7.9	8.8	---
06B	05/04/2004	-44				9.5	3.2	10	9.4	<0.50	<0.50	0.36	179	4.5	18.7	130	6.8	25.6	Clear, yellow tint
06B	08/23/2004	67				1.9	1.2	13	2.3	<0.50	<0.50	0.45	115	3.2	33.8	1100	6.9	177	Yellow-brown tint (nearly clear)
06B	10/19/2004	124	-58			<1.0	<1.0	10	3.6	<0.50	<0.50	0.61	217	3.5	14.8	590	6.7	53.6	Yellow tint
06B	02/22/2005	250	68			<1.0	<1.0	11	<1.0	<0.50	<0.50	0.79	224	2.6	<0.5	3800	6.9	968	---
06B	05/16/2005	333	151			<2.0	<2.0	5.5	<2.0	<0.50	<0.50	1.51	133	3.5	<0.5	2300	6.9	336	Clear, yellow-brown tint
06B	08/22/2005	431	249			<1.0	<1.0	1.8	1.6	<0.50	<0.50	1.21	217	2.8	<0.1	440	6.9	100	Clear, with yellow tint
06B	11/14/2005	515	333			<1.0	<1.0	1.1	1.3	<0.50	<0.50	1.05	241	2.8	<0.1	2900	6.9	64.4	---
06B	02/22/2006	615	433			<1.0	<1.0	<1.0	1.4	53.5	<12.3	0.74	184	2.6	14.8	13000	6.4	30.4	---
06B	05/18/2006	700	518			<1.0	<1.0	<1.0	1.3	<11	<12	2.25	52	3.2	13.6	16000	6.6	25.9	---
06B	08/16/2006	790	608			<1.0	<1.0	<1.0	1.1	<1.1	<1.2	0.82	225	2.4	12.9	21700	6.5	14.7	---
06B	11/29/2006	895	713			<0.2	<0.2	1.4	2.6	<1.1	<1.2	1.82	111	2.4	10.9	22000	6.5	25.2	---
06B	02/23/2007	981	799			<1.0	<1.0	3.8	9.5	<1.1	<1.2	0.75	-66	5.0	25.0	17700	6.5	21.1	---
06B	05/24/2007	1071	889			<1.0	<1.0	1.4	6.5	<1.1	<1.2	0.58	151	3.0	11.3	18500	6.6	21.4	---
06B	11/30/2007	1261	1079	637		<0.2	<0.2	0.2	1.0	<1.1	4.0	0.83	135	4.0	26.3	24900	6.4	26.5	---
06B	05/21/2008	1434	1252	-96		<1.0	<1.0	<1.0	<1.0	<1.1	4.9	2.66	-61	3.4	21.1	12700	6.7	20.4	---
06B	11/25/2008	1622	1440	92		<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	2.53	-68	2.4	0.2	18400	6.6	19.6	---
06B	05/20/2009	1798	1616	268		<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.33	-36	4.0	<0.5	25300	6.9	20.9	---
06B	11/19/2009	1981	1799	451		<1.0	<1.0	<1.0	<1.0	<1.1	6.7	1.01	10	2.8	0.1	22500	6.9	20.0	---
06B	5/24/2010	2167	1985	637		<1.0	<1.0	<1.0	4.2	<1.1	1.6	3.05	417	2.0	3.0	7110	7.0	19.1	---

**SWMU-20 CLEANUP ACTION SUMMARY - SOURCE ZONE  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds						Aquifer Redox Conditions					Donor Parameters		Notes
						Proposed Groundwater Cleanup Levels (d)											pH	TOC (mg/L)	
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)	DO (mg/L)	ORP (mV)	Iron II mg/L	Sulfate (mg/L)	Methane (µg/L)	pH	TOC (mg/L)	
06B	11/11/2010	2338	2156		808	<1.0	<1.0	<1.0	5.4	<1.1	1.4	3.40	112	2.0	8.6	4600	7.1	15.8	---
06B	5/4/2011	2512	2330		982	<1.0	<1.0	<1.0	5.2	<1.1	<1.2	2.55	57	2.2	19.7	2120	7.1	12.6	---
06B	11/13/2011	2705	2523		1175	<0.2	<0.2	<0.2	0.8	<1.1	<1.2	6.10	-34	1.5	0.3	2260	7.3	14.8	---
06B	5/15/2012	2889	2707		1359	<0.2	<0.2	0.5	6.0	<1.0	1.3	0.14	71	1.8	10.9	2200	6.6	11.4	---
06B	11/14/2012	3072	2890		1542	<0.2	<0.2	<0.2	3.7	<1.0	1.8	0.02	10	2.0	7.0	2300	6.8	13.7	---
06B	5/21/2013	3260	3078		1730	<0.5	<0.5	<0.5	4.3	<1.0	<1.0	0.17	-427	2.5	20.1	720	7.7	11.0	---
06C	05/04/2004	-44				<1.0	<1.0	<1.0	<0.50	0.6	0.40	93	5.0	20.7	360	6.7	29.0	---	
06C	08/23/2004	67				<1.0	<1.0	1.4	<1.0	5.7	5.9	0.63	95	2.5	42.7	3100	6.3	1560	White froth on surface of purge water
06C	10/19/2004	124	-58			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	2.00	206	3.0	18.1	450	6.3	464	Yellow tint
06C	02/22/2005	250	68			<1.0	<1.0	3.6	<1.0	<0.50	<0.50	0.82	198	2.6	<0.5	2400	6.9	858	---
06C	05/16/2005	333	151			<1.0	<1.0	1.1	<1.0	<0.50	<0.50	1.94	98	3.0	0.2	2700	7.0	111	Clear, with yellow tint
06C	08/22/2005	431	249			<1.0	<1.0	1.1	<1.0	<0.50	<0.50	1.36	194	2.8	<0.1	510	7.0	68.7	Clear, with yellow tint
06C	11/14/2005	515	333			<1.0	<1.0	1.1	<1.0	<0.50	<0.50	1.07	258	2.0	<0.1	2900	7.0	48.3	---
06C	02/22/2006	615	433			<1.0	<1.0	<1.0	<1.0	47.7	<12.3	0.88	247	1.4	47.5	12300	6.6	93.4	---
06C	05/18/2006	700	518			<1.0	<1.0	<1.0	<1.0	<11	<12	4.88	129	2.0	30.6	15000	6.6	36.6	---
06C	08/16/2006	790	608			<1.0	<1.0	<1.0	<1.0	<1.1	2.3	0.93	231	1.6	31.8	18900	6.6	13.4	---
06C	11/29/2006	895	713			<0.2	<0.2	0.3	<0.2	<1.1	1.4	2.25	192	1.8	27.3	20600	6.6	46.4	---
06C	02/23/2007	981	799			<1.0	<1.0	<1.0	<1.0	<1.1	1.7	1.08	-46	4.0	25.9	18900	6.4	39.0	---
06C	05/24/2007	1071	889			<1.0	<1.0	<1.0	<1.0	<1.1	2.0	0.72	216	3.5	20.8	20800	6.5	34.0	---
06C	11/30/2007	1261	1079			<0.2	<0.2	0.2	0.3	<1.1	2.8	1.58	174	4.2	32.6	30500	6.2	40.2	---
06C	05/21/2008	1434	1252		-96	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	2.91	-16	2.5	21.0	23800	6.3	31.9	---
06C	11/25/2008	1622	1440		92	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	3.39	-66	2.6	<0.1	28700	6.8	634	---
06C	05/20/2009	1798	1616		268	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.66	-28	3.5	<0.8	20600	6.9	39.2	---
06C	11/19/2009	1981	1799		451	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	1.89	26	NM	<0.1	25600	6.2	42.8	---
09A	05/03/2004	-45				150	230	970	37	<0.50	<0.50	0.46	287	1.0	64.2	8.4	6.7	16.2	Clear, yellow tint
09A	08/23/2004	67				<3.0	11	370	150	4.2	<0.50	0.40	143	2.6	51.8	4.7	7.1	56.8	Clear with black tint, H2S odor
09A	10/19/2004	124	-58			<5.0	19	460	220	2.7	<0.50	0.53	219	4.0	77.4	17	6.9	19.6	Clear, slightly yellow tint
09A	02/21/2005	249	67			<10	<10	41	37	1.9	<0.50	0.78	169	2.0	<0.5	1500	7.1	2110	Hazy, yellow color
09A	05/11/2005	328	146			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	1.53	141	2.0	<0.5	1700	7.2	1260	Hazy, yellow-brown tint
09A	08/22/2005	431	249			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	1.58	141	2.8	<0.1	460	6.8	156	Clear, yellow-brown tint
09A	11/14/2005	515	333			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	1.07	238	2.0	<0.1	2600	6.9	62.8	---
09A	02/21/2006	614	432			<1.0	<1.0	<1.0	<1.0	<11.4	<12.3	0.94	332	2.6	0.2	5650	6.3	58.8	---
09A	05/15/2006	697	515			<1.0	<1.0	<1.0	<1.0	<11	<12	1.35	193	2.2	63.4	15000	6.4	44.4	---
09A	08/16/2006	790	608			<1.0	<1.0	<1.0	1.2	<1.1	2.1	1.55	175	2.0	56.8	16800	6.4	50.0	---
09A	11/27/2006	893	711			<0.2	<0.2	0.3	1.1	1.9	6.3	2.09	211	3.2	52.5	15200	6.6	51.0	---
09A	02/22/2007	980	798			<1.0	<1.0	<1.0	<1.0	<1.1	7.8	0.65	-107	4.6	0.3	15300	6.4	48.8	---
09A	05/22/2007	1069	887			<1.0	<1.0	<1.0	2.8	<1.1	4.8	0.75	91	2.6	0.1	16700	6.6	43.1	---
09A	11/29/2007	1260	1078			<1.0	<1.0	<1.0	<1.0	<1.1	24.5	1.01	147	3.8	45.4	27600	6.4	40.6	---
09A	05/19/2008	1432	1250		-98	<0.2	0.2	110	85	7.8	35.6	2.26	-82	3.0	29.4	17100	6.7	31.0	---
09A	11/24/2008	1621	1439		91	1.9	4.6	160	42	4.0	2.1	2.61	-52	3.0	<2.0	13700	6.2	5600	---
09A	05/18/2009	1796	1614		266	<10	<10	<10	<10	<1.1	<1.2	0.44	-88	2.5	<2.0	18100	7.1	1620	---
09A	11/16/2009	1978	1796		448	<5.0	<1.0	<5.0	<5.0	<1.1	<1.2	1.23	-61	2.6	<1.0	16600	6.6	403	---
09A	5/20/2010	2163	1981		633	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	11.09	515	2.2	<1.0	18700	7.0	72.8	Duffy: Interference w/DO sensor?
09A	11/10/2010	2337	2155		807	<1.0	<1.0	<1.0	<1.0	<1.1	2.0	3.92	118	2.2	0.3	24400	7.0	70.0	---

**SWMU-20 CLEANUP ACTION SUMMARY - SOURCE ZONE  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds						Aquifer Redox Conditions					Donor Parameters		Notes
						Proposed Groundwater Cleanup Levels (d)											pH	TOC (mg/L)	
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)	DO (mg/L)	ORP (mV)	Iron II mg/L	Sulfate (mg/L)	Methane (µg/L)	pH	TOC (mg/L)	
09A	5/3/2011	2511	2329		981	<2.0	<2.0	<2.0	<2.0	<1.1	2.0	2.55	33	2.0	<0.2	17800	6.9	44.4	---
09A	11/13/2011	2705	2523		1175	<0.2	<0.2	0.2	<0.2	<1.1	1.2	2.23	-66	1.2	0.4	11800	7.0	39.4	---
09A	5/14/2012	2888	2706		1358	<0.2	<0.2	0.2	<0.2	<1.0	13	0.57	91	1.5	0.40	22000	6.4	30.5	---
09A	11/14/2012	3072	2890		1542	<2.0	<2.0	<2.0	<2.0	<1.0	11	0.02	-4	2.0	0.53	21000	6.6	30.9	---
09A	5/21/2013	3260	3078		1730	<2.0	<2.0	<2.0	<2.0	<1.0	16	0.32	-399	1.8	<0.30	24000	7.8	33.0	---
09B	05/03/2004	-45				<3.0	4.2	250	<3.0	<0.50	<0.50	0.37	269	4.0	61.4	2.7	6.8	20.7	Clear, yellow tint
09B	08/23/2004	67				<5.0	16	530	100	0.76	<0.50	0.34	174	1.4	73.0	23	7.4	29.7	Clear, yellow-brown tint, H2S odor
09B	10/19/2004	124	-58			<5.0	17	300	340	1.4	<0.50	0.30	219	1.0	59.6	29	7.5	24.3	Clear with yellow color
09B	02/21/2005	249	67			<10	<10	890	520	1.7	<0.50	0.56	160	2.8	1.0	2000	6.8	608	Hazy, tan brown color
09B	05/11/2005	328	146			<1.0	<1.0	12	24	<0.50	<0.50	1.48	158	3.5	0.4	9600	7.0	219	Hazy, yellow-brown tint
09B	08/22/2005	431	249			<1.0	<1.0	<1.0	1.7	<0.50	<0.50	1.45	224	2.5	<0.1	400	6.7	17.6	Clear, with yellow-brown tint
09B	11/14/2005	515	333			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	1.24	235	1.4	<0.1	3100	6.8	51.2	---
09B	02/21/2006	614	432			<1.0	<1.0	<1.0	1.3	<11.4	<12.3	0.90	329	2.8	<0.1	8730	6.3	46.4	---
09B	05/15/2006	697	515			<1.0	<1.0	<1.0	<1.0	<11	<12	1.11	191	1.8	33.9	17000	6.3	45.6	---
09B	08/16/2006	790	608			<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.94	188	1.6	55.4	19300	6.3	250	---
09B	11/27/2006	893	711			<0.2	<0.2	0.3	0.5	<1.1	<1.2	1.76	190	2.8	50.2	21800	6.5	78.2	---
09B	02/22/2007	980	798			<1.0	<1.0	<1.0	<1.0	<1.1	1.6	0.67	-80	3.5	0.2	16100	6.3	64.0	---
09B	05/22/2007	1069	887			<1.0	<1.0	<1.0	<1.0	<1.1	1.4	0.76	154	3.0	<0.1	18700	6.5	35.3	---
09B	11/29/2007	1260	1078			<1.0	<1.0	<1.0	<1.0	<1.1	3.8	1.29	238	2.2	58.3	29800	6.2	44.5	---
09B	05/19/2008	1432	1250		-98	<0.2	<0.2	0.2	0.4	<1.1	3.0	2.34	-78	3.4	39.1	12900	6.4	37.3	---
09B	11/24/2008	1621	1439		91	<1.0	<1.0	<1.0	<1.0	<1.1	17.6	2.22	-47	3.0	<1.0	27000	6.7	27.0	---
09B	05/18/2009	1796	1614		266	<1.0	<1.0	<1.0	<1.0	<1.1	6.9	0.38	-38	3.5	<0.5	19700	6.9	37.1	---
09B	11/16/2009	1978	1796		448	<1.0	<1.0	<1.0	<1.0	<1.1	16.1	1.27	12	3.5	<0.1	24500	6.2	28.1	---
09C	05/03/2004	-45				<1.0	<1.0	4.0	3.3	1.9	0.7	0.33	229	4.0	19.1	350	6.8	28.5	Clear, yellow tint
09C	08/23/2004	67				<1.0	<1.0	1.7	<1.0	1.1	2.8	0.47	114	2.6	23.2	610	6.7	302	Clear, H2S odor
09C	10/19/2004	124	-58			<1.0	<1.0	<1.0	1.5	1.1	<0.50	0.60	185	3.0	12.2	620	7.0	99.6	Near clear, yellow tint
09C	02/21/2005	249	67			<1.0	<1.0	1.7	<1.0	<0.50	1.6	0.60	154	2.0	<0.1	3500	6.6	300	Clear with yellow tint
09C	05/11/2005	328	146			<1.0	<1.0	1.2	<1.0	<0.50	<0.50	1.34	138	2.5	<0.1	2700	6.4	44.6	Yellow-brown tint
09C	08/22/2005	431	249			<1.0	<1.0	7.6	2.2	<0.50	<0.50	1.31	230	2.5	<0.1	360	6.7	52.0	---
09C	11/14/2005	515	333			<1.0	<1.0	1.2	<1.0	<0.50	<0.50	1.41	228	2.4	<0.1	7300	6.9	50.6	---
09C	02/21/2006	614	432			<1.0	<1.0	<1.0	<1.0	<11.4	<12.3	0.78	326	2.4	<0.1	10300	6.5	44.2	---
09C	05/15/2006	697	515			<1.0	<1.0	<1.0	<1.0	<11	<12	1.01	192	2.0	27.9	21000	7.0	42.1	---
09C	08/16/2006	790	608			<1.0	<1.0	<1.0	<1.0	<1.1	1.6	0.80	199	1.2	28.8	22900	6.5	33.0	---
09C	11/27/2006	893	711			<0.2	<0.2	<0.2	<0.2	<1.1	9.1	1.40	289	2.4	26.7	23500	6.5	44.0	---
09C	02/22/2007	980	798			<1.0	<1.0	<1.0	<1.0	<1.1	3.9	0.75	-32	3.6	0.2	17700	6.5	33.8	---
09C	05/22/2007	1069	887			<1.0	<1.0	<1.0	<1.0	<1.1	5.4	0.52	123	3.5	<0.1	20600	6.6	25.4	---
09C	11/29/2007	1260	1078			<1.0	<1.0	<1.0	<1.0	<1.1	5.4	0.81	147	3.6	27.3	30000	6.5	27.1	---
09C	05/19/2008	1432	1250		-98	<0.2	<0.2	<0.2	0.2	<1.1	15.2	2.11	-57	4.6	18.6	22800	6.5	22.3	---
09C	11/24/2008	1621	1439		91	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	2.92	-44	1.8	<2.0	17700	6.6	334	---
09C	05/18/2009	1796	1614		266	<1.0	<1.0	<1.0	<1.0	<1.1	4.3	0.45	-44	3.5	<0.5	21400	7.0	24.0	---
09C	11/16/2009	1978	1796		448	<3.0	<3.0	<3.0	<3.0	<1.1	1.9	1.27	-7	3.0	<0.1	22400	6.4	20.7	---
10A	05/03/2004	-45				29	27	80	6.4	<0.50	<0.50	0.60	108	2.0	37.8	2.8	6.8	20.0	Clear, yellow tint
10A	08/23/2004	67	-58			14	12	170	4.0	<0.50	<0.50	0.49	181	3.5	38.9	1.1	7.0	59.6	Clear, black tint
10A	10/19/2004	124	-58			15	15	100	23	<0.50	<0.50	0.66	224	4.0	37.8	2.7	7.0	24.0	Clear

**SWMU-20 CLEANUP ACTION SUMMARY - SOURCE ZONE  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds						Aquifer Redox Conditions					Donor Parameters		Notes
						Proposed Groundwater Cleanup Levels (d)													
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)	DO (mg/L)	ORP (mV)	Iron II mg/L	Sulfate (mg/L)	Methane (µg/L)	pH	TOC (mg/L)	
10A	02/21/2005	249	67			4.7	4.8	24	6.8	<0.50	0.54	0.53	166	3.6	24.3	430	7.0	22.4	Clear, yellow color
10A	05/11/2005	328	146			4.2	5.4	26	7.2	<0.50	<0.50	0.95	47	3.0	27.9	540	7.2	25.9	Clear, yellow-brown tint
10A	08/22/2005	431	249			2.7	6.3	48	76	<0.50	<0.50	0.73	177	2.0	48.8	240	7.0	31.4	Clear, with yellow-brown tint
10A	11/14/2005	515	333			3.3	6.7	47	73	<0.50	<0.50	0.91	178	2.0	50.6	370	7.1	34.1	---
10A	02/21/2006	614	432			3.7	9.6	42	150	<11.4	<12.3	0.54	320	2.0	53.9	1130	6.8	45.8	---
10A	05/15/2006	697	515			1.8	3.7	63	19	<11	<12	0.67	190	1.8	57.4	3100	6.8	49.2	---
10A	08/16/2006	790	608			1.6	1.6	38	20	<1.1	<1.2	1.50	201	1.4	57.5	1620	6.7	50.8	---
10A	11/27/2006	893	711			<0.2	<0.2	7.4	9.2	2.6	2.6	2.67	201	3.0	57.9	1650	6.9	56.0	---
10A	02/22/2007	980	798			1.2	<1.0	32	35	<1.1	<1.2	0.57	-176	4.6	20.4	1370	6.8	56.4	---
10A	05/22/2007	1069	887			1.1	<1.0	28	44	<1.1	1.4	0.88	73	3.0	10.2	2590	6.9	47.3	---
10A	11/29/2007	1260	1078			1.2	<1.0	22	78	4.4	3.7	0.80	106	4.2	47.9	4810	6.9	47.8	---
10A	05/19/2008	1432	1250		-98	<1.0	<1.0	22	180	7.9	4.4	2.19	-177	4.0	32.5	4870	7.0	33.3	---
10A	11/24/2008	1621	1439		91	<1.0	<1.0	1.6	5.0	<1.1	<1.2	2.29	-87	3.4	1.3	16900	7.1	1200	---
10A	05/18/2009	1796	1614		266	<2.0	<2.0	<2.0	<2.0	<1.1	<1.2	0.66	-80	3.3	<1.0	17900	6.9	168	---
10A	11/16/2009	1978	1796		448	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	3.14	-40	4.2	<1.0	18200	6.3	69.2	---
10A	5/20/2010	2163	1981		633	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	16.23	341	3.0	<1.0	17600	6.8	60.4	Duffy: Replace DO electric membrane
10A	11/10/2010	2337	2155		807	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	4.09	67	2.4	0.5	22800	6.9	56.8	---
10A	5/3/2011	2511	2329		981	<2.0	<2.0	<2.0	<2.0	<1.1	<1.2	2.47	-21	2.5	<0.2	20700	6.9	41.6	---
10A	11/13/2011	2705	2523		1175	<0.2	<0.2	0.2	0.4	<1.1	<1.2	2.45	-38	2.0	0.3	15400	7.1	33.8	---
10A	5/14/2012	2888	2706		1358	<0.2	<0.2	0.2	0.4	<1.0	<1.0	0.57	88	2.5	0.32	20000	6.4	38.0	---
10A	11/14/2012	3072	2890		1542	<0.2	<0.2	0.3	0.4	<1.0	<1.0	0.03	-16	2.0	<0.30	19000	6.6	30.6	---
10A	5/21/2013	3260	3078		1730	<0.2	<0.2	0.2	0.3	<1.0	<3.0	0.35	-340	1.8	<0.30	26000	7.5	29.5	---
14A	05/04/2004	-44				<1.0	<1.0	140	110	<0.50	<0.50	0.53	-8	7.5	38.9	590	6.8	20.7	Clear, yellow tint
14A	08/23/2004	67				<1.0	2.9	560	180	0.89	0.67	0.54	162	3.2	30.1	810	6.8	22.6	---
14A	10/19/2004	124	-58			<5.0	39	1200	650	<0.50	<0.50	0.64	69	3.0	43.3	350	6.9	20.6	---
14A	02/21/2005	249	67	-24		<5.0	<5.0	300	1000	13	2.7	0.41	101	1.8	3.8	1700	6.9	44.0	Clear, yellow tint
14A	05/16/2005	333	151	60		<10	<10	<10	<10	<0.50	<0.50	5.90	45	4.0	<2.0	590	6.4	8620	---
14A	08/22/2005	431	249	158		<10	<10	<10	<10	<0.50	<0.50	1.62	234	3.0	<2.0	220	6.8	5380	Clear, yellow-brown
14A	11/15/2005	516	334	243		<3.0	<3.0	6.0	<3.0	<0.50	<0.50	1.26	257	2.0	<0.1	2500	6.4	602	---
14A	02/21/2006	614	432	341		<1.0	<1.0	<1.0	<1.0	<11.4	<12.3	1.36	335	2.0	<0.1	5400	7.4	180	---
14A	05/17/2006	699	517	426		<2.0	<2.0	2.1	<2.0	<11	<12	1.78	76	2.8	12.0	9400	6.4	67.1	---
14A	08/16/2006	790	608	517		<1.0	<1.0	3.0	<1.0	<1.1	<1.2	1.16	240	1.2	16.5	6320	6.5	66.0	---
14A	11/29/2006	895	713	622		<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	1.57	248	2.8	11.8	11100	6.3	72.0	---
14A	02/22/2007	980	798	707		<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.89	-56	7.0	0.2	7670	6.2	34.9	---
14A	05/23/2007	1070	888	797		<1.0	<1.0	1.5	<1.0	<1.1	<1.2	1.11	165	3.0	8.6	10100	6.3	27.5	---
14A	12/03/2007	1264	1082	991		<1.0	<1.0	1.6	<1.0	<1.1	<1.2	2.29	-86	3.2	15.9	14500	6.4	55.6	---
14A	05/20/2008	1433	1251	1160	-97	<1.0	<1.0	1.2	<1.0	<1.1	<1.2	3.45	-88	3.6	<0.1	12100	6.3	26.3	---
14A	11/24/2008	1621	1439	1348	91	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	2.79	-70	3.0	194	14500	6.1	8.68	---
14A	05/20/2009	1798	1616	1525	268	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.41	-95	3.5	20.0	14400	6.3	9.83	---
14A	11/17/2009	1979	1797	1706	449	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.81	-18	3.2	165	15800	5.7	6.22	---
14A	5/24/2010	2167	1985	1894	637	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	4.29	311	2.8	5.1	14600	6.4	8.07	---
14A	11/10/2010	2337	2155	2064	807	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	2.47	171	2.6	38.6	14300	6.8	6.88	---
14A	5/5/2011	2513	2331	2240	983	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	2.96	83	1.8	8.4	15100	7.1	3.28	---
14A	11/13/2011	2705	2523	2432	1175	<0.2	<0.2	0.6	<0.2	<1.1	<1.2	2.04	-52	1.5	<0.1	7510	6.9	8.05	---
14A	5/14/2012	2888	2706	2615	1358	<0.2	<0.2	0.3	0.2	<1.0	8.7	0.13	62	2.6	3.4	16000	6.4	5.9	---

**SWMU-20 CLEANUP ACTION SUMMARY - SOURCE ZONE  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds						Aquifer Redox Conditions					Donor Parameters		Notes
						Proposed Groundwater Cleanup Levels (d)											pH	TOC (mg/L)	
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)	DO (mg/L)	ORP (mV)	Iron II mg/L	Sulfate (mg/L)	Methane (µg/L)	pH	TOC (mg/L)	
14A	11/14/2012	3072	2890	2799	1542	<0.2	<0.2	0.6	<0.2	<1.0	5.0	0.03	31	1.5	79.0	16000	6.4	6.5	---
14A	5/21/2013	3260	3078	2987	1730	<0.5	<0.5	<0.5	<0.5	<1.0	4.8	0.24	-428	2.4	2.3	18000	7.4	6.5	---
15A	05/03/2004	-45				<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
15A	10/26/2004	131	-51			<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
15A	05/16/2005	333	151			<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
15A	11/15/2005	516	334			<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
15A	05/17/2006	699	517			<5.0	<5.0	<5.0	<5.0	NA	NA	0.79	131	NA	NA	NA	6.7	NA	---
15A	11/29/2006	895	713			<3.0	<3.0	<3.0	<3.0	NA	NA	1.26	513	NA	NA	NA	6.6	NA	---
15A	05/23/2007	1070	888			<1.0	<1.0	1.4	2.6	NA	NA	1.19	144	NA	NA	NA	6.7	NA	---
15A	12/03/2007	1264	1082			<1.0	<1.0	<1.0	1.3	NA	NA	1.31	-105	NA	NA	NA	6.6	NA	---
15A	05/20/2008	1433	1251		-97	<3.0	<3.0	<3.0	<3.0	NA	NA	2.57	-135	NA	NA	NA	6.7	NA	---
15A	11/24/2008	1621	1439		91	<1.0	<1.0	<1.0	<2.0	NA	NA	2.07	-61	NA	NA	NA	6.8	NA	---
15A	05/19/2009	1797	1615		267	<3.0	<3.0	<3.0	<3.0	NA	NA	0.35	-33	NA	NA	NA	6.9	NA	---
15A	11/18/2009	1980	1798		450	<1.0	<1.0	<1.0	1.4	NA	NA	0.72	-0.1	NA	NA	NA	6.3	NA	---
15A	5/20/2010	2163	1981		633	<1.0	<1.0	<1.0	1.6	NA	NA	1.10	606	NA	NA	NA	6.8	NA	---
15A	11/10/2010	2337	2155		807	<1.0	<1.0	<1.0	1.4	NA	NA	2.42	118	NA	NA	NA	7.1	NA	---
15A	5/5/2011	2513	2331		983	<10	<10	<10	<10	NA	NA	4.83	-19	NA	NA	NA	7.2	NA	---
15A	11/13/2011	2705	2523		1175	<0.2	<0.2	0.3	1.0	NA	NA	4.01	-41	NA	NA	NA	7.3	NA	---
15A	5/14/2012	2888	2706		1358	<1.0	<1.0	<1.0	1.2	NA	NA	0.64	56	NA	NA	NA	6.7	NA	---
15A	11/13/2012	3071	2889		1541	<0.2	<0.2	0.4	0.8	NA	NA	0.03	23	NA	NA	NA	6.8	NA	---
15A	5/21/2013	3260	3078		1730	<0.5	<0.5	0.6	1.1	NA	NA	0.20	-394	NA	NA	NA	7.4	NA	---
19A	05/02/2004	-46	-228			<1.0	<1.0	<1.0	<1.0	NA	NA	0.33	-3	NA	NA	NA	6.5	NA	---
19A	02/21/2005	249	67			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	0.65	180	NA	47.4	17	6.7	15.5	---
19A	05/12/2005	329	147			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	0.63	169	3.0	31.3	9.1	6.8	14.2	Clear, colorless
19A	08/22/2005	431	249			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	0.74	106	3.0	68.3	16	6.6	10.5	Clear, colorless
19A	11/15/2005	516	334			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	0.56	201	2.6	95.9	35	6.8	9.30	---
19A	02/22/2006	615	433			<1.0	<1.0	<1.0	<1.0	<11.4	<12.3	0.77	65	3.0	124.0	111	6.6	31.3	---
19A	05/17/2006	699	517			<1.0	<1.0	<1.0	<1.0	<11	<12	1.14	56	2.0	73.4	230	6.4	15.7	---
19A	08/15/2006	789	607			<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.60	229	2.0	47.3	202	6.4	11.5	---
19A	11/27/2006	893	711			<0.2	0.3	<0.2	<0.2	<1.1	<1.2	0.88	264	2.0	41.9	186	6.4	13.6	---
19A	02/22/2007	980	798			<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.42	-23	3.0	20.7	248	6.2	19.8	---
19A	05/22/2007	1069	887			<1.0	<1.0	<1.0	<1.0	<1.1	5.2	0.34	277	3.5	30.8	179	6.4	15.4	---
19A	11/29/2007	1260	1078		-97	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.67	243	2.2	37.2	235	6.2	14.3	---
19A	05/20/2008	1433	1251		90	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	3.23	-79	3.8	20.9	134	6.4	11.5	---
19A	11/23/2008	1620	1438		267	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	1.62	-61	2.0	46.1	97.8	6.4	10.6	---
19A	05/19/2009	1797	1615		450	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.30	-28	3.2	28.6	127	6.8	12.8	---
19A	11/18/2009	1980	1798			<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	1.58	-2	3.4	22.1	122	6.5	10.7	---
22A	03/21/2005	277	95	4		<1.0	<1.0	3.5	2.0	<0.50	<0.50	1.86	53	2.8	12.8	280	7.0	11.1	Hazy, suspended silt
22A	05/12/2005	329	147	56		<1.0	<1.0	2.3	2.9	<0.50	<0.50	0.83	155	2.6	1.3	300	7.1	31.3	---
22A	08/22/2005	431	249	158		<1.0	<1.0	2.3	3.2	<0.50	<0.50	0.70	170	2.6	3.0	230	6.9	26.5	Clear, slight yellow-brown tint
22A	11/16/2005	517	335	244		<1.0	<1.0	1.4	2.2	<0.50	<0.50	1.67	321	2.4	1.3	1300	6.3	29.9	---
22A	02/22/2006	615	433	342		<1.0	<1.0	1.4	3.3	<11.4	<12.3	0.69	97	2.0	59.0	1940	6.8	32.0	---
22A	05/17/2006	699	517	426		<1.0	<1.0	2.4	1.7	<11	<12	0.67	102	2.6	32.7	3600	6.8	17.6	---
22A	08/15/2006	789	607	516		<1.0	<1.0	1.8	2.4	<1.1	<1.2	0.65	239	2.0	54.7	5700	6.7	24.0	---
22A	11/30/2006	896	714	623		<0.2	0.3	2.2	2.4	<1.1	<1.2	2.15	286	2.6	40.0	4020	6.6	25.2	---

**SWMU-20 CLEANUP ACTION SUMMARY - SOURCE ZONE  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds						Aquifer Redox Conditions					Donor Parameters		Notes
						Proposed Groundwater Cleanup Levels (d)											pH	TOC (mg/L)	
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	PCE ( $\mu\text{g/L}$ )	TCE ( $\mu\text{g/L}$ )	cDCE ( $\mu\text{g/L}$ )	VC ( $\mu\text{g/L}$ )	Ethene ( $\mu\text{g/L}$ )	Ethane ( $\mu\text{g/L}$ )	DO (mg/L)	ORP (mV)	Iron II mg/L	Sulfate (mg/L)	Methane ( $\mu\text{g/L}$ )	pH	TOC (mg/L)	
22A	02/22/2007	980	798	707		<1.0	<1.0	2.5	2.3	<1.1	<1.2	0.53	-76	5.0	<0.1	3000	6.6	22.4	---
22A	05/23/2007	1070	888	797		<1.0	<1.0	2.5	2.7	<1.1	<1.2	0.30	51	3.0	27.3	3510	6.8	18.2	---
22A	12/03/2007	1264	1082	991		<1.0	<1.0	2.0	1.3	<1.1	<1.2	0.61	41	2.6	12.3	2030	6.6	16.0	---
22A	05/20/2008	1433	1251	1160	-97	<1.0	<1.0	2.6	1.9	<1.1	<1.2	2.83	-103	4.0	20.2	1540	6.7	13.8	---
22A	11/23/2008	1620	1438	1347	90	<1.0	<1.0	2.2	3.1	<1.1	<1.2	1.13	-70	1.8	2.6	3100	6.8	19.2	---
22A	05/19/2009	1797	1615	1524	267	<1.0	<1.0	2.5	2.5	<1.1	<1.2	0.26	-43	3.2	3.4	3490	7.0	21.0	---
22A	11/18/2009	1980	1798	1707	450	<1.0	<1.0	2.1	1.8	<1.1	<1.2	0.43	-3.3	3.0	2.1	2060	6.4	13.8	---
22A	5/24/2010	2167	1985	1894	637	<1.0	<1.0	1.7	1.7	<1.1	<1.2	6.58	204	2.4	0.6	2370	7.0	15.1	---
22A	11/11/2010	2338	2156	2065	808	<1.0	<1.0	1.2	2.7	<1.1	<1.2	3.27	113	2.2	0.5	4650	7.0	21.8	---
22A	5/4/2011	2512	2330	2239	982	<1.0	<1.0	1.1	2.2	<1.1	<1.2	1.96	4	2.0	0.6	6350	7.0	22.4	---
22A	11/13/2011	2705	2523	2432	1175	<0.2	<0.2	0.9	1.7	<1.1	<1.2	2.89	-38	1.2	0.4	2510	7.3	17.6	---
22A	5/14/2012	2888	2706	2615	1358	<0.2	<0.2	0.6	2.0	<1.0	3.3	0.03	45	2.2	<0.30	5100	6.8	25.4	---
22A	11/14/2012	3072	2890	2799	1542	<0.2	<0.2	0.5	1.8	<1.0	1.7	0.03	1	1.8	<0.30	4400	6.9	22.7	---
22A	5/20/2013	3259	3077	2986	1729	<0.2	<0.2	0.4	2.0	<1.0	1.6	0.24	-404	1.0	<0.30	6100	7.7	24.6	---
23A	03/21/2005	277	95	4		<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	0.63	81	2.0	0.4	410	7.0	33.0	Slight yellow tint
23A	05/12/2005	329	147	56		<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	0.58	158	2.0	<0.1	260	7.2	39.9	---
23A	08/22/2005	431	249	158		<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	0.75	130	3.4	1.5	98	7.0	21.0	---
23A	11/16/2005	517	335	244		<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	0.49	291	2.6	4.1	140	7.2	30.8	---
23A	02/22/2006	615	433	342		<1.0	<1.0	<1.0	<1.0	<11.4	<12.3	0.60	127	2.2	91.8	1520	6.4	34.5	---
23A	05/17/2006	699	517	426		<1.0	<1.0	<1.0	<1.0	<11	<12	0.60	120	3.0	38.8	1700	6.7	30.0	---
23A	08/15/2006	789	607	516		<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.77	256	2.2	63.9	3080	6.7	32.6	---
23A	11/30/2006	896	714	623		<0.2	<0.2	<0.2	<0.2	<1.1	<1.2	1.96	287	2.5	40.7	1930	6.2	45.2	---
23A	02/22/2007	980	798	707		<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.40	-58	2.0	2.9	1360	6.5	34.6	---
23A	05/23/2007	1070	888	797		<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.41	193	3.3	52.7	1850	6.4	38.7	---
23A	11/30/2007	1261	1079	988		<0.2	<0.2	0.3	<0.2	<1.1	<1.2	0.55	159	2.2	81.1	4430	6.6	38.6	---
23A	05/21/2008	1434	1252	1161	-96	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	3.12	-28	2.2	31.7	1570	6.1	29.6	---
23A	11/25/2008	1622	1440	1349	92	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	4.22	-68	1.8	<0.1	3270	6.8	39.0	---
23A	05/19/2009	1797	1615	1524	267	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.31	-3	3.2	0.1	2370	6.5	39.1	---
23A	11/18/2009	1980	1798	1707	450	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.41	1	2.4	1.6	1970	6.5	30.9	---

PCE = Tetrachloroethene

 $\mu\text{g/L}$  = micrograms pr liter

TCE = Trichloroethene

mg/L = milligrams per liter

cDCE = cis-1,2-Dichloroethene

mV = millivolts

VC = Vinyl Chloride

NA = Not analyzed

DO = Dissolved Oxygen

Bold = Detect

ORP = Oxidation Reduction Potential

TOC = Total Organic Carbon

Box = Exceedance of proposed cleanup level.

(a) Injections occurred on:

6/17/04 (6A, B, C; 9A, B, C)

12/16-17/04 (6A, 6B; 9A, 9B)

3/17/05 (14A)

8/25-28/08 (6A, 9A, 10A)

6/17/2004 for elapsed time relative to injection

12/16/2004 for elapsed time relative to injection

3/17/2005 for elapsed time relative to injection

8/25/2008 for elapsed time relative to injection

(b) Conducted at Well MW-14A only.

(c) MW-06A installed June 2004.

(d) Proposed Cleanup Standards and Comparison to Site Data, Boeing Developmental Center, Tukwila, Washington (Landau Associates; May 7, 2013).

**SWMU-20 CLEANUP ACTION SUMMARY - NON SOURCE ZONE  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds			
						Proposed Groundwater Cleanup Levels (c)			
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	5.3 (µg/L)	1.4 (µg/L)	134 (µg/L)	2.4 (µg/L)
MW-8C	5/3/2004	-45				<1.0	<1.0	<1.0	2.8
MW-8C	10/25/2004	130	-52			<1.0	<1.0	<1.0	3.5
MW-8C	5/12/2005	329	147			<1.0	<1.0	<1.0	<1.0
MW-8C	11/14/2005	515	333			<1.0	<1.0	<1.0	<1.0
MW-8C	5/15/2006	697	515			<10	<10	<10	<10
MW-8C	11/27/2006	893	711			<5.0	<5.0	<5.0	<5.0
MW-8C	5/21/2007	1068	886			<3.0	<3.0	<3.0	<3.0
MW-8C	11/29/2007	1260	1078			<5.0	<5.0	<5.0	<5.0
MW-8C	5/19/2008	1432	1250		-98	<5.0	<5.0	<5.0	<5.0
MW-8C	11/23/2008	1620	1438			90	<5.0	<5.0	<5.0
MW-8C	05/18/2009	1796	1614			266	<1.0	<1.0	<1.0
MW-8C	11/16/2009	1978	1796			448	<3.0	<3.0	<3.0
MW-9D	5/3/2004	-45				<1.0	<1.0	<1.0	<1.0
MW-9D	10/19/2004	124	-58			<1.0	<1.0	<1.0	<1.0
MW-9D	5/11/2005	328	146			<1.0	<1.0	<1.0	<1.0
MW-9D	11/14/2005	515	333			<1.0	<1.0	<1.0	<1.0
MW-9D	5/15/2006	697	515			<1.0	<1.0	<1.0	<1.0
MW-9D	11/27/2006	893	711			<1.0	<1.0	<1.0	<1.0
MW-9D	5/22/2007	1069	887			<1.0	<1.0	<1.0	<1.0
MW-9D	11/29/2007	1260	1078			<1.0	<1.0	<1.0	<1.0
MW-9D	5/19/2008	1432	1250		-98	<0.2	<0.2	<0.2	<0.2
MW-9D	11/24/2008	1621	1439			91	<1.0	<1.0	<1.0
MW-9D	05/18/2009	1796	1614			266	<1.0	<1.0	<1.0
MW-9D	11/16/2009	1978	1796			448	<1.0	<1.0	<1.0
MW-10C	5/3/2004	-45				<1.0	<1.0	4.3	4.0
MW-10C	10/19/2004	124	-58			<1.0	<1.0	6.4	11
MW-10C	5/11/2005	328	146			<1.0	<1.0	4.0	1.9
MW-10C	11/14/2005	515	333			<1.0	<1.0	<1.0	1.0
MW-10C	5/15/2006	697	515			<1.0	<1.0	1.5	2.2
MW-10C	11/27/2006	893	711			<0.2	<0.2	1.9	2.6
MW-10C	5/22/2007	1069	887			<1.0	<1.0	6.7	5.8
MW-10C	11/29/2007	1260	1078			<1.0	<1.0	7.2	5.6
MW-10C	5/19/2008	1432	1250		-98	<0.2	<0.2	15	6.9
MW-10C	11/24/2008	1621	1439			91	<1.0	<1.0	8.5
MW-10C	05/18/2009	1796	1614			266	<1.0	<1.0	<1.0
MW-10C	11/16/2009	1978	1796			448	<1.0	<1.0	<1.0
MW-10C	5/20/2010	2163	1981			633	<1.0	<1.0	<1.0
MW-10C	11/10/2010	2337	2155			807	<1.0	<1.0	3.5
MW-10C	5/3/2011	2511	2329			981	<1.0	<1.0	5.8
MW-10C	11/13/2011	2705	2523			1175	<0.2	<0.2	3.7
MW-10C	5/14/2012	2888	2706			1358	<0.2	<0.2	5.4
MW-10C	11/14/2012	3072	2890			1542	<0.2	<0.2	6.1
MW-10C	5/21/2013	3260	3078			1730	<0.2	<0.2	6.0
MW-11A	5/2/2004	-46				<1.0	2.1	21	<1.0
MW-11A	10/25/2004	130	-52			<1.0	2.0	20	<1.0
MW-11A	5/12/2005	329	147			<1.0	2.0	20	<1.0
MW-11A	11/15/2005	516	334			<1.0	2.0	22	<1.0
MW-11A	5/16/2006	698	516			<1.0	1.1	20	<1.0
MW-11A	11/26/2006	892	710			<1.0	1.5	24	<1.0
MW-11A	5/22/2007	1069	887			<1.0	1.5	26	<1.0
MW-11A	11/27/2007	1258	1076			<1.0	1.1	27	<1.0

**SWMU-20 CLEANUP ACTION SUMMARY - NON SOURCE ZONE  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds			
						Proposed Groundwater Cleanup Levels (c)			
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	5.3 (µg/L)	1.4 (µg/L)	134 (µg/L)	2.4 (µg/L)
MW-11A	5/19/2008	1432	1250		-98	<0.2	1.2	26	0.2
MW-11A	11/23/2008	1620	1438		90	<1.0	1.2	33	<1.0
MW-11A	05/18/2009	1796	1614		266	<1.0	<1.0	26	<1.0
MW-11A	11/17/2009	1979	1797		449	<1.0	1.0	30	<1.0
MW-11A	5/19/2010	2162	1980		632	<1.0	1.1	26	<1.0
MW-11A	11/8/2010	2335	2153		805	<1.0	<1.0	22	<1.0
MW-11A	5/3/2011	2511	2329		981	<1.0	<1.0	22	<1.0
MW-11A	11/13/2011	2705	2523		1175	<0.2	0.5	23	0.4
MW-11A	5/14/2012	2888	2706		1358	<0.2	0.7	24	0.4
MW-11A	11/14/2012	3072	2890		1542	<2.0	<2.0	25	<2.0
MW-11A	5/21/2013	3260	3078		1730	<2.0	<2.0	22	<2.0
MW-12A	5/2/2004	-46				<1.0	<1.0	1.8	<1.0
MW-12A	10/25/2004	130	-52			<1.0	<1.0	4.4	<1.0
MW-12A	5/12/2005	329	147			<1.0	<1.0	2.0	<1.0
MW-12A	11/15/2005	516	334			<1.0	<1.0	3.8	<1.0
MW-12A	5/16/2006	698	516			<1.0	<1.0	1.5	<1.0
MW-12A	11/26/2006	892	710			<0.2	0.7	4.4	<0.2
MW-12A	5/22/2007	1069	887			<1.0	<1.0	2.4	<1.0
MW-12A	11/27/2007	1258	1076			<1.0	<1.0	3.2	<1.0
MW-12A	5/19/2008	1432	1250		-98	<0.2	0.6	3.2	<0.2
MW-12A	11/23/2008	1620	1438		90	<1.0	<1.0	4.7	<1.0
MW-12A	05/18/2009	1796	1614		266	<1.0	<1.0	1.4	<1.0
MW-12A	11/17/2009	1979	1797		449	<1.0	<1.0	4.7	<1.0
MW-12A	5/19/2010	2162	1980		632	<1.0	<1.0	<1.0	<1.0
MW-12A	11/8/2010	2335	2153		805	<1.0	<1.0	4.3	<1.0
MW-12A	5/3/2011	2511	2329		981	<1.0	<1.0	<1.0	<1.0
MW-12A	11/13/2011	2705	2523		1175	<0.2	0.6	3.1	<0.2
MW-12A	5/14/2012	2888	2706		1358	0.2	<0.2	<0.2	<0.2
MW-12A	11/14/2012	3072	2890		1542	<0.2	0.4	2.1	<0.2
MW-12A	5/21/2013	3260	3078		1730	<0.2	<0.2	0.5	<0.2
MW-13A	5/2/2004	-46				5.1	4.6	<1.0	<1.0
MW-13A	10/25/2004	130	-52			4.3	4.0	<1.0	<1.0
MW-13A	5/12/2005	329	147			6.1	4.6	<1.0	<1.0
MW-13A	11/14/2005	515	333			6.0	4.5	<1.0	<1.0
MW-13A	5/16/2006	698	516			7.1	4.6	<1.0	<1.0
MW-13A	11/27/2006	893	711			8.3	6.5	0.3	<0.2
MW-13A	5/21/2007	1068	886			8.2	7.0	0.4	<0.2
MW-13A	11/28/2007	1259	1077			6.4	4.2	<1.0	<1.0
MW-13A	5/19/2008	1432	1250		-98	8.7	6.8	0.3	<0.2
MW-13A	11/23/2008	1620	1438		90	6.5	3.7	<1.0	<1.0
MW-13A	05/18/2009	1796	1614		266	7.7	5.6	<1.0	<1.0
MW-13A	11/17/2009	1979	1797		449	9.2	6.0	<1.0	<1.0
MW-13A	5/20/2010	2163	1981		633	9.4	5.3	<1.0	<1.0
MW-13A	11/10/2010	2337	2155		807	3.6	2.8	<1.0	<1.0
MW-13A	5/4/2011	2512	2330		982	3.9	2.4	<1.0	<1.0
MW-13A	11/3/2011	2695	2513		1165	1.6	<1.0	<1.0	<1.0
MW-13A	5/14/2012	2888	2706		1358	2.3	0.8	<0.2	<0.2
MW-13A	11/13/2012	3071	2889		1541	2.2	0.8	<0.2	<0.2
MW-13A	5/21/2013	3260	3078		1730	4.5	2.5	0.5	<0.2

**SWMU-20 CLEANUP ACTION SUMMARY - NON SOURCE ZONE  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds			
						Proposed Groundwater Cleanup Levels (c)			
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	5.3 (µg/L)	1.4 (µg/L)	134 (µg/L)	2.4 (µg/L)
MW-13C	5/2/2004	-46				<1.0	<1.0	<1.0	2.5
MW-13C	10/25/2004	130	-52			<1.0	<1.0	<1.0	3.3
MW-13C	5/12/2005	329	147			<1.0	<1.0	<1.0	<1.0
MW-13C	11/14/2005	515	333			<1.0	<1.0	<1.0	3.8
MW-13C	5/16/2006	698	516			<1.0	<1.0	<1.0	2.2
MW-13C	11/27/2006	893	711			<0.2	<0.2	0.8	3.4
MW-13C	5/21/2007	1068	886			<0.2	<0.2	0.8	4.4
MW-13C	11/28/2007	1259	1077			<1.0	<1.0	<1.0	2
MW-13C	5/19/2008	1432	1250		-98	<0.2	<0.2	0.2	0.6
MW-13C	11/23/2008	1620	1438		90	<1.0	<1.0	<1.0	2.2
MW-13C	05/18/2009	1796	1614		266	<1.0	<1.0	<1.0	<1.0
MW-13C	11/17/2009	1979	1797		449	<1.0	<1.0	<1.0	<1.0
MW-13C	5/20/2010	2163	1981		633	<1.0	<1.0	<1.0	<1.0
MW-13C	11/10/2010	2337	2155		807	<1.0	<1.0	<1.0	<1.0
MW-13C	5/4/2011	2512	2330		982	<1.0	<1.0	<1.0	<1.0
MW-13C	11/3/2011	2695	2513		1165	<1.0	<1.0	<1.0	<1.0
MW-13C	5/14/2012	2888	2706		1358	<0.2	<0.2	<0.2	0.3
MW-13C	11/13/2012	3071	2889		1541	<2.0	<2.0	<2.0	<2.0
MW-13C	5/21/2013	3260	3078		1730	<2.0	<2.0	<2.0	<2.0
MW-14C	5/4/2004	-44				<1.0	<1.0	63	44
MW-14C	10/26/2004	131	-51	-142		<1.0	<1.0	22	75
MW-14C	5/16/2005	333	151	60		<1.0	<1.0	11	6.1
MW-14C	11/15/2005	516	334	243		<1.0	<1.0	<1.0	1.8
MW-14C	5/17/2006	699	517	426		<1.0	<1.0	<1.0	<1.0
MW-14C	11/29/2006	895	713	622		<0.2	<0.2	<0.2	1.0
MW-14C	5/23/2007	1070	888	797		<1.0	<1.0	<1.0	2.5
MW-14C	12/3/2007	1264	1082	991		<1.0	<1.0	1.1	11
MW-14C	5/20/2008	1433	1251	1160	-97	<1.0	<1.0	1.4	22
MW-14C	11/24/2008	1621	1439	1348	91	<1.0	<1.0	<1.0	4.3
MW-14C	05/20/2009	1798	1616	1525	268	<1.0	<1.0	<1.0	1.1
MW-14C	11/17/2009	1979	1797	1706	449	<1.0	<1.0	<1.0	<1.0
MW-14C	5/24/2010	2167	1985	1894	637	<1.0	<1.0	<1.0	<1.0
MW-14C	11/10/2010	2337	2155	2064	807	<1.0	<1.0	<1.0	<1.0
MW-14C	5/5/2011	2513	2331	2240	983	<1.0	<1.0	<1.0	<1.0
MW-14C	11/13/2011	2705	2523	2432	1175	<0.2	<0.2	<0.2	<0.2
MW-14C	5/14/2012	2888	2706	2615	1358	<0.2	<0.2	<0.2	<0.2
MW-14C	11/14/2012	3072	2890	2799	1542	<2.0	<2.0	<2.0	<2.0
MW-14C	5/21/2013	3260	3078	2987	1730	<2.0	<2.0	<2.0	<2.0
MW-14E	5/4/2004	-44				<1.0	<1.0	<1.0	<1.0
MW-14E	10/26/2004	131	-51	-142		<1.0	<1.0	<1.0	<1.0
MW-14E	5/16/2005	333	151	60		<1.0	<1.0	<1.0	<1.0
MW-14E	11/15/2005	516	334	243		<1.0	<1.0	<1.0	<1.0
MW-14E	5/17/2006	699	517	426		<1.0	<1.0	<1.0	<1.0
MW-14E	11/29/2006	895	713	622		<0.2	<0.2	<0.2	<0.2
MW-14E	5/23/2007	1070	888	797		<1.0	<1.0	<1.0	<1.0
MW-14E	12/3/2007	1264	1082	991		<1.0	<1.0	<1.0	<1.0
MW-14E	5/20/2008	1433	1251	1160	-97	<1.0	<1.0	<1.0	<1.0
MW-14E	11/24/2008	1621	1439	1348	91	<1.0	<1.0	<1.0	<1.0
MW-14E	05/20/2009	1798	1616	1525	268	<1.0	<1.0	<1.0	<1.0
MW-14E	11/17/2009	1979	1797	1706	449	<1.0	<1.0	<1.0	<1.0

**SWMU-20 CLEANUP ACTION SUMMARY - NON SOURCE ZONE  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds			
						Proposed Groundwater Cleanup Levels (c)			
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	5.3 (µg/L)	1.4 (µg/L)	134 (µg/L)	2.4 (µg/L)
MW-15C	5/3/2004	-45				<1.0	<1.0	9.1	11
MW-15C	10/26/2004	131	-51			<1.0	<1.0	11	17
MW-15C	5/16/2005	333	151			<1.0	<1.0	13	6.4
MW-15C	11/15/2005	516	334			<1.0	<1.0	<1.0	<1.0
MW-15C	5/17/2006	699	517			<1.0	<1.0	<1.0	<1.0
MW-15C	11/29/2006	895	713			<0.2	<0.2	<0.2	<0.2
MW-15C	5/23/2007	1070	888			<1.0	<1.0	<1.0	2.2
MW-15C	12/3/2007	1264	1082			<1.0	<1.0	<1.0	2.5
MW-15C	5/20/2008	1433	1251		-97	<1.0	<1.0	1.8	6.6
MW-15C	11/24/2008	1621	1439		91	<1.0	<1.0	1.9	6.6
MW-15C	05/19/2009	1797	1615		267	<1.0	<1.0	<1.0	<1.0
MW-15C	11/18/2009	1980	1798		450	<1.0	<1.0	<1.0	<1.0
MW-15C	5/20/2010	2163	1981		633	<1.0	<1.0	<1.0	<1.0
MW-15C	11/10/2010	2337	2155		807	<1.0	<1.0	<1.0	<1.0
MW-15C	5/5/2011	2513	2331		983	<1.0	<1.0	<1.0	<1.0
MW-15C	11/13/2011	2705	2523		1175	<0.2	<0.2	<0.2	<0.2
MW-15C	5/14/2012	2888	2706		1358	<0.2	<0.2	<0.2	<0.2
MW-15C	11/13/2012	3071	2889		1541	<2.0	3.2	<2.0	<2.0
MW-15C	5/21/2013	3260	3078		1730	<5.0	<5.0	<5.0	<5.0
MW-15D	5/3/2004	-45				<1.0	<1.0	<1.0	<1.0
MW-15D	10/26/2004	131	-51			<1.0	<1.0	<1.0	<1.0
MW-15D	5/16/2005	333	151			<1.0	<1.0	<1.0	<1.0
MW-15D	11/15/2005	516	334			<1.0	<1.0	<1.0	<1.0
MW-15D	5/17/2006	699	517			<1.0	<1.0	<1.0	<1.0
MW-15D	11/29/2006	895	713			<1.0	<1.0	<1.0	<1.0
MW-15D	5/23/2007	1070	888			<1.0	<1.0	<1.0	<1.0
MW-15D	12/3/2007	1264	1082			<1.0	<1.0	<1.0	<1.0
MW-15D	5/20/2008	1433	1251		-97	<1.0	<1.0	<1.0	<1.0
MW-15D	11/24/2008	1621	1439		91	<1.0	<1.0	<1.0	<1.0
MW-15D	05/19/2009	1797	1615		267	<1.0	<1.0	<1.0	<1.0
MW-15D	11/18/2009	1980	1798		450	<1.0	<1.0	<1.0	<1.0
MW-16A	5/2/2004	-46				1.2	1.2	2.3	<1.0
MW-16A	10/25/2004	130	-52			1.2	1.3	1.8	<1.0
MW-16A	5/12/2005	329	147			1.2	1.8	2.6	<1.0
MW-16A	11/15/2005	516	334			1.3	2.2	2.1	<1.0
MW-16A	5/16/2006	698	516			1.0	1.4	2.3	<1.0
MW-16A	11/26/2006	892	710			<0.2	0.8	4.2	<0.2
MW-16A	5/22/2007	1069	887			1.1	1.3	1.9	<1.0
MW-16A	11/28/2007	1259	1077			1.7	1.2	1.2	<1.0
MW-16A	5/19/2008	1432	1250		-98	1.2	1.3	1.2	<0.2
MW-16A	11/23/2008	1620	1438		90	1.5	1.4	1.0	<1.0
MW-16A	05/18/2009	1796	1614		266	1.6	1.6	<1.0	<1.0
MW-16A	11/16/2009	1978	1796		448	2.2	1.5	<1.0	<1.0
MW-16A	5/20/2010	2163	1981		633	1.4	1.4	<1.0	<1.0
MW-16A	11/10/2010	2337	2155		807	1.3	1.1	<1.0	<1.0
MW-16A	5/4/2011	2512	2330		982	1.6	1.4	<1.0	<1.0
MW-16A	11/13/2011	2705	2523		1175	1.4	1.3	0.5	<0.2
MW-16A	5/14/2012	2888	2706		1358	1.6	1.7	0.5	<0.2
MW-16A	11/14/2012	3072	2890		1542	1.1	1.5	0.6	<0.2
MW-16A	5/21/2013	3260	3078		1730	1.4	1.5	<0.5	<0.5

**SWMU-20 CLEANUP ACTION SUMMARY - NON SOURCE ZONE  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds			
						Proposed Groundwater Cleanup Levels (c)			
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	5.3 (µg/L)	1.4 (µg/L)	134 (µg/L)	2.4 (µg/L)
MW-16C	5/2/2004	-46				<1.0	<1.0	1.7	5.4
MW-16C	10/25/2004	130	-52			<1.0	<1.0	2.4	8.5
MW-16C	5/12/2005	329	147			<1.0	<1.0	2.8	7.7
MW-16C	11/15/2005	516	334			<1.0	<1.0	4.6	12
MW-16C	5/16/2006	698	516			<1.0	<1.0	5.2	6.3
MW-16C	11/26/2006	892	710			1.2	2.3	2.0	<0.2
MW-16C	5/22/2007	1069	887			<1.0	<1.0	8.8	10
MW-16C	11/28/2007	1259	1077			<1.0	<1.0	7	8.9
MW-16C	5/19/2008	1432	1250		-98	<0.2	<0.2	7.8	7.9
MW-16C	11/23/2008	1620	1438		90	<1.0	<1.0	5.3	8.8
MW-16C	05/18/2009	1796	1614		266	<1.0	<1.0	5.0	6.3
MW-16C	11/16/2009	1978	1796		448	<1.0	<1.0	4.9	5.6
MW-16C	5/20/2010	2163	1981		633	<1.0	<1.0	3.7	3.4
MW-16C	11/10/2010	2337	2155		807	<1.0	<1.0	3.3	2.8
MW-16C	5/4/2011	2512	2330		982	<1.0	<1.0	3.7	3.2
MW-16C	11/13/2011	2705	2523		1175	<0.2	<0.2	3.3	2.5
MW-16C	5/14/2012	2888	2706		1358	<0.2	<0.2	4.8	4.2
MW-16C	11/14/2012	3072	2890		1542	<0.2	<0.2	4.9	3.8
MW-16C	5/21/2013	3260	3078		1730	<0.5	<0.5	3.9	2.8
MW-17A	5/2/2004	-46				4.8	6.5	1.0	<1.0
MW-17A	10/25/2004	130	-52			5.2	4.8	1.2	<1.0
MW-17A	11/15/2005	516	334			4.0	5.4	1.1	<1.0
MW-17A	5/15/2006	697	515			4.2	4.4	<1.0	<1.0
MW-17A	11/27/2006	893	711			2.2	6.3	1.0	<0.2
MW-17A	5/21/2007	1068	886			4.7	5.3	1.0	<0.2
MW-17A	11/29/2007	1260	1078			4.2	4.3	<1.0	<1.0
MW-17A	5/19/2008	1432	1250		-98	4.3	5.1	0.8	<0.2
MW-17A	11/23/2008	1620	1438		90	4.2	5.2	1.2	<1.0
MW-17A	05/19/2009	1797	1615		267	3.2	4.9	1.4	<1.0
MW-17A	11/12/2009	1974	1792		444	3.7	4.5	1.1	<1.0
MW-17A	5/20/2010	2163	1981		633	4.0	3.1	<1.0	<1.0
MW-17A	11/8/2010	2335	2153		805	2.3	4.8	2.3	<1.0
MW-17A	5/3/2011	2511	2329		981	3.1	2.2	1.5	<1.0
MW-17A	11/3/2011	2695	2513		1165	2.6	2.8	1.0	<1.0
MW-17A	5/14/2012	2888	2706		1358	3.1	2.0	0.5	<0.2
MW-17A	11/13/2012	3071	2889		1541	2.8	3.5	0.9	<0.2
MW-17A	5/20/2013	3259	3077		1729	3.6	2.8	0.8	<0.2
MW-18A	5/2/2004	-46	-228			<1.0	<1.0	<1.0	<1.0
MW-18C	5/2/2004	-46				<1.0	<1.0	<1.0	<1.0
MW-18C	10/25/2004	130	-52			<1.0	<1.0	<1.0	<1.0
MW-18C	5/12/2005	329	147			<1.0	<1.0	<1.0	<1.0
MW-18C	11/15/2005	516	334			<1.0	<1.0	<1.0	<1.0
MW-18C	5/17/2006	699	517			<1.0	<1.0	<1.0	<1.0
MW-18C	11/27/2006	893	711			<0.2	<0.2	<0.2	<0.2
MW-18C	5/21/2007	1068	886			<0.2	<0.2	<0.2	0.2
MW-18C	11/28/2007	1259	1077			<1.0	<1.0	<1.0	<1.0
MW-18C	5/19/2008	1432	1250		-98	<0.2	<0.2	<0.2	0.2
MW-18C	11/23/2008	1620	1438		90	<1.0	<1.0	<1.0	<1.0
MW-18C	05/19/2009	1797	1615		267	<1.0	<1.0	<1.0	<1.0
MW-18C	11/17/2009	1979	1797		449	<1.0	<1.0	<1.0	<1.0

**SWMU-20 CLEANUP ACTION SUMMARY - NON SOURCE ZONE  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds			
						Proposed Groundwater Cleanup Levels (c)			
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	5.3 ( $\mu\text{g/L}$ )	1.4 ( $\mu\text{g/L}$ )	134 ( $\mu\text{g/L}$ )	2.4 ( $\mu\text{g/L}$ )
MW-19C	5/2/2004	-46				<1.0	<1.0	<1.0	<1.0
MW-19C	10/25/2004	130	-52			<1.0	<1.0	<1.0	<1.0
MW-19C	5/12/2005	329	147			<1.0	<1.0	<1.0	<1.0
MW-19C	11/15/2005	516	334			<1.0	<1.0	<1.0	<1.0
MW-19C	5/17/2006	699	517			<1.0	<1.0	<1.0	<1.0
MW-19C	11/27/2006	893	711			<0.2	<0.2	<b>0.3</b>	<0.2
MW-19C	5/22/2007	1069	887			<1.0	<1.0	<1.0	<1.0
MW-19C	11/29/2007	1260	1078			<1.0	<1.0	<1.0	<1.0
MW-19C	5/20/2008	1433	1251		-97	<1.0	<1.0	<1.0	<1.0
MW-19C	11/23/2008	1620	1438		90	<1.0	<1.0	<1.0	<1.0
MW-19C	05/19/2009	1797	1615		267	<1.0	<1.0	<1.0	<1.0
MW-19C	11/18/2009	1980	1798		450	<1.0	<1.0	<1.0	<1.0
MW-20C	5/3/2004	-45				<1.0	<1.0	<b>1.4</b>	<b>2.4</b>
MW-20C	10/25/2004	130	-52			<1.0	<1.0	<b>1.7</b>	<b>4.6</b>
MW-20C	5/12/2005	329	147			<1.0	<1.0	<b>1.7</b>	<b>2.3</b>
MW-20C	11/15/2005	516	334			<1.0	<1.0	<b>2.1</b>	<b>2.9</b>
MW-20C	5/17/2006	699	517			<1.0	<1.0	<b>1.8</b>	<b>1.6</b>
MW-20C	11/29/2006	895	713			<0.2	<b>0.2</b>	<b>2.1</b>	<b>1.5</b>
MW-20C	5/21/2007	1068	886			<0.2	<0.2	<b>1.6</b>	<b>1.8</b>
MW-20C	11/29/2007	1260	1078			<1.0	<1.0	<b>1.6</b>	<b>1.3</b>
MW-20C	5/20/2008	1433	1251		-97	<1.0	<1.0	<b>1.6</b>	<b>2.5</b>
MW-20C	11/23/2008	1620	1438		90	<1.0	<1.0	<b>1.5</b>	<b>2.7</b>
MW-20C	05/19/2009	1797	1615		267	<1.0	<1.0	<b>1.4</b>	<b>2.0</b>
MW-20C	11/18/2009	1980	1798		450	<1.0	<1.0	<b>1.7</b>	<b>2.3</b>
MW-20C	5/20/2010	2163	1981		633	<1.0	<1.0	<b>1.3</b>	<b>1.8</b>
MW-20C	11/8/2010	2335	2153		805	<1.0	<1.0	<b>1.4</b>	<b>1.4</b>
MW-20C	5/4/2011	2512	2330		982	<1.0	<1.0	<b>1.1</b>	<b>1.8</b>
MW-20C	11/3/2011	2695	2513		1165	<1.0	<1.0	<b>1.3</b>	<b>2.1</b>
MW-20C	5/14/2012	2888	2706		1358	<0.2	<0.2	<b>1.2</b>	<b>1.5</b>
MW-20C	11/13/2012	3071	2889		1541	<2.0	<2.0	<2.0	<2.0
MW-20C	5/21/2013	3260	3078		1730	<5.0	<5.0	<5.0	<5.0

PCE = Tetrachloroethene

TCE = Trichloroethene

cDCE = cis-1,2-Dichloroethene

VC = Vinyl Chloride

 $\mu\text{g/L}$  - micrograms per liter

Bold = Detect

Box = Exceedance of proposed cleanup level.

6/17/2004 for elapsed time relative to injection

12/16/2004 for elapsed time relative to injection

3/17/2005 for elapsed time relative to injection

8/25/2008 for elapsed time relative to injection

(a) Injections occurred on:

6/17/04 (6A, B, C; 9A, B, C)

12/16-17/04 (6A, 6B; 9A, 9B)

3/17/05 (14A)

8/25-28/08 (6A, 9A, 10A)

(b) Conducted at Well MW-14A only.

(c) *Proposed Cleanup Standards and Comparison to Site Data, Boeing Developmental Center, Tukwila, Washington (Landau Associates; May 7, 2013).*

**SWMU-20 CYCLOHEXYLAMINE DATA  
BOILER CONDENSATE INVESTIGATION  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

Page 1 of 1

Location	Lab ID:	Date Collected	Cyclohexylamine (mg/L) Method 8015B
MW-19A	VH99C	9/4/2012	1.0 U
	VV84	12/11/2012	1.0 U
	WE34C	02/20/2013	1.0 U
	WQ62B	5/30/2013	1.0 U
MW-21A	VH99A	9/4/2012	1.0 U
	VV84	12/11/2012	1.0 U
	WE34B	02/20/2013	1.0 U
	WQ62A	5/30/2013	1.0 U
MW-22A	VH99B	9/4/2012	1.0 U
	VV84	12/11/2012	1.0 U
	WE34D	02/20/2013	1.0 U
	WQ62C	5/30/2013	1.0 U
BDC-05-23	VI09A	9/5/2012	1.0 U
	VV84	12/11/2012	1.0 U
	WE34A	02/20/2013	1.0 U
	WQ62D	5/30/2013	1.0 U

U = Indicates the compound was not detected at the reported concentration.

*DEVELOPMENTAL CENTER*  
**GROUNDWATER MONITORING**  
**MAY 2013**

**SWMU-17 VOA/METALS/CONVENTIONALS DATA TABLES**

**SWMU-17 CLEANUP ACTION SUMMARY**

**SWMU-17 REMEDIAL ACTION INJECTION AND MONITORING WELLS**

**SWMU-17 VOA/METALS/CONVENTIONALS DATA  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
FEBRUARY AND MAY 2013**

Page 1 of 2

Sample Name:	BDC-05-02	BDC-05-02	BDC-05-03	BDC-05-04	BDC-05-05	BDC-05-07	BDC-05-08	BDC-05-09	BDC-05-10	BDC-05-11	BDC-05-12	BDC-05-13	BDC-05-14	BDC-05-15	BDC-05-16	BDC-05-16-Dup	BDC-05-16			
LLI Sample ID:	1371869	1392585	1392585	1392573	1392573	1392585	1392573	1392585	1392585	1392585	1371869	1392585	1392585	1392585	1371869	1371869	1392585			
LLI SDG:	6966552	7070820	7070796	7070560	7070566	7070826	7070572	7070814	7070808	7070802	6966544	7070790	7070778	7070772	6966542	6966548	7070838			
Sample Date:	2/26/2013	5/22/2013	5/22/2013	5/23/2013	5/23/2013	5/22/2013	5/23/2013	5/22/2013	5/22/2013	5/22/2013	2/25/2013	5/22/2013	5/22/2013	5/22/2013	5/22/2013	2/25/2013	2/25/2013	5/22/2013		
<b>Test ID: VOA SW8260C (µg/L)</b>																				
Vinyl Chloride	2.7	0.6	1.1	0.2 U	0.2 U	0.5	0.2 U	3.7	11	2.9	4.4	5.0	1.2	1.3	16	13	13	7.7		
cis-1,2-Dichloroethene	1.2	0.7	0.4	2.1	0.2 U	8.6	0.4	1.0	0.3	0.3	1.7	0.8	0.3	0.2	0.3	1.0 U	1.0 U	0.2		
Trichloroethene	1.0 U	0.5	0.5	0.2 U	0.9	0.3	0.2 U	0.2 U	0.2 U	0.2 U	1.0 U	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	0.2 U			
Tetrachloroethene	1.0 U	0.3	0.4	0.2 U	0.3	0.2 U	1.0 U	0.2 U	0.2 U	0.2 U	1.0 U	1.0 U	0.2 U							
<b>Test ID: Total Metals (mg/L)</b>																				
Arsenic (EPA 200.8)		0.0055	0.0042	0.0261	0.0008 J	0.0062	0.0084	0.0259	0.0563	0.0353		0.0222	0.0188	0.0120	0.0648			0.0434		
Copper (EPA 200.8)		0.0023	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0024	0.0032	0.0025	0.0020 U		0.0020 U	0.0020 U	0.0020 U	0.0020 U		0.0020 U			
<b>Test ID: Dissolved Metals (mg/L)</b>																				
Arsenic (EPA 200.8)		0.0049	0.0025	0.0265	0.0005 J	0.0065	0.0068	0.0249	0.0533	0.0323		0.0219	0.0185	0.0116	0.0606			0.0475		
Copper (EPA 200.8)		0.0020 U		0.0020 U	0.0020 U	0.0020 U	0.0020 U		0.0020 U											
<b>Test ID: Conventionals (mg/L)</b>																				
Nitrate (EPA 300.0)																				
Sulfate (EPA 300.0)	0.30 U	0.57 J	2.7	13.7	11.7	0.45 J	0.30 U	0.30 U	0.49 J	0.43 J	0.30 U	0.30 U	0.43 J	0.30 U	0.32 J	0.30 U	0.30 U	0.38 J		
Total Organic Carbon (SM5310C)	32.2	19.3	6.6	12.7	1.5	10.5	5.7	40.6	50.8	42.1	27.5	35.4	21.4	26.3	42.9	34.6	35.1	33.1		
<b>Test ID: Dissolved Gases; Mod RSK-175 (µg/L)</b>																				
Methane	17000	15000					11000		17000	20000	23000	26000	24000	23000	26000	25000	28000	27000	26000	
Ethane		1.0 U	1.0 U					1.0 U		3.4 J	3.0 U	3.7 J	1.0 U	3.0 U	3.9 J	3.0 U	3.0 U	2.7 U	1.0 U	3.0 U
Ethene		1.4 J	1.0 U					1.0 U		23	14	16	3.8 J	12	3.8 J	1.3 J	11	4.7	5.2	3.9 J
Acetylene		1.0 U	1.0 U					1.0 U		1.0 U	1.0 U	1.0 U	1.0 U							

**SWMU-17 VOA/METALS/CONVENTIONALS DATA  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
FEBRUARY AND MAY 2013**

Page 2 of 2

Sample Name:	BDC-05-17	BDC-05-18	BDC-05-18	BDC-05-19	BDC-05-19	BDC-05-20	BDC-05-20	BDC-05-21	BDC-05-21	BDC-05-22	BDC-05-22	BDC-05-23	BDC-05-23	BDC-05-24	BDC-05-24	Trip Blank	Trip Blank	Trip Blank
LLI Sample ID:	1392573	1371869	1392573	1371869	1392585	1371869	1392573	1371869	1392573	1371869	1392573	1371869	1392573	1371869	1392585	1371869	1392585	1371869
LLI SDG:	7070578	6966545	7070608	6966543	7070784	6966550	7070584	6966549	7070590	6966551	7070596	6966547	7070602	6966546	7070766	6966553	7070844	1392573
Sample Date:	5/23/2013	2/25/2013	5/23/2013	2/25/2013	5/22/2013	2/26/2013	5/23/2013	2/26/2013	5/23/2013	2/26/2013	5/23/2013	2/25/2013	5/23/2013	2/25/2013	5/22/2013	2/25/2013	5/22/2013	5/23/2013
<b>Test ID: VOA SW8260C (µg/L)</b>																		
Vinyl Chloride	5.1	0.2 U	0.2 U	20	9.6	6.1	8.1	3.3	6.5	1.2	0.6	1.0	1.0	1.9	2.1	0.2 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	0.7	5.7	4.1	6.9	5.1	9.8	10	0.8	0.9	9.4	10	4.2	4.7	5.1	7.6	0.2 U	0.2 U	0.2 U
Trichloroethene	0.2 U	4.6	5.2	1.0 U	0.2 U	0.5	0.4	0.3	0.3	1.3	1.2	0.5	0.5	0.7	0.8	0.2 U	0.2 U	0.2 U
Tetrachloroethene	0.2 U	2.0	3.1	1.0 U	0.2 U	0.2 U	0.2 U											
<b>Test ID: Total Metals (mg/L)</b>																		
Arsenic (EPA 200.8)	0.142			0.0139		0.0536		0.0161		0.0244		0.0294		0.0152		0.0035		
Copper (EPA 200.8)	0.0020 U			0.0020 U		0.0059		0.0020 U										
<b>Test ID: Dissolved Metals (mg/L)</b>																		
Arsenic (EPA 200.8)	0.0620			0.0136		0.0507		0.0174		0.0224		0.0290		0.0149		0.0027		
Copper (EPA 200.8)	0.0020 U			0.0020 U														
<b>Test ID: Conventionals (mg/L)</b>																		
Nitrate (EPA 300.0)																		
Sulfate (EPA 300.0)	0.30 U	9.2	7.0	0.31 J	0.85 J	0.30 U	0.30 U	0.30 U	0.30 U	10.1	6.3	0.87 J	1.7	1.1	0.82 J			
Total Organic Carbon (SM5310C)	45.8	2.0	1.3	53.0	52.4	16.3	16.9	8.7	8.2	7.5	8.7	9.2	11.0	7.2	7.4			
<b>Test ID: Dissolved Gases; Mod RSK-175 (µg/L)</b>																		
Methane	26000	1300	1000	23000	22000	22000	25000	18000							9100		5.0 U	
Ethane	3.0 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U							1.2 J		5.0 U	
Ethene	4.3 J	1.0 U	1.0 U	6.5	7.2	1.0 U	1.5 J	1.0 U							1.1 J		5.0 U	
Acetylene	1.0 U							1.0 U		5.0 U								

µg/L = micrograms per liter.

mg/L = milligrams per liter.

EPA = U.S. Environmental Protection Agency

U = Indicates compound was analyzed for, but was not detected at the given detection limit.

J = Indicates the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

**GROUNDWATER DATA SUMMARY  
BOEING DEVELOPMENTAL CENTER SWMU-17**

		Pilot Injection	Full Injection #1	Volatile Organic Compounds						Metals				Aquifer Redox Conditions						Donor Indicators		Comments	
		Elapsed Time From Injection (days)	Elapsed Time From Injection (days)	PCE	TCE	cDCE	VC	Ethene	Ethane	Acetylene	As, Tot	As, Dis	Cu, Tot	Cu, Dis	DO	Nitrate	Iron II	Sulfate	Methane	ORP	TOC	pH	
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg-N/L)	(mg/L)	(mg/L)	(mg/L)	(mV)	(mg/L)		
<b>Proposed Groundwater Cleanup Levels (a)</b>				5.3	1.4	134	2.4	NA	NA	NA	0.008	0.008	0.008	0.008									
<b>Well</b>	<b>Date</b>																						
BDC-05-02	5/21/2007	-526		20	24	1.2	<1.0				0.003	0.002	0.004	<0.002									
(IW)	11/26/2007	-337		12	14	1.3	<1.0				0.001	<0.001	<0.002	<0.002									
	5/22/2008	-159		14	20	1.2	<0.2				0.002	<0.001	0.004	<0.002									
BDC-05-02	10/23/2008	-5		31	62	2.9	<1.0	<1.1	<1.2	<1.1	0.003	0.003	0.006	<0.002	5.15	0.4	0.2	13.0	0.19	87.1	5.5	6.47	
BDC-05-02	11/20/2008	23		5.1	4.2	0.7	<0.2	<1.1	<1.2	<1.1	0.017	0.011	0.008	<0.002	0.29	<0.1	1.8	64.8	3.3	-111	430	6.47	
BDC-05-02	12/16/2008	49		6.6	7.3	1.3	<1.0	<1.1	<1.2	<1.1	0.024	0.017	0.030	0.003	1.28	<0.1	3.4	88.8	2.9	-225	610	6.41	
BDC-05-02	1/16/2009	80		7.5	22	3.7	<1.0	<1.1	<1.2	<1.1	0.022	0.014	0.029	<0.002	0.09	<1.0	3.5	6.9	6.2	-304	732	6.10	
BDC-05-02	2/11/2009	106		9.5	17	12	<1.0	<1.1	<1.2	<1.1	0.046	0.040	0.004	<0.002	2.36	<0.1	4.0	<0.1	13.2	-99	433	6.32	
BDC-05-02	3/9/2009	132		9.1	8.1	25	<1.0	<1.1	<1.2	<1.1	0.041	0.036	0.004	<0.002	0.09	<1.0	3.5	<1.0	22.9	-102	317	6.43	
BDC-05-02	4/16/2009	170		7.3	6.0	41	<1.0	<1.1	<1.2	<1.1	0.029	0.025	0.003	<0.002	1.78	<0.1	3.0	<0.5	26.3	-97	274	6.59	
BDC-05-02	5/13/2009	197		4.4	4.6	35	1.4	<1.1	<1.2	<1.1	0.024	0.019	0.004	0.002	0.27	<0.1	5.2	<0.1	23.0	-63	215	6.61	
BDC-05-02	8/16/2009	292		1.8	1.1	49	<1.0	<1.1	<1.2	<1.1	0.023	0.017	0.009	<0.002	1.58	<0.5	3.6	<0.5	22.6	-23	125	6.77	Black tint, black flakes, suspended solids
BDC-05-02	11/13/2009	381		1.0	<1.0	70	<1.0	<1.1	<1.2	<1.1	0.020	0.016	0.003	<0.002	1.07	<0.1	2.8	0.3	21.1	-26	44.1	6.05	Black tint
BDC-05-02	2/16/2010	476		<1.0	<1.0	54	<1.0	<1.1	<1.2	<1.1	0.022	0.020	0.005	0.002	1.52	<0.5	2.0	0.5	22.5	763	86.7	6.87	
BDC-05-02	5/18/2010	567		<1.0	1.0	32	<1.0	<1.1	<1.2	<1.1	0.013	0.012	<0.002	<0.002	1.83	<0.5	2.3	<0.5	18.4	515	20.6	6.69	
BDC-05-02	8/17/2010	658		<1.0	<1.0	23	<1.0	<1.1	<1.2	<1.1	0.010	0.008	<0.002	<0.002	2.82	0.2	2.7	1.4	20.2	55	13.3	6.74	
BDC-05-02	11/9/2010	742		<1.0	<1.0	14	<1.0	<1.1	<1.2	<1.1	0.006	0.005	<0.002	<0.002	2.77	<0.1	2.2	0.3	16.9	72	10.8	6.83	
BDC-05-02	2/15/2011	840		<1.0	<1.0	13	<1.0	<1.1	<1.2	<1.1	0.007	0.006	0.003	<0.002	2.43	<0.1	3.0	0.7	17.8	114	13.2	6.80	
BDC-05-02	5/2/2011	916		0.6	0.9	22	0.3	<1.1	<1.2	<1.1	0.008	0.007	<0.002	<0.002	2.09	<0.1	1.4	0.2	13.3	13	9.8	6.86	
BDC-05-02	7/31/2011	1006	-18	<1.0	<1.0	10	<1.0	<1.1	<1.2	<1.1	0.006	0.005	<0.002	<0.002	1.97	<0.1	3.2	0.2	15.0	-35	8.7	6.82	
BDC-05-02	11/2/2011	1100	76	8.4	4.8	150	1.6	<1.1	<1.2	<1.1	0.025	0.022	0.010	0.010	2.40	<0.1	3.5	1.4	9.0	-28	5360	5.43	
BDC-05-02	2/19/2012	1209	185	<4.0	<4.0	220	<4.0	<1.0	<1.0	<1.0	0.027	0.025	0.004	0.002	1.37	<0.5	1.3	<1.5	8.5	-32	673	6.70	
BDC-05-02	5/7/2012	1287	263	<2.0	<2.0	180	<2.0	<1.0	<1.0	<1.0	0.051	0.049	0.004	<0.002	0.60	2.2	0.8	19.0	35	412	6.71		
BDC-05-02	9/5/2012	1408	384	<2.0	<2.0	57	<2.0	<1.0	<1.0	<1.0	0.011	0.007	0.006	0.003	0.11	1.8	<0.3	10.0	71	116	6.45		
BDC-05-02	11/15/2012	1479	455	<2.0	<2.0	32	5.5	<1.0	<1.0	<1.0	0.014	0.013	<0.003	<0.002	0.03	1.2	<0.3	20.0	17	106	6.49		
BDC-05-02	2/26/2013	1582	558	<1.0	<1.0	1.2	2.7	<1.0	<1.0	<1.0	0.001	<0.002	<0.002	<0.002	0.12	1.2	<0.30	17.0	45	32.2	6.66		
BDC-05-02	5/22/2013	1667	643	0.3	0.5	0.7	0.6	<1.0	<1.0	<1.0	0.006	0.005	0.002	<0.002	0.21	1.0	0.57	15.0	-316	19.3	7.74		
BDC-05-03	5/21/2007	-526		3.5	8.1	11	<1.0				0.003	<0.001	0.004	<0.002									
(MW 17 ft DG)	11/26/2007	-337		2.3	4.4	7.2	<1.0				0.002	<0.001	0.003	<0.002									
	5/22/2008	-159		3.8	8.5	13	<0.2				0.002	<0.001	0.003	<0.002									
BDC-05-03	10/23/2008	-5		4.2	8.2	17	<0.2	<1.1	<1.2	<1.1	0.004	0.002	0.004	0.002	0.37	<0.1	0.1	4.9	2.1	48.9	4.9	6.23	
BDC-05-03	11/20/2008	23		1.8	2.1	2.7	<0.2	<1.1	<1.2	<1.1	0.003	0.001	0.004	<0.002	2.07	0.9	1.6	8.5	3.6	-8	7.0	6.23	
BDC-05-03	12/16/2008	49		2.2	4.1	5.8	<1.0	<1.1	<1.2	<1.1	0.001	<0.001	0.002	<0.002	1.20	0.4	2.4	20.1	4.7	-67	5.4	6.44	
BDC-05-03	1/16/2009	80		1.5	1.2	<1.0	<1.0	<1.1	<1.2	<1.1	0.001	<0.001	0.002	<0.002	0.71	1.7	0.4	10.3	1.5J	-144	3.2	6.17	
BDC-05-03	2/11/2009	106		1.8	3.2	4.4	<1.0	<1.1	<1.2	<1.1	0.002	<0.001	0.002	<0.002	2.43	0.9	2.4	6.2	5.4	-60	5.4	6.59	
BDC-05-03	3/9/2009	132		1.3	1.7	1.4	<1.0	<1.1	<1.2	<1.1	0.001	<0.001	0.002	<0.002	0.86	1.0	1.0	6.6	4.3	39	4.8	6.48	
BDC-05-03	4/16/2009	170		1.5	2.2	2.8	<1.0	<1.1	<1.2	<1.1	0.001	0.002	0.002	<0.002	1.42	1.0	1.4	4.8	3.3	14	5.4	6.69	
BDC-05-03	5/13/2009	197		1.2	2.1	3.4	<1.0	<1.1	<1.2	<1.1	0.001	0.004	0.004	0.002	1.06	1.0	3.0	4.8	6.9	31	5.5	6.75	
BDC-05-03	8/16/2009	292		2.2	4.3	8.1	<1.0	<1.1	<1.2	<1.1	0.001	0.001	<0.002	<0.002	0.85	0.1	3.0	3.0	8.3	-42	6.5	7.11	
BDC-05-03	11/13/2009	381		1.2	1.2	<1.0	<1.0	<1.1	<1.2	<1.1	0.002	0.001	0.003	<0.002	1.66	0.2	3.0	5.6	5.0	57	4.3	6.37	
BDC-05-03	2/16/2010	476		1.4	1.0	<1.0	<1.0	<1.1	<1.2	<1.1	0.002	<0.001	0.005	0.005	1.25	2.5	0.0	8.6	<0.0007	663	3.5	6.30	
BDC-05-03	5/18/2010	567		1.2	1.8	2.7	<1.0	<1.1	<1.2	<1.1	0.002	0.001	0.004	0.003	0.88	1.5	2.0	4.9	2.4	346	4.7	6.42	
BDC-05-03	8/17/2010	658		2.3	5.2	14	<1.0	<1.1	<1.2	<1.1	0.002	0.001	0.003	<0.002	2.10	0.2	2.7	2.8	7.1	73	7.6	6.79	
BDC-05-03	11/9/2010	742		1.4	1.7	3.7	<1.0	<1.1	<1.2	<1.1	0.001	0.001	0.003	<0.002	3.20	0.5	2.2	5.3	3.0	133	4.7	7.61	
BDC-05-03	2/15/2011	840		1.3	<1.0	2.3	<1.0	<1.1	<1.2	<1.1	0.001	0.003	0.003	0.003	2.86	0.7	0.0	6.2	4.6	166	5.4	7.01	
BDC-05-03	5/2/2011	916	-108	1.7	1.0	0.2	<0.2	<1.1	<1.2	<1.1	0.002	0.004	0.005	0.003	3.31	0.8</							

**GROUNDWATER DATA SUMMARY  
BOEING DEVELOPMENTAL CENTER SWMU-17**

	Pilot Injection	Full Injection #1	Volatile Organic Compounds						Metals				Aquifer Redox Conditions					Donor Indicators						
			Elapsed Time From Injection (days)	Elapsed Time From Injection (days)	PCE	TCE	cDCE	VC	Ethene	Ethane	Acetylene	As, Tot	As, Dis	Cu, Tot	Cu, Dis	DO	Nitrate	Iron II	Sulfate	Methane	ORP	TOC	pH	
					( $\mu\text{g/L}$ )	( $\text{mg/L}$ )	( $\text{mg/L}$ )	( $\text{mg/L}$ )	( $\text{mg/L}$ )	( $\text{mg/L}$ )	( $\text{mg-N/L}$ )	( $\text{mg/L}$ )	( $\text{mg/L}$ )	( $\text{mg/L}$ )	(mV)	( $\text{mg/L}$ )	( $\text{mg/L}$ )							
<b>Proposed Groundwater Cleanup Levels (a)</b>					5.3	1.4	134	2.4	NA	NA	NA	0.008	0.008	0.008	0.008									
Well	Date																						Comments	
BDC-05-04	4/16/2009	170			1.2	<1.0	<1.0	<1.0	<1.1	<1.2	<1.1	0.011	0.001	<0.002	<0.002	1.48	5.9	1.4	33.6	<0.0007	68	5.7	6.29	
BDC-05-04	5/13/2009	197			<1.0	<1.0	1.0	<1.0	<1.1	<1.2	<1.1	0.007	0.001	0.002	0.002	0.33	4.5	1.6	26.6	0.4	49	5.2	6.37	
BDC-05-04	8/16/2009	292			1.3	<1.0	<1.0	<1.0	<1.1	<1.2	<1.1	0.012	0.001	0.002	<0.002	0.86	5.4	2.2	30.6	<0.0007	93	5.0	6.97	
BDC-05-04	11/13/2009	381			<1.0	<1.0	1.2	<1.0	<1.1	<1.2	<1.1	0.005	0.001	<0.002	<0.002	0.56	2.2	3.0	18.4	2.4	109	4.4	5.86	
BDC-05-04	2/16/2010	476			<1.0	<1.0	1.1	<1.0	<1.1	<1.2	<1.1	0.004	0.002	0.012	0.002	0.88	<0.1	3.3	24.6	1.5	899	8.9	6.24	
BDC-05-04	5/18/2010	567			1.1	<1.0	1.2	<1.0	<1.1	<1.2	<1.1	0.014	0.001	0.005	<0.002	0.75	<0.1	3.0	25.4	1.3	473	7.1	6.19	
BDC-05-04	8/17/2010	658			<1.0	<1.0	3.0	<1.0	<1.1	<1.2	<1.1	0.012	0.002	<0.002	<0.002	1.00	<0.1	2.8	17.7	3.5	108	8.7	6.48	
BDC-05-04	11/9/2010	742			<1.0	<1.0	4.3	<1.0	<1.1	<1.2	<1.1	0.008	0.004	<0.002	<0.002	2.21	<0.1	2.2	21.3	3.0	101	7.2	6.84	
BDC-05-04	2/15/2011	840			<1.0	<1.0	2.9	<1.0	<1.1	<1.2	<1.1	0.007	0.004	<0.002	<0.002	2.50	<0.1	2.4	19.4	4.5	93	6.9	6.85	
BDC-05-04	5/2/2011	916	-108	0.4	0.5	3.1	<0.2					0.008	0.004	<0.002	<0.002	1.69	<0.1	2.2	18.0	1.8	49	6.8	6.76	
BDC-05-04	11/2/2011	1100	76	<1.0	<1.0	4.2	<1.0					0.007	0.006	<0.002	<0.002	1.52	<1.0	1.2	<1.0		-3	6.6	7.17	
BDC-05-04	5/7/2012	1287	263	0.4	0.6	3.6	<0.2					0.017	0.016	<0.002	<0.002	0.16		2.0	21.5		98	8.6	6.39	
BDC-05-04	11/16/2012	1480	456	<0.5	<0.5	3.3	<0.5					0.012	0.010	0.002	<0.002	0.02		1.2	14.3		27	6.5	6.65	
BDC-05-04	5/23/2013	1668	644	<0.2	<0.2	2.1	<0.2					0.026	0.027	<0.002	<0.002	0.49		1.5	13.7		-310	12.7	7.78	
BDC-05-05	5/21/2007	-526			<1.0	<1.0	<1.0	<1.0				0.002	<0.001	0.003	<0.002									
(MW UG)	11/26/2007	-337			<1.0	<1.0	<1.0	<1.0				<0.001	<0.001	<0.002	<0.002									
	5/22/2008	-159			0.3	0.8	<0.2	<0.2				0.002	<0.001	0.003	<0.002									
BDC-05-05	10/23/2008	-5														0.005	0.001	0.005	0.003	4.61		52	6.25	
BDC-05-05	11/20/2008	23			0.3	0.7	<0.2	<0.2																
BDC-05-05	12/16/2008	49																						
BDC-05-05	1/16/2009	80																						
BDC-05-05	2/11/2009	106																						
BDC-05-05	3/9/2009	132																						
BDC-05-05	4/16/2009	170																						
BDC-05-05	5/13/2009	197			<1.0	<1.0	<1.0	<1.0				0.003	<0.001	0.006	0.002	3.24		68		6.72				
BDC-05-05	8/16/2009	292											0.001	<0.001	<0.002	<0.002	2.85	1.2	0.0	8.7		166		5.84
BDC-05-05	11/13/2009	381			<1.0	<1.0	<1.0	<1.0				0.002	<0.004	0.002	<0.002	3.47	0.0				494		6.74	
BDC-05-05	2/16/2010	476			<1.0	<1.0	<1.0	<1.0				0.002	<0.004	0.002	<0.002	3.40					158		6.98	
BDC-05-05	5/18/2010	567			<1.0	<1.0	<1.0	<1.0				0.001	<0.003	0.003	<0.002	2.84	<0.1	0.0	7.5		85	1.7	7.66	
BDC-05-05	8/17/2010	658			<1.0	<1.0	<1.0	<1.0				<0.001	<0.001	0.003	<0.002	3.23	0.0	0.0	22.1		219	1.1	6.42	
BDC-05-05	11/9/2010	742			<1.0	1.1	<1.0	<1.0				0.001	0.0005	0.003	<0.002	1.76	0.2	0.2	20.6		<0.003	27	<1.0	6.82
BDC-05-05	2/15/2011	840										0.001	0.001	<0.002	<0.002	4.69	0.7	0.7	11.7		-165	1.5	7.35	
BDC-05-07	5/21/2007	-526			30	22	10	<1.0				0.003	<0.001	0.014	0.009									
(IW)	11/26/2007	-337			28	25	11	<1.0				<0.001	<0.001	0.011	0.002									
	5/22/2008	-159			33	32	9.2	<0.2				0.002	<0.001	0.012	0.006									
BDC-05-07	10/23/2008	-5			22	24	14	<0.2				<1.1	0.004	0.002	0.022	0.013	9.71	9.6	0.0	33.4	0.6	86.0	7.8	6.47
BDC-05-07	11/20/2008	23			17	17	4.9	<0.2				<1.1	0.003	<0.001	0.016	0.010	0.60	2.2	0.4	15.8	0.2	-27	4.6	6.46
BDC-05-07	12/16/2008	49			16	25	7.2	<1.0				<1.1	0.003	0.001	0.016	0.012	1.20	4.8	0.0	29.4	0.6	-107	6.1	6.49
BDC-05-07	1/16/2009	80			20	23	6.4	<1.0				<1.1	0.002	<0.001	0.013	0.008	0.00	8.4	0.0	32.6	0.03	-182	6.3	6.38
BDC-05-07	2/11/2009	106			23	28	9.9	<1.0				<1.1	0.002	0.001	0.017	0.012	2.05	11.2	0.0	37.5	1.5	-68	9.3	6.37
BDC-05-07	3/9/2009	132			20	21	8.4	<1.0				<1.1	<0.002	<0.001	0.013	0.009	0.00	8.8	0.3	35.3	5.5	-23	6.8	6.37
BDC-05-07	4/16/2009	170			20	21	11	<1.0				<1.1	0.002	0.001	0.015	0.008	0.27	8.2	0.0	31.2	5.1	35	8.1	6.43
BDC-05-07	5/13/2009	197			11	13	7.5	<1.0				<1.1	0.002	0.001	0.016	0.008	0.29	6.8	0.4	27.2	7.9	34	7.3	6.47
BDC-05-07	8/16/2009	292			11	12	13	<1.0				<1.1	0.002	0.001	0.010	<0.002	0.74	2.3	2.0	23.2	6.8	67	8.2	6.73
BDC-05-07	11/13/2009	381			6.5	5.3	5.6	<1.0				<1.1	0.002	0.001	0.004	<0.002	0.50	<0.1	2.8	5.7	4.7	16	9.1	6.48
BDC-05-07	2/16/2010	476			6.4	6.9	28	<1.0				<1.1	0.004	0.003	0.017	0.006	1.04	0.0	2.5	20.4	5.2	839	14.7	6.88
BDC-05-07	5/18/2010	567			5.8	9.2	41	1.2				<1.1	0.009	0.003	0.009	<0.002	1.06	<0.5	2.0	16.4	6.0	525	14.8	6.77
BDC-05-07	8/17/2010	658			2.8	7.8	19	<1.0				<1.1	0.006	0.003	0.008	<0.002	2.30	<0.1	2.5	8.6	7.1	-15	18.8	7.34
BDC-05-07	11/9/2010	742			<1.0	9.4	20	<1.0				<1.1	0.008	0.005	0.009	<0.002	2.42	<0.1	2.2	15.2	5.1	13	15.2	7.35
BDC-05-07	2/15/2011	840			<1.0	8.7																		

**GROUNDWATER DATA SUMMARY  
BOEING DEVELOPMENTAL CENTER SWMU-17**

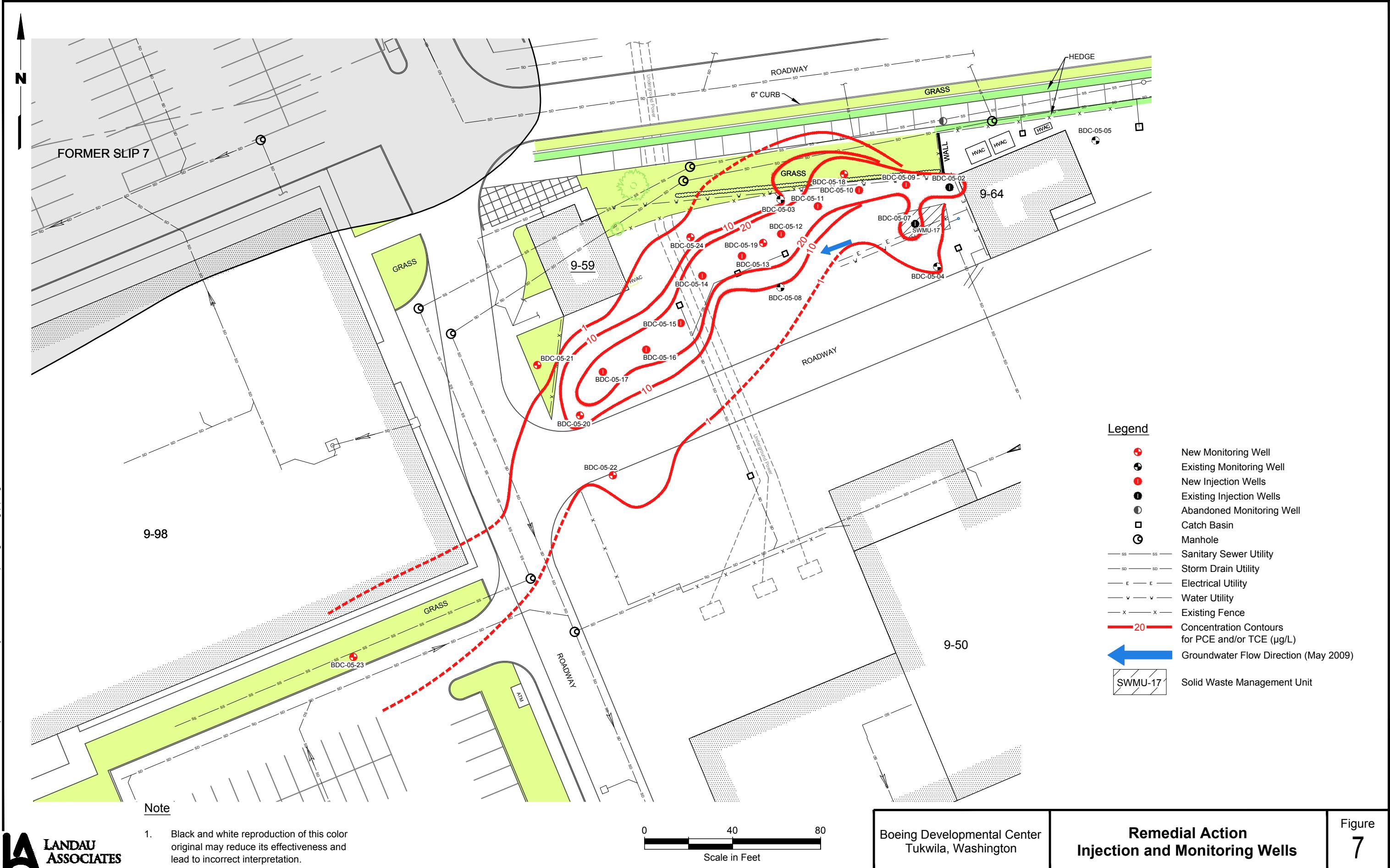
		Pilot Injection	Full Injection #1	Volatile Organic Compounds						Metals				Aquifer Redox Conditions					Donor Indicators			
		Elapsed Time From Injection (days)	Elapsed Time From Injection (days)	PCE ( $\mu\text{g/L}$ )	TCE ( $\mu\text{g/L}$ )	cDCE ( $\mu\text{g/L}$ )	VC ( $\mu\text{g/L}$ )	Ethene ( $\mu\text{g/L}$ )	Ethane ( $\mu\text{g/L}$ )	Acetylene ( $\mu\text{g/L}$ )	As, Tot (mg/L)	As, Dis (mg/L)	Cu, Tot (mg/L)	Cu, Dis (mg/L)	DO (mg/L)	Nitrate (mg-N/L)	Iron II (mg/L)	Sulfate (mg/L)	Methane (mg/L)	ORP (mV)	TOC (mg/L)	pH
<b>Proposed Groundwater Cleanup Levels (a)</b>				5.3	1.4	134	2.4	NA	NA	NA	0.008	0.008	0.008	0.008								
<b>Well</b>	<b>Date</b>																					
BDC-05-07	5/22/2013	1667	643	<0.2	0.3	8.6	0.5	<1.0	<1.0	<1.0	0.006	0.007	<0.002	<0.002	0.17		1.4	0.45	11.0	-372	10.5	8.09
BDC-05-08	10/23/2008	-5		1.1	3.7	3.5	<0.2	<1.1	<1.2	<1.1	0.007	<0.001	0.004	<0.002	1.90	0.3	0.0	8.9	4.7	-12.0	5.1	6.65
(MW 24 ft XG)	11/20/2008	23		1.1	3.4	4.2	<0.2	<1.1	<1.2	<1.1	0.035	0.004	0.036	<0.002	0.80	0.7	2.2	7.2	5.5	-43	5.9	6.63
	12/16/2008	49		1.2	4.3	4.3	<1.0	<1.1	<1.2	<1.1	0.008	0.001	0.006	<0.002	0.50	0.9	4.6	21.8	3.6	-99	5.4	6.61
BDC-05-08	1/16/2009	80		1.3	4.2	3.6	<1.0	<1.1	<1.2	<1.1	0.008	0.002	0.007	<0.002	0.25	1.7	3.0	7.0	6.9	-185	5.8	6.59
BDC-05-08	2/11/2009	106		<1.0	3.2	3.9	<1.0	<1.1	<1.2	<1.1	0.019	0.001	0.010	<0.002	2.38	0.3	4.4	4.7	4.4	-78	7.0	6.69
BDC-05-08	3/9/2009	132		<1.0	2.7	3.5	<1.0	<1.1	<1.2	<1.1	0.009	0.003	0.007	<0.002	0.07	<0.1	3.6	3.8	4.9	-4	6.7	6.65
BDC-05-08	4/16/2009	170		<1.0	2.3	4.4	<1.0	<1.1	<1.2	<1.1	0.007	0.003	0.006	<0.002	0.42	<0.1	2.0	1.7	6.7	-8	6.8	6.80
BDC-05-08	5/13/2009	197		<1.0	1.6	3.0	<1.0	<1.1	<1.2	<1.1	0.009	0.003	0.007	0.002	1.77	<0.1	4.0	0.8	11.4	-13	6.0	6.87
BDC-05-08	8/16/2009	292		<1.0	2.1	3.5	<1.0	<1.1	<1.2	<1.1	0.012	0.008	<0.002	<0.002	0.87	<0.1	2.8	5.3	13.2	-20	6.1	7.15
BDC-05-08	11/13/2009	381		<1.0	1.2	3.1	<1.0	<1.1	<1.2	<1.1	0.011	0.008	<0.007	<0.002	0.73	<0.1	2.8	3.3	17.4	0.8	8.4	6.44
BDC-05-08	2/16/2010	476		<1.0	<1.0	2.3	<1.0	<1.1	<1.2	<1.1	0.024	0.009	0.024	<0.002	0.63	<0.1	3.0	0.8	13.1	841	8.3	6.76
BDC-05-08	5/18/2010	567		<1.0	<1.0	2.4	<1.0	<1.1	<1.2	<1.1	0.031	0.011	0.027	<0.002	0.96	<0.1	3.0	0.8	14.9	451	7.3	6.92
BDC-05-08	8/17/2010	658		<1.0	<1.0	2.3	<1.0	<1.1	<1.2	<1.1	0.014	0.009	0.013	<0.002	2.57	<0.1	3.2	0.5	10.1	-30	7.2	7.30
BDC-05-08	11/9/2010	742		<1.0	<1.0	3.5	<1.0	<1.1	<1.2	<1.1	0.031	0.012	0.031	<0.002	2.74	<0.1	2.4	0.3	14.2	59	7.6	7.17
BDC-05-08	2/15/2011	840		<1.0	<1.0	2.1	<1.0	<1.1	<1.2	<1.1	0.021	0.010	0.016	<0.002	2.36	<0.1	5.0	0.3	14.1	66	8.7	7.08
BDC-05-08	5/2/2011	916	-108	<0.2	<0.2	2.2	<0.2	<1.1	<1.2	<1.1	0.029	0.010	0.024	<0.002	2.15	<0.1	2.4	0.7	7.8	-28	8.0	7.17
BDC-05-08	11/2/2011	1100	76	<1.0	<1.0	2.4	<1.0				0.014	0.010	0.012	0.003	1.15	<0.1	1.2	0.8	-53	7.3	6.88	
BDC-05-08	5/6/2012	1286	262	<0.2	<0.2	2.7	<0.2				0.021	0.020	0.007	0.002	0.01		2.5	0.4	42	12.4	6.77	
BDC-05-08	11/16/2012	1480	456	<0.5	<0.5	1.3	<0.5				0.014	0.010	0.005	<0.002	0.01		1.0	<0.3	5	8.1	6.91	
BDC-05-09	5/23/2013	1668	644	<0.2	<0.2	0.4	<0.2				0.008	0.007	0.002	<0.002	0.39		1.3	<0.3	-249	5.7	7.68	
BDC-05-09	7/31/2011		-18	30	20	22	<1.0	<1.1	<1.2	<1.1	0.007	0.007	<0.002	<0.002	1.37	<0.1	2.5	12.1	1.4	15	5.5	6.89
(IW)	11/2/2011	76	37	56	44	1.3	<1.1	<1.2	<1.1	<1.1	0.042	0.040	0.009	0.006	2.80	<0.1	3.0	7.6	4.3	80	4360	5.24
	5/7/2012	263	3.0	1.1	250	3.9	<1.0	<1.0	<1.0	<1.0	0.059	0.052	0.011	<0.002	0.69		2.2	0.5	18.0	85	531	6.33
BDC-05-09	11/15/2012	455	<2.0	<2.0	24	20	69	<1.0	<1.0	<1.0	0.074	0.070	0.006	<0.002	0.01		1.2	<0.3	27.0	-10	266	6.71
BDC-05-09	5/22/2013	643	<0.2	<0.2	1.0	3.7	23	3.4	<1.0	<1.0	0.026	0.025	0.003	<0.002	0.18		1.5	<0.3	17.0	-300	40.6	7.83
BDC-05-10	7/31/2011		-18	39	26	12	<1.0	<1.1	<1.2	<1.1	0.002	0.002	<0.002	<0.002	1.41	<0.1	2.0	19.7	0.3	76	4.5	6.84
(IW)	11/2/2011	76	22	27	1.0	<1.0	1.6	1.7	<1.1	<1.2	0.038	0.037	0.008	0.004	2.43	<0.1	2.2	10.9	0.1	-38	2030	5.72
	5/6/2012	262	<1.0	<1.0	120	5.4	1.1	<1.0	<1.0	<1.0	0.052	0.048	0.012	<0.002	0.02		1.7	0.4	19.0	58	270	6.48
BDC-05-10	11/15/2012	455	<1.0	<1.0	4.4	49	8.5	<1.0	<1.0	<1.0	0.069	0.060	0.003	<0.002	0.02		1.0	<0.3	24.0	-11	122	6.63
BDC-05-10	5/22/2013	643	<0.2	<0.2	0.3	11	14	<3.0	<1.0	<1.0	0.056	0.053	0.003	<0.002	0.25		1.2	0.49	20.0	-308	50.8	7.84
BDC-05-11	7/31/2011		-18	16	19	5.8	<1.0	<1.1	<1.2	<1.1	0.005	0.005	<0.002	<0.002	1.41	<0.1	2.0	4.0	1.4	65	3.9	6.93
(IW)	11/2/2011	76	9.6	20	12	<1.0	<1.1	<1.2	<1.1	<1.1	0.039	0.037	0.013	0.004	2.16	<0.1	1.8	<1.0	1.0	-38	1330	5.72
	5/6/2012	262	0.2	0.5	44	7.2	1.6	<1.0	<1.0	<1.0	0.038	0.034	0.009	0.001	0.01		1.4	0.5	18.0	70	284	6.42
BDC-05-11	11/15/2012	455	<1.0	<1.0	6.1	5.7	7.6	<1.0	<1.0	<1.0	0.043	0.038	0.003	<0.002	0.02		1.3	<0.3	26.0	-15	73.8	6.76
BDC-05-11	5/22/2013	643	<0.2	<0.2	0.3	2.9	16	3.7	<1.0	<1.0	0.035	0.032	<0.002	<0.002	0.25		1.6	0.43	23.0	-299	42.1	7.71
BDC-05-12	7/31/2011		-18	15	18	16	<1.0	<1.1	<1.2	<1.1	0.002	0.002	0.002	<0.002	1.60	0.1	2.4	8.4	4.0	26	7.0	7.02
(IW)	11/2/2011	76	11	17	11	<1.0	<1.1	<1.2	<1.1	<1.2	0.041	0.031	0.012	0.009	2.60	<0.1	3.5	5.6	1.0	-77	2960	5.83
	2/19/2012	185	<0.4	<0.4	53	1.8	<1.0	<1.0	<1.0	<1.0	0.082	0.071	0.005	<0.002	1.7	<0.5	2.0	<1.5	17.0	-2	279	6.59
BDC-05-12	5/6/2012	262	<0.2	<0.2	39	3.4	<1.0	<1.0	<1.0	<1.0	0.082	0.071	0.005	<0.002	0.03		2.5	0.8	21.0	65	83.2	6.45
BDC-05-12	9/5/2012	384	<0.2	<0.2	6.5	3.3	1.0	<1.0	<1.0	<1.0	0.037	0.036	0.002	<0.002	0.03		1.8	<0.3	22.0	80	50.4	6.48
BDC-05-12	11/15/2012	455	<1.0	<1.0	7.9	5.4	1.1	<1.0	<1.0	<1.0	0.037	0.036	0.002	<0.002	0.03		1.3	<0.3	27.0	7	52.9	6.56
BDC-05-12	2/25/2013	557	<1.0	<1.0	1.7	4.4	3.8	<1.0	<1.0	<1.0	0.022	0.019	0.009	<0.002	0.18		2.0	<0.3	26.0	54	27.5	6.68
BDC-05-12	5/22/2013	643	<0.2	<0.2	0.8	5.0	12	<3.0	<1.0	<1.0	0.022	0.022	<0.002	<0.002	0.29		1.4	<0.3	24.0	-366	35.4	8.08
BDC-05-13	7/31/2011		-18	5.2	6.6	2.6	<1.0	<1.1	<1.2	<1.1	0.003	0.002	<0.002	<0.002	1.73	<0.1	2.0	2.3	5.0	-1	6.0	7.06
(IW)	11/1/2011	75	<1.0	1.2	39	<1.0	<1.1	<1.2	<1.1	<1.2	0.068	0.064	0.017	0.003	1.82	<1.0	1.5	<1.0	2.2	-70	550	6.65
	5/6/2012	262	<0.2	<0.2	13	3.9	1.7	<1.0	<1.0	<1.0	0.051											

**GROUNDWATER DATA SUMMARY  
BOEING DEVELOPMENTAL CENTER SWMU-17**

		Pilot Injection	Full Injection #1	Volatile Organic Compounds						Metals				Aquifer Redox Conditions					Donor Indicators			
		Elapsed Time From Injection (days)	Elapsed Time From Injection (days)	PCE ( $\mu\text{g/L}$ )	TCE ( $\mu\text{g/L}$ )	cDCE ( $\mu\text{g/L}$ )	VC ( $\mu\text{g/L}$ )	Ethene ( $\mu\text{g/L}$ )	Ethane ( $\mu\text{g/L}$ )	Acetylene ( $\mu\text{g/L}$ )	As, Tot (mg/L)	As, Dis (mg/L)	Cu, Tot (mg/L)	Cu, Dis (mg/L)	DO (mg/L)	Nitrate (mg-N/L)	Iron II (mg/L)	Sulfate (mg/L)	Methane (mg/L)	ORP (mV)	TOC (mg/L)	pH
<b>Proposed Groundwater Cleanup Levels (a)</b>				5.3	1.4	134	2.4	NA	NA	NA	0.008	0.008	0.008	0.008								
Well	Date																					Comments
BDC-05-15	11/15/2012		455	<1.0	<1.0	1.5	7.5	1.8	<1.0	<1.0	0.054	0.049	<0.002	<0.002	0.02		0.8	<0.3	27.0	8	71.2	6.61
BDC-05-15	5/22/2013		643	<0.2	<0.2	0.3	16	11	<3.0	<1.0	0.065	0.061	<0.002	<0.002	0.22		1.0	0.3	25.0	-317	42.9	7.82
BDC-05-16	7/31/2011 (IW)		-18	9.5	17	20	<1.0	<1.1	<1.2	<1.1	0.006	0.006	<0.002	<0.002	1.91	<0.1	1.5	8.9	3.1	-8	7.8	7.06
	11/1/2011		75	2.6	2.8	37	<1.0	<1.1	<1.2	<1.1	0.079	0.074	0.005	0.002	2.30	<1.0	2.5	2.8	3.1	7	2250	5.51
	2/19/2012		185	<2.0	<2.0	46	7.4	<1.0	<1.0	<1.0					1.59	<0.5	2.2	<1.5	18.0	128	1270	5.12
BDC-05-16	5/6/2012		262	<0.2	0.3	6.7	24	2.5	<1.0	<1.0	0.042	0.039	0.003	<0.002	0.06		2.5	<0.3	25.0	121	207	6.28
BDC-05-16	9/5/2012		384	<0.4	<0.4	0.9	8.1	6.0	<1.0	<1.0					0.12		2.0	<0.3	22.0	64	40.6	6.67
BDC-05-16	11/15/2012		455	<1.0	<1.0	<1.0	4.9	4.0	<1.0	<1.0	0.041	0.037	<0.002	<0.002	0.02		1.0	<0.3	28.0	7	32.3	6.68
BDC-05-16	2/25/2013		557	<1.0	<1.0	<1.0	13	4.7	2.7	<1.0					0.41		2.0	<0.30	28.0	68	34.6	6.77
BDC-05-16	5/22/2013		643	<0.2	<0.2	0.2	7.7	3.9	<3.0	<1.0	0.043	0.048	<0.002	<0.002	0.19		1.0	0.38	26.0	-291	33.1	7.70
BDC-05-17	7/31/2011 (IW)		-18	11	22	34	<1.0	<1.1	<1.2	<1.1	0.004	0.004	0.003	0.002	2.03	0.6	1.5	16.0	0.30	59	10.2	6.95
	11/1/2011		75	3.2	4.8	5.1	<1.0	<1.1	<1.2	<1.1	0.053	0.047	0.005	<0.002	2.61	<1.0	2.4	23.9	2.8	-50	3500	5.74
	5/6/2012		262	<2.0	<2.0	9.3	5.6	<1.0	<1.0	<1.0	0.058	0.026	0.003	<0.002	0.24		2.0	0.7	15.0	182	839	6.08
BDC-05-17	11/15/2012		455	<5.0	<5.0	<5.0	5.4	2.0	<1.0	<1.0	0.081	0.062	<0.002	<0.002	0.02		1.0	<0.3	23.0	13	73.5	6.62
BDC-05-17	5/23/2013		644	<0.2	<0.2	0.7	5.1	4.3	<3.0	<1.0	0.142	0.062	<0.002	<0.002	0.44		1.2	<0.3	26.0	-259	45.8	7.54
BDC-05-18	7/31/2011 (MW 12 ft XG)		-18	3.6	5.0	6.6	<1.0	<1.1	<1.2	<1.1	0.019	0.020	<0.002	<0.002	1.57	<0.1	2.4	4.5	3.9	-19	3.2	7.13
	11/1/2011		75	2.8	4.0	7.6	<1.0	<1.1	<1.2	<1.1	0.019	0.020	0.003	0.003	1.37	<0.1	1.2	1.2	4.3	-106	21.7	6.88
	2/19/2012		185	1.8	3.7	12	<0.2	<1.0	<1.0	<1.0					0.19	<0.5	2.2	<1.5	11.0	9	2.7	6.66
BDC-05-18	5/6/2012		262	2.0	4.0	9.6	<0.2	<1.0	<1.0	<1.0	0.013	0.013	<0.002	<0.002	0.21		2.5	2.1	7.5	132	2.5	6.39
BDC-05-18	9/5/2012		384	1.5	3.1	11	0.2	<1.0	<1.0	<1.0					0.13		1.5	2.0	7.9	58	1.8	6.91
BDC-05-18	11/15/2012		455	1.0	4.3	16	<0.5	<1.0	<1.0	<1.0	0.015	0.014	<0.002	<0.002	0.48		1.4	2.4	8.3	25	1.7	6.62
BDC-05-18	2/25/2013		557	2.0	4.6	5.7	<0.2	<1.0	<1.0	<1.0					0.25		2.0	9.2	1.3	72	2.0	6.53
BDC-05-18	5/23/2013		644	3.1	5.2	4.1	<0.2	<1.0	<1.0	<1.0	0.014	0.014	<0.002	<0.002	0.30		1.5	7.0	1.0	-262	1.3	7.24
BDC-05-19	7/31/2011 (MW 10 ft DG)		-18	15	21	23	<1.0	<1.1	<1.2	<1.1	0.002	0.001	0.002	<0.002	1.81	0.2	2.6	5.2	4.7	34	7.3	6.97
	11/1/2011		75	9.1	13	36	4.1	<1.1	<1.2	<1.1	0.020	0.020	0.007	<0.002	1.53	<1.0	1.8	2.5	4.5	-142	170	6.82
	2/19/2012		185	<1.0	1.7	68	14	1.4	<1.0	<1.0					0.85	<0.5	2.0	<1.5	22.0	36	296	6.40
BDC-05-19	5/6/2012		262	0.7	1.4	52	23	1.8	<1.0	<1.0	0.058	0.052	0.032	0.008	0.02		2.0	1.4	25.0	69	244	6.39
BDC-05-19	9/5/2012		384	<2.0	<2.0	13	15	3.9	<1.0	<1.0					0.19		1.8	1.4	19.0	73	68.0	6.43
BDC-05-19	11/15/2012		455	<1.0	1.1	9.9	15	5.5	<1.0	<1.0	0.088	0.074	0.006	<0.002	0.21		1.6	1.8	24.0	3	68.1	6.58
BDC-05-19	2/25/2013		557	<1.0	<1.0	6.9	20	6.5	<1.0	<1.0					0.25		2.0	0.31	23.0	71	53.0	6.64
BDC-05-19	5/22/2013		643	<0.2	<0.2	5.1	9.6	7.2	<3.0	<1.0	0.054	0.051	0.006	<0.002	0.28		1.6	0.85	22.0	-385	52.4	8.12
BDC-05-20	7/31/2011 (MW 31 ft DG)		-18	<1.0	7.0	45	<1.0	<1.1	<1.2	<1.1	0.011	0.011	<0.002	<0.002	2.33	<0.1	1.5	7.4	0.2	-42	10.8	7.12
	11/3/2011		77	<1.0	5.7	25	1.0	<1.1	<1.2	<1.1	0.010	0.011	<0.002	<0.002	1.54	<0.1	1.0	6.0	4.6	11	8.3	7.14
	2/19/2012		185	<0.2	2.9	17	2.5	<1.0	<1.0	<1.0					0.35	<0.5	1.5	<1.5	16.0	31	8.2	6.69
BDC-05-20	5/7/2012		263	<0.2	1.8	14	2.2	<1.0	<1.0	<1.0	0.011	0.011	<0.002	<0.002	0.69		1.8	2.3	20.0	20	11.1	6.66
BDC-05-20	9/5/2012		384	<0.4	<0.4	12	2.0	<1.0	<1.0	<1.0					0.08		1.4	<0.3	14.0	67	12.1	6.75
BDC-05-20	11/16/2012		456	<0.5	0.6	17	3.5	<1.0	<1.0	<1.0	0.012	0.013	<0.002	<0.002	0.07		2.0	<0.3	18.0	0.9	13.1	6.88
BDC-05-20	2/26/2013		558	<0.2	0.5	9.8	6.1	<1.0	<1.0	<1.0					0.16		1.5	<0.3	22.0	16	16.3	6.86
BDC-05-20	5/23/2013		644	<0.2	0.4	10	8.1	1.5	<1.0	<1.0	0.016	0.017	<0.002	<0.002	0.25		1.2	<0.3	25.0	-233	16.9	7.55
BDC-05-21	7/31/2011 (MW 30 ft XG)		-18	<1.0	1.0	1.3	14				0.006	0.006	<0.002	<0.002	2.98	<0.1	3.2	0.2	5.6	-31	6.4	7.33
	11/3/2011		77	<1.0	<1.0	1.0	4.7				0.005	0.005	<0.002	<0.002	1.95	<0.1	1.4	6.3		-12	5.2	7.29
	2/19/2012		185	<0.2	0.3	0.7	5.9								0.40	<0.5	1.4	<1.5		47	7.2	6.65
BDC-05-21	5/7/2012		263	<0.2	0.4	0.8	2.5				0.010	0.011	0.005	<0.002	0.86		1.5	1.9		-35	12.3	6.76
BDC-05-21	9/5/2012		384	<0.2	0.3	0.6	2.9								0.08		2.5	1.4		62	9.5	6.78
BDC-05-21	11/16/2012		456	<0.5	<0.5	0.6	2.9				0.020	0.020	<0.002	<0.002	0.02		1.5	0.6		-4	8.9	6.92
BDC-05-21	2/26/2013		558	<0.2	0.3	0.8	3.3								0.24		1.4	<0.3	18.0	-2.6	8.7	7.03
BDC-05-21	5/23/2013		644	<0.2	0.3	0.9	6.5				0.024	0.022	<0.002	<0.002	0.19		1.5	<0.3		-235	8.2	7.50
BDC-05-22	7/31/2011 (MW 48 ft XG)		-18	<1.0	1.1	9.6	1.0				0.025	0.024	<0.002	<0.002	2.02	<0.1	2.2	14.0	5.1	-59	7.9	7.21
	11/3/2011		77	<1.0	2.1	10	<1.0				0.020	0.020	<0.002	<0.002	1.46	<0.1	0.8	18.1		19	6.1	7.08
	2/19/2012		185	<0.2	2.0	13	0.4								0.43	<0.5	1.2	17.0		110	6.2	6.7

**GROUNDWATER DATA SUMMARY  
BOEING DEVELOPMENTAL CENTER SWMU-17**

		Pilot Injection	Full Injection #1	Volatile Organic Compounds						Metals				Aquifer Redox Conditions					Donor Indicators			
		Elapsed Time From Injection (days)	Elapsed Time From Injection (days)	PCE ( $\mu\text{g/L}$ )	TCE ( $\mu\text{g/L}$ )	cDCE ( $\mu\text{g/L}$ )	VC ( $\mu\text{g/L}$ )	Ethene ( $\mu\text{g/L}$ )	Ethane ( $\mu\text{g/L}$ )	Acetylene ( $\mu\text{g/L}$ )	As, Tot (mg/L)	As, Dis (mg/L)	Cu, Tot (mg/L)	Cu, Dis (mg/L)	DO (mg/L)	Nitrate (mg-N/L)	Iron II (mg/L)	Sulfate (mg/L)	Methane (mg/L)	ORP (mV)	TOC (mg/L)	pH
<b>Proposed Groundwater Cleanup Levels (a)</b>				5.3	1.4	134	2.4	NA	NA	NA	0.008	0.008	0.008	0.008								
<b>Well</b>	<b>Date</b>																				<b>Comments</b>	
BDC-05-23	2/19/2012		185	<0.2	0.6	4.7	0.7								0.96	<0.5	1.2	8.9	162	8.1	6.33	
BDC-05-23	5/7/2012		263	<0.2	0.7	5.4	0.8				0.008	0.008	<0.002	<0.002	0.07	2.0	15.8		45	9.3	6.70	
BDC-05-23	9/5/2012		384	<0.2	0.7	6.2	0.9								0.08	1.9	8.8		78	11.3	6.84	
BDC-05-23	11/16/2012		456	<0.5	0.8	6.9	0.5				0.012	0.010	<0.002	<0.002	0.09	1.0	4.9		-6	11.6	7.06	
BDC-05-23	2/25/2013		557	<0.2	0.5	4.2	1.0								0.08	1.5	0.87		72	9.2	6.91	
BDC-05-23	5/23/2013		644	<0.2	0.5	4.7	1.0				0.015	0.015	<0.002	<0.002	0.31	1.2	1.7		-234	11.0	7.59	
BDC-05-24	7/31/2011 (MW 18 ft XG)		-18	<1.0	<1.0	1.6	1.6	<1.1	<1.2	<1.1	0.003	0.003	<0.002	<0.002	1.67	<0.1	2.0	1.1	7.6	-7	10.0	7.06
	11/1/2011		75	<1.0	2.0	4.0	2.2				0.002	0.002	<0.002	<0.002	1.50	<0.1	1.6	0.3		-2.6	8.1	7.06
	2/19/2012		185	<0.2	0.2	0.7	0.8								0.31	<0.5	1.8	<1.5		63	9.8	6.55
BDC-05-24	5/6/2012		262	<0.2	1.3	2.8	1.0				0.006	0.004	<0.002	<0.002	0.03		0.9		73	9.1	6.60	
BDC-05-24	9/5/2012		384	<0.2	1.2	4.0	0.9								0.08	2.0	<0.3		67	7.4	6.67	
BDC-05-24	11/15/2012		455	<0.5	<0.5	1.2	<0.5				0.002	0.003	<0.002	<0.002	0.13	1.0	<0.3		-1.7	10.7	6.94	
BDC-05-24	2/25/2013		557	<0.2	0.7	5.1	1.9	1.1	<1.2	<1.0					0.10	1.5	1.1	9.1	87	7.2	6.72	
BDC-05-24	5/22/2013		643	<0.2	0.8	7.6	2.1				0.004	0.003	<0.002	<0.002	0.58	1.4	0.82		-272	7.4	7.54	
PCE = Tetrachloroethene			NA = Not Applicable, not available																			
TCE = Trichloroethene			$\mu\text{g/L}$ = micrograms pr liter																			
cDCE = cis-1,2-Dichloroethene			mg/L = milligrams per liter																			
VC = Vinyl Chloride			IW = Injection Well																			
As = Arsenic			MW = Monitoring Well																			
Cu = Copper			DG = Downgradient; distance from nearest injection well																			
Tot = Total			UG = Upgradient; distance from nearest injection well																			
Dis = Dissolved			XG = Crossgradient; distance from nearest injection well																			
DO = Dissolved Oxygen			Not analyzed.																			
ORP = Oxidation Reduction Potential			Box = Exceedance of proposed cleanup level.																			
TOC = Total Organic Carbon																						
<b>(a) Proposed Cleanup Standards and Comparison to Site Data, Boeing Developmental Center, Tukwila, Washington (Landau Associates; May 7, 2013).</b>																						
Injection Dates:																						
10/28/2008	Pilot Injection: BDC-05-02 only																					
8/18/2011	Full Injection #1: BDC-05-02, BDC-05-07, and BDC-05-09 through BDC-05-17; performed 8/15/11-8/18/11																					



***DEVELOPMENTAL CENTER  
GROUNDWATER MONITORING  
MAY 2013***

**AOC-05 DATA**

- **AOC-05 Cleanup Action Summary**
- **AOC-05 Cleanup Action Summary - Downgradient Monitoring**
- **AOC-05 TPH-G, BTEX, and Nitrate Concentration Trend Charts (June 2001 through Present)**
- **Site Plan**

**AOC-05 CLEANUP ACTION SUMMARY  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

		ORC	Pilot	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Injection	Injection	Elapsed Time from Injection (days)	Injection	Injection	Injection	Injection	Injection	Injection	Injection	Injection	Volatile Organic Compounds (all units in ug/L)	Aquifer Redox Conditions								Donor Indicators									
			Injection	Injection	Injection 1	Injection 2	Injection 3	Injection 4	Injection 5	Injection 6	Injection 7	Injection 8	TPH-G (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m,p-Xylene (ug/L)	o-Xylene (ug/L)	Xylenes (ug/L)	DO (mg/L)	Nitrate (mg-N/L)	Nitrite (mg-N/L)	Iron II (mg/L)	Sulfate (mg/L)	Methane (ug/L)	ORP (mV)	TOC (mg/L)	pH	Comments													
<b>Proposed Groundwater Cleanup Levels (a)</b>													<b>0.8</b>	<b>2.0</b>	<b>1294</b>	<b>1.7</b>	<b>NA</b>	<b>NA</b>	<b>1546</b>																							
Well	Date																																									
BDC-101	6/1/2001												3.0	11.9	<1.0	113.1				109.2																						
BDC-101	9/4/2001												5.0	7.13	10.7	50.4				53.8																						
BDC-101	12/3/2001												6.5	95	1.6	750				650																						
BDC-101	3/13/2002												<0.25	1.4	<1.0	4.4				<1.0																						
BDC-101	4/29/2002	-8											<0.25	<1.0	<1.0	2.2	<1.0	<1.0	<1.0																							
BDC-101	6/3/2002	27											<0.25	1.0	<1.0	<1.0	<1.0	<1.0	<1.0																							
BDC-101	7/1/2002	55											<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0																							
BDC-101	8/1/2002	86											<0.25	3.1	<1.0	2.4	<1.0	<1.0	<1.0																							
BDC-101	12/2/2002	209											0.61	4.3	<1.0	21	27	6.4	33.4																							
BDC-101	3/10/2003	307											<0.25	1.0	<1.0	4.5	3.2	<1.0	3.2																							
BDC-101	6/3/2003	392											<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0																							
BDC-101	11/19/2003	561											0.42	13	<1.0	15	35	<1.0	35		0.36	1.1	0.010	0.2	16	240	120.3															
BDC-101	4/28/2004	722											<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0																							
BDC-101	10/18/2004	895											0.64	10	<1.0	15	43	<1.0	43																							
BDC-101	5/10/2005	1099											<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0																							
BDC-101	11/10/2005	1283											0.25	7.6	<1.0	2.6	42	<1.0	42	0.96	4.4		34.3																			
BDC-101	5/15/2006	1469											<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		2.78	17.8	0.059	0.0	64.1	259	2.05															
BDC-101	11/20/2006	1658	-59										1.1	10	<1.0	15	72	<1.0	72	0.92	0.122	0.016	2.4	8.7																		
BDC-101	2/20/2007	1750	33										<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		2.39	15.0	0.047	0.2	50.0	277	6.63															
BDC-101	3/19/2007	1777	60										<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		5.97	8.83	0.037	0.5	38.5	213	6.60															
BDC-101	4/24/2007	1813	96										<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		3.09	9.59	0.041	0.5	34.1	136	6.46															
BDC-101	5/17/2007	1836	119										<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		2.35	9.95	0.046	0.4	35.7	297	6.55															
BDC-101	11/26/2007	2029	312										<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		6.5	2.30	5.88	0.032	0.0	26.8	287															
BDC-101	2/19/2008	2113	396	-8									<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		3.55	8.10	0.040	0.0	31.5	341	6.29															
BDC-101	3/27/2008	2151	434	30									<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		3.19	9.3	<0.10	0.2	40.0	506																
BDC-101	5/15/2008	2200	483	79	-40								<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		2.57	6.8	<0.10	0.0	24.6	176	6.44															
BDC-101	7/16/2008	2262	545	141	22								<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		3.34	5.3	<0.10	0.0	21.8	232	6.52															
BDC-101	9/15/2008	2323	606	202	83	-45							<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		1.22	5.33	0.023	0.0	28.7	153																
BDC-101	11/20/2008	2389	672	268	149	21							0.44	1.6	<1.0	<1.0	<1.0	<1.0	<1.0		1.45	2.9	<0.1	0.8	17.1	22	6.65															
BDC-101	1/16/2009	2446	729	325	206	78							<0.25	1.1	<1.0	<1.0	<1.0	<1.0	<1.0		0	4.40	0.042	0.4	29.5	245	6.50															
BDC-101	2/11/2009	2472	755	351	232	104							<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		2.62	8.5	<0.1	0.4	39.6	16	6.43															
BDC-101	3/9/2009	2498	781	377	258	130							<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		0.93	9.4	<0.1	0.0	46.8	54	6.54															
BDC-101	4/16/2009	2536	819	415	296	168							<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		1.69	9.0	<0.1	0.0	36.0	131	6.61															
BDC-101	5/14/2009	2564	847	443	324	196	-34						<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		1.00	13.0	<0.1	0.0	44.4	68	6.81															
BDC-101	7/17/2009	2628	911	507	388	260	30						<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		2.80	12.6	<0.1	0.0	49.0	19	7.17															
BDC-101	9/9/2009	2682	965	561	442	314	84	-49					<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		1.25	6.2	<0.1	0.0	31.7	179	6.90															
BDC-101	11/12/2009	2746	1029	625	506	378	148	15					0.35	1.8	<1.0	6.6	16	<1.0	16	1.37	11.3	<0.1	0.0	36.7	124	6.53	Very faint iron measurement															
BDC-101	2/17/2010	2843	1126	722	603	475	245	112					<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		2.86	13.9	<0.1	0.0	48.7	640	6.55															
BDC-101	5/17/2010	2932	1215	811	692	564	334	201					<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		3.20	20.7	<1.0	0.0	58.7	372	6.86															
BDC-101	8/16/2010	3023	1306	902	783	655	425	292	-37				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		2.21	15.6	<0.1	0.0	56.9	76	7.21															
BDC-101	11/8/2010	3107	1390	986	867	739	509	376	47				<0.25	2.0	<1.0	<1.0	<1.0	<1.0	<1.0		2.02	2.2	<0.1	0.4	14.7	145	6.97															
BDC-101	2/16/2011	3207	1490	1086	967	839	609	476	147				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		7.46	23.9	<0.1	0.0	68.2	161	7.30															
BDC-101	5/3/2011</td																																									

**AOC-05 CLEANUP ACTION SUMMARY  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

		ORC	Pilot	Full Scale	Full Scale	Injection 1	Injection 2	Injection 3	Injection 4	Injection 5	Injection 6	Injection 7	Injection 8	Volatile Organic Compounds (all units in ug/L)										Aquifer Redox Conditions							Donor Indicators							
			Elapsed Time from Injection (days)	TPH-G (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m,p-Xylene (ug/L)	o-Xylene (ug/L)	Xylenes (ug/L)	Total Xylenes (ug/L)	DO (mg/L)	Nitrate (mg/N/L)	Nitrite (mg/N/L)	Iron II (mg/L)	Sulfate (mg/L)	Methane (ug/L)	ORP (mV)	TOC (mg/L)	pH																		
<b>Proposed Groundwater Cleanup Levels (a)</b>											0.8	2.0	1294	1.7	NA	NA	1546													Comments								
<b>Well</b>			<b>Date</b>																																			
BDC-102	11/20/2006	1658	-59								<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	1.25	<0.250	<0.250	2.2	9.2									163								
BDC-102	2/20/2007	1750	33								<0.25	5.8	<1.0	<1.0	<1.0	<1.0	0.47	0.749	0.027	3.0	25.3									-145	6.54							
BDC-102	3/19/2007	1777	60								<0.25	18	<1.0	<1.0	32	<1.0	0.88	0.938	0.072	3.0	31.0									-98	6.67							
BDC-102	4/24/2007	1813	96								0.53	6.1	<1.0	3.1	100	<1.0	1.20	1.94	0.051	2.8	40.4									-93	6.51							
BDC-102	5/17/2007	1836	119								<0.25	1.8	<1.0	<1.0	7.4	<1.0	0.84	2.78	0.109	2.6	33.9									286	6.52							
BDC-102	11/26/2007	2029	312								<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	3.29	1.03	0.247	3.0	55.7									46								
BDC-102	2/18/2008	2113	396	-8							<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	2.51	3.91	0.054	2.8	42.8									431	5.97							
BDC-102	3/27/2008	2151	434	30							<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	1.85	1.3	<0.10	2.5	17.9									233								
BDC-102	5/15/2008	2200	483	79	-40						<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	2.40	3.0	<0.10	3.5	19.2									-115	6.56							
BDC-102	7/16/2008	2262	545	141	22						<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	2.46	2.5	<0.10	3.2	13.7									-312								
BDC-102	9/15/2008	2232	606	202	83	-45					<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	1.22	4.28	0.056	3.0	31.6									191								
BDC-102	11/20/2008	2369	672	268	149	21					<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	0.70	0.40	<0.10	2.0	5.6									-70	6.69							
BDC-102	1/16/2009	2446	729	325	206	78					<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	0.00	<0.100	0.200	2.5	8.3									-235	6.70							
BDC-102	2/11/2009	2472	755	351	232	104					<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	1.65	2.4	<0.1	3.0	20.4									-70	6.61							
BDC-102	3/9/2009	2498	781	377	258	130					<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	0.00	0.9	<0.1	3.0	8.7									-46	6.65							
BDC-102	4/16/2009	2536	819	415	296	168					<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	0.30	0.6	<0.1	3.0	8.3									-7	6.66							
BDC-102	5/14/2009	2564	847	443	324	196	-34				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	0.29	0.9	<0.1	3.4	9.8									-35	6.78							
BDC-102	7/17/2009	2628	911	507	388	260	30				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	0.66	4.9	<0.1	2.2	28.6									-11	6.46							
BDC-102	9/9/2009	2682	965	561	442	314	84	-49			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	0.91	0.4	<0.1	2.7	5.5									2.8	6.66							
BDC-102	11/12/2009	2746	1029	625	506	378	148	15			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	0.93	0.2	<0.1	3.2	2.4									-42.0	6.49							
BDC-102	2/17/2010	2843	1126	722	603	475	245	112			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	0.90	3.4	0.2	2.8	17.2									-892	6.56							
BDC-102	5/17/2010	2932	1215	811	692	564	334	201			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	1.35	8.4	<0.10	3.0	30.1									-440	6.61							
BDC-102	8/16/2010	3023	1306	902	783	655	425	292	-37		<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	1.61	8.9	<0.1	3.0	27.8									-82	6.60							
BDC-102	11/8/2010	3107	1390	986	867	739	509	376	47		<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	2.34	0.4	<0.1	2.0	6.9									-45	7.09							
BDC-102	2/16/2011	3207	1490	1086	839	609	476	147			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	3.68	3.5	<0.1	2.2	43.3									-399	6.88							
BDC-102	5/3/2011	3283	1566	1162	1043	915	685	552	223		<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	1.60	12.1	<0.1	2.0	32.4									40	6.70							
BDC-102	8/1/2011	3373	1656	1252	1133	1005	775	642	313		<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	7.01	13.6	<0.1	2.1	28.7									11	6.88							
BDC-102	11/1/2011	3465	1748	1344	1225	1097	867	734	405	-105	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	3.45	9.8	<0.1	1.5	30.9									-48	7.19							
BDC-102	2/19/2012	3575	1858	1454	1335	1207	977	844	515	5	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	2.0	<0.2	0.25	2.4	1.0	15.4									21	6.60						
BDC-102	5/3/2012	3649	1932	1528	1409	1281	1051	918	589	79	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	2.0	<0.2	0.22	11.3	2.5	40.2									248	6.44						
BDC-102	9/4/2012	3773	2056	1652	1533	1405	1175	1042	713	203	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	2.0	<0.2	0.20	13.2	<5.0	1.5	39.2									130	6.63					
BDC-102	11/13/2012	3843	2126	1722	1603	1475	1245	1112	783	273	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	2.0	<0.10	0.10	1.7	27.7	48									-6.77							
BDC-102	2/20/2013	3942	2225	1821	1702	1574	1344	1211	882	372	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	2.0	<0.10	0.17	18.4	<0.10	1.0	58.5									92	6.60					
BDC-102	5/20/2013	4031	2314	1910	1791	1663	1433	1300	971	461	209	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	2.0	<0.10	0.49	20	<0.10	1.5	62.2									-280	7.31				
BDC-103	6/11/2001										177	875	12,010	1,985							11,430																	
BDC-103	9/4/2001										123	494	3,760	419							2,636																	
BDC-103 (b)	12/3/2001										120	5,100	2,300,000	10,000						3,400,000																		
BDC-103	3/13/2002										200	1,700	17,000	4,900						26,400																		
BDC-103	4/29/2002										200	980	16,000	5,400						20,000	7,000	27,000																
BDC-103	6/3/2002										200	960	17,000	5,100						20,000	7,100	27,100																
BDC-103	7/1/2002										240	1,300	16,000	5,200						20,000	6,800	26,800																
BDC-103	8/1/2002										270	4,600	18,000	5,200						19,000	6,600	25,600																
BDC-103	12/2/2002										250	1,400	15,000	5,000						22,000	6,900	28,900																
BDC-103	3/10/2003										220	900	10,000	5,000						20,000	6,700	26,700																
BDC-103	6/3/2003										180	850	8,300	4,500						18,000	5,500	23,500																
BDC-103	4/28/2004										160	1,600	6,600	3,900						16,000	5,100	21,100																
BDC-103	10/19/2004										140	2																										

**AOC-05 CLEANUP ACTION SUMMARY  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

		ORC	Pilot	Full Scale	Injection	Injection	Injection 1	Injection 2	Injection 3	Injection 4	Injection 5	Injection 6	Injection 7	Injection 8	Volatile Organic Compounds (all units in $\mu\text{g/L}$ )								Aquifer Redox Conditions						Donor Indicators									
			Elapsed Time from Injection (days)	TPH-G (mg/L)	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	m,p-Xylene ( $\mu\text{g/L}$ )	o-Xylene ( $\mu\text{g/L}$ )	Xylenes ( $\mu\text{g/L}$ )	DO (mg/L)	Nitrate (mg-N/L)	Nitrite (mg-N/L)	Iron II (mg/L)	Sulfate (mg/L)	Methane ( $\mu\text{g/L}$ )	ORP (mV)	TOC (mg/L)	pH																			
													Total																									
<b>Proposed Groundwater Cleanup Levels (a)</b>																																						
Well		Date																																				
BDC-103	7/17/2009	2628	911	507	388	260	30						19	410	280	32	630	1,000	1,630	2.60	26.6	2.0	1.0	104	29	6.98												
BDC-103	9/9/2009	2682	965	561	442	314	84	-49					21	620	270	83	700	1,200	1,900	0.88	<0.1	<0.1	2.5	134	2.8	7.01												
BDC-103	11/1/2009	2746	1029	625	506	378	148	15					24	340	140	27	1,800	1,200	3,000	1.42	94.1	7.7	0.4	71.7	117	6.11												
BDC-103	2/17/2010	2843	1126	722	603	475	245	112					0.73	10	<1.0	<1.0	3.1	22	25	1.45	123	1.1	0.0	60.3	939	6.22												
BDC-103	5/17/2010	2932	1215	811	692	564	334	201					3.1	79	44	5.2	60	86	146	1.56	67.9	2.6	0.4	71.6	436	6.63												
BDC-103	8/16/2010	3023	1306	902	783	655	425	292	-37				8.0	740	380	110	420	320	740	2.24	2.4	0.1	2.0	72.5	184	6.96												
BDC-103	11/8/2010	3107	1390	986	867	739	509	376	47				6.3	240	11	1.7	180	540	720	7.46	55.8	1.5	0.0	123	199	7.05												
BDC-103	2/16/2011	3207	1490	1086	839	609	476	147					0.28	4.6	<1.0	<1.0	1.0	5.4	5.4	5.18	133	0.6	74.6	508	6.52													
BDC-103	5/3/2011	3283	1566	1162	1043	915	897	839	147				<0.25	9.1	<1.0	<1.0	1.0	2.2	2.2	2.15	140	0.2	0.0	74.4	393	6.35												
BDC-103	8/1/2011	3373	1656	1252	1133	1005	775	642	313				0.30	76	<1.0	1.8	7.8	2.5	10.3	5.67	<0.1	0.2	63.2	168	6.09													
BDC-103	11/1/2011	3465	1748	1344	1225	1097	867	734	405	-105			33	1300	2200	780	2300	1300	3,600	1.72	<0.1	<0.1	1.2	81	-226	7.38												
BDC-103	2/19/2012	3575	1858	1454	1335	1207	977	844	515	5			2.2	5.1	31	19	260	69	329	0.21	143	0.3	57.1	36	6.41													
BDC-103	5/3/2012	3649	1932	1528	1409	1281	1051	918	589	79			<0.25	16	1.4	3.6	14	17.6	0.11	149	0.83	0.0	56.2	239	6.49													
BDC-103	9/4/2012	3773	2056	1652	1533	1405	1175	1042	713	203	-49		0.72	530	24.0	9.4	40	42	82	0.45	7.2	<0.10	0.4	66.9	146	6.80												
BDC-103	11/13/2012	3843	2126	1722	1603	1475	1245	1112	783	273	21		4.5	120	9.5	3.7	210	380	590	1.02	165	2.8	0.4	93.6	108	6.50												
BDC-103	2/20/2013	3942	2225	1821	1702	1574	1344	1211	882	372	120	-25	<1.0	<1.0	<2.0	3.4	3.4	0.14	161	0.60	0.2	51.6	109	6.42														
BDC-103	5/20/2013	4031	2314	1910	1791	1663	1433	1300	971	461	209	-25	<1.0	<1.0	<1.0	4.4	1.8	6.2	0.29	161	<0.10	0.0	47.1	-281	7.47													
BDC-104	2/18/2008	2113	396	-8									2.9	<1.0	<1.0	47	180	28	208	2.09	1.63	0.072	3.0	18.7	598													
BDC-104	3/27/2008	2151	434	30									3.2	<1.0	<1.0	22	220	52	272	1.34	161	0.1	0.5	52.2	259													
BDC-104	5/15/2008	2200	483	79	-40								1.0	<1.0	<1.0	7.0	26	22	48	1.24	28.7	0.7	0.4	26.6	94													
BDC-104	7/16/2008	2262	545	141	22								2.3	<1.0	2.9	3.3	110	50	160	1.56	196	0.4	0.0	74.7	221	7.17												
BDC-104	9/15/2008	2323	606	202	83	-45							0.64	<1.0	2.6	<1.0	20	16	36	0.06	122	0.729	0.0	38.4	191													
BDC-104	11/20/2008	2369	672	268	149	21							<0.25	<1.0	<1.0	1.4	4.1	5.5	0.96	67.2	<0.10	0.2	24.3	-27	7.46													
BDC-104	1/16/2009	2446	729	325	206	78							0.26	<1.0	<1.0	<1.0	1.0	5.5	5.5	0.05	71.4	0.204	0.6	34.6	-164	6.86												
BDC-104	2/11/2009	2472	755	351	232	104							<0.25	<1.0	<1.0	<1.0	1.3	1.1	2.4	1.78	95.4	0.1	0.2	20.1	75	6.68												
BDC-104	3/9/2009	2498	781	377	258	130							<0.25	<1.0	<1.0	<1.0	1.3	1.1	2.4	0	91.5	<0.1	0.0	19.2	20	6.67												
BDC-104	4/16/2009	2536	819	415	296	168							<0.25	<1.0	<1.0	<1.0	1.0	1.6	1.6	1.34	67.2	<0.1	0.0	21.6	67	6.63												
BDC-104	5/14/2009	2564	847	443	324	196	-34						<0.25	<1.0	<1.0	<1.0	1.0	1.4	1.4	0.51	63.4	<0.1	0.0	20.1	6	6.70												
BDC-104	7/17/2009	2628	911	507	388	260	30						<0.25	<1.0	<1.0	<1.0	1.0	1.0	1.0	1.59	38.4	0.2	2.5	23.6	76	6.92												
BDC-104	9/9/2009	2682	965	561	442	314	84	-49					<0.25	<1.0	<1.0	<1.0	1.0	1.0	1.0	0.63	39.8	0.1	0.8	41.6	61	7.20												
BDC-104	11/12/2009	2746	1029	625	506	378	148	15					<0.25	<1.0	<1.0	<1.0	1.0	1.0	1.0	0.99	115	1.4	0.0	24.1	68	6.49												
BDC-104	2/17/2010	2843	1126	722	603	475	245	112					<0.25	<1.0	<1.0	<1.0	1.0	1.0	1.0	0.73	119	0.1	0.0	111	868	6.93												
BDC-104	5/17/2010	2932	1215	811	692	564	334	201					<0.25	<1.0	<1.0	<1.0	1.0	1.0	1.0	0.98	47.4	<1.0	0.6	30.5	482	6.74												
BDC-104	8/16/2010	3023	1306	902	783	655	425	292	-37				<0.25	<1.0	<1.0	<1.0	1.0	1.0	1.0	1.59	38.4	0.2	2.5	23.6	76	6.92												
BDC-104	11/8/2010	3107	1390	986	867	739	509	376	47				<0.25	<1.0	<1.0	<1.0	1.0	1.0	1.0	2.87	32.5	<0.1	0.0	18.6	115	7.23												
BDC-104	2/16/2011	3207	1490	1086	839	609	476	147					<0.25	<1.0	<1.0	<1.0	1.0	1.0	1.0	3.																		

**AOC-05 DOWNGRADIENT MONITORING**  
**AOC-05 ANAEROBIC BIOREMEDIATION REMEDIAL ACTION**  
**DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

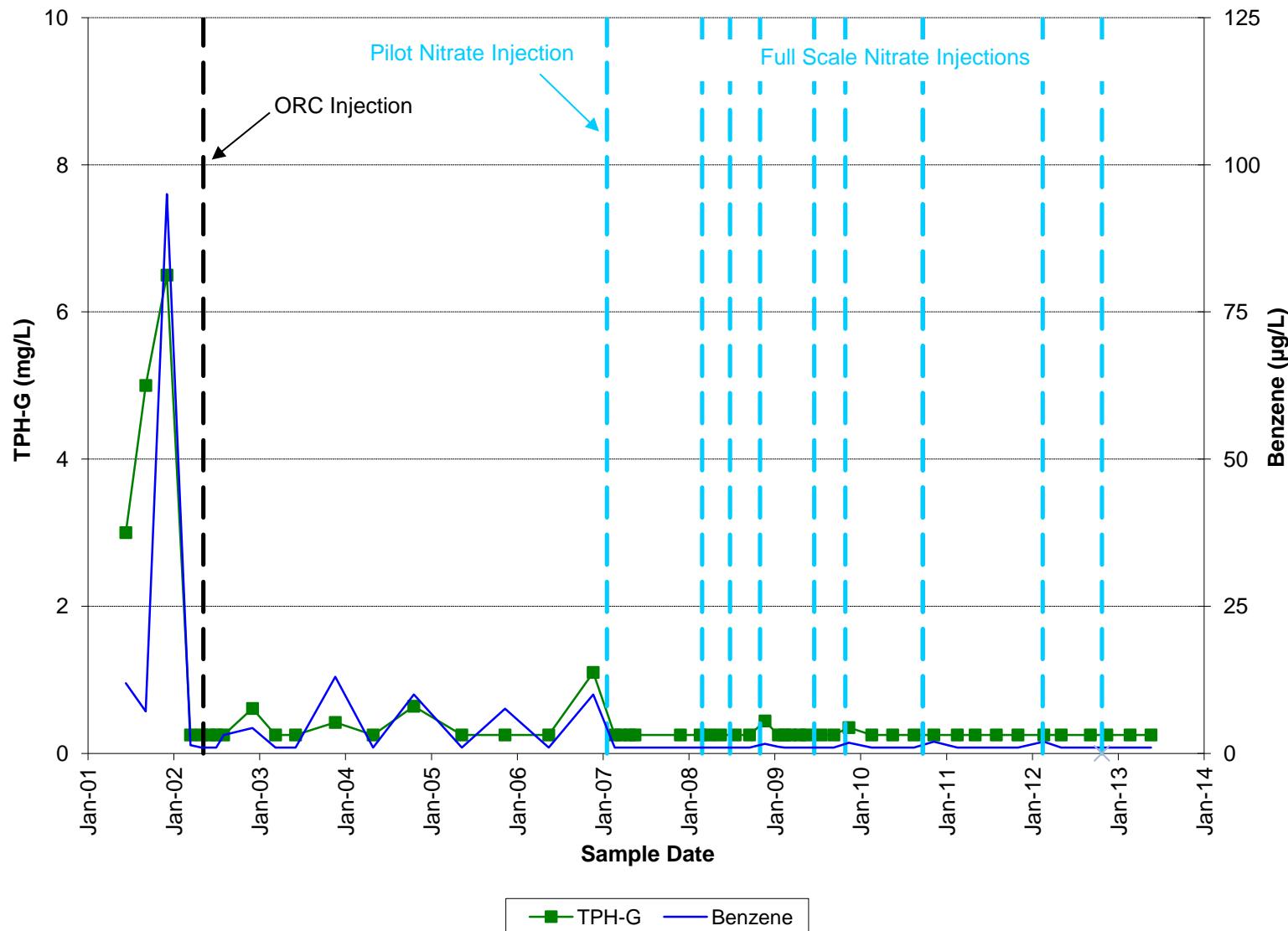
Page 1 of 1

		Aquifer Redox Conditions						
Well	Date		DO (mg/L)	Nitrate (mg-N/L)	Iron II (mg/L)	Sulfate (mg/L)	Methane (mg/L)	ORP (mV)
BDC-05-04	5/15/2006	Natural Redox Baseline		12.3	2.6	33.4		
BDC-05-04	10/23/2008		2.45	7.6	0.1	31.0	0.29	73.5
BDC-05-04	11/2/2008		0.59	4.5	0.8	25.2	0.05	-16
BDC-05-04	12/16/2008		0.55	5.5	1.0	30.4	1.61	-98
BDC-05-04	1/16/2009		0.06	4.3	1.0	21.8	1.48	-192
BDC-05-04	2/11/2009		2.45	5.9	1.0	31.8	1.06	-54
BDC-05-04	3/9/2009		0.27	4.8	1.5	30.1	0.20	35
BDC-05-04	4/16/2009		1.48	5.9	1.4	33.6	<0.0007	68
BDC-05-04	5/13/2009		0.33	4.5	1.6	26.6	0.37	49
BDC-05-04	8/16/2009		0.86	5.4	2.2	30.6	<0.0007	93
BDC-05-04	11/13/2009		0.56	2.2	3.0	18.4	2.44	109
BDC-05-04	2/16/2010		0.88	<0.1	3.3	24.6	1.49	899
BDC-05-04	5/18/2010		0.75	<0.1	3.0	25.4	1.32	473
BDC-05-04	8/17/2010		1.00	<0.1	2.8	17.1	3.53	108
BDC-05-04	11/9/2010		2.21	<0.1	2.2	21.3	3.00	101
BDC-05-04	2/15/2011		2.50	<0.1	2.4	19.4	4.46	93
BDC-05-04	5/2/2011		1.69	<0.1	2.2	18.0	1.75	49
BDC-05-04	11/2/2011		1.52	<1.0	1.2	<1.0		-3
BDC-05-04	5/7/2012		0.16		2.0	21.5		98
BDC-05-04	9/4/2012		0.21	<0.10		16.6		96
BDC-05-04	11/13/2012		0.03	<0.10	1.8	16.9		64
BDC-05-04	5/23/2013		0.49		1.5	13.7		-310

		Aquifer Redox Conditions			
Well	Date	Nitrate (mg-N/L)	Iron II (mg/L)	Sulfate (mg/L)	
<b>SWMU-20</b>					
MW-17A	05/15/2006	Natural Redox Baseline	1.37	0.0	27.0
MW-17A	11/12/2009	Downgradient Monitoring Triggered	0.9		
MW-17A	5/17/2010		1.6	0.2	21.0
MW-17A	11/8/2010		0.1	2.1	15.7
MW-17A	5/3/2011		1.6	0.0	19.8
MW-17A	8/1/2011		0.5	0.0	20.5
MW-17A	11/1/2011		0.3	0.0	23.2
MW-17A	5/3/2012		4.4	0.0	
MW-17A	9/4/2012		2.0		26.8
MW-17A	11/13/2012		0.59	0.0	22.9
MW-17A	5/20/2013		2.9		26.8
MW-18A	05/15/2006	Natural Redox Baseline	0.154	0.4	64.8
MW-18A	11/12/2009	Downgradient Monitoring Triggered	0.8		
MW-18A	5/17/2010		1.0	0.4	32.2
MW-18A	11/8/2010		0.1	0.0	14.2
MW-18A	5/3/2011		<0.1	0.0	31.5
MW-18A	8/1/2011		1.1	0.0	42.2
MW-18A	11/1/2011		0.7	0.0	93.3
MW-18A	5/3/2012		<0.10	0.0	
MW-18A	9/4/2012		<0.10		19.5
MW-18A	11/13/2012		<0.10	0.0	21.5
MW-18A	5/20/2013		<0.10		19.6
MW-21A	05/15/2006	Natural Redox Baseline	0.136	0.4	54.9
MW-21A	11/12/2009	Downgradient Monitoring Triggered	<0.1		
MW-21A	5/17/2010		0.2	0.0	11.9
MW-21A	11/8/2010		<0.1	0.0	5.9
MW-21A	5/3/2011		0.2	0.0	52.1
MW-21A	8/1/2011		0.1	0.0	26.7
MW-21A	11/1/2011		<0.1	0.0	9.3
MW-21A	5/3/2012		0.17	0.0	
MW-21A	9/4/2012		<0.10		6.7
MW-21A	11/13/2012		0.16	0.0	18.5
MW-21A	5/20/2013		0.10	0.5	13.5

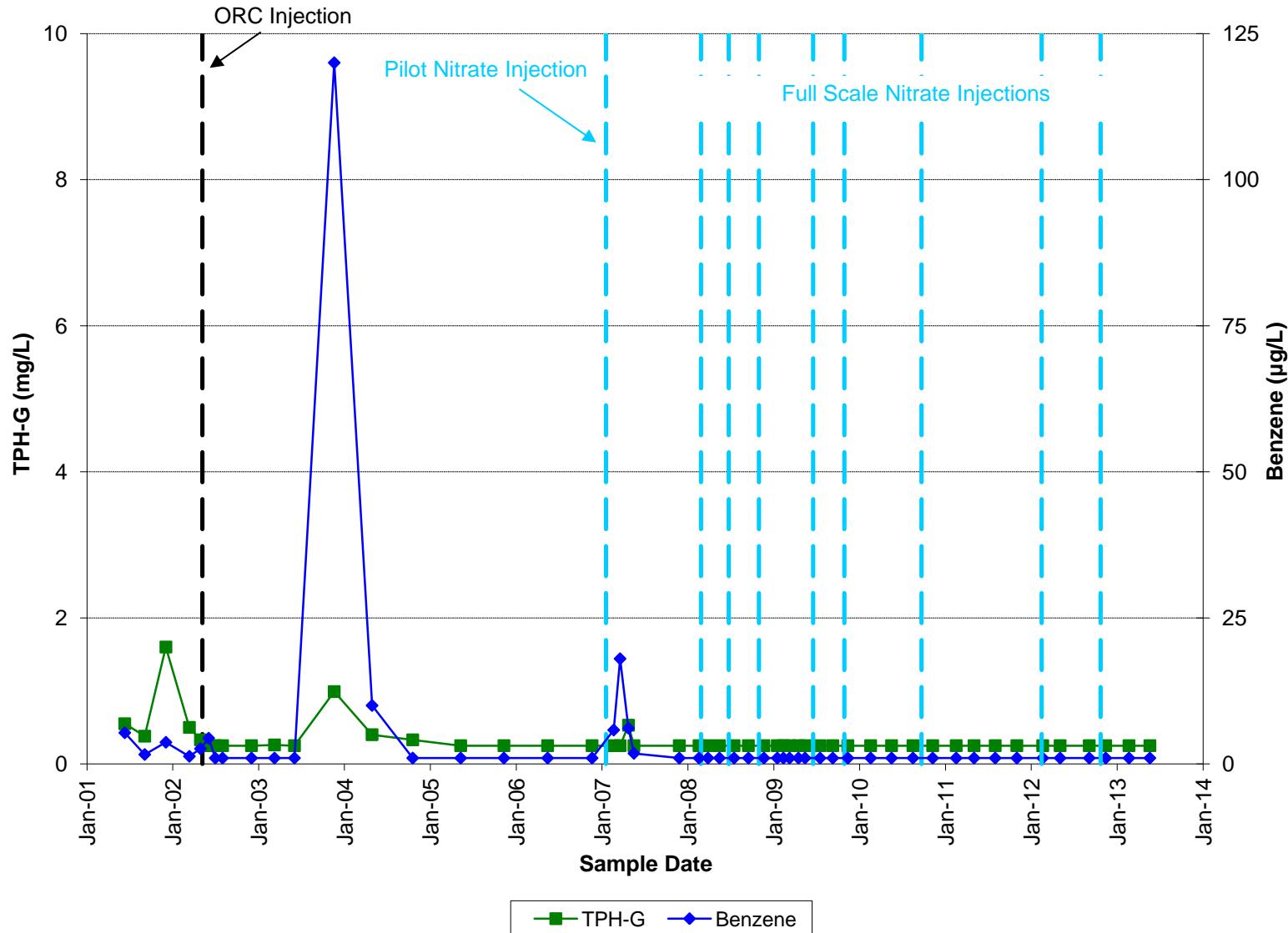
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**BDC-101**  
**TPH-G and Benzene Concentrations Since 2001**

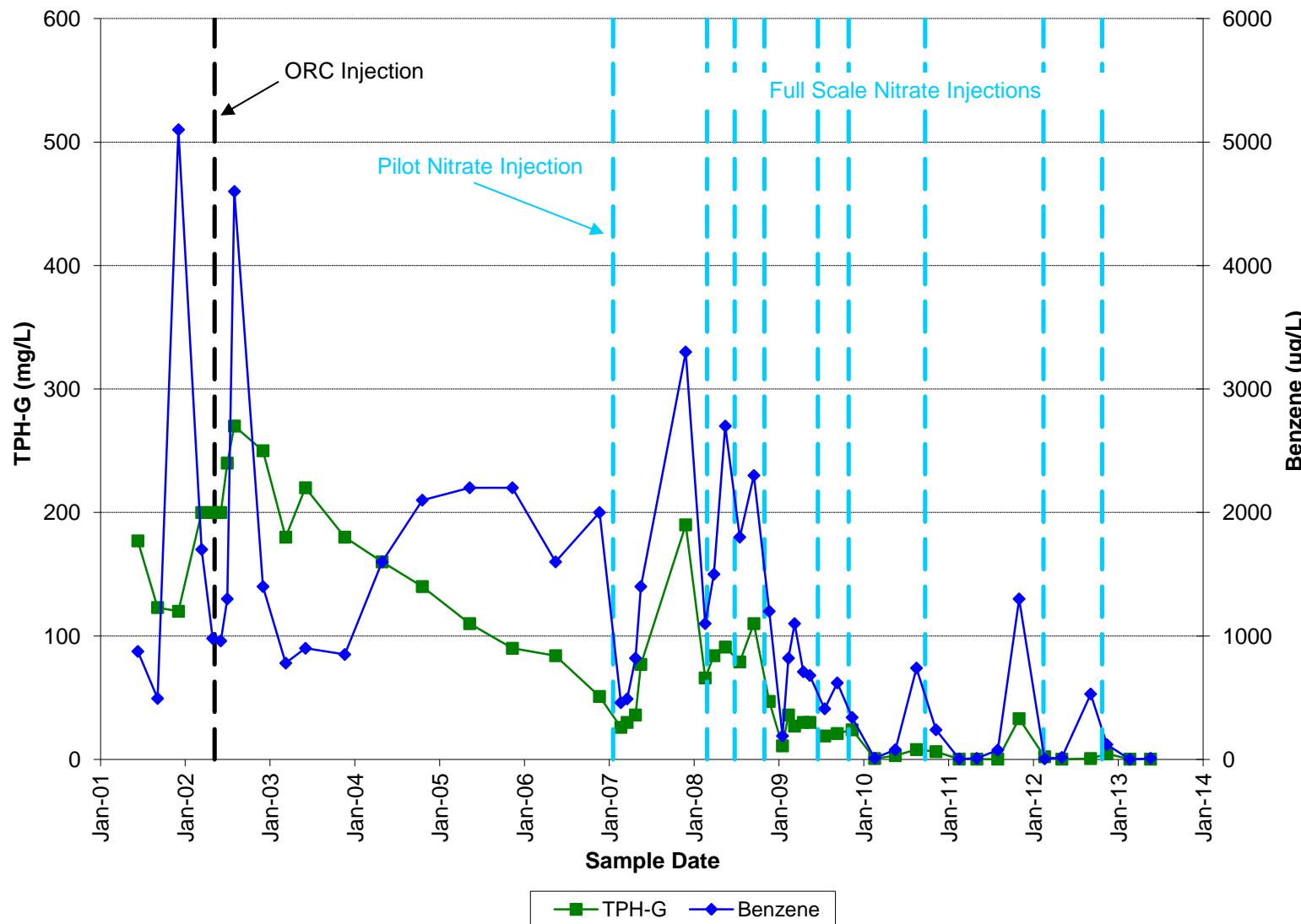


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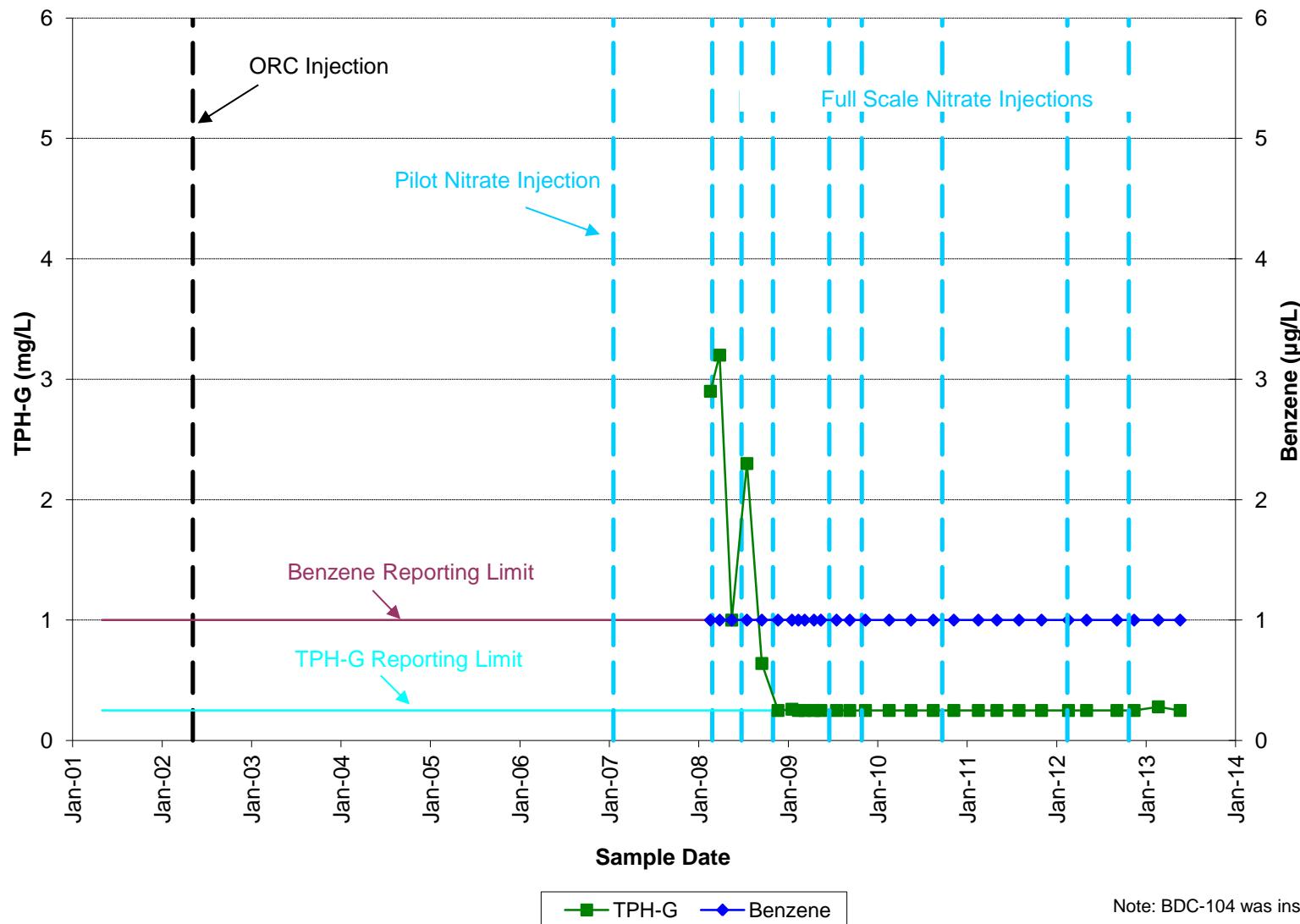
### TPH-G and Benzene Concentrations Since 2001



**BDC-103**  
**TPH-G and Benzene Concentrations Since 2001**

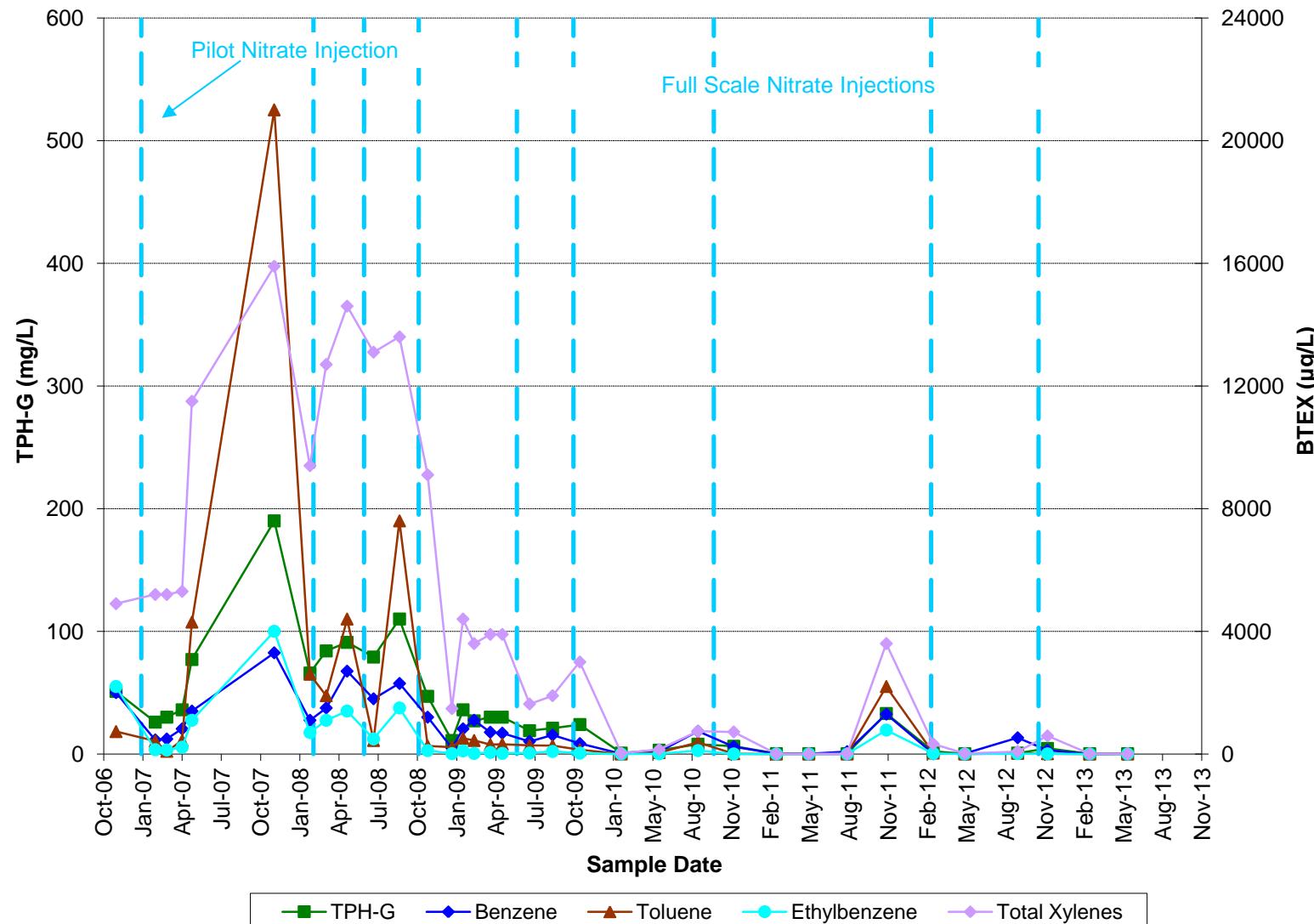


**BDC-104**  
**TPH-G and Benzene Concentrations Since 2001**

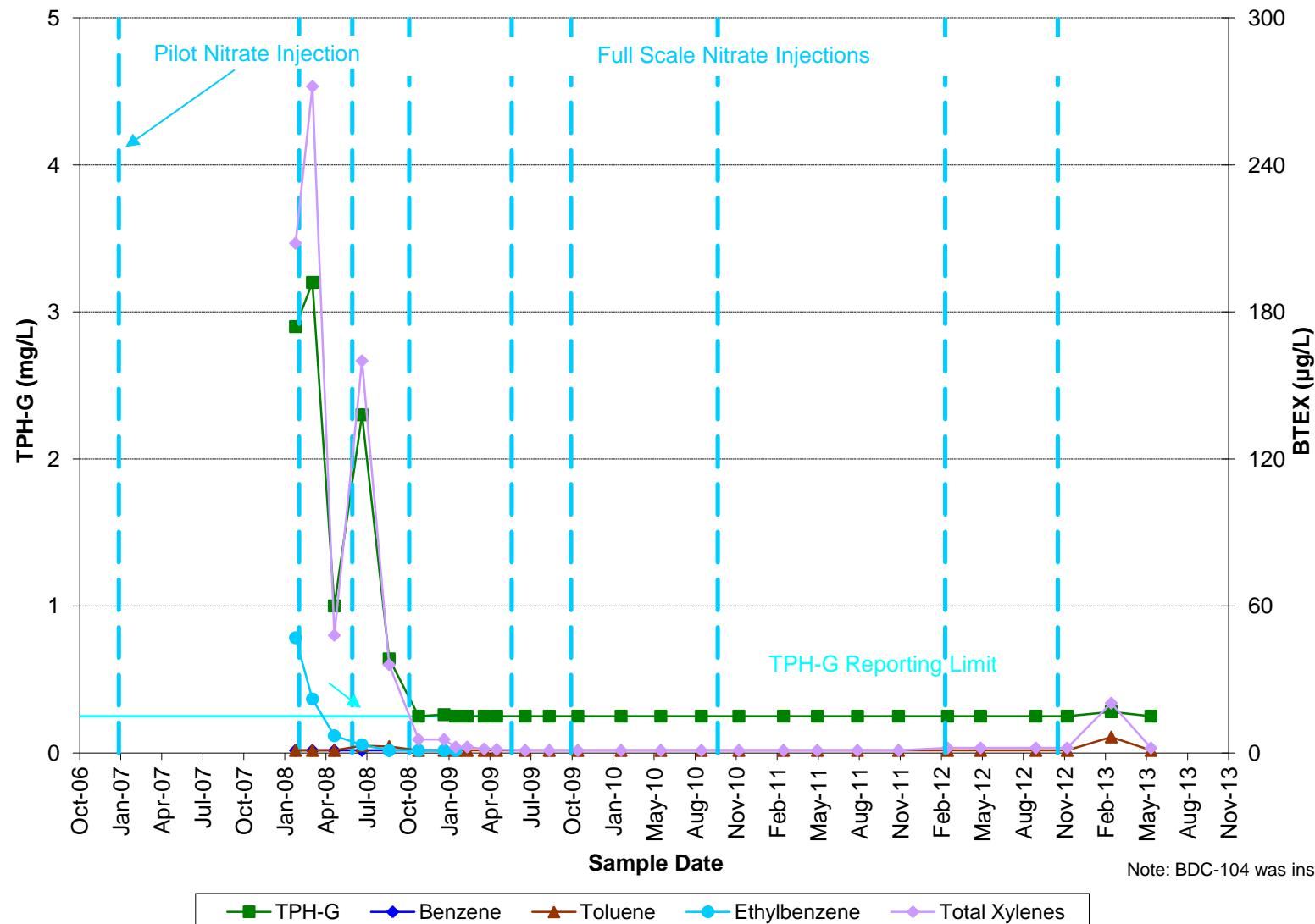


Note: BDC-104 was installed February 2008

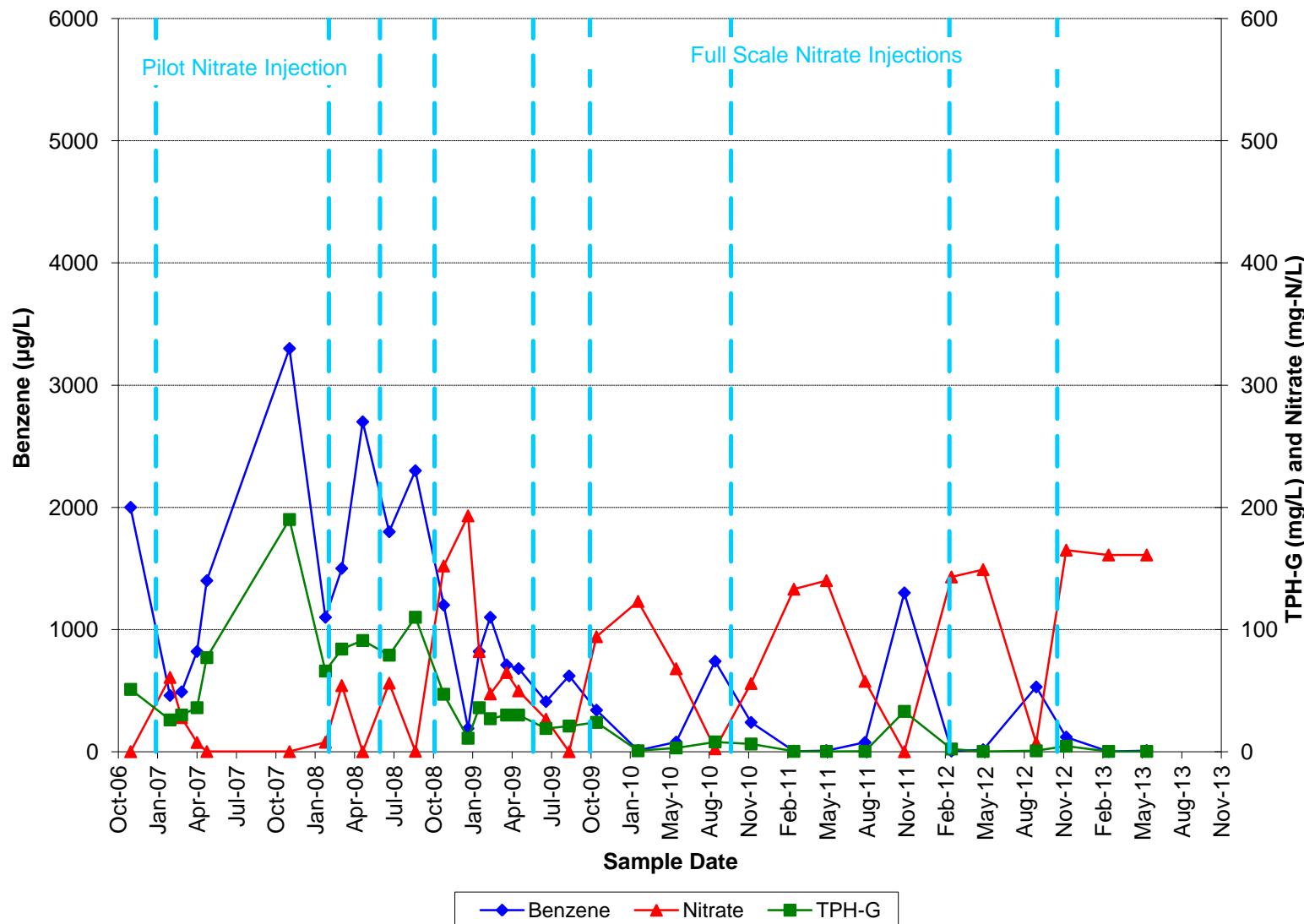
**BDC-103**  
**TPH-G and BTEX Concentrations Beginning with 2007 Pilot Testing**



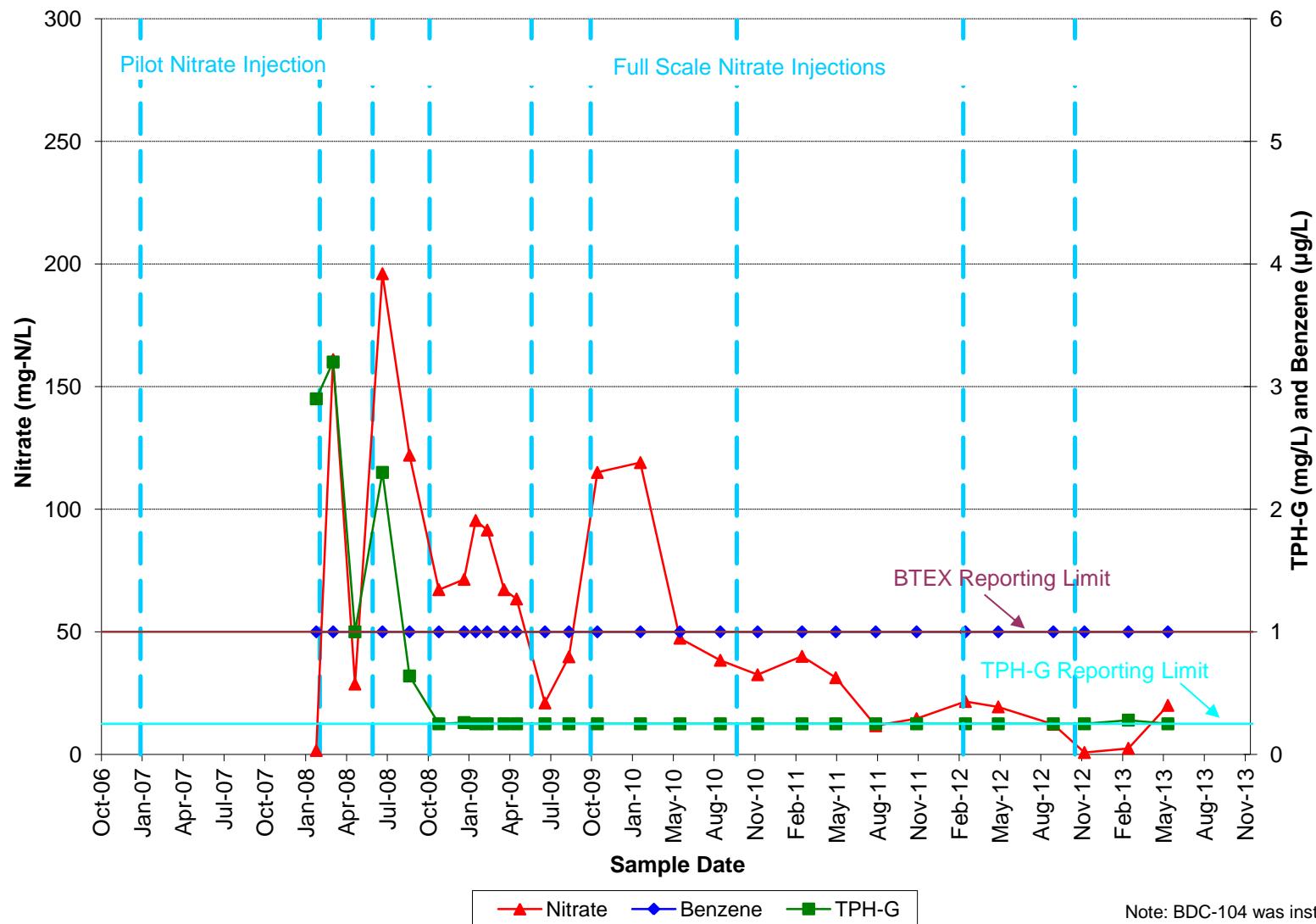
**BDC-104**  
**TPH-G and BTEX Concentrations Beginning with 2007 Pilot Testing**



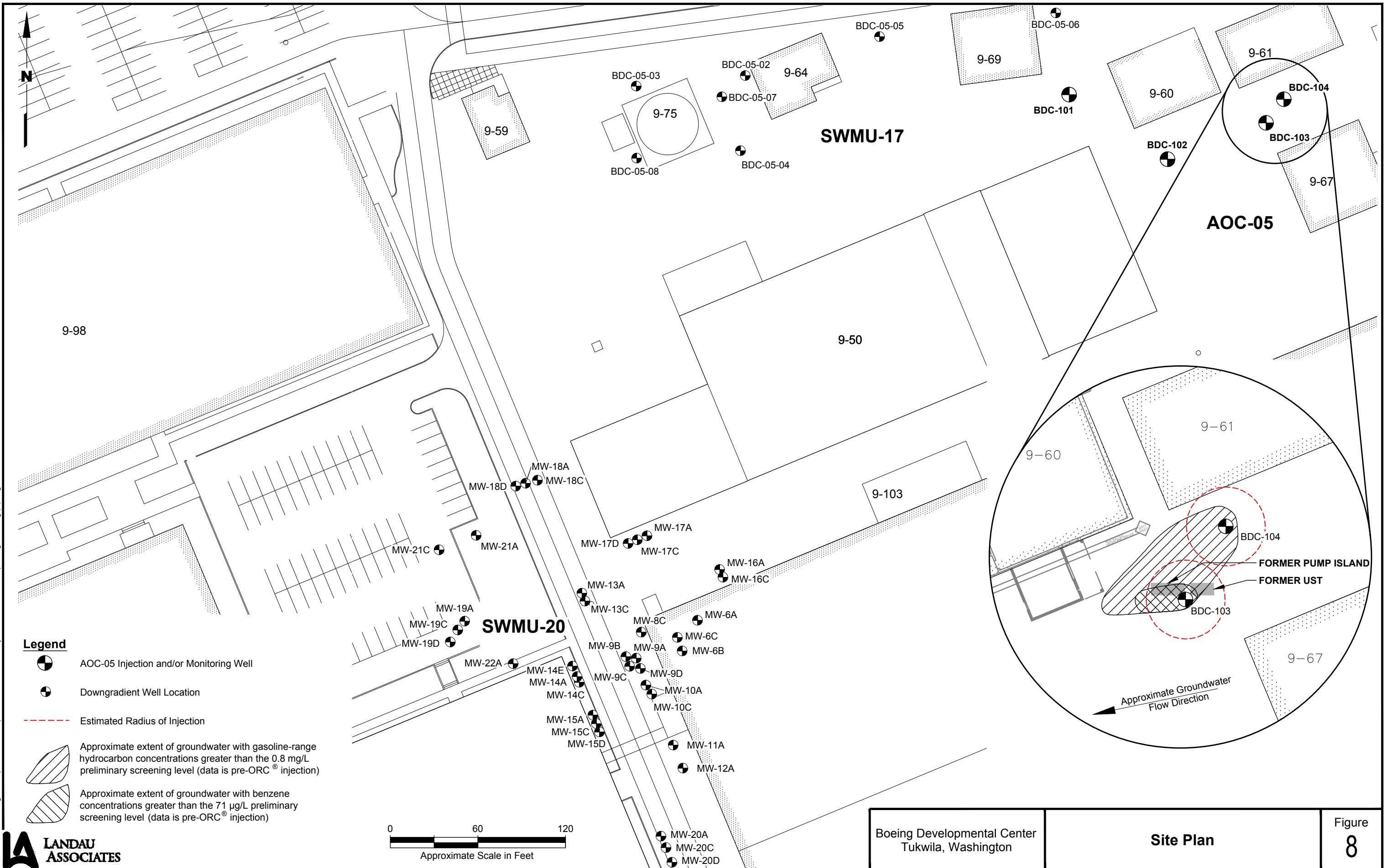
**BDC-103**  
**Nitrate, TPH-G, and Benzene Concentrations**



**BDC-104**  
**Nitrate, TPH-G, and Benzene Concentrations**



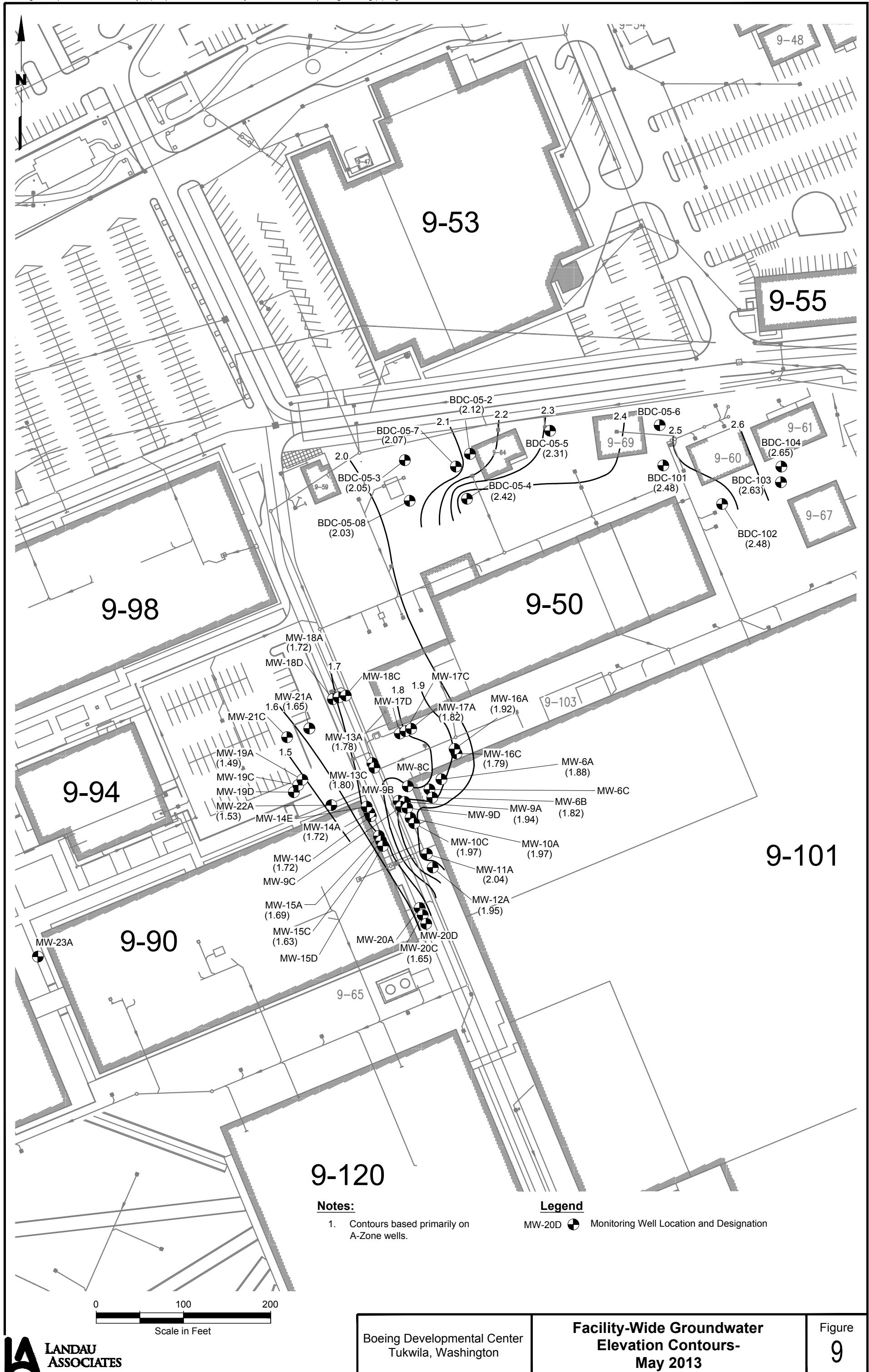
Note: BDC-104 was installed February 2008



***DEVELOPMENTAL CENTER  
GROUNDWATER MONITORING  
MAY 2013***

**GROUNDWATER ELEVATION INFORMATION**

- **CONTOUR MAP**
- **CUMULATIVE WATER LEVEL MEASUREMENTS  
(November 1999 to Present)**



**DEVELOPMENTAL CENTER**  
**CUMULATIVE WATER LEVEL MEASUREMENTS**

Well Location / Bldg.	Well ID No.	Well Depth	May 2013		Feb 2013		Nov 2012		May 2012		Nov 2011		July 2011		May 2011		Nov 2010	
			Depth to Water	Water Elevation														
9-101-bldg.	MW-6A	24.25	12.92	1.88			12.82	1.98	12.61	2.19	12.99	1.81			12.50	2.30	12.70	2.10
9-101-bldg.	MW-6B	27.20	13.27	1.82			13.17	1.92	12.96	2.13	13.29	1.80			12.81	2.28	13.06	2.03
9-101-bldg.	MW-6C	40.55																
9-101-bldg.	MW-8C	40.20																
9-101-bldg.	MW-9A	21.30	12.80	1.94			12.83	1.91	12.54	2.20	13.03	1.71			12.53	2.21	12.65	2.09
9-101-bldg.	MW-9B	26.90																
9-101-bldg.	MW-9C	38.80																
9-101-bldg.	MW-9D	56.00																
9-101-bldg.	MW-10A	20.20	12.72	1.97			12.77	1.92	12.55	2.14	12.97	1.72			12.47	2.22	12.64	2.05
9-101-bldg.	MW-10C	40.40	12.65	1.97			12.70	1.92	12.49	2.13	12.90	1.72			12.38	2.24	12.55	2.07
9-101-bldg.	MW-11A	19.90	12.84	2.04			12.19	2.69	12.65	2.23	13.03	1.85			12.62	2.26	12.59	2.29
9-101-bldg.	MW-12A	20.20	12.88	1.95			13.01	1.82	12.70	2.13	13.23	1.60			12.71	2.12	12.68	2.15
9-101-bldg.	MW-13A	19.37	12.36	1.78			12.27	1.87	12.20	1.94	12.66	1.48			12.11	2.03	12.08	2.06
9-101-bldg.	MW-13C	35.62	12.22	1.80			12.11	1.91	12.06	1.96	12.52	1.50			11.94	2.08	11.92	2.10
9-101-bldg.	MW-14A	19.00	12.65	1.72			12.53	1.84	12.46	1.91	12.71	1.66			12.16	2.21	12.22	2.15
9-101-bldg.	MW-14C	33.30	12.25	1.72			12.07	1.90	12.09	1.88	12.20	1.77			12.78	1.19	11.82	2.15
9-101-bldg.	MW-14E	82.10																
9-101-bldg.	MW-15A	20.70	12.48	1.69			12.34	1.83	12.16	2.01	12.51	1.66			11.87	2.30	12.12	2.05
9-101-bldg.	MW-15C	34.35	12.54	1.63			12.27	1.90	12.36	1.81	12.44	1.73			11.49	2.68	12.00	2.17
9-101-bldg.	MW-15D	51.80																
9-101-bldg.	MW-16A	20.55	13.07	1.92			13.02	1.97	12.81	2.18	13.19	1.80			12.67	2.32	12.84	2.15
9-101-bldg.	MW-16C	38.30	13.25	1.79			13.17	1.87	13.01	2.03	13.33	1.71			12.84	2.20	13.02	2.02
9-101-bldg.	MW-17A	19.00	12.98	1.82			12.78	2.02	12.26	2.54	12.73	2.07	12.84	1.96	12.45	2.35	12.65	2.15
9-101-bldg.	MW-17C	35.00																
9-101-bldg.	MW-17D	52.50																
9-101-bldg.	MW-18A	20.02	12.58	1.72			12.39	1.91	11.90	2.40	12.84	1.46	12.43	1.87	12.14	2.16	12.22	2.08
9-101-bldg.	MW-18C	34.55																
9-101-bldg.	MW-18D	52.85																
9-101-bldg.	MW-19A	16.86	10.74	1.49														
9-101-bldg.	MW-19C	33.92																
9-101-bldg.	MW-19D	51.86																
9-101-bldg.	MW-20A	19.34																
9-101-bldg.	MW-20C	35.32	12.50	1.65			12.22	1.93	12.18	1.97	12.76	1.39			12.27	1.88	11.87	2.28
9-101-bldg.	MW-20D	50.15																
9-101-bldg.	MW-22A	19.20	12.72	1.53			12.42	1.83	12.35	1.90	12.52	1.73			12.14	2.11	12.40	1.85
9-101-bldg.	MW-23A	19.50																
9-101/9-50 bldg.	MW-21A	19.90	12.80	1.65			12.60	1.85	12.13	2.32	13.05	1.40	12.67	1.78	12.41	2.04	12.43	2.02
9-101/9-50 bldg.	MW-21C	34.00																
9-64-bldg.	BDC-05-02	25.35	12.29	2.12	12.19	2.22	12.31	2.10	11.81	2.60	12.63	1.78	12.35	2.06	11.81	2.60	12.10	2.31
9-64-bldg.	BDC-05-03	25.47	12.36	2.05			12.36	2.05	11.95	2.46	12.77	1.64			11.94	2.47	12.21	2.20
9-64-bldg.	BDC-05-04	25.36	12.17	2.42			12.52	2.07	12.05	2.54	12.82	1.77			12.03	2.56	12.30	2.29
9-64-bldg.	BDC-05-05	24.18	12.13	2.31			13.40	1.04	11.65	2.79	12.50	1.94			11.61	2.83	11.95	2.49
9-64-bldg.	BDC-05-07	25.30	11.92	2.07			11.97	2.02	11.40	2.59	12.23	1.76			11.42	2.57	11.95	2.04
9-64-bldg.	BDC-05-08	27.00	12.64	2.03			12.64	2.03	12.28	2.39	13.02	1.65			12.20	2.47	12.49	2.18
9-64-bldg.	BDC-05-09	24.55	12.31	2.10			12.36	2.05	11.90	2.51	12.68	1.73	12.27	2.13				
9-64-bldg.	BDC-05-10	24.57	12.31	2.10			12.30	2.11	11.95	2.46	12.74	1.67	12.27	2.14				
9-64-bldg.	BDC-05-11	24.85	12.51	2.14			12.55	2.10	12.13	2.52	12.92	1.73	12.60	2.05	</			

**DEVELOPMENTAL CENTER**  
**CUMULATIVE WATER LEVEL MEASUREMENTS**

Well Location / Bldg.	Well ID No.	Well Depth	May 2013		Feb 2013		Nov 2012		May 2012		Nov 2011		July 2011		May 2011		Nov 2010	
			Depth to Water	Water Elevation														
9-60 bldg.	BDC-101	18.42	11.99	2.48	11.77	2.70	12.20	2.27	11.32	3.15	12.46	2.01	12.16	2.31	11.48	2.99	11.92	2.55
9-60 bldg.	BDC-102	18.83	11.79	2.48	11.55	2.72	11.93	2.34	11.13	3.14	12.16	2.11	11.92	2.35	11.20	3.07	11.67	2.60
9-60 bldg.	BDC-103	18.51	11.71	2.63	11.43	2.91	11.88	2.46	11.09	3.25	12.20	2.14	11.90	2.44	10.96	3.38	11.63	2.71
9-60 bldg.	BDC-104	18.90	11.51	2.65	11.24	2.92	11.78	2.38	10.93	3.23	12.00	2.16	11.72	2.44	10.97	3.19	11.45	2.71
9-52-bldg.	952MW-1	17.40																
9-52-bldg.	952MW-2	17.54																
9-52-bldg.	952MW-3	17.95																
9-52-bldg. (west)	MW-5	27.43																
9-04-bldg. (north)	MW-2	26.98																
9-04-bldg. (north)	MW-7	18.50																
9-04-bldg. (north)	MW-8	18.50																
9-04-bldg. (north)	MW-9	18.50																

## **DEVELOPMENTAL CENTER CUMULATIVE WATER LEVEL MEASUREMENTS**

Well Location / Bldg.	Well ID No.	Well Depth	May 2010		Nov 2009		May 2009		Nov 2008		May 2008		Nov 2007		May 2007		February 2007		Nov 2006		Aug 2006	
			Depth to Water	Water Elevation																		
9-101-bldg.	MW-6A	24.25	12.69	2.11	12.42	2.38	12.73	2.07	12.79	2.01	12.87	1.93	13.08	1.72	12.97	1.83	12.42	2.38	12.30	2.50	13.16	1.64
9-101-bldg.	MW-6B	27.20	13.04	2.05	12.73	2.36	13.08	2.01	13.12	1.97	13.21	1.88	13.46	1.63	13.32	1.77	12.75	2.34	12.67	2.42	13.50	1.59
9-101-bldg.	MW-6C	40.55			12.72	2.35	13.05	2.02	13.06	2.01	13.13	1.94	13.41	1.66	13.27	1.80	12.69	2.38	12.65	2.42	13.41	1.66
9-101-bldg.	MW-8C	40.20			12.70	2.22	13.01	1.91	12.88	2.04	13.16	1.76	13.28	1.64	13.00	1.92			12.21	2.71		
9-101-bldg.	MW-9A	21.30	12.65	2.09	12.43	2.31	12.77	1.97	12.69	2.05	12.93	1.81	13.07	1.67	12.90	1.84	12.36	2.38	12.12	2.62	13.05	1.69
9-101-bldg.	MW-9B	26.90			12.30	2.29	12.64	1.95	12.68	1.91	12.75	1.84	12.91	1.68	12.71	1.88	12.19	2.40	11.95	2.64	12.87	1.72
9-101-bldg.	MW-9C	38.80			12.40	2.26	12.67	1.99	12.66	2.00	12.82	1.84	13.02	1.64	12.81	1.85	12.20	2.46	12.05	2.61	13.01	1.65
9-101-bldg.	MW-9D	56.00			12.43	2.23	12.79	1.87	12.78	1.88	12.90	1.76	13.56	1.10	12.88	1.78			12.30	2.36		
9-101-bldg.	MW-10A	20.20	12.62	2.07	12.46	2.23	12.65	2.04	12.68	2.01	12.89	1.80	13.05	1.64	12.72	1.97	12.35	2.34	12.06	2.63	12.88	1.81
9-101-bldg.	MW-10C	40.40	12.53	2.09	12.41	2.21	12.60	2.02	12.62	2.00	12.78	1.84	12.96	1.66	12.77	1.85			11.99	2.63		
9-101-bldg.	MW-11A	19.90	12.69	2.19	12.52	2.36	12.81	2.07	12.81	2.07	13.16	1.72	13.16	1.72	12.96	1.92			11.85	3.03		
9-101-bldg.	MW-12A	20.20	12.73	2.10	12.56	2.27	12.96	1.87	12.91	1.92	13.22	1.61	13.24	1.59	13.00	1.83			11.89	2.94		
9-101-bldg.	MW-13A	19.37	12.14	2.00	11.89	2.25	12.29	1.85	12.25	1.89	12.62	1.52	12.42	1.72	12.33	1.81			11.50	2.64		
9-101-bldg.	MW-13C	35.62	12.02	2.00	11.71	2.31	12.14	1.88	12.12	1.90	12.46	1.56	12.29	1.73	12.20	1.82	12.03	2.34	11.46	2.91	12.83	1.54
9-101-bldg.	MW-14A	19.00	12.39	1.98	12.10	2.27	12.50	1.87	12.50	1.87	12.64	1.73	12.55	1.82	12.73	1.64			11.72	2.25		
9-101-bldg.	MW-14C	33.30	12.00	1.97	11.65	2.32	12.20	1.77	12.08	1.89	12.14	1.83	12.00	1.97	12.32	1.65			11.93	2.24		
9-101-bldg.	MW-14E	82.10			7.20	6.98	7.55	6.63	7.51	6.67	8.07	6.11	6.83	7.35	7.59	6.59			6.71	7.47		
9-101-bldg.	MW-15A	20.70	12.22	1.95	11.89	2.28	12.44	1.73	12.31	1.86	12.35	1.82	12.24	1.93	12.52	1.65			11.91	2.26		
9-101-bldg.	MW-15C	34.35	12.17	2.00	11.85	2.32	12.46	1.71	12.23	1.94	12.50	1.67	12.30	1.87	12.55	1.62			12.14	2.27		
9-101-bldg.	MW-15D	51.80			12.02	2.39	12.78	1.63	12.47	1.94	12.68	1.73	12.53	1.88	12.76	1.65			12.05	2.94		
9-101-bldg.	MW-16A	20.55	12.88	2.11	12.68	2.31	12.98	2.01	12.95	2.04	13.17	1.82	12.53	2.46	13.11	1.88			12.22	2.82		
9-101-bldg.	MW-16C	38.30	13.04	2.00	12.63	2.41	13.12	1.92	13.13	1.91	13.34	1.70	13.33	1.71	13.23	1.81			12.04	2.76		
9-101-bldg.	MW-17A	19.00	12.63	2.17	12.55	2.25	12.75	2.05	12.80	2.00	13.07	1.73	13.00	1.80	12.80	2.00						
9-101-bldg.	MW-17C	35.00																				
9-101-bldg.	MW-17D	52.50																				
9-101-bldg.	MW-18A	20.02	12.25	2.05	12.21	2.09	12.42	1.88	12.37	1.93	12.72	1.58	12.46	1.84	12.45	1.85			11.57	2.73		
9-101-bldg.	MW-18C	34.55			12.36	2.27	12.66	1.97	12.67	1.96	12.98	1.65	12.88	1.75	12.74	1.89			11.85	2.78		
9-101-bldg.	MW-18D	52.85																				
9-101-bldg.	MW-19A	16.86			10.11	2.12	10.49	1.74	10.47	1.76	10.49	1.74	10.68	1.55	10.55	1.68	9.92	2.31	9.59	2.64	10.77	1.46
9-101-bldg.	MW-19C	33.92			9.98	2.25	10.44	1.79	10.33	1.90	10.41	1.82	10.59	1.64	10.50	1.73			9.50	2.73		
9-101-bldg.	MW-19D	51.86																				
9-101-bldg.	MW-20A	19.34			12.37	1.94	12.56	1.75	12.69	1.62	12.60	1.71	12.76	1.55	12.30	2.01			12.10	2.21		
9-101-bldg.	MW-20C	35.32	12.06	2.09	11.70	2.45	12.15	2.00	12.13	2.02	12.50	1.65	12.39	1.76	12.28	1.87			11.67	2.48		
9-101-bldg.	MW-20D	50.15																				
9-101-bldg.	MW-22A	19.20	12.30	1.95	12.04	2.21	12.57	1.68	12.35	1.90	12.50	1.75	12.25	2.00	12.64	1.61	11.90	2.35	12.11	2.14	12.77	1.48
9-101-bldg.	MW-23A	19.50			11.86	2.41	13.27	1.00	12.67	1.60	12.67	1.60	12.83	1.44	12.90	1.37	12.03	2.24	13.02	1.25	12.94	1.33
9-101/9-50 bldg.	MW-21A	19.90	12.45	2.00	12.37	2.08																
9-101/9-50 bldg.	MW-21C	34.00																				
9-64-bldg.	BDC-05-02	25.35	12.14	2.27	12.05	2.36	12.19	2.22	12.20	2.21	12.28	2.09	12.31	2.06	12.23	2.14			11.53	2.84		
9-64-bldg.	BDC-05-03	25.47	12.24	2.17	12.11	2.30	12.29	2.12	12.28	2.13	12.47	1.94	12.51	1.90	12.45	1.96			11.75	2.66		
9-64-bldg.	BDC-05-04	25.36	12.33	2.26	12.22	2.37	12.40	2.19	12.35	2.24	12.58	2.01	12.57	2.02	12.54	2.05			11.85	2.74		
9-64-bldg.	BDC-05-05	24.18	11.																			

**DEVELOPMENTAL CENTER**  
**CUMULATIVE WATER LEVEL MEASUREMENTS**

Page 4 of 8

Well Location / Bldg.	Well ID No.	Well Depth	May 2010		Nov 2009		May 2009		Nov 2008		May 2008		Nov 2007		May 2007		February 2007		Nov 2006		Aug 2006	
			Depth to Water	Water Elevation																		
9-60 bldg.	BDC-101	18.42	11.82	2.65	11.82	2.65	11.89	2.58	11.95	2.52	12.29	2.18	12.22	2.25	12.13	2.34			11.42	3.05		
9-60 bldg.	BDC-102	18.83	11.57	2.70	11.58	2.69	11.64	2.63	11.67	2.60	12.08	2.19	11.86	2.41	11.89	2.38			11.13	3.14		
9-60 bldg.	BDC-103	18.51	11.54	2.80	11.55	2.79	11.61	2.73	11.68	2.66	12.02	2.32	11.93	2.41	11.87	2.47			11.10	3.24		
9-60 bldg.	BDC-104	18.90	11.32	2.84	11.36	2.80	11.40	2.76	11.51	2.65	11.84	2.32										
9-52-bldg.	952MW-1	17.40																				
9-52-bldg.	952MW-2	17.54																				
9-52-bldg.	952MW-3	17.95																				
9-52-bldg. (west)	MW-5	27.43																				
9-04-bldg. (north)	MW-2	26.98																				
9-04-bldg. (north)	MW-7	18.50																				
9-04-bldg. (north)	MW-8	18.50																				
9-04-bldg. (north)	MW-9	18.50																				

**DEVELOPMENTAL CENTER**  
**CUMULATIVE WATER LEVEL MEASUREMENTS**

Well Location / Bldg.	Well ID No.	Well Depth	May 2006		February 2006		November 2005		August 2005		May 2005		February 2005		October 2004		August 2004		May 2004		November 2003	
			Depth to Water	Water Elevation																		
9-101-bldg.	MW-6A	24.25	12.77	2.03	12.42	2.38	12.80	2.00	13.02	1.78	12.52	2.28	12.68	2.12	12.90	1.90	13.06	1.74	13.00	1.83	12.88	1.95
9-101-bldg.	MW-6B	27.20	13.09	2.00	12.75	2.34	13.15	1.94	13.35	1.74	12.88	2.21	12.97	2.12	13.25	1.84	13.40	1.69	13.11	1.81	13.11	1.81
9-101-bldg.	MW-6C	40.55	13.07	2.00	12.71	2.36	13.14	1.93	13.32	1.75	12.87	2.20	12.90	2.17	13.18	1.89	13.37	1.70	13.14	1.85	13.03	1.96
9-101-bldg.	MW-8C	40.20	13.18	1.74	12.37	2.37	12.73	2.01	13.08	1.66	12.53	2.21	12.51	2.23	12.92	1.82	13.05	1.69	12.82	1.82	12.78	1.86
9-101-bldg.	MW-9A	21.30	13.00	1.74	12.37	2.37	12.73	2.01	13.08	1.66	12.53	2.21	12.64	2.28	12.91	2.01	13.05	1.69	12.82	1.82	12.78	1.86
9-101-bldg.	MW-9B	26.90	13.81	0.78	12.19	2.40	12.69	1.90	12.90	1.69	12.17	2.42	10.80	3.79	12.76	1.83	12.90	1.69	12.77	1.95	12.82	1.90
9-101-bldg.	MW-9C	38.80	12.91	1.75	12.26	2.40	12.69	1.97	12.93	1.73	12.55	2.11	12.46	2.20	12.87	1.79	13.01	1.65	12.85	1.83	12.77	1.91
9-101-bldg.	MW-9D	56.00	13.15	1.51			12.90	1.76			12.90	1.76			13.92	0.74			12.92	1.74	13.04	1.62
9-101-bldg.	MW-10A	20.20	12.98	1.71	11.93	2.76	12.73	1.96	12.85	1.84	12.52	2.17	12.58	2.11	12.95	1.74	13.05	1.64	12.93	1.76	12.83	1.86
9-101-bldg.	MW-10C	40.40	12.88	1.74			12.63	1.99			12.45	2.17			12.74	1.88			12.80	1.82	12.71	1.91
9-101-bldg.	MW-11A	19.90	12.80	2.08			12.92	1.96			12.42	2.46			12.78	2.10			13.12	1.76	12.91	1.97
9-101-bldg.	MW-12A	20.20	12.97	1.86			12.98	1.85			12.58	2.25			12.86	1.97			13.21	1.62	13.00	1.83
9-101-bldg.	MW-13A	19.37	12.48	1.66			12.26	1.88			11.97	2.17			12.35	1.79			12.47	1.67	12.18	1.96
9-101-bldg.	MW-13C	35.62	12.33	1.69			12.10	1.92			11.78	2.24			12.19	1.83			12.35	1.67	12.02	2.00
9-101-bldg.	MW-14A	19.00	12.59	1.78	11.95	2.42	12.39	1.98	12.56	1.81	12.35	2.02	12.38	2.09	12.60	1.87	12.94	1.53	12.71	1.76	12.57	1.90
9-101-bldg.	MW-14C	33.30	12.26	1.71			12.13	1.84			11.84	2.13			12.09	1.88			12.16	1.81	12.07	1.90
9-101-bldg.	MW-14E	82.10	8.78	5.40			7.87	6.31			7.29	6.89			7.58	6.60			6.94	7.24	7.26	6.92
9-101-bldg.	MW-15A	20.70	12.05	2.12			12.42	1.75			11.74	2.43			12.17	2.00			12.67	1.50	12.36	1.81
9-101-bldg.	MW-15C	34.35	12.37	1.80			12.50	1.67			12.02	2.15			12.31	1.86			12.72	1.45	12.37	1.80
9-101-bldg.	MW-15D	51.80	12.52	1.89			12.63	1.78			12.20	2.21			12.56	1.85			12.88	1.53	12.64	1.77
9-101-bldg.	MW-16A	20.55	13.04	1.95			13.05	1.94			12.67	2.32			12.97	2.02			13.19	1.80	12.96	2.03
9-101-bldg.	MW-16C	38.30	13.23	1.81			13.22	1.82			12.83	2.21			13.15	1.89			13.38	1.66	13.15	1.89
9-101-bldg.	MW-17A	19.00	12.85	1.95			12.74	2.30							12.81	1.99			13.05	1.75	12.83	1.97
9-101-bldg.	MW-17C	35.00					12.83	2.21							12.80	2.05			13.11	1.74		
9-101-bldg.	MW-17D	52.50					12.82	2.22							12.97	1.90			13.20	1.67		
9-101-bldg.	MW-18A	20.02	12.43	1.87	10.22	2.01	12.44	1.86			12.11	2.19			12.43	1.87			12.57	1.73	12.36	1.94
9-101-bldg.	MW-18C	34.55	12.70	1.93			12.72	1.91			12.36	2.27			12.75	1.88			12.84	1.79	12.62	2.01
9-101-bldg.	MW-18D	52.85					12.42	2.21							12.42	1.84			12.60	1.66		
9-101-bldg.	MW-19A	16.86	10.44	1.79			10.43	1.80	10.70	1.53	10.22	2.01	10.19	2.04	10.54	1.69			10.85	1.38	10.39	1.84
9-101-bldg.	MW-19C	33.92	10.32	1.91			10.36	1.87			10.22	2.01			10.43	1.80			10.22	2.01	10.31	1.92
9-101-bldg.	MW-19D	51.86					10.69	1.54							10.67	1.56			10.86	1.37		
9-101-bldg.	MW-20A	19.34	12.09	2.22			12.68	1.63			12.33	1.98			12.75	1.56			12.73	1.58	12.58	1.73
9-101-bldg.	MW-20C	35.32	12.05	2.10			12.30	1.85			11.90	2.25			12.39	1.76			12.66	1.49	12.24	1.91
9-101-bldg.	MW-20D	50.15					12.66	1.49							12.80	1.63			13.17	1.26		
9-101-bldg.	MW-22A	19.20	12.41	1.84	12.25	2.00	12.															

**DEVELOPMENTAL CENTER**  
**CUMULATIVE WATER LEVEL MEASUREMENTS**

Well Location / Bldg.	Well ID No.	Well Depth	May 2006		February 2006		November 2005		August 2005		May 2005		February 2005		October 2004		August 2004		May 2004		November 2003	
			Depth to Water	Water Elevation																		
9-60 bldg.	BDC-101	18.42	12.07	2.40			11.91	2.56			11.73	2.74			12.31	2.16			12.04	2.43	12.08	2.39
9-60 bldg.	BDC-102	18.83	11.85	2.42			11.79	2.48			11.53	2.74			11.97	2.30			11.84	2.43	11.82	2.45
9-60 bldg.	BDC-103	18.51	11.78	2.56			11.81	2.53			11.50	2.84			12.08	2.26			11.79	2.55	11.72	2.62
9-60 bldg.	BDC-104	18.90																				
9-52-bldg.	952MW-1	17.40																				
9-52-bldg.	952MW-2	17.54																				
9-52-bldg.	952MW-3	17.95																				
9-52-bldg. (west)	MW-5	27.43																				
9-04-bldg. (north)	MW-2	26.98																				
9-04-bldg. (north)	MW-7	18.50																				
9-04-bldg. (north)	MW-8	18.50																				
9-04-bldg. (north)	MW-9	18.50																				

**DEVELOPMENTAL CENTER**  
**CUMULATIVE WATER LEVEL MEASUREMENTS**

Well Location / Bldg.	Well ID No.	Well Depth	June 2003		December 2002		June 2002		December 2001		June 2001		December 2000		June 2000		November 1999		
			Depth to Water	Water Elevation															
9-101-bldg.	MW-6A	24.25																	
9-101-bldg.	MW-6B	27.20	13.30	1.53	13.01	1.82	13.21	1.62	12.45	2.38	13.50	1.33	13.55	1.28	13.01	1.82	13.33	1.50	
9-101-bldg.	MW-6C	40.55	13.44	1.55	13.16	1.83	13.36	1.63	12.60	2.39	13.67	1.32	13.70	1.29	13.15	1.84	13.50	1.49	
9-101-bldg.	MW-8C	40.20	13.39	1.53	13.19	1.73	13.27	1.65	12.89	2.03	13.85	1.07	13.71	1.21	13.13	1.79	13.79	1.13	
9-101-bldg.	MW-9A	21.30	13.00	1.64	12.90	1.74	12.94	1.70	12.69	1.95	13.76	0.88	13.72	0.92	12.78	1.86	13.67	0.97	
9-101-bldg.	MW-9B	26.90	13.08	1.64	12.96	1.76	13.00	1.72	12.82	1.90	13.90	0.82	13.82	0.90	12.81	1.91	13.90	0.82	
9-101-bldg.	MW-9C	38.80	13.09	1.59	12.90	1.78	12.94	1.74	12.61	2.07	13.64	1.04	13.57	1.11	12.75	1.93	13.60	1.08	
9-101-bldg.	MW-9D	56.00	13.39	1.27	13.17	1.49	13.20	1.46	12.25	2.41	13.15	1.51	13.03	1.63	12.74	1.92	13.00	1.66	
9-101-bldg.	MW-10A	20.20	13.08	1.61	13.03	1.66	12.94	1.75	12.52	2.17	13.52	1.17	13.62	1.07	12.84	1.85	13.50	1.19	
9-101-bldg.	MW-10C	40.40	12.97	1.65	12.90	1.72	12.84	1.78	12.32	2.30	13.37	1.25	13.40	1.22	12.74	1.88	13.29	1.33	
9-101-bldg.	MW-11A	19.90	13.14	1.74	13.13	1.75	12.97	1.91	12.28	2.60	13.35	1.53	13.52	1.36	12.91	1.97	13.20	1.68	
9-101-bldg.	MW-12A	20.20	13.23	1.60	13.20	1.63	13.03	1.80	12.33	2.50	13.35	1.48	13.50	1.33	13.02	1.81	13.21	1.62	
9-101-bldg.	MW-13A	19.37	12.49	1.65	12.38	1.76	12.50	1.64	11.92	2.22	12.59	1.55	12.76	1.38	12.50	1.64	12.33	1.81	
9-101-bldg.	MW-13C	35.62	12.30	1.72	12.22	1.80	12.31	1.71	11.45	2.57	12.43	1.59	12.69	1.33	12.37	1.65	12.21	1.81	
9-101-bldg.	MW-14A	19.00	12.91	1.56	12.70	1.77	12.85	1.62	12.16	2.31	13.00	1.47	12.98	1.49	12.70	1.77	12.78	1.69	
9-101-bldg.	MW-14C	33.30	12.43	1.54	12.18	1.79	12.33	1.64	11.60	2.37	12.59	1.38	12.49	1.48	12.17	1.80	12.35	1.62	
9-101-bldg.	MW-14E	82.10	8.56	5.62	7.69	6.49	7.64	6.54	6.10	8.08	7.83	6.35	7.44	6.74	7.45	6.73	7.90	6.28	
9-101-bldg.	MW-15A	20.70	12.57	1.60	12.55	1.62	12.52	1.65	11.82	2.35	12.66	1.51	12.82	1.35	12.40	1.77	12.35	1.82	
9-101-bldg.	MW-15C	34.35	12.56	1.61	12.47	1.70	12.50	1.67	11.73	2.44	12.80	1.37	12.77	1.40	12.36	1.81	12.49	1.68	
9-101-bldg.	MW-15D	51.80	12.41	2.00	12.80	1.61	13.02	1.39	11.90	2.51	12.88	1.53	12.90	1.51	12.59	1.82	12.44	1.97	
9-101-bldg.	MW-16A	20.55	13.35	1.64	13.03	1.96	13.02	1.97	12.45	2.54	13.55	1.44	13.50	1.49	13.19	1.80	13.34	1.65	
9-101-bldg.	MW-16C	38.30	13.51	1.53	13.33	1.71	13.29	1.75	12.62	2.42	13.77	1.27	13.67	1.37	13.36	1.68	13.52	1.52	
9-101-bldg.	MW-17A	19.00	13.10	1.70	12.99	1.81	13.07	1.73	12.34	2.46			13.32	1.48	13.05	1.75	13.03	1.77	
9-101-bldg.	MW-17C	35.00								13.25	1.60			13.10	1.75	13.05	1.80		
9-101-bldg.	MW-17D	52.50							11.82	2.48	12.61	1.69	12.84	1.46	12.55	1.75	12.38	1.92	
9-101-bldg.	MW-18A	20.02							9.93	2.30	12.58	1.68	12.85	1.41	12.52	1.74	12.33	1.93	
9-101-bldg.	MW-18C	34.55	12.89	1.74	12.82	1.81	12.92	1.71			10.62	1.61	10.93	1.30	10.68	1.55	10.42	1.81	
9-101-bldg.	MW-18D	52.85									10.55	1.68	10.89	1.34	10.65	1.58	10.35	1.88	
9-101-bldg.	MW-19A	16.86									11.00	1.23	10.90	1.33	10.71	1.52	11.05	1.18	
9-101-bldg.	MW-19C	33.92	10.55	1.68	10.41	1.82	10.71	1.52			12.60	1.71	12.89	1.42	12.44	1.87	12.75	1.56	
9-101-bldg.	MW-19D	51.86									12.20	2.11	12.50	1.65	12.69	1.46	12.16	1.99	
9-101-bldg.	MW-20A	19.34										11.83	1.60	12.87	1.56	12.41	2.02	12.66	1.77
9-101-bldg.	MW-20C	35.32	12.48	1.67	12.26	1.89	12.55	1.60											
9-101-bldg.	MW-20D	50.15																	
9-101-bldg.	MW-22A	19.20																	
9-101-bldg.	MW-23A	19.50																	
9-101/9-50 bldg.	MW-21A	19.90																	
9-101/9-50 bldg.	MW-21C	34.00																	
9-64-bldg.	BDC-05-02	25.35	12.47	1.90	12.40	1.97	12.25	2.12	11.45	2.92	12.38	1.99	12.56	1.81	12.37	2.00	12.03	2.34	
9-64-bldg.	BDC-05-03	25.47	12.66	1.75	12.60	1.81	12.47	1.94	11.70	2.71	12.56	1.85	12.82	1.59	12.56	1.85	12.33	2.08	

**DEVELOPMENTAL CENTER  
CUMULATIVE WATER LEVEL MEASUREMENTS**

<b>Well Location / Bldg.</b>	<b>Well ID No.</b>	<b>Well Depth</b>	<b>June 2003</b>		<b>December 2002</b>		<b>June 2002</b>		<b>December 2001</b>		<b>June 2001</b>		<b>December 2000</b>		<b>June 2000</b>		<b>November 1999</b>	
			<b>Depth to Water</b>	<b>Water Elevation</b>														
9-60 bldg.	BDC-101	18.42	12.43	2.04	12.34	2.13	12.07	2.40	11.29	3.18	12.30	2.17						
9-60 bldg.	BDC-102	18.83	12.24	2.03			12.14	2.13	11.82	2.45	11.05	3.22	12.06	2.21				
9-60 bldg.	BDC-103	18.51	12.27	2.07			12.15	2.19	11.81	2.53	11.03	3.31	12.04	2.30				
9-60 bldg.	BDC-104	18.90																
9-52-bldg.	952MW-1	17.40							11.10	2.38	10.21	3.27	11.25	2.23	11.50	1.98	10.97	2.51
9-52-bldg.	952MW-2	17.54							11.37	2.63	10.46	3.54	11.48	2.52	11.76	2.24	11.25	2.75
9-52-bldg.	952MW-3	17.95							11.40	2.36	10.52	3.24	11.55	2.21	11.85	1.91	11.28	2.48
9-52-bldg. (west)	MW-5	27.43															10.53	2.42
9-04-bldg. (north)	MW-2	26.98															9.53	3.14
9-04-bldg. (north)	MW-7	18.50																
9-04-bldg. (north)	MW-8	18.50																
9-04-bldg. (north)	MW-9	18.50																

## Notes:

Depth to Water measurements taken from top of well casing

Top of casing elevation altered in wells MW-6B, MW-6C, MW-9A, MW-9B, and MW-9C by installation of threaded fitting on 6/19/2004.

Top of casing elevation was lowered in well MW-14A by 0.10 ft on 3/17/2005; resurveyed 9/9/05.

Top of casing elevation at wells MS-22A and MW-23A measured 9/9/05.

BDC05-02 was modified in October 2008 for utilization as an injection well. Elevation changed from 14.37 to 14.41 ft; total depth changed from 25.35 to 25.27.

***DEVELOPMENTAL CENTER***  
***GROUNDWATER MONITORING***  
***MAY 2013***

**GROUNDWATER SAMPLE COLLECTION FORMS**

**ANALYTICAL DATA**

**(DVD)**