



June 5, 2015

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

**RE: NOVEMBER 2014 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, Washington. The report covers the period following the May 2014 semiannual sampling event (and corresponding report) through the semiannual event in November 2014. 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. 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 August and November 2014 at SWMU-17 and AOC-05; and in November 2014 at 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. 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 enhanced treatment continues at and near injection wells, as indicated by the persistence of sulfate-reducing to 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 several wells (see SWMU-20 Cleanup Action Summary – Source Zone 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 are detected at very low concentrations. cDCE concentrations are below reporting limits or less than 1 micrograms per liter ( $\mu\text{g}/\text{L}$ ) at all locations, well below the proposed CUL (134  $\mu\text{g}/\text{L}$ ). VC detections at source zone wells are below the proposed CUL (2.4  $\mu\text{g}/\text{L}$ ) with the exception of wells MW-06A (2.7  $\mu\text{g}/\text{L}$ ). 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  $\mu\text{g}/\text{L}$ ) at all wells and TCE detections exceed the proposed CUL (1.4  $\mu\text{g}/\text{L}$ ) at only two upgradient or crossgradient wells (MW-16A and MW-17A), at 1.5 and 3.1  $\mu\text{g}/\text{L}$ , respectively. The proposed CUL for VC (2.4  $\mu\text{g}/\text{L}$ ) is slightly exceeded at downgradient wells MW-10C and MW-15C, both at 2.5  $\mu\text{g}/\text{L}$ . 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. Boeing plans to perform electron donor injection at wells where concentrations remain above or near the proposed cleanup levels; a work plan will be prepared for Ecology review and the injection work is anticipated to occur later this year. Ecology approved a reduction in the monitoring program for SWMU-20 that will be implemented beginning with the April/May 2015 sampling event. Ecology noted in the sampling reduction approval that reporting limits had been elevated at some wells in the recent past. It should be noted that lower reporting limits were achieved at these wells in November 2014, as a lab issue regarding potential foaming of samples and resulting sample dilution was resolved.

At AOC-05, *in situ* anaerobic bioremediation continues for treatment of TPH-G and BTEX. The last (ninth) injection of nitrate electron acceptor solution took place (at well BDC-103 only) in November 2013. At downgradient wells BDC-101 and BDC-102, and at previously impacted well BDC-104, TPH-G and BTEX remain below reporting limits. At BDC-103, concentrations of TPH-G and BTEX were below reporting limits during both the August and November 2014 sampling events with the exception of benzene detected in August; with this exception, TPH-G and BTEX have remained below proposed CULs for all of 2014. Nitrate in November at BDC-103 (151 mg/L) remains adequate for continued biotreatment. Nitrate monitoring is also performed at the two nearest downgradient wells and at four wells located farther downgradient. Nitrate concentrations were above the 10 mg/L action level at downgradient wells BDC-101(August) and BDC-102 (August and November). Nitrate continued to be well below the action level at the four wells farther downgradient (BDC-05-04, MW-17A, MW-18A, and MW-21A). Based on these results, additional nitrate injections are not anticipated. Groundwater sampling at AOC-05 wells will continue on a quarterly basis to evaluate potential contaminant rebound. As required, 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. It is anticipated that 4 quarters of monitoring results below proposed CULs will be required to complete the remedial action in AOC-05 and discontinue

monitoring. The 4 quarters of monitoring will begin when nitrate concentrations at the four AOC-05 wells are all below baseline; baseline was as high at 18 mg/L at BDC-101.

At SWMU-17, groundwater monitoring results from August and November 2014 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 (cDCE, VC, and ethene) have been observed at all injection wells following injection. In November 2014, PCE, TCE, and cDCE concentrations were below proposed CULs at all wells. Final breakdown product VC was present at 12 wells above the proposed CUL (2.4 µg/L) in November; concentrations for these 12 wells ranged from 2.5 to 16 µg/L. Complete reductive dechlorination beyond VC continues to be indicated by end products ethene and/or ethane, which were detected in November at 15 of 18 wells analyzed. Non-toxic end products ethene and ethane are predominant on a molar basis over TCE, cDCE, and VC at 14 of the 15 wells. Low sulfate and elevated concentrations of methane persist at most wells, indicating occurrence of the highly reduced aquifer redox conditions required for complete dechlorination. TOC remains elevated at injection wells (7 to 52 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/rgm

Enclosures: Developmental Center Groundwater Monitoring – November 2014

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 (DVD)

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

***DEVELOPMENTAL CENTER  
GROUNDWATER MONITORING***

*November 2014*

***DEVELOPMENTAL CENTER  
GROUNDWATER MONITORING***

***November 2014***

**SWMU-20 VOC/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 VOA/CONVENTIONALS DATA  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
NOVEMBER 2014**

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:	1516988	1516988	1516988	1516988	1516988	1516988	1516988	1516988	1516988	1516988
Lab Sample ID:	7666724	7666726	7666712	7666709	7666711	7666708	7666707	7666705	7666706	7666717
Sample Date:	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/4/2014	11/4/2014	11/4/2014	11/4/2014	11/5/2014
<b>Test ID: VOA SW8260C (µg/L)</b>										
Acetone	5.0 U									
Acrolein	25 U									
Acrylonitrile	5.0 U									
<b>Benzene</b>	0.2 U									
Bromobenzene	0.5 U									
<b>Bromochloromethane</b>	0.5 U									
Bromodichloromethane	0.5 U									
Bromoform	0.5 U									
Bromomethane	0.5 U									
2-Butanone	5.0 U									
n-Butylbenzene	0.5 U									
sec-Butylbenzene	0.5 U									
tert-Butylbenzene	0.5 U									
Carbon Disulfide	0.5 U									
Carbon Tetrachloride	0.2 U									
Chlorobenzene	0.5 U									
Chloroethane	0.5 U									
Chloroform	0.2 U									
Chloromethane	0.5 U									
2-Chlorotoluene	0.5 U									
4-Chlorotoluene	0.5 U									
1,2-Dibromo-3-chloropropane	0.5 U									
Dibromochloromethane	0.5 U									
Dibromomethane	0.5 U									
trans-1,4-Dichloro-2-butene	5.0 U									
1,2-Dichlorobenzene	0.5 U									
1,3-Dichlorobenzene	0.5 U									
1,4-Dichlorobenzene	0.5 U									
1,1-Dichloroethane	0.5 U									
1,2-Dichloroethane	0.2 U									
<b>1,1-Dichloroethene</b>	0.2 U									
<b>cis-1,2-Dichloroethene</b>	0.4 U	0.2 U	0.2 U	0.2 U	2.6	24	0.3	0.2 U	0.2 U	0.4
<b>trans-1,2-Dichloroethene</b>	0.2 U	0.2 U	0.5	0.3	0.2	1.0	0.2 U	0.2 U	0.2	0.2 U
1,2-Dichloropropane	0.5 U									
1,3-Dichloropropane	0.5 U									
<b>2,2-Dichloropropane</b>	0.5 U									
1,1-Dichloropropene	0.5 U									
cis-1,3-Dichloropropene	0.2 U									
trans-1,3-Dichloropropene	0.2 U									
Ethylbenzene	0.5 U									
Ethylene Dibromide	0.5 U									
Hexachlorobutadiene	0.5 U									
2-Hexanone	5.0 U									
Isopropylbenzene	0.5 U									
4-Isopropyltoluene	0.5 U									
Methyl Iodide	0.5 U									

**SWMU-20 VOA/CONVENTIONALS DATA  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
NOVEMBER 2014**

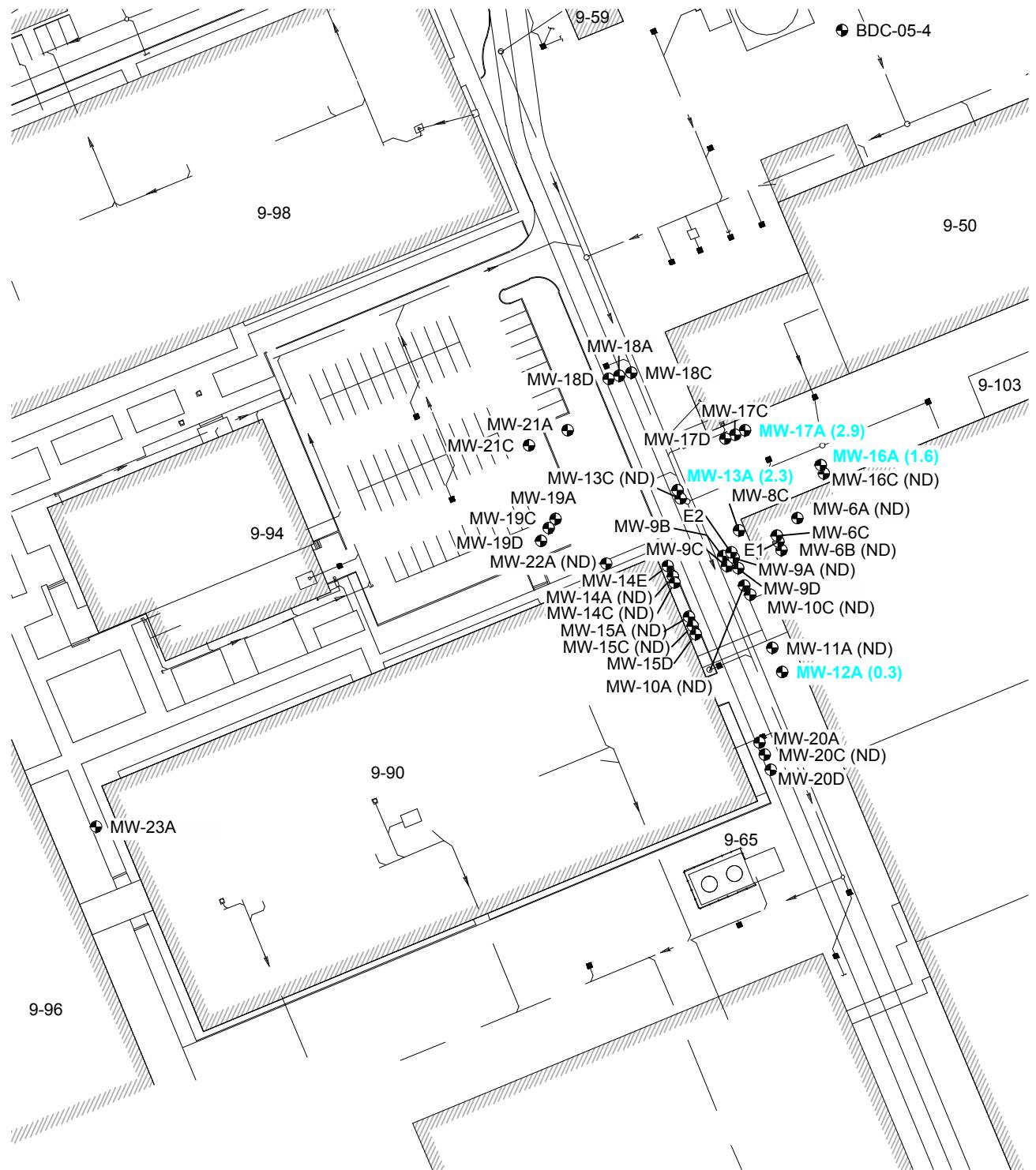
Sample Name:	DC-MW-6A	DC-MW-6B	DC-MW-9A	DC-MW-10A	DC-MW-10C	DC-MW-11A	DC-MW-12A	DC-MW-13A	DC-MW-13C	DC-MW-14A
Lab SDG:	1516988	1516988	1516988	1516988	1516988	1516988	1516988	1516988	1516988	1516988
Lab Sample ID:	7666724	7666726	7666712	7666709	7666711	7666708	7666707	7666705	7666706	7666717
Sample Date:	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/4/2014	11/4/2014	11/4/2014	11/4/2014	11/5/2014
4-Methyl-2-Pentanone (MIBK)	5.0 U									
Methylene Chloride	0.5 U									
<b>Naphthalene</b>	0.5 U	0.5 U	8.7	0.5 U						
n-Propylbenzene	0.5 U									
Styrene	0.5 U									
1,1,1,2-Tetrachloroethane	0.5 U									
1,1,2,2-Tetrachloroethane	0.2 U									
<b>Tetrachloroethene</b>	0.2 U	0.3	2.3	0.2 U						
Toluene	0.2 U									
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5 U									
1,2,3-Trichlorobenzene	0.5 U									
1,2,4-Trichlorobenzene	0.5 U									
1,1,1-Trichloroethane	0.5 U									
1,1,2-Trichloroethane	0.2 U									
<b>Trichloroethene</b>	0.2 U	0.4	0.2 U	0.2 U						
Trichlorofluoromethane	0.5 U									
1,2,3-Trichloropropane	1.0 U									
<b>1,2,4-Trimethylbenzene</b>	0.5 U									
1,3,5-Trimethylbenzene	0.5 U									
Vinyl Acetate	0.5 U									
<b>Vinyl Chloride</b>	2.7	1.8	0.2 U	0.3	2.5	0.4	0.2 U	0.2 U	0.2	0.2
m,p-Xylene	0.5 U									
o-Xylene	0.5 U									
<b>NATURAL ATTENUATION PARAMETERS</b>										
Method Modified RSK175 (µg/L)										
Methane	770	2200	25000	25000						15,000
Ethane	1.0 U	1.0 U	15	5.5						10
Ethene	1.0 U	1.0 U	1.0 U	1.0 U						1.0 U
<b>Conventional Parameters</b>										
Sulfate (mg/L) (EPA 300.0)	13.9	4.7	0.30 U	0.30 U						23.6
Total Organic Carbon (mg/L) (SM20 5310C)	7.2	6.9	24.8	26.1						6.8

**SWMU-20 VOA/CONVENTIONALS DATA  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
NOVEMBER 2014**

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:	1516988	1516988	1516988	1516988	1516988	1516988	1516988	1516988	1516988
Lab Sample ID:	7666719	7666715	7666716	7666722	7666723	7666704	7666714	7666720	7666728
Sample Date:	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/4/2014	11/5/2014	11/5/2014	11/5/2014
<b>Test ID: VOA SW8260C (µg/L)</b>									
Acetone	5.0 U	27	5.0 U						
Acrolein	25 U								
Acrylonitrile	5.0 U								
<b>Benzene</b>	0.2 U	0.2	0.2 U	0.2 U	0.2 U	0.2 U	0.2	0.5	0.2 U
Bromobenzene	0.5 U								
<b>Bromochloromethane</b>	0.5 U								
Bromodichloromethane	0.5 U								
Bromoform	0.5 U								
Bromomethane	0.5 U								
2-Butanone	5.0 U								
n-Butylbenzene	0.5 U								
sec-Butylbenzene	0.5 U								
tert-Butylbenzene	0.5 U								
Carbon Disulfide	0.5 U								
Carbon Tetrachloride	0.2 U	0.2	0.2 U						
Chlorobenzene	0.5 U								
Chloroethane	0.5 U								
Chloroform	0.2 U								
Chloromethane	0.5 U								
2-Chlorotoluene	0.5 U								
4-Chlorotoluene	0.5 U								
1,2-Dibromo-3-chloropropane	0.5 U								
Dibromochloromethane	0.5 U								
Dibromomethane	0.5 U								
trans-1,4-Dichloro-2-butene	5.0 U								
1,2-Dichlorobenzene	0.5 U								
1,3-Dichlorobenzene	0.5 U								
1,4-Dichlorobenzene	0.5 U								
1,1-Dichloroethane	0.5 U								
1,2-Dichloroethane	0.2 U								
<b>1,1-Dichloroethene</b>	0.2 U	0.2	0.2 U						
<b>cis-1,2-Dichloroethene</b>	0.2 U	0.4	0.5	0.4	3.4	0.9	0.9	0.4	0.2 U
<b>trans-1,2-Dichloroethene</b>	0.2 U	0.2 U	0.3	0.2 U	0.3	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	0.5 U								
1,3-Dichloropropane	0.5 U								
<b>2,2-Dichloropropene</b>	0.5 U								
1,1-Dichloropropene	0.5 U								
cis-1,3-Dichloropropene	0.2 U								
trans-1,3-Dichloropropene	0.2 U								
Ethylbenzene	0.5 U								
Ethylene Dibromide	0.5 U								
Hexachlorobutadiene	0.5 U								
2-Hexanone	5.0 U								
Isopropylbenzene	0.5 U								
4-Isopropyltoluene	0.5 U								
Methyl Iodide	0.5 U								

**SWMU-20 VOA/CONVENTIONALS DATA  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
NOVEMBER 2014**

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:	1516988	1516988	1516988	1516988	1516988	1516988	1516988	1516988	1516988
Lab Sample ID:	7666719	7666715	7666716	7666722	7666723	7666704	7666714	7666720	7666728
Sample Date:	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/4/2014	11/5/2014	11/5/2014	11/5/2014
4-Methyl-2-Pentanone (MIBK)	5.0 U								
Methylene Chloride	0.5 U								
<b>Naphthalene</b>	0.5 U	190	0.5 U	6.5	0.5 U				
n-Propylbenzene	0.5 U								
Styrene	0.5 U								
1,1,1,2-Tetrachloroethane	0.5 U								
1,1,2,2-Tetrachloroethane	0.2 U								
<b>Tetrachloroethene</b>	0.2 U	0.2 U	0.2 U	1.6	0.2 U	2.9	0.2 U	0.2 U	0.2 U
Toluene	0.2 U	1.3	0.2 U	1.2					
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5 U								
1,2,3-Trichlorobenzene	0.5 U								
1,2,4-Trichlorobenzene	0.5 U								
1,1,1-Trichloroethane	0.5 U								
1,1,2-Trichloroethane	0.2 U								
<b>Trichloroethene</b>	0.2 U	0.2 U	0.2 U	1.5	0.2 U	3.1	0.2 U	0.2 U	0.2 U
Trichlorofluoromethane	0.5 U								
1,2,3-Trichloropropane	1.0 U								
<b>1,2,4-Trimethylbenzene</b>	0.5 U	0.6	0.5 U						
1,3,5-Trimethylbenzene	0.5 U								
Vinyl Acetate	0.5 U								
<b>Vinyl Chloride</b>	0.2 U	0.5	2.5	0.2 U	1.3	0.2 U	0.7	1.5	0.2 U
m,p-Xylene	0.5 U	1.4	0.5 U						
o-Xylene	0.5 U	4.5	0.5 U						
<b>NATURAL ATTENUATION PARAMETERS</b>									
Method Modified RSK175 (µg/L)									
Methane								4800	
Ethane								1.5 J	
Ethene								1.0 U	
<b>Conventional Parameters</b>									
Sulfate (mg/L) (EPA 300.0)								0.39 J	
Total Organic Carbon (mg/L) (SM20 5310C)								25.8	



#### Legend

- Monitoring Well Location
- (ND) Tetrachloroethene Not Detected at 0.2 µg/L Detection Limit
- (2.9) Tetrachloroethene Groundwater Concentration in µg/L

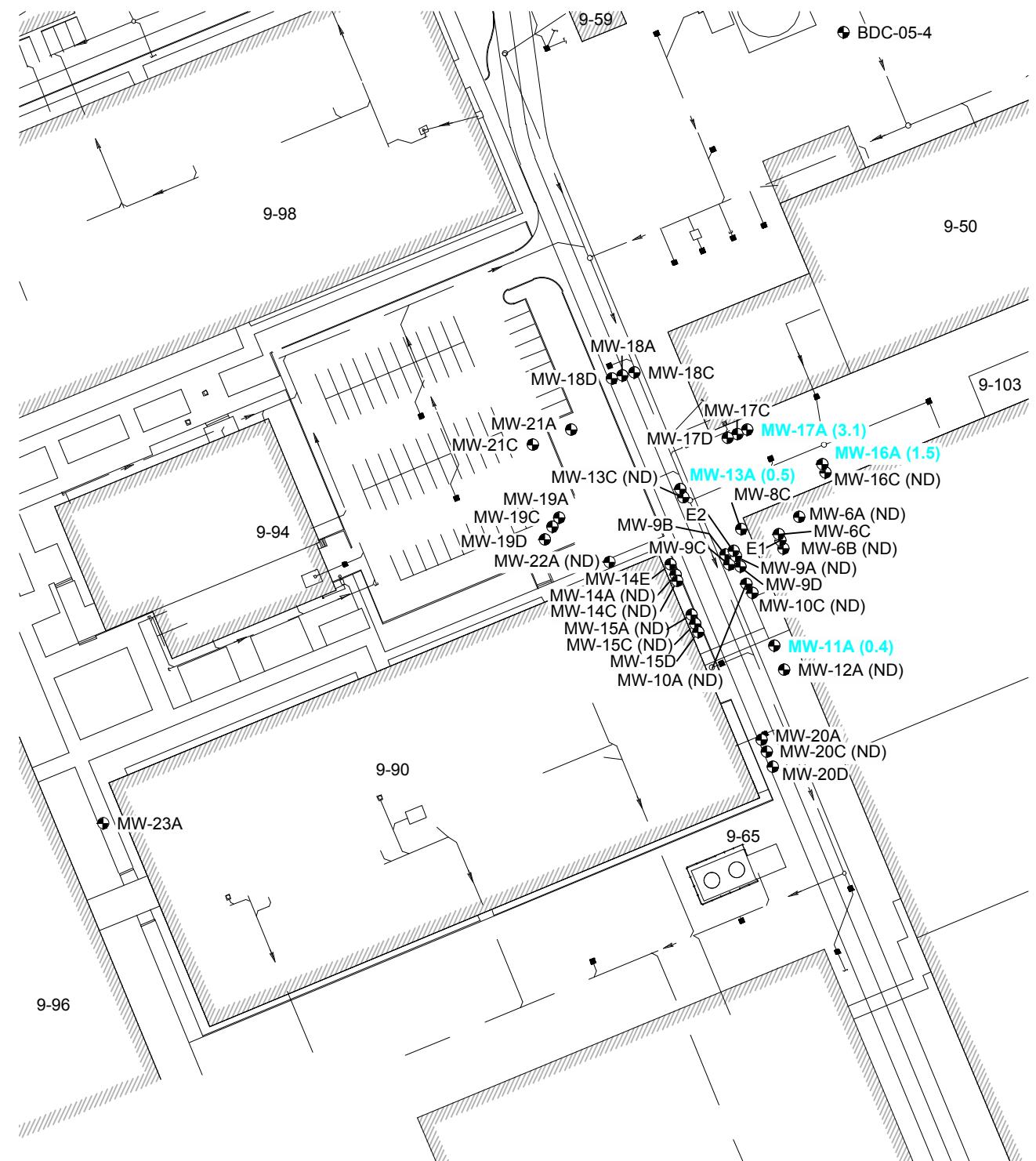


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**SWMU-20 Tetrachloroethene  
November 2014  
Groundwater Concentrations**

Figure  
**1**



0 100 200  
Scale in Feet

#### Legend

- Monitoring Well Location
- (ND) Trichloroethene Not Detected at 0.2 µg/L Detection Limit
- (3.1) Trichloroethene Groundwater Concentration in µg/L

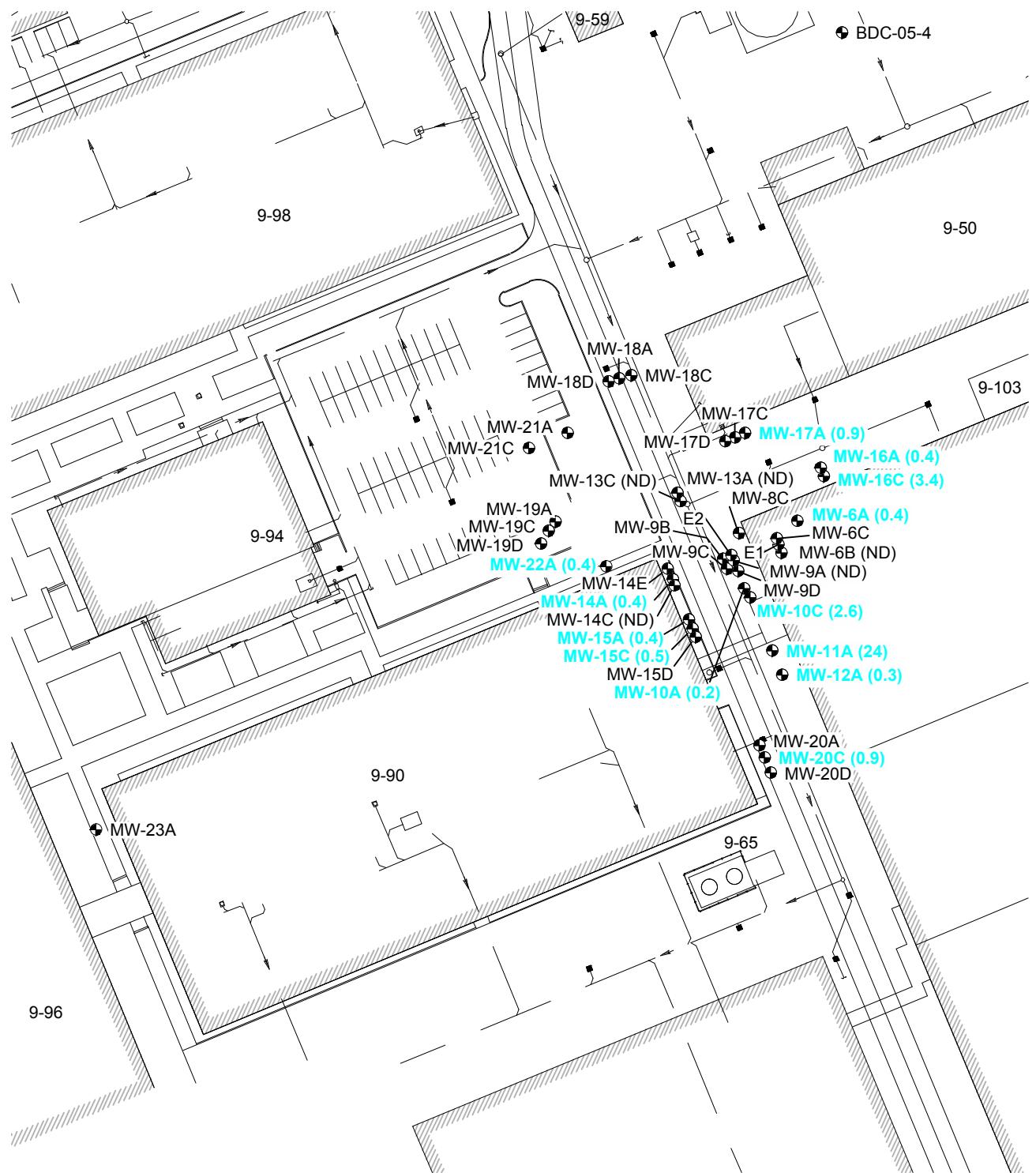


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**SWMU-20 Trichloroethene  
November 2014  
Groundwater Concentrations**

Figure  
**2**



#### Legend

0 100 200  
Scale in Feet

- Monitoring Well Location
- (ND) Cis-1,2-Dichloroethene Not Detected at 0.2 µg/L Detection Limit
- (24) Cis-1,2-Dichloroethene Groundwater Concentration in µg/L

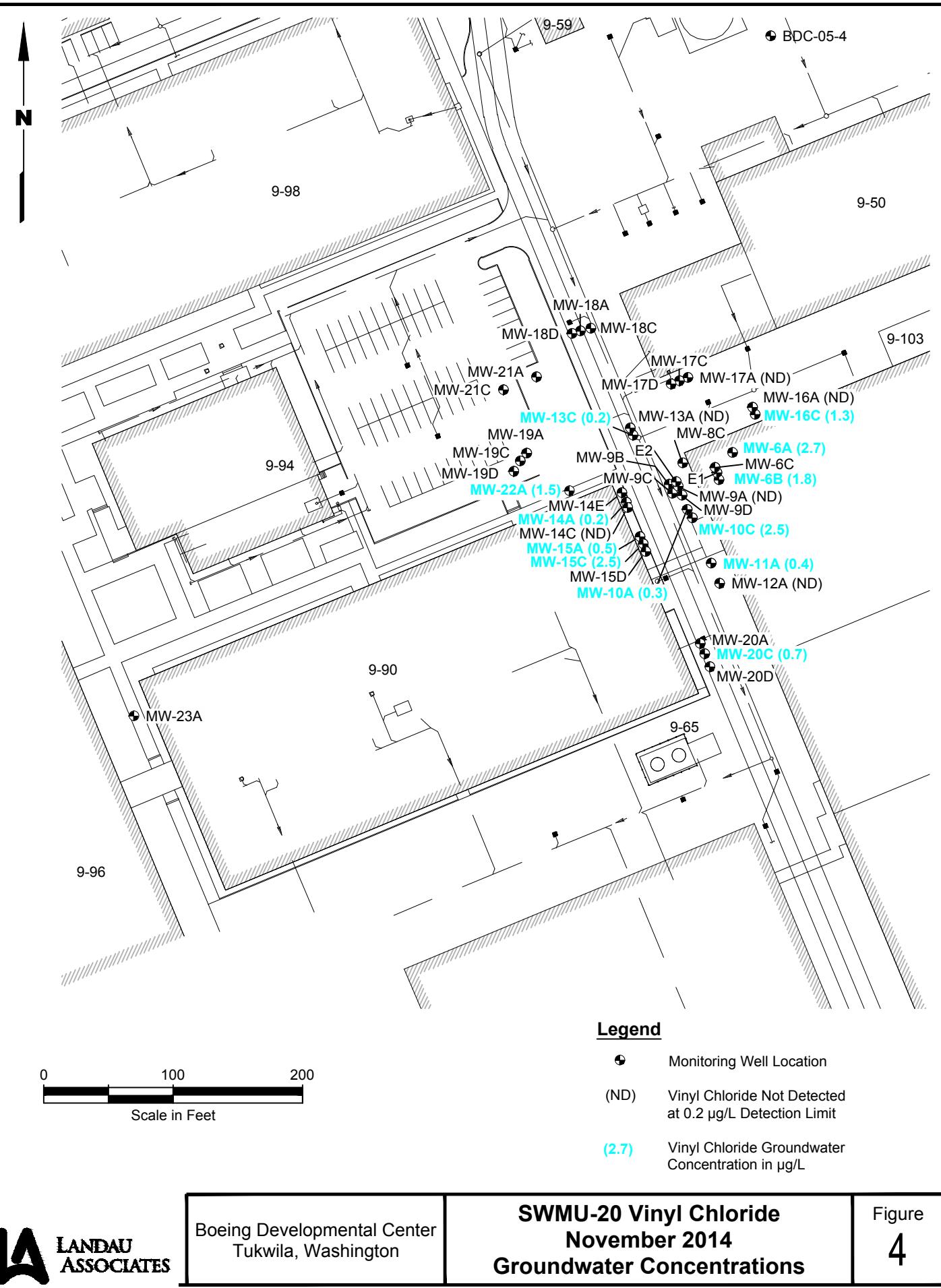


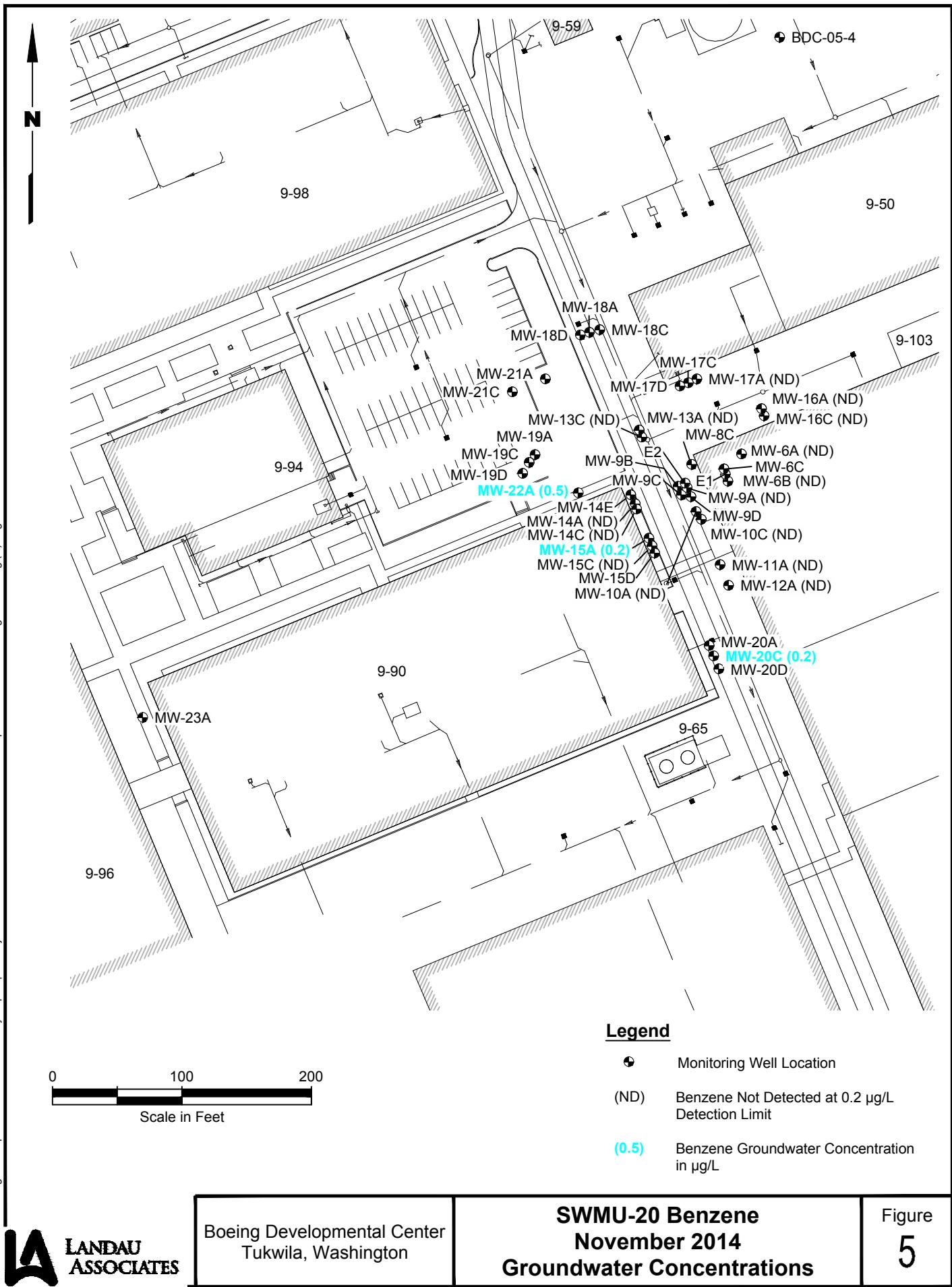
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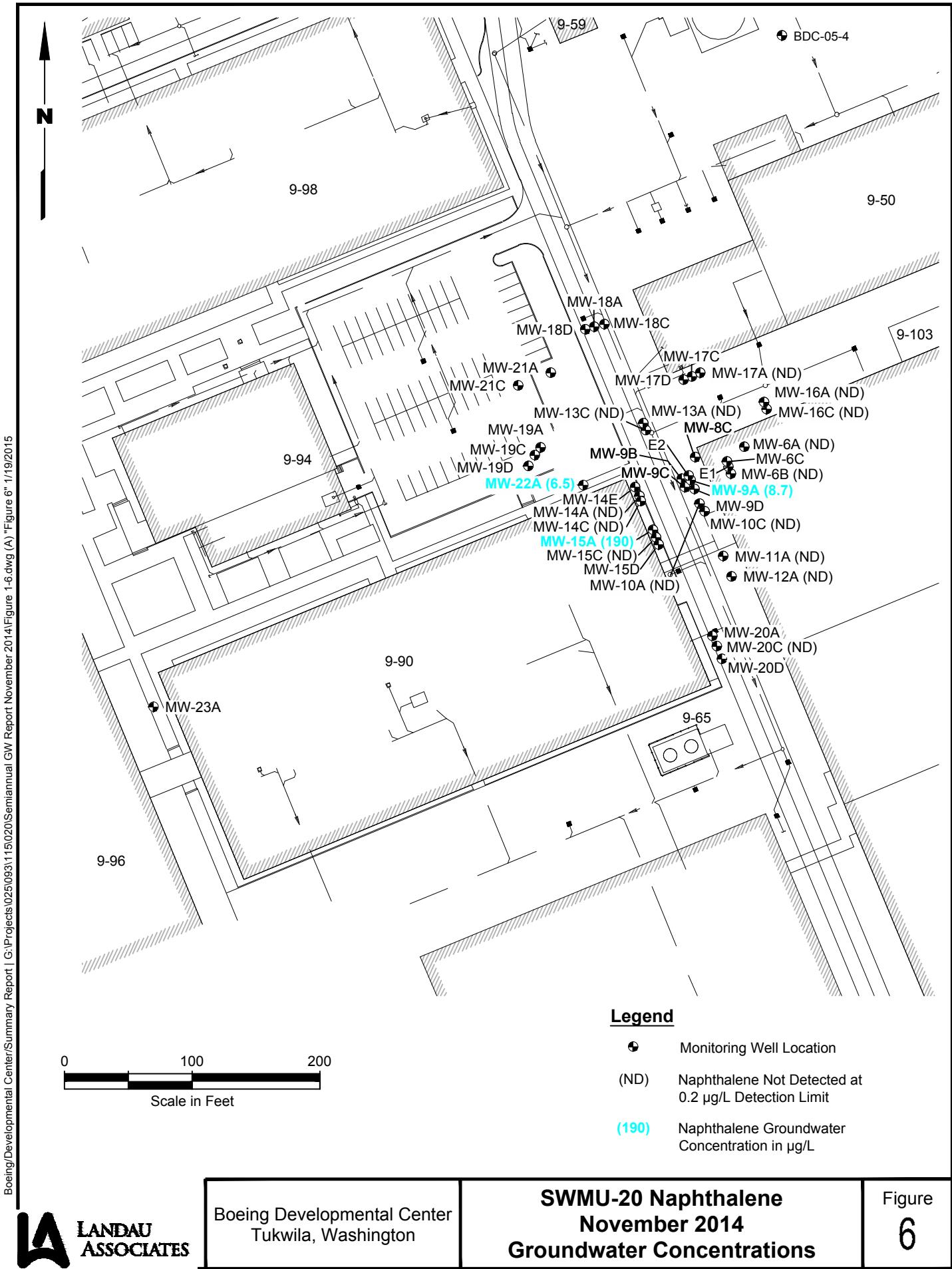
Boeing Developmental Center  
Tukwila, Washington

**SWMU-20 Cis-1,2-Dichloroethene  
November 2014  
Groundwater Concentrations**

Figure  
**3**







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Tukwila, Washington

**SWMU-20 Naphthalene**  
**November 2014**  
**Groundwater Concentrations**

Figure  
**6**

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

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**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	<2.00	<2.00	<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	<1.00	<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	<1.00	<1.0	<1.0	<1.0	<1.0	nt	<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	<1.00	<1.0	<1.0	<1.0	<1.0	nt	<1.0	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	<1.00	<1.0	<1.0	<1.0	<1.0	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	<1.00	<1.0	<1.0	<1.0	<1.0	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	<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	<1.00	<1.0	<1.0	<1.0	<1.0	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	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<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	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt		
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	nt	<1.0	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	<10.00	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt		
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	<1.0	nt		
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			
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	<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	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt		
17A	<b>36</b>	1.39	<5.00	<5.00	<b>1.55</b>	<1.00	<b>1.3</b>	<b>2.7</b>	<b>1.90 J</b>	<b>2.2</b>	<1.00	<b>2.6</b>	<b>2.4</b>	<b>2.5</b>	<b>2.1</b>	<b>2.</b>													

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

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

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.

**B** = Detected compound.

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

**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	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	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	<2.00	<1.00	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	<1.0	nt	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	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	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	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	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	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	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	<1.00	<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	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	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	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	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	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<b>2.9</b>	<b>39</b>	<5.0	nt	<10
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	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	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	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	<1.0	
15A	<b>7.5</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	<10.00	<10.00	<1.00	<1.00	<5.0	<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	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	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	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	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>	<b>1.2</b>	<b>1.2</b>	nt	<b>1.3</b>	nt	nt			

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

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**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	Nov-13	May-14	Nov-14		
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	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2		
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	<0.2	<0.2	<0.2	<0.2		
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	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	<1.0	<2.0	<0.2	<0.2	<2.0	<2.0	<2.0	<2.0	<2.0	<0.2		
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	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	<1.0	<2.0	<0.2	<0.2	<0.2	<0.2	<0.2	<1.0	<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	<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	<2.0	<2.0	<b>0.4</b>	<0.2	<0.2	
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	<1.0	<b>0.6</b>	<0.2	<b>0.4</b>	<0.2	<b>0.5</b>	<0.2	<0.2	<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>	<b>0.6</b>	<b>1.3</b>	<b>0.5</b>	<0.2	
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	<1.0	<0.2	<0.2	<0.2	
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	<0.2	<0.2	<0.2	<0.2		
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	<2.0	<1.0	<0.2	<0.2	<0.2	
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									
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	<0.2	<0.2	<0.2	<0.2	
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	<2.0	<2.0	<0.2	<0.2	<0.2	<0.2
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									
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>	<b>1.8</b>	<b>1.6</b>	<b>1.5</b>	<0.2	
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	<0.2	<0.2	<0.2	<0.2	
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>	<b>3.4</b>	<b>2.6</b>	<b>3.1</b>	<0.2	
17C	nt	nt	nt	nt	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	nt	nt	nt	nt		
18A	nt	nt	nt	nt	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									
18D	nt	nt	nt	nt	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									
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									
19D	nt	nt	nt	nt	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	nt	nt	nt	nt		
20C	nt	<1.0	nt	<1.0	nt	<b>0.2</b>																			

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

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

	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	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	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	1.1	<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>	<b>17.5</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>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	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	<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	<b>14</b>	<b>11.83</b>	<b>6.24 J</b>	<10																									

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

**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	Nov-13	May-14	Nov-14
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	<b>0.3</b>	<b>0.4</b>	<b>0.3</b>	<0.5	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>
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	<0.2	<b>0.5</b>	<0.2	<0.5	<0.2	<0.2	<0.2
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	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	<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	<2.0	<2.0	<2.0	<0.2
09B	<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	nt										
09C	<b>7.6</b>	<b>1.2</b>	<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	<1.0	<0.2	<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	<2.0	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.2</b>	<b>0.2</b>	<1.0	<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	<b>3.5</b>	<b>5.8</b>	<b>3.7</b>	<b>5.4</b>	<b>6.1</b>	<b>6.0</b>	<b>3.5</b>	<b>5.4</b>	<b>2.6</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>26</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>22</b>	<b>24</b>	<b>19</b>	<b>24</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>	<b>2.2</b>	<0.2	<b>0.3</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	<0.2	<0.2	<b>0.5</b>	<0.2	<0.2	<0.2	
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	<0.2	<2.0	<2.0	<2.0	<1.0	<0.2	
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	<b>0.6</b>	<b>0.3</b>	<b>0.6</b>	<0.5	<b>0.5</b>	<b>0.3</b>	<b>0.4</b>	
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	<0.2	<0.2	<2.0	<2.0	<2.0	<1.0	<0.2
14E	nt	<1.0	nt	<1.0	nt	<0.2	nt	<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	<10	<b>0.3</b>	<1.0	<b>0.4</b>	<b>0.6</b>	<b>0.5</b>	<b>0.6</b>	<b>0.4</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	<0.2	<0.2	<2.0	<5.0	<2.0	<2.0	<b>0.5</b>
15D	nt	<1.0	nt	<1.0	nt	<1.0	nt	<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>1.0</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<b>0.5</b>	<b>0.5</b>	<b>0.6</b>	<0.5	<b>0.3</b>	<b>0.4</b>	<b>0.4</b>	
16C	nt	<b>4.6</b>	nt	<b>5.2</b>	nt	<b>2.0</b>	nt	<b>8.8</b>	7	<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>	<b>4.4</b>	<b>3.4</b>	<b>3.4</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>	<b>1.0</b>	<b>0.4</b>	<b>0.9</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																						
19A	<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	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>1.5</b>	<b>1.4</b>	<b>1.7</b>	<b>1.3</b>	<b></b>									

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

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

**SWMU-20 ANALYTICAL RESULTS SUMMARY  
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**VINYL CHLORIDE ( $\mu\text{g/L}$ )**

	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	Nov-13	May-14	Nov-14
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>	<b>2.4</b>	<b>1.5</b>	<b>2.7</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>	<b>2.5</b>	<b>2.4</b>	<b>1.8</b>
06C	<1.0	<1.0	<0.2	<1.0	<1.0	<b>0.3</b>	<1.0	<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	<2.0	<2.0	<0.2
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>	<b>0.4</b>	<1.0	<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>	<b>3.7</b>	<b>2.9</b>	<b>2.5</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	<2.0	<2.0	<b>0.4</b>
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	<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	<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	<2.0	<1.0	<b>0.2</b>
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	<0.2	<b>0.3</b>	<b>0.2</b>
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	<1.0	<0.2	<0.2	<2.0	<2.0	<1.0	<0.2
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>	<b>0.8</b>	<b>1.0</b>	<b>0.5</b>
15C	<1.0	nt	<0.2	nt	<b>2.2</b>	<b>2.5</b>	<b>6.6</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0	<5.0	<b>2.3</b>	<b>2.9</b>	<b>2.5</b>	
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	<0.2	<0.2	<0.2
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>	<b>2.1</b>	<b>1.2</b>	<b>1.3</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	<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	<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	<2.0	<2.0	<b>0.7</b>
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>	<b>1.7</b>	<b>1.6</b>	<b>1.5</b>
23A	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0												

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

**SWMU-20 ANALYTICAL RESULTS SUMMARY  
DEVELOPMENTAL CENTER GROUNDWATER MONITORING  
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**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	Nov-13	May-14	Nov-14
06A	<1.0	<1.0	<b>0.4</b>	<1.0	<1.0	<b>0.3</b>	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	
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	<0.2	<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	
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	nt	nt	
08C	<10	nt	<5.0	nt	<3.0	<5.0	<5.0	<1.0	<3.0	nt	nt	nt	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	<2.0	<2.0	<0.2	
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	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	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	nt	nt	nt	
10A	<1.0	<1.0	<b>0.3</b>	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0	<0.2	<0.2	<0.2	<0.2	<0.2	<1.0	<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	<0.2	<0.2	<0.2	<0.2	<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	<0.2	<0.2	<2.0	<2.0	<2.0	<2.0	<0.2	<0.2	
12A	<1.0	nt	<0.2	nt	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2	<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	<0.2	<0.2	<0.2	<0.2	<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	<1.0	<0.2	<0.2	
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	<0.2	<0.2	<0.2	
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	<1.0	<0.2	<0.2	
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	<2.0	<2.0	<2.0	<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	<10	<b>0.4</b>	<1.0	<b>0.4</b>	<0.5	<b>0.3</b>	<b>0.3</b>	<b>0.2</b>	
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	<2.0	<2.0	<0.2	
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	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	<0.2	<0.5	<0.2	<0.2	
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	<0.2	<0.5	<0.2	<0.2	
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	<0.2	<0.2	
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	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	nt	nt	nt	nt	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	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	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	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	<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	<2.0	<2.0	<b>0.2</b>	
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	<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>	<b>0.3</b>	<b>0.4</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	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**

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

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

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**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	Nov-13	May-14	Nov-14
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	<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	<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	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									
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>	<b>23</b>	<b>9.9</b>	<b>8.7</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	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									
09D	<5.0	nt	<2.5	nt	<5.0	<0.5	<5.0	<5.0	<5.0	nt	nt	nt	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	<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	<0.5	<0.5	
11A	<5.0	nt	<5.0	nt	<5.0	<0.5	<5.0	<5.0	<5.0	nt	nt	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
12A	<5.0	nt	<0.5	nt	<5.0	<0.5	<5.0	<5.0	<5.0	nt	nt	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
13A	<5.0	nt	<0.5	nt	<0.5	<5.0	<5.0	<5.0	<5.0	nt	nt	<5.0	<0.5	<0.5	<0.5	<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	<0.5	<0.5	
14A	<10	<5.0	<b>7.0</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	<5.0	<b>0.5</b>	<0.5	<b>0.8</b>	<0.5	<b>0.7</b>	<0.5	<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	<5.0	<5.0	<2.5	<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	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>	<b>180</b>	<b>89</b>	<b>190</b>
15C	<5.0	nt	<0.5	nt	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	<5.0	<0.5	<0.5	<5.0	<5.0	<5.0	<5.0	<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	nt	nt	nt	
16A	<5.0	nt	<0.5	nt	<5.0	<5.0	<0.5	<5.0	<5.0	nt	<5.0	<5.0	<0.5	<0.5	<0.5	<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	nt	<5.0	<5.0	<0.5	<0.5	<0.5	<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	nt	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
17C	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								
18A	nt	nt	nt	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									
18D	nt	nt	nt	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	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	nt	nt	nt	
19D	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								
20C	<5.0	nt	<b>0.8</b>	nt	<0.5	<5.0	<5.0	<5.0	<5.0	nt	<5.0	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<0.5	
20D	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								
21C	nt	nt	nt	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>	<b>7.1</b>	<b>9.8</b>	<b>6.5</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>	<5.0	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.

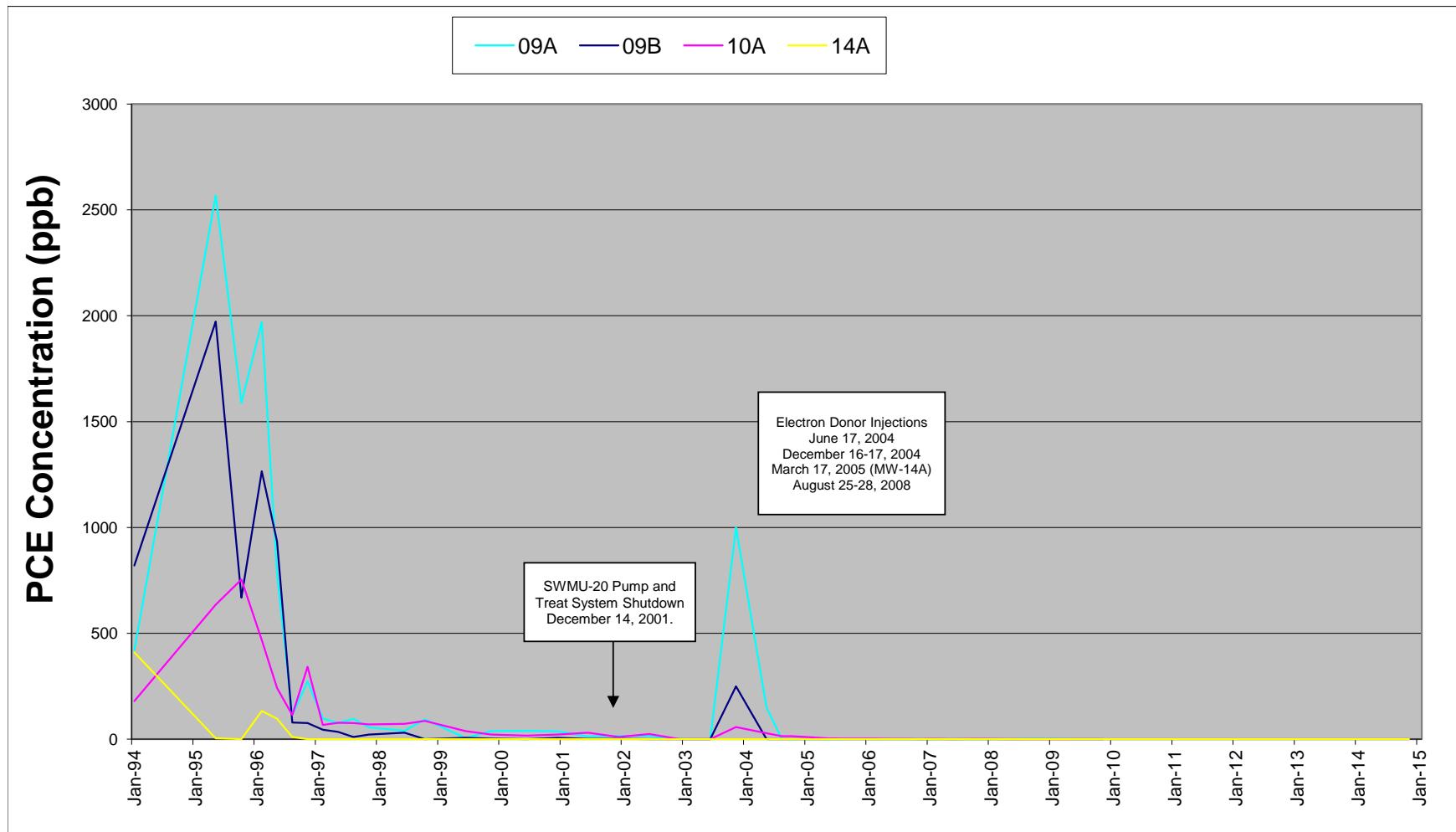
E = Estimated concentration calculated for an analyte response above the valid instruction calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Bold = Detected compound.

# DEVELOPMENTAL CENTER WELLS

## TETRACHLOROETHENE CONCENTRATIONS

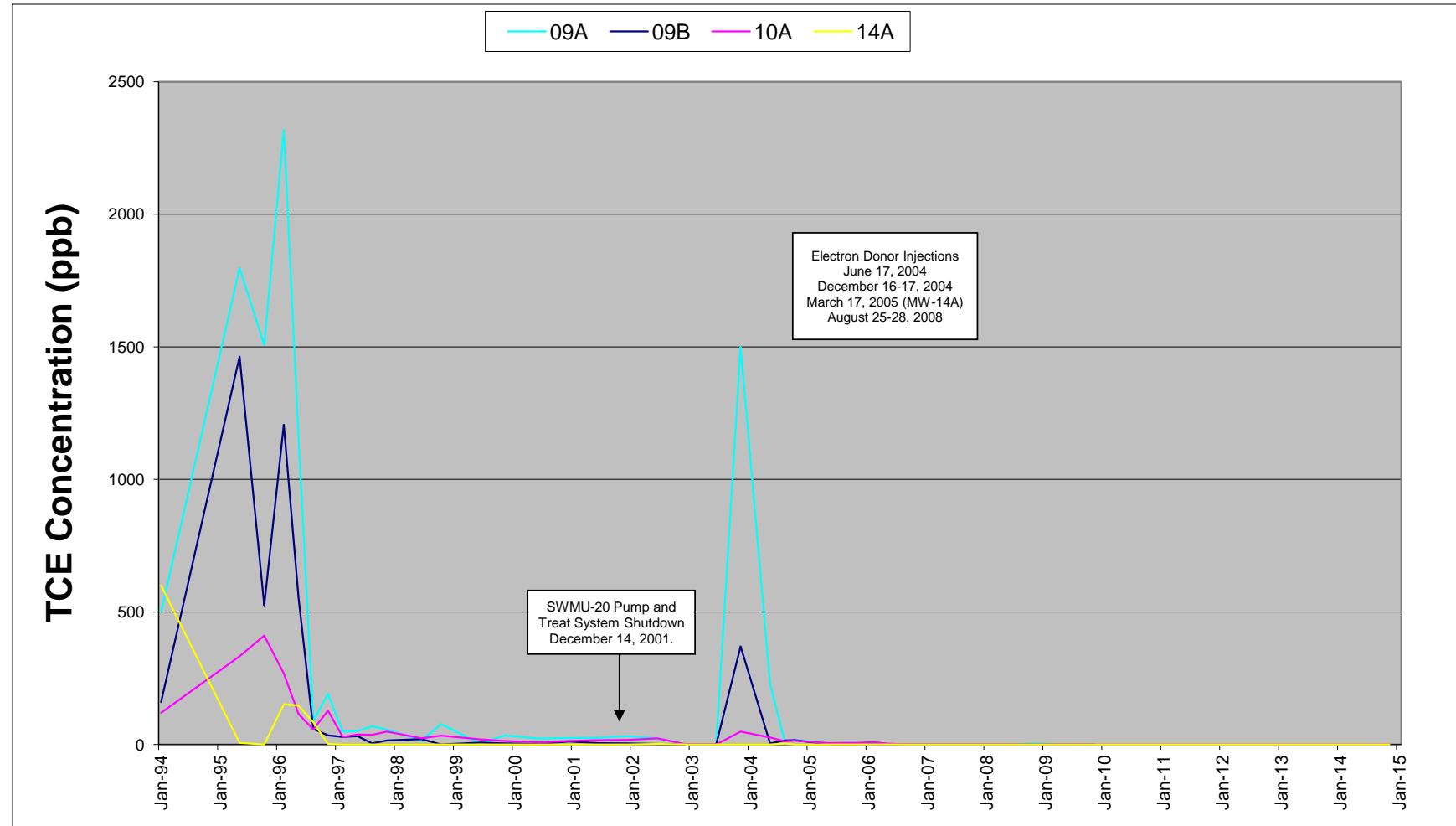
### (Wells with PCE Historically Detected over 50 ppb)



# DEVELOPMENTAL CENTER WELLS

## TRICHLOROETHENE CONCENTRATIONS

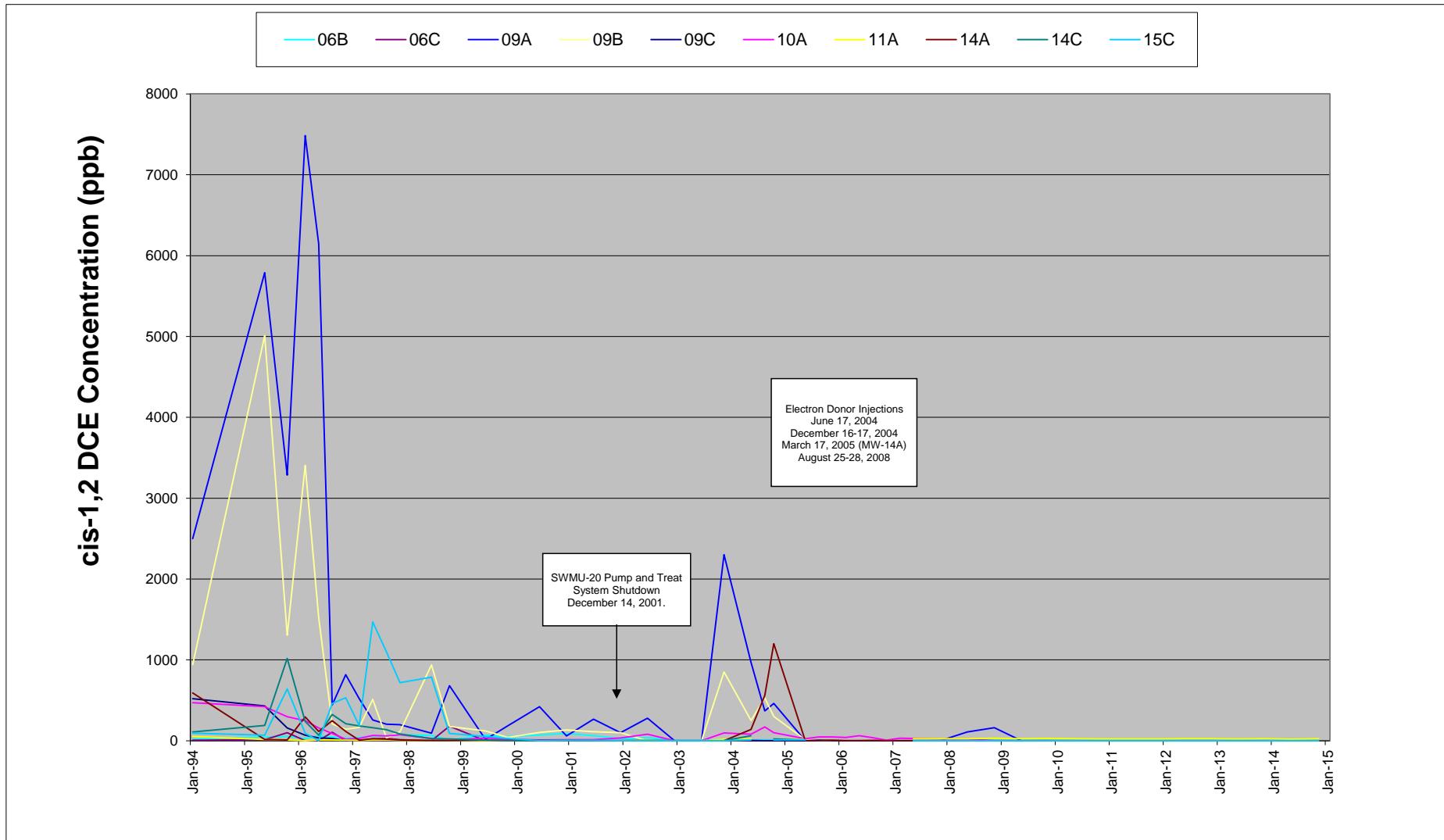
### (Wells with TCE Historically Detected over 50 ppb)



# DEVELOPMENTAL CENTER WELLS

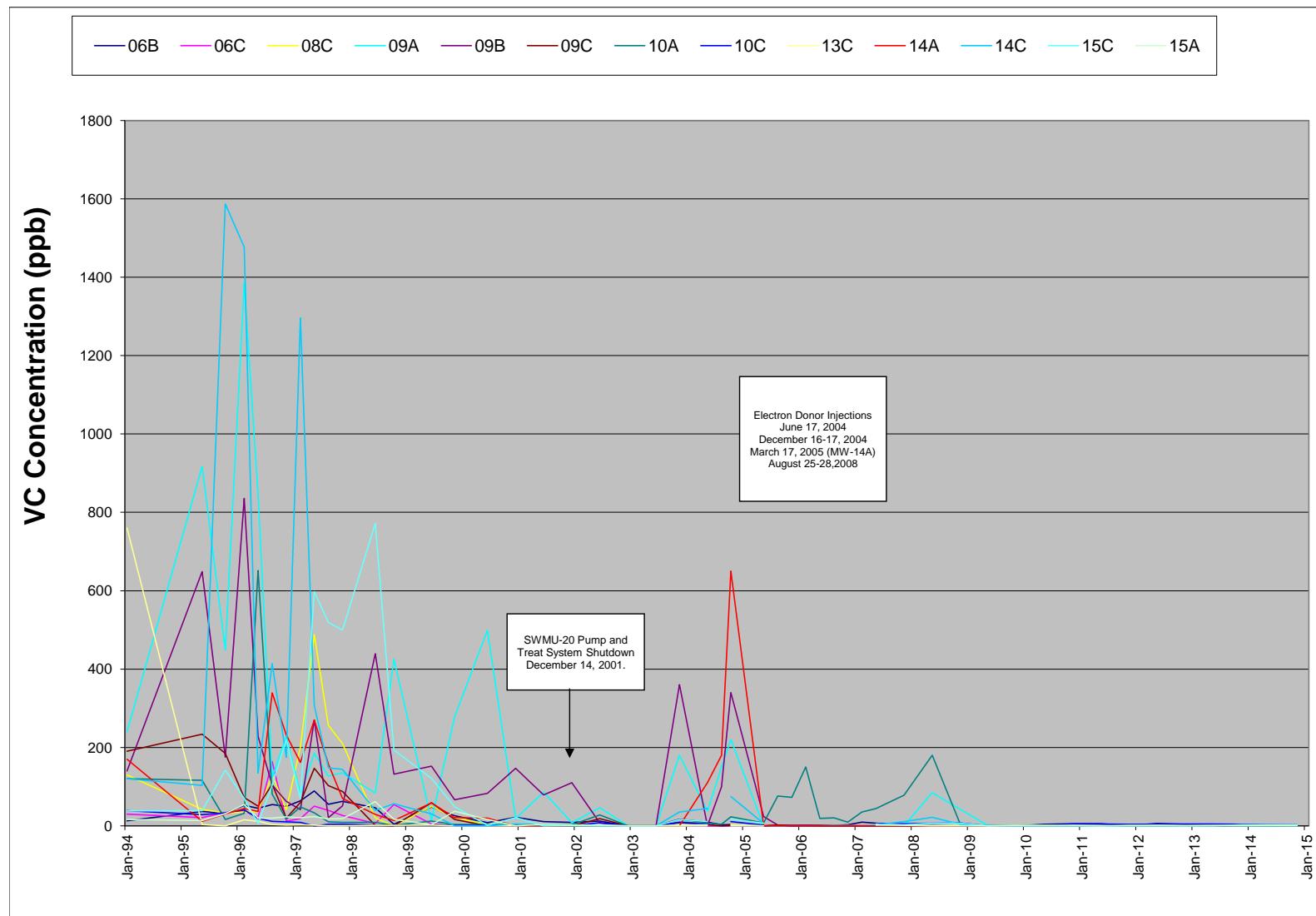
## CIS-1,2 DICHLOROETHENE CONCENTRATIONS

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



# DEVELOPMENTAL CENTER WELLS VINYL CHLORIDE CONCENTRATIONS

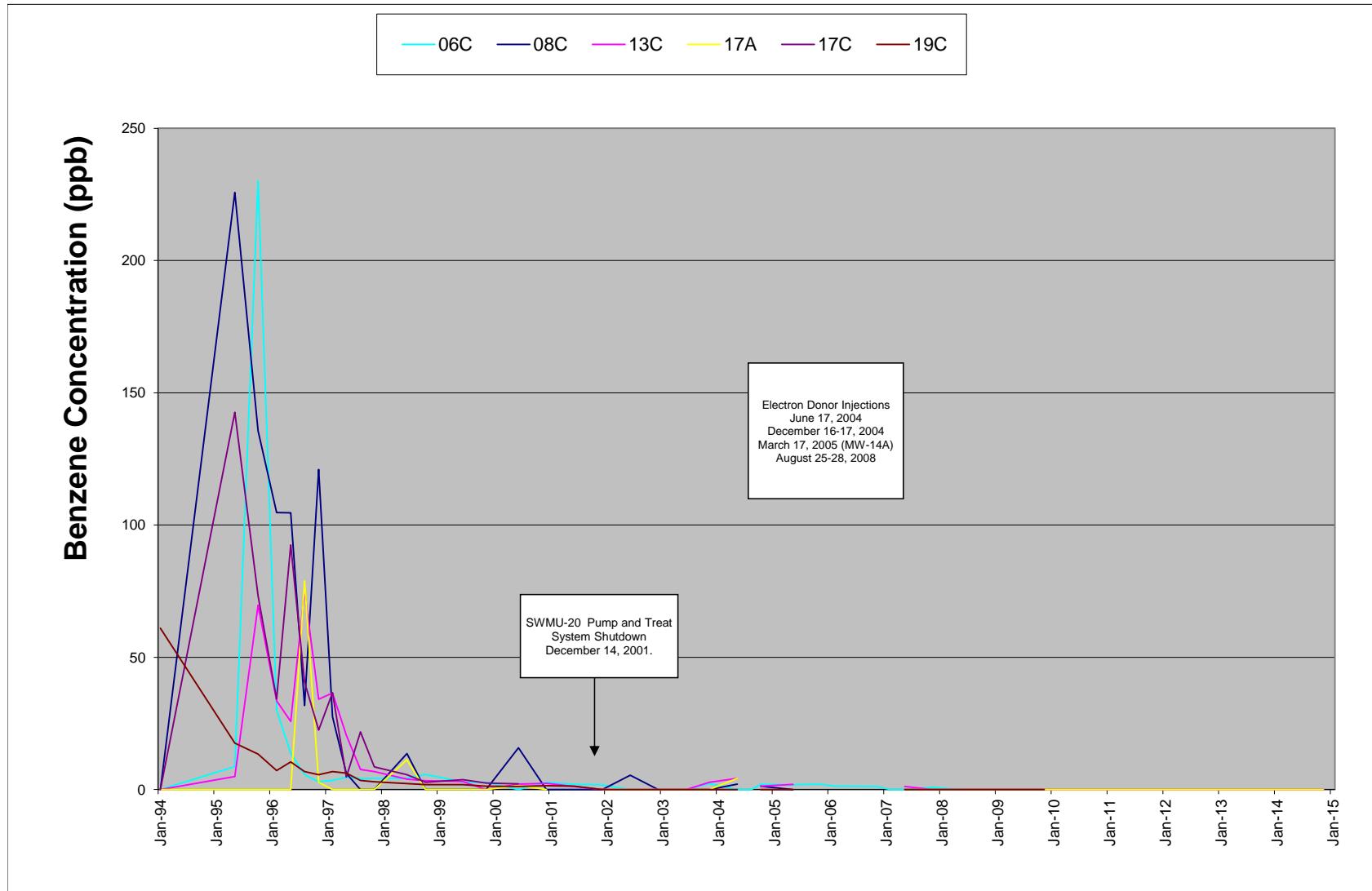
## (Wells with VC Historically Detected over 50 ppb)



# DEVELOPMENTAL CENTER WELLS

## BENZENE CONCENTRATIONS

### (Wells with Benzene 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)						DO (mg/L)	ORP (mV)	Iron II mg/L	Sulfate (mg/L)	Methane (µg/L)	pH	TOC (mg/L)		
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	5.3	1.4	134	2.4	---	---									
Well	Date	PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)													
06B	11/19/2009	1981	1799		451	<1.0	<1.0	<1.0	<1.0	<1.0	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	<1.0	4.2	1.6	3.05	417	2.0	3.0	7110	7.0	19.1	---	
06B	11/11/2010	2338	2156		808	<1.0	<1.0	<1.0	<1.0	5.4	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	<1.0	5.2	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	<0.2	0.8	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	<0.2	<0.2	6.0	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	<0.2	3.7	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	<0.5	4.3	1.0	0.17	-427	2.5	20.1	720	7.7	11.0	---	
06B	11/12/2013	3435	3253		1905	<0.2	<0.2	<0.2	<0.2	2.5	1.0	2.62	-309	1.5	4.0	350	7.0	15.5	---	
06B	5/7/2014	3611	3429		2081	<0.2	<0.2	<0.2	<0.2	2.4	1.0	3.50	-320	1.6	2.8	1200	7.1	10.2	---	
06B	11/5/2014	3793	3611		2263	<0.2	<0.2	<0.2	<0.2	1.8	1.0	0.30	-54	1.7	4.7	2200	6.8	6.9	---	
06C	05/04/2004	-44				<1.0	<1.0	<1.0	<1.0	0.6	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	2.3	1.1	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	<0.2	0.3	1.1	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	1.2	<1.1	2.1	1.1	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	6.3	7.8	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	<1.0	2.8	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	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	---	

**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)						DO (mg/L)	ORP (mV)	Iron II mg/L	Sulfate (mg/L)	Methane (µg/L)	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)								
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	
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	
09A	11/12/2013	3435	3253		1905	<2.0	<2.0	<2.0	<2.0	<1.0	10	3.87	-258	1.7	0.41	18000	6.5	30.2	
09A	5/7/2014	3611	3429		2081	<2.0	<2.0	<2.0	<2.0	<1.0	29	4.46	-322	1.4	0.50	26000	6.7	21.5	
09A	11/5/2014	3793	3611		2263	<0.2	<0.2	<0.2	<0.2	<1.0	15	0.12	-90	2.0	<0.30	25000	6.6	24.8	
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	<1.0	<0.50	<0.50	1.24	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	1.5	1.1	<0.50	0.60	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	

**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)						DO (mg/L)	ORP (mV)	Iron II mg/L	Sulfate (mg/L)	Methane (µg/L)	pH	TOC (mg/L)		
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	5.3	1.4	134	2.4	---	---									
Well	Date	PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)													
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				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	
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	<1.0	0.35	-340	1.8	<0.30	26000	7.5	29.5	---	
10A	11/12/2013	3435	3253		1905	<0.2	<0.2	0.2	0.4	<1.0	2.5	3.53	-242	1.4	0.38	16000	6.5	29.1	---	
10A	5/7/2014	3611	3429		2081	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.06	-305	2.1	<0.30	26000	6.7	27.9	---	
10A	11/29/2006	3793	3611		2263	<0.2	<0.2	0.2	0.3	<1.0	5.5	0.17	-134	2.0	<0.30	25000	6.5	26.1	---	
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	---	

**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)						DO (mg/L)	ORP (mV)	Iron II mg/L	Sulfate (mg/L)	Methane (µg/L)	pH	TOC (mg/L)		
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	5.3	1.4	134	2.4	---	---									
Well	Date	PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)													
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	<b>1.5</b>	<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	<b>1.6</b>	<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	<b>1.2</b>	<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	<b>0.6</b>	<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	<b>0.3</b>	<b>0.2</b>	<1.0	<b>8.7</b>	0.13	62	2.6	3.4	16000	6.4	5.9	---	
14A	11/14/2012	3072	2890	2799	1542	<0.2	<0.2	<b>0.6</b>	<0.2	<1.0	<b>5.0</b>	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	<b>4.8</b>	0.24	-428	2.4	2.3	18000	7.4	6.5	---	
14A	11/12/2013	3435	3253	3162	1905	<0.2	<0.2	<b>0.5</b>	<0.2	<1.0	<b>6.3</b>	4.46	-286	1.3	0.52	14000	6.4	8.0	---	
14A	5/7/2014	3611	3429	3338	2081	<0.2	<0.2	<b>0.3</b>	<b>0.3</b>	<1.0	<b>4.6</b>	4.39	-427	1.6	19.9	15000	6.8	6.5	---	
14A	11/5/2014	3793	3611	3520	2263	<0.2	<0.2	<b>0.4</b>	<b>0.2</b>	<1.0	<b>10</b>	0.04	-48	2.0	23.6	15000	6.5	6.8	---	
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	<b>1.4</b>	<b>2.6</b>	NA	NA	1.19	144	NA	NA	NA	6.7	NA	---	
15A	12/03/2007	1264	1082			<1.0	<1.0	<1.0	<b>1.3</b>	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	<b>1.4</b>	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	<b>1.6</b>	NA	NA	1.10	606	NA	NA	NA	6.8	NA	---	
15A	11/10/2010	2337	2155		807	<1.0	<1.0	<1.0	<b>1.4</b>	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	<b>0.3</b>	<b>1.0</b>	NA	NA	4.01	-41	NA	NA	NA	7.3	NA	---	
15A	5/14/2012	2888	2706		1358	<1.0	<1.0	<1.0	<b>1.2</b>	NA	NA	0.64	56	NA	NA	NA	6.7	NA	---	
15A	11/13/2012	3071	2889		1541	<0.2	<0.2	<b>0.4</b>	<b>0.8</b>	NA	NA	0.03	23	NA	NA	NA	6.8	NA	---	
15A	5/21/2013	3260	3078		1730	<0.5	<0.5	<b>0.6</b>	<b>1.1</b>	NA	NA	0.20	-394	NA	NA	NA	7.4	NA	---	
15A	11/12/2013	3435	3253		1905	<0.2	<0.2	<b>0.5</b>	<b>0.8</b>	NA	NA	3.38	-267	NA	NA	NA	6.7	NA	---	
15A	5/7/2014	3611	3429		2081	<0.2	<0.2	<b>0.6</b>	<b>1.0</b>	NA	NA	3.86	-351	NA	NA	NA	6.9	NA	---	
15A	11/5/2014	3793	3611		2263	<0.2	<0.2	<b>0.4</b>	<b>0.5</b>	NA	NA	0.09	-126	NA	NA	NA	6.8	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	<0.50	<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	<0.50	<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	<0.50	<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	<0.50	<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	<11.4	<12.3	<12.3	0.77	65	3.0	124.0	111	6.6	31.3	---	

**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)						DO (mg/L)	ORP (mV)	Iron II mg/L	Sulfate (mg/L)	Methane (µg/L)	pH	TOC (mg/L)	
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	5.3	1.4	134	2.4	---	---								
Well	Date	PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)												
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	<b>0.2</b>	<b>0.3</b>	<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	<b>5.2</b>	0.34	277	3.5	30.8	179	6.4	15.4	---
19A	11/29/2007	1260	1078			<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		-97	<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		90	<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		267	<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		450	<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	<b>3.5</b>	<b>2.0</b>	<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	<b>2.3</b>	<b>2.9</b>	<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	<b>2.3</b>	<b>3.2</b>	<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	<b>1.4</b>	<b>2.2</b>	<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	<b>1.4</b>	<b>3.3</b>	<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	<b>2.4</b>	<b>1.7</b>	<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	<b>1.8</b>	<b>2.4</b>	<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	<b>0.3</b>	<b>2.2</b>	<b>2.4</b>	<1.1	<1.2	2.15	286	2.6	40.0	4020	6.6	25.2	---
22A	02/22/2007	980	798	707		<1.0	<1.0	<b>2.5</b>	<b>2.3</b>	<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	<b>2.5</b>	<b>2.7</b>	<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	<b>2.0</b>	<b>1.3</b>	<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	<b>2.6</b>	<b>1.9</b>	<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	<b>2.2</b>	<b>3.1</b>	<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	<b>2.5</b>	<b>2.5</b>	<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	<b>2.1</b>	<b>1.8</b>	<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	<b>1.7</b>	<b>1.7</b>	<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	<b>1.2</b>	<b>2.7</b>	<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	<b>1.1</b>	<b>2.2</b>	<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	<b>0.9</b>	<b>1.7</b>	<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	<b>0.6</b>	<b>2.0</b>	<1.0	<b>3.3</b>	0.03	45	2.2	<0.30	5100	6.8	25.4	---
22A	11/14/2012	3072	2890	2799	1542	<0.2	<0.2	<b>0.5</b>	<b>1.8</b>	<1.0	<b>1.7</b>	0.03	1	1.8	<0.30	4400	6.9	22.7	---
22A	5/20/2013	3259	3077	2986	1729	<0.2	<0.2	<b>0.4</b>	<b>2.0</b>	<1.0	<b>1.6</b>	0.24	-404	1.0	<0.30	6100	7.7	24.6	---
22A	11/12/2013	3435	3253	3162	1905	<0.2	<0.2	<b>0.5</b>	<b>1.7</b>	<1.0	<b>1.1</b>	3.69	-289	1.4	1.8	3500	6.7	19.8	---
22A	5/7/2014	3611	3429	3338	2081	<0.2	<0.2	<b>0.5</b>	<b>1.6</b>	<1.0	<1.0	4.8	-368	1.3	0.66	4200	6.8	23.6	---
22A	11/5/2014	3793	3611	3520	2263	<0.2	<0.2	<b>0.4</b>	<b>1.5</b>	<1.0	<1.0	0.13	-131	1.5	0.39	4800	6.8	25.8	---
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	<1.1	<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	---

**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)						Aquifer Redox Conditions					Donor Parameters		
		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)	
23A	11/30/2007	1261	1079	988		<0.2	<0.2	<b>0.3</b>	<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

Bold = Detect

TCE = Trichloroethene

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

cDCE = cis-1,2-Dichloroethene

mg/L = milligrams per liter

VC = Vinyl Chloride

mV = millivolts

DO = Dissolved Oxygen

NA = Not analyzed

ORP = Oxidation Reduction Potential

Box = Exceedance of proposed CUL

TOC = Total Organic Carbon

(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, 5/7/13).

**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-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	<5.0
MW-8C	05/18/2009	1796	1614		266	<1.0	<1.0	<1.0	<1.0
MW-8C	11/16/2009	1978	1796		448	<3.0	<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	<1.0
MW-9D	05/18/2009	1796	1614		266	<1.0	<1.0	<1.0	<1.0
MW-9D	11/16/2009	1978	1796		448	<1.0	<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	7.5
MW-10C	05/18/2009	1796	1614		266	<1.0	<1.0	<1.0	<1.0
MW-10C	11/16/2009	1978	1796		448	<1.0	<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-10C	11/12/2013	3435	3253			1905	<0.2	<0.2	3.5
MW-10C	5/7/2014	3611	3429			2081	<0.2	<0.2	5.4
MW-10C	11/5/2014	3793	3611			2263	<0.2	<0.2	2.6
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

**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-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		-98	<1.0	1.1	27	<1.0
MW-11A	5/19/2008	1432	1250		90	<0.2	1.2	26	0.2
MW-11A	11/23/2008	1620	1438		266	<1.0	1.2	33	<1.0
MW-11A	05/18/2009	1796	1614		449	<1.0	1.0	30	<1.0
MW-11A	11/17/2009	1979	1797		632	<1.0	1.1	26	<1.0
MW-11A	5/19/2010	2162	1980		805	<1.0	<1.0	22	<1.0
MW-11A	11/8/2010	2335	2153		981	<1.0	<1.0	22	<1.0
MW-11A	5/3/2011	2511	2329		1175	<0.2	0.5	23	0.4
MW-11A	11/13/2011	2705	2523		1358	<0.2	0.7	24	0.4
MW-11A	5/14/2012	2888	2706		1542	<2.0	<2.0	25	<2.0
MW-11A	11/14/2012	3072	2890		1730	<2.0	<2.0	22	<2.0
MW-11A	5/21/2013	3260	3078		1905	<2.0	<2.0	24	<2.0
MW-11A	11/12/2013	3435	3253		2081	<2.0	<2.0	19	<2.0
MW-11A	5/7/2014	3611	3429		2262	<0.2	0.4	24	0.4
MW-12A	5/2/2004	-46	-52			<1.0	<1.0	1.8	<1.0
MW-12A	10/25/2004	130	147			<1.0	<1.0	4.4	<1.0
MW-12A	5/12/2005	329	334			<1.0	<1.0	2.0	<1.0
MW-12A	11/15/2005	516	516			<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-12A	11/12/2013	3435	3253		1905	<0.2	0.5	2.2	<0.2
MW-12A	5/7/2014	3611	3429		2081	0.3	<0.2	<0.2	<0.2
MW-12A	11/4/2014	3792	3610		2262	0.3	<0.2	0.3	<0.2
MW-13A	5/2/2004	-46	-52			5.1	4.6	<1.0	<1.0
MW-13A	10/25/2004	130	147			4.3	4.0	<1.0	<1.0
MW-13A	5/12/2005	329	334			6.1	4.6	<1.0	<1.0
MW-13A	11/14/2005	516	533			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

**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-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		3078	4.5	2.5	0.5	<0.2
MW-13A	11/12/2013	3435	3253		3253	2.2	0.6	<0.2	<0.2
MW-13A	5/7/2014	3611	3429		3429	3.1	1.3	<0.2	<0.2
MW-13A	11/4/2014	3792	3610		3610	2.3	0.5	<0.2	<0.2
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-13C	11/12/2013	3435	3253		1905	<2.0	<2.0	<2.0	<2.0
MW-13C	5/7/2014	3611	3429		2081	<1.0	<1.0	<1.0	<1.0
MW-13C	11/4/2014	3792	3610		2262	<0.2	<0.2	<0.2	0.2
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

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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-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-14C	11/12/2013	3435	3253	3162	1905	<2.0	<2.0	<2.0	<2.0
MW-14C	5/7/2014	3611	3429	3338	2081	<1.0	<1.0	<1.0	<1.0
MW-14C	11/5/2014	3793	3611	3520	2263	<0.2	<0.2	<0.2	<0.2
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
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-15C	11/12/2013	3435	3253		1905	<2.0	<2.0	<2.0	2.3
MW-15C	5/7/2014	3611	3429		2081	<2.0	<2.0	<2.0	2.9
MW-15C	11/5/2014	3793	3611		2263	<0.2	<0.2	0.5	2.5
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

**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-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
MW-16A	11/12/2013	3435	3253		1905	2.1	1.8	0.3	<0.2
MW-16A	5/8/2014	3612	3430		2082	1.4	1.6	0.4	<0.2
MW-16A	11/5/2014	3793	3611		2263	1.6	1.5	0.4	<0.2
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-16C	11/12/2013	3435	3253		1905	<0.2	<0.2	4.4	2.1
MW-16C	5/8/2014	3612	3430		2082	<0.2	<0.2	3.4	1.2
MW-16C	11/5/2014	3793	3611		2263	<0.2	<0.2	3.4	1.3
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

**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-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-17A	11/4/2014	3792	3610		2262	3.9	3.4	1.0	<0.2
MW-17A	5/6/2014	3610	3428		2080	3.6	2.6	0.4	<0.2
MW-17A	11/4/2014	3792	3610		2262	2.9	3.1	0.9	<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
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	0.3	<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	1.4	2.4
MW-20C	10/25/2004	130	-52			<1.0	<1.0	1.7	4.6
MW-20C	5/12/2005	329	147			<1.0	<1.0	1.7	2.3
MW-20C	11/15/2005	516	334			<1.0	<1.0	2.1	2.9
MW-20C	5/17/2006	699	517			<1.0	<1.0	1.8	1.6
MW-20C	11/29/2006	895	713			<0.2	0.2	2.1	1.5
MW-20C	5/21/2007	1068	886			<0.2	<0.2	1.6	1.8

**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-20C	11/29/2007	1260	1078			<1.0	<1.0	1.6	1.3
MW-20C	5/20/2008	1433	1251		-97	<1.0	<1.0	1.6	2.5
MW-20C	11/23/2008	1620	1438		90	<1.0	<1.0	1.5	2.7
MW-20C	05/19/2009	1797	1615		267	<1.0	<1.0	1.4	2.0
MW-20C	11/18/2009	1980	1798		450	<1.0	<1.0	1.7	2.3
MW-20C	5/20/2010	2163	1981		633	<1.0	<1.0	1.3	1.8
MW-20C	11/8/2010	2335	2153		805	<1.0	<1.0	1.4	1.4
MW-20C	5/4/2011	2512	2330		982	<1.0	<1.0	1.1	1.8
MW-20C	11/3/2011	2695	2513		1165	<1.0	<1.0	1.3	2.1
MW-20C	5/14/2012	2888	2706		1358	<0.2	<0.2	1.2	1.5
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
MW-20C	11/12/2013	3435	3253		1905	<2.0	<2.0	<2.0	<2.0
MW-20C	5/7/2014	3611	3429		2081	<2.0	<2.0	<2.0	<2.0
MW-20C	11/5/2014	3793	3611		2263	<0.2	<0.2	<b>0.9</b>	<b>0.7</b>

PCE = Tetrachloroethene

(a) Injections occurred on:

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

6/17/2004 for elapsed time relative to injection

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

12/16/2004 for elapsed time relative to injection

TCE = Trichloroethene

3/17/05 (14A)

3/17/2005 for elapsed time relative to injection

cdCE = cis-1,2-Dichloroethene

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

8/25/2008 for elapsed time relative to injection

VC = Vinyl Chloride

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

**μg/L** - micrograms per liter

(c) Proposed Cleanup Standards and Comparison to Site Data, Boeing Developmental Center, Tukwila, Washington (Landau Associates, 5/7/13).

Bold = Detect

Box = Exceedance of proposed CUL

***DEVELOPMENTAL CENTER***  
***GROUNDWATER MONITORING***

***November 2014***

**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  
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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-05-10-Dup	BDC-05-11	BDC-05-12	BDC-05-12	BDC-05-13	BDC-05-14	BDC-05-15	BDC-05-16	BDC-05-16	BDC-05-17	BDC-05-17-Dup				
LLI SDG:	1494368	1518055	1518055	1518055	1518055	1518055	1518055	1518055	1518055	1518055	1518055	1494368	1518055	1518055	1518055	1518055	1518055	1518055	1518055	1518055	1518055			
LLI Sample ID:	7557517	7672421	7672373	7672403	7672397	7672409	7672367	7672415	7672385	7672391	7672379	7557515	7672361	7672349	7672337	7557511	7672427	7672433	7672439	7672439	7672439			
Sample Date:	8/6/2014	11/11/2014	11/10/2014	11/11/2014	11/11/2014	11/11/2014	11/10/2014	11/11/2014	11/10/2014	11/10/2014	11/10/2014	8/6/2014	11/10/2014	11/10/2014	11/10/2014	11/10/2014	11/10/2014	8/6/2014	11/11/2014	11/11/2014	11/11/2014			
Test ID: VOA SW8260C (µg/L)																								
Vinyl Chloride	4.1	0.6	0.2	U	0.4	0.2	U	13	16	3.5	3.9	3.9	2.5	1.1	1.7	2.5	5.1	1.3	2.4	4.6	2.7	2.5		
cis-1,2-Dichloroethene	1.0	U	2.3	0.2	U	2.8	0.2	U	4.1	3.8	1.1	0.2	0.2	0.2	U	1.0	U	1.0	U	0.2	0.4	0.2	U	
Trichloroethene	1.0	U	0.7	0.6	0.2	0.8	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0	U	1.0	U	0.2	U	1.0	U
Tetrachloroethene	1.0	U	1.5	2.1	0.3	0.3	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0	U	1.0	U	0.2	U	1.0	U
Test ID: Total Metals (mg/L)																								
Arsenic (EPA 200.8)		0.0392	0.0018	J	0.0057	0.0006	J	0.0060	0.0170	0.0181	0.0401	0.0373	0.0299		0.0165	0.0196	0.0174	0.0716		0.0560	0.0382	0.0394		
Copper (EPA 200.8)		0.0034	0.0027		0.0020	U	0.0020	U	0.0034	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	
Test ID: Dissolved Metals (mg/L)																								
Arsenic (EPA 200.8)		0.0318	0.0012	J	0.0040	0.0010	J	0.0053	0.0152	0.0167	0.0376	0.0356	0.0295		0.0180	0.0189	0.0167	0.0659		0.0548	0.0356	0.0355		
Copper (EPA 200.8)		0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	0.0020	U	
Test ID: Conventional (mg/L)																								
Sulfate (EPA 300.0)	3.6	1.2	5.6	6.2	12.5	0.72	J	0.65	J	0.72	J	0.30	U	0.30	U	0.30	U	0.30	J	2.3	0.30	U	0.82	J
Total Organic Carbon (SM5310C)	93.4	38.2	1.1	4.8	1.0	U	17.7	21.6	6.9	19.3	19.8	11.1	43.1	30.3	15.1	21.3	37.5	27.8	38.7	52.0	50.6			
Test ID: Dissolved Gases; Mod RSK-175 (µg/L)																								
Methane	17000	13000	66			14000			8500	16000	16000	8000	21000	25000	7100	19000	25000	23000	26000	26000	26000	26000		
Ethane	11	12	1.0	U				3.0	J		6.4	1.0	U	1.0	U	1.9	J	4.5	J	8.9	2.2	J	6.4	8.6
Ethene	40	1.0	U	1.0	U			26			1.2	J	3.4	J	3.5	J	1.7	J	1.8	J	2.5	J	2.1	J
Acetylene	1.0	U	1.0	U	1.0	U			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  
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Sample Name:	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-Dup	BDC-05-24	Trip Blank	Trip Blank											
LLI SDG:	1494368	1518055	1494368	1518055	1494368	1518055	1494368	1518055	1494368	1518055	1494368	1518055	1494368	1494368	1518055	1494368	1518055											
LLI Sample ID:	7557519	7672301	7557513	7672355	7557523	7672319	7557521	7672307	7557525	7672325	7557527	7672313	7557509	7557529	7672343	7557531	7672445											
Sample Date:	8/6/2014	11/10/2014	8/6/2014	11/10/2014	8/6/2014	11/10/2014	8/6/2014	11/10/2014	8/6/2014	11/10/2014	8/6/2014	11/10/2014	8/6/2014	8/6/2014	11/10/2014	8/6/2014	11/11/2014											
Test ID: VOA SW8260C (µg/L)																												
Vinyl Chloride	0.2	U	0.2	U	2.6	1.6	7.5	4.9	5.6	3.4	0.2	U	0.2	U	1.2	1.0	1.8	1.6	12	0.2	U	0.2	U					
cis-1,2-Dichloroethene	0.5		1.2		1.0	U	1.0	U	1.3	0.7	2.3		1.5		5.5	5.8	4.2	3.9	2.8	2.3	6.2	0.2	U	0.2	U			
Trichloroethene	0.9		1.1		1.0	U	1.0	U	0.2	U	0.2	U	0.2	U	1.2	1.2	0.3	0.3	0.2	0.2	0.2	U	0.2	U	0.2	U		
Tetrachloroethene	0.7		0.4		1.0	U	1.0	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Test ID: Total Metals (mg/L)																												
Arsenic (EPA 200.8)			0.0056						0.0319				0.0209			0.0167			0.0310			0.0225			0.0013	J		
Copper (EPA 200.8)			0.0020	U					0.0036				0.0020	U		0.0020	U		0.0020	U		0.0020	U		0.0020	U		
Test ID: Dissolved Metals (mg/L)																												
Arsenic (EPA 200.8)			0.0020	J					0.0251				0.0213			0.0142			0.0306			0.0205			0.0013	J		
Copper (EPA 200.8)			0.0020	U					0.0020	U			0.0020	U		0.0020	U		0.0020	U		0.0020	U		0.0020	U		
Test ID: Conventional (mg/L)																												
Sulfate (EPA 300.0)	2.9		3.0		0.30	U	0.31	J	0.30	U	0.97	J	0.30	U	0.99	J	10.9	19.2	2.7	1.9	0.36	J	0.47	J	1.8			
Total Organic Carbon (SM5310C)	1.4		1.0	U	57.8		40.1		17.6		15.9		9.4		5.7		9.6	6.8	13.3	10.1	9.5		9.4		4.2			
Test ID: Dissolved Gases; Mod RSK-175 (µg/L)																												
Methane	12		58		21000		25000		12000		15000		6500		5800						9600		10000		970		3.0	U
Ethane	1.0	U	1.0	U	4.6	J	7.0		2.0	J	3.6	J	1.8	J	1.2	J					2.3	J	2.6	J	1.0	U	1.0	U
Ethene	1.0	U	1.0	U	5.4		2.5	J	2.1	J	3.0	J	3.8	J	4.3	J					3.6	J	4.8	J	2.0	J	1.0	U
Acetylene	1.0	U	1.0	U					1.0	U	1.0	U	1.0	U	1.0	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.





**TABLE 1**  
**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)	(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										
Well	Date																									
BDC-05-07	2/15/2011	840		<1.0	8.7	20	<1.0	<1.1	<1.2	<1.1	<1.1	<1.1	0.013	0.010	0.012	0.002	3.02	<0.1	2.8	11.8	5.1	21	14.0	7.16		
BDC-05-07	5/2/2011	916	-108	5.2	11	17	<0.2	<1.1	<1.2	<1.1	<1.1	<1.1	0.017	0.004	0.014	0.003	2.14	0.1	2.6	15.6	3.2	33	16.8	6.90		
BDC-05-07	11/2/2011	1100	76	6.9	39	<1.0	<1.1	<1.2	<1.1	<1.0	<1.0	<1.0	0.042	0.035	0.010	0.006	2.06	<0.1	2.4	<1.0	16.1	-51	1780	6.31		
BDC-05-07	5/7/2012	1287	263	0.8	<0.2	23	0.9	<1.0	<1.0	<1.0	<1.0	<1.0	0.026	0.024	0.003	<0.002	0.17		1.6	0.4	27.0	100	48.5	6.34		
BDC-05-07	11/15/2012	1479	455	<0.2	0.4	24	0.8	<1.0	<1.0	<1.0	<1.0	<1.0	0.016	0.017	<0.002	<0.002	0.01		1.6	<0.3	23.0	3.0	26	6.60		
BDC-05-07	5/22/2013	1667	643	<0.2	0.3	8.6	0.5	<1.0	<1.0	<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-05-07	11/13/2013	1842	818	<0.2	<0.2	3.4	1.6	<1.0	1.3	<1.0	<1.0	<1.0	0.006	0.007	<0.002	<0.002	2.12		1.2	<0.30	8.5	-276	8.8	6.70		
BDC-05-07	5/13/2014	2023	999	<0.2	0.2	2.5	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	0.004	0.004	<0.002	<0.002	3.65		2.0	1.8	3.7	-368	9.1	6.55		
BDC-05-07	11/11/2014	2205	1181	<0.2	<0.2	4.1	13	26	3.0	<1.0	<1.0	<1.0	0.006	0.005	<0.002	<0.002	0.21		2.6	0.72	14.0	-74	17.7	6.37		
BDC-05-08	10/23/2008	-5		1.1	3.7	3.5	<0.2	<1.1	<1.2	<1.1	<1.1	<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	<1.1	<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	<1.1	<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	<1.1	<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	<1.1	<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	<1.1	<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	<1.1	<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	<1.1	<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	<1.1	<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	<1.1	<1.1	0.011	0.008	<0.002	<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	<1.1	<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	<1.1	<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	<1.1	<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	<1.1	<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	<1.1	<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	<1.1	<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-05-08	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-05-08	11/13/2013	1842	818	<0.2	<0.2	4.3	0.8						0.012	0.010	0.003	<0.002	2.02		1.4	<0.30	-275	15.0	6.73			
BDC-05-08	5/13/2014	2023	999	<0.2	<0.2	2.9	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	0.015	0.011	0.004	<0.002	2.02		1.4	0.31	7.7	-255	9.5	6.87		
BDC-05-08	11/10/2014	2204	1180	<0.2	<0.2	3.8	16						0.017	0.015	0.003	<0.002	0.04		1.4	0.65	-104	21.6	6.26			
BDC-05-09	7/31/2011	-18	30	20	22	<1.0	<1.1	<1.2	<1.1	<1.2	<1.1	<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	<1.2	<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	<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	<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	<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-05-09	11/13/2013	818	<0.2	<0.2	3.2	14	8.6	8.3	<1.0	<1.0	<1.0	<1.0	0.022	0.022	<0.002	<0.002	2.80		1.4	0.9	11.0	-263	36.8	6.61		
BDC-05-09	5/13/2014	999	<0.2	<0.2	0.7	1.0	1.6	8.5	<1.0	<1.0	<1.0	<1.0	0.010	0.010	<0.002	<0.002	3.66		1.5	1.9	8.0	-356	13.1	6.53		
BDC-05-09	11/11/2014	1181	<0.2	<0.2	1.1	3.5	1.2	6.4	<1.0	<1.0	<1.0	<1.0	0.018	0.017	<0.002	<0.002	0.08		2.3	0.72	8.5	-47	6.9	6.19		
BDC-05-10	7/31/2011	-18	39	26	12	<1.0	<1.1	<1.2	<1.1	<1.2	<1.1	<1.1	0.002	0.002	<0.002	<0.002	1.4									

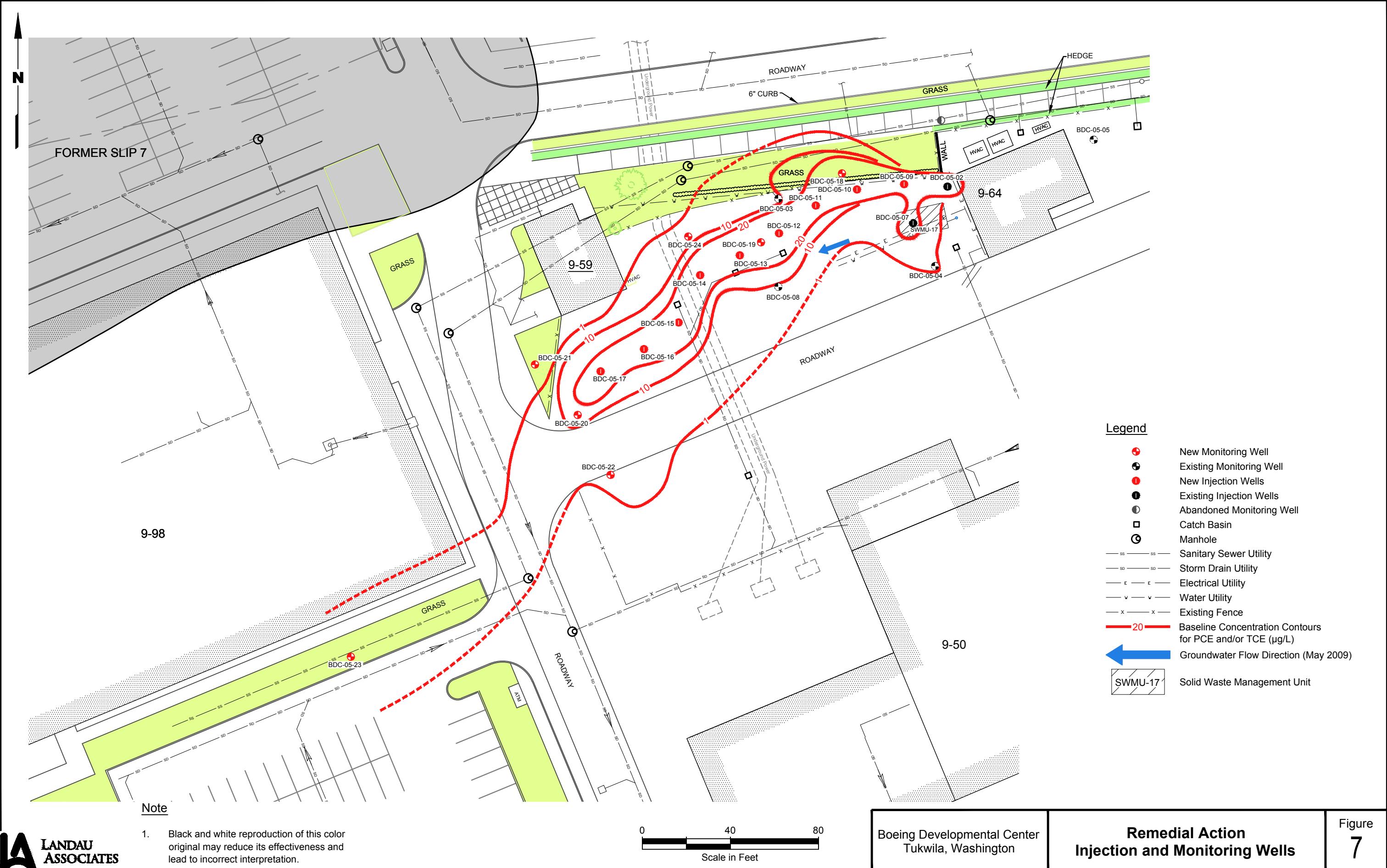
**TABLE 1**  
**GROUNDWATER DATA SUMMARY**  
**BOEING DEVELOPMENTAL CENTER SWMU-17**

		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
						( $\mu\text{g/L}$ )	( $\text{mg/L}$ )	( $\text{mg/L}$ )	( $\text{mg/L}$ )	( $\text{mg/L}$ )	( $\text{mg/L}$ )	( $\text{mg-N/L}$ )	( $\text{mg/L}$ )	( $\text{mg/L}$ )	( $\text{mg/L}$ )	( $\text{mV}$ )	( $\text{mg/L}$ )							
<b>Proposed Groundwater Cleanup Levels (a)</b>				5.3	1.4	134	2.4	NA	NA	NA	NA	NA	0.008	0.008	0.008	0.008								
Well	Date																							
BDC-05-12	11/15/2012		455	<1.0	<1.0	7.9	5.4	1.1	<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					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	0.022	0.022	<0.002	<0.002	0.29	1.4	<0.3	24.0	-366	35.4	8.08			
BDC-05-12	8/29/2013		742	<2.0	<2.0	<2.0	<2.0	5.5	2.8	<1.0					5.25	1.6	<0.30	22.0	-320	32.6	6.53			
BDC-05-12	11/13/2013		818	<2.0	<2.0	<2.0	<2.0	2.2	3.4	<1.0	0.010	0.012	<0.002	<0.002	2.61	2.6	0.39	26.0	-268	26.9	6.66			
BDC-05-12	2/11/2014		908	<1.0	<1.0	<1.0	<1.0	1.1	<6.0	<1.0					4.83	2.2	0.37	23.0	-239	19.7	6.57			
BDC-05-12	5/13/2014		999	<1.0	<1.0	<1.0	<1.0	1.0	5.6	<1.0	0.007	0.006	<0.002	<0.002	3.01	2.0	0.49	25.0	-299	21.5	6.60			
BDC-05-12	8/6/2014		1084	<1.0	<1.0	<1.0	<1.0	1.1	4.5	<1.0					7.00	1.5	<0.30	21.0	-146	43.1	7.05			
BDC-05-12	11/10/2014		1180	<1.0	<1.0	<1.0	1.7	2.5	8.9	<1.0	0.017	0.018	<0.002	<0.002	0.03	0.8	<0.30	25.0	-83	30.3	6.23			
BDC-05-13	7/31/2011 (IW)		-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		
BDC-05-13	5/6/2012		75	<1.0	1.2	39	<1.0	<1.1	<1.2	<1.1	0.068	0.064	0.017	0.003	1.82	<1.0	1.5	<1.0	2.2	-70	550	6.65		
BDC-05-13	5/22/2012		262	<0.2	<0.2	13	3.9	1.7	<1.0	<1.0	0.051	0.046	0.003	<0.002	0.03	3.0	0.4	19.0	78	34.2	6.40			
BDC-05-13	11/15/2012		455	<1.0	<1.0	<1.0	2.3	3.7	<1.0	<1.0	0.060	0.055	<0.002	<0.002	0.04	2.2	<0.3	22.0	-9	30.2	6.75			
BDC-05-13	5/22/2013		643	<0.2	<0.2	0.3	1.2	3.8	3.9	<1.0	0.019	0.019	<0.002	<0.002	0.29	1.8	0.43	23.0	-296	21.4	7.76			
BDC-05-13	11/13/2013		818	<0.2	<0.2	0.3	2.1	3.6	6.4	<1.0	0.031	0.027	<0.002	<0.002	3.20	1.6	0.31	19.0	-241	24.7	6.59			
BDC-05-13	5/12/2014		998	<0.2	<0.2	<0.2	2.6	4.3	6.8	<1.0	0.032	0.032	<0.002	<0.002	4.73	2.4	<0.30	19.0	-238	23.4	6.69			
BDC-05-13	11/10/2014		1180	<0.2	<0.2	0.2	2.5	2.1	2.2	<1.0	0.020	0.019	<0.002	<0.002	0.02	1.0	0.33	7.1	-123	15.1	6.41			
BDC-05-14	7/31/2011 (IW)		-18	2.8	6.8	2.8	<1.0	<1.1	<1.2	<1.1	0.004	0.004	0.004	<0.002	1.76	<0.1	2.0	10.1	6.5	-15	8.6	7.00		
BDC-05-14	5/6/2012		75	2.5	6.7	13	<1.0	<1.1	<1.2	<1.1	0.083	0.074	0.022	0.002	1.87	2.3	<1.0	4.0	-124	725	6.13			
BDC-05-14	11/15/2012		262	<0.2	0.4	3.0	1.1	<1.0	<1.0	<1.0	0.012	0.009	<0.002	<0.002	0.08	1.7	0.6	23.0	99	41.5	6.33			
BDC-05-14	5/22/2013		455	<0.2	<0.2	1.1	2.0	1.4	<1.0	<1.0	0.022	0.019	<0.002	<0.002	0.11	2.2	<0.3	24.0	-14	39.9	6.66			
BDC-05-14	11/13/2013		643	<0.2	<0.2	0.2	1.3	1.3	<3.0	<1.0	0.012	0.012	<0.002	<0.002	0.40	1.8	<0.3	26.0	-311	26.3	7.69			
BDC-05-14	5/12/2014		818	<0.2	<0.2	0.2	1.2	1.3	2.5	<1.0	0.017	0.015	<0.002	<0.002	3.80	1.5	<0.30	24.0	-219	29.5	6.44			
BDC-05-14	8/6/2014		998	<0.2	<0.2	<0.2	2.6	2.2	5.0	<1.0	0.018	0.021	<0.002	<0.002	5.21	2.0	<0.30	22.0	-233	30.2	6.55			
BDC-05-14	11/10/2014		1180	<0.2	<0.2	0.4	5.1	4.3	6.4	<1.0	0.017	0.017	<0.002	<0.002	0.15	1.2	2.3	19.0	-97	21.3	6.35			
BDC-05-15	7/31/2011 (IW)		-18	9.6	28	58	<1.0	<1.1	<1.2	<1.1	0.019	0.019	<0.002	<0.002	1.91	<0.1	1.3	18.6	0.8	-0.9	10.3	7.00		
BDC-05-15	5/6/2012		75	4.8	9.8	15	<1.0	<1.1	<1.2	<1.1	0.061	0.058	0.010	0.009	2.38	<0.1	3.0	11.3	3.5	-0.1	4420	5.67		
BDC-05-15	11/15/2012		262	<2.0	<2.0	49	6.3	<1.0	<1.0	<1.0	0.057	0.047	0.009	0.004	0.07	1.8	<0.3	21.0	93	423	6.36			
BDC-05-15	5/22/2013		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	11/13/2013		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	</		



**TABLE 1**  
**GROUNDWATER DATA SUMMARY**  
**BOEING DEVELOPMENTAL CENTER SWMU-17**

		Pilot Injection	Full Injection #1	Volatile Organic Compounds						Metals				Aquifer Redox Conditions					Donor Indicators		Comments		
				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 ( $\text{mg/L}$ )	As, Dis ( $\text{mg/L}$ )	Cu, Tot ( $\text{mg/L}$ )	Cu, Dis ( $\text{mg/L}$ )	DO ( $\text{mg/L}$ )	Nitrate ( $\text{mg-N/L}$ )	Iron II ( $\text{mg/L}$ )	Sulfate ( $\text{mg/L}$ )	Methane ( $\text{mg/L}$ )	ORP (mV)	TOC ( $\text{mg/L}$ )	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																						
BDC-05-22	5/13/2014		999	<0.2	1.4	6.7	<0.2				0.027	0.025	<0.002	<0.002	3.16	1.5	8.7	-183	8.4	6.68			
BDC-05-22	8/6/2014		1084	<0.2	1.2	5.5	<0.2								4.59	1.6	10.9	-137	9.6	7.31			
BDC-05-22	11/10/2014		1180	<0.2	1.2	5.8	<0.2				0.031	0.031	<0.002	<0.002	0.05	1.4	19.2	-113	6.8	6.43			
BDC-05-23	7/31/2011		-18	<1.0	<1.0	3.2	<1.0	<1.1	<1.2	<1.1	0.005	0.005	0.002	<0.002	2.72	<0.1	2.2	8.6	6.0	-101	9.1	7.47	
(MW 170ft DG)	11/3/2011		77	<1.0	<1.0	4.8	<1.0				0.005	0.006	<0.002	<0.002	1.45	<0.1	1.0	25.2	1	8.8	7.08		
	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-05-23	8/28/2013		741	<1.0	2.2	21	5.4								0.60	0.5	0.35	-323	10.4	6.76			
BDC-05-23	11/14/2013		819	<0.2	0.3	3.0	0.9				0.017	0.015	<0.002	<0.002	1.58	1.3	0.62	-252	11.1	6.87			
BDC-05-23	2/12/2014		909	<0.2	0.2	2.7	1.2								2.40	1.8	0.74	-229	9.3	6.86			
BDC-05-23	5/13/2014		999	<0.2	0.3	4.5	1.0				0.023	0.023	<0.002	<0.002	3.15	1.4	3.1	-207	12.1	6.97			
BDC-05-23	8/6/2014		1084	<0.2	0.3	4.2	1.2								4.49	1.2	2.7	-149	13.3	7.35			
BDC-05-23	11/10/2014		1180	<0.2	0.3	3.9	1.0				0.023	0.021	<0.002	<0.002	0.10	1.6	1.9	-122	10.1	6.40			
BDC-05-24	7/31/2011		-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	
(MW 18 ft XG)	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		0.004	0.003	<0.002	<0.002	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								0.58	1.4	0.82	-272	7.4	7.54			
BDC-05-24	8/28/2013		741	<0.2	0.5	4.4	1.6	<1.0	1.8	<1.0					0.78	1.4	0.47	11.0	-321	8.6	6.57		
BDC-05-24	11/13/2013		818	<0.2	0.4	3.3	1.4	<1.0	1.4	<1.0	0.003	0.003	<0.002	<0.002	2.43	1.3	1.4	11.0	-219	8.7	6.54		
BDC-05-24	2/12/2014		909	<0.2	0.2	1.7	0.6	1.1	3.0	<1.0					2.72	2.0	0.81	11.0	-211	7.1	6.76		
BDC-05-24	5/12/2014		998	<0.2	0.3	4.8	1.6	1.0	2.3	<1.0	0.003	0.002	<0.002	<0.002	2.58	1.2	0.87	10.0	-196	8.2	6.75		
BDC-05-24	8/6/2014		1084	<0.2	0.2	2.8	1.8	3.6	2.3	<1.0					4.02	1.0	0.36	9.6	-167	9.5	7.33		
BDC-05-24	11/10/2014		1180	<0.2	<0.2	6.2	12	2.0	<1.0	<1.0	0.001	0.001	<0.002	<0.002	0.05	1.2	1.8	0.97	-86	4.2	6.52		
PCE = Tetrachloroethene		Dis = Dissolved		IW = Injection Well																			
TCE = Trichloroethene		DO = Dissolved Oxygen		MW = Monitoring Well																			
cDCE = cis-1,2-Dichloroethene		ORP = Oxidation Reduction Potential		DG = Downgradient; distance from nearest injection well																			
VC = Vinyl Chloride		TOC = Total Organic Carbon		UG = Upgradient; distance from nearest injection well																			
As = Arsenic		NA = Not Applicable, not available		XG = Crossgradient; distance from nearest injection well																			
Cu = Copper		$\mu\text{g/L}$ = micrograms pr liter		not analyzed																			
Tot = Total		$\text{mg/L}$ = milligrams per liter		Box = Exceedance of Proposed Cleanup Level																			
(a) Proposed Cleanup Standards and Comparison to Site Data, Boeing Developmental Center, Tukwila, Washington (Landau Associates, 5/7/13),																							
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																						
2/19/12 = LLI 1290782, 1291166																							



***DEVELOPMENTAL CENTER  
GROUNDWATER MONITORING***

***November 2014***

**AOC-05 DATA**

- **AOC-05 Cleanup Action Summary**
- **AOC-05 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**

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

		ORC	Pilot	Full Scale	Injection 1	Injection 2	Injection 3	Injection 4	Injection 5	Injection 6	Injection 7	Injection 8	Injection 9	Volatile Organic Compounds (all units in ug/L)							Aquifer Redox Conditions							Donor Indicators									
		Elapsed	Elapsed	Elapsed	Elapsed	Elapsed	Elapsed	Elapsed	Elapsed	Elapsed	Elapsed	Elapsed	Time from Injection (days)	TPH-G	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	Xylenes	DO	Nitrate	Nitrite	Iron II	Sulfate	Methane	ORP	TOC	pH								
													(mg/L)	(µg/L)	(mg/L)	(mg-N/L)	(mg-N/L)	(mg/L)	(mg/L)	(µg/L)	(mV)	(mg/L)															
<b>Proposed Groundwater Cleanup Levels (a)</b>																																					
Well	Date																															Comments					
BDC-102	3/13/2002																					0.50	1.3	<1.0	<1.0												
BDC-102	4/29/2002	-8																				0.33	2.6	<1.0	<1.0	1.1	<1.0	1.1									
BDC-102	6/3/2002	27																				<0.25	4.4	<1.0	<1.0	<1.0	<1.0	<1.0									
BDC-102	7/1/2002	55																				0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0									
BDC-102	8/1/2002	86																				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0									
BDC-102	12/2/2002	209																				0.26	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0									
BDC-102	3/10/2003	307																				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0									
BDC-102	6/3/2003	392																				0.99	120	<1.0	8.5	<1.0	<1.0	<1.0									
BDC-102	11/19/2003	561																				0.40	10	<1.0	<1.0	3.0	<1.0	3.0									
BDC-102	4/28/2004	722																				0.33	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0									
BDC-102	10/18/2004	895																				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0									
BDC-102	5/10/2005	1099																				0.53	6.1	<1.0	3.1	100	<1.0	100	1.20	1.94	0.051	2.8	40.4				
BDC-102	11/10/2005	1283																				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.82	4.4	34.0		122	18.4			
BDC-102	5/15/2006	1469																				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.21	4.72	0.175	2.2	35.7				
BDC-102	11/20/2006	1658	-59																			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.25	<0.250	<0.250	2.2	9.2				
BDC-102	2/20/2007	1750	33																			<0.25	5.8	<1.0	<1.0	<1.0	<1.0	<1.0	0.47	0.749	0.027	3.0	25.3				
BDC-102	3/19/2007	1777	60																			<0.25	18	<1.0	<1.0	32	<1.0	32	0.88	0.938	0.072	3.0	31.0				
BDC-102	4/24/2007	1813	96																			0.53	6.1	<1.0	3.1	100	<1.0	100	1.20	1.94	0.051	2.8	40.4				
BDC-102	5/17/2007	1836	119																			<0.25	1.8	<1.0	7.4	<1.0	7.4	0.84	2.78	0.108	2.6	33.9					
BDC-102	11/26/2007	2029	312																			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.29	1.03	0.247	3.0	55.7				
BDC-102	2/18/2008	2113	396	-8																		<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.51	3.91	0.054	2.8	42.8				
BDC-102	3/27/2008	2151	434	30																		<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.85	1.3	<0.10	2.5	17.9				
BDC-102	5/15/2008	2200	483	79	-40																	<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.40	3.0	<0.10	3.5	19.2				
BDC-102	7/16/2008	2262	545	141	22																	<0.25	1.8	<1.0	7.4	<1.0	7.4	0.84	2.78	0.108</							

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

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

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

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**SWMU-17**

Well	Date	Aquifer Redox Conditions					
		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
BDC-05-04	11/19/2013	2.56	<0.10	1.0	13.2		-259
BDC-05-04	5/6/2014	3.49	0.40		14.4		-299
BDC-05-04	11/4/2014	0.05	<0.10	1.6	<1.0		-126

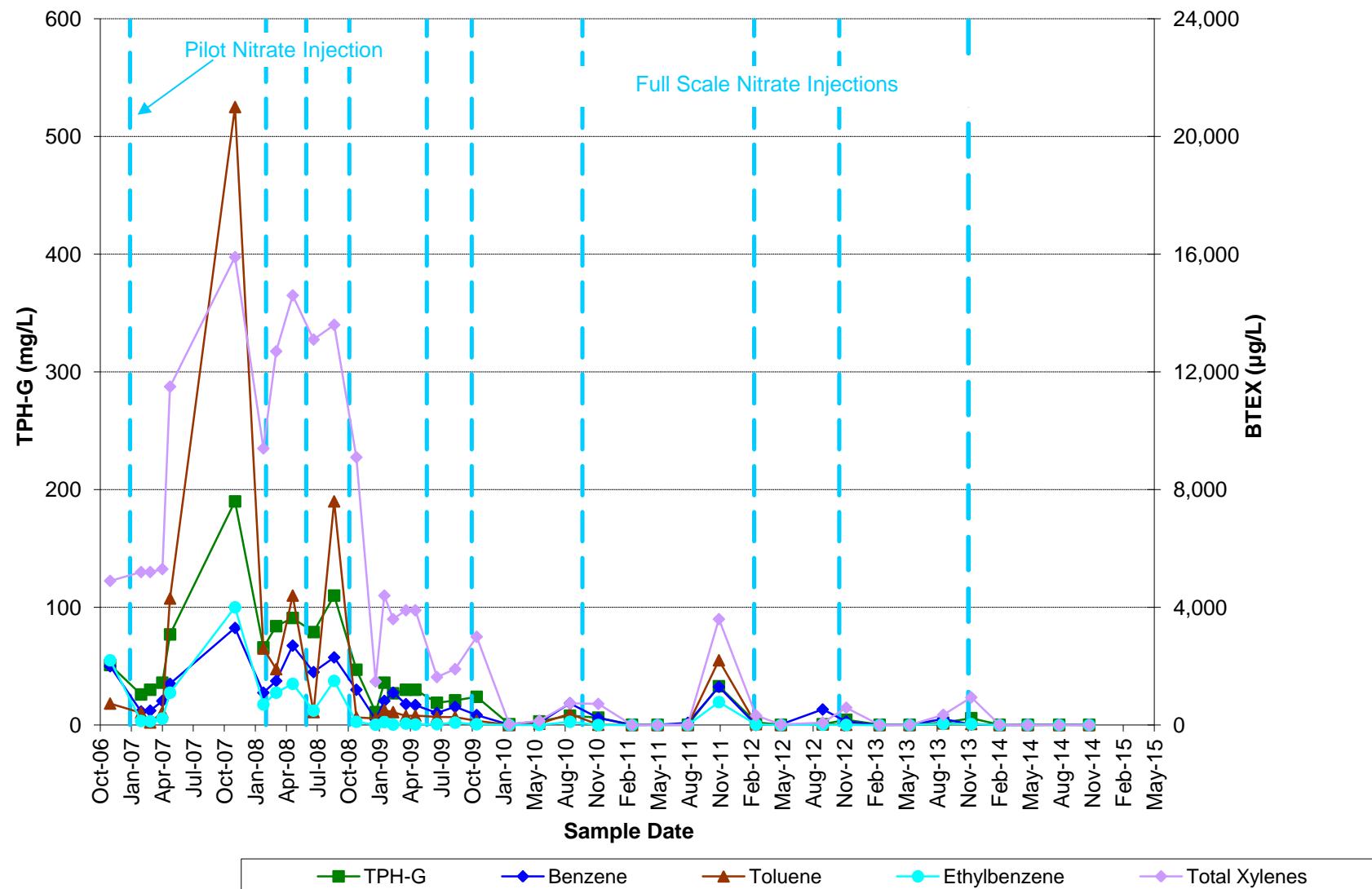
**AOC-05 DOWNGRADIENT MONITORING**  
**AOC-05 ANAEROBIC BIOREMEDIAL REMEDIAL ACTION**  
**DEVELOPMENTAL CENTER GROUNDWATER MONITORING**

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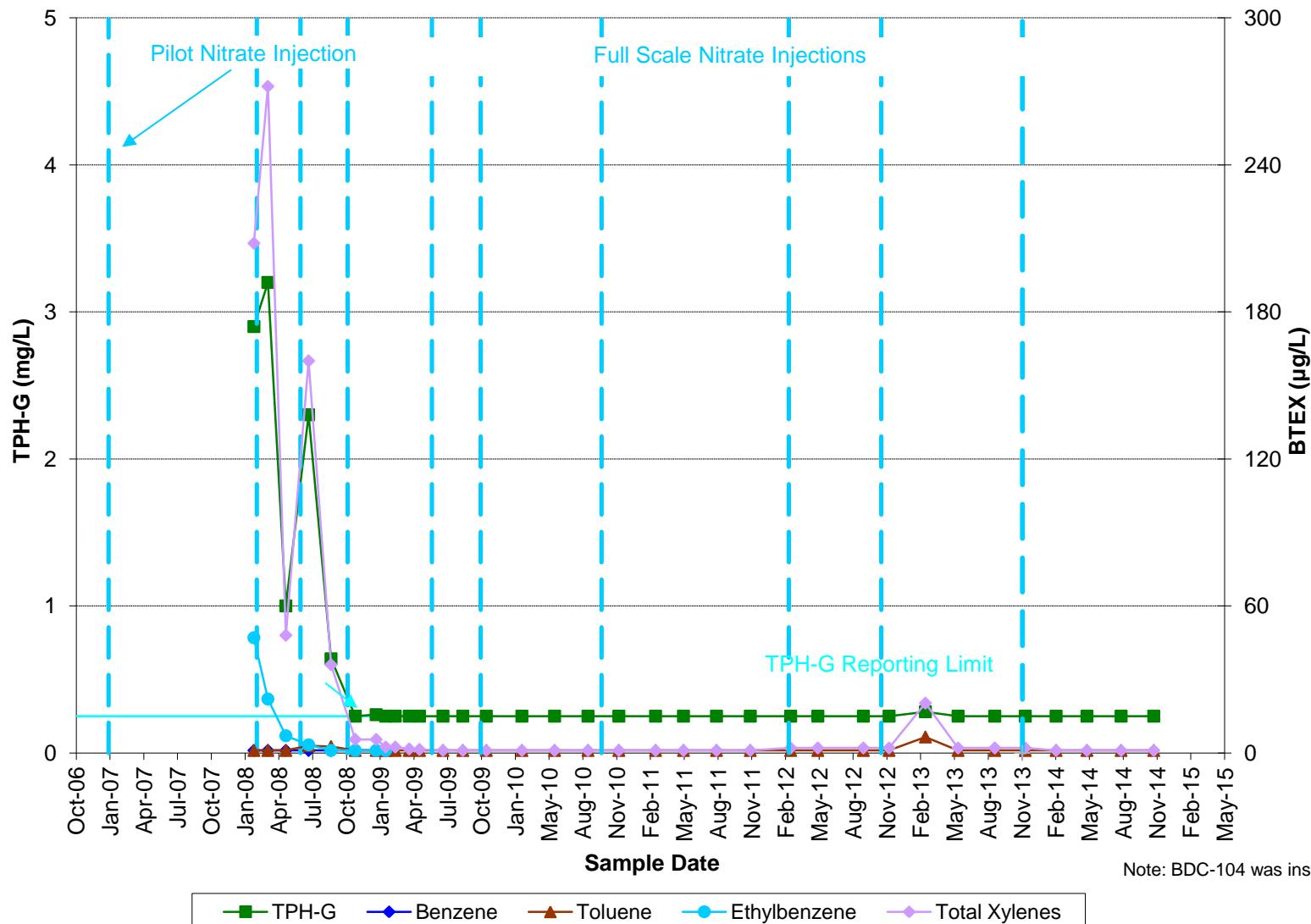
Well	Date	Aquifer Redox Conditions		
		Nitrate (mg-N/L)	Iron II (mg/L)	Sulfate (mg/L)
<b>SWMU-20</b>				
MW-17A	05/15/2006	1.37	0.0	27.0
MW-17A	11/12/2009	0.9		
MW-17A	5/17/2010	1.6	0.2	21.0
MW-17A	11/8/2010	0.1	2.1	15.7
MW-17A	5/3/2011	1.6	0.0	19.8
MW-17A	8/1/2011	0.5	0.0	20.5
MW-17A	11/1/2011	0.3	0.0	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-17A	11/19/2013	1.3	0.4	23.9
MW-17A	5/6/2014	2.2	0.0	23.7
MW-17A	11/4/2014	0.16	0.4	26.0
MW-18A	05/15/2006	0.154	0.4	64.8
MW-18A	11/12/2009	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-18A	11/19/2013	<0.10	0.6	15.0
MW-18A	5/6/2014	<0.10	0.0	26.1
MW-18A	11/4/2014	<0.10	0.4	21.0
MW-21A	05/15/2006	0.136	0.4	54.9
MW-21A	11/12/2009	<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
MW-21A	11/19/2013	<0.10	0.0	15.6
MW-21A	5/6/2014	<0.10	0.0	7.6
MW-21A	11/4/2014	<0.10	0.0	5.1

= Not Analyzed

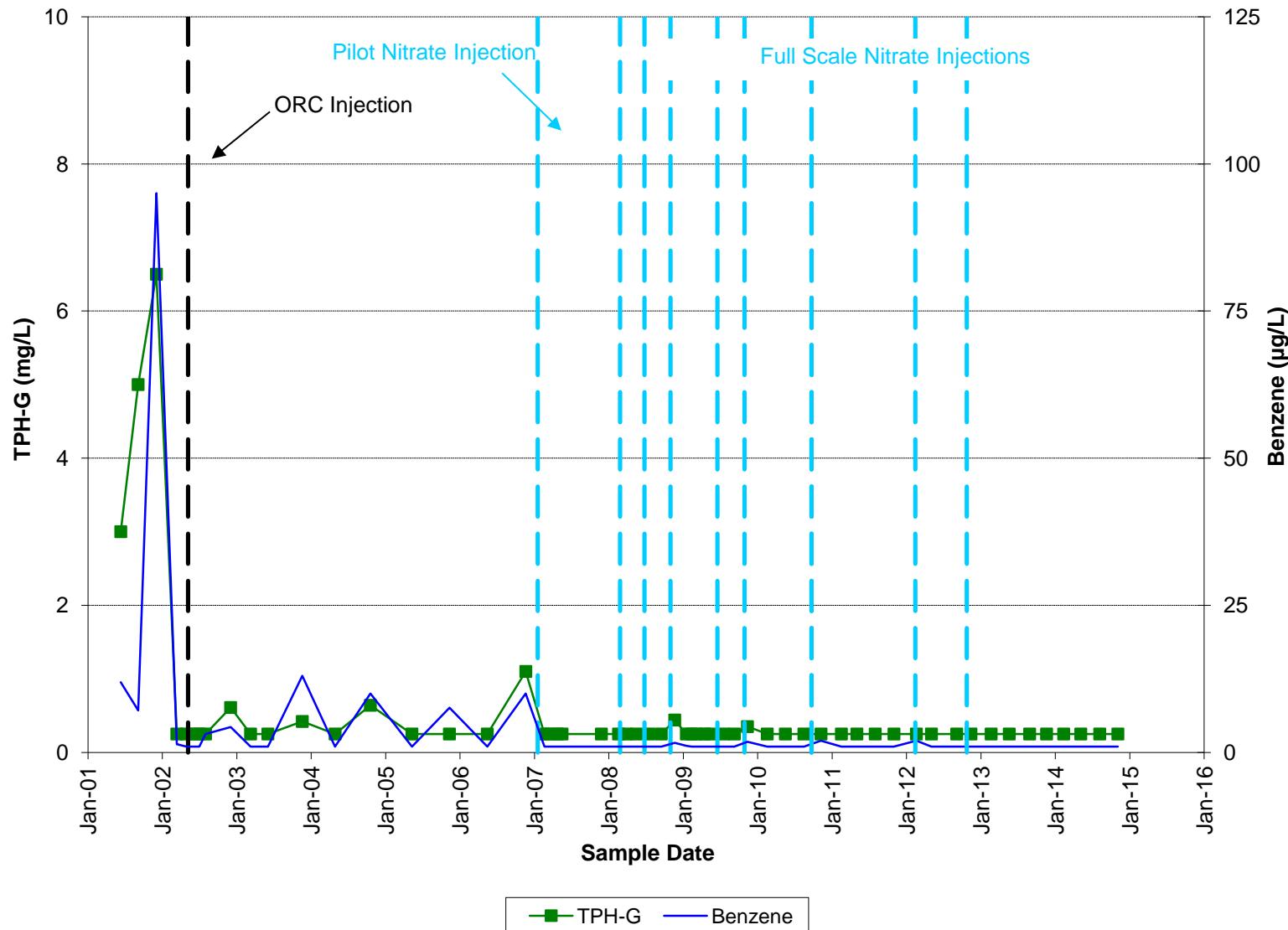
**BDC-103**  
**TPH-G and BTEX Concentrations Beginning with 2007 Pilot Testing**



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

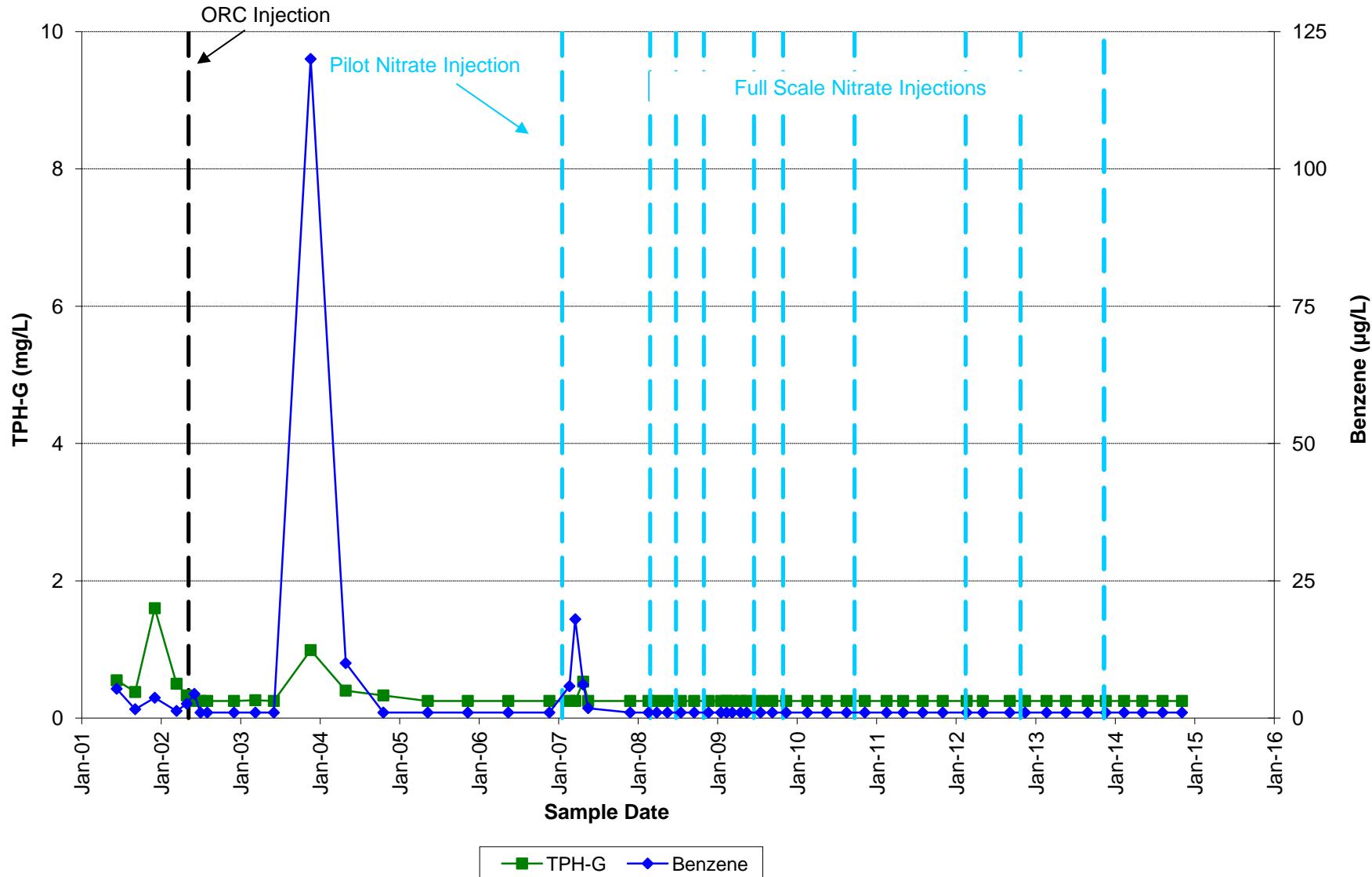


**BDC-101**  
**TPH-G and Benzene Concentrations Since 2001**

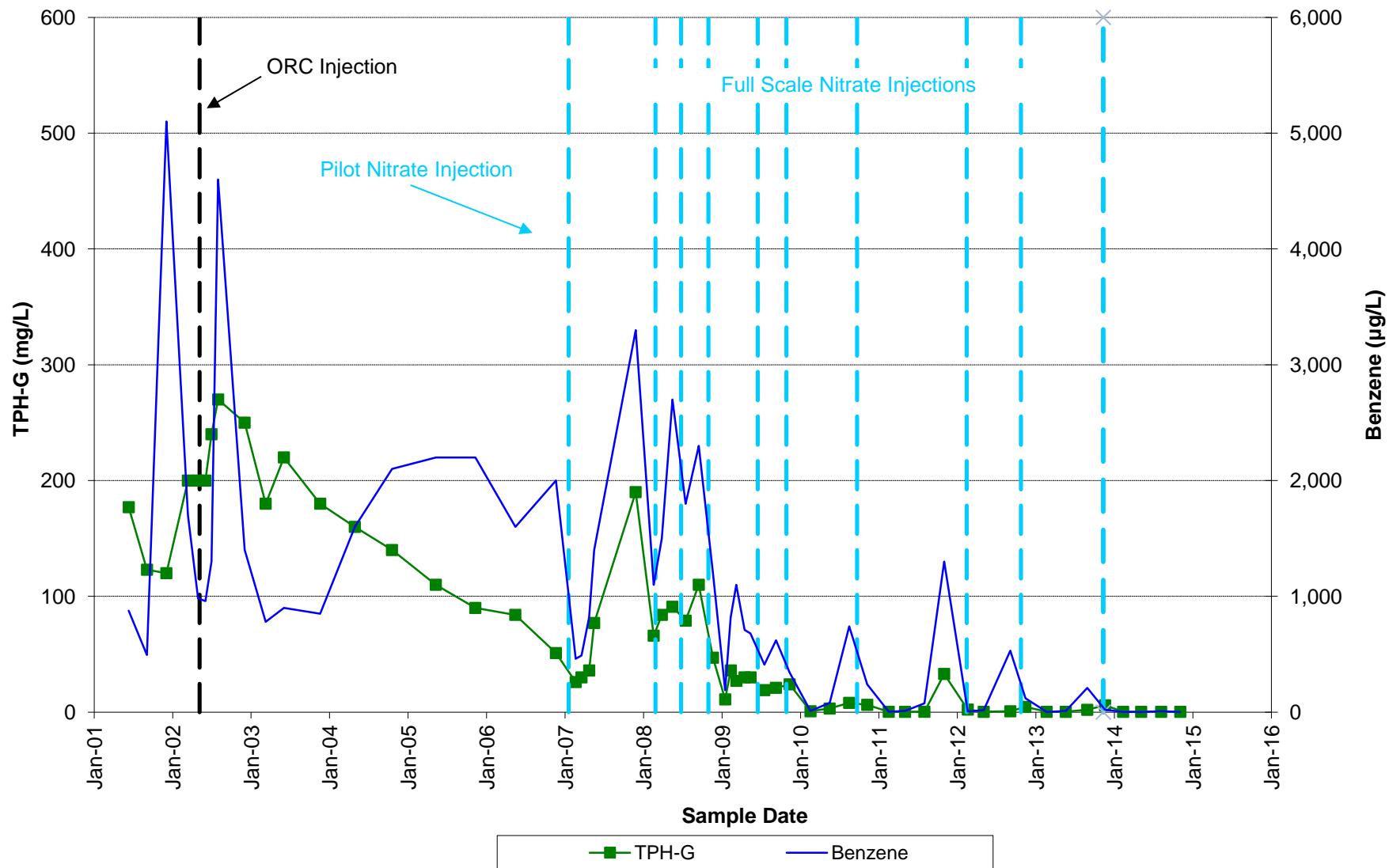


## BDC-102

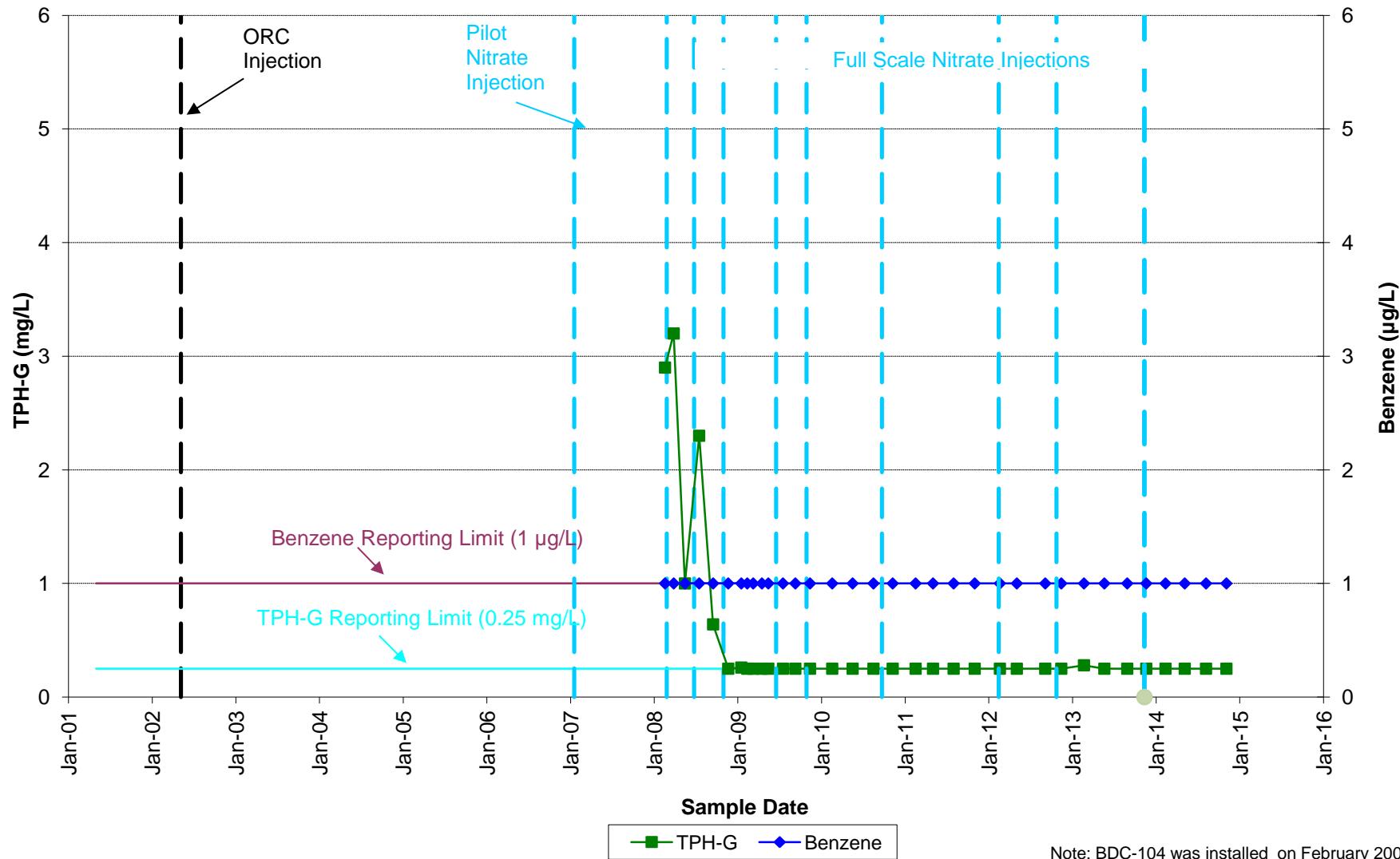
### TPH-G and Benzene Concentrations Since 2001

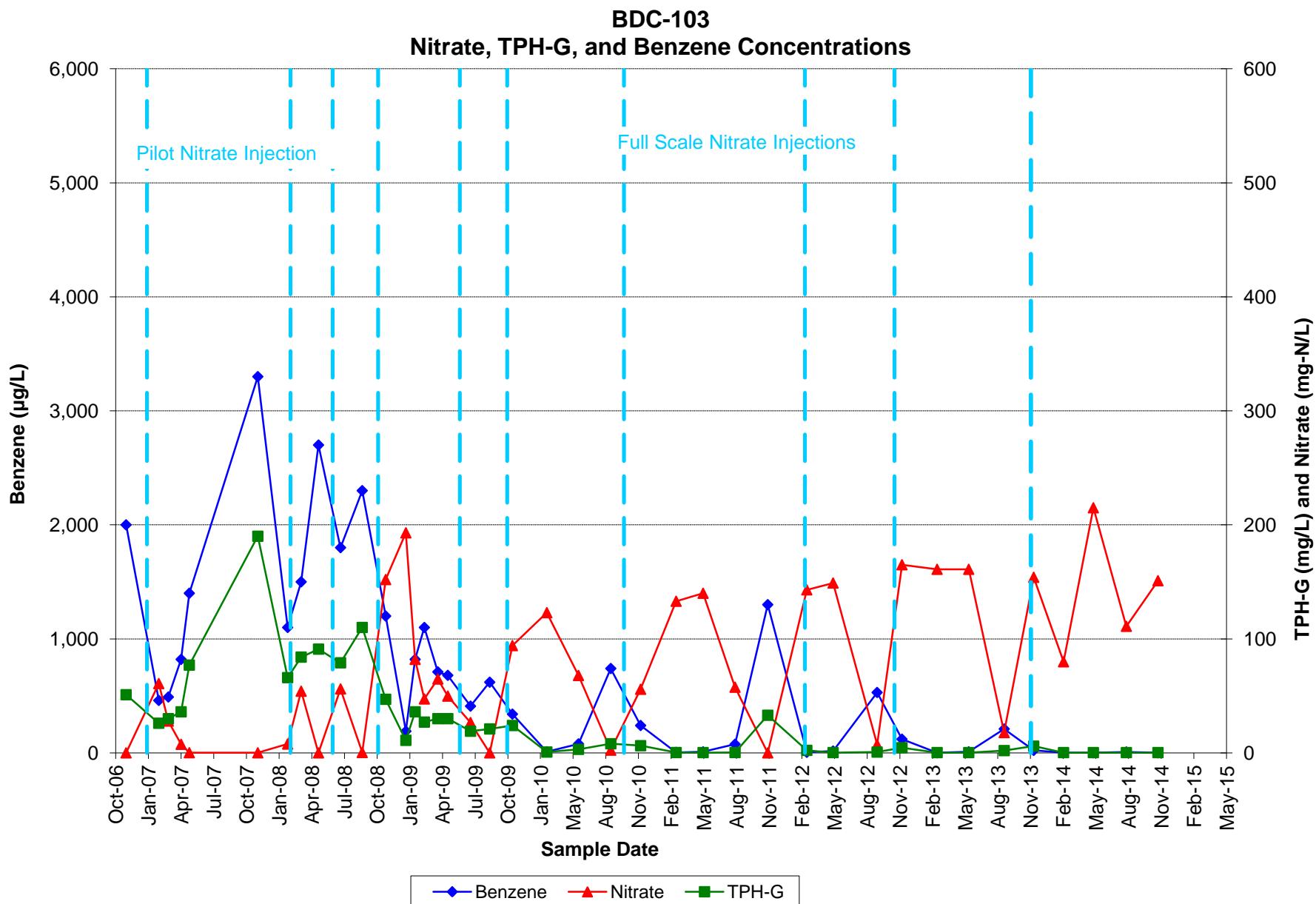


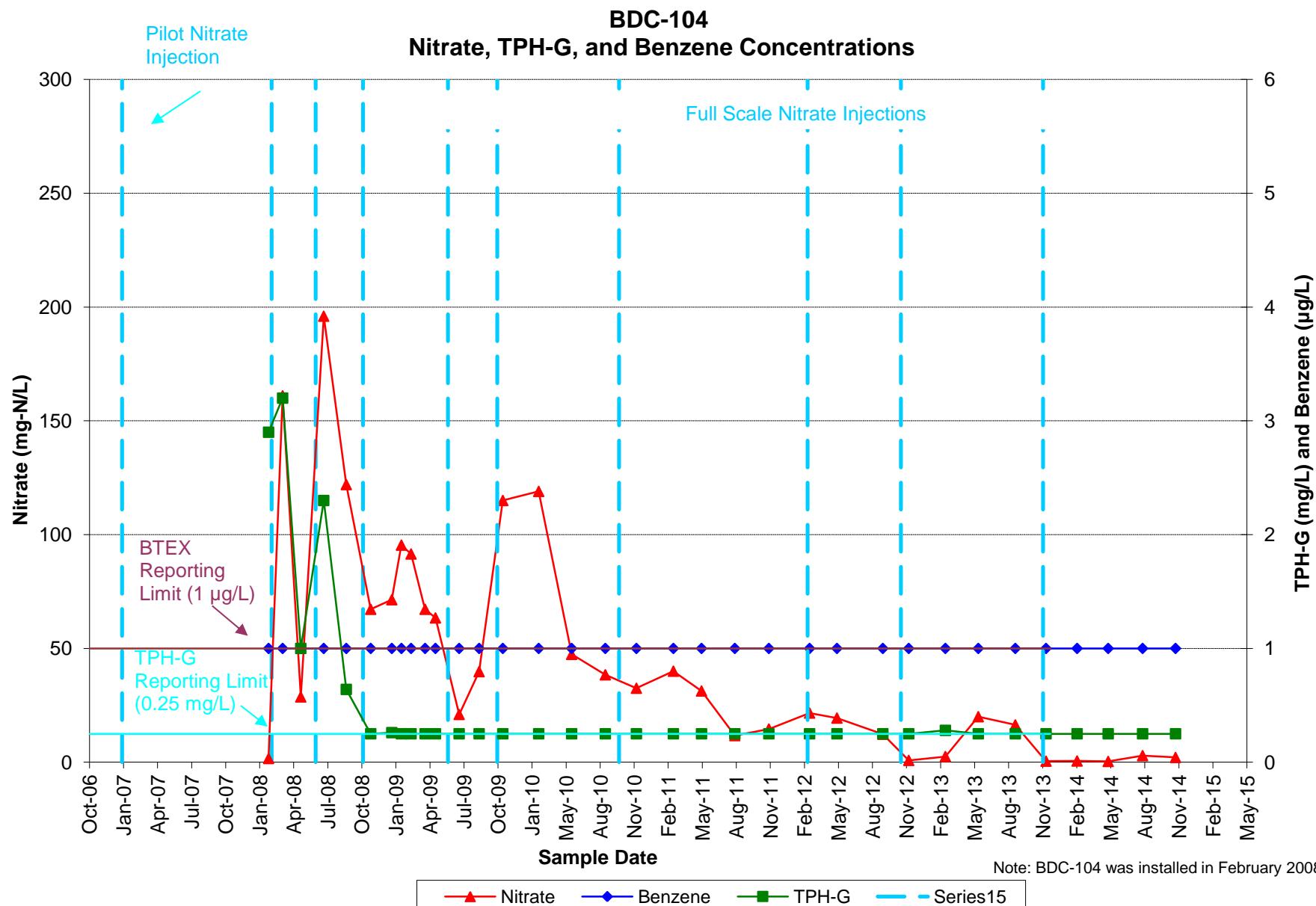
**BDC-103**  
**TPH-G and Benzene Concentrations Since 2001**

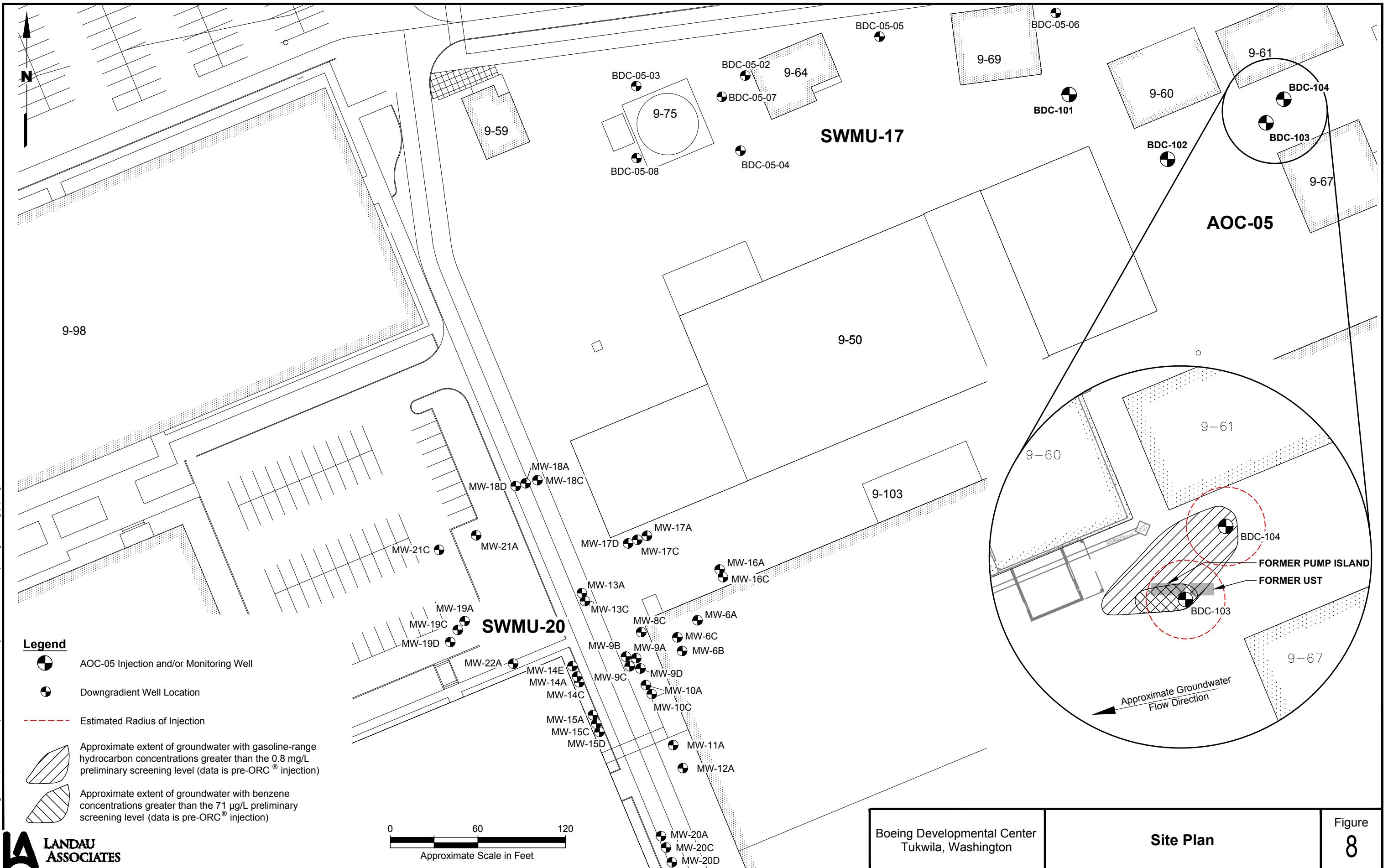


**BDC-104**  
**TPH-G and Benzene Concentrations Since 2001**







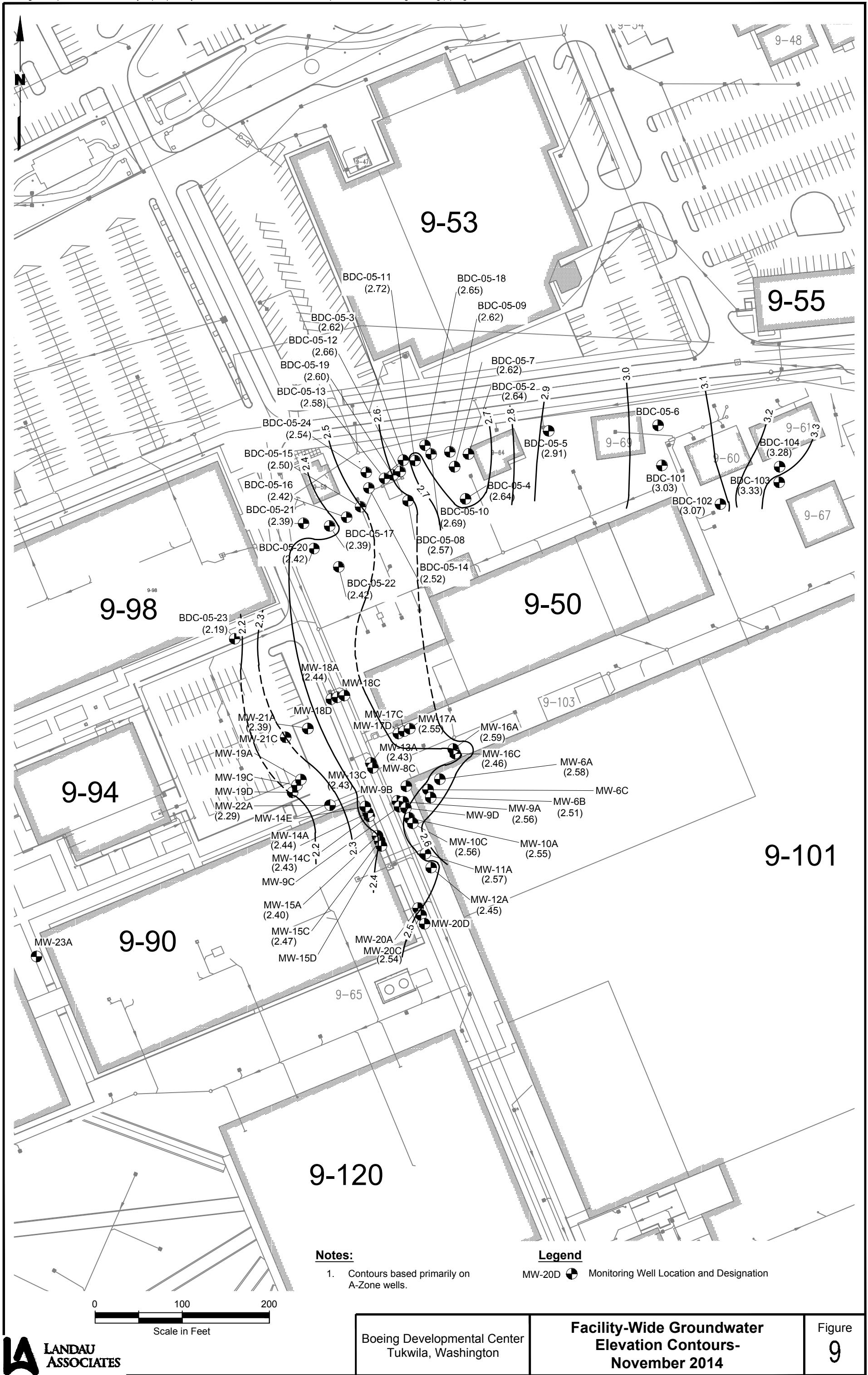


***DEVELOPMENTAL CENTER  
GROUNDWATER MONITORING***

***November 2014***

**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.	November 2014		August 2014		May 2014		Feb 2014		Nov 2013		August 2013		May 2013		Feb 2013	
		Depth to Water	Water Elevation														
9-101-bldg.	MW-6A	12.22	2.58			12.10	2.70			12.82	1.98			12.92	1.88		
9-101-bldg.	MW-6B	12.58	2.51			14.44	0.65			13.16	1.93			13.27	1.82		
9-101-bldg.	MW-6C																
9-101-bldg.	MW-8C																
9-101-bldg.	MW-9A	12.18	2.56			12.07	2.67			12.88	1.86			12.80	1.94		
9-101-bldg.	MW-9B																
9-101-bldg.	MW-9C																
9-101-bldg.	MW-9D																
9-101-bldg.	MW-10A	12.14	2.55			11.98	2.71			12.81	1.88			12.72	1.97		
9-101-bldg.	MW-10C	12.06	2.56			11.91	2.71			12.73	1.89			12.65	1.97		
9-101-bldg.	MW-11A	12.31	2.57			12.10	2.78			12.89	1.99			12.84	2.04		
9-101-bldg.	MW-12A	12.38	2.45			12.17	2.66			12.98	1.85			12.88	1.95		
9-101-bldg.	MW-13A	11.71	2.43			11.62	2.52			12.37	1.77			12.36	1.78		
9-101-bldg.	MW-13C	11.59	2.43			11.49	2.53			12.23	1.79			12.22	1.80		
9-101-bldg.	MW-14A	11.93	2.44			11.85	2.52			12.59	1.78			12.65	1.72		
9-101-bldg.	MW-14C	11.54	2.43			11.49	2.48			12.17	1.80			12.25	1.72		
9-101-bldg.	MW-14E																
9-101-bldg.	MW-15A	11.77	2.40			11.72	2.45			12.44	1.73			12.48	1.69		
9-101-bldg.	MW-15C	11.70	2.47			11.71	2.46			12.42	1.75			12.54	1.63		
9-101-bldg.	MW-15D																
9-101-bldg.	MW-16A	12.40	2.59			12.22	2.77			13.06	1.93			13.07	1.92		
9-101-bldg.	MW-16C	12.58	2.46			12.32	2.72			13.24	1.80			13.25	1.79		
9-101-bldg.	MW-17A	12.25	2.55			12.11	2.69			12.90	1.90			12.98	1.82		
9-101-bldg.	MW-17C																
9-101-bldg.	MW-17D																
9-101-bldg.	MW-18A	11.86	2.44			11.70	2.60			12.23	2.07			12.58	1.72		
9-101-bldg.	MW-18C																
9-101-bldg.	MW-18D																
9-101-bldg.	MW-19A														10.74	1.49	
9-101-bldg.	MW-19C																
9-101-bldg.	MW-19D																
9-101-bldg.	MW-20A																
9-101-bldg.	MW-20C	11.61	2.54			11.58	2.57			12.40	1.75			12.50	1.65		
9-101-bldg.	MW-20D																
9-101-bldg.	MW-22A	11.96	2.29			11.90	2.35			12.42	1.83			12.72	1.53		
9-101-bldg.	MW-23A																
9-101/9-50 bldg.	MW-21A	12.06	2.39			11.90	2.55			12.39	2.06			12.80	1.65		
9-101/9-50 bldg.	MW-21C																
9-64-bldg.	BDC-05-02	11.77	2.64	12.26	2.15	11.69	2.72	12.21	2.20	12.36	2.05	12.47	1.94	12.29	2.12	12.19	2.22
9-64-bldg.	BDC-05-03	11.79	2.62			11.76	2.65			12.43	1.98			12.36	2.05		
9-64-bldg.	BDC-05-04	11.95	2.64			11.93	2.66			12.51	2.08			12.17	2.42		
9-64-bldg.	BDC-05-05	11.53	2.91			11.47	2.97			12.15	2.29			12.13	2.31		
9-64-bldg.	BDC-05-07	11.37	2.62			11.29	2.70			11.96	2.03			11.92	2.07		
9-64-bldg.	BDC-05-08	12.10	2.57			12.07	2.60			12.72	1.95			12.64	2.03		
9-64-bldg.	BDC-05-09	11.79	2.62			11.71	2.70			12.37	2.04			12.31	2.10		
9-64-bldg.	BDC-05-10	11.72	2.69			11.70	2.71			12.36	2.05			12.31	2.10		
9-64-bldg.	BDC-05-11	11.93	2.72			11.91	2.74			12.59	2.06			12.51	2.14		
9-64-bldg.	BDC-05-12	12.06	2.66	12.58	2.14	12.01	2.71	12.53	2.19	12.88	1.84	12.78	1.94	12.61	2.11	12.53	2.19
9-64-bldg.	BDC-05-13	11.85	2.58			11.86	2.57			12.44	1.99			12.40	2.03		
9-64-bldg.	BDC-05-14	11.70	2.52			11.68	2.54			12.25	1.97			12.21	2.01		
9-64-bldg.	BDC-05-15	11.47	2.50			11.42	2.55			12.04	1.93			12.07	1.90		
9-64-bldg.	BDC-05-16	11.65	2.42	12.04	2.03	11.60	2.47	12.00	2.07	12.16	1.91	12.25	1.82	12.19	1.88	12.04	2.03
9-64-bldg.	BDC-05-17	11.86	2.39			11.83	2.42			12.34	1.91			12.30	1.95		
9-64-bldg.	BDC-05-18	11.14	2.65	11.51	2.28	11.16	2.63	11.62	2.17	11.71	2.08	11.90	1.89	11.72	2.07	11.63	2.16
9-64-bldg.	B																

**DEVELOPMENTAL CENTER  
CUMULATIVE WATER LEVEL MEASUREMENTS**

<b>Well Location / Bldg.</b>	<b>Well ID No.</b>	<b>November 2014</b>		<b>August 2014</b>		<b>May 2014</b>		<b>Feb 2014</b>		<b>Nov 2013</b>		<b>August 2013</b>		<b>May 2013</b>		<b>Feb 2013</b>	
		<b>Depth to Water</b>	<b>Water Elevation</b>														
9-64-bldg.	BDC-05-21	11.80	2.39	12.29	1.90	11.79	2.40	12.15	2.04	12.30	1.89	12.42	1.77	12.26	1.93	12.25	1.94
9-64-bldg.	BDC-05-22	11.74	2.42	12.25	1.91	11.75	2.41	12.08	2.08	12.25	1.91	12.38	1.78	12.22	1.94	12.18	1.98
9-64-bldg.	BDC-05-23	12.27	2.19	12.81	1.65	12.36	2.10	12.51	1.95	12.74	1.72	12.83	1.63	12.70	1.76	12.56	1.90
9-64-bldg.	BDC-05-24	11.65	2.54	12.12	2.07	11.64	2.55	12.04	2.15	12.22	1.97	12.34	1.85	12.19	2.00	12.09	2.10
9-60 bldg.	BDC-101	11.44	3.03	12.08	2.39	11.22	3.25	11.97	2.50	11.99	2.48	12.27	2.20	11.99	2.48	11.77	2.70
9-60 bldg.	BDC-102	11.20	3.07	11.87	2.40	10.97	3.30	11.73	2.54	11.75	2.52	12.04	2.23	11.79	2.48	11.55	2.72
9-60 bldg.	BDC-103	11.01	3.33	11.88	2.46	10.85	3.49	11.75	2.59	11.66	2.68	12.06	2.28	11.71	2.63	11.43	2.91
9-60 bldg.	BDC-104	10.88	3.28	11.67	2.49	10.66	3.50	11.45	2.71	11.51	2.65	11.87	2.29	11.51	2.65	11.24	2.92
9-52-bldg.	952MW-1																
9-52-bldg.	952MW-2																
9-52-bldg.	952MW-3																
9-52-bldg. (west)	MW-5																
9-04-bldg. (north)	MW-2																
9-04-bldg. (north)	MW-7																
9-04-bldg. (north)	MW-8																
9-04-bldg. (north)	MW-9																

**DEVELOPMENTAL CENTER  
CUMULATIVE WATER LEVEL MEASUREMENTS**

Well Location / Bldg.	Well ID No.	Nov 2012		May 2012		Nov 2011		July 2011		May 2011		Nov 2010		May 2010		Nov 2009		May 2009	
		Depth to Water	Water Elevation																
9-101-bldg.	MW-6A	12.82	1.98	12.61	2.19	12.99	1.81			12.50	2.30	12.70	2.10	12.69	2.11	12.42	2.38	12.73	2.07
9-101-bldg.	MW-6B	13.17	1.92	12.96	2.13	13.29	1.80			12.81	2.28	13.06	2.03	13.04	2.05	12.73	2.36	13.08	2.01
9-101-bldg.	MW-6C															12.72	2.35	13.05	2.02
9-101-bldg.	MW-8C															12.70	2.22	13.01	1.91
9-101-bldg.	MW-9A	12.83	1.91	12.54	2.20	13.03	1.71			12.53	2.21	12.65	2.09	12.65	2.09	12.43	2.31	12.77	1.97
9-101-bldg.	MW-9B															12.30	2.29	12.64	1.95
9-101-bldg.	MW-9C															12.40	2.26	12.67	1.99
9-101-bldg.	MW-9D															12.43	2.23	12.79	1.87
9-101-bldg.	MW-10A	12.77	1.92	12.55	2.14	12.97	1.72			12.47	2.22	12.64	2.05	12.62	2.07	12.46	2.23	12.65	2.04
9-101-bldg.	MW-10C	12.70	1.92	12.49	2.13	12.90	1.72			12.38	2.24	12.55	2.07	12.53	2.09	12.41	2.21	12.60	2.02
9-101-bldg.	MW-11A	12.19	2.69	12.65	2.23	13.03	1.85			12.62	2.26	12.59	2.29	12.69	2.19	12.52	2.36	12.81	2.07
9-101-bldg.	MW-12A	13.01	1.82	12.70	2.13	13.23	1.60			12.71	2.12	12.68	2.15	12.73	2.10	12.56	2.27	12.96	1.87
9-101-bldg.	MW-13A	12.27	1.87	12.20	1.94	12.66	1.48			12.11	2.03	12.08	2.06	12.14	2.00	11.89	2.25	12.29	1.85
9-101-bldg.	MW-13C	12.11	1.91	12.06	1.96	12.52	1.50			11.94	2.08	11.92	2.10	12.02	2.00	11.71	2.31	12.14	1.88
9-101-bldg.	MW-14A	12.53	1.84	12.46	1.91	12.71	1.66			12.16	2.21	12.22	2.15	12.39	1.98	12.10	2.27	12.50	1.87
9-101-bldg.	MW-14C	12.07	1.90	12.09	1.88	12.20	1.77			12.78	1.19	11.82	2.15	12.00	1.97	11.65	2.32	12.20	1.77
9-101-bldg.	MW-14E															7.20	6.98	7.55	6.63
9-101-bldg.	MW-15A	12.34	1.83	12.16	2.01	12.51	1.66			11.87	2.30	12.12	2.05	12.22	1.95	11.89	2.28	12.44	1.73
9-101-bldg.	MW-15C	12.27	1.90	12.36	1.81	12.44	1.73			11.49	2.68	12.00	2.17	12.17	2.00	11.85	2.32	12.46	1.71
9-101-bldg.	MW-15D															12.02	2.39	12.78	1.63
9-101-bldg.	MW-16A	13.02	1.97	12.81	2.18	13.19	1.80			12.67	2.32	12.84	2.15	12.88	2.11	12.68	2.31	12.98	2.01
9-101-bldg.	MW-16C	13.17	1.87	13.01	2.03	13.33	1.71			12.84	2.20	13.02	2.02	13.04	2.00	12.63	2.41	13.12	1.92
9-101-bldg.	MW-17A	12.78	2.02	12.26	2.54	12.73	2.07	12.84	1.96	12.45	2.35	12.65	2.15	12.63	2.17	12.55	2.25	12.75	2.05
9-101-bldg.	MW-17C																		
9-101-bldg.	MW-17D																		
9-101-bldg.	MW-18A	12.39	1.91	11.90	2.40	12.84	1.46	12.43	1.87	12.14	2.16	12.22	2.08	12.25	2.05	12.21	2.09	12.42	1.88
9-101-bldg.	MW-18C															12.36	2.27	12.66	1.97
9-101-bldg.	MW-18D																		
9-101-bldg.	MW-19A															10.11	2.12	10.49	1.74
9-101-bldg.	MW-19C															9.98	2.25	10.44	1.79
9-101-bldg.	MW-19D																		
9-101-bldg.	MW-20A															12.37	1.94	12.56	1.75
9-101-bldg.	MW-20C	12.22	1.93	12.18	1.97	12.76	1.39			12.27	1.88	11.87	2.28	12.06	2.09	11.70	2.45	12.15	2.00
9-101-bldg.	MW-20D																		
9-101-bldg.	MW-22A	12.42	1.83	12.35	1.90	12.52	1.73			12.14	2.11	12.40	1.85	12.30	1.95	12.04	2.21	12.57	1.68
9-101-bldg.	MW-23A															11.86	2.41	13.27	1.00
9-101/9-50 bldg.	MW-21A	12.60	1.85	12.13	2.32	13.05	1.40	12.67	1.78	12.41	2.04	12.43	2.02	12.45	2.00	12.37	2.08		
9-101/9-50 bldg.	MW-21C																		
9-64-bldg.	BDC-05-02	12.31	2.10	11.81	2.60	12.63	1.78	12.35	2.06	11.81	2.60	12.10	2.31	12.14	2.27	12.05	2.36	12.19	2.22
9-64-bldg.	BDC-05-03	12.36	2.05	11.95	2.46	12.77	1.64			11.94	2.47	12.21	2.20	12.24	2.17	12.11	2.30	12.29	2.12
9-64-bldg.	BDC-05-04	12.52	2.07	12.05	2.54	12.82	1.77			12.03	2.56	12.30	2.29	12.33	2.26	12.22	2.37	12.40	2.19
9-64-bldg.	BDC-05-05	13.40	1.04	11.65	2.79	12.50	1.94			11.61	2.83	11.95	2.49	11.97	2.47	11.89	2.55	12.02	2.42
9-64-bldg.	BDC-05-07	11.97	2.02	11.40	2.59	12.23													

**DEVELOPMENTAL CENTER  
CUMULATIVE WATER LEVEL MEASUREMENTS**

<b>Well Location / Bldg.</b>	<b>Well ID No.</b>	<b>Nov 2012</b>		<b>May 2012</b>		<b>Nov 2011</b>		<b>July 2011</b>		<b>May 2011</b>		<b>Nov 2010</b>		<b>May 2010</b>		<b>Nov 2009</b>		<b>May 2009</b>		
		<b>Depth to Water</b>	<b>Water Elevation</b>	<b>Depth to Water</b>	<b>Water Elevation</b>	<b>Depth to Water</b>	<b>Water Elevation</b>	<b>Depth to Water</b>	<b>Water Elevation</b>											
9-64-bldg.	BDC-05-21	12.30	1.89	11.94	2.25	12.59	1.60	12.34	1.85											
9-64-bldg.	BDC-05-22	12.24	1.92	11.87	2.29	12.54	1.62	12.27	1.89											
9-64-bldg.	BDC-05-23	12.74	1.72	12.39	2.07	13.08	1.38	12.79	1.67											
9-64-bldg.	BDC-05-24	12.20	1.99	11.82	2.37	12.59	1.60	12.28	1.91											
9-60 bldg.	BDC-101	12.20	2.27	11.32	3.15	12.46	2.01	12.16	2.31	11.48	2.99	11.92	2.55	11.82	2.65	11.82	2.65	11.89	2.58	
9-60 bldg.	BDC-102	11.93	2.34	11.13	3.14	12.16	2.11	11.92	2.35	11.20	3.07	11.67	2.60	11.57	2.70	11.58	2.69	11.64	2.63	
9-60 bldg.	BDC-103	11.88	2.46	11.09	3.25	12.20	2.14	11.90	2.44	10.96	3.38	11.63	2.71	11.54	2.80	11.55	2.79	11.61	2.73	
9-60 bldg.	BDC-104	11.78	2.38	10.93	3.23	12.00	2.16	11.72	2.44	10.97	3.19	11.45	2.71	11.32	2.84	11.36	2.80	11.40	2.76	
9-52-bldg.	952MW-1																			
9-52-bldg.	952MW-2																			
9-52-bldg.	952MW-3																			
9-52-bldg. (west)	MW-5																			
9-04-bldg. (north)	MW-2																			
9-04-bldg. (north)	MW-7																			
9-04-bldg. (north)	MW-8																			
9-04-bldg. (north)	MW-9																			

**DEVELOPMENTAL CENTER  
CUMULATIVE WATER LEVEL MEASUREMENTS**

Well Location / Bldg.	Well ID No.	Nov 2008		May 2008		Nov 2007		May 2007		February 2007		Nov 2006		Aug 2006		May 2006		February 2006		November 2005	
		Depth to Water	Water Elevation																		
9-101-bldg.	MW-6A	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	12.77	2.03	12.42	2.38	12.80	2.00
9-101-bldg.	MW-6B	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	13.09	2.00	12.75	2.34	13.15	1.94
9-101-bldg.	MW-6C	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	13.07	2.00	12.71	2.36	13.14	1.93
9-101-bldg.	MW-8C	12.88	2.04	13.16	1.76	13.28	1.64	13.00	1.92			12.21	2.71			13.18	1.74			13.00	1.92
9-101-bldg.	MW-9A	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	13.00	1.74	12.37	2.37	12.73	2.01
9-101-bldg.	MW-9B	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	13.81	0.78	12.19	2.40	12.69	1.90
9-101-bldg.	MW-9C	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	12.91	1.75	12.26	2.40	12.69	1.97
9-101-bldg.	MW-9D	12.78	1.88	12.90	1.76	13.56	1.10	12.88	1.78			12.30	2.36			13.15	1.51			12.90	1.76
9-101-bldg.	MW-10A	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	12.98	1.71	11.93	2.76	12.73	1.96
9-101-bldg.	MW-10C	12.62	2.00	12.78	1.84	12.96	1.66	12.77	1.85			11.99	2.63			12.88	1.74			12.63	1.99
9-101-bldg.	MW-11A	12.81	2.07	13.16	1.72	13.16	1.72	12.96	1.92			11.85	3.03			12.80	2.08			12.92	1.96
9-101-bldg.	MW-12A	12.91	1.92	13.22	1.61	13.24	1.59	13.00	1.83			11.89	2.94			12.97	1.86			12.98	1.85
9-101-bldg.	MW-13A	12.25	1.89	12.62	1.52	12.42	1.72	12.33	1.81			11.50	2.64			12.48	1.66			12.26	1.88
9-101-bldg.	MW-13C	12.12	1.90	12.46	1.56	12.29	1.73	12.20	1.82			11.35	2.67			12.33	1.69			12.10	1.92
9-101-bldg.	MW-14A	12.50	1.87	12.64	1.73	12.55	1.82	12.73	1.64	12.03	2.34	11.46	2.91	12.83	1.54	12.59	1.78	11.95	2.42	12.39	1.98
9-101-bldg.	MW-14C	12.08	1.89	12.14	1.83	12.00	1.97	12.32	1.65			11.72	2.25			12.26	1.71			12.13	1.84
9-101-bldg.	MW-14E	7.51	6.67	8.07	6.11	6.83	7.35	7.59	6.59			6.71	7.47			8.78	5.40			7.87	6.31
9-101-bldg.	MW-15A	12.31	1.86	12.35	1.82	12.24	1.93	12.52	1.65			11.93	2.24			12.05	2.12			12.42	1.75
9-101-bldg.	MW-15C	12.23	1.94	12.50	1.67	12.30	1.87	12.55	1.62			11.91	2.26			12.37	1.80			12.50	1.67
9-101-bldg.	MW-15D	12.47	1.94	12.68	1.73	12.53	1.88	12.76	1.65			12.14	2.27			12.52	1.89			12.63	1.78
9-101-bldg.	MW-16A	12.95	2.04	13.17	1.82	12.53	2.46	13.11	1.88			12.05	2.94			13.04	1.95			13.05	1.94
9-101-bldg.	MW-16C	13.13	1.91	13.34	1.70	13.33	1.71	13.23	1.81			12.22	2.82			13.23	1.81			13.22	1.82
9-101-bldg.	MW-17A	12.80	2.00	13.07	1.73	13.00	1.80	12.80	2.00			12.04	2.76			12.85	1.95			12.74	2.30
9-101-bldg.	MW-17C																			12.83	2.21
9-101-bldg.	MW-17D																			12.82	2.22
9-101-bldg.	MW-18A	12.37	1.93	12.72	1.58	12.46	1.84	12.45	1.85			11.57	2.73			12.43	1.87			12.44	1.86
9-101-bldg.	MW-18C	12.67	1.96	12.98	1.65	12.88	1.75	12.74	1.89			11.85	2.78			12.70	1.93			12.72	1.91
9-101-bldg.	MW-18D																			12.42	2.21
9-101-bldg.	MW-19A	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	10.44	1.79	10.22	2.01	10.43	1.80
9-101-bldg.	MW-19C	10.33	1.90	10.41	1.82	10.59	1.64	10.50	1.73			9.50	2.73			10.32	1.91			10.36	1.87
9-101-bldg.	MW-19D																			10.69	1.54
9-101-bldg.	MW-20A	12.69	1.62	12.60	1.71	12.76	1.55	12.30	2.01			12.10	2.21			12.09	2.22			12.68	1.63
9-101-bldg.	MW-20C	12.13	2.02	12.50	1.65	12.39	1.76	12.28	1.87			11.67	2.48			12.05	2.10			12.30	1.85
9-101-bldg.	MW-20D																			12.66	1.49
9-101-bldg.	MW-22A	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	12.41	1.84	12.25	2.00	12.55	1.70
9-101-bldg.	MW-23A	12.67	1.60	12.67	1.60	12.83	1.44	12.													

**DEVELOPMENTAL CENTER  
CUMULATIVE WATER LEVEL MEASUREMENTS**

<b>Well Location / Bldg.</b>	<b>Well ID No.</b>	<b>Nov 2008</b>		<b>May 2008</b>		<b>Nov 2007</b>		<b>May 2007</b>		<b>February 2007</b>		<b>Nov 2006</b>		<b>Aug 2006</b>		<b>May 2006</b>		<b>February 2006</b>		<b>November 2005</b>	
		<b>Depth to Water</b>	<b>Water Elevation</b>																		
9-64-bldg.	BDC-05-21																				
9-64-bldg.	BDC-05-22																				
9-64-bldg.	BDC-05-23																				
9-64-bldg.	BDC-05-24																				
9-60 bldg.	BDC-101	11.95	2.52	12.29	2.18	12.22	2.25	12.13	2.34			11.42	3.05			12.07	2.40			11.91	2.56
9-60 bldg.	BDC-102	11.67	2.60	12.08	2.19	11.86	2.41	11.89	2.38			11.13	3.14			11.85	2.42			11.79	2.48
9-60 bldg.	BDC-103	11.68	2.66	12.02	2.32	11.93	2.41	11.87	2.47			11.10	3.24			11.78	2.56			11.81	2.53
9-60 bldg.	BDC-104	11.51	2.65	11.84	2.32																
9-52-bldg.	952MW-1																				
9-52-bldg.	952MW-2																				
9-52-bldg.	952MW-3																				
9-52-bldg. (west)	MW-5																				
9-04-bldg. (north)	MW-2																				
9-04-bldg. (north)	MW-7																				
9-04-bldg. (north)	MW-8																				
9-04-bldg. (north)	MW-9																				

# DEVELOPMENTAL CENTER CUMULATIVE WATER LEVEL MEASUREMENTS

Well Location / Bldg.	Well ID No.	August 2005		May 2005		February 2005		October 2004		August 2004		May 2004		November 2003		June 2003		December 2002		June 2002			
		Depth to Water	Water Elevation																				
9-101-bldg.	MW-6A	13.02	1.78	12.52	2.28	12.68	2.12	12.90	1.90	13.06	1.74	13.40	1.69	13.00	1.83	12.88	1.95	13.30	1.53	13.01	1.82	13.21	1.62
9-101-bldg.	MW-6B	13.35	1.74	12.88	2.21	12.97	2.12	13.25	1.84	13.37	1.70	13.18	1.89	13.14	1.85	13.03	1.96	13.44	1.55	13.16	1.83	13.36	1.63
9-101-bldg.	MW-6C	13.32	1.75	12.87	2.20	12.90	2.17	13.18	1.89	13.37	1.70	12.91	2.01	13.11	1.81	13.11	1.81	13.39	1.53	13.19	1.73	13.27	1.65
9-101-bldg.	MW-8C			12.64	2.28																		
9-101-bldg.	MW-9A	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	13.00	1.64	12.90	1.74	12.94	1.70	13.27	1.65
9-101-bldg.	MW-9B	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	13.08	1.64	12.96	1.76	13.00	1.72		
9-101-bldg.	MW-9C	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	13.09	1.59	12.90	1.78	12.94	1.74		
9-101-bldg.	MW-9D			12.90	1.76			13.92	0.74			12.92	1.74	13.04	1.62	13.39	1.27	13.17	1.49	13.20	1.46		
9-101-bldg.	MW-10A	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	13.08	1.61	13.03	1.66	12.94	1.75		
9-101-bldg.	MW-10C			12.45	2.17			12.74	1.88			12.80	1.82	12.71	1.91	12.97	1.65	12.90	1.72	12.84	1.78		
9-101-bldg.	MW-11A			12.42	2.46			12.78	2.10			13.12	1.76	12.91	1.97	13.14	1.74	13.13	1.75	12.97	1.91		
9-101-bldg.	MW-12A			12.58	2.25			12.86	1.97			13.21	1.62	13.00	1.83	13.23	1.60	13.20	1.63	13.03	1.80		
9-101-bldg.	MW-13A			11.97	2.17			12.35	1.79			12.47	1.67	12.18	1.96	12.49	1.65	12.38	1.76	12.50	1.64		
9-101-bldg.	MW-13C			11.78	2.24			12.19	1.83			12.35	1.67	12.02	2.00	12.30	1.72	12.22	1.80	12.31	1.71		
9-101-bldg.	MW-14A	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	12.91	1.56	12.70	1.77	12.85	1.62		
9-101-bldg.	MW-14C			11.84	2.13			12.09	1.88			12.16	1.81	12.07	1.90	12.43	1.54	12.18	1.79	12.33	1.64		
9-101-bldg.	MW-14E			7.29	6.89			7.58	6.60			6.94	7.24	7.26	6.92	8.56	5.62	7.69	6.49	7.64	6.54		
9-101-bldg.	MW-15A			11.74	2.43			12.17	2.00			12.67	1.50	12.36	1.81	12.57	1.60	12.55	1.62	12.52	1.65		
9-101-bldg.	MW-15C			12.02	2.15			12.31	1.86			12.72	1.45	12.37	1.80	12.56	1.61	12.47	1.70	12.50	1.67		
9-101-bldg.	MW-15D			12.20	2.21			12.56	1.85			12.88	1.53	12.64	1.77	12.41	2.00	12.80	1.61	13.02	1.39		
9-101-bldg.	MW-16A			12.67	2.32			12.97	2.02			13.19	1.80	12.96	2.03	13.35	1.64	13.03	1.96	13.02	1.97		
9-101-bldg.	MW-16C			12.83	2.21			13.15	1.89			13.38	1.66	13.15	1.89	13.51	1.53	13.33	1.71	13.29	1.75		
9-101-bldg.	MW-17A							12.81	1.99			13.05	1.75	12.83	1.97	13.10	1.70	12.99	1.81	13.07	1.73		
9-101-bldg.	MW-17C							12.80	2.05			13.11	1.74										
9-101-bldg.	MW-17D							12.97	1.90			13.20	1.67										
9-101-bldg.	MW-18A			12.11	2.19			12.43	1.87			12.57	1.73	12.36	1.94								
9-101-bldg.	MW-18C			12.36	2.27			12.75	1.88			12.84	1.79	12.62	2.01	12.89	1.74	12.82	1.81	12.92	1.71		
9-101-bldg.	MW-18D							12.42	1.84			12.60	1.66										
9-101-bldg.	MW-19A	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			10.22	2.01			10.43	1.80			10.22	2.01	10.31	1.92	10.55	1.68	10.41	1.82	10.71	1.52		
9-101-bldg.	MW-19D							10.67	1.56			10.86	1.37										
9-101-bldg.	MW-20A			12.33	1.98			12.75	1.56			12.73	1.58	12.58	1.73								
9-101-bldg.	MW-20C			11.90	2.25			12.39	1.76			12.66	1.49	12.24	1.91	12.48	1.67	12.26	1.89	12.55	1.60		
9-101-bldg.	MW-20D							12.80	1.63			13.17	1.26										
9-101-bldg.	MW-22A	12.81	1.44	12.38	1.87																		
9-101-bldg.	MW-23A	13.73	0.54	13.55	0.72																		
9-101/9-50 bldg.	MW-21A																			12.79	1.66	12.74	1.71
9-101/9-50 bldg.	MW-21C																			10.53	1.67	10.52	1.68
9-64-bldg.	BDC-05-02			11.86	2.51			12.40	1.97			12.24	2.13	12.08	2.29	12.47	1.90	12.40	1.97	12.25	2.12		
9-64-bldg.	BDC-05-03			12.07	2.34			12.60	1.81			12.46	1.95	12.28	2.13	12.66	1.75	12.60	1.81	12.47	1.94		
9-64-bldg.	BDC-05-04			12.17	2.42			12.72	1.87			12.55	2.04	12.40	2.19	12.80	1.79	12.71	1.88	12.57	2.02		
9-64-bldg.	BDC-05-05			11.87	2.57			12.41	2.03			12.12	2.32	12.13	2.31	12.51	1.93	12.42	2.02	12.22	2.22		
9-64-bldg.	BDC-05-07			11.59	2.40			12.14	1.85			11.97	2.02	11.81	2.18	12.18	1.81	12.11	1.88	12.02	1.97		
9-64-bldg.	BDC-05-08																						
9-64-bldg.	BDC-05-09																						
9-64-bldg.	BDC-05-10																						
9-64-bldg.	BDC-05-11																						
9-64-bldg.	BDC-05-12																						
9-64-bldg.	BDC-05-13																						
9-64-bldg.	BDC-05-14																						
9-64-bldg.	BDC-05-15				</td																		

**DEVELOPMENTAL CENTER  
CUMULATIVE WATER LEVEL MEASUREMENTS**

Well Location / Bldg.	Well ID No.	August 2005		May 2005		February 2005		October 2004		August 2004		May 2004		November 2003		June 2003		December 2002		June 2002	
		Depth to Water	Water Elevation																		
9-64-bldg.	BDC-05-21																				
9-64-bldg.	BDC-05-22																				
9-64-bldg.	BDC-05-23																				
9-64-bldg.	BDC-05-24																				
9-60 bldg.	BDC-101			11.73	2.74			12.31	2.16			12.04	2.43	12.08	2.39	12.43	2.04	12.34	2.13	12.07	2.40
9-60 bldg.	BDC-102			11.53	2.74			11.97	2.30			11.84	2.43	11.82	2.45	12.24	2.03	12.14	2.13	11.82	2.45
9-60 bldg.	BDC-103			11.50	2.84			12.08	2.26			11.79	2.55	11.72	2.62	12.27	2.07	12.15	2.19	11.81	2.53
9-60 bldg.	BDC-104																				
9-52-bldg.	952MW-1																				
9-52-bldg.	952MW-2																				
9-52-bldg.	952MW-3																				
9-52-bldg. (west)	MW-5																				
9-04-bldg. (north)	MW-2																				
9-04-bldg. (north)	MW-7																				
9-04-bldg. (north)	MW-8																				
9-04-bldg. (north)	MW-9																				

**DEVELOPMENTAL CENTER  
CUMULATIVE WATER LEVEL MEASUREMENTS**

<b>Well Location / Bldg.</b>	<b>Well ID No.</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>								
9-101-bldg.	MW-6A										
9-101-bldg.	MW-6B	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	12.34	2.46			13.32	1.48	13.05	1.75	13.03	1.77
9-101-bldg.	MW-17C			13.25	1.60			13.10	1.75	13.05	1.80
9-101-bldg.	MW-17D			13.20	1.67			13.25	1.62	12.82	2.05
9-101-bldg.	MW-18A	11.82	2.48	12.61	1.69	12.84	1.46	12.55	1.75	12.38	1.92
9-101-bldg.	MW-18C			12.87	1.76	13.12	1.51	12.83	1.80	12.61	2.02
9-101-bldg.	MW-18D			12.58	1.68	12.85	1.41	12.52	1.74	12.33	1.93
9-101-bldg.	MW-19A	9.93	2.30	10.62	1.61	10.93	1.30	10.68	1.55	10.42	1.81
9-101-bldg.	MW-19C			10.55	1.68	10.89	1.34	10.65	1.58	10.35	1.88
9-101-bldg.	MW-19D			11.00	1.23	10.90	1.33	10.71	1.52	11.05	1.18
9-101-bldg.	MW-20A	12.20	2.11	12.60	1.71	12.89	1.42	12.44	1.87	12.75	1.56
9-101-bldg.	MW-20C			12.50	1.65	12.69	1.46	12.16	1.99	12.44	1.71
9-101-bldg.	MW-20D			12.83	1.60	12.87	1.56	12.41	2.02	12.66	1.77
9-101-bldg.	MW-22A										
9-101-bldg.	MW-23A										
9-101/9-50 bldg.	MW-21A	12.05	2.40	12.77	1.68	13.04	1.41	12.93	1.52	12.50	1.95
9-101/9-50 bldg.	MW-21C	9.87	2.33	10.50	1.70						
9-64-bldg.	BDC-05-02	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	11.70	2.71	12.56	1.85	12.82	1.59	12.56	1.85	12.33	2.08
9-64-bldg.	BDC-05-04	11.78	2.81	12.69	1.90	12.86	1.73	12.65	1.94	12.33	2.26
9-64-bldg.	BDC-05-05	11.38	3.06	12.37	2.07	12.53	1.91	12.36	2.08	11.96	2.48
9-64-bldg.	BDC-05-07	11.18	2.81	12.10	1.89	12.28	1.71	12.08	1.91	11.72	2.27
9-64-bldg.	BDC-05-08										
9-64-bldg.	BDC-05-09										
9-64-bldg.	BDC-05-10										
9-64-bldg.	BDC-05-11										
9-64-bldg.	BDC-05-12										
9-64-bldg.	BDC-05-13										
9-64-bldg.	BDC-05-14										
9-64-bldg.	BDC-05-15										
9-64-bldg.	BDC-05-16										
9-64-bldg.	BDC-05-17										
9-64-bldg.	BDC-05-18										
9-64-bldg.	BDC-05-19										
9-64-bldg.	BDC-05-20										

**DEVELOPMENTAL CENTER  
CUMULATIVE WATER LEVEL MEASUREMENTS**

<b>Well Location / Bldg.</b>	<b>Well ID No.</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>								
9-64-bldg.	BDC-05-21										
9-64-bldg.	BDC-05-22										
9-64-bldg.	BDC-05-23										
9-64-bldg.	BDC-05-24										
9-60 bldg.	BDC-101	11.29	3.18	12.30	2.17						
9-60 bldg.	BDC-102	11.05	3.22	12.06	2.21						
9-60 bldg.	BDC-103	11.03	3.31	12.04	2.30						
9-60 bldg.	BDC-104										
9-52-bldg.	952MW-1	10.21	3.27	11.25	2.23	11.50	1.98			10.97	2.51
9-52-bldg.	952MW-2	10.46	3.54	11.48	2.52	11.76	2.24			11.25	2.75
9-52-bldg.	952MW-3	10.52	3.24	11.55	2.21	11.85	1.91			11.28	2.48
9-52-bldg. (west)	MW-5									10.53	2.42
9-04-bldg. (north)	MW-2			10.03	2.64					9.53	3.14
9-04-bldg. (north)	MW-7	9.96	3.73	11.05	2.64						
9-04-bldg. (north)	MW-8	10.08	3.84	11.23	2.69						
9-04-bldg. (north)	MW-9	10.08		11.23	-11.23						

## 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.