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**ADDENDUM #14 TO FIELD SAMPLING PLAN  
FOR PART 2 OF THE SUPPLEMENTAL  
GROUNDWATER REMEDIAL INVESTIGATION  
DRY WEATHER SHUTDOWN OF  
GROUNDWATER EXTRACTION SYSTEM**

**Former York Naval Ordnance Plant  
1425 Eden Road, Springettsbury Township  
York, Pennsylvania**

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**Prepared for:**

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1425 Eden Road  
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**August 8, 2014**

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August 8, 2014  
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## **1 INTRODUCTION**

Addendum 14 of the Field Sampling Plan for Part 2 of the Supplemental Groundwater Remedial Investigation (FSP) (GSC, April 2012) describes ongoing plans for testing and monitoring the performance of the groundwater extraction system, as described in subsection 4.3.9 of the FSP. This addendum provides 1) a brief update of the ongoing investigations outlined in Addendum 13 (GSC, March 2014) regarding the groundwater and surface water chemistry collected during the pumping of extraction well CW-20 in the West Parking Lot (WPL) and 2) describes plans for monitoring the water levels, surface water chemistry, and groundwater chemistry during a planned second shutdown of the extraction system. The first shutdown test was performed from November 25, 2013 through April 7, 2014 in conjunction with a groundwater dye tracer test to better understand the connectivity of the karst aquifer with Codorus Creek. Collection well CW-20 was then turned on April 7, 2014 and collection well CW-9 was turned on July 23, 2014. Monitoring conditions resulting from the second shutdown, which is planned to occur during the months of the year when creek flow is typically lower (see USGS Gage 01575500), will provide a necessary contrast to the previous shutdown, which occurred during winter months when stream flows were high. Also included in this work plan is a description of the round of comprehensive sampling which is planned to occur during the shutdown period.

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## 2 PRELIMINARY RESULTS OF THE IMPACT ON SURFACE WATER QUALITY OF PUMPING CW-20 AND OBSERVED CHANGES IN GROUNDWATER ELEVATION

This chapter presents the data and provides a summary analysis of water level responses and, surface water chemistry that was collected to date during the process of manipulating the groundwater extraction system in the WPL at the fYNOP site.

### 2.1 Groundwater Table Contours

**Figures 1 through 3** are groundwater table contour maps of the WPL and surrounding areas under three different pumping scenarios:

- **Figure 1** presents groundwater table contours from water levels measured on November 22, 2013. Extraction well CW-8 near the former TCA Tank, extraction wells CW-9, CW-13, and CW-17 in the WPL, and extraction well CW-15A near the north end of former Building 4 (NBLDG4) were pumping at this time. Coalescing cones of depression from extraction wells CW-9, CW-13, and CW-17 completely cover the WPL. More subtle drawdown is evident around CW-8. Other prominent features are the groundwater mound caused by the sinkhole that accepts surface water from the stormwater basin in the southern extent of the fYNOP Site along Rt. 30, and the smaller mound centered over MW-29, which has historically had a high groundwater elevation for undetermined reasons. The area of the south parking lot (southwest of MW-127, the BLDG 58 Source Area) is notably flat, indicated by no groundwater contours in the area.
- **Figure 2** presents groundwater table contours from water levels measured January 16, 2014. All wells in the groundwater extraction system had been deactivated since November 25, 2013, a period of 52 days. Groundwater contours through the WPL are widely spaced, and meander through the area, and indicate a generally westward gradient toward Codorus Creek. The two previously mentioned groundwater mounds are still present. The south parking lot area has more gradient, and indicates the potential for groundwater migration from the MW-127 area (BLDG 58 Source Area) in a south- to southwesterly direction, without the influence of pumping by CW-8 and the WPL extraction wells.

- **Figure 3** presents groundwater table contours from water levels measured on May 14, 2014. New extraction well CW-20, located in the southwest corner of the WPL had been pumping at approximately 97 gallons per minute (gpm) since April 7, 2014, a period of 37 days. There is a subtle change in the south-western corner of the WPL, reflecting the influence of pumping CW-20. Compared to the drawdown seen from pumping all of the extraction wells in the WPL, and despite having more drawdown in the pumping well itself, CW-20 appears to cause less drawdown within the aquifer under the WPL than expected from the rate being pumped, thereby confirming the findings from the drawdown testing that was completed shortly after construction of the well. . This suggests the well is more connected to the conduit system, and as a result, the transmissivity of this portion of the aquifer is higher, while well efficiency is lower. The mounds are still present, and the south- southwesterly gradient from MW-127 continues to be evident.

## 2.2 Groundwater Hydrographs

**Figure 4** displays the water levels in pumping well CW-20 during the pumping of the well. At the pumping rate of 97 gpm, it shows a relatively instantaneous drawdown of 35 feet, which is considered to be well loss (the amount of head required to push water into the well through the well screen and sand pack), followed by steady (straight-line) declines totaling 10 to 12 additional feet as pumping continues.

**Figures 5 through 7** are water level hydrographs from wells in proximity to extraction well CW-20:

- **Figure 5** shows groundwater levels recorded in MW-37D, located immediately adjacent to CW-20, and screened from 131 feet to 141 feet across a sediment-filled void. After shutdown of the groundwater extraction system in November, the water level in this well rose five feet immediately, suggesting a direct hydraulic connection with an extraction well (CW-9 presumably, based on dye tracing results), followed by another two to three feet over the next week. Upon start-up of CW-20, there was an instantaneous drawdown of approximately 1.5 feet, then water levels declined approximately two feet more over a period of one week, and have continued to decline during operation of C-20 and as a result of a typical seasonal groundwater recession.

- **Figure 6** shows groundwater levels recorded in MW-75S, located immediately adjacent to CW-20, and screened from 168 feet to 173 feet in a sediment-filled void. The recording of the water level began immediately prior to the start of CW-20 pumping. The drawdown pattern was nearly identical to MW-37D.
- **Figure 7** shows groundwater levels recorded in MW-93D, located 215 feet north-northwest of CW-20, and screened from 135 feet to 145 feet in an open void. This hydrograph looks remarkably similar to MW-37D, with a similar nearly instantaneous response to the shutdown of the extraction system in November, and a similar response to pumping of CW-20.

As a result of these responses and the potential that there may be an immediate response to pumping of CW-9 in these wells, CW-9 will be turned on for a week prior to the long term shutdown planned for the beginning of August.

**Figure 8** is a hydrograph showing water level responses in MW-136A, located 60 feet northwest of extraction well CW-20. This well is constructed in the carbonate aquifer at a depth below the karst solutioning activity. This portion of the aquifer from roughly 350 to 450 feet below ground surface (ft bgs) has significantly reduced permeability because solutioning by karst processes has not reached this deep into the aquifer. MW-136A has four Waterloo well ports allowing for sampling and continuous measurement of groundwater potentiometric head at four depths in the aquifer. Each of the Waterloo ports was positioned at a potential water bearing zone (fractures or discontinuities) in the solid bedrock. This graph reveals some interesting conditions regarding the aquifer below the karst:

- There is obvious reaction to precipitation events in all ports, identified by some of the larger spikes. For instance, just prior to CW-20 start-up on 3/30/14, all ports recorded a four foot rise in water level in response to a 2-inch rainfall. That is a remarkably high response given the depth in the aquifer, below a highly permeable karst system. While the aquifer is tight, it seems to be hydraulically connected with the surface.
- The vertical hydraulic gradient at this location is consistently downward, as can be seen by observing that Port 4 elevation (356 ft bgs) consistently has the highest elevation, followed by

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Port 3, which is 16.5 feet deeper in the aquifer. Likewise, Port 2 and Port 1 have incrementally decreasing hydraulic heads. The gradient between the upper most port and the lowermost port was calculated on 3/14/14 during non-pumping conditions and after a period of no recharge at 0.044.

- **Figure 9** is an expansion of the MW-136A hydrograph, showing the time frame surrounding the startup of CW-20. This graph shows that the influence of pumping reaches into this portion of the aquifer, and that the degree of influence is incrementally diminished with depth. This is what would be expected in theory, as the permeability of the aquifer would diminish with increasing depth. It is noted that pumping does not reverse the vertical downward gradient, but does diminish it to 0.03 (calculation was done on 6/8/14, shown on **Figure 8**).

### **2.3 Codorus Creek Flow Monitoring and Water Quality Results**

Surface water chemistry results are presented on **Table 1** for all stations sampled since August 2013. This chemistry data was shared with USEPA and PADEP periodically throughout the investigation via emails. **Appendix A** includes graphs of chemistry vs time for all surface water stations. Specific graphs that are discussed in the text are repeated as figures. The graphs have been updated through the end of June 2014.

- **Figure 10** is a graph of TCE series (trichloroethylene [TCE], tetrachloroethylene [PCE], cis-1,2-dichloroethylene [CIS1,2DCE], and vinyl chloride [VC]) and TCA series (trichloroethane [TCA], 1,1-dichloroethane [1,1DCA], 1,1-dichloroethylene [1,1DCE] and chloroethane [CEA]) compounds from water samples collected in the Codorus Creek at Station SW-6, which is upstream of the Site and near the east bank (refer to **Figure 3** for location of sampling stations). Concentrations prior to shut down of the extraction system are less than 0.4 µg/l and are even less after system shutdown, presumably due to dilution caused by higher flows in the creek. After CW-20 start-up there were no detections of these compounds at this upstream station.
- **Figure 11** is a graph of TCE and TCA series compounds from water samples collected in the Codorus Creek at Station SW-8, which is downstream of the Site and near the east bank of the creek. This is the downstream station with the longest period of record, and was placed

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downstream of the limit of the carbonate aquifer in order to capture all carbonate aquifer groundwater discharging to the Codorus Creek. Concentrations prior to shutdown of the extraction system are similar to upstream concentrations shown on **Figure 6**. During shutdown of the groundwater extraction system, concentrations, particularly PCE increased, with a number of samples indicating concentrations of 1.2 µg/l. After CW-20 start-up, there was a noticeable drop in concentrations of all parameters, PCE in particular.

- **Figure 12** is a graph of TCE and TCA series compounds from water samples collected from SW-17, a submerged spring that discharges along the east bank of Codorus Creek west of the SW-WPL. As shown in **Figure 13**, piping has been installed into this point of discharge to facilitate sampling of the undiluted spring discharge. This graph illustrates a marked change in concentrations, particularly PCE after extraction wells were shut down. After CW-20 start-up, there was a marked decrease in PCE, TCE and cis-1,2 DCE, as well as TCA. While there may be other smaller springs or diffuse discharges along the east side of the creek, SW-17 appears to represent the most significant, and appears to account for the majority of the chlorinated VOC mass in the creek. Two other surface water sampling stations are located on the east side of the creek downstream of SW-17 and upstream of SW-8. These two stations (SW-16 and SW-13 [see **Appendix A** for graphs]) show similar patterns consistent with SW-17 being the source of the majority of mass discharging from the east side of the creek.
- **Figure 14** is a graph of TCE and TCA series compounds from water samples collected from SW-15, a surface spring that discharges along the west bank of Codorus Creek in front of the York City wastewater treatment plant. This spring discharges by gravity into the Codorus Creek, but is at an elevation that occasionally becomes submerged by the creek during high surface water runoff events. The concentrations in this sample station increased during shutdown of the extraction system during the winter months. During shutdown, the percentage of PCE vs cis1,2 DCE and TCE changed, indicating a change in source area during shutdown. Pumping of CW-20 does not appear to have been effective at reducing concentrations in this discharge, suggesting one of the other collection wells that was still turned off was more effective at capturing some of the source water for this spring.

- **Figure 15** is a graph of TCE and TCA series compounds from water samples collected from SW-26, a submerged spring discharge to Codorus Creek on the west side of the creek immediately upstream and south of the I-83 bridge. This sample location is approximately 2,500 feet upstream of SW-17 and 1,400 feet upstream of SW-6, considered to be upstream of the site. This spring was discovered during reconnaissance after the start of the shutdown test, and thus the record of sampling is not as long as some of the other stations. While 1 to 2 µg/l of PCE and traces of TCE were detected in samples during the shutdown, because of the location, it was suspected that there may be a source independent of fYNOP. It is interesting to note that concentrations of PCE have decreased upon startup of CW-20. If concentrations increase during the dry weather shutdown, there would be sufficient anecdotal information to reconsider the source of the chemical parameters.
- **Figure 16** is a graph of TCE and TCA series compounds from water samples collected from SW-29, located approximately 2,300 feet downstream of SW-8 (see **Figure 3**). This sample was located at this point because it was observed during dye testing that laminar flow in the creek is mixed as a result of the sharp bend in the creek. This station was established just prior to the end of the 2013-2014 shutdown test, so the record is shorter than many other stations. Concentrations of TCE and PCE have ranged from non-detected (ND) to 5 µg/l after the CW-20 startup.

The previous graphs of surface water chemistry also contained a hydrograph of the creek flow in cubic feet per second, as recorded at a USGS gauging station located 2 miles south of the city of York, and approximately 4 miles upstream of the Site. For stream samples, there was a suspicion that concentrations would be either diluted during precipitation events by surface water runoff, or that the precipitation event would flush the fYNOP aquifer. To evaluate the two possibilities, the following analyses of the data were completed:

- **Figure 17** is a hydrograph of the Codorus Creek stream flow beginning in January 2013. The stream flow data was processed through a baseflow separation program developed by the United States Geological Survey (USGS) called PART. The program separates the streamflow, shown as a blue line, into surface water runoff and groundwater discharges (baseflow) based on modeled responses to precipitation events. The green line separates the

baseflow and the surface water runoff, with the area beneath the curve of the green line representing groundwater discharges and the area between the green line and the blue line representing surface water. This program calculates baseflow for each day of the period of record.

- **Figure 18** is a time vs concentration graph of PCE and TCE concentrations in Codorus Creek at SW-8, the station downstream of the Site on the east side of the creek prior to total mixing. Also plotted on this graph is percent baseflow on the day that the sample was collected, as calculated from the PART program data. The concentration lines and the percent base flow lines during system shutdown show remarkable similarity. Likewise, after CW-20 startup, while the concentrations drop as a result of the pumping, the concentrations mimic the base flow. This pattern indicates that a higher proportion of surface runoff dilutes the concentrations of Site related compounds in the creek.
- **Figure 19** is a time vs concentration graph of PCE and TCE concentrations in the spring discharge at SW-17, the station that monitors the submerged spring, and is not believed to be susceptible to dilution by stream flow because piping for sampling extends into the spring (see Figure 13). When the concentration plots for PCE and TCE are compared to percent baseflow, the pattern is similar, indicating that precipitation events that increase surface water runoff in the creek also cause dilution of groundwater. This is further supported by a similar pattern in the concentration of total alkalinity in this sample. This supports the position that groundwater flushing caused by precipitation results in a less concentrated discharge. A similar pattern is observed at SW-15, a second source area, as illustrated on **Figure 20**. SW-15 may become flooded by the creek in extreme cases, but for most samples collected during this investigation, dilution effects from the creek were not a factor.

As a result of this analysis, it is concluded that stream concentrations of Site parameters may be higher during periods of low surface water runoff when the groundwater extraction system is not operating. In order to quantify those conditions, a second shutdown of the extraction system is planned and will be implemented from August through early November 2014. This is typically the season when groundwater levels are at annual lows and runoff is minimal.

### 3 WORK PLAN FOR AUGUST THROUGH OCTOBER 2014

A complete groundwater remediation system shutdown test is planned for August through October 2014 during the typically drier months of the year. Extraction well CW-20 and CW-9 will be shut down for the testing period and each of the other groundwater collections wells will remain turned off. Data presented above indicates that PCE and TCE become diluted in Codorus Creek as surface runoff from precipitation enters the creek and mixes with the base flow from groundwater. This 2014 Dry Season Shutdown Test is designed to provide data to evaluate the maximum concentrations of COCs that would occur in Codorus Creek when the creek is at base flow conditions, under non-pumping conditions. Because COCs from the site will not be intercepted by the groundwater remediation system when it is turned off and because the creek will be at base flow conditions, COCs will most likely be detected at their maximum concentrations in the creek samples. Data from this test will be compared to data collected during the system shutdown test that was done from November 25, 2013 through April 6, 2014. This planned dry season shutdown test is described in Section 3.1 below.

A comprehensive groundwater sampling event is planned to occur at the end of the 2014 Dry Season Shutdown Test while the extraction system remains off. Nearly all groundwater chemistry on Site has been obtained under the influence of the groundwater extraction system operation. This round of groundwater sampling will provide an opportunity to evaluate the groundwater quality under natural gradients and after a considerable period without pumping. The last comprehensive sampling event was conducted during groundwater pumping conditions in September 2013 and is described in Subsection 4.2.2 of the Field Sampling Plan for Part 2 of the Supplemental Groundwater Remedial Investigation (FSP) (GSC, April 2012). Results from both comprehensive sampling events will be reported in the final report of Part 2 of the Supplemental Groundwater Remedial Investigation.

Samples will be collected from the new wells, off-Site wells south of the Site, and from “Key Wells” previously sampled in 2011. The 2014 comprehensive groundwater sampling plan details are provided in Section 3.2 below.

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### 3.1 Dry Season Shut Down

The record of groundwater and surface water chemistry results collected prior to and after the first extraction system shutdown and after startup of well CW-20 provide a basis for comparison as changes are imposed on the groundwater flow system in the SW-WPL area. The 2014 Dry Season Shutdown test is designed to demonstrate the level of impact that complete system shut down may have on groundwater and surface water quality when dilution effects in the creek are at a minimum. This information will be used to make decisions regarding remedial alternatives for the Central Plant Area (CPA) and WPL areas.

The shutdown of all active groundwater pumping at the site is planned for August 1, 2014. The remediation system will be shut down for approximately three months until about November 7, 2014. Approximately 20 water level recorders will be maintained in wells throughout the CPA, WPL and along the Codorus Creek during this time. These recorders have been in place since before the initiation of pumping in CW-20 to monitor the effects on the groundwater elevation. As water level data is collected and reviewed, recorders may be moved around to collect information on specific areas of interest. Manual groundwater level measurements will also be collected from on- and off-Site wells at least once during the shutdown period. The stage and flow of Codorus Creek will be monitored by using data from USGS Gage 01575500.

A summary of activities is described below. **Table 2** provides a schedule that will be used to manage the shutdown test. The unhighlighted portion of the table shows the proposed tasks described in this addendum, while the highlighted tasks are part of the testing that will have been completed. This schedule is a continuation of the monitoring schedule that was followed during the startup and operation of CW-20. It should be noted that the schedule could be modified due to excessive runoff and groundwater recharge from heavy precipitation events.

- Ten days after the extraction system has been shut down and at two week intervals, all surface water stations (16 stations) shown on **Figure 21** will be sampled and the water analyzed for VOCs, alkalinity and common ions. These stations will be sampled at two week intervals for a total of six rounds of samples.
- After approximately four weeks of shutdown, and at four week intervals, all 36 wells shown highlighted on **Figure 21** will be sampled and analyzed for VOCs, alkalinity, and common

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ions, for a total of three complete rounds during the shutdown test. The last round of sampling will coincide with the comprehensive sampling event described in Section 3.2 below.

Data from the shutdown test will be analyzed and reported with updated chemistry tables, graphs and maps. Frequent updates in the form of email summaries will continue to be provided to USEPA and PADEP, as has been the practice throughout the Phase 3 investigations.

### **3.2 Comprehensive Sampling**

This section provides a selection rationale and illustration of the wells to be sampled and the parameters for which individual wells will be analyzed during the 2014 Comprehensive Sampling event. **Table 3** summarizes most of the data used to select the wells and parameters. Sampling and analysis shall be consistent with the FSP, its addendums, and the Quality Assurance Project Plan (QAPP) (GSC, June 2012 [revised July 2014]). A total of 150 discrete sample locations are included. **Figure 22** displays all wells and surface water locations to be sampled. The objectives of this comprehensive round of sampling are to gather a “snapshot” of VOCs for selected wells and surface water locations and to further characterize the horizontal and vertical extent of the VOC plume and other “minor” compounds, and to sample for monitored natural attenuation (MNA) parameters.

All of the identified locations are to be sampled for VOCs. Selected wells will be sampled for 1,4-dioxane, cyanide, and total and hexavalent chromium. In addition, surface water locations in Codorus Creek and selected wells will be sampled for total alkalinity, nitrate, sulfate, carbonate, and the ions calcium, magnesium, sodium, chloride, and potassium, as this sampling coincides with the 2014 Dry Season Shutdown Test. Also, as described in the FSP Subsection 4.2.2.1, approximately thirty (30) wells will be selected for sampling for analysis of MNA parameters, including dissolved gases.

Following is a description of the groups of wells and surface water locations that were selected for this comprehensive round of sampling.

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### **3.2.1 Locations Monitored During Remediation System Shutdown**

Sixteen surface water locations in Codorus Creek and its tributaries, including three known springs discharging to the creek, were sampled during the winter 2013/2014 shutdown test and the subsequent startup of collection well CW-20, and they are proposed for continued sampling during the 2014 Dry Season Shutdown Test described above in Section 3.1 of this Addendum. In addition to the surface water locations, thirty-six (36) wells were also monitored and sampled during these tests. The 2014 comprehensive sampling event will coincide with the last round of the 2014 Dry Season Shutdown Test sampling, and therefore each of these surface water and well locations will be included in the comprehensive sampling round. The designated locations are shown on **Figure 23**. The location of the most downstream station SW-29, is off the map to the north, but can be viewed on **Figure 3**.

### **3.2.2 Wells Installed During GWRI Parts 1 and 2**

Thirty (30) wells were installed during the Groundwater RI Part 2 field efforts. In addition, samples will be collected from the nineteen (19) wells previously installed during the GWRI Part 1 investigation in order to continue to build a data base for these newer wells. **Figure 24** shows the locations of wells installed during the GWRI Parts 1 and 2 to be sampled. Six (6) of these wells have Waterloo multilevel samplers installed so that several discrete samples could be collected from different depths in a single well. Some of the sampling ports in the Waterloo multilevel samplers have proven to be unusable or unreliable due to a number of factors including low water yield and/or silty conditions that have caused the dedicated pumps to malfunction. The malfunctioning Waterloo ports will not be sampled.

### **3.2.3 2011 Key Wells**

Fifty-five (55) sampling stations were selected for sampling during the Key Well sampling program in 2011. Key Well sampling was not conducted in 2012 because of the on-going groundwater investigation. The 2011 wells comprise a list of wells that monitor the source areas and plumes related to fYNOP for VOCs, 1,4-dioxane, cyanide and chromium, plus a selection of wells (19) that were recently installed during the supplemental RI Part 1 field effort (already included in Section 3.2.2 above), and for which it is important to establish trends. In addition, all groundwater extraction wells (14) were sampled and included in the Key Well count. This list of wells is

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repeated during this round of sampling; however, many of these wells would have been selected for this round of sampling for other reasons. **Figure 25** shows the locations of Key Wells to be sampled.

### **3.2.4 NPBA Wells for Long-Term Monitoring**

Twenty-seven (27) wells and stations are to be sampled in the NPBA to evaluate chemistry changes as a result of cessation of pumping from extraction wells in the NPBA as recommended in the report “Results of NPBA Extraction System and Bldg3 Footer Drain Monitored Shutdown Tests for Part 2 of the Supplemental Groundwater Remedial Investigation” (GSC, April 2014). Twelve (12) of these wells are Key Wells and therefore are already on the list, including the nine (9) groundwater extraction wells in the NPBA that are shut down. The Tate Spring (S-6) is included. New wells MW-142 S&D and MW-143 S&D are in the area of the NPBA, and will add to the baseline of groundwater chemistry data in this area. **Figure 26** shows the locations of NPBA wells to be sampled. These wells are to be sampled once a year for five years with the sampling coinciding with annual comprehensive sampling events.

### **3.2.5 South Property Boundary Area (SPBA) and Wells South of the Site**

Groundwater migration from the southeast corner of the fYNOP Site will be characterized by twenty-six (26) wells. Ten (10) of the twenty-six (26) wells were also included as Key Wells and one (1) of the wells is included as a monitoring point for the Bldg58 area. Three (3) previously existing wells on the former Cole Steel property will be sampled, plus three (3) new wells (one is a multi-level Waterloo installation) south of the Site will be sampled to characterize the horizontal and vertical migration of the plume. In addition, eight (8) wells along the fYNOP south property boundary will be sampled to characterize the groundwater migration pathway. **Figure 27** shows the locations of SPBA and wells to the south of the site to be sampled.

### **3.2.6 West of the Site/Levee Area**

A critical area with respect to groundwater characterization is the area underlying and to the west of the WPL. Sampling of this area is adequately covered by the twenty-five (25) 2011 Key wells and the eight (8) new wells in this area and on the levees, as well as the Dry Season Shutdown (see **Figures 23, 24 and 25**).

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### **3.2.7 Wells Southwest of Former Building 58**

Groundwater beneath former Building 58 contains elevated COCs which may have the potential to migrate toward the southwest since collection well CW-8 is shut down and is not redirecting groundwater flow. Groundwater will be sampled from three (3) shallow wells (MW-29, MW-57, MW-88) southwest of the former Building 58 area (**Figure 28**). In addition, twelve (12) wells to be sampled for other reasons are included in this category.

### **3.2.8 Wells Selected for Monitored Natural Attenuation (MNA) Sampling**

Thirty (30) wells are selected to measure the concentrations of monitored natural attenuation (MNA) indicator parameters. Most of the same wells were selected as in last year's comprehensive sampling event, although some substitutions were necessary due to malfunctioning Waterloo ports. Parameters were listed in Table 4.2-2 in the FSP and repeated in this addendum as **Table 4**. This table includes a description of the sample volume, container type, and sample preservative required for samples that will be submitted to TestAmerica Pittsburgh for laboratory analyses. In addition, bacterial species testing will be conducted by Microbial Insights of Rockford, Tennessee. Dissolved gases will be analyzed by an approved laboratory, to be identified within the next few weeks.

Wells were selected for MNA parameter sampling from the phyllite/quartzitic sandstone aquifer in the NPBA and from the carbonate aquifer within some of the suspected NAPL source areas, plus up gradient and down gradient of those source areas as shown on **Figure 29**:

- NPBA (7 wells) – CW-4, MW-3, MW-9, MW-12, RW-2, MW-18S, MW-18D
- SPBA (6 wells) – MW-64S, MW-64D, MW-110, MW-141A, MW-150, Cole F
- Evaluation within Conduits (3 wells) – MW-137A (287-296'), MW-147A, CW-8
- Depth within the diffuse portion of the carbonate aquifer (2 wells) – MW-49D, MW-139A (422-422.5)
- Source/plume area characterization (5 wells) – CW-15A, MW-51S, MW-51D, MW-7, CW-13
- Levee (8 wells) – MW-98S, MW-98I, MW-99S, MW-99D, MW-100S, MW-100D, MW-146, MW-147A (also selected as a conduit well)

### 3.2.9 Wells Containing Other “Select” Compounds

Following is a discussion of other “select” contaminant compounds to be sampled from designated wells:

- 1,4-Dioxane – From 2008 to present, 1,4-dioxane was detected in groundwater samples from thirty locations. 1,4-dioxane is a preservative that was added to TCA. Twenty of these locations exceeded PADEP’s residential medium specific concentration (MSC) for used aquifer of 6.4 µg/l. Groundwater from wells MW-7, CW-15A, MW-49s, MW-87, MW-54, MW-113, MW-132, and MW-134 exceeded PADEP’s nonresidential used aquifer MSC of 32 µg/l. Of the new wells drilled since 2008, groundwater samples from thirteen (13) wells had detections of 1,4-dioxane. Wells selected for 1,4-dioxane sampling during this round are the eight (8) wells that exceeded PADEP’s nonresidential MSC plus the wells installed for GWRI (Part2) that had detections in the initial sampling. The seventeen (17) wells slated for sampling of 1,4-Dioxane are listed in **Table 3**.
- Chromium – The highest concentration detected in groundwater samples from new wells was MW-137A at 22 µg/l total chromium and 19 µg/l dissolved chromium (the MSC is 100µg/l), indicating no new significant information expanding the extent of chromium for the project. Four (4) wells that were sampled for chromium as part of the 2011 Key Well sampling (MW-7, MW-47, MW-51D, MW-51S) will be analyzed for total and dissolved hexavalent and total chromium.
- Cyanide – MW-2 is near a known cyanide disposal area that was removed in the 1970s. MW-2 is a 2011 Key Well, and will be the only well sampled for cyanide.

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#### 4 NEXT STEPS

We will continue to evaluate the data as it is collected. After the end of the shutdown test, it is expected that the extraction wells in the WPL (CW-9, CW-13, CW-15A, CW-17, CW-20) will be restarted. However, during this shutdown the groundwater treatment plant will be undergoing major upgrades, which may delay the restart of the system. A decision regarding continuing monitoring during the extended shutdown resulting from the treatment plant upgrades and during restart will be based on the analysis of the data collected during this study.

*August 8, 2014*

## 5 REFERENCES

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## TABLES

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Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-6	COD-SW-6-0/2-0	COD-SW-6-0/1-0	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6
	8/22/2013	8/22/2013	9/26/2013	11/21/2013	1/17/2014	1/23/2014	2/4/2014	2/20/2014	3/4/2014	3/17/2014	4/21/2014	5/6/2014	5/20/2014	6/2/2014	6/26/2014
<b>Volatile Organic Compounds (GC/MS) ug/L</b>															
1,1,1,2-Tetrachloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (EDB)	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
2-Butanone (MEK)	5.0 U	0.63 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (MIBK)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	5.0 U	5.0 U	5.0 U	9.8	5.0 U	3.3 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acrylonitrile	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CarBon disulfide	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CarBon tetrachloride	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
ChloroBenzene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*
cis-1,2-Dichloroethene	1.0 U	0.28 J	0.39 J	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	1.0 U	1.0 U
cis-1,3-Dichloropropene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
DiBromochloromethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
EthylBenzene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert-Butyl ether	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	0.29 J B	0.27 J B	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	1.0 U	1.0 U	1.0 U
Styrene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	0.21 J	0.30 J	0.33 J	0.22 J	1.0 U	1.0 U	0.18 J	1.0 U	0.15 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, Total	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-6	COD-SW-6-0/2-0	COD-SW-6-0/1-0	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6	COD-SW-6
	8/22/2013	8/22/2013	9/26/2013	11/21/2013	1/17/2014	1/23/2014	2/4/2014	2/20/2014	3/4/2014	3/17/2014	4/21/2014	5/6/2014	5/20/2014	6/2/2014	6/26/2014
<b>Metals (Total) ug/L</b>															
Antimony	0.18 J	0.23 J	0.20 J	0.039 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	1.0 U	0.48 J	0.65 J	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	42 B	35 B	44 B	41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1.0 U	0.15 J	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	41000 B	36000 B	41000	44000 B	NA	45000	NA	31000	NA	33000 B	37000	2500 B	38000 B	38000 B	26000 B
Chromium	0.68 J	0.94 J	1.4 J	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	3.8	4.7	2.1	1.5 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.56 J B	1.1 B	1.3 B	0.23 J B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	10000 B	9600 B	11000	10000	NA	8900	NA	9800	NA	8600	9500	28000 B	8800	8400	7400
Mercury	0.20 U	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	1	0.92 J	0.83 J	0.62 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	4900 B	5500 B	6500	6600	NA	2400	NA	3800	NA	2700	2900	20000 B	2400	2100	4300 B
Selenium	5.0 U	5.0 U	0.68 J B	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	1.0 U	1.0 U	0.23 J	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	37000 B	38000 B	56000	51000 B	NA	43000 B	NA	44000	NA	41000 B	29000	7700	27000	27000	19000 B
Thallium	1.0 U	0.15 J B	0.026 J B	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	1.5	1.7	1.1	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	9.5	8.1	7.1	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Metals (Dissolved) ug/L</b>															
Antimony	0.12 J B	0.13 J B	0.20 J	0.18 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.42 J	1.0 U	0.44 J B	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	40	37	43	42 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	39000 B	35000 B	45000	48000 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.70 J	0.67 J	1.0 J	2.7 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	2.3	2.6	1.7 J	1.5 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.12 J B	0.12 J B	0.12 J	0.065 J B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	9700 B	9400 B	11000	11000 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.20 U	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.89 J	0.86 J	0.57 J	0.51 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	5500 B	5500 B	5900	6300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	5.0 U	5.0 U	1.5 J B	0.74 J B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	39000 B	38000 B	51000	50000 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.023 J	0.020 J	0.019 J	0.079 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	1.4	1.7	0.58 J	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	8.9 B	7.5 B	7.7	4.4 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Miscellaneous mg/L</b>															
Total Alkalinity	120 B	100 B	110	130 B	NA	100 B	NA	73 B	NA	75 B	85 B	76 B	92 B	99 B	66 B
Bicarbonate Alkalinity as CaCO3	110 B	95 B	110	130 B	NA	100 B	NA	73 B	NA	75 B	85 B	5.0 U	92 B	98	66 B
Carbone Alkalinity as CaCO3	7.8	8.9	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloride	49	46	49	60	NA	94 B	NA	81	NA	86	62 B	44	57	78 B	32
Nitrate as N	2.4 H	2.5	2.1	3.1	NA	4.7	NA	3.7	NA	4.4	4	3.5 B	3.7 B	4.3	3.2
Sulfate	31	42	69	57	NA	17	NA	25	NA	25	23	18	17 B	19 B	19

Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-7	COD-SW-7-0/2-0	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-8
	8/22/2013	8/22/2013	9/26/2013	11/21/2013	1/17/2014	1/23/2014	2/4/2014	2/20/2014	3/4/2014	3/17/2014	4/22/2014	5/6/2014	5/20/2014	6/2/2014	6/26/2014
<b>Volatile Organic Compounds (GC/MS) ug/L</b>															
1,1,1,2-Tetrachloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (EDB)	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
2-Butanone (MEK)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (MIBK)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.1 J	5.0 U	5.0 U	5.0 U	2.9 J	5.0 U	5.0 U	5.0 U
Acrylonitrile	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CarBon disulfide	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CarBon tetrachloride	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
ChloroBenzene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	0.42 J	0.36 J	0.29 J	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	1.0 U	0.30 J
cis-1,3-Dichloropropene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
DiBromochloromethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
EthylBenzene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert-Butyl ether	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	0.18 JB	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	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	0.36 J	0.31 J	0.27 J	0.29 J	0.16 J	0.22 J	0.21 J	0.20 J	0.25 J	1.0 U*	1.0 U	1.0 U	1.0 U	0.20 J	0.38 J
Vinyl chloride	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, Total	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-7	COD-SW-7-0/2-0	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-7	COD-SW-8
	8/22/2013	8/22/2013	9/26/2013	11/21/2013	1/17/2014	1/23/2014	2/4/2014	2/20/2014	3/4/2014	3/17/2014	4/22/2014	5/6/2014	5/20/2014	6/2/2014	6/26/2014	8/22/2013
<b>Metals (Total) ug/L</b>																
Antimony	0.16 J	0.14 J	0.20 J	0.15 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.23 J
Arsenic	0.45 J	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.43 J
Barium	40 B	36 B	43 B	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40 B
Beryllium	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Cadmium	0.18 J	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Calcium	37000 B	34000 B	42000	50000 B	NA	36000	NA	32000	NA	29000 B	33000	2700 B	29000 B	29000 B	24000 B	38000 B
Chromium	0.85 J	0.80 J	1.5 J	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3 J
Copper	4.3	3.8	2	1.4 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.6
Lead	0.97 J B	0.71 J B	1.1 B	0.50 J B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.91 J B
Magnesium	9200 B	9200 B	10000	14000	NA	8400	NA	9300	NA	8700	11000	25000 B	8300	7800	7500	9900 B
Mercury	0.20 U	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U
Nickel	1.2	0.81 J	1	0.66 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.97 J
Potassium	6000 B	6100 B	6200	7600	NA	4800	NA	3700	NA	3200	3500	17000 B	2600	3500	5100 B	5800 B
Selenium	5.0 U	5.0 U	5.0 U	0.85 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Silver	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Sodium	40000 B	40000 B	53000	55000 B	NA	33000 B	NA	39000	NA	28000 B	27000 B	7800	15000	25000	20000 B	39000 B
Thallium	0.086 J B	0.046 J B	0.055 J B	0.096 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 J B
Vanadium	1.7	1.9	0.71 J	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3
Zinc	8.7	13	7	4.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.4
<b>Metals (Dissolved) ug/L</b>																
Antimony	0.23 J B	0.14 J B	0.16 J	0.24 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.14 J B
Arsenic	1.0 U	1.0 U	0.75 J B	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Barium	39	36	41	47 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	39
Beryllium	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Cadmium	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Calcium	36000 B	34000 B	40000	55000 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38000 B
Chromium	1.1 J	1.1 J	0.79 J	2.9 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 J
Copper	2.4	2.9	1.5 J	1.3 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1
Lead	0.16 J B	0.11 J B	0.15 J	0.078 J B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.067 J B
Magnesium	9300 B	9100 B	10000	15000 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10000 B
Mercury	0.20 U	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U
Nickel	0.83 J	1.1	0.70 J	0.65 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.86 J
Potassium	5900 B	6100 B	6500	8600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5800 B
Selenium	5.0 U	5.0 U	1.0 J B	0.50 J B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Silver	1.0 U	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Sodium	40000 B	40000 B	56000	63000 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40000 B
Thallium	0.22 J	0.16 J	1.0 U	0.15 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.083 J
Vanadium	1.5	1.5	0.99 J	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4
Zinc	7.0 B	9.8 B	4.0 J	3.5 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.4 B
<b>Miscellaneous mg/L</b>																
Total Alkalinity	110 B	100 B	110	150 B	NA	92 B	NA	91 B	NA	73 B	83	71 B	77 B	84 B	59 B	110 B
Bicarbonate Alkalinity as CaCO3	110 B	100 B	110	150 B	NA	92 B	NA	91 B	NA	73 B	83	5.0 U	77 B	84	59 B	110 B
Carbonate Alkalinity as CaCO3	5.0 U	0.82 J	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U	71 B	5.0 U	5.0 U	5.0 U	5.0 U
Chloride	44	42	50	64	NA	52 B	NA	76	NA	49	48 B	31	31	46 B	28	46
Nitrate as N	2.5 H	2.5	2.2	2.7	NA	4.7	NA	3.8	NA	4.6	3.7	3.7 B	3.7 B	3.9	3.6	2.5 H
Sulfate	47	47	64	63	NA	56	NA	27	NA	35	28	22	18 B	34 B	26	46

Table 1  
 Codorus Creek Discharges Sampling Results  
 8/22/2013 Through 8/26/2014  
 Harley-Davidson FYNOP

Analyte	COD-SW-8-0/2-0	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-9
	8/22/2013	9/26/2013	11/21/2013	1/17/2014	1/23/2014	2/4/2014	2/20/2014	3/4/2014	3/17/2014	4/21/2014	5/6/2014	5/19/2014	6/2/2014	6/26/2014	8/22/2013
<b>Volatile Organic Compounds (GC/MS) ug/L</b>															
1,1,1,2-Tetrachloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (EDB)	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	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	1.0 U	1.0 U	1.0 U	1.0 U	0.14 J
1,4-Dioxane	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
2-Butanone (MEK)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (MIBK)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acrylonitrile	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CarBon disulfide	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CarBon tetrachloride	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
ChloroBenzene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	0.32 J	0.25 J	0.32 J	0.27 J	0.41 J	0.32 J	0.29 J	0.38 J	1.0 U	0.29 J	1.0 U	1.0 U	0.36 J	1.0 U	0.25 J
cis-1,3-Dichloropropene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
DiBromochloromethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
EthylBenzene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert-Butyl ether	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	1.0 U	1.0 U	0.15 J	0.77 J	1.2	0.91 J	0.71 J	1.2	1.2	0.93 J	0.46 J	1.0 U	0.57 J	1.0 U	1.0 U
Toluene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	0.41 J	0.36 J	0.42 J	0.47 J	0.67 J	0.52 J	0.45 J	0.55 J	0.51 J	0.35 J	0.20 J	1.0 U	0.37 J	1.0 U	0.34 J
Vinyl chloride	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, Total	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-8-0/2-0	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-8	COD-SW-9
	8/22/2013	9/26/2013	11/21/2013	1/17/2014	1/23/2014	2/4/2014	2/20/2014	3/4/2014	3/17/2014	4/21/2014	5/6/2014	5/19/2014	6/2/2014	6/26/2014	8/22/2013
<b>Metals (Total) ug/L</b>															
Antimony	0.22 J	0.17 J	0.082 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 J
Arsenic	1.0 U	0.52 J	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Barium	36 B	43 B	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	39 B
Beryllium	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Cadmium	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Calcium	37000 B	43000	46000 B	NA	34000	NA	28000	NA	27000 B	30000	2700 B	27000 B	29000 B	22000 B	40000 B
Chromium	1.0 J	1.3 J	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 J
Copper	3.4	1.9 J	1.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.2
Lead	0.55 J B	0.95 J B	0.62 J B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.68 J B
Magnesium	9900 B	11000	11000	NA	7300	NA	7500	NA	7600	8700	24000 B	7200	7200	7000	11000 B
Mercury	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U
Nickel	0.89 J	0.72 J	0.74 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2
Potassium	6000 B	6500	7900	NA	4800	NA	3600	NA	3000	3400	18000 B	2600	3500	4000 B	7300 B
Selenium	5.0 U	1.3 J B	0.64 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Silver	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Sodium	40000 B	55000	58000 B	NA	34000 B	NA	48000	NA	27000 B	24000	7100	15000	25000	17000 B	44000 B
Thallium	0.088 J B	0.037 J B	0.042 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.089 J B
Vanadium	1.7	0.65 J	0.49 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.5
Zinc	8.6	4.8 J	4.6 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12
<b>Metals (Dissolved) ug/L</b>															
Antimony	0.18 J B	0.17 J	0.18 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.17 J B
Arsenic	1.0 U	0.31 J B	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.43 J
Barium	36	44	45 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38
Beryllium	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Cadmium	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Calcium	36000 B	45000	49000 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40000 B
Chromium	1.1 J	1.0 J	2.9 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 J
Copper	2.3	2.3	1.3 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2
Lead	0.071 J B	0.14 J	0.098 J B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.13 J B
Magnesium	9800 B	12000	12000 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11000 B
Mercury	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U
Nickel	0.83 J	0.86 J	0.70 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1
Potassium	5900 B	6600	8400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7500 B
Selenium	5.0 U	1.2 J B	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Silver	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Sodium	39000 B	56000	62000 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45000 B
Thallium	0.083 J	1.0 U	0.083 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.046 J
Vanadium	1.9	0.78 J	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1
Zinc	9.5 B	7	5.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.1 B
<b>Miscellaneous mg/L</b>															
Total Alkalinity	110 B	120	130 B	NA	82 B	NA	71 B	NA	65 B	76 B	67 B	68 B	81 B	57 B	120 B
Bicarbonate Alkalinity as CaCO3	100 B	120	130 B	NA	82 B	NA	71 B	NA	65 B	76 B	5.0 U	68 B	81	57 B	120 B
Carbone Alkalinity as CaCO3	2.9 J	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloride	46	54	60	NA	50	NA	95	NA	81	40	30	28	46 B	28	53
Nitrate as N	2.5	2.1	2.8	NA	4.8	NA	3.9	NA	4.7	3.6	3.6 B	3.7 B	4	3.6	2.6 H
Sulfate	45	67	62	NA	52	NA	25	NA	33	24	20	16 B	31 B	20	48

Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-9-0/2-0	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-9-0/0-0	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-10
	8/22/2013	9/26/2013	11/21/2013	1/17/2014	1/27/2014	2/4/2014	2/20/2014	3/4/2014	3/17/2014	4/22/2014	5/7/2014	5/20/2014	6/6/2014	6/26/2014	8/22/2013
<b>Volatile Organic Compounds (GC/MS) ug/L</b>															
1,1,1,2-Tetrachloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (EDB)	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
2-Butanone (MEK)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (MIBK)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	2.7 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acrylonitrile	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CarBon disulfide	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CarBon tetrachloride	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
ChloroBenzene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	0.30 J	0.24 J	0.24 J	0.28 J	0.29 J	0.25 J	0.30 J	0.28 J	1.0 U	0.32 J	1.0 U	1.0 U	1.0 U	1.0 U	0.45 J
cis-1,3-Dichloropropene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
DiBromochloromethane	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
EthylBenzene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert-Butyl ether	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	1.0 U	1.0 U	1.0 U	0.19 J	0.15 J	0.15 J	1.0 U	0.20 J	1.0 U	0.20 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	0.27 J	0.24 J	0.24 J	0.32 J	0.39 J	0.31 J	0.28 J	0.34 J	0.30 J	0.35 J	1.0 U	0.24 J	0.19 J	1.0 U	1.0 U
Vinyl chloride	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, Total	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-9-0/2-0	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-9-0/0-0	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-9	COD-SW-10
	8/22/2013	9/26/2013	11/21/2013	1/17/2014	1/27/2014	2/4/2014	2/20/2014	3/4/2014	3/17/2014	4/22/2014	5/7/2014	5/20/2014	6/6/2014	6/26/2014	8/22/2013	
<b>Metals (Total) ug/L</b>																
Antimony	0.22 J	0.25 J	0.19 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.079 J
Arsenic	0.46 J	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Barium	33 B	39 B	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	60 B
Beryllium	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Cadmium	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15 J
Calcium	42000 B	49000	50000 B	NA	40000	NA	44000	NA	38000 B	46000	44000	42000 B	41000 B	40000 B	93000 B	
Chromium	1.0 J	1.4 J	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.1
Copper	3	2	1.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.9 J
Lead	0.45 J B	1.2 B	0.62 J B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 J B
Magnesium	11000 B	12000	12000	NA	8700	NA	11000	NA	10000	13000	11000	10000	9300 B	9600	19000 B	
Mercury	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U
Nickel	1.2	0.86 J	0.86 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.5
Potassium	9100 B	9900	11000	NA	6500	NA	5900	NA	4600	5400	5400	5200	8200 B	6900 B	10000 B	
Selenium	5.0 U	1.7 J B	0.90 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Silver	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Sodium	49000 B	65000	63000 B	NA	33000	NA	72000	NA	37000 B	39000 B	35000 B	29000	33000 B	31000 B	65000 B	
Thallium	0.049 J B	0.019 J B	0.025 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.047 J B
Vanadium	2	1.1	0.77 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.19 J
Zinc	13	13	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.6
<b>Metals (Dissolved) ug/L</b>																
Antimony	0.19 J B	0.26 J	0.30 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.054 J B
Arsenic	1.0 U	0.38 J B	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Barium	32	36	40 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	60
Beryllium	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Cadmium	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Calcium	42000 B	51000	55000 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	93000 B
Chromium	1.2 J	1.2 J	2.8 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8
Copper	2.8	1.7 J	1.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.4 J
Lead	0.19 J B	0.57 J	0.43 J B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.022 J B
Magnesium	11000 B	12000	13000 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19000 B
Mercury	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U
Nickel	1.1	0.79 J	0.98 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2
Potassium	9300 B	10000	12000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10000 B
Selenium	5.0 U	1.2 J B	0.54 J B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Silver	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Sodium	48000 B	65000	69000 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	66000 B
Thallium	0.052 J	1.0 U	0.053 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.035 J
Vanadium	1.7	0.73 J	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.38 J
Zinc	14 B	14	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9 B
<b>Miscellaneous mg/L</b>																
Total Alkalinity	120 B	130	150 B	NA	120 B	NA	110 B	NA	100 B	120	110 B	120 B	110 B	95 B	210 B	
Bicarbonate Alkalinity as CaCO3	120 B	130	150 B	NA	120 B	NA	110 B	NA	100 B	120	110 B	120 B	98 B	95 B	200 B	
Carbonate Alkalinity as CaCO3	0.66 J	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U	5.0 U	5.0 U	12	5.0 U	8.6	
Chloride	61	74	74	NA	66	NA	140	NA	47	73 B	60	51	80 B	46	140	
Nitrate as N	2.8	2.5	3.3	NA	4.1	NA	3.5	NA	4.6	4.2	3.0 B	3.4 B	4.7	3.9	3.2 H	
Sulfate	47	70	64	NA	30	NA	29	NA	35	31	26	23 B	34 B	29	27	

Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-10	COD-SW-11	COD-SW-11	COD-SW-11	COD-SW-11	COD-SW-11	COD-SW-11	COD-SW-11								
	1/23/2014	2/4/2014	2/20/2014	3/17/2014	4/21/2014	5/6/2014	5/19/2014	6/2/2014	6/26/2014	8/22/2013	9/26/2013	11/21/2013	1/24/2014	2/20/2014	3/17/2014	4/22/2014
<b>Volatile Organic Compounds (GC/MS) ug/L</b>																
1,1,1,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
1,1,1-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
1,1-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
1,2-Dibromoethane (EDB)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
1,4-Dioxane	200 U	200 U	200 U	200 U	200 U											
2-Butanone (MEK)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U											
2-Hexanone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U											
4-Methyl-2-pentanone (MIBK)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U											
Acetone	3.4 J	5.0 U	4.2 J	5.0 U	5.0 U	2.5 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U					
Acrylonitrile	20 U	20 U	20 U	20 U	20 U											
Benzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
Bromochloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
Bromodichloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
Bromoform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
Bromomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
CarBon disulfide	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
CarBon tetrachloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
ChloroBenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
Chloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
Chloroform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
Chloromethane	1.0 U	1.0 U*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
cis-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
cis-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
DiBromochloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
EthylBenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
Methyl tert-Butyl ether	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
Methylene Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
Styrene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
Tetrachloroethene	0.36 J	1.0 U	0.21 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U								
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	3.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
trans-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U*											
Trichloroethene	0.25 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
Vinyl chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U											
Xylenes, Total	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U											

Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-10	COD-SW-11	COD-SW-11	COD-SW-11	COD-SW-11	COD-SW-11	COD-SW-11	COD-SW-11								
	1/23/2014	2/4/2014	2/20/2014	3/17/2014	4/21/2014	5/6/2014	5/19/2014	6/2/2014	6/26/2014	8/22/2013	9/26/2013	11/21/2013	1/24/2014	2/20/2014	3/17/2014	4/22/2014
<b>Metals (Total) ug/L</b>																
Antimony	NA	0.050 J	0.085 J	2.0 U	NA	NA	NA	NA								
Arsenic	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA								
Barium	NA	31 B	33 B	28	NA	NA	NA	NA								
Beryllium	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA								
Cadmium	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA								
Calcium	33000	NA	40000	32000 B	42000	3900 B	44000 B	30000 B	50000 B	69000 B	73000	73000 B	74000	66000	66000 B	68000
Chromium	NA	2.9	2.5	4.5	NA	NA	NA	NA								
Copper	NA	3.2	1.2 J	1.2 J	NA	NA	NA	NA								
Lead	NA	0.30 J B	0.19 J B	0.13 J B	NA	NA	NA	NA								
Magnesium	6000	NA	8000	7000	10000	35000	9500	5600	11000	18000 B	20000	19000	15000	17000	17000	19000
Mercury	NA	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA								
Nickel	NA	0.78 J	1.0 U	1.0 U	NA	NA	NA	NA								
Potassium	3200	NA	4000	3300	5100	20000 B	5500	2700	6000 B	2100 B	2200	2200	2000	2300	2100	1900
Selenium	NA	5.0 U	1.8 J B	5.0 U	NA	NA	NA	NA								
Silver	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA								
Sodium	27000 B	NA	140000	31000 B	29000	8200	27000	14000	31000 B	21000 B	22000	19000 B	24000 B	73000	47000 B	27000 B
Thallium	NA	0.027 J B	0.017 J B	0.017 J	NA	NA	NA	NA								
Vanadium	NA	0.63 J	0.29 J	1.0 U	NA	NA	NA	NA								
Zinc	NA	9.1	13	4.6 J	NA	NA	NA	NA								
<b>Metals (Dissolved) ug/L</b>																
Antimony	NA	0.055 J B	0.073 J	0.051 J	NA	NA	NA	NA								
Arsenic	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA								
Barium	NA	31	32	30 B	NA	NA	NA	NA								
Beryllium	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA								
Cadmium	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA								
Calcium	NA	69000 B	75000	82000 B	NA	NA	NA	NA								
Chromium	NA	3.1	2.2	5.4 B	NA	NA	NA	NA								
Copper	NA	1.9 J	1.9 J	1.2 J	NA	NA	NA	NA								
Lead	NA	1.0 U	0.071 J	0.031 J B	NA	NA	NA	NA								
Magnesium	NA	18000 B	20000	21000 B	NA	NA	NA	NA								
Mercury	NA	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA								
Nickel	NA	0.74 J	1.0 U	1.0 U	NA	NA	NA	NA								
Potassium	NA	2100 B	2300	2400	NA	NA	NA	NA								
Selenium	NA	5.0 U	0.63 J B	5.0 U	NA	NA	NA	NA								
Silver	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA								
Sodium	NA	21000 B	23000	21000 B	NA	NA	NA	NA								
Thallium	NA	0.030 J	1.0 U	0.044 J	NA	NA	NA	NA								
Vanadium	NA	0.70 J	1.0 U	1.0 U	NA	NA	NA	NA								
Zinc	NA	7.9 B	8.5	4.0 J	NA	NA	NA	NA								
<b>Miscellaneous mg/L</b>																
Total Alkalinity	88 B	NA	91 B	85 B	130 B	95 B	120 B	90 B	130 B	210	220 B	220 B	180 B	180 B	190	
Bicarbonate Alkalinity as CaCO3	88 B	NA	91 B	85 B	130 B	5.0 U	120 B	90	130 B	200 B	210	220 B	220 B	180 B	180 B	190
Carbonate Alkalinity as CaCO3	5.0 U	NA	5.0 U	5.0 U	4.2 J	95 B	5.0 U	5.0 U	5.0 U	8.7	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloride	66	NA	300	67	97 B	39	59	2.1	54	39	38	37	65 B	170	110	69 B
Nitrate as N	3.2	NA	1.7	2.7	3.4	2.2 B	2.6 B	33 B	2.1	3.9	3.4	4.4	5.1	3.7	4.9	4.6
Sulfate	11	NA	16	13	20	11	15 B	8.6 B	13	19	19	18	19	20	22	20

Table 1  
 Codorus Creek Discharges Sampling Results  
 8/22/2013 Through 8/26/2014  
 Harley-Davidson FYNOP

Analyte	COD-SW-11	COD-SW-11	COD-SW-11	COD-SW-11	COD-SW-12	COD-SW-13	COD-SW-13	COD-SW-13								
	5/6/2014	5/20/2014	6/2/2014	6/26/2014	8/22/2013	1/24/2014	2/20/2014	3/17/2014	4/22/2014	5/6/2014	5/20/2014	6/6/2014	6/26/2014	8/22/2013	1/23/2014	2/4/2014
<b>Volatile Organic Compounds (GC/MS) ug/L</b>																
1,1,1,2-Tetrachloroethane	1.0 U	1.0 U														
1,1,1-Trichloroethane	1.0 U	1.0 U														
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U														
1,1,2-Trichloroethane	1.0 U	1.0 U														
1,1-Dichloroethane	1.0 U	1.0 U														
1,1-Dichloroethene	1.0 U	1.0 U														
1,2-Dibromoethane (EDB)	1.0 U	1.0 U														
1,2-Dichloroethane	1.0 U	1.0 U														
1,2-Dichloropropane	1.0 U	1.0 U														
1,4-Dioxane	200 U	200 U														
2-Butanone (MEK)	5.0 U	5.0 U														
2-Hexanone	5.0 U	5.0 U														
4-Methyl-2-pentanone (MIBK)	5.0 U	5.0 U														
Acetone	5.0 U	5.0 U														
Acrylonitrile	20 U	20 U														
Benzene	1.0 U	1.0 U														
Bromochloromethane	1.0 U	1.0 U														
Bromodichloromethane	1.0 U	1.0 U														
Bromoform	1.0 U	1.0 U														
Bromomethane	1.0 U	1.0 U														
CarBon disulfide	1.0 U	1.0 U														
CarBon tetrachloride	1.0 U	1.0 U														
ChloroBenzene	1.0 U	1.0 U														
Chloroethane	1.0 U	1.0 U														
Chloroform	1.0 U	0.20 J	0.27 J	1.0 U	0.19 J	0.22 J	1.0 U	1.0 U								
Chloromethane	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							
cis-1,2-Dichloroethene	1.0 U	0.59 J	0.63 J	0.51 J												
cis-1,3-Dichloropropene	1.0 U	1.0 U														
DiBromochloromethane	1.0 U	1.0 U														
EthylBenzene	1.0 U	1.0 U														
Methyl tert-Butyl ether	1.0 U	1.0 U														
Methylene Chloride	1.0 U	1.0 U	1.0 U	1.0 U	0.22 J B	1.0 U	0.23 J B	1.0 U	1.0 U	1.0 U						
Styrene	1.0 U	1.0 U														
Tetrachloroethene	1.0 U	0.30 J	1.9	1.4												
Toluene	1.0 U	0.16 J	1.0 U	1.0 U												
trans-1,2-Dichloroethene	1.0 U	1.0 U														
trans-1,3-Dichloropropene	1.0 U	1.0 U														
Trichloroethene	1.0 U	0.16 J	1.0 U	0.82 J	1.2	0.93 J										
Vinyl chloride	1.0 U	1.0 U														
Xylenes, Total	3.0 U	3.0 U														

Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-11	COD-SW-11	COD-SW-11	COD-SW-11	COD-SW-12	COD-SW-13	COD-SW-13	COD-SW-13								
	5/6/2014	5/20/2014	6/2/2014	6/26/2014	8/22/2013	1/24/2014	2/20/2014	3/17/2014	4/22/2014	5/6/2014	5/20/2014	6/6/2014	6/26/2014	8/22/2013	1/23/2014	2/4/2014
<b>Metals (Total) ug/L</b>																
Antimony	NA	NA	NA	NA	0.41 J	NA	0.14 J	NA	NA	NA						
Arsenic	NA	NA	NA	NA	1.0 U	NA	0.66 J	NA	NA	NA						
Barium	NA	NA	NA	NA	19 B	NA	49 B	NA	NA	NA						
Beryllium	NA	NA	NA	NA	1.0 U	NA	0.044 J	NA	NA	NA						
Cadmium	NA	NA	NA	NA	1.0 U	NA	0.47 J	NA	NA	NA						
Calcium	2000 B	67000 B	62000 B	64000 B	59000 B	65000	66000	53000 B	66000	13000 B	66000 B	60000 B	77000 B	52000 B	34000	NA
Chromium	NA	NA	NA	NA	0.95 J	NA	3.7	NA	NA	NA						
Copper	NA	NA	NA	NA	3.2	NA	7.9	NA	NA	NA						
Lead	NA	NA	NA	NA	0.78 J B	NA	4.4 B	NA	NA	NA						
Magnesium	68000	16000	15000	17000	13000 B	11000	13000	13000	14000	79000	13000	11000 B	12000	13000 B	7300	NA
Mercury	NA	NA	NA	NA	0.20 U	NA	0.20 U	NA	NA	NA						
Nickel	NA	NA	NA	NA	2.3	NA	1.9	NA	NA	NA						
Potassium	26000 B	1900	1800	2500 B	23000 B	18000	13000	9900	11000	63000 B	14000	19000 B	15000 B	6900 B	4600	NA
Selenium	NA	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA	NA						
Silver	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA						
Sodium	19000	25000	23000	22000 B	86000 B	85000 B	150000	61000 B	70000 B	16000	66000	61000 B	62000 B	47000 B	32000 B	NA
Thallium	NA	NA	NA	NA	0.024 J B	NA	0.020 J B	NA	NA	NA						
Vanadium	NA	NA	NA	NA	0.80 J	NA	1.2	NA	NA	NA						
Zinc	NA	NA	NA	NA	29	NA	56	NA	NA	NA						
<b>Metals (Dissolved) ug/L</b>																
Antimony	NA	NA	NA	NA	0.61 J B	NA	0.19 J B	NA	NA	NA						
Arsenic	NA	NA	NA	NA	0.58 J	NA	1.0 U	NA	NA	NA						
Barium	NA	NA	NA	NA	20	NA	43	NA	NA	NA						
Beryllium	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA						
Cadmium	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA						
Calcium	NA	NA	NA	NA	58000 B	NA	49000 B	NA	NA	NA						
Chromium	NA	NA	NA	NA	0.97 J	NA	2.3	NA	NA	NA						
Copper	NA	NA	NA	NA	2.6	NA	3.3	NA	NA	NA						
Lead	NA	NA	NA	NA	0.95 J B	NA	0.32 J B	NA	NA	NA						
Magnesium	NA	NA	NA	NA	13000 B	NA	12000 B	NA	NA	NA						
Mercury	NA	NA	NA	NA	0.20 U	NA	0.20 U	NA	NA	NA						
Nickel	NA	NA	NA	NA	2.1	NA	0.86 J	NA	NA	NA						
Potassium	NA	NA	NA	NA	22000 B	NA	6500 B	NA	NA	NA						
Selenium	NA	NA	NA	NA	5.0 U	NA	5.0 U	NA	NA	NA						
Silver	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA						
Sodium	NA	NA	NA	NA	85000 B	NA	44000 B	NA	NA	NA						
Thallium	NA	NA	NA	NA	0.019 J	NA	0.019 J	NA	NA	NA						
Vanadium	NA	NA	NA	NA	0.21 J	NA	0.21 J	NA	NA	NA						
Zinc	NA	NA	NA	NA	33 B	NA	17 B	NA	NA	NA						
<b>Miscellaneous mg/L</b>																
Total Alkalinity	190 B	190 B	190 B	170 B	170 B	200 B	160 B	140 B	160	200 B	190 B	170 B	170 B	130 B	86 B	NA
Bicarbonate Alkalinity as CaCO3	5.0 U	190 B	180	170 B	170 B	200 B	160 B	140 B	160	5.0 U	190 B	140 B	170 B	130 B	86 B	NA
Carbonate Alkalinity as CaCO3	190 B	5.0 U	5.8	5.0 U	200 B	5.0 U	32	5.0 U	5.0 U	NA						
Chloride	55	57	65 B	37	110	150 B	310	130	150 B	110	110	140 B	94	63	52	NA
Nitrate as N	4.6 B	4.6 B	5	4	2.9	3	2.2	4.8	5.5	3.0 B	2.8 B	6	4	2.5 H	4.7	NA
Sulfate	17	20 B	21 B	15	44	42	41	38	45	34	42 B	49 B	37	38	50	NA

Table 1  
 Codorus Creek Discharges Sampling Results  
 8/22/2013 Through 8/26/2014  
 Harley-Davidson FYNOP

Analyte	COD-SW-13	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-15							
	2/20/2014	3/4/2014	3/17/2014	4/21/2014	5/6/2014	5/19/2014	6/2/2014	6/26/2014	8/22/2013	9/26/2013	11/21/2013	1/17/2014	1/24/2014	2/4/2014	2/20/2014	3/4/2014
<b>Volatile Organic Compounds (GC/MS) ug/L</b>																
1,1,1,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
1,1,1-Trichloroethane	1.0 U	0.56 J	1.0 U	0.55 J	1.0 U	0.68 J										
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
1,1-Dichloroethane	1.0 U	0.16 J	1.0 U	1.0 U	1.0 U	0.22 J										
1,1-Dichloroethene	1.0 U	0.59 J	0.52 J	0.50 J	0.34 J	0.56 J										
1,2-Dibromoethane (EDB)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
1,4-Dioxane	200 U	200 U	200 U	200 U	200 U	200 U										
2-Butanone (MEK)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U										
2-Hexanone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U										
4-Methyl-2-pentanone (MIBK)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U										
Acetone	5.0 U	5.0 U	5.0 U	2.7 J	5.0 U	2.9 J	3.4 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acrylonitrile	20 U	20 U	20 U	20 U	20 U	20 U										
Benzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
Bromochloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
Bromodichloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
Bromoform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
Bromomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
CarBon disulfide	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
CarBon tetrachloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
ChloroBenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
Chloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
Chloroform	1.0 U	0.21 J B	0.26 J B	1.0 U	0.24 J	0.29 J	0.23 J	1.0 U	0.22 J							
Chloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
cis-1,2-Dichloroethene	0.39 J	0.70 J	1.0 U	0.52 J	0.29 J	0.32 J	0.74 J	1.0 U	2.1	1.2	0.94 J	15	13	12	6.8	16
cis-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
DiBromochloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
EthylBenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
Methyl tert-Butyl ether	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
Methylene Chloride	1.0 U	0.29 J B	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U							
Styrene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
Tetrachloroethene	1.1	2.1	1.6	1.5	0.69 J	0.61 J	1.1	1.0 U	3.2	3.8	2.9	5.5	6.4	6.1	3.1	7.3
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
trans-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
Trichloroethene	0.72 J	1.2	0.73 J	0.81 J	0.36 J	0.39 J	0.82 J	1.0 U	3.7	2.5	1.9	12	12	10	5.8	13
Vinyl chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U										
Xylenes, Total	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U										

Table 1  
 Codorus Creek Discharges Sampling Results  
 8/22/2013 Through 8/26/2014  
 Harley-Davidson FYNOP

Analyte	COD-SW-13	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-15							
	2/20/2014	3/4/2014	3/17/2014	4/21/2014	5/6/2014	5/19/2014	6/2/2014	6/26/2014	8/22/2013	9/26/2013	11/21/2013	1/17/2014	1/24/2014	2/4/2014	2/20/2014	3/4/2014
<b>Metals (Total) ug/L</b>																
Antimony	NA	0.17 J	0.10 J	2.0 U	NA	NA	NA	NA	NA							
Arsenic	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA							
Barium	NA	39 B	36 B	36	NA	NA	NA	NA	NA							
Beryllium	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA							
Cadmium	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA							
Calcium	28000	NA	26000 B	31000	3000 B	31000 B	30000 B	25000 B	84000 B	82000	82000 B	NA	90000	NA	54000	NA
Chromium	NA	6.6	6.7	7.8	NA	NA	NA	NA	NA							
Copper	NA	2	0.45 J	0.47 J	NA	NA	NA	NA	NA							
Lead	NA	0.23 J B	0.044 J B	0.023 J B	NA	NA	NA	NA	NA							
Magnesium	7400	NA	7100	8800	29000	8000	7200	7900	19000 B	19000	18000	NA	16000	NA	13000	NA
Mercury	NA	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA	NA							
Nickel	NA	1.1	0.41 J	0.27 J	NA	NA	NA	NA	NA							
Potassium	3500	NA	2800	3400	21000 B	2800	3400	4800 B	5500 B	5000	5100	NA	5300	NA	4700	NA
Selenium	NA	5.0 U	1.1 J B	0.68 J	NA	NA	NA	NA	NA							
Silver	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA							
Sodium	50000	NA	25000 B	24000	8400	14000	25000	18000 B	44000 B	40000	36000 B	NA	45000 B	NA	47000	NA
Thallium	NA	0.19 J B	0.016 J B	0.020 J	NA	NA	NA	NA	NA							
Vanadium	NA	1.0 U	0.097 J	1.0 U	NA	NA	NA	NA	NA							
Zinc	NA	5.7	2.8 J	3.7 J	NA	NA	NA	NA	NA							
<b>Metals (Dissolved) ug/L</b>																
Antimony	NA	0.11 J B	0.11 J	0.14 J	NA	NA	NA	NA	NA							
Arsenic	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA							
Barium	NA	39	37	39 B	NA	NA	NA	NA	NA							
Beryllium	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA							
Cadmium	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA							
Calcium	NA	83000 B	84000	91000 B	NA	NA	NA	NA	NA							
Chromium	NA	6.4	6.6	8.7 B	NA	NA	NA	NA	NA							
Copper	NA	1.8 J	1.3 J	1.6 J	NA	NA	NA	NA	NA							
Lead	NA	0.079 J B	0.043 J	0.019 J B	NA	NA	NA	NA	NA							
Magnesium	NA	19000 B	19000	20000 B	NA	NA	NA	NA	NA							
Mercury	NA	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA	NA							
Nickel	NA	1.1	1.0 U	0.33 J	NA	NA	NA	NA	NA							
Potassium	NA	5400 B	5200	5700	NA	NA	NA	NA	NA							
Selenium	NA	5.0 U	1.5 J B	1.0 J B	NA	NA	NA	NA	NA							
Silver	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA							
Sodium	NA	44000 B	40000	40000 B	NA	NA	NA	NA	NA							
Thallium	NA	0.017 J	1.0 U	0.028 J	NA	NA	NA	NA	NA							
Vanadium	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA							
Zinc	NA	9.2 B	8.9	4.8 J	NA	NA	NA	NA	NA							
<b>Miscellaneous mg/L</b>																
Total Alkalinity	73 B	NA	68 B	79 B	70 B	72 B	84 B	58 B	220 B	220	230 B	NA	230 B	NA	150 B	NA
Bicarbonate Alkalinity as CaCO3	73 B	NA	68 B	79 B	5.0 U	72 B	84	58 B	220 B	220	230 B	NA	230 B	NA	150 B	NA
Carbonate Alkalinity as CaCO3	5.0 U	NA	5.0 U	5.0 U	70 B	5.0 U	NA	5.0 U	NA	5.0 U	NA					
Chloride	96	NA	48	41	32	30	42	28	82	74	72	NA	100 B	NA	100	NA
Nitrate as N	3.6	NA	4.6	3.5	3.6 B	3.7 B	3.6	3.7	3.6	3.4	3.6	NA	4.1	NA	3.8	NA
Sulfate	23	NA	32	23	20	17 B	25	19	37	38	39	NA	36	NA	31	NA

Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-16									
	3/17/2014	4/22/2014	5/7/2014	5/20/2014	6/2/2014	6/26/2014	8/22/2013	1/23/2014	2/4/2014	2/20/2014	3/4/2014	3/17/2014	4/21/2014	5/6/2014	5/19/2014	6/2/2014
<b>Volatile Organic Compounds (GC/MS) ug/L</b>																
1,1,1,2-Tetrachloroethane	1.0 U															
1,1,1-Trichloroethane	1.0 U	0.69 J	1.0 U	1.0 U	0.50 J	1.0 U										
1,1,2,2-Tetrachloroethane	1.0 U															
1,1,2-Trichloroethane	1.0 U															
1,1-Dichloroethane	1.0 U															
1,1-Dichloroethene	1.0 U	0.56 J	0.51 J	0.53 J	0.57 J	1.0 U										
1,2-Dibromoethane (EDB)	1.0 U															
1,2-Dichloroethane	1.0 U															
1,2-Dichloropropane	1.0 U															
1,4-Dioxane	200 U															
2-Butanone (MEK)	5.0 U															
2-Hexanone	5.0 U															
4-Methyl-2-pentanone (MIBK)	5.0 U															
Acetone	5.0 U	3.4 J	5.0 U													
Acrylonitrile	20 U															
Benzene	1.0 U															
Bromochloromethane	1.0 U															
Bromodichloromethane	1.0 U															
Bromoform	1.0 U															
Bromomethane	1.0 U															
CarBon disulfide	1.0 U															
CarBon tetrachloride	1.0 U															
ChloroBenzene	1.0 U															
Chloroethane	1.0 U															
Chloroform	1.0 U	0.25 J	1.0 U	1.0 U	0.26 J	1.0 U										
Chloromethane	1.0 U	1.0 U*	1.0 U													
cis-1,2-Dichloroethene	11	13	6.4	10	11	3.2	0.36 J	0.53 J	0.46 J	0.40 J	0.52 J	1.0 U	0.29 J	0.24 J	0.36 J	0.49 J
cis-1,3-Dichloropropene	1.0 U															
DiBromochloromethane	1.0 U															
EthylBenzene	1.0 U															
Methyl tert-Butyl ether	1.0 U	1.0 U	0.59 J	1.0 U												
Methylene Chloride	1.0 U	0.21 J B	1.0 U													
Styrene	1.0 U															
Tetrachloroethene	5.9	7.8	2.4	5.3	6.9	2	1.0 U	3.2	2.1	2	2.8	2.4	1.9	0.73 J	0.79 J	1.2
Toluene	1.0 U															
trans-1,2-Dichloroethene	1.0 U															
trans-1,3-Dichloropropene	1.0 U	1.0 U*	1.0 U													
Trichloroethene	8.7	11	3.9	8.3	9.5	2.6	0.28 J	1	0.81 J	0.70 J	1	0.76 J	0.64 J	0.29 J	1.0 U	0.45 J
Vinyl chloride	1.0 U															
Xylenes, Total	3.0 U															

Table 1  
 Codorus Creek Discharges Sampling Results  
 8/22/2013 Through 8/26/2014  
 Harley-Davidson FYNOP

Analyte	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-15	COD-SW-16									
	3/17/2014	4/22/2014	5/7/2014	5/20/2014	6/2/2014	6/26/2014	8/22/2013	1/23/2014	2/4/2014	2/20/2014	3/4/2014	3/17/2014	4/21/2014	5/6/2014	5/19/2014	6/2/2014
<b>Metals (Total) ug/L</b>																
Antimony	NA	NA	NA	NA	NA	NA	0.19 J	NA								
Arsenic	NA	NA	NA	NA	NA	NA	1.0 U	NA								
Barium	NA	NA	NA	NA	NA	NA	37 B	NA								
Beryllium	NA	NA	NA	NA	NA	NA	1.0 U	NA								
Cadmium	NA	NA	NA	NA	NA	NA	1.0 U	NA								
Calcium	69000 B	92000	75000	81000 B	82000 B	46000 B	36000 B	35000	NA	28000	NA	28000 B	31000	2800 B	25000 B	29000 B
Chromium	NA	NA	NA	NA	NA	NA	0.80 J	NA								
Copper	NA	NA	NA	NA	NA	NA	2.6	NA								
Lead	NA	NA	NA	NA	NA	NA	0.38 J B	NA								
Magnesium	16000	23000	18000	18000	17000	12000	9900 B	7600	NA	7600	NA	7700	8800	27000	6800	7200
Mercury	NA	NA	NA	NA	NA	NA	0.20 U	NA								
Nickel	NA	NA	NA	NA	NA	NA	0.98 J	NA								
Potassium	4900	5500	4900	5200	5900	5400 B	6000 B	4500	NA	3600	NA	3000	3200	20000 B	2500	3400
Selenium	NA	NA	NA	NA	NA	NA	5.0 U	NA								
Silver	NA	NA	NA	NA	NA	NA	1.0 U	NA								
Sodium	51000 B	61000 B	57000 B	55000	47000	30000 B	40000 B	35000 B	NA	50000	NA	28000 B	24000	8100	14000	25000
Thallium	NA	NA	NA	NA	NA	NA	0.094 J B	NA								
Vanadium	NA	NA	NA	NA	NA	NA	1.9	NA								
Zinc	NA	NA	NA	NA	NA	NA	4.9 J	NA								
<b>Metals (Dissolved) ug/L</b>																
Antimony	NA	NA	NA	NA	NA	NA	0.12 J B	NA								
Arsenic	NA	NA	NA	NA	NA	NA	1.0 U	NA								
Barium	NA	NA	NA	NA	NA	NA	36	NA								
Beryllium	NA	NA	NA	NA	NA	NA	1.0 U	NA								
Cadmium	NA	NA	NA	NA	NA	NA	1.0 U	NA								
Calcium	NA	NA	NA	NA	NA	NA	36000 B	NA								
Chromium	NA	NA	NA	NA	NA	NA	0.86 J	NA								
Copper	NA	NA	NA	NA	NA	NA	2.2	NA								
Lead	NA	NA	NA	NA	NA	NA	0.067 J B	NA								
Magnesium	NA	NA	NA	NA	NA	NA	9800 B	NA								
Mercury	NA	NA	NA	NA	NA	NA	0.20 U	NA								
Nickel	NA	NA	NA	NA	NA	NA	0.89 J	NA								
Potassium	NA	NA	NA	NA	NA	NA	6000 B	NA								
Selenium	NA	NA	NA	NA	NA	NA	5.0 U	NA								
Silver	NA	NA	NA	NA	NA	NA	1.0 U	NA								
Sodium	NA	NA	NA	NA	NA	NA	40000 B	NA								
Thallium	NA	NA	NA	NA	NA	NA	1.0 U	NA								
Vanadium	NA	NA	NA	NA	NA	NA	1.3	NA								
Zinc	NA	NA	NA	NA	NA	NA	6.4 B	NA								
<b>Miscellaneous mg/L</b>																
Total Alkalinity	190 B	280	160 B	200 B	200 B	110 B	110 B	86 B	NA	81 B	NA	67 B	78 B	68 B	70 B	81 B
Bicarbonate Alkalinity as CaCO3	190 B	280	160 B	200 B	200	110 B	100 B	86 B	NA	81 B	NA	67 B	78 B	5.0 U	70 B	81
Carbone Alkalinity as CaCO3	5.0 U	1.3 J	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U	68 B	5.0 U	5.0 U					
Chloride	130	140 B	91	120	130 B	47	44	54 B	NA	98	NA	51	42	32	30	48 B
Nitrate as N	4.3	4.3	3.8	3.9 B	4.4	4	2.5	4.6	NA	3.7	NA	4.6	3.6	3.7 B	3.7 B	4
Sulfate	38	39	29	34 B	42 B	30	45	49	NA	24	NA	32	24	20	16 B	31 B

Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-16	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17
	6/26/2014	8/22/2013	9/26/2013	11/21/2013	1/17/2014	1/30/2014	2/4/14 9:35	2/4/14 11:15	2/20/2014	3/4/2014	3/17/2014	4/21/2014	5/6/2014	5/19/2014	6/3/2014
<b>Volatile Organic Compounds (GC/MS) ug/L</b>															
1,1,1,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	1.0 U	2.5	1.0 U	0.90 J	6.7	24 J	24	4.6 J	20	25	28	22	8.7	8.7	11
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.0 U	0.59 J	0.45 J	1.0 U	0.61 J	25 U	2.5	5.0 U	2.2	20 U	3.1	2.5	1.5	1	1.1
1,1-Dichloroethene	1.0 U	0.60 J	0.57 J	1.0 U	5.0 U	25 U	1.3 J	5.0 U	3.1	20 U	4.6	2.8	1.7	1.1	2.2
1,2-Dibromoethane (EDB)	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	200 U	200 U	200 U	200 U	1000 U	5000 U	400 U	1000 U	200 U	4000 U	400 U	400 U	200 U	200 U	200 U
2-Butanone (MEK)	5.0 U	5.0 U	5.0 U	5.0 U	25 U	130 U	10 U	25 U	5.0 U	100 U	10 U	10 U	5.0 U	5.0 U	5.0 U
2-Hexanone	5.0 U	5.0 U	5.0 U	5.0 U	25 U	130 U	10 U	25 U	5.0 U	100 U	10 U	10 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (MIBK)	5.0 U	5.0 U	5.0 U	5.0 U	25 U	130 U	10 U	25 U	5.0 U	100 U	10 U	10 U	5.0 U	5.0 U	5.0 U
Acetone	5.0 U	5.0 U	5.0 U	5.0 U	25 U	130 U	10 U	25 U	5.0 U	100 U	10 U	10 U	5.0 U	5.0 U	5.0 U
Acrylonitrile	20 U	20 U	20 U	20 U	100 U	500 U	40 U	100 U	20 U	400 U	40 U	40 U	20 U	20 U	20 U
Benzene	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Bromoform	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
CarBon disulfide	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
CarBon tetrachloride	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
ChloroBenzene	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1.0 U	0.29 J B	0.26 J B	1.0 U	5.0 U	25 U	2.0 U	5.0 U	0.25 J	20 U	2.0 U	2.0 U	1.0 U	1.0 U	0.20 J
Chloromethane	1.0 U *	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	1.0 U	7.9	6.9	4.1	10	37	34	9.1	45	59	71	59	29	21	28
cis-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
DiBromochloromethane	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
EthylBenzene	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Methyl tert-Butyl ether	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.7 J	25 U	2.0 U	5.0 U	1.0 U	6.2 J	0.92 J	0.78 J	1.0 U	1.0 U	1.0 U
Styrene	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	1.0 U	45	34	19	100	370	300	76	200	390	310	270	130	43	100
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	0.35 J	3	0.61 J	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.7	5.0 U	1.0 U	20 U	2.0 U	0.74 J	1.0 U	1.0 U	0.22 J
trans-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	1.0 U	20 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	1.0 U	20	20	13	30	100	81	18	60	110	75	76	35	26	39
Vinyl chloride	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	25 U	2.0 U	5.0 U	0.44 J	20 U	0.93 J	0.95 J	0.49 J	1.0 U	0.34 J
Xylenes, Total	3.0 U	3.0 U	3.0 U	3.0 U	15 U	75 U	6.0 U	15 U	3.0 U	60 U	6.0 U	6.0 U	3.0 U	3.0 U	3.0 U

Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-16	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17	COD-SW-17
	6/26/2014	8/22/2013	9/26/2013	11/21/2013	1/17/2014	1/30/2014	2/4/14 9:35	2/4/14 11:15	2/20/2014	3/4/2014	3/17/2014	4/21/2014	5/6/2014	5/19/2014	6/3/2014
<b>Metals (Total) ug/L</b>															
Antimony	NA	0.13 J	0.089 J	2.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	47 B	43 B	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	0.12 J	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	25000 B	92000 B	90000	87000 B	NA	94000 B	NA	NA	76000	NA	90000 B	83000	5900 B	66000 B	87000
Chromium	NA	3.9	4.2	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	3.6	1.9 J	1.2 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	1.9 B	2.1 B	0.94 J B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	7900	20000 B	20000	19000	NA	20000	NA	NA	17000	NA	19000	19000	78000	14000	6400
Mercury	NA	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	1.6	0.32 J	0.62 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	5100 B	5200 B	5100	5100	NA	5500	NA	NA	5200	NA	6000	5700	47000 B	4900	19000
Selenium	NA	5.0 U	1.7 J B	0.70 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	19000 B	41000 B	40000	37000 B	NA	52000 B	NA	NA	65000	NA	67000 B	56000	18000	41000	46000
Thallium	NA	0.082 J B	0.024 J B	0.027 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	0.39 J	0.20 J	0.26 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	11	7.4	5.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Metals (Dissolved) ug/L</b>															
Antimony	NA	0.10 J B	0.081 J	0.080 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	0.36 J	0.37 J B	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	47	41	41 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	93000 B	90000	93000 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	3.1	3.5	5.7 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	1.6 J	1.4 J	0.59 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	1.0 U	0.050 J	0.028 J B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	21000 B	20000	20000 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	0.20 U	0.20 U	0.20 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	1.1	0.27 J	0.49 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	5200 B	5200	5500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	1.0 J	1.9 J B	1.2 J B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	1.0 U	1.0 U	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	41000 B	40000	40000 B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	0.017 J	1.0 U	0.027 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	1.0 U	0.29 J	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	6.6 B	5.9	3.1 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Miscellaneous mg/L</b>															
Total Alkalinity	58 B	240 B	240	230 B	NA	240 B	NA	NA	210 B	NA	230 B	240 B	200 B	180 B	230 B
Bicarbonate Alkalinity as CaCO3	58 B	240 B	240	230 B	NA	240 B	NA	NA	210 B	NA	230 B	240 B	5.0 U	180 B	230
CarboNate Alkalinity as CaCO3	5.0 U	5.0 U	5.0 U	5.0 U	NA	5.0 U	NA	NA	5.0 U	NA	5.0 U	5.0 U	200 B	5.0 U	5.0 U
Chloride	28	74	73	72	NA	110 B	NA	NA	150	NA	160	150	99	91	120 B
Nitrate as N	3.6	3.3	3.2	3.4	NA	3.8	NA	NA	2.9	NA	3.1	2.9	3.2 B	3.2 B	3.8
Sulfate	21	34	38	38	NA	36	NA	NA	32	NA	36	35	27	28 B	40 B

Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-17	COD-SW-18	COD-SW-19	COD-SW-19	COD-SW-20	COD-SW-20	COD-SW-20	COD-SW-20	COD-SW-20	COD-SW-20	COD-SW-20	COD-SW-20	COD-SW-20	COD-SW-20	COD-SW-21
	6/23/2014	8/22/2013	9/26/2013	11/21/2013	9/26/2013	11/21/2013	1/23/2014	2/20/2014	3/17/2014	4/21/2014	5/6/2014	5/20/2014	6/2/2014	6/26/2014	9/26/2013
<b>Volatile Organic Compounds (GC/MS) ug/L</b>															
1,1,1,2-Tetrachloroethane	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	9.8	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	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.4 J	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	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1.6 J	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	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (EDB)	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	800 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
2-Butanone (MEK)	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (MIBK)	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	20 U	2.8 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.8 J
Acrylonitrile	80 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CarBon disulfide	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CarBon tetrachloride	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
ChloroBenzene	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	4.0 U	1.0 U	0.23 J B	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	1.0 U	1.0 U
Chloromethane	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	27	0.40 J	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	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
DiBromochloromethane	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
EthylBenzene	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert-Butyl ether	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	2.6 J B	0.26 J B	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	1.0 U	1.0 U	1.0 U
Styrene	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	120	0.30 J	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	1.0 U	1.0 U	1.0 U
Toluene	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	33	0.46 J	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	1.0 U	1.0 U	1.0 U
Vinyl chloride	4.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes, Total	12 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U

Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-17	COD-SW-18	COD-SW-19	COD-SW-19	COD-SW-20	COD-SW-20	COD-SW-20	COD-SW-20	COD-SW-20	COD-SW-20	COD-SW-20	COD-SW-20	COD-SW-20	COD-SW-20	COD-SW-21
	6/23/2014	8/22/2013	9/26/2013	11/21/2013	9/26/2013	11/21/2013	1/23/2014	2/20/2014	3/17/2014	4/21/2014	5/6/2014	5/20/2014	6/2/2014	6/26/2014	9/26/2013
<b>Metals (Total) ug/L</b>															
Antimony	NA	0.17 J	0.064 J	2.0 U	0.21 J	0.033 J	NA	0.20 J							
Arsenic	NA	0.40 J	0.71 J	1.0 U	1.0 U	1.0 U	NA	0.35 J							
Barium	NA	40 B	31 B	28	41 B	36	NA	38 B							
Beryllium	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U							
Cadmium	NA	0.12 J	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U							
Calcium	86000 B	42000 B	74000	74000 B	52000	49000 B	44000	41000	39000 B	43000	2400 B	41000 B	42000 B	33000 B	51000
Chromium	NA	0.98 J	2.6	4.5	1.1 J	2.1	NA	1.1 J							
Copper	NA	5	1.2 J	1.3 J	1.6 J	1.6 J	NA	2							
Lead	NA	4.0 B	0.21 J B	0.080 J B	0.069 J B	0.065 J B	NA	0.10 J B							
Magnesium	19000 B	11000 B	20000	20000	12000	11000	8600	9300	9300	11000	40000	9300	8900	7400	12000
Mercury	NA	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NA	0.20 U							
Nickel	NA	1	1.0 U	1.0 U	1.0 U	0.21 J	NA	1.0 U							
Potassium	5700 B	5300 B	2200	2100	2900	2700	2300	3100	2400	2400	30000 B	2400	2300	2500 B	2900
Selenium	NA	5.0 U	1.2 J B	5.0 U	0.90 J B	5.0 U	NA	1.3 J B							
Silver	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U							
Sodium	52000	39000 B	22000	19000 B	30000	27000 B	40000 B	110000	50000 B	34000	10000	30000	29000	20000 B	31000
Thallium	NA	0.043 J B	1.0 U	0.11 J	1.0 U	0.066 J	NA	1.0 U							
Vanadium	NA	1.4	0.71 J	0.87 J	1.0 U	0.31 J	NA	0.16 J							
Zinc	NA	20	5	3.2 J	4.6 J	4.8 J	NA	3.1 J							
<b>Metals (Dissolved) ug/L</b>															
Antimony	NA	0.16 J B	0.068 J	0.034 J	0.22 J	0.14 J	NA	0.22 J							
Arsenic	NA	0.38 J	0.29 J B	1.0 U	1.0 U	1.0 U	NA	1.0 U							
Barium	NA	39	30	29 B	41	37 B	NA	37							
Beryllium	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U							
Cadmium	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U							
Calcium	NA	41000 B	72000	80000 B	53000	53000 B	NA	50000							
Chromium	NA	0.97 J	2.3	5.3 B	0.98 J	2.8 B	NA	0.92 J							
Copper	NA	3.1	1.7 J	1.9 J	1.7 J	18	NA	1.4 J							
Lead	NA	0.15 J B	0.068 J	0.025 J B	0.14 J	0.021 J B	NA	0.048 J							
Magnesium	NA	11000 B	19000	21000 B	12000	12000 B	NA	12000							
Mercury	NA	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NA	0.20 U							
Nickel	NA	0.82 J	1.0 U	0.18 J	1.0 U	0.32 J	NA	0.18 J							
Potassium	NA	5300 B	2200	2300	2900	2900	NA	2800							
Selenium	NA	5.0 U	0.96 J B	0.60 J B	0.83 J B	5.0 U	NA	0.75 J B							
Silver	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U							
Sodium	NA	39000 B	22000	20000 B	31000	30000 B	NA	30000							
Thallium	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA	1.0 U							
Vanadium	NA	1	0.24 J	1.0 U	1.0 U	1.0 U	NA	1.0 U							
Zinc	NA	12 B	14	3.9 J	4.7 J	5.5	NA	3.2 J							
<b>Miscellaneous mg/L</b>															
Total Alkalinity	220 B	120 B	220	220 B	130	120 B	96 B	91 B	85 B	97 B	91 B	99 B	100 B	83 B	130
Bicarbonate Alkalinity as CaCO3	220 B	120 B	220	220 B	130	120 B	96 B	91 B	85 B	97 B	5.0 U	99 B	91	83 B	130
Carbonate Alkalinity as CaCO3	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	91 B	5.0 U	11	5.0 U	5.0 U
Chloride	120 B	50	41	39	58	57	95 B	240	110	83 B	71 B	65	79 B	38	61
Nitrate as N	3.3	2.4	3.7	4.7	2.5	3.4	4.9	3	4.2	4	3.9 B	3.7 B	4.2	2.2	2.6
Sulfate	37 B	38	21	20	16	17	17	17	19	19	19	17 B	18 B	8.4	17

Table 1  
 Codorus Creek Discharges Sampling Results  
 8/22/2013 Through 8/26/2014  
 Harley-Davidson FYNOP

Analyte	COD-SW-21	COD-SW-23	COD-SW-23	COD-SW-24	COD-SW-24	COD-SW-25	COD-SW-25	COD-SW-26						
	11/21/2013	9/26/2013	11/21/2013	9/26/2013	11/21/2013	9/26/2013	11/21/2013	1/24/2013	2/20/2014	3/17/2014	4/21/2014	5/6/2014	5/10/2014	6/2/2014
<b>Volatile Organic Compounds (GC/MS) ug/L</b>														
1,1,1,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
1,1,1-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
1,1-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
1,2-Dibromoethane (EDB)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
1,4-Dioxane	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U						
2-Butanone (MEK)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U						
2-Hexanone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U						
4-Methyl-2-pentanone (MIBK)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U						
Acetone	45	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.5 J	5.0 U
Acrylonitrile	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U						
Benzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Bromochloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Bromodichloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Bromoform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Bromomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
CarBon disulfide	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
CarBon tetrachloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
ChloroBenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Chloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Chloroform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.27 J	0.42 J	1.0 U				
Chloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
cis-1,2-Dichloroethene	1.0 U	0.30 J	1.0 U	1.0 U	1.0 U	0.47 J	0.30 J	1.0 U						
cis-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
DiBromochloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
EthylBenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Methyl tert-Butyl ether	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Methylene Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Styrene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Tetrachloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.5	2.3	2	1.1	0.66 J	0.66 J	0.41 J
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
trans-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Trichloroethene	1.0 U	0.32 J	0.27 J	0.22 J	1.0 U	0.45 J	0.37 J	0.32 J	0.38 J	1.0 U	1.0 U	0.17 J	1.0 U	0.14 J
Vinyl chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
Xylenes, Total	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U						

Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-21	COD-SW-23	COD-SW-23	COD-SW-24	COD-SW-24	COD-SW-25	COD-SW-25	COD-SW-26						
	11/21/2013	9/26/2013	11/21/2013	9/26/2013	11/21/2013	9/26/2013	11/21/2013	1/24/2013	2/20/2014	3/17/2014	4/21/2014	5/6/2014	5/10/2014	6/2/2014
<b>Metals (Total) ug/L</b>														
Antimony	0.027 J	0.20 J	0.14 J	0.21 J	0.23 J	0.17 J	0.035 J	NA						
Arsenic	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA						
Barium	35	43 B	44	45 B	45	45 B	42	NA						
Beryllium	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA						
Cadmium	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA						
Calcium	49000 B	49000	55000 B	51000	70000 B	43000	42000 B	70000	58000	50000 B	38000	2900 B	42000 B	36000 B
Chromium	2.2	1.2 J	2.3	1.2 J	2.3	1.3 J	2	NA						
Copper	1.6 J	1.5 J	1.1 J	1.4 J	1.3 J	2.1	1.3 J	NA						
Lead	0.050 J B	0.56 J B	0.24 J B	0.52 J B	0.20 J B	0.53 J B	0.13 J B	NA						
Magnesium	11000	15000	16000	18000	24000	10000	10000	12000	12000	11000	9200	38000	10000	9200
Mercury	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NA						
Nickel	0.27 J	0.56 J	0.53 J	0.47 J	0.35 J	0.88 J	0.77 J	NA						
Potassium	2700	6100	7400	5900	6000	7400	8500	3600	3600	3200	2900	27000 B	2700	3500
Selenium	5.0 U	1.1 J B	1.2 J	1.6 J B	1.9 J	0.51 J B	5.0 U	NA						
Silver	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA						
Sodium	28000 B	55000	54000 B	55000	43000 B	69000	60000 B	44000 B	52000	45000 B	29000	10000	26000	29000
Thallium	0.035 J	1.0 U	0.030 J	1.0 U	0.026 J	1.0 U	0.023 J	NA						
Vanadium	1.0 U	0.51 J	1.5	0.35 J	0.86 J	1.2	1.3	NA						
Zinc	3.6 J	5.8	3.7 J	3.8 J	5.8	5.6	3.3 J	NA						
<b>Metals (Dissolved) ug/L</b>														
Antimony	0.12 J	0.20 J	0.25 J	0.22 J	0.37 J	0.15 J	0.15 J	NA						
Arsenic	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 J B	1.0 U	NA						
Barium	36 B	45	46 B	45	47 B	45	45 B	NA						
Beryllium	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA						
Cadmium	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA						
Calcium	53000 B	51000	60000 B	53000	76000 B	43000	46000 B	NA						
Chromium	2.5 B	1.0 J	2.8 B	0.91 J	2.7 B	0.96 J	2.7 B	NA						
Copper	1.5 J	2.1	1.1 J	2	0.86 J	2.4	1.8 J	NA						
Lead	1.0 U	0.091 J	0.048 J B	0.095 J	0.024 J B	0.10 J	0.064 J B	NA						
Magnesium	12000 B	16000	17000 B	18000	25000 B	10000	11000 B	NA						
Mercury	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NA						
Nickel	0.31 J	0.81 J	0.52 J	0.61 J	0.30 J	1.1	0.87 J	NA						
Potassium	2900	6300	8000	6000	6500	7600	9500	NA						
Selenium	0.60 J B	1.3 J B	1.3 J B	0.90 J B	1.7 J B	1.2 J B	0.79 J B	NA						
Silver	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA						
Sodium	30000 B	57000	58000 B	54000	46000 B	69000	68000 B	NA						
Thallium	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NA						
Vanadium	1.0 U	0.48 J	0.45 J	0.94 J	1.0 U	1	0.54 J	NA						
Zinc	2.5 J	5.9	4.2 J	6.6	3.9 J	13	4.1 J	NA						
<b>Miscellaneous mg/L</b>														
Total Alkalinity	120 B	120	160 B	160	190 B	110	120 B	160 B	170 B	120 B	110 B	93 B	100 B	120 B
Bicarbonate Alkalinity as CaCO3	120 B	120	160 B	160	190 B	110	120 B	160 B	170 B	120 B	110 B	5.0 U	100 B	120
Carbonate Alkalinity as CaCO3	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	93 B	5.0 U	5.0 U						
Chloride	56	59	68	66	83	54	56	90 B	130	100	67 B	51	56	61
Nitrate as N	3.4	1.9	2.7	1.8	2.7	2	2.8	4.7	4.2	4.6	3.9	3.9 B	3.8 B	3.6
Sulfate	16	67	59	58	49	89	70	40	28	34	26	23	21 B	28

**Table 1**  
**Codorus Creek Discharges Sampling Results**  
**8/22/2013 Through 8/22/2014**  
**Harley-Davidson FYNOP**

Table 1  
Codorus Creek Discharges Sampling Results  
8/22/2013 Through 8/26/2014  
Harley-Davidson FYNOP

Analyte	COD-SW-26	COD-SW-27-0/-0	COD-SW-27	COD-SW-28	COD-SW-28	COD-SW-28	COD-SW-28	COD-SW-28								
	6/26/2014	1/27/2013	2/4/2014	2/20/2014	3/4/2014	3/17/2014	4/22/2014	5/7/2014	5/20/2014	6/6/2014	6/26/2014	1/27/2013	2/4/2014	2/20/2014	3/4/2014	3/17/2014
<b>Metals (Total) ug/L</b>																
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	25000 B	34000	NA	29000	NA	29000 B	31000	31000	28000 B	26000 B	25000 B	46000	NA	46000	NA	42000 B
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	7700	8100	NA	8600	NA	8500	10000	9000	8000	7200 B	7900	9800	NA	11000	NA	11000
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	5000 B	4300	NA	3700	NA	3300	3400	3100	2600	3600 B	5200 B	7100	NA	5500	NA	4500
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	21000 B	27000	NA	38000	NA	28000 B	26000 B	23000 B	15000	22000 B	22000 B	36000	NA	73000	NA	39000 B
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Metals (Dissolved) ug/L</b>																
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Miscellaneous mg/L</b>																
Total Alkalinity	64 B	96 B	NA	81 B	NA	70 B	87	73 B	74 B	86 B	60 B	130 B	NA	120 B	NA	110 B
Bicarbonate Alkalinity as CaCO3	64 B	96 B	NA	81 B	NA	70 B	87	73 B	74 B	86 B	60 B	130 B	NA	120 B	NA	110 B
CarboNate Alkalinity as CaCO3	5.0 U	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U						
Chloride	30	52	NA	71	NA	74	45 B	31	30	42 B	29	70	NA	150	NA	47
Nitrate as N	3.6	4.7	NA	3.8	NA	4.6	3.7	3.6 B	3.8 B	3.6	3.5	4.1	NA	3.6	NA	4.6
Sulfate	27	31	NA	26	NA	34	28	24	18 B	25 B	28	30	NA	30	NA	33

Table 1  
 Codorus Creek Discharges Sampling Results  
 8/22/2013 Through 8/26/2014  
 Harley-Davidson FYNOP

Analyte	COD-SW-28	COD-SW-28	COD-SW-28	COD-SW-28	COD-SW-28	COD-SW-29	COD-SW-29	COD-SW-29	COD-SW-29	COD-SW-29	
	4/22/2014	5/7/2014	5/20/2014	6/2/2014	6/26/2014	3/18/2014	4/21/2014	5/6/2014	5/19/2014	6/2/2014	6/26/2014
<b>Volatile Organic Compounds (GC/MS) ug/L</b>											
1,1,1,2-Tetrachloroethane	1.0 U										
1,1,1-Trichloroethane	1.0 U										
1,1,2,2-Tetrachloroethane	1.0 U										
1,1,2-Trichloroethane	1.0 U										
1,1-Dichloroethane	1.0 U										
1,1-Dichloroethene	1.0 U										
1,2-Dibromoethane (EDB)	1.0 U										
1,2-Dichloroethane	1.0 U										
1,2-Dichloropropane	1.0 U										
1,4-Dioxane	200 U										
2-Butanone (MEK)	5.0 U										
2-Hexanone	5.0 U										
4-Methyl-2-pentanone (MIBK)	5.0 U										
Acetone	5.0 U	5.0 U	5.0 U	2.5 J	5.0 U	5.0 U	2.7 J	5.0 U	5.0 U	5.0 U	
Acrylonitrile	20 U										
Benzene	1.0 U										
Bromochloromethane	1.0 U										
Bromodichloromethane	1.0 U										
Bromoform	1.0 U										
Bromomethane	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 *	
CarBon disulfide	1.0 U										
CarBon tetrachloride	1.0 U										
ChloroBenzene	1.0 U										
Chloroethane	1.0 U										
Chloroform	1.0 U										
Chloromethane	1.0 U										
cis-1,2-Dichloroethene	0.33 J	1.0 U	1.0 U	0.25 J	1.0 U	0.27 J	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,3-Dichloropropene	1.0 U										
DiBromochloromethane	1.0 U										
EthylBenzene	1.0 U										
Methyl tert-Butyl ether	1.0 U										
Methylene Chloride	1.0 U										
Styrene	1.0 U										
Tetrachloroethene	0.21 J	1.0 U	1.0 U	1.0 U	1.0 U	0.43 J	0.43 J	0.21 J	1.0 U	0.39 J	1.0 U
Toluene	1.0 U	1.0 U	1.0 U	0.16 J	1.0 U						
trans-1,2-Dichloroethene	1.0 U										
trans-1,3-Dichloropropene	1.0 U *	1.0 U									
Trichloroethene	0.34 J	1.0 U	1.0 U	0.22 J	1.0 U	0.33 J	0.50 J	0.17 J	1.0 U	0.33 J	1.0 U
Vinyl chloride	1.0 U										
Xylenes, Total	3.0 U										

Table 1  
 Codorus Creek Discharges Sampling Results  
 8/22/2013 Through 8/26/2014  
 Harley-Davidson FYNOP

Analyte	COD-SW-28	COD-SW-28	COD-SW-28	COD-SW-28	COD-SW-28	COD-SW-29	COD-SW-29	COD-SW-29	COD-SW-29	COD-SW-29
	4/22/2014	5/7/2014	5/20/2014	6/2/2014	6/26/2014	3/18/2014	4/21/2014	5/6/2014	5/19/2014	6/2/2014
<b>Metals (Total) ug/L</b>										
Antimony	NA	NA	NA	NA	NA	0.27 J	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	0.37 J	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	40	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	0.048 J	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	0.17 J	NA	NA	NA	NA
Calcium	50000	51000	47000 B	56000 B	52000 B	34000 B	30000	3000 B	26000 B	29000 B
Chromium	NA	NA	NA	NA	NA	2.2	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	4.9	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	11	NA	NA	NA	NA
Magnesium	13000	12000	11000	12000	13000	9400	8800	28000	7300	7100
Mercury	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	1.9	NA	NA	NA	NA
Potassium	5300	5200	5200	7200	7700 B	3900	3500	20000 B	2600	3500
Selenium	NA	NA	NA	NA	NA	0.44 J	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Sodium	40000 B	35000 B	31000	34000	34000 B	32000	24000	8200	15000	24000
Thallium	NA	NA	NA	NA	NA	0.015 J	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	2.1	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	38 B	NA	NA	NA	NA
<b>Metals (Dissolved) ug/L</b>										
Antimony	NA	NA	NA	NA	NA	0.19 J	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	29	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	30000 B	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	0.97 J	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	0.89 J	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	0.047 J	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	7700	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	0.48 J	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	3800	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	0.43 J	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	32000	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	1 U	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	0.67	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	8.8 B	NA	NA	NA	NA
<b>Miscellaneous mg/L</b>										
Total Alkalinity	130	130 B	130 B	160 B	110 B	68 B	75 B	67 B	68 B	82 B
Bicarbonate Alkalinity as CaCO3	130	130 B	130 B	160	110 B	68 B	75 B	5.0 U	68 B	80
Carbone Alkalinity as CaCO3	5.0 U	5.0 U	5.0 U	6.2	5.0 U	5 U	5.0 U	67 B	5.0 U	5.0 U
Chloride	79 B	66	56	75	47	46	38	30	27	39
Nitrate as N	4.5	3.1	3.6 B	3.4	3.6	4.6	3.6	3.6 B	3.7 B	3.5
Sulfate	31	26	24 B	27	28	33	24	21	16 B	24

**Table 2**  
Groundwater Extraction System Restart Schedule

Days from Start of:			
Extraction Well Restart	2014 Dry Season ShutdownE	Date	Task Description
0		4/7/2014	Begin pumping of groundwater extraction well CW-20.
18-19		4/21 & 22/2014	Sample surface water locations, treatment system effluent, and wells MW-147A, MW-100S,I, D for VOCs, alkalinity, ions.
32		5/5/2014	Site-wide groundwater level monitoring.
32-40		5/5/2014 - 5/13/2014	Sample for VOCs, alkalinity, $\text{Ca}^{2+}$ , $\text{Mg}^{2+}$ , $\text{Na}^{2+}$ , Cl-, K+, SO <sub>4</sub> , NO <sub>3</sub> , CaCO <sub>3</sub> (locations to sample (map): CW-9,CW-13,CW-15A,CW-17,CW-20,MW-100D,MW-100I,MW-100S,MW-114, MW-127, MW-107, MW-132, MW-37D,MW-37S,MW-39D,MW-50D,MW-50S,MW-51D,MW-51S,MW-74S,MW-75D,MW-75S,MW-93D,MW-93S,MW-95,MW-96D,MW-96S,MW-97,MW-98I,MW-98S,MW-99D,MW-99S,MW-145A,MW-147A,COD-SW-6,COD-SW-7,COD-SW-8,COD-SW-9,COD-SW-10,COD-SW-11,COD-SW-12,COD-SW-13,COD-SW-15,COD-SW-16,COD-SW-17,COD-SW-20,COD-SW-26,COD-SW-27,COD-SW-28, COD-SW-29, treatment system effluent).
46-47		5/19 & 20/2014	Sample surface water locations, treatment system effluent, and wells MW-147A, MW-100S,I, D for VOCs, alkalinity, ions.
60-68		6/2/2014 - 6/10/2014	Sample for VOCs, alkalinity, $\text{Ca}^{2+}$ , $\text{Mg}^{2+}$ , $\text{Na}^{2+}$ , Cl-, K+, SO <sub>4</sub> , NO <sub>3</sub> , CaCO <sub>3</sub> (locations to sample (map): CW-9,CW-13,CW-15A,CW-17,CW-20,MW-100D,MW-100I,MW-100S,MW-114, MW-127, MW-107, MW-132, MW-37D,MW-37S,MW-39D,MW-50D,MW-50S,MW-51D,MW-51S,MW-74S,MW-75D,MW-75S,MW-93D,MW-93S,MW-95,MW-96D,MW-96S,MW-97,MW-98I,MW-98S,MW-99D,MW-99S,MW-145A,MW-147A,COD-SW-6,COD-SW-7,COD-SW-8,COD-SW-9,COD-SW-10,COD-SW-11,COD-SW-12,COD-SW-13,COD-SW-15,COD-SW-16,COD-SW-17,COD-SW-20,COD-SW-26,COD-SW-27,COD-SW-28, COD-SW-29, treatment system effluent).
84		6/26/2014	Sample surface water locations for VOCs, alkalinity, ions.
88-91		6/30/2014 - 7/3/2014	Sample for VOCs, alkalinity, $\text{Ca}^{2+}$ , $\text{Mg}^{2+}$ , $\text{Na}^{2+}$ , Cl-, K+, SO <sub>4</sub> , NO <sub>3</sub> , CaCO <sub>3</sub> (locations to sample (map): CW-9,CW-13,CW-15A,CW-17,CW-20,MW-100D,MW-100I,MW-100S,MW-114, MW-127, MW-107, MW-132, MW-37D,MW-37S,MW-39D,MW-50D,MW-50S,MW-51D,MW-51S,MW-74S,MW-75D,MW-75S,MW-93D,MW-93S,MW-95,MW-96D,MW-96S,MW-97,MW-98I,MW-98S,MW-99D,MW-99S,MW-145A,MW-147A,COD-SW-6,COD-SW-7,COD-SW-8,COD-SW-9,COD-SW-10,COD-SW-11,COD-SW-12,COD-SW-13,COD-SW-15,COD-SW-16,COD-SW-17,COD-SW-20,COD-SW-26,COD-SW-27,COD-SW-28, COD-SW-29, treatment system effluent).
102-103		7/14 & 15/2014	Sample surface water locations, treatment system effluent, and wells MW-147A, MW-100S,I, D for VOCs, alkalinity, ions.
111		7/23/2014	Begin pumping of groundwater extraction well CW-9.
123-127		8/4/2014 - 8/8/2014	Sample for VOCs, alkalinity, $\text{Ca}^{2+}$ , $\text{Mg}^{2+}$ , $\text{Na}^{2+}$ , Cl-, K+, SO <sub>4</sub> , NO <sub>3</sub> , CaCO <sub>3</sub> (locations to sample (map): CW-9,CW-13,CW-15A,CW-17,CW-20,MW-100D,MW-100I,MW-100S,MW-114, MW-127, MW-107, MW-132, MW-37D,MW-37S,MW-39D,MW-50D,MW-50S,MW-51D,MW-51S,MW-74S,MW-75D,MW-75S,MW-93D,MW-93S,MW-95,MW-96D,MW-96S,MW-97,MW-98I,MW-98S,MW-99D,MW-99S,MW-145A,MW-147A,COD-SW-6,COD-SW-7,COD-SW-8,COD-SW-9,COD-SW-10,COD-SW-11,COD-SW-12,COD-SW-13,COD-SW-15,COD-SW-16,COD-SW-17,COD-SW-20,COD-SW-26,COD-SW-27,COD-SW-28, COD-SW-29, treatment system effluent).
130	0	8/11/2014	Shut off groundwater extraction system (CW-9 and CW-20) for Dry Season Shutdown Test.
144	14	8/25/2014	Sample <b>surface water</b> locations for VOCs, alkalinity, ions.
158-162	28-32	9/8/2014 - 9/12/2014	Sample for VOCs, alkalinity, and ions at <b>surface water</b> locations and <b>wells</b> listed above, except treatment system effluent. Download data loggers.
172	42	9/22/2014	Sample <b>surface water</b> locations for VOCs, alkalinity, ions.
186-190	56-60	10/6/2014 - 10/10/2014	Sample for VOCs, alkalinity, and ions at <b>surface water</b> locations and <b>wells</b> listed above, except treatment system effluent. Download data loggers.
193-218	63-88	10/13/2014 - 11/7/2014	<b>Annual Comprehensive Sampling.</b>
200	70	10/20/2014	Sample <b>surface water</b> locations for VOCs, alkalinity, ions. Download data loggers.
218	88	11/7/2014	End of 2014 Dry Season Shutdown Test.

Note that the sampling schedule could be modified, depending on excessive runoff and groundwater recharge.

Table 3  
Groundwater RI (Part 2)  
Summary of Wells to be Sampled During Comprehensive Sampling Program -2014

Location Type	Location ID	Area	Rock Type	Rationale	Parameters												
					GWRI-1&2	NPBA/LTM	SD	MNA	Bldg 58	SPBA/S	KW	VOCs	MNA & Dissolved Gases	Chromium	1,4-Dioxane	Cyanide	Na, K, Ca, Mg
Monitoring Well	Cole (Flush)	SPBA	Carbonate	Off-site trend for VOC					X		X						
Monitoring Well	Cole Steel	SPBA	Carbonate	Off-site trend for VOC					X		X						
Monitoring Well	Cole B	SPBA	Carbonate	Off-site trend for VOC					X		X						
Monitoring Well	Cole D	Off-site/SPBA	Carbonate	Off-site trend for VOC					X	X	X						
Monitoring Well	Cole F	Off-site/SPBA	Carbonate	Off-site trend for VOC			X		X	X	X	X					
Monitoring Well	MW-4 (Cole)	SPBA	Carbonate	Off-site trend for VOC					X	X	X	X					
Monitoring Well	GM-1D	SPBA	Carbonate	Off-site trend for VOC					X		X						
Collection Well	CW-1	NPBA	Phyllite	Groundwater Extraction Well/LTM	X						X	X					
Collection Well	CW-1A	NPBA	Phyllite	Groundwater Extraction Well/LTM	X						X	X					
Collection Well	CW-2	NPBA	Phyllite	Groundwater Extraction Well/LTM	X						X	X					
Collection Well	CW-3	NPBA	Phyllite	Groundwater Extraction Well/LTM	X						X	X					
Collection Well	CW-4	NPBA	Quartzite	Groundwater Extraction Well/LTM	X		X				X	X	X				
Collection Well	CW-5	NPBA	Quartzite	Groundwater Extraction Well/LTM	X						X	X					
Collection Well	CW-6	NPBA	Phyllite	Groundwater Extraction Well/LTM	X						X	X					
Collection Well	CW-7	NPBA	Phyllite	Groundwater Extraction Well/LTM	X						X	X					
Collection Well	CW-7A	NPBA	Phyllite	Groundwater Extraction Well/LTM	X						X	X					
Collection Well	CW-8	TCA	Carbonate	Groundwater Extraction Well			X				X	X	X				
Collection Well	CW-9	WPL	Carbonate	Groundwater Extraction Well/SD		X					X	X					X X
Collection Well	CW-13	WPL	Carbonate	Groundwater Extraction Well/SD		X	X				X	X	X				X X
Collection Well	CW-15A	WPL	Carbonate	Groundwater Extraction Well/SD		X	X				X	X	X			X	X
Collection Well	CW-17	WPL	Carbonate	Groundwater Extraction Well/SD		X					X	X					X X
Monitoring Well	CW-18	Bldg 2		SD, SW of Bldg 58		X		X				X					X X
Collection Well	CW-20	WPL	Carbonate	Groundwater Extraction Well/SD		X					X	X					X X
Monitoring Well	MW-2	CN	Quartzite	Monitor CN area							X	X					X
Monitoring Well	MW-3	NPBA	Quartzite	Down-gradient edge of NPBA plume	X		X				X	X					
Monitoring Well	MW-7	WPL	Carbonate	Monitor GW downgradient of potential Cr source   SD		X	X				X	X	X	X	X	X	X X
Monitoring Well	MW-9	NPBA	Phyllite	LTM		X		X			X	X					
Monitoring Well	MW-11	NPBA	Phyllite	LTM		X						X					
Monitoring Well	MW-12	NPBA	Phyllite	LTM		X		X			X	X					
Monitoring Well	MW-16D	NPBA	Quartzite	LTM		X						X					
Monitoring Well	MW-16S	NPBA	Quartzite	LTM		X						X					
Monitoring Well	MW-18D	NPBA	Quartzite	LTM		X		X			X	X					
Monitoring Well	MW-18S	NPBA	Quartzite	LTM		X		X			X	X					
Monitoring Well	MW-20D	NPBA	Quartzite	LTM		X						X					
Monitoring Well	MW-20S	NPBA	Quartzite	LTM		X						X					
Monitoring Well	MW-20M	NPBA	Quartzite	LTM		X						X					
Monitoring Well	MW-29	SPBA	Carbonate	SW of Bldg58 Area					X			X					
Monitoring Well	MW-37D	WWPL	Carbonate	SD monitoring		X						X					X X
Monitoring Well	MW-37S	WWPL	Carbonate	SD monitoring		X						X					X X
Monitoring Well	MW-39D	WWPL	Carbonate	SD monitoring		X						X					X X
Monitoring Well	MW-40D	SPBA	Carbonate	Monitor GW along SPBA					X	X		X					
Monitoring Well	MW-40S	SPBA	Carbonate	Monitor GW along SPBA					X	X		X					
Monitoring Well	MW-43D	SPBA	Carbonate	Monitor GW along SPBA					X	X		X					
Monitoring Well	MW-43S	SPBA	Carbonate	Monitor GW along SPBA					X	X		X					
Monitoring Well	MW-47	WPL	Carbonate	Monitor GW downgradient of potential Cr source							X	X				X	
Monitoring Well	MW-49D	NBldg4	Carbonate	Monitor MNA in deep plume			X				X	X	X	X			
Monitoring Well	MW-49S	NBldg4	Carbonate	1,4-dioxane exceeds non-residential MSC							X	X				X	
Monitoring Well	MW-50D	WPL	Carbonate	VOC trend for CW-15A		X					X	X				X X	
Monitoring Well	MW-50S	WPL	Carbonate	VOC trend for CW-15A		X					X	X				X X	
Monitoring Well	MW-51D	WPL	Carbonate	VOC trend for CW-15A		X	X				X	X	X	X		X X	
Monitoring Well	MW-51S	WPL	Carbonate	VOC trend for CW-15A		X	X				X	X	X	X		X X	
Monitoring Well	MW-57	Bldg 58	Overburden	SW of Bldg58 Area					X			X					
Monitoring Well	MW-64D	SPBA	Carbonate	VOC trend for SPBA			X		X	X	X	X	X				
Monitoring Well	MW-64S	SPBA	Overburden	VOC trend for SPBA			X		X	X	X	X	X				
Monitoring Well	MW-74S	WPL	Carbonate	SD monitoring		X						X					X X
Monitoring Well	MW-75D	WPL	Carbonate	SW Corner issue/Boundary/SD		X						X					X X
Monitoring Well	MW-75S	WPL	Carbonate	SW Corner issue/Boundary		X					X	X					
Monitoring Well	MW-77	UST-T4	Overburden	VOC trend for UST-T4 area							X	X					
Monitoring Well	MW-82	NPA	Carbonate	North Corner/Boundary							X	X					
Monitoring Well	MW-85	SPBA	Carbonate	Monitor GW along SPBA						X	X						
Monitoring Well	MW-87	Bldg 58	Carbonate	Near potential VOC source					X		X	X				X	

Table 3  
Groundwater RI (Part 2)  
Summary of Wells to be Sampled During Comprehensive Sampling Program -2014

Location Type	Location ID	Area	Rock Type	Rationale	Parameters												
					GWRI-1&2	NPBA-LTM	SD	MNA	Bldg 58	SPBA/S	KW	VOCs	MNA & Dissolved Gases	Chromium	1,4-Dioxane	Cyanide	Na, K, Ca, Mg
Monitoring Well	MW-88	SPBA	Carbonate	SW of Bldg58 Area				X			X						
Monitoring Well	MW-93D	WPL	Carbonate	SD monitoring			X				X					X	X
Monitoring Well	MW-93S	WPL	Carbonate	SD monitoring			X				X					X	X
Monitoring Well	MW-95	WPL	Carbonate	Supplemental RI well - build database for trend/SD			X				X	X				X	X
Monitoring Well	MW-96D	WPL	Carbonate	Supplemental RI well - build database for trend/SD			X				X	X				X	X
Monitoring Well	MW-96S	WPL	Carbonate	Supplemental RI well - build database for trend/SD			X				X	X				X	X
Monitoring Well	MW-97	WPL	Carbonate	SD monitoring			X				X					X	X
Monitoring Well	MW-98D	WWPL/Levee	Phyllite	Supplemental RI well - build database for trend/SD	X	X					X	X				X	X
Monitoring Well	MW-98I	WWPL/Levee	Carbonate	Supplemental RI well - build database for trend/SD	X	X	X				X	X	X			X	X
Monitoring Well	MW-98S	WWPL/Levee	Carbonate	Supplemental RI well - build database for trend/SD	X	X	X				X	X	X			X	X
Monitoring Well	MW-99D	WWPL/Levee	Carbonate	Supplemental RI well - build database for trend/SD	X	X	X				X	X	X			X	X
Monitoring Well	MW-99S	WWPL/Levee	Carbonate	Supplemental RI well - build database for trend/SD	X	X	X				X	X	X			X	X
Monitoring Well	MW-100D	WWPL/Levee	Carbonate	Supplemental RI well - build database for trend/SD	X	X	X				X	X	X			X	X
Monitoring Well	MW-100I	WWPL/Levee	Carbonate	Supplemental RI well - build database for trend/SD	X	X					X	X				X	X
Monitoring Well	MW-100S	WWPL/Levee	Carbonate	Supplemental RI well - build database for trend/SD	X	X	X				X	X	X			X	X
Monitoring Well	MW-101D	WWPL/Levee	Carbonate	Supplemental RI well - build database for trend	X						X	X	X				
Monitoring Well	MW-101S	WWPL/Levee	Carbonate	Supplemental RI well - build database for trend	X						X	X	X				
Monitoring Well	MW-102D	NETT	Quartzite	Supplemental RI well - build database for trend	X								X				
Monitoring Well	MW-102S	NETT	Overburden	Supplemental RI well - build database for trend	X								X				
Monitoring Well	MW-103D	NETT	???	Supplemental RI well - build database for trend	X								X				
Monitoring Well	MW-103S	NETT	Overburden	Supplemental RI well - build database for trend	X								X				
Monitoring Well	MW-106	WPL	Overburden	Supplemental RI well - build database for trend	X							X	X				
Monitoring Well	MW-107	WPL	Overburden	Supplemental RI well - build database for trend/SD	X	X						X				X	X
Monitoring Well	MW-108D	Off-site	Quartzite/Carb	Supplemental RI well - build database for trend	X							X	X				
Monitoring Well	MW-108S	Off-site	Overburden	Supplemental RI well - build database for trend	X							X	X	X			
Monitoring Well	MW-109D	Off-site	Carbonate	Supplemental RI well - build database for trend	X							X		X			
Monitoring Well	MW-109S	Off-site	Overburden	Supplemental RI well - build database for trend	X							X	X	X			
Monitoring Well	MW-110	Off-site	Carbonate	Supplemental RI well - build database for trend	X		X					X	X	X			
Monitoring Well	MW-113	Bldg 58	Carbonate	Supplemental RI well - build database for trend	X					X			X			X	
Monitoring Well	MW-114	W Bldg2 Corridor	Carbonate	GWRI Part 2 well-build database for trend/SD	X	X						X				X	X
Monitoring Well	MW-116	Bldg 41	Carbonate	Supplemental RI well - build database for trend	X							X					
Monitoring Well	MW-126	Bldg 58	Carbonate	GWRI Part 2 well-build database for trend	X					X		X					
Monitoring Well	MW-127	Bldg 58	Carbonate	GWRI Part 2 well-build database for trend/SD	X	X	X					X				X	X
Monitoring Well	MW-128	Bldg 58	Carbonate	GWRI Part 2 well-build database for trend	X					X		X					
Monitoring Well	MW-129	Bldg 58	Carbonate	GWRI Part 2 well-build database for trend	X					X		X				X	
Monitoring Well	MW-130	W Bldg2 Corridor	Carbonate	GWRI Part 2 well-build database for trend	X							X				X	
Monitoring Well	MW-131	Bldg 2	Carbonate	GWRI Part 2 well-build database for trend	X							X				X	
Monitoring Well	MW-132	Bldg 2	Carbonate	GWRI Part 2 well-build database for trend/SD	X	X						X				X	X
Monitoring Well	MW-133	Bldg 2	Carbonate	GWRI Part 2 well-build database for trend	X							X				X	
Monitoring Well	MW-134	W Bldg2 Corridor	Carbonate	GWRI Part 2 well-build database for trend	X							X				X	
Monitoring Well	MW-135	W Bldg2 Corridor	Carbonate	GWRI Part 2 well-build database for trend	X							X				X	
Waterloo MLS	MW-136A (270-348)	WPL	Carbonate	GWRI Part 2 well-build database for trend	X							X		X	X	X	
Waterloo MLS	MW-136A (356-356.5)	WPL	Carbonate	GWRI Part 2 well-build database for trend	X							X		X	X	X	
Waterloo MLS	MW-136A (372.5-373)	WPL	Carbonate	GWRI Part 2 well-build database for trend	X							X		X	X	X	
Waterloo MLS	MW-136A (434-434.5)	WPL	Carbonate	GWRI Part 2 well-build database for trend	X							X		X	X	X	
Waterloo MLS	MW-136A (459.5-460)	WPL	Carbonate	GWRI Part 2 well-build database for trend													
Waterloo MLS	MW-137A (287-296)	TCA	Carbonate	GWRI Part 2 well-build database for trend	X			X				X		X	X		
Waterloo MLS	MW-137A (343-343.5)	TCA	Carbonate	GWRI Part 2 well-build database for trend													
Waterloo MLS	MW-137A (374.5-375)	TCA	Carbonate	GWRI Part 2 well-build database for trend													
Waterloo MLS	MW-137A (420-420.5)	TCA	Carbonate	GWRI Part 2 well-build database for trend													
Waterloo MLS	MW-137A (434.5-435)	TCA	Carbonate	GWRI Part 2 well-build database for trend	X							X					
Monitoring Well	MW-138A	Bldg 58	Carbonate	GWRI Part 2 well-build database for trend	X							X					
Waterloo MLS	MW-139A (305.5-306)	W Bldg2 Corridor	Carbonate	GWRI Part 2 well-build database for trend													
Waterloo MLS	MW-139A (334-334.5)	W Bldg2 Corridor	Carbonate	GWRI Part 2 well-build database for trend													
Waterloo MLS	MW-139A (365.5-366)	W Bldg2 Corridor	Carbonate	GWRI Part 2 well-build database for trend													
Waterloo MLS	MW-139A (422-422.5)	W Bldg2 Corridor	Carbonate	GWRI Part 2 well-build database for trend	X		X					X		X			
Waterloo MLS	MW-139A (454.5-455)	W Bldg2 Corridor	Carbonate	GWRI Part 2 well-build database for trend													
Waterloo MLS	MW-140A (209.5-210)	W Bldg2 Corridor	Carbonate	GWRI Part 2 well-build database for trend													
Waterloo MLS	MW-140A (285-285.5)	W Bldg2 Corridor	Carbonate	GWRI Part 2 well-build database for trend													
Waterloo MLS	MW-140A (323.5-324)	W Bldg2 Corridor	Carbonate	GWRI Part 2 well-build database for trend													
Waterloo MLS	MW-140A (372-372.5)	W Bldg2 Corridor	Carbonate	GWRI Part 2 well-build database for trend													

Table 3  
Groundwater RI (Part 2)  
Summary of Wells to be Sampled During Comprehensive Sampling Program -2014

Location Type	Location ID	Area	Rock Type	Rationale	Parameters												
					GWRI-1&2	NPBA_LTM	SD	MNA	Bldg 58	SPBA/S	KW	VOCs	MNA & Dissolved Gases	Chromium	1,4-Dioxane	Cyanide	Na, K, Ca, Mg
Waterloo MLS	MW-140A (407.5-408)	W Bldg2 Corridor	Carbonate	GWRI Part 2 well-build database for trend	X						X						
Monitoring Well	MW-141A	SPBA	Carbonate	GWRI Part 2 well-build database for trend	X			X		X	X	X	X				
Monitoring Well	MW-142D	NPBA	Phyllite	GWRI Part 2 well-build database for trend/LTM	X	X					X						
Monitoring Well	MW-142S	NPBA	Phyllite	GWRI Part 2 well-build database for trend/LTM	X	X					X						
Monitoring Well	MW-143D	NPA	Carbonate	GWRI Part 2 well-build database for trend/LTM	X	X					X						
Monitoring Well	MW-143S	NPA <sup>1</sup>	Overburden	GWRI Part 2 well-build database for trend/LTM	X	X					X						
Monitoring Well	MW-144	WWPL	Overburden	GWRI Part 2 well-build database for trend	X						X						
Monitoring Well	MW-145A	WWPL	Carbonate	GWRI Part 2 well-build database for trend/SD	X		X				X				X	X	
Monitoring Well	MW-146	WWPL	Overburden	GWRI Part 2 well-build database for trend	X			X			X	X					
Monitoring Well	MW-147A	WWPL	Carbonate	GWRI Part 2 well-build database for trend/SD	X		X	X			X	X			X	X	
Waterloo MLS	MW-148A (72.5-73)	Off-site	Carbonate	GWRI Part 2 well-build database for trend	X						X						
Waterloo MLS	MW-148A (136-136.5)	Off-site	Carbonate	GWRI Part 2 well-build database for trend	X						X						
Waterloo MLS	MW-148A (218.5-219)	Off-site	Phyllite	GWRI Part 2 well-build database for trend	X						X						
Monitoring Well	MW-150	Off-site	Carbonate	GWRI Part 2 well-build database for trend	X			X		X	X						
Monitoring Well	MW-151	Off-site	Quartzite	GWRI Part 2 well-build database for trend	X						X	X					
Waterloo MLS	MW-152 (137.5-138)	Off-site	Carbonate	GWRI Part 2 well-build database for trend	X						X	X					
Waterloo MLS	MW-152 (23-23.5)	Off-site	Carbonate	GWRI Part 2 well-build database for trend	X						X	X					
Monitoring Well	MW-155	WWPL	Overburden	GWRI Part 2 well-build database for trend	X						X						
Monitoring Well	MW-156	WWPL	Overburden	GWRI Part 2 well-build database for trend	X						X						
Residential Well	RW-2	Off-site/NPBA		Off-site residential trend for VOC			X		X		X	X	X				
Residential Well	RW-4 Folk	Off-site/NPBA	Phyllite	Off-site trend for VOC - NPBA LTM		X					X	X					
Residential Well	RW-5	Off-site/South		Off-site trend for VOC						X	X	X					
Lift Station	Softail Lift Station	Bldg3		Bldg 3 LTM							X	X					
Spring	TATE (S-6)	Off-site/NPBA		Off-site trend for VOC - NPBA LTM		X					X	X					
Surface Water	COD-SW-6	Codorus Creek		Determine COCs in creek	X		X				X				X	X	
Surface Water	COD-SW-7	Codorus Creek		Determine COCs in creek	X		X				X				X	X	
Surface Water	COD-SW-8	Codorus Creek		Determine COCs in creek	X		X				X				X	X	
Surface Water	COD-SW-9	Codorus Creek		Determine COCs in creek	X		X				X				X	X	
Surface Water	COD-SW-10	Codorus Creek		Determine COCs in creek	X		X				X				X	X	
Surface Water	COD-SW-11	Codorus Creek		Determine COCs in creek	X		X				X				X	X	
Surface Water	COD-SW-12	Codorus Creek		Determine COCs in creek	X		X				X				X	X	
Surface Water	COD-SW-13	Codorus Creek		Determine COCs in creek	X		X				X				X	X	
Spring	COD-SW-15	Codorus Creek		Determine COCs in spring	X		X				X				X	X	
Surface Water	COD-SW-16	Codorus Creek		Determine COCs in creek	X		X				X				X	X	
Spring	COD-SW-17	Codorus Creek		Determine COCs in spring	X		X				X				X	X	
Surface Water	COD-SW-20	Codorus Creek		Determine COCs in creek	X		X				X				X	X	
Spring	COD-SW-26	Codorus Creek		Determine COCs in spring	X		X				X				X	X	
Surface Water	COD-SW-27	Codorus Creek		Determine COCs in creek	X		X				X				X	X	
Surface Water	COD-SW-28	Codorus Creek		Determine COCs in creek	X		X				X				X	X	
Surface Water	COD-SW-29	Codorus Creek		Determine COCs in creek	X		X				X				X	X	

Sampling Program Abbreviations:

RI-2 - Well installed during the GWRI Part2 program

2011KW - Well Sampled during 2011 Key well sampling

NPBA\_B3 - Well to be sampled for NPBA/Bldg 3 Monitored Shutdown Program

S - Well to be sampled for SPBA/South of Site Characterization

1,4\_D - Selected to monitor the elevated 1,4-dioxane plume

SD - Sampling for remediation system Shut Down test

LTM - Long-term Monitoring

NETT - Monitoring of plume in North End Test Track (NETT)

Sampling ports are unusable.

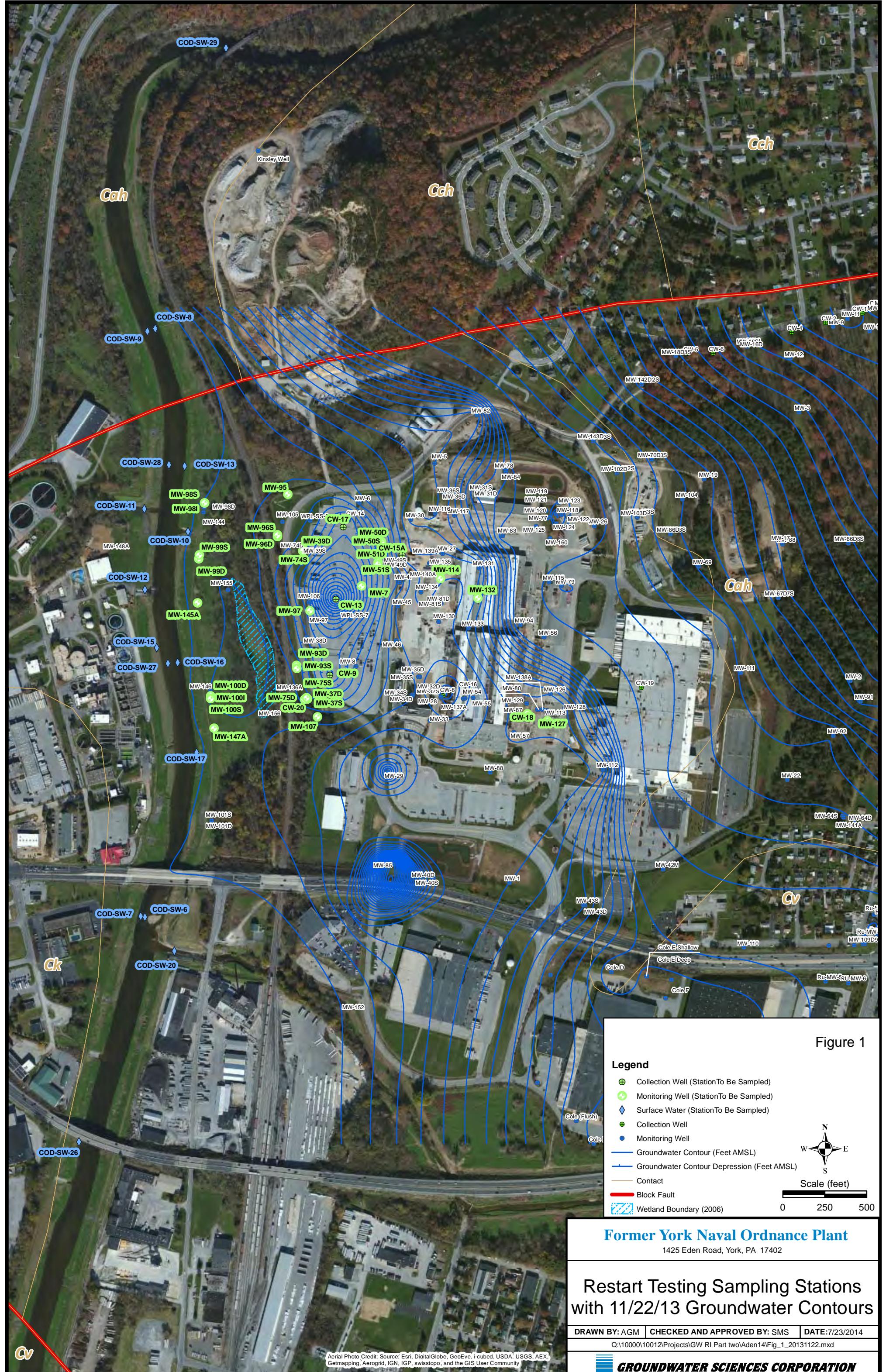
Sampling ports are unreliable.

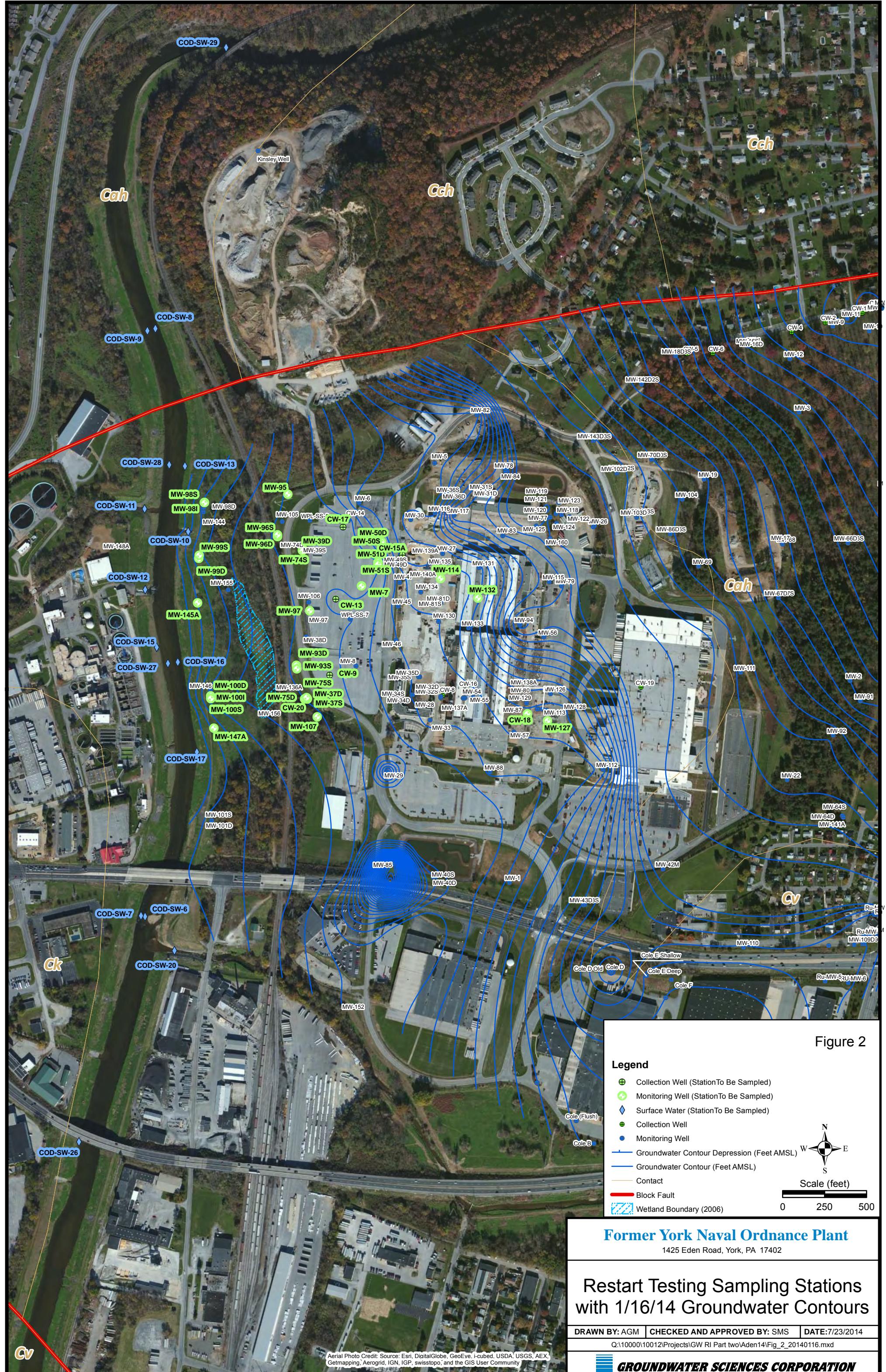
**TABLE 4**  
**NATURAL ATTENUATION ANALYTICAL AND FIELD SCREENING PARAMETERS**

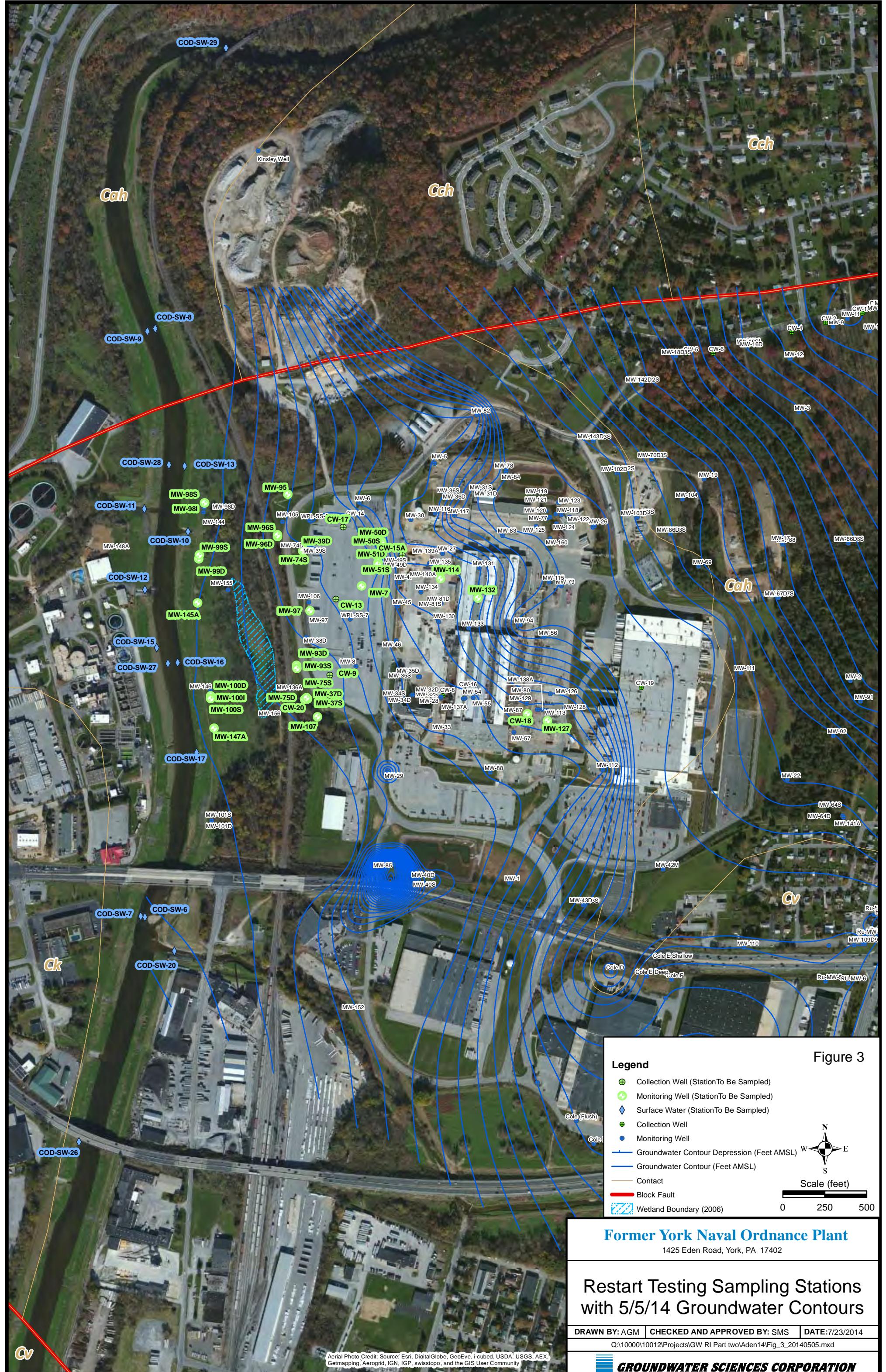
Parameter	Method/Reference	Rationale	Sample Volume, Container, and Preservation	Field or Fixed-Base Laboratory
<b>Organics</b>				
Volatile Organic Compounds	SW-846 8260B	CVOCs are primary target analytes for monitoring natural attenuation.	40 mL, glass, HCl, cool, 4°C	Fixed-base
<b>Bacterial</b>				
Dehalococcoides (qDCH)	Census DNA®/Microbial Insights	Bacterial group capable of reductive dechlorination of PCE and TCE to ethene.	Bio-Flo filter/Falcon Tube, cool, 4°C	Fixed-base
Vinyl Chloride Reductase (bvcA)	Census DNA®/Microbial Insights	Detects a strain (BAV1) of Dehalococcoides responsible for reductive dechlorination of Vinyl Chloride to ethene.	Bio-Flo filter/Falcon Tube, cool, 4°C	Fixed-base
TCE Reductase (tceA)	Census DNA®/Microbial Insights	Indicates some strains of Dehalococcoides responsible for reductive dechlorination of TCE to cis-1,2 DCE.	Bio-Flo filter/Falcon Tube, cool, 4°C	Fixed-base
Vinyl Chloride Reductase (vcrA)	Census DNA®/Microbial Insights	Detects a strain (VS 5) of Dehalococcoides responsible for reductive dechlorination of cis-1,2DCE and Vinyl Chloride to ethene.	Bio-Flo filter/Falcon Tube, cool, 4°C	Fixed-base
Dehalobacter spp.	Census DNA®/Microbial Insights	Bacterial group capable of reductive dechlorination of PCE and TCE to cis-1,2 DCE and TCA to chloroethane.	Bio-Flo filter/Falcon Tube, cool, 4°C	Fixed-base
<b>Inorganics</b>				
Alkalinity, Total	SM20 2320B	General water quality parameter, assess buffering capacity of groundwater.	200 mL plastic or glass, cool, 4°C	Fixed-base
Chloride	EPA 300.0	General water quality parameter to assist in assessing potential contributions from road deicing salts. Final product of chlorinated solvent reduction.	50 mL plastic or glass, cool, 4°C	Fixed-base
Iron, Ferric	SW-846 6010B mod. (calculated)	Assess potential for vinyl chloride oxidation under ferric iron reducing conditions.	500 mL - 1 L plastic or glass, cool, 4°C, HNO <sub>3</sub> to pH<2, field filter	Fixed-base
Iron, Ferrous	SM20 3500 Fe B mod.	May serve as an indicator of anaerobic degradation of vinyl chloride and fuel compounds.	250 mL amber glass, cool, 4°C, HCl to pH<2, analyze immediately	Fixed-base
Iron, Dissolved	SW-846 6010B	Assess if anaerobic biological activity is solubilizing iron from aquifer soils.	500 mL - 1 L plastic or glass, cool, 4°C, HNO <sub>3</sub> to pH<2, field filter	Fixed-base
Manganese, Dissolved	SW-846 6010B	Assess if anaerobic biological activity is solubilizing manganese for aquifer soils.	500 mL - 1 L plastic or glass, cool, 4°C, HNO <sub>3</sub> to pH<2, field filter	Fixed-base
Nitrate	EPA 300.0	Substrate for microbial respiration if oxygen is depleted. Potential marker for contributions from sewers.	50 mL plastic or glass, cool, 4°C (48 hour max hold)	Fixed-base
Dissolved Organic Carbon	EPA 415.1 mod.	Assess availability of carbon to drive reductive dechlorination.	125 mL glass, cool, 4°C	Fixed-base
Sodium, Dissolved	SW-846 6010B	General water quality parameter to assist in assessing potential contributions from road deicing salts.	500 mL - 1 L plastic or glass, cool, 4°C, HNO <sub>3</sub> to pH<2	Fixed-base
Sulfate	EPA 300.0	Substrate for anaerobic microbial respiration.	50 mL plastic or glass, cool, 4°C	Fixed-base
Sulfide	SM20 4500 S <sub>2</sub> F/D or EPA 376.1/376.2	Assess anaerobic conditions supporting reductive dechlorination.	500 mL, glass, cool, 4°C, NaOH, ZnAc (no headspace)	Fixed-base
<b>Dissolved Gases</b>				
Ethene and Ethane	AM20GAX	Monitor daughter products of reductive dechlorination.	2 x 40 mL, glass, Na <sub>2</sub> PO <sub>4</sub> , cool, 4°C	Fixed-base
Methane and Carbon Dioxide	AM20GAX	Monitor respiration products associated with biodegradation.	2 x 40 mL, glass, Na <sub>2</sub> PO <sub>4</sub> , cool, 4°C	Fixed-base
<b>Field Screening Parameters</b>				
pH	QED MP-20 Multimeter and flow cell, or equivalent	Stabilization parameter for low-flow sampling, aerobic and anaerobic biological processes are pH sensitive.	Not applicable	Field
Temperature		Stabilization parameter for low-flow sampling, assist in monitoring influence of thermal treatment.	Not applicable	Field
Specific Conductance		Stabilization parameter for low-flow sampling, general water quality parameter.	Not applicable	Field
Oxidation-Reduction Potential		Stabilization parameter for low-flow sampling, assess aerobic and anaerobic nature of biodegradation of CVOCs.	Not applicable	Field
Dissolved Oxygen		Stabilization parameter for low-flow sampling, assess aerobic and anaerobic nature of biodegradation of CVOCs.	Not applicable	Field
Turbidity		Stabilization parameter for low-flow sampling.	Not applicable	Field

## **FIGURES**

*August 8, 2014*







**FIGURE 4**  
**CW-20 Start-up Water level monitoring Data**  
**(April 7 - July 7, 2014)**

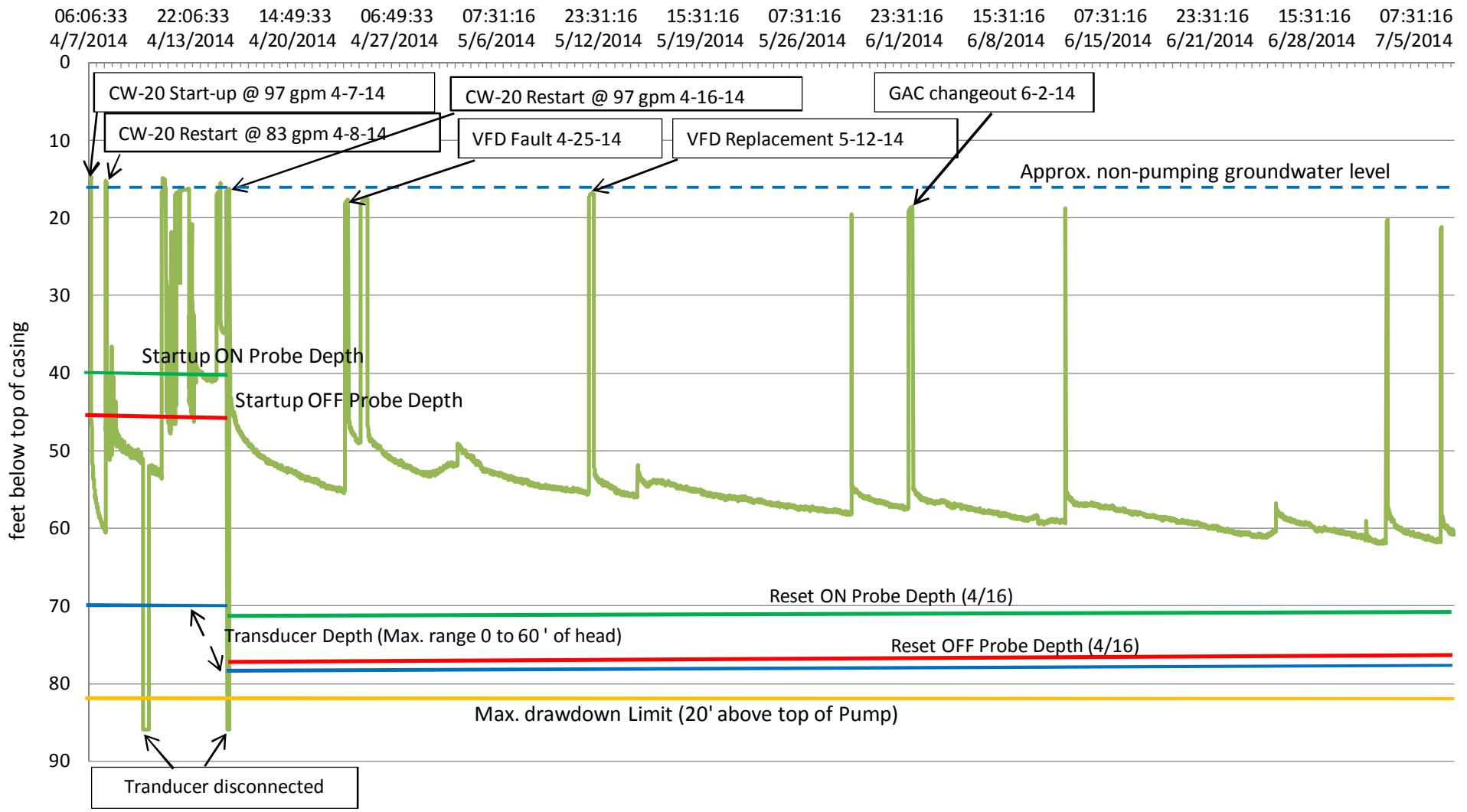


FIGURE 5  
MW-37D  
Hydrograph

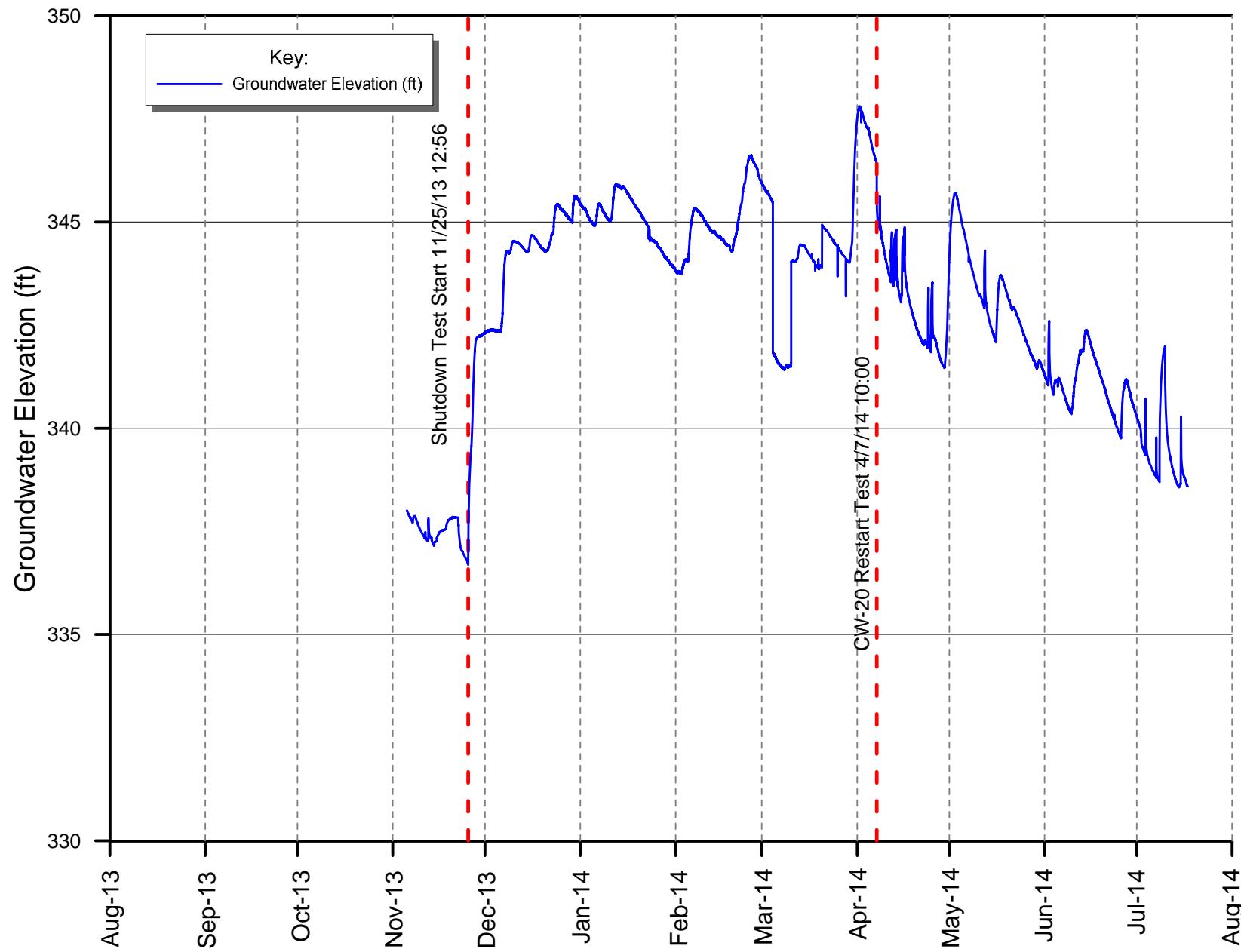


FIGURE 6  
MW-75S  
Hydrograph

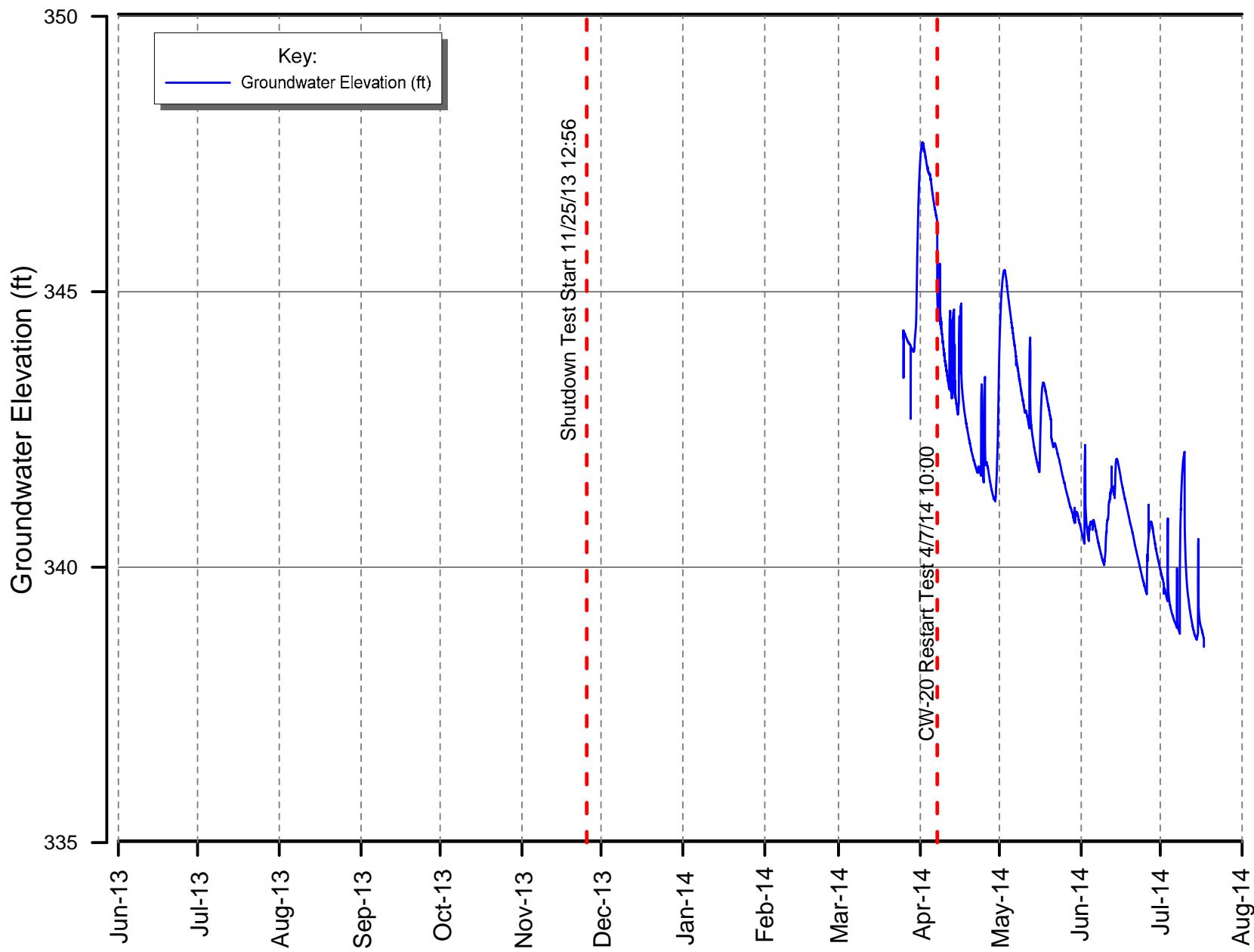
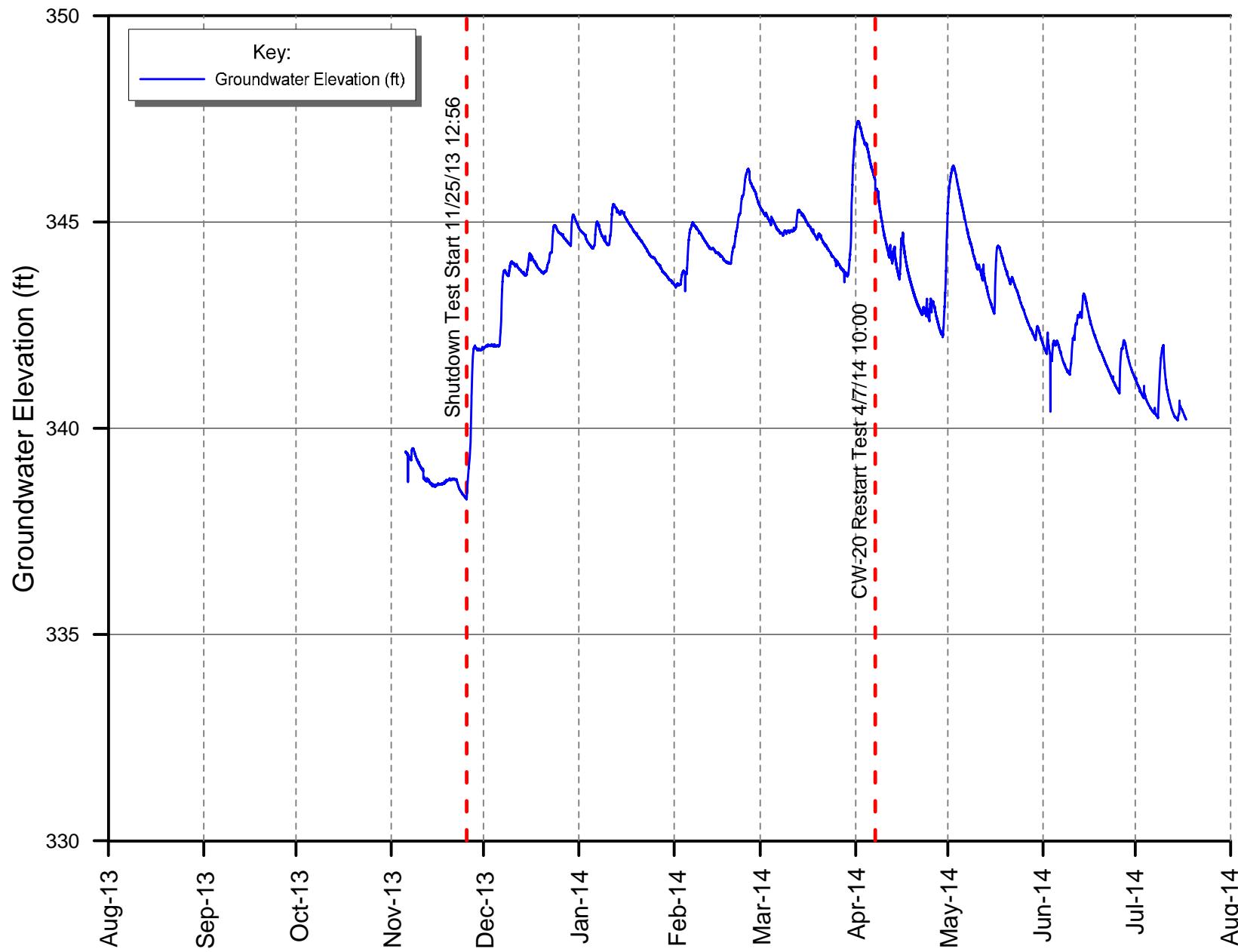
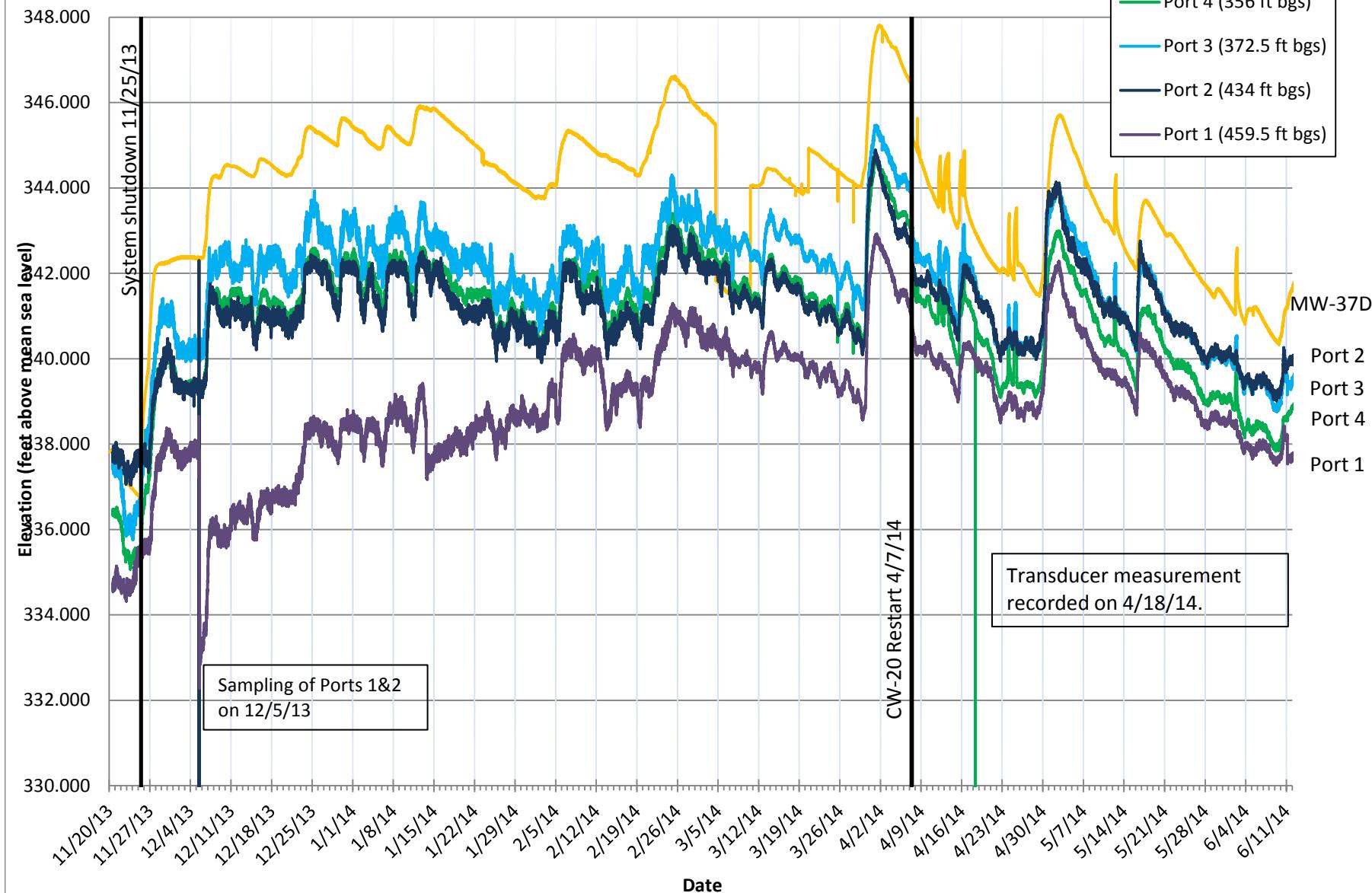


FIGURE 7  
MW-93D  
Hydrograph



**Figure 8**  
**MW-136A Area Potentiometric Elevations**



**Figure 9**  
**MW-136A Potentiometric Elevations During CW-20 Start-up**

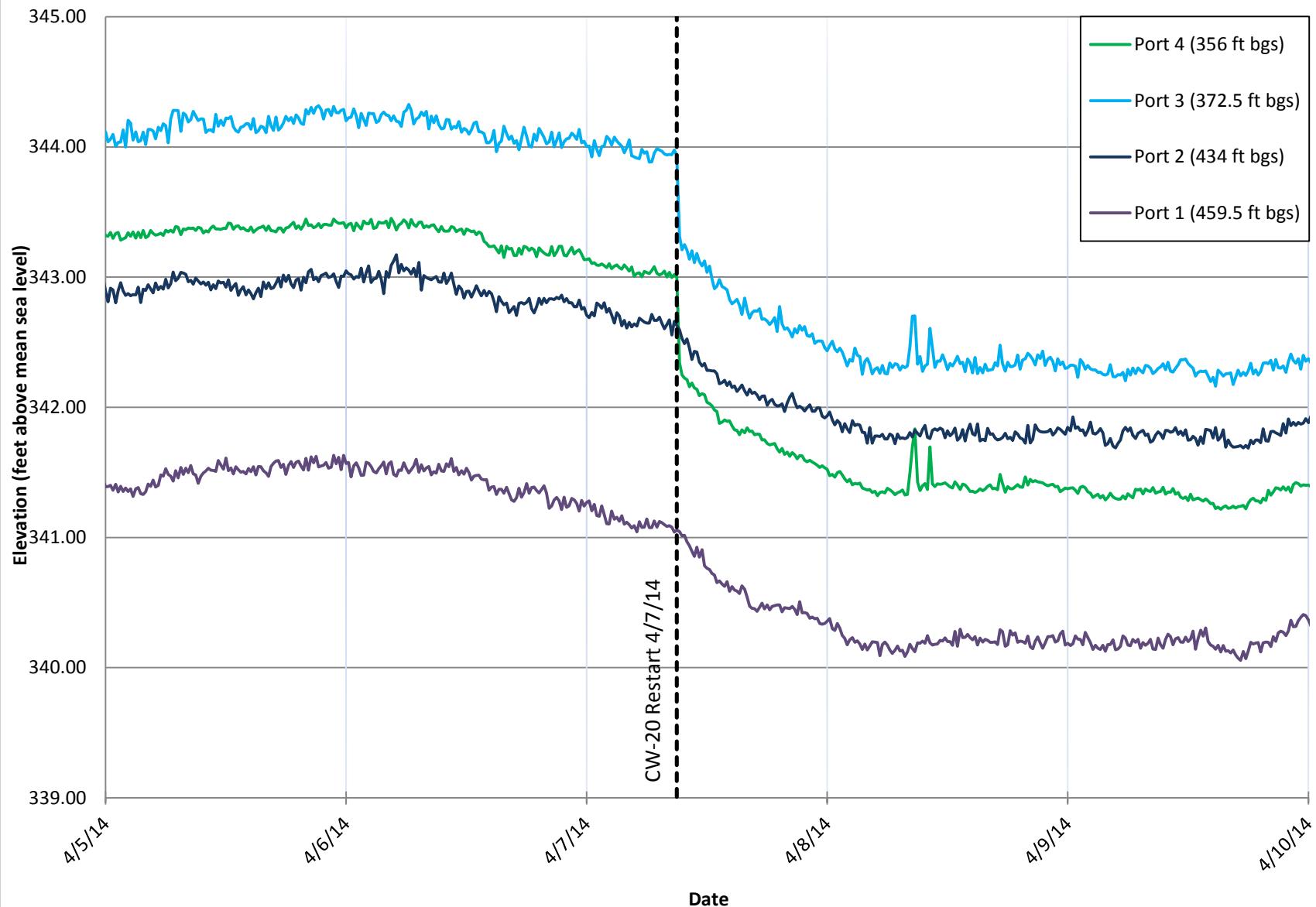
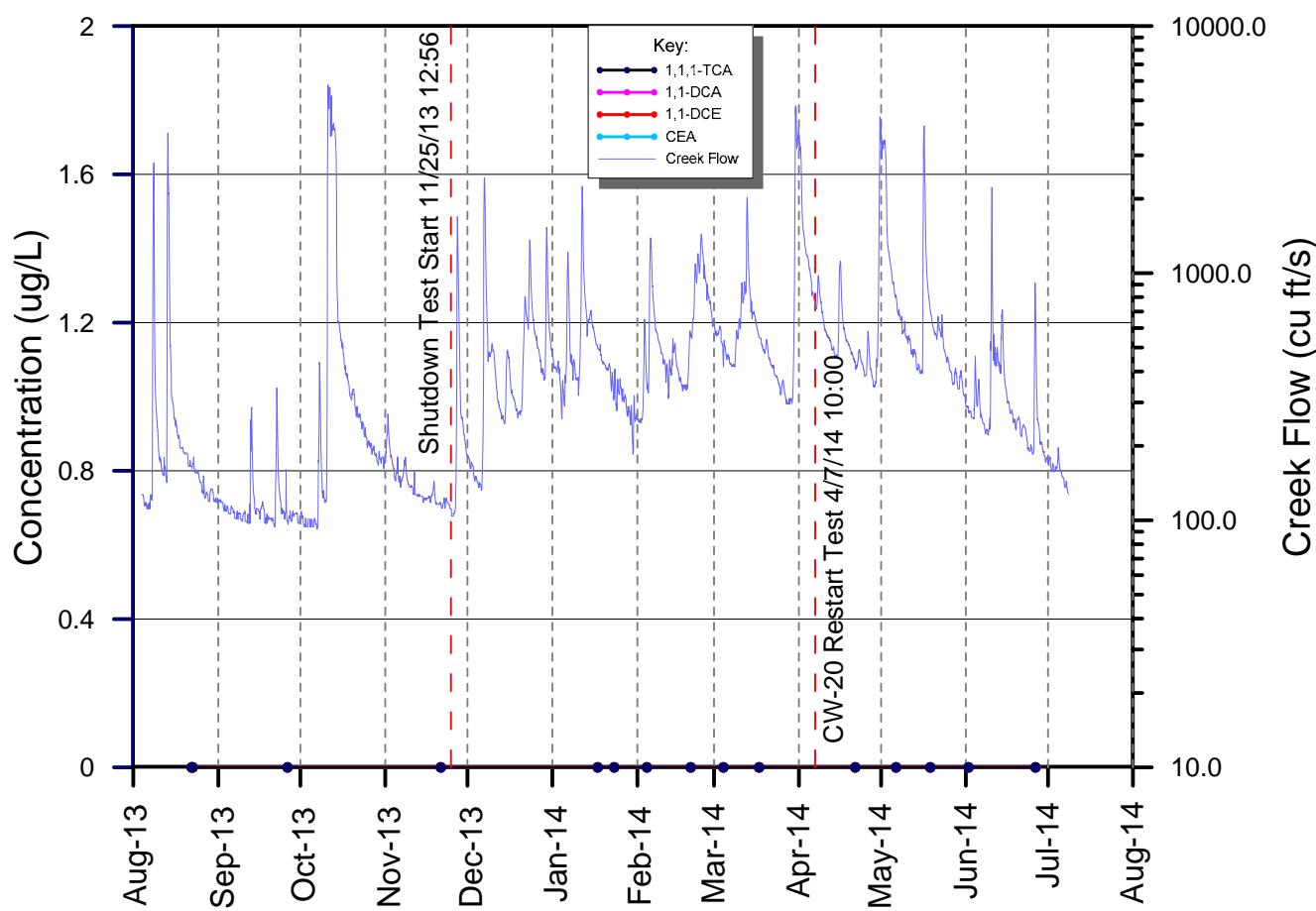
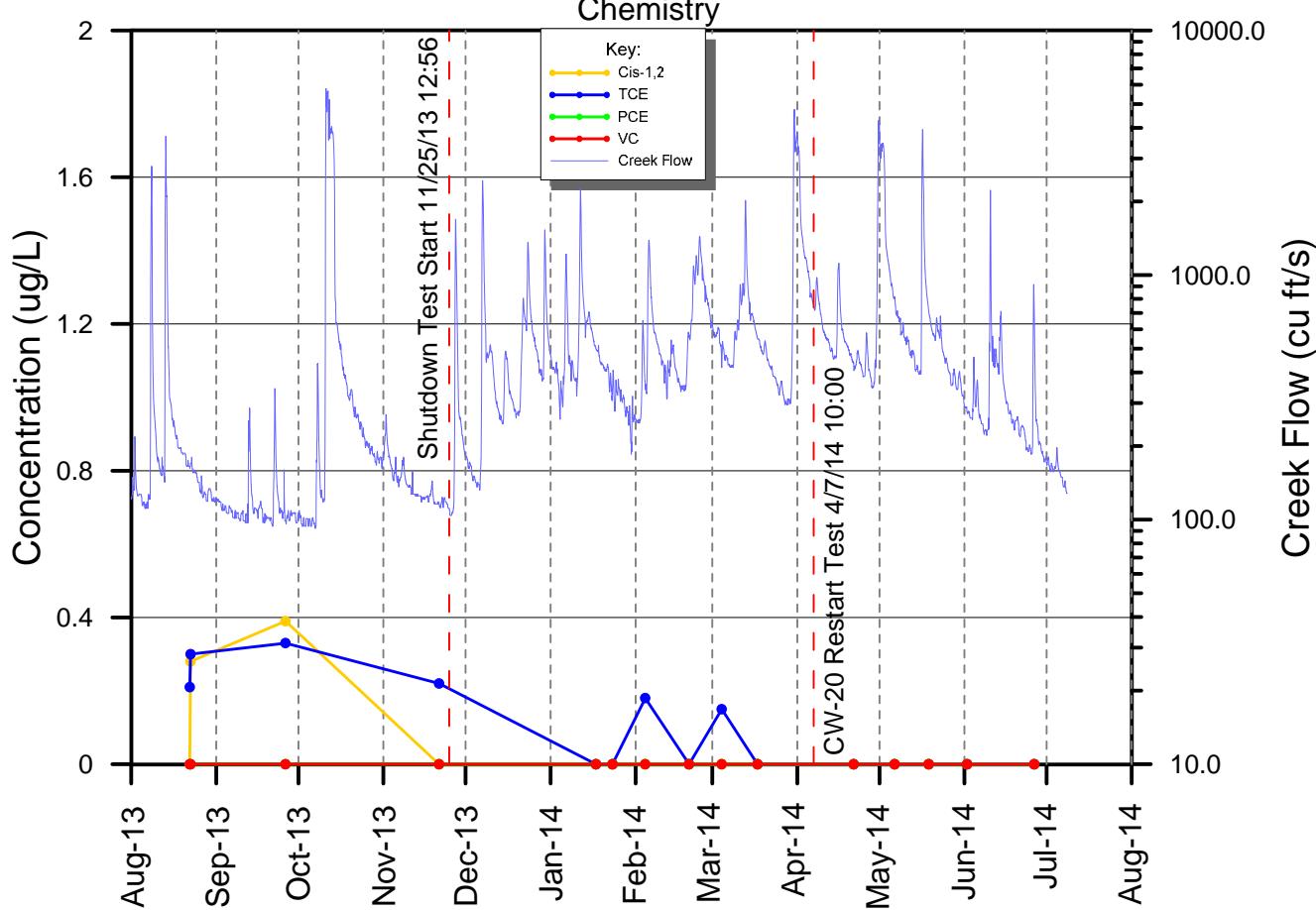


FIGURE 10

**SW-6**  
**Chemistry**



**FIGURE 11**  
**SW-8**  
**Chemistry**

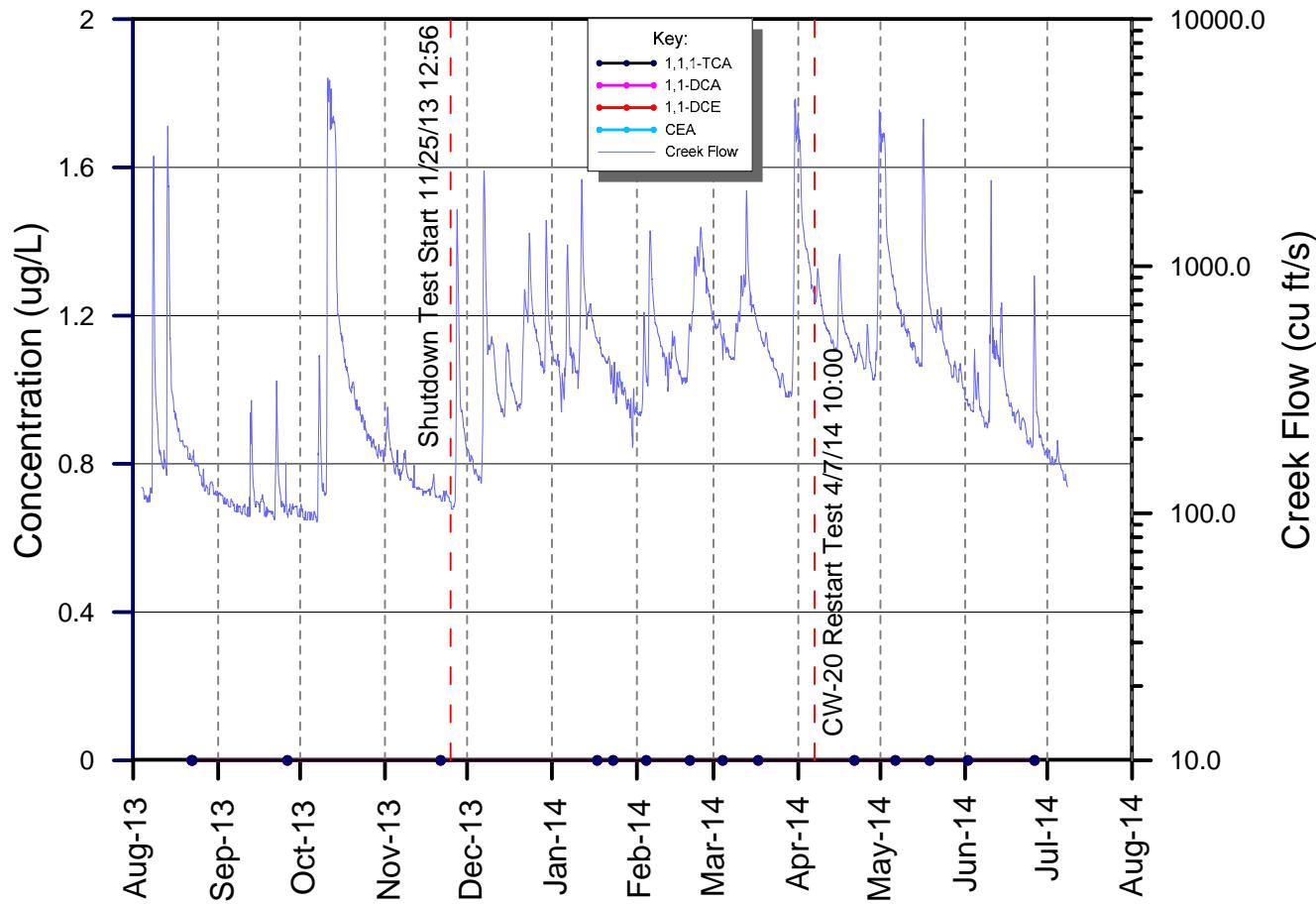
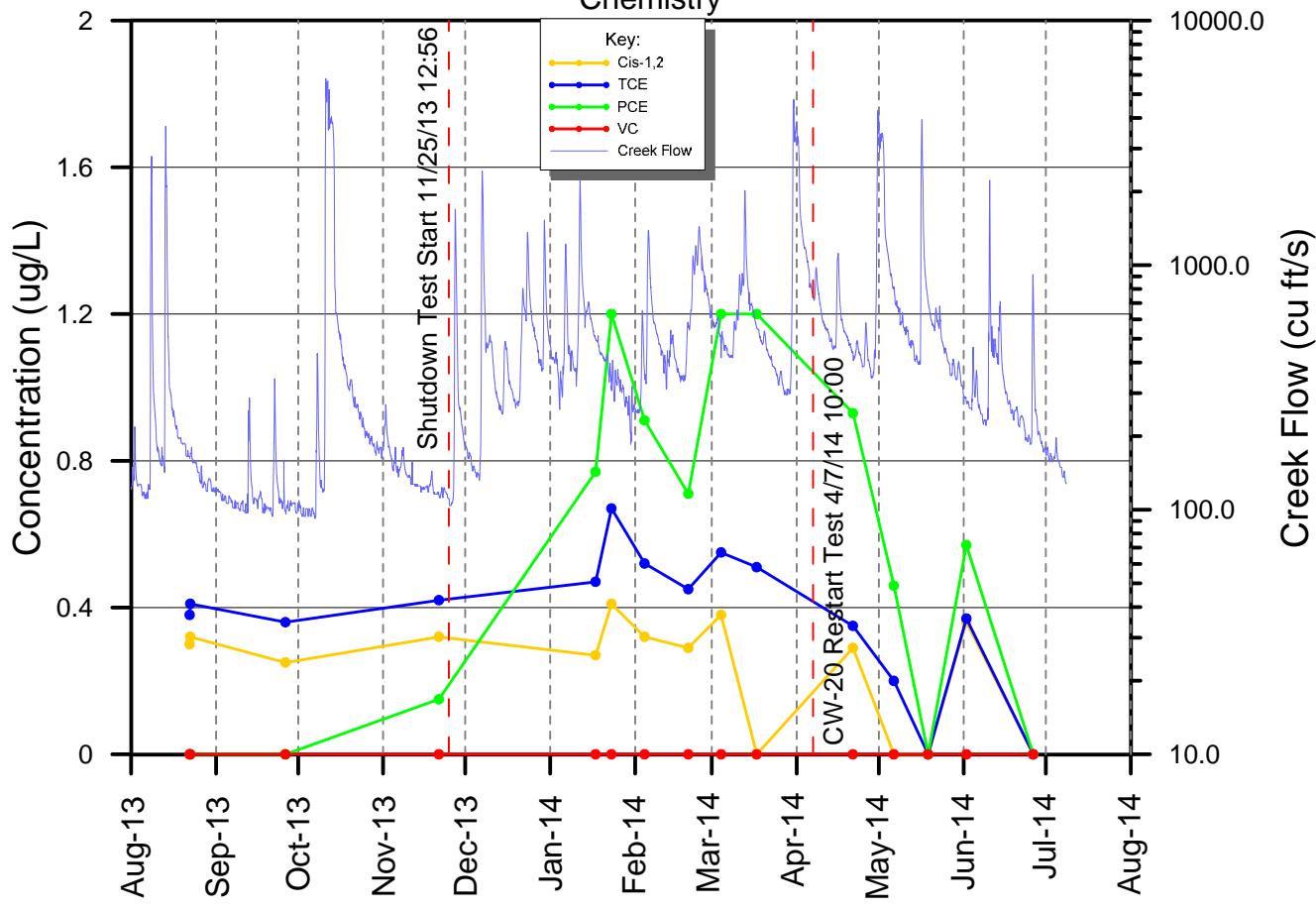
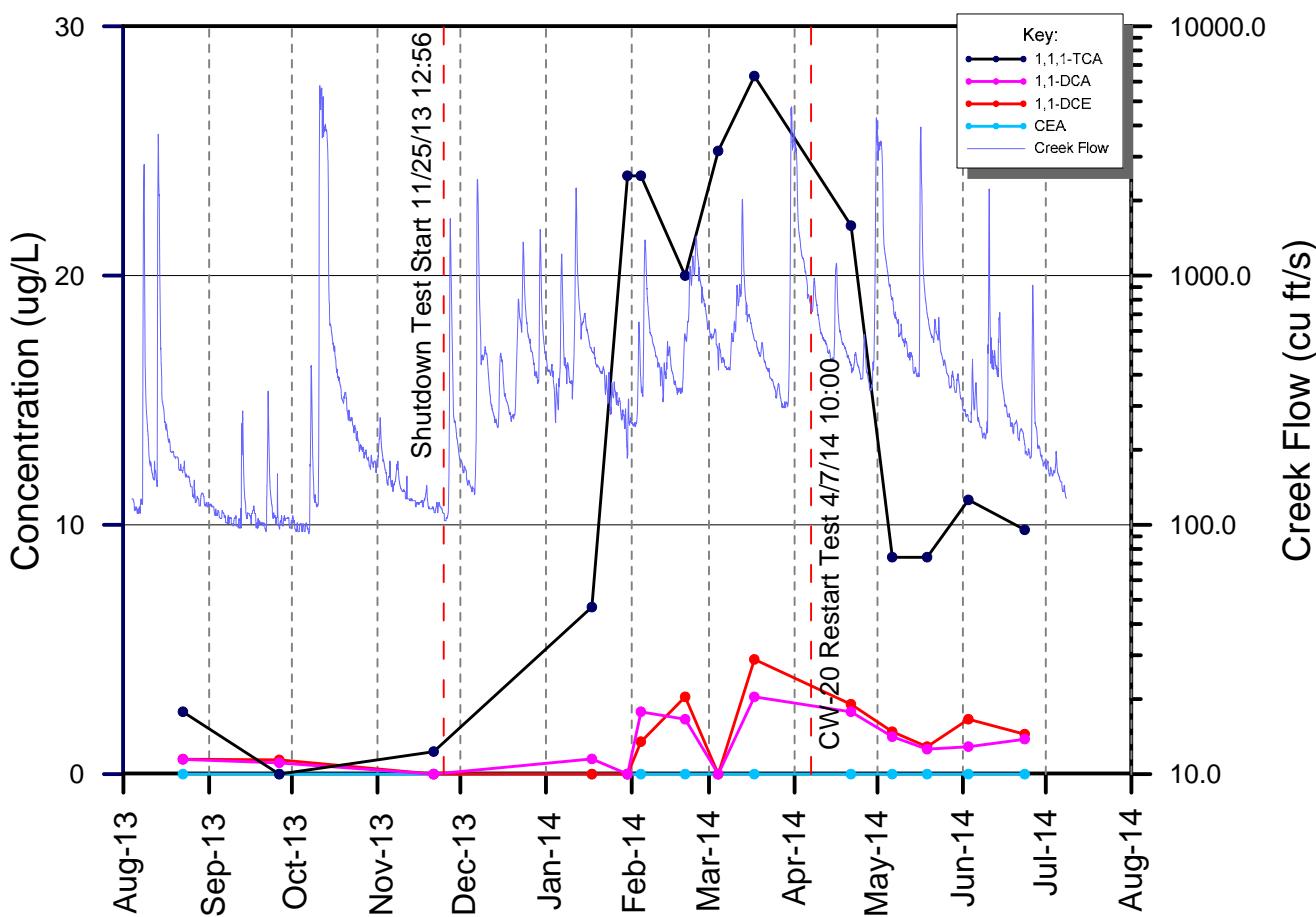
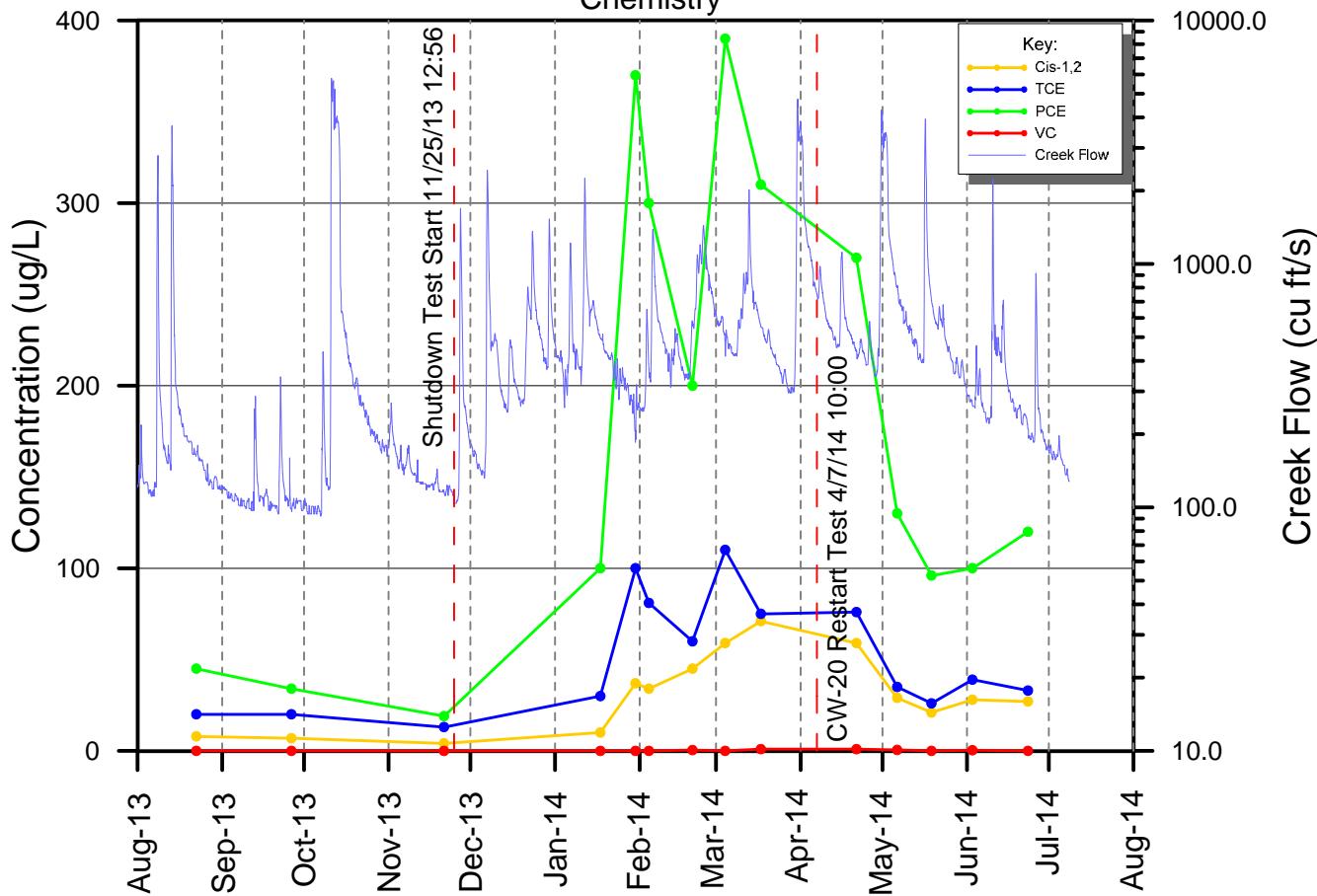


FIGURE 12  
SW-17  
Chemistry

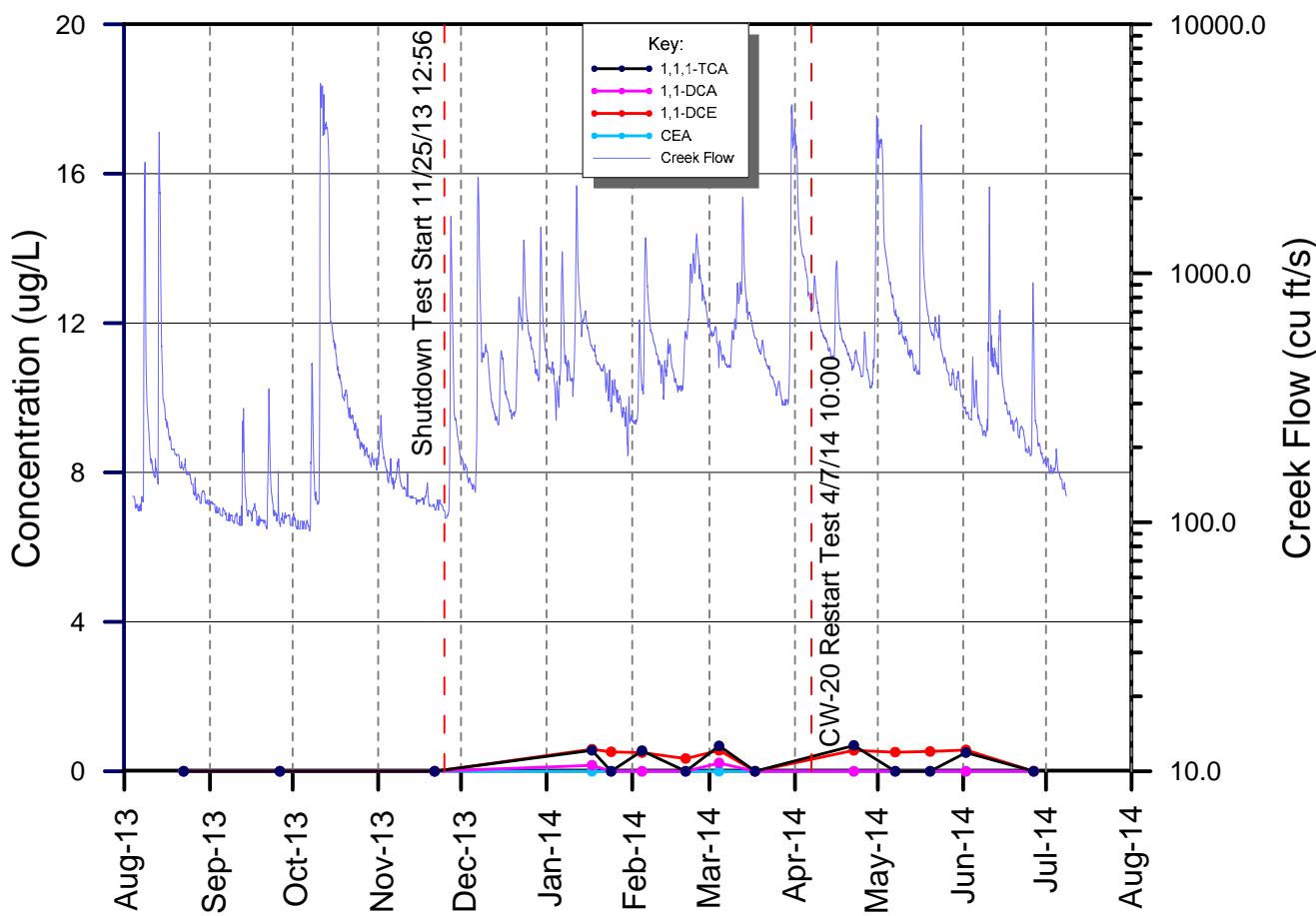
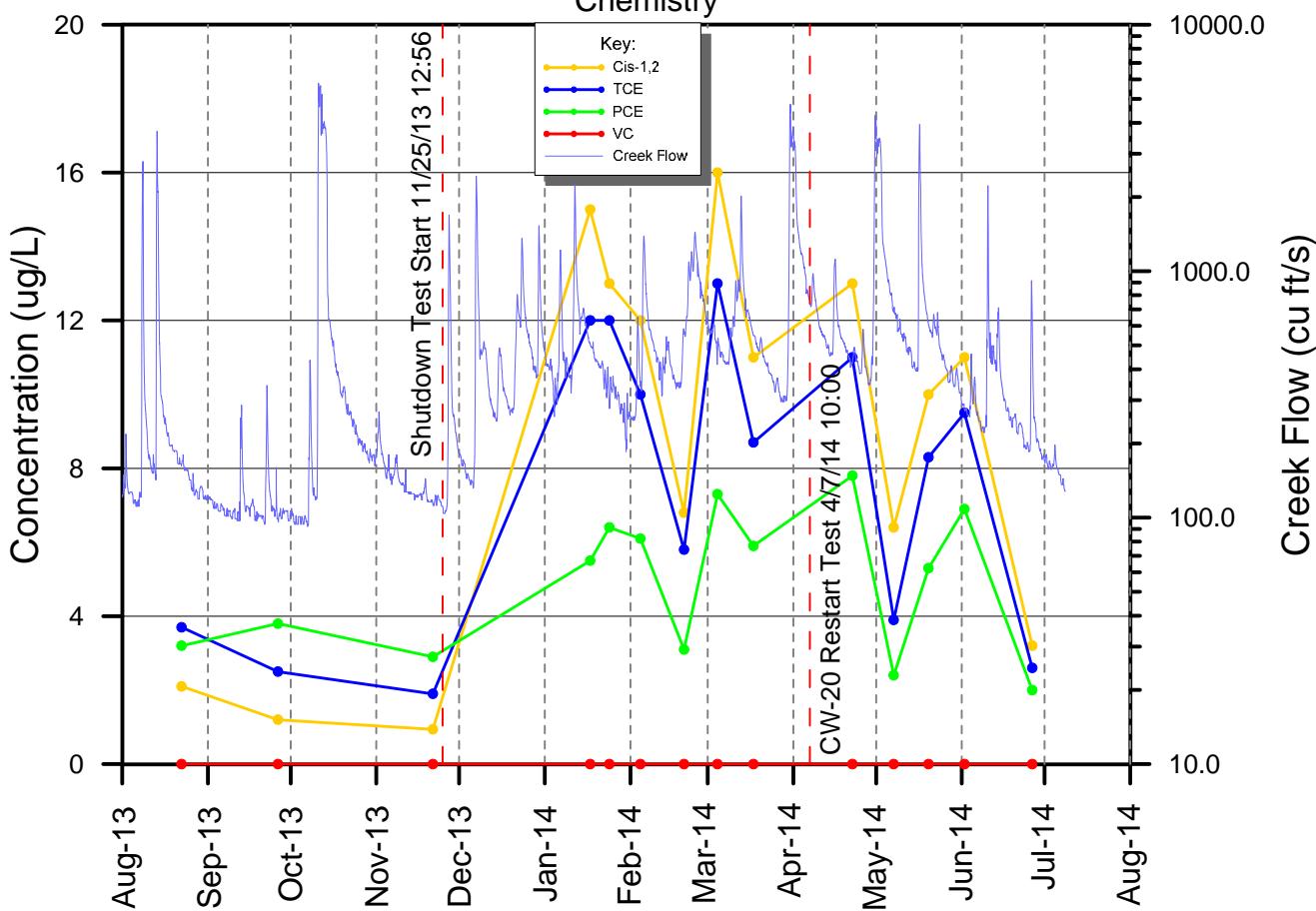


**Figure 13 – SW-17 Piping Apparatus**

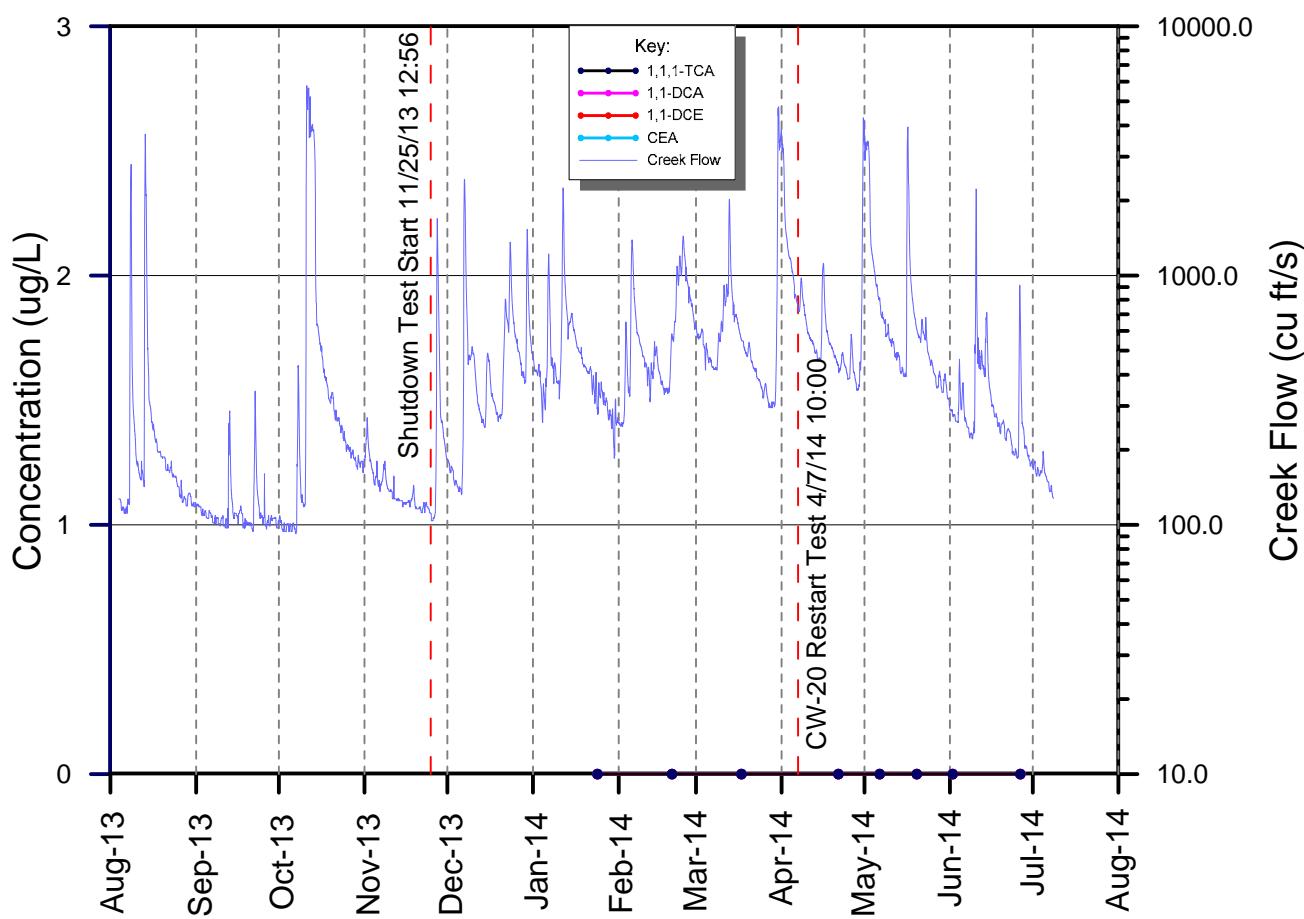
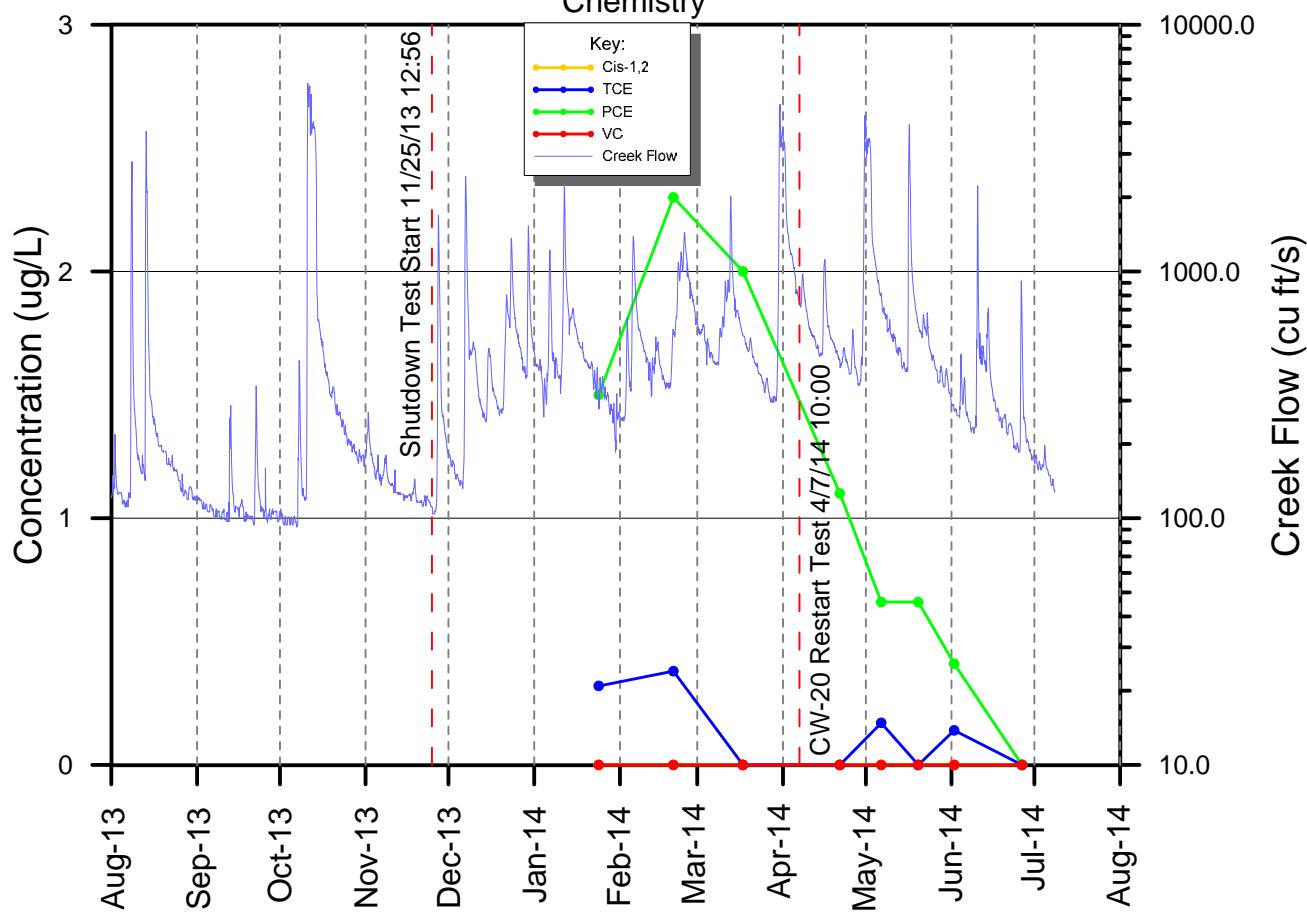


Sampling piping constructed to facilitate SW-17 submerged spring sampling.

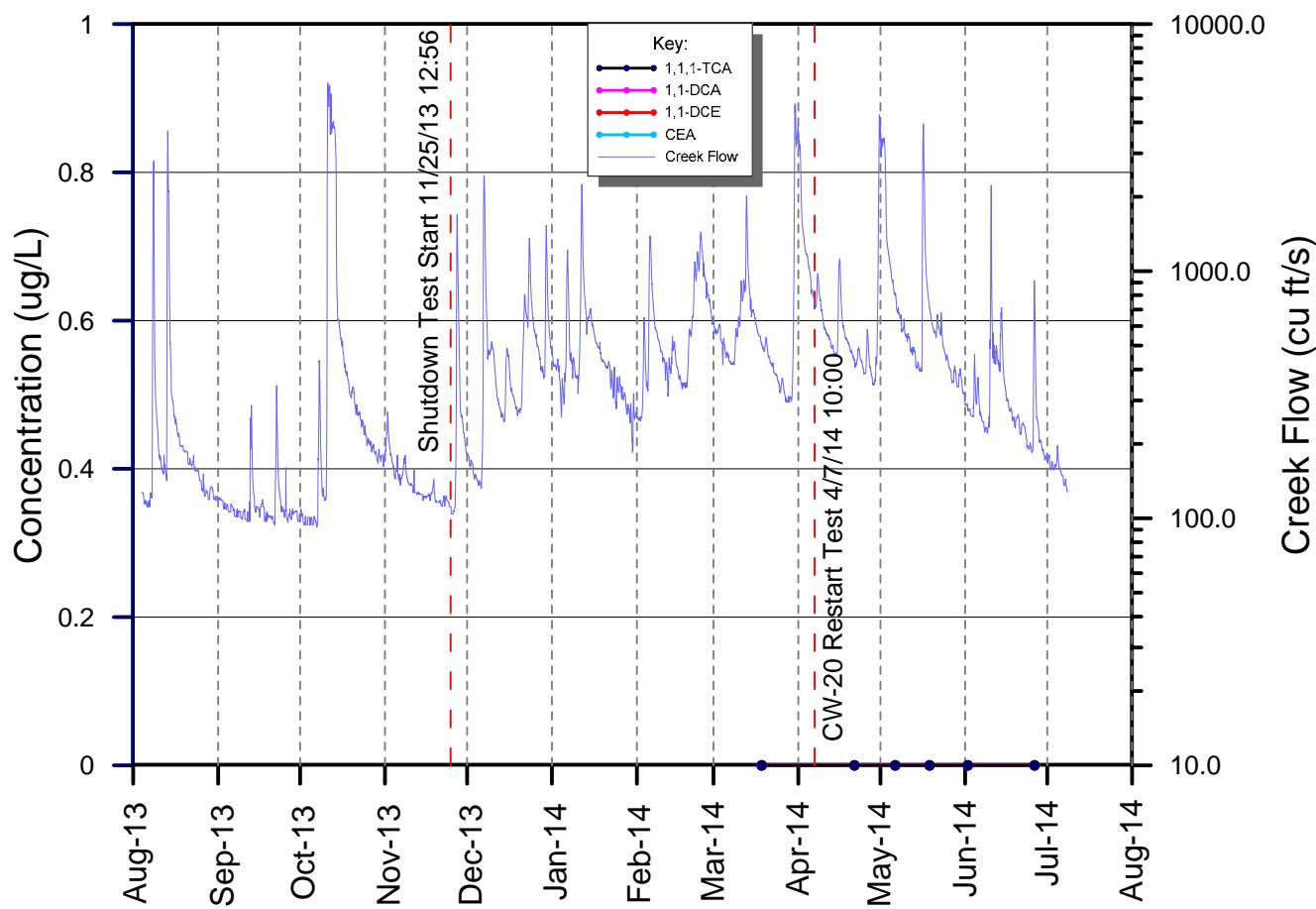
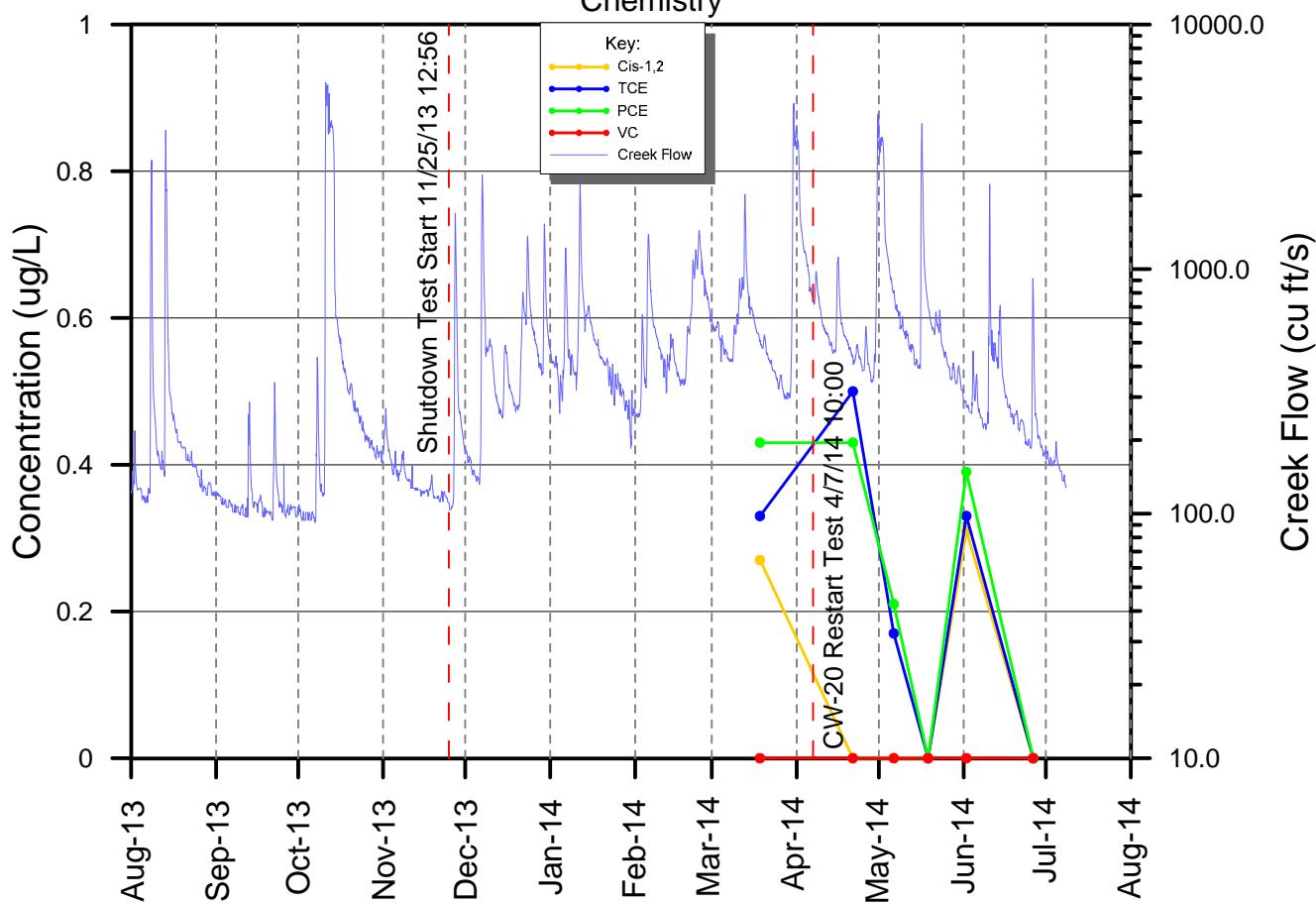
**FIGURE 14**  
**SW-15**  
Chemistry



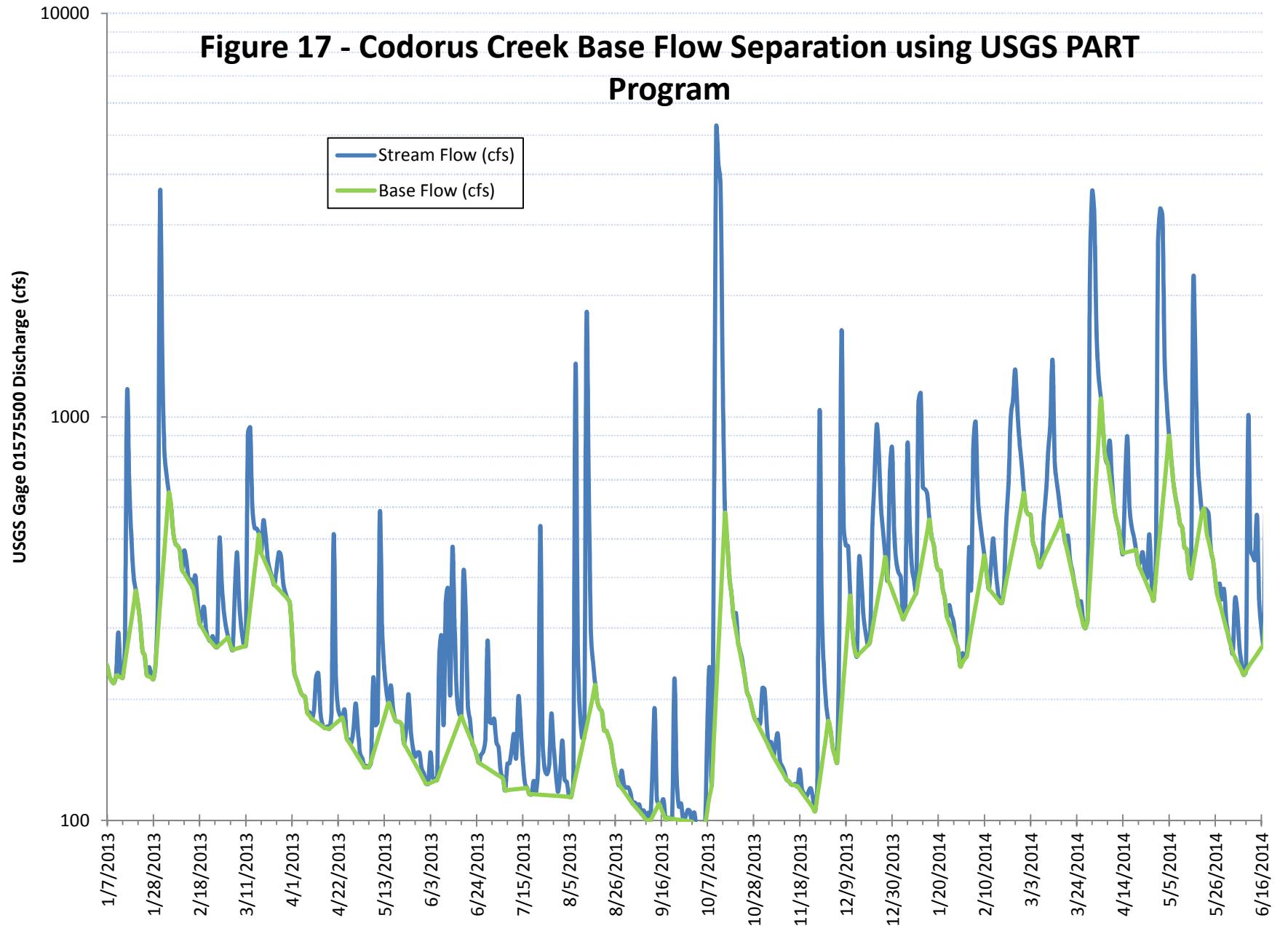
**FIGURE 15**  
**SW-26**  
Chemistry



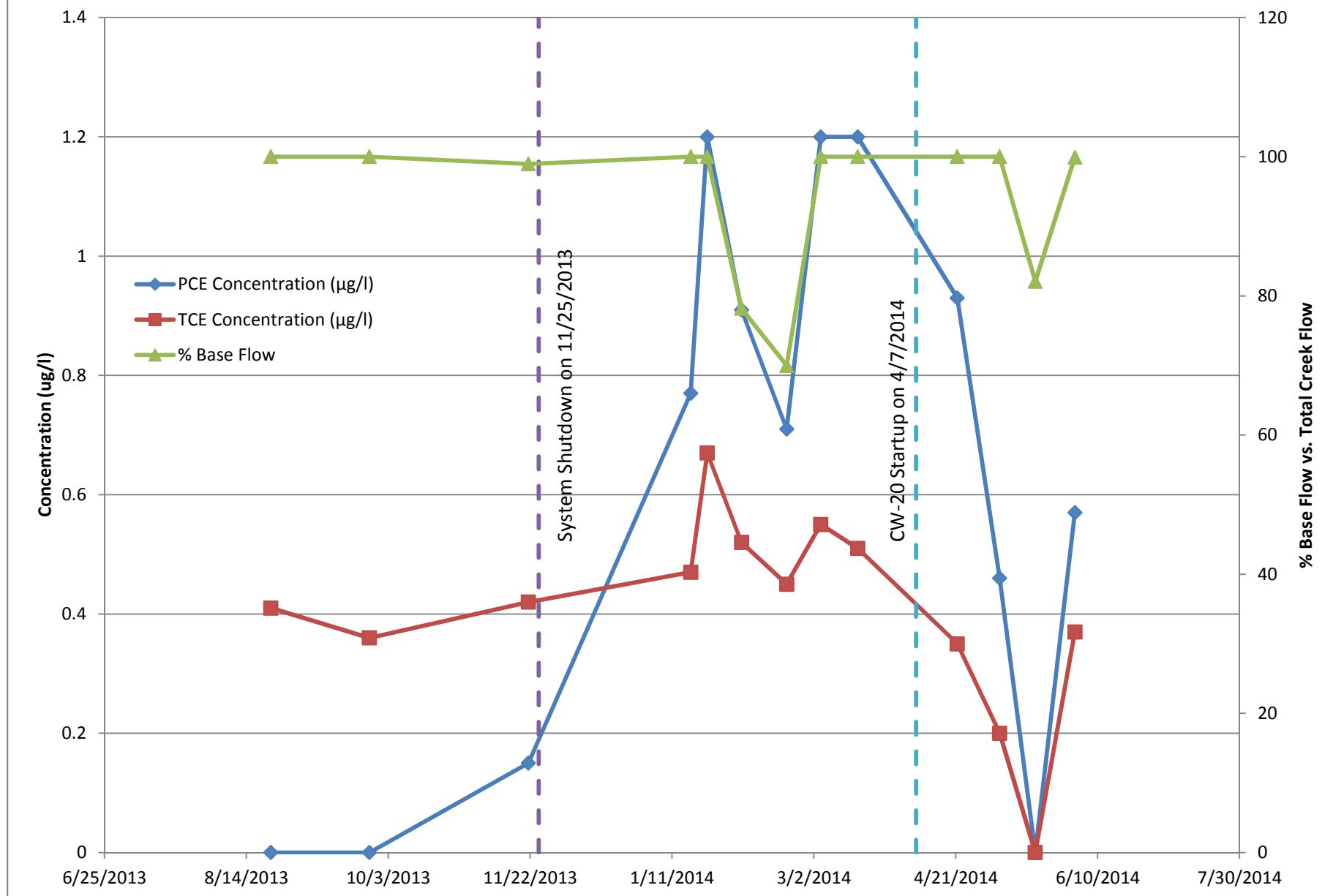
**FIGURE 16**  
**SW-29**  
Chemistry



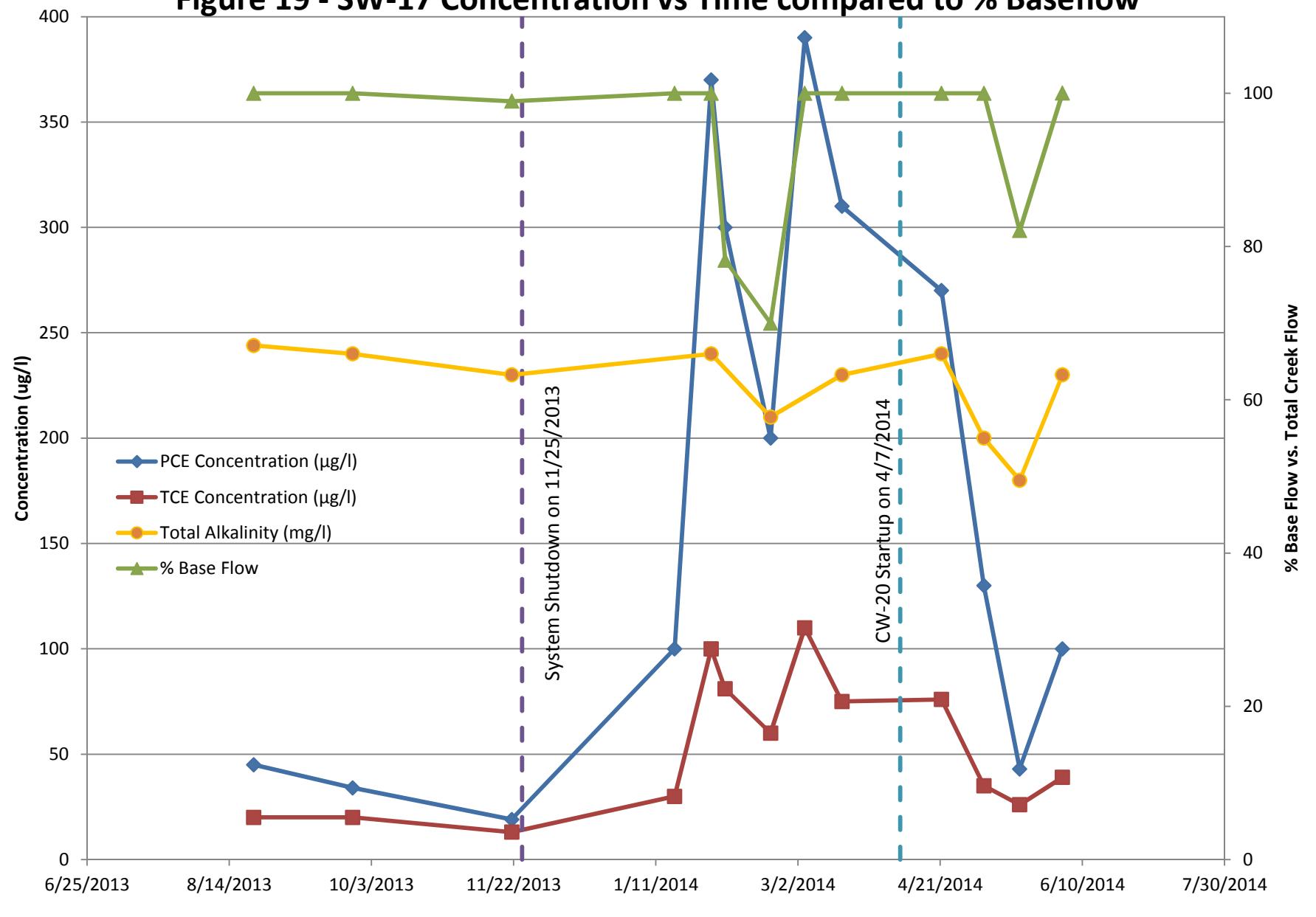
**Figure 17 - Codorus Creek Base Flow Separation using USGS PART Program**



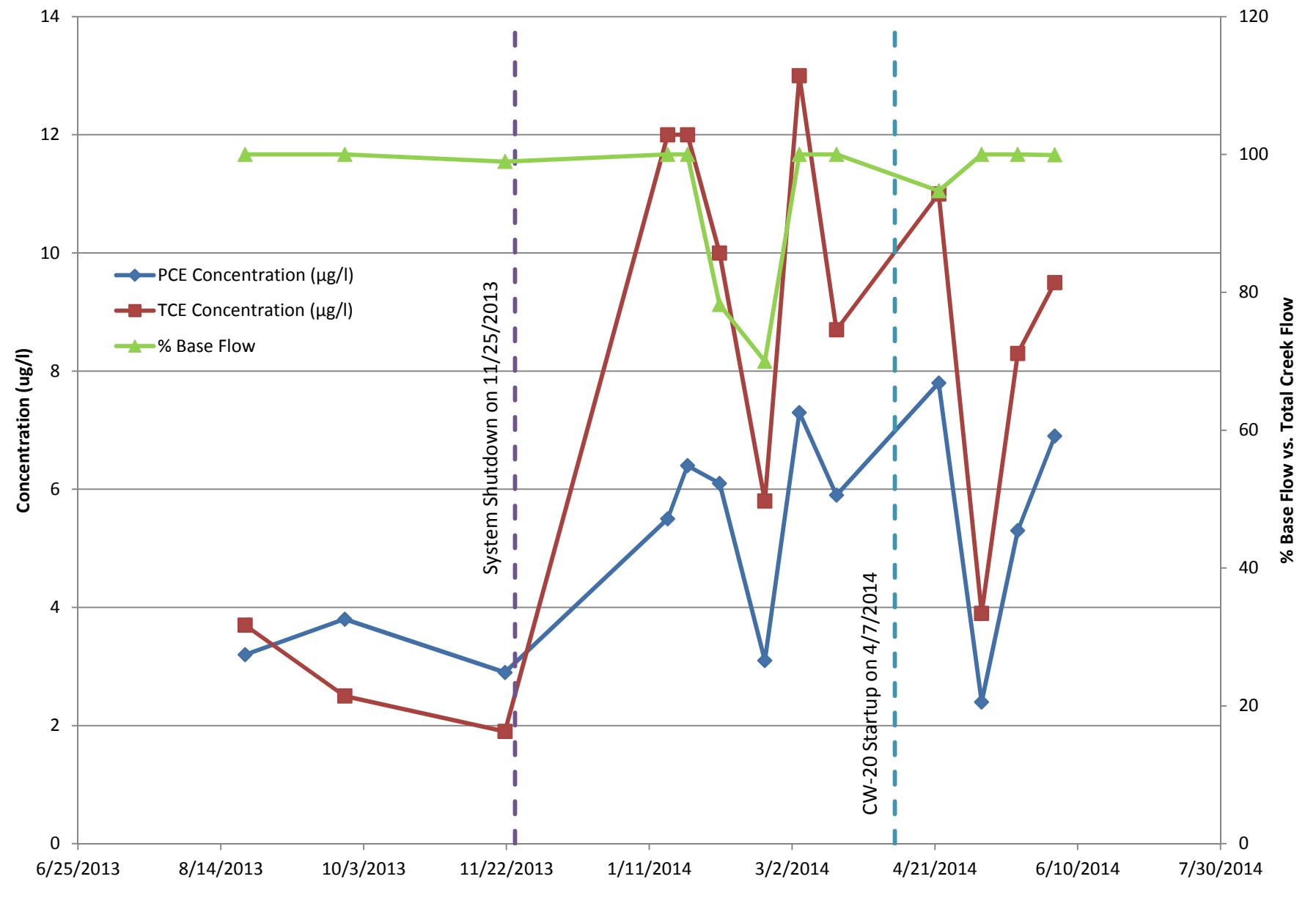
**Figure 18 - SW-8 Concentration vs Time compared to % Baseflow**



**Figure 19 - SW-17 Concentration vs Time compared to % Baseflow**



**Figure 20 - SW-15 Concentration vs Time compared to % Baseflow**



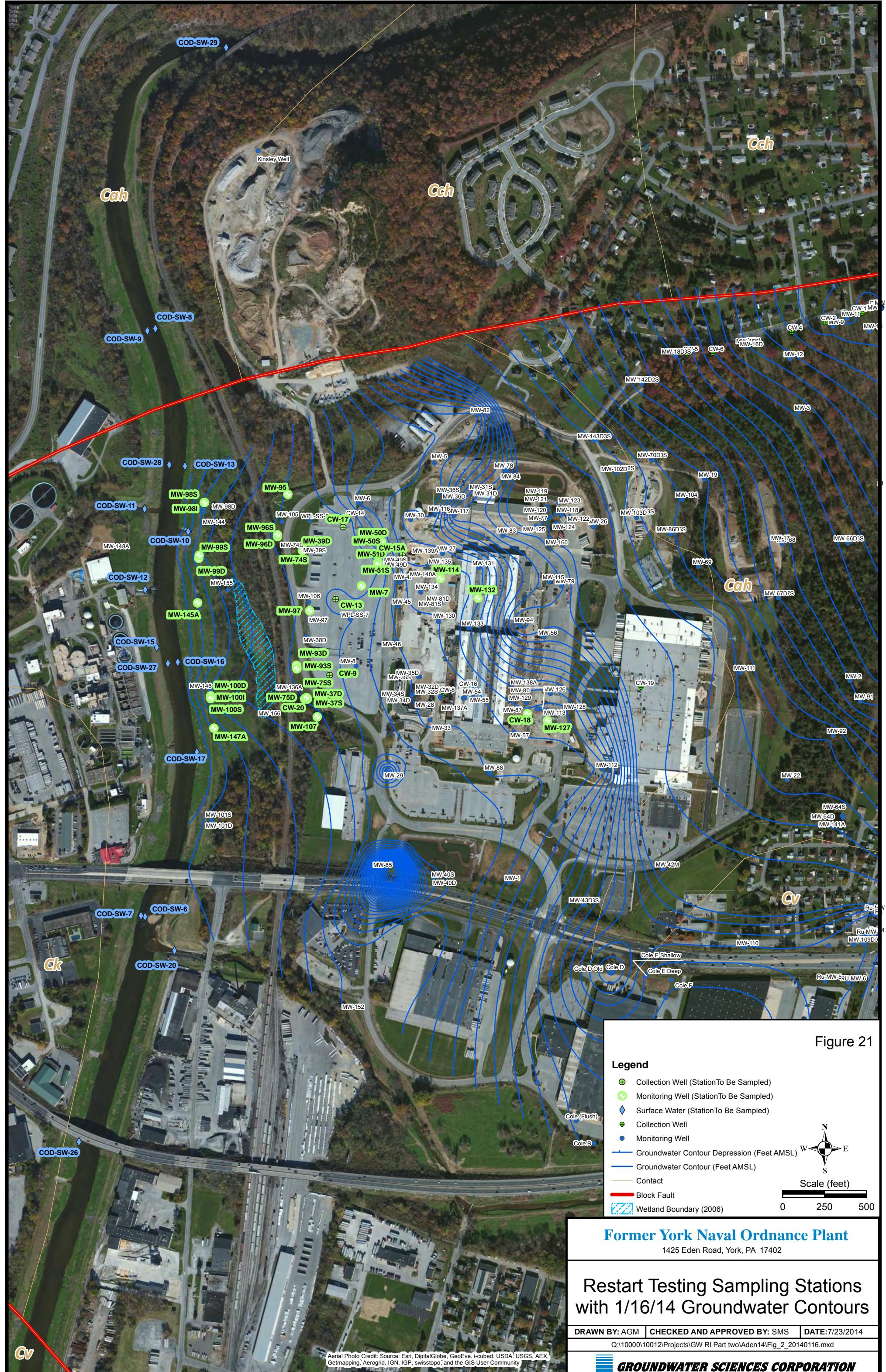
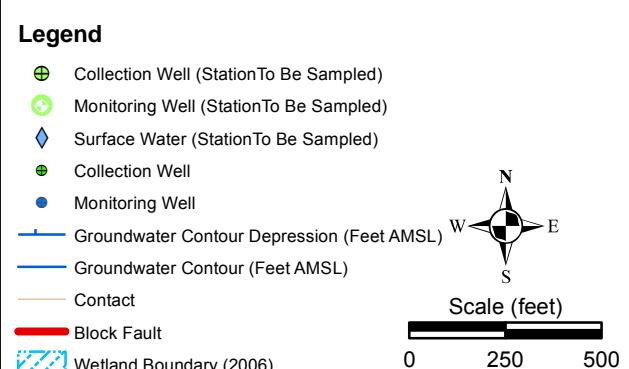


Figure 21



### Former York Naval Ordnance Plant

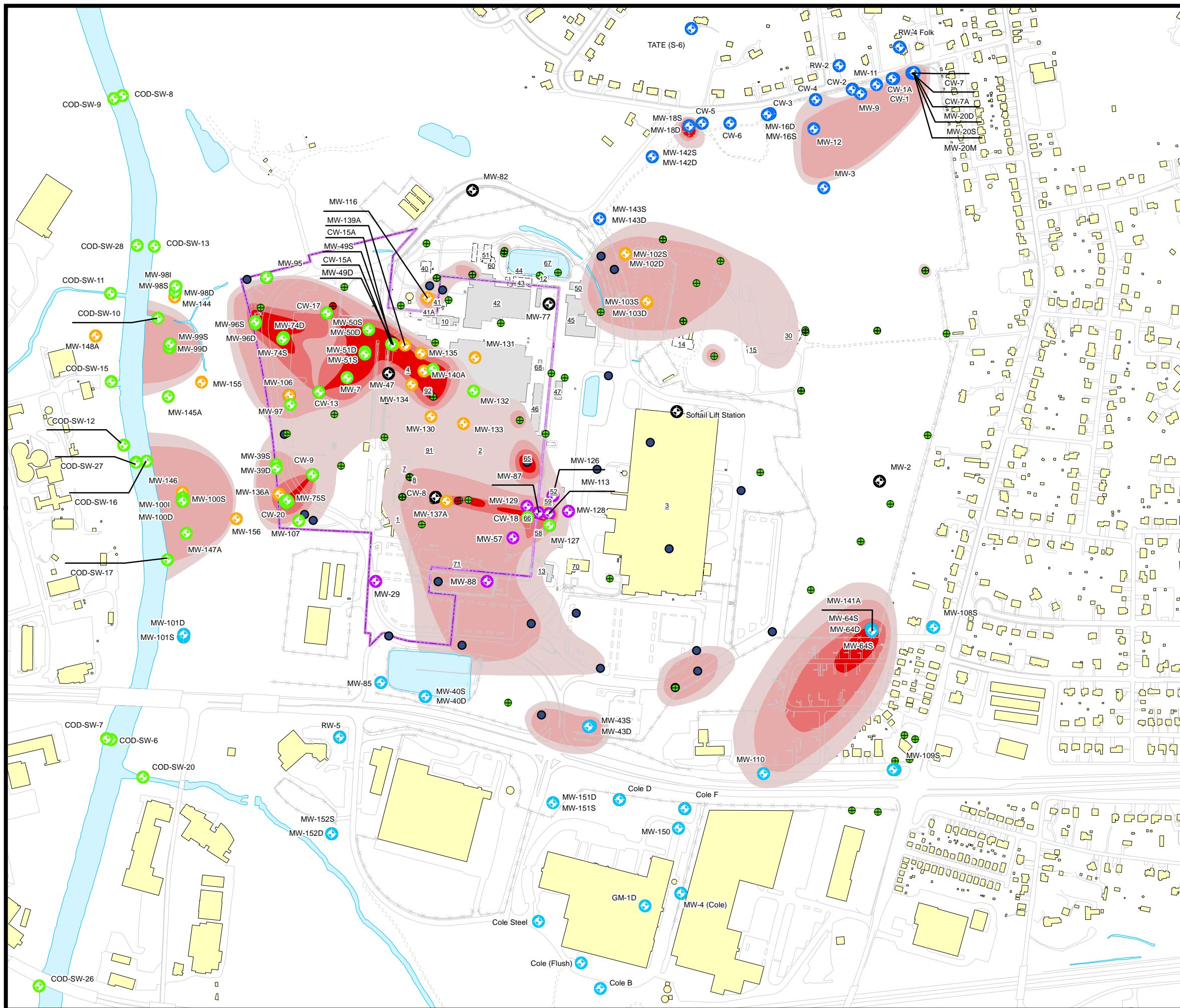
1425 Eden Road, York, PA 17402

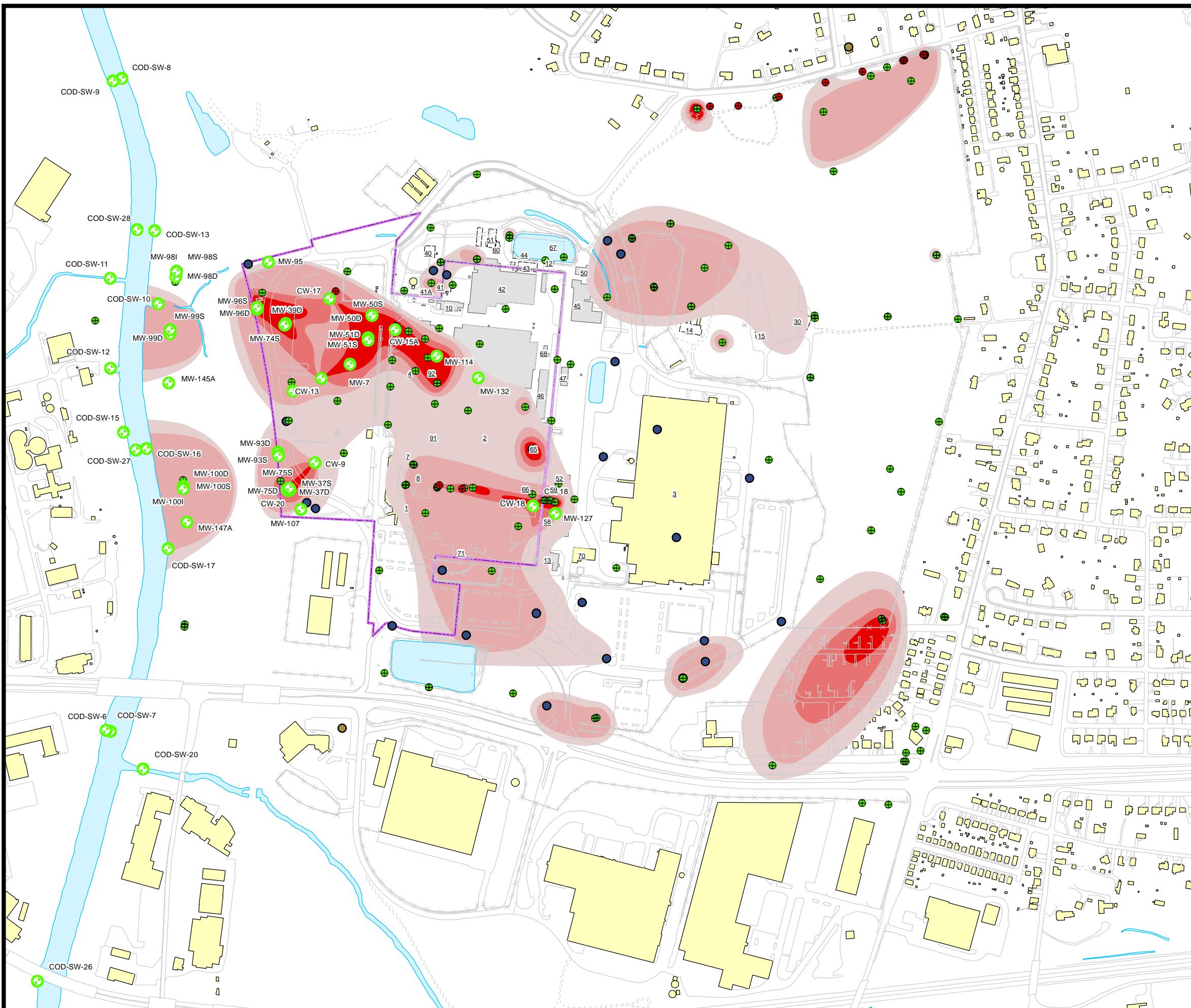
Restart Testing Sampling Stations with 1/16/14 Groundwater Contours

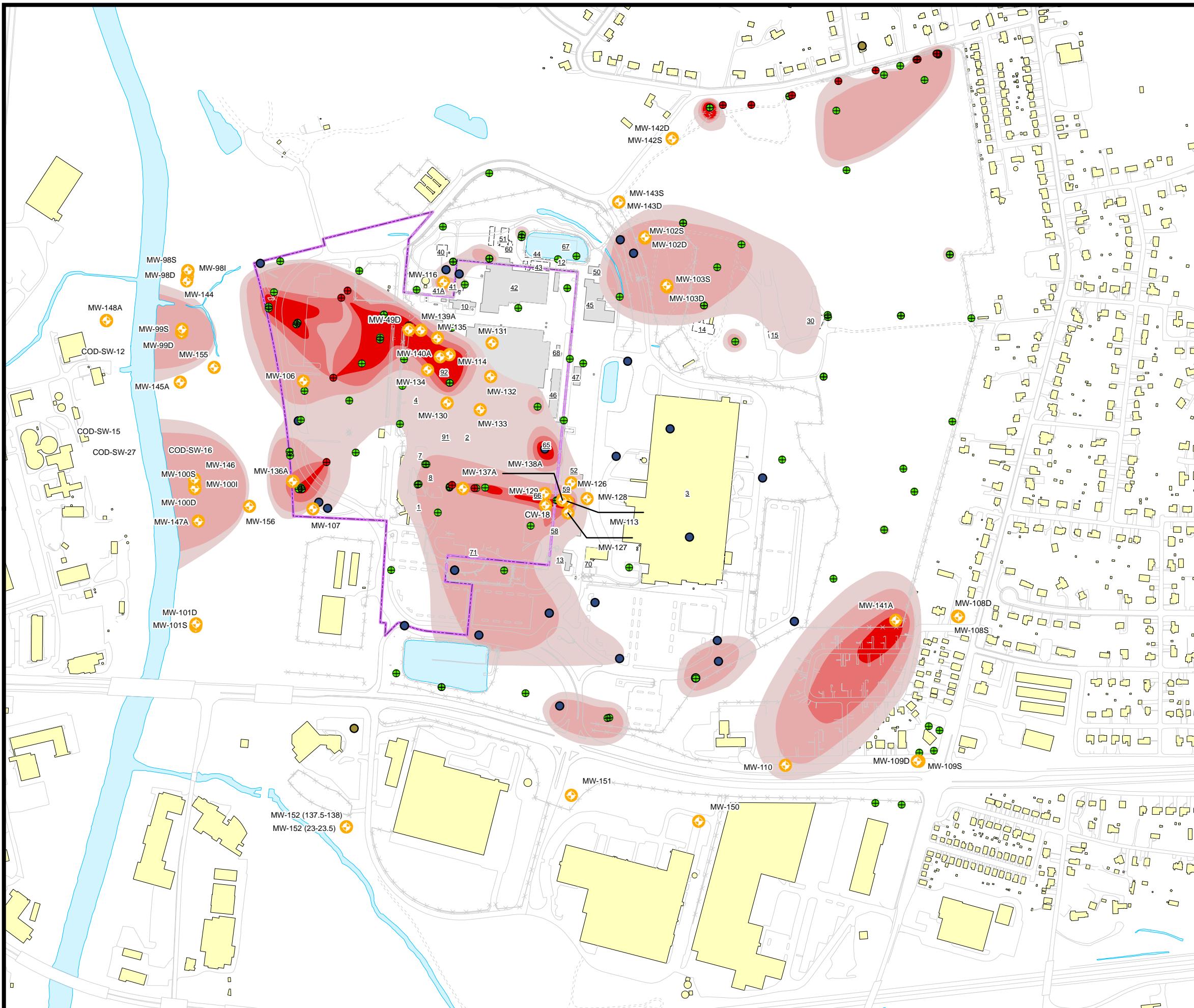
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GROUNDWATER SCIENCES CORPORATION







#### Legend

- GWRI-1&2
- Abandoned Well
- Collection Well
- Monitoring Well
- Residential Well
- Road (Paved)
- Road Curb
- Road (Unpaved)
- Walkway
- Fenceline
- Existing Water Feature
- West Campus Property Line
- TCE Concentration 50 ppb
- TCE Concentration 100 ppb
- TCE Concentration 500 ppb
- TCE Concentration 1000 ppb
- Existing Building to Remain
- Demolished
- Demolished/Slab Removed

Concentration contours incorporate an interpretation of the hydrodynamics of the groundwater system based on concentration changes over time, natural gradients, observed responses to pumping, and known and suspected source areas.

Contour lines represent concentrations expected in the groundwater within the interconnected fractures and solution channels in the saturated zone.

Although historical chemistry data does not appear on this map, chemistry data from abandoned wells was considered in the construction of concentration contours. Concentration trend graphs were used to predict 2008 concentrations in abandoned wells.



Scale (feet)  
0 262.5 525 1,050

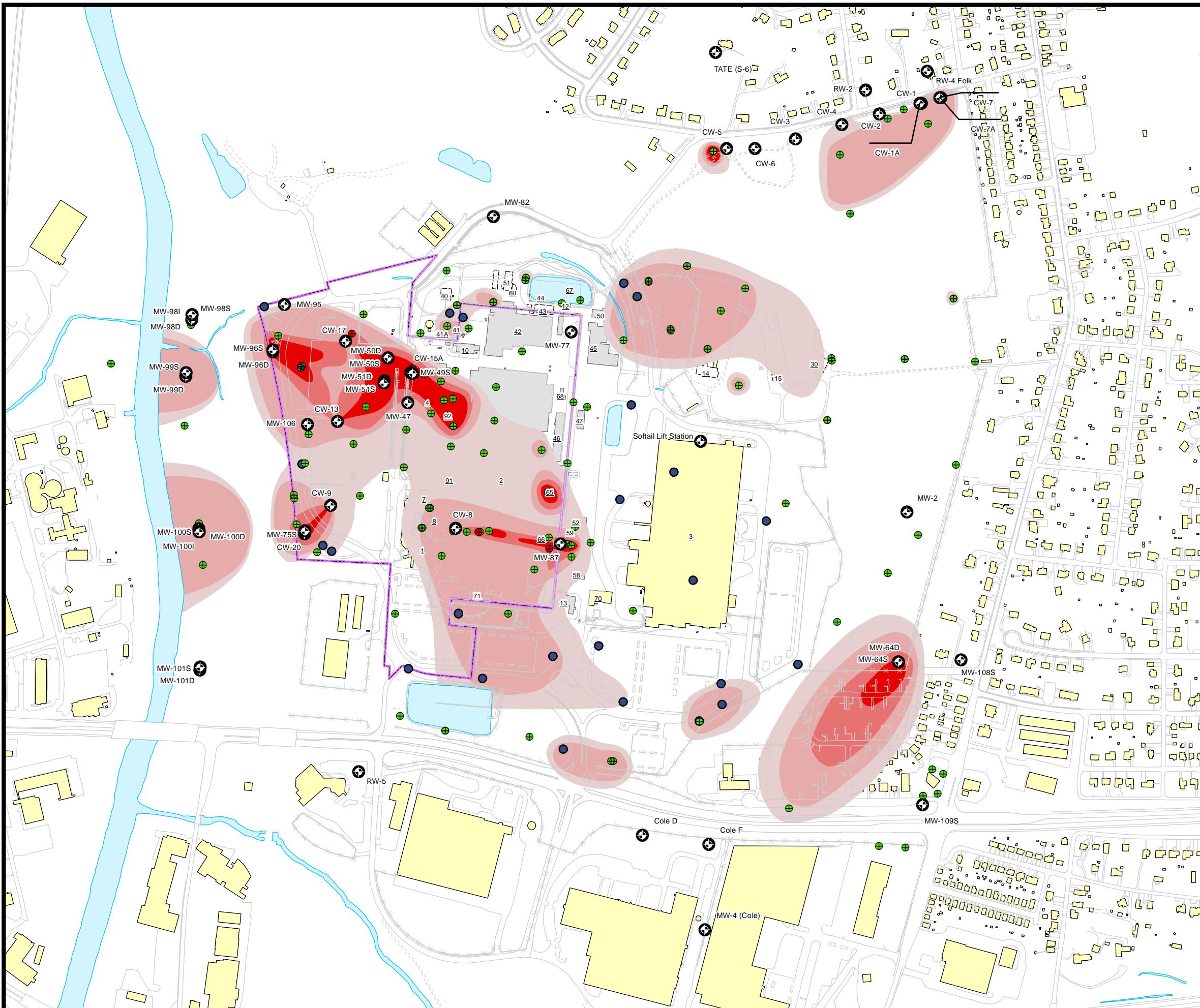
Figure 24

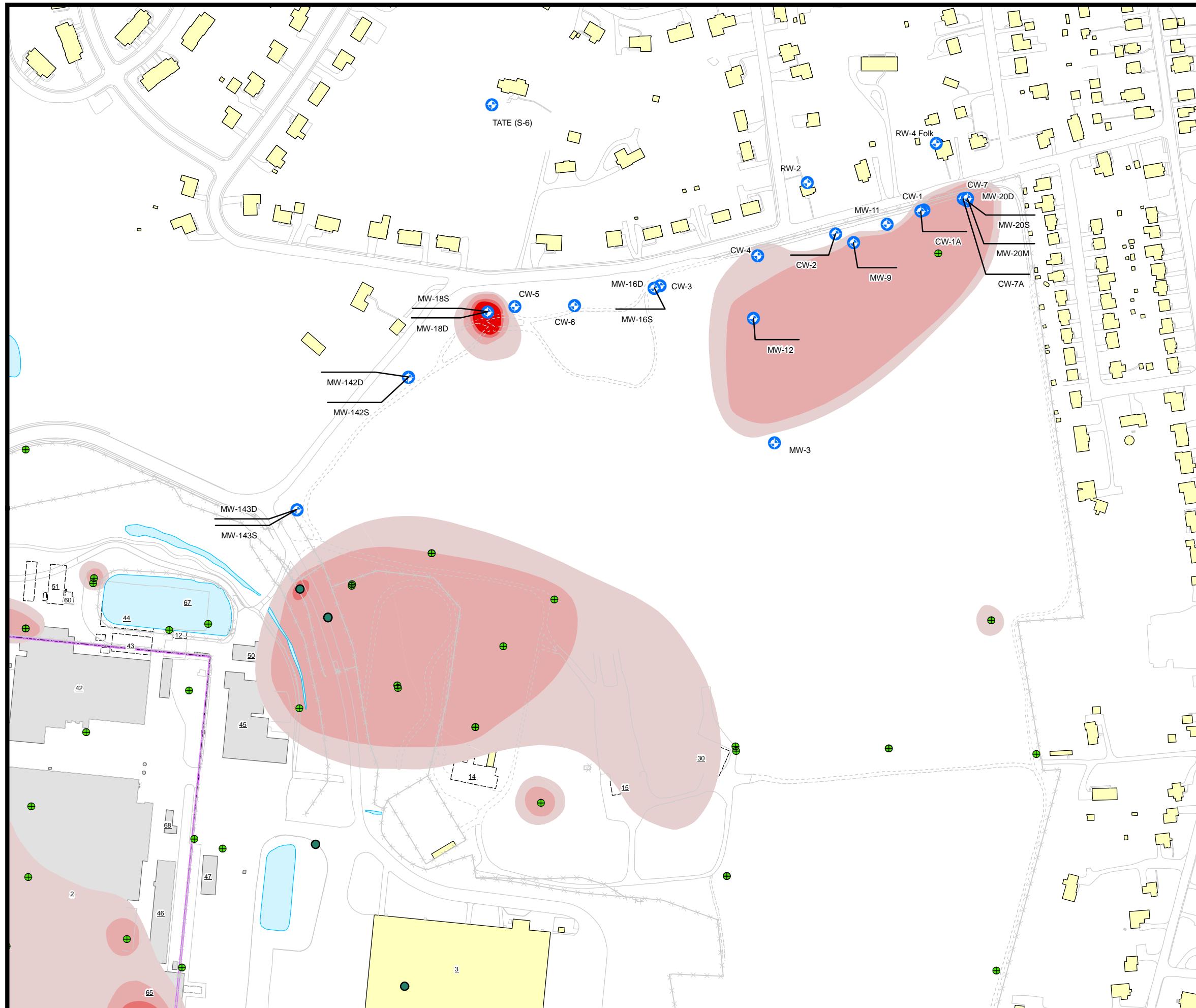
#### Former York Naval Ordnance Plant

1425 Eden Road, York, PA 17402

#### GWRI- Parts1&2 Sampling Locations

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## Legend

- NPBA LTM
  - Abandoned Collection Well
  - Abandoned Monitoring Well
  - Collection Well
  - Monitoring Well
  - Residential Well
  - Road (Paved)
  - Road Curb
  - Road (Unpaved)
  - Walkway
  - Fenceline
  - Existing Water Feature
  - West Campus Property Line
  - TCE Concentration 50 ppb
  - TCE Concentration 100 ppb
  - TCE Concentration 500 ppb
  - TCE Concentration 1000 ppb
  - Existing Building to Remain
  - Demolished
  - Demolished/Slab Removed

*Concentration contours incorporate an interpretation of the hydro-dynamics of the groundwater system based on concentration changes over time, natural gradients, observed responses to pumping, and known and suspected source areas.*

*Contour lines represent concentrations expected in the groundwater within the interconnected fractures and solution channels in the saturated zone.*

*Although historical chemistry data does not appear on this map, chemistry data from abandoned wells was considered in the construction of concentration contours. Concentration trend graphs were used to predict 2008 concentrations in abandoned wells.*



Figure 26

## Former York Naval Ordnance Plant

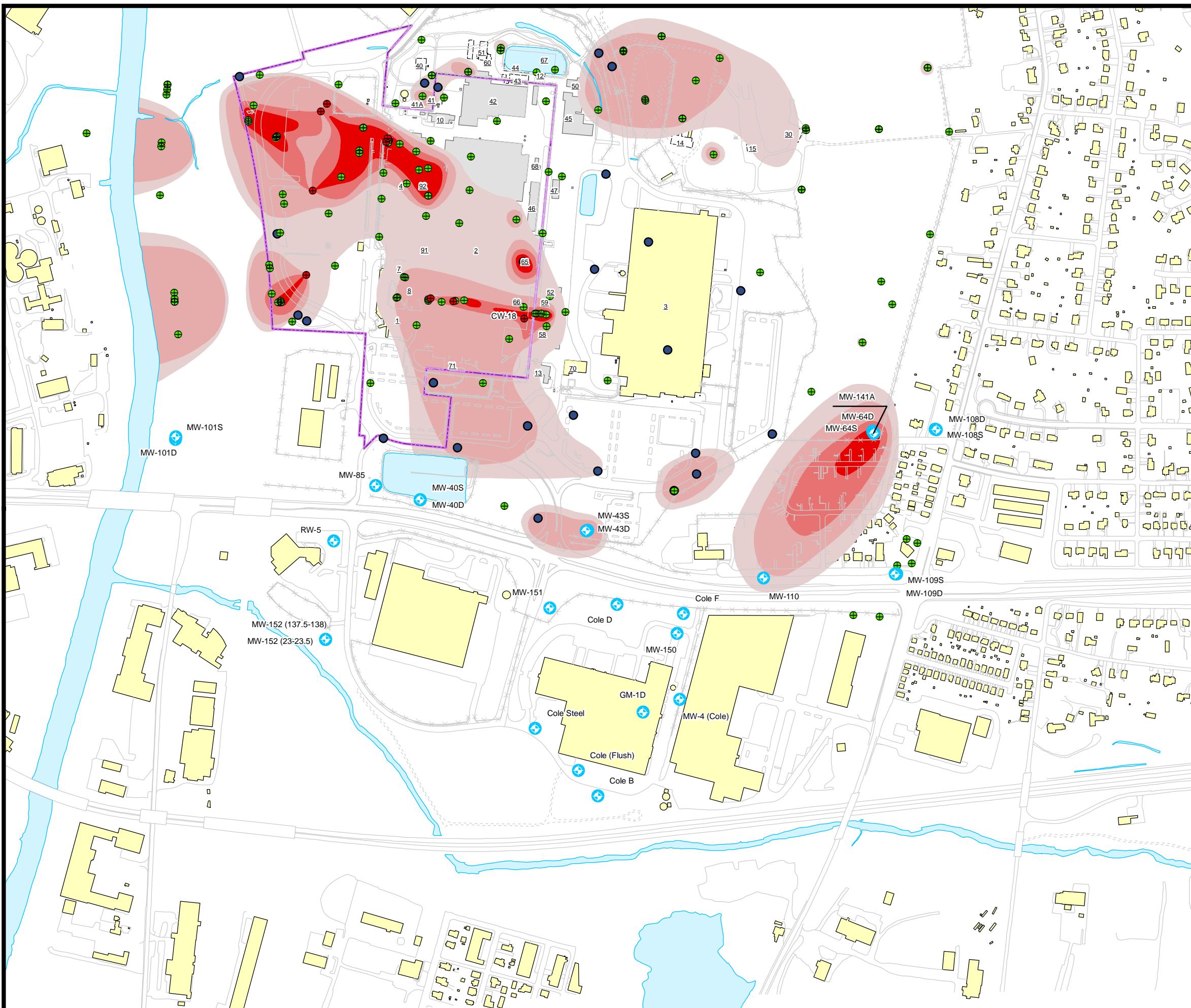
1425 Eden Road, York, PA 17403

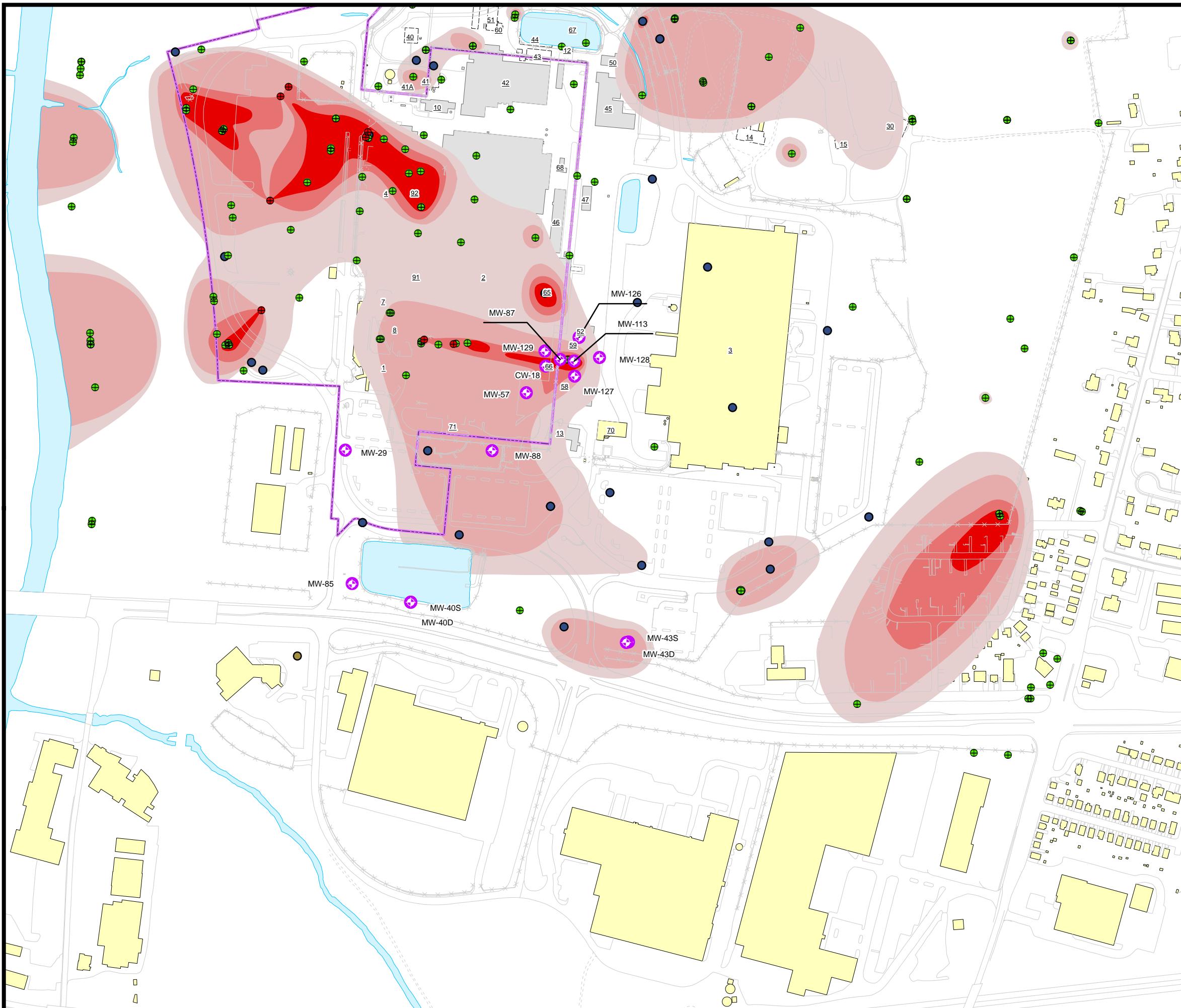
NPBA LTM Sampling Locations

DRAWN BY: ACM CHECKED AND APPROVED BY: SMS DATE: 7/22/2014

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 GROUNDWATER SCIENCES CORPORATION





#### Legend

- BLDG 58
- Abandoned Well
- Collection Well
- Monitoring Well
- Residential Well
- Road (Paved)
- Road Curb
- Road (Unpaved)
- Walkway
- Fenceline
- Existing Water Feature
- West Campus Property Line
- TCE Concentration 50 ppb
- TCE Concentration 100 ppb
- TCE Concentration 500 ppb
- TCE Concentration 1000 ppb
- Existing Building to Remain
- Demolished
- Demolished/Slab Removed

Concentration contours incorporate an interpretation of the hydrodynamics of the groundwater system based on concentration changes over time, natural gradients, observed responses to pumping, and known and suspected source areas.

Contour lines represent concentrations expected in the groundwater within the interconnected fractures and solution channels in the saturated zone.

Although historical chemistry data does not appear on this map, chemistry data from abandoned wells was considered in the construction of concentration contours. Concentration trend graphs were used to predict 2008 concentrations in abandoned wells.



Scale (feet)  
0 200 400 800

Figure 28

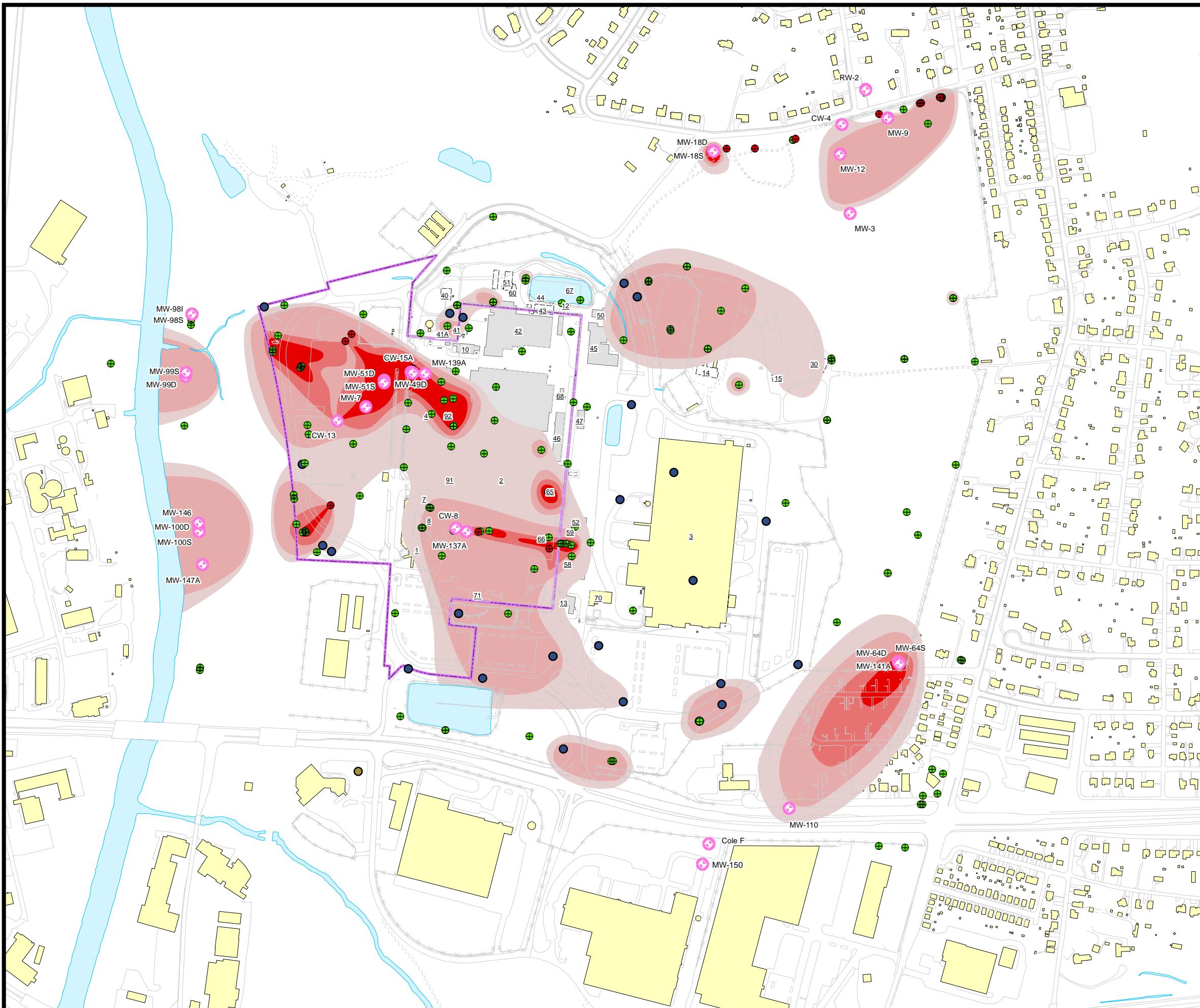
#### Former York Naval Ordnance Plant

1425 Eden Road, York, PA 17402

#### Building 58 Sampling Locations

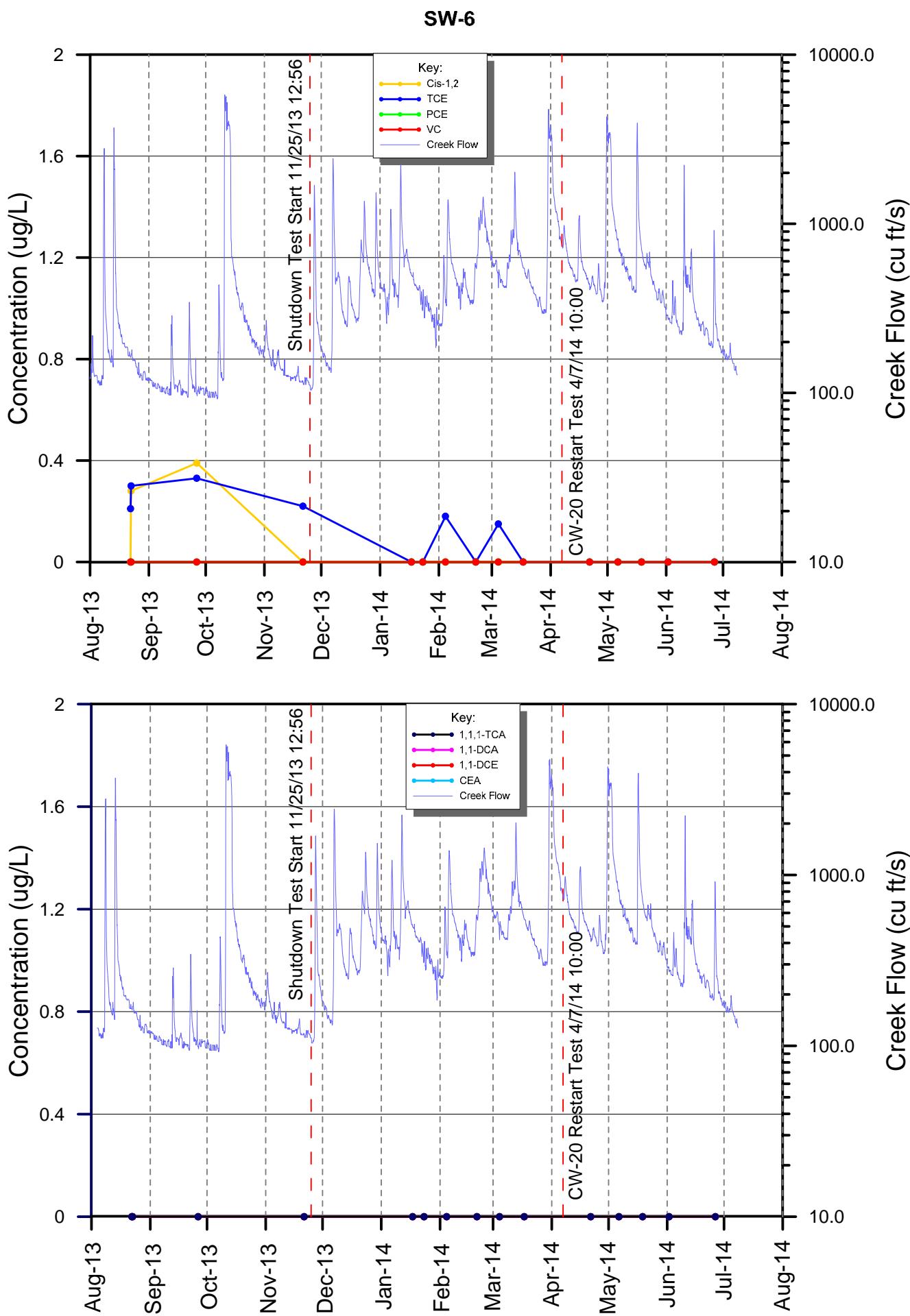
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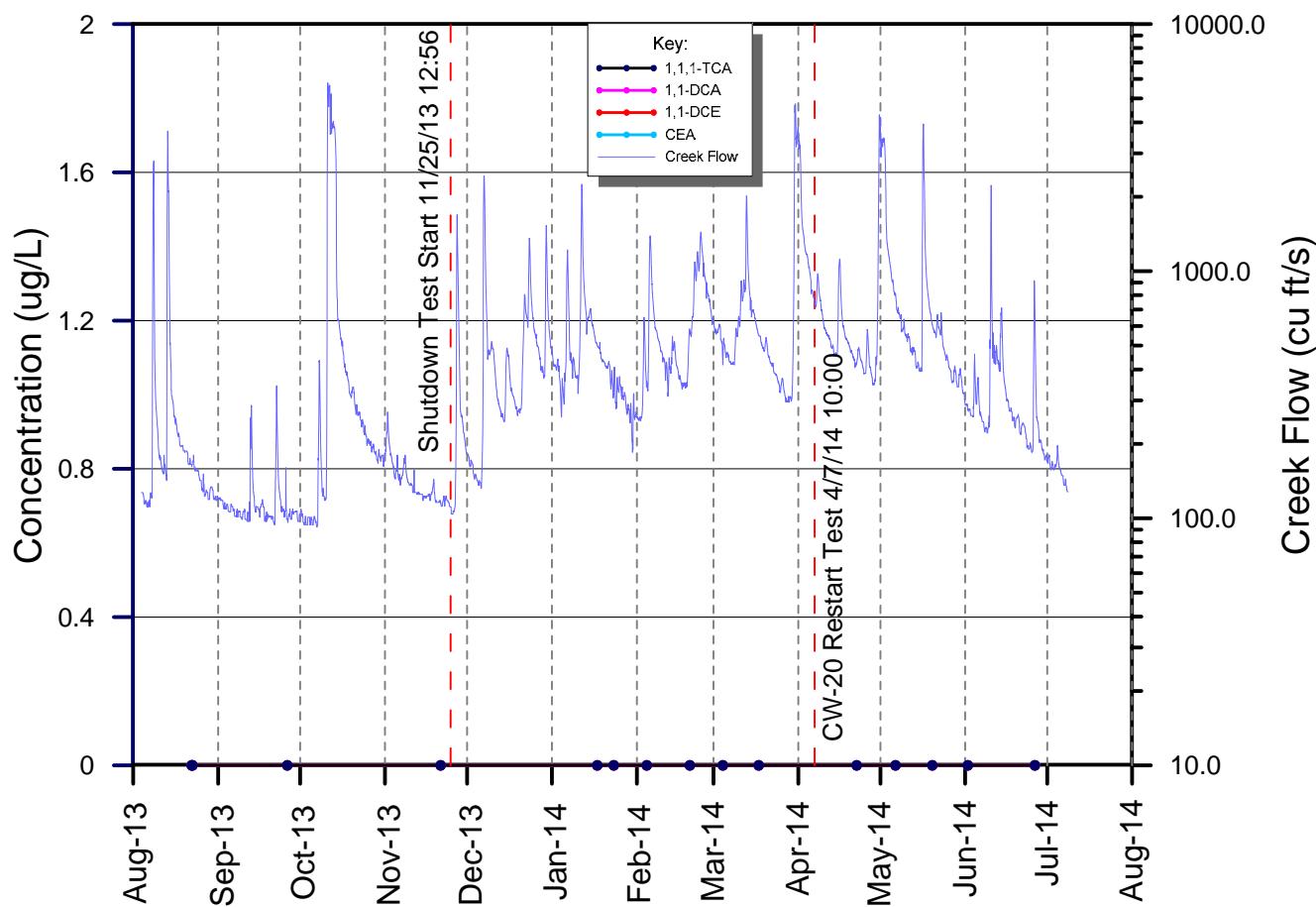
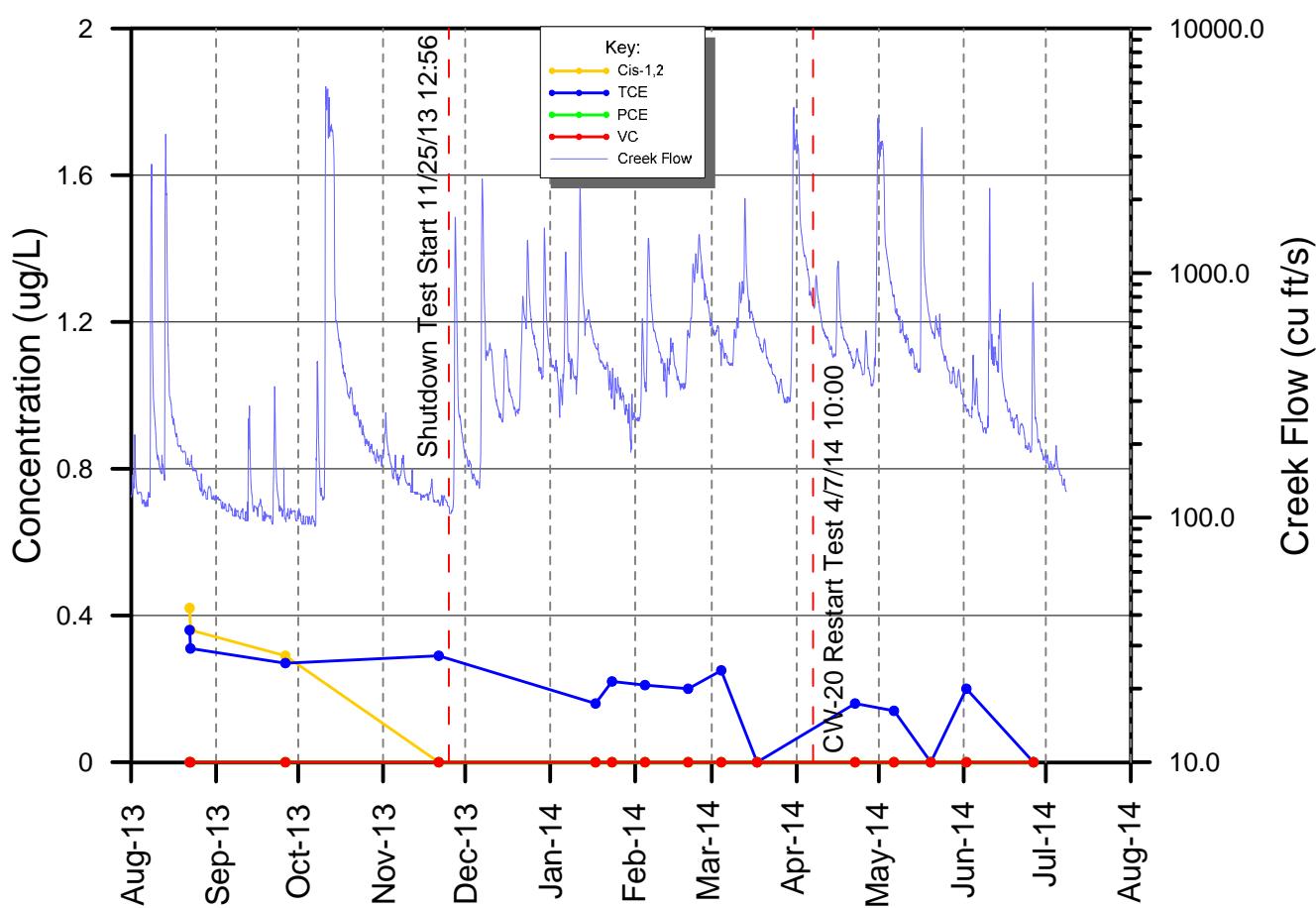


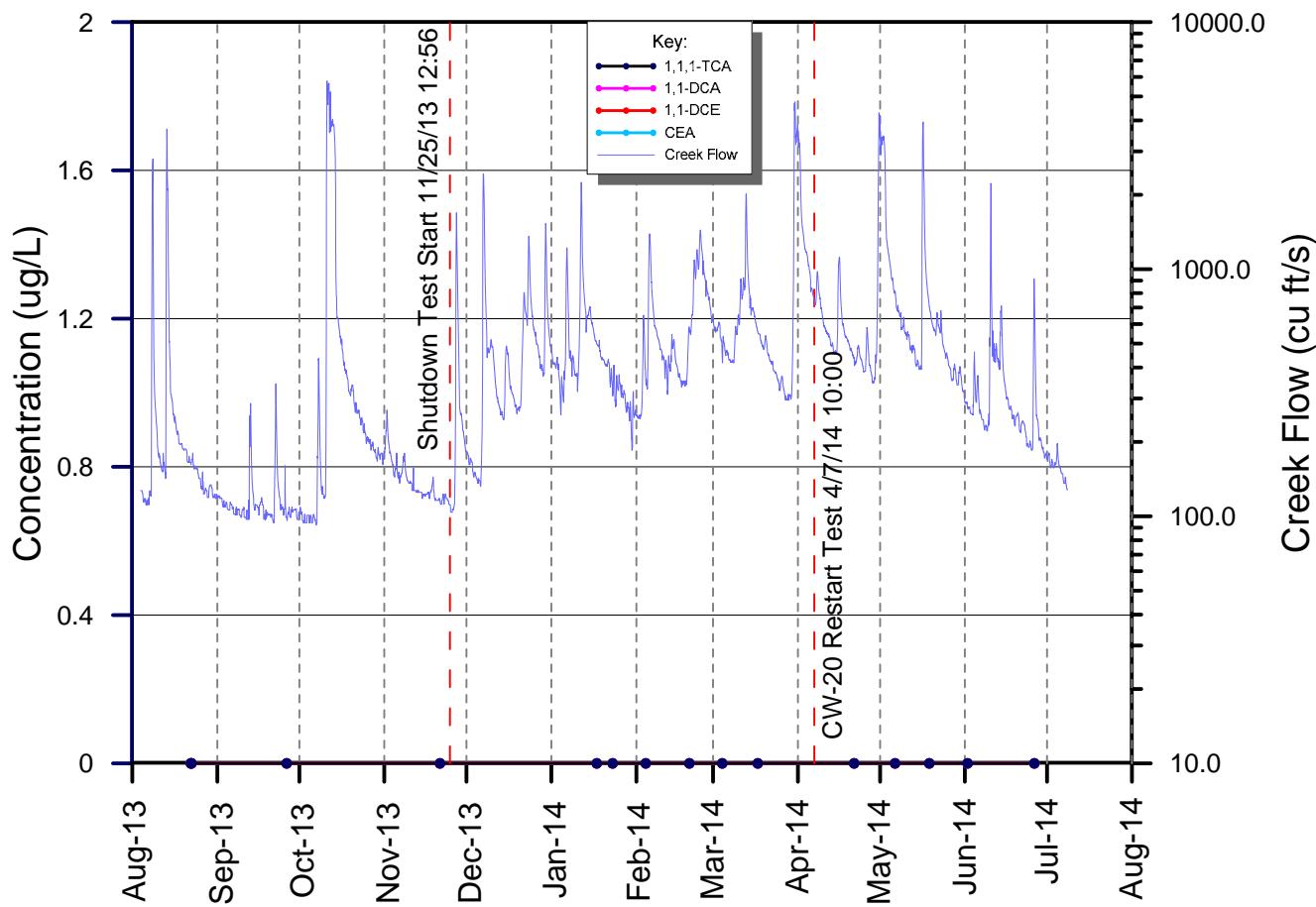
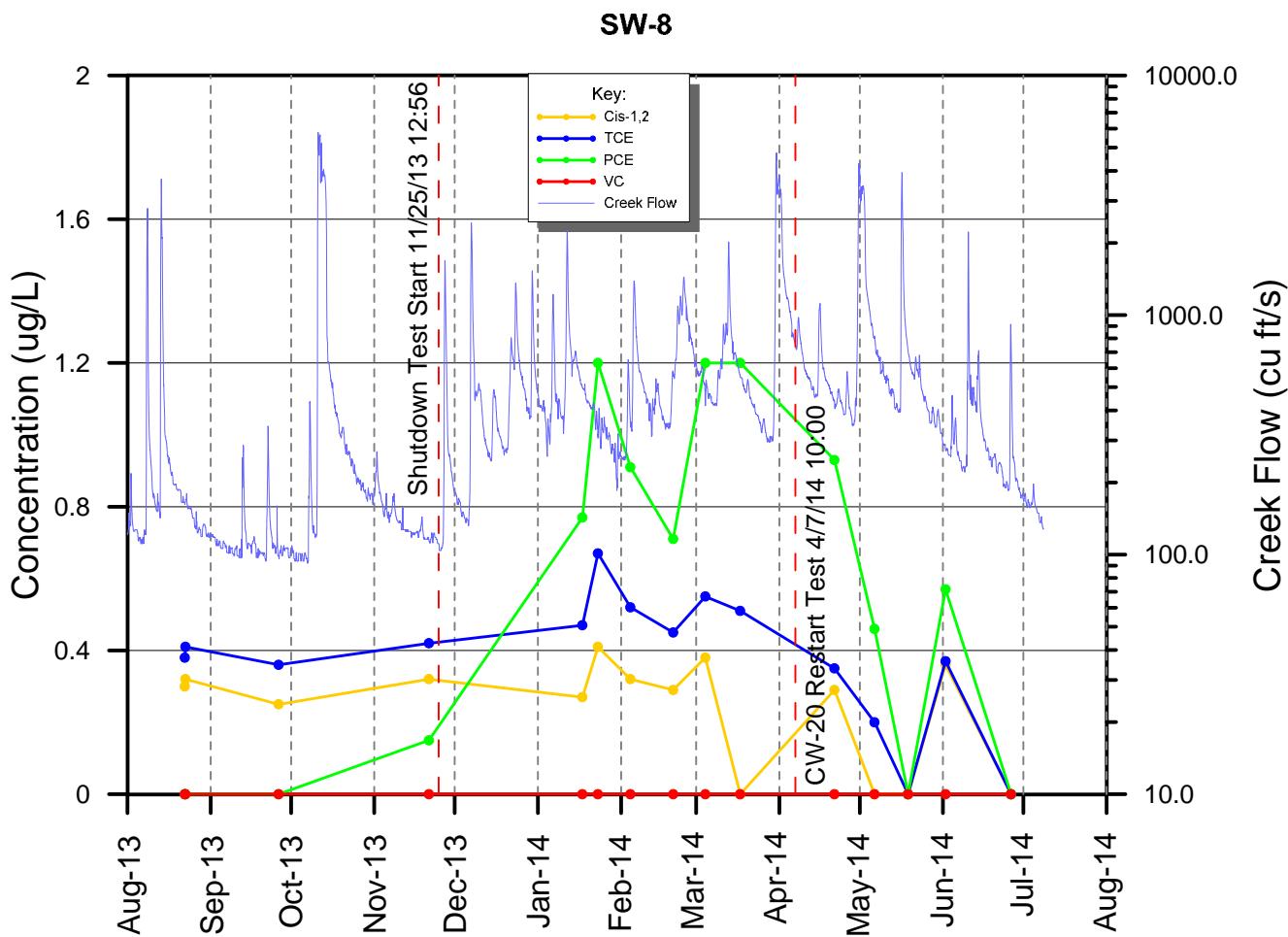
## **APPENDIX A**

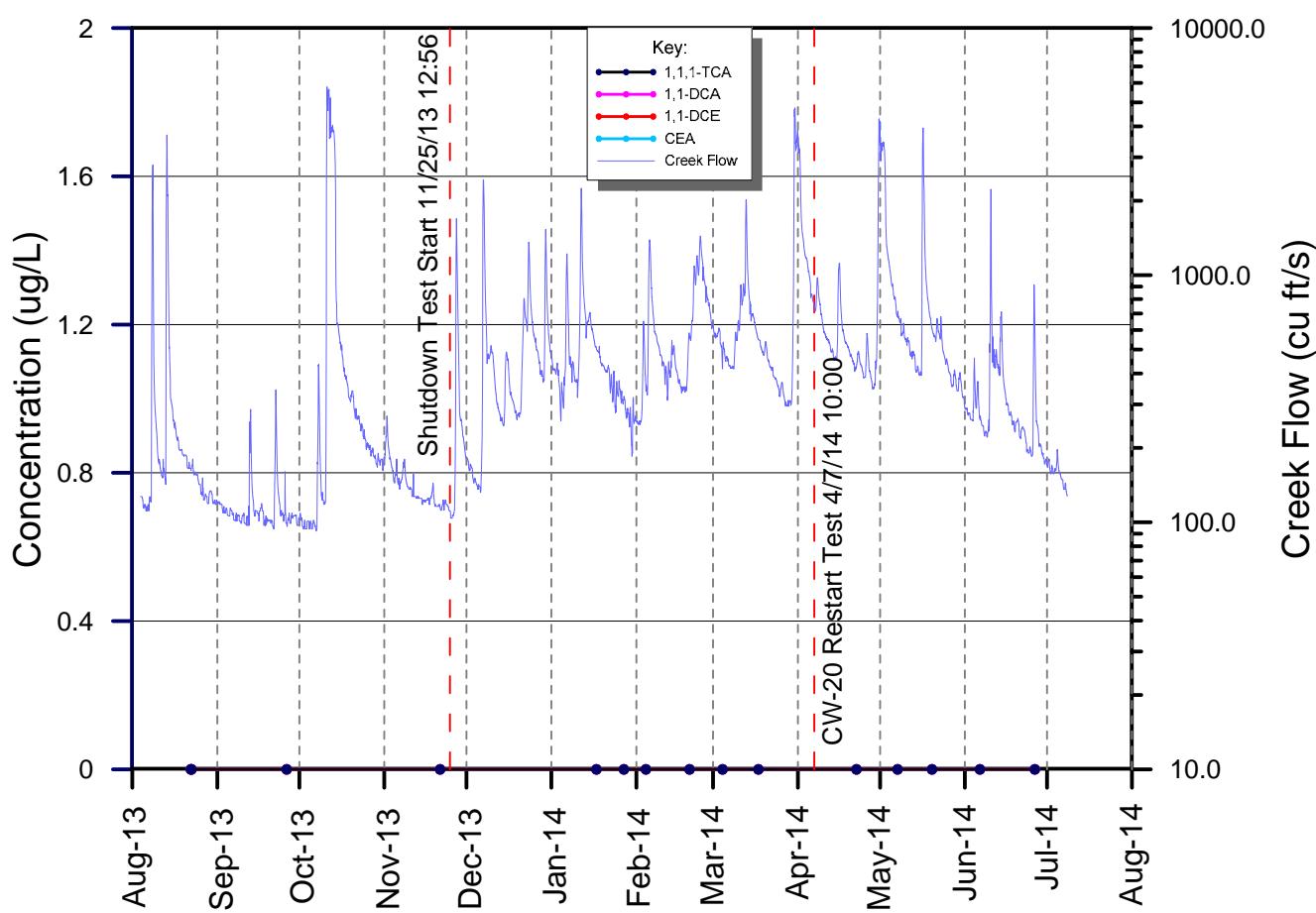
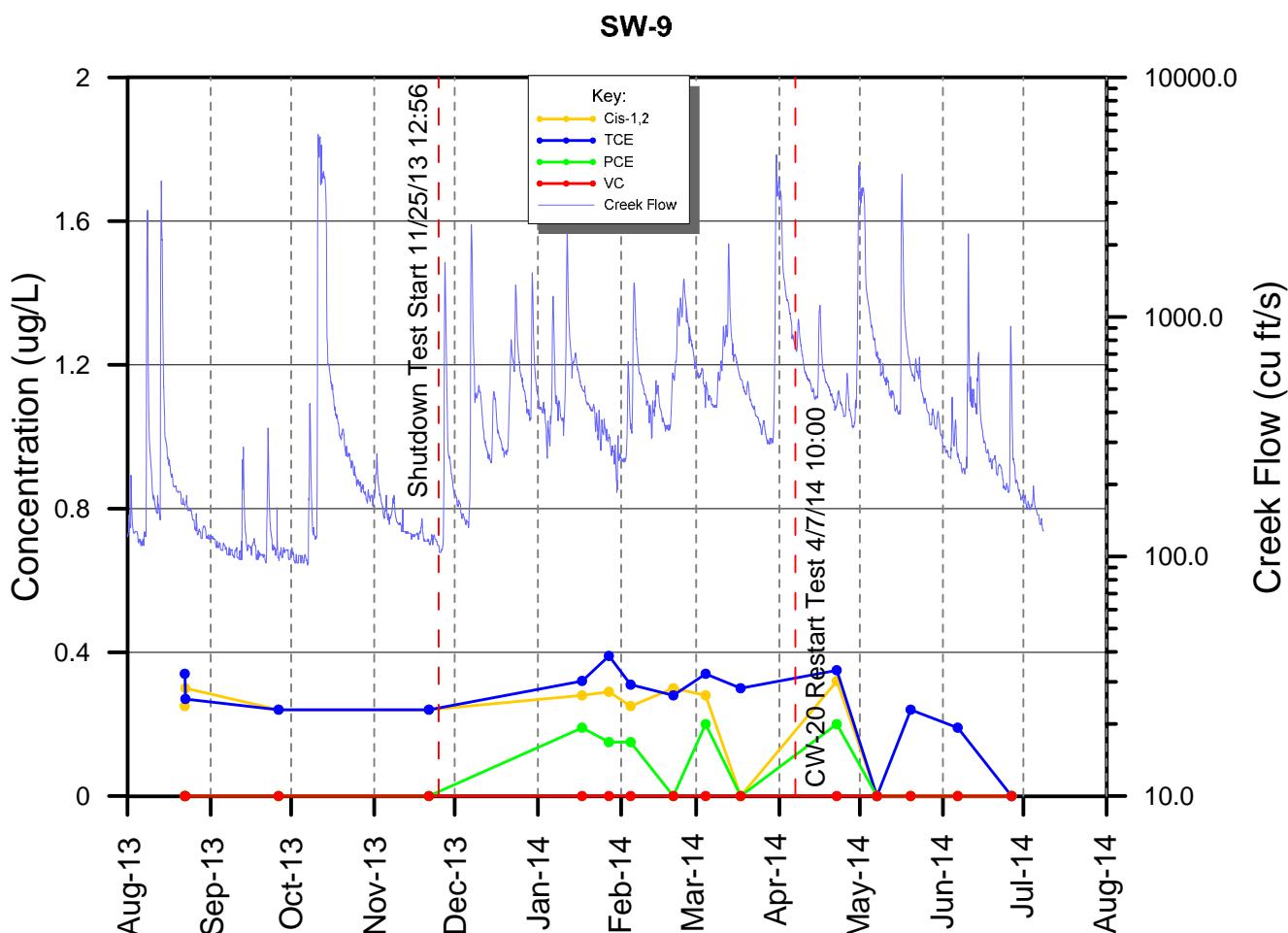
*August 8, 2014*



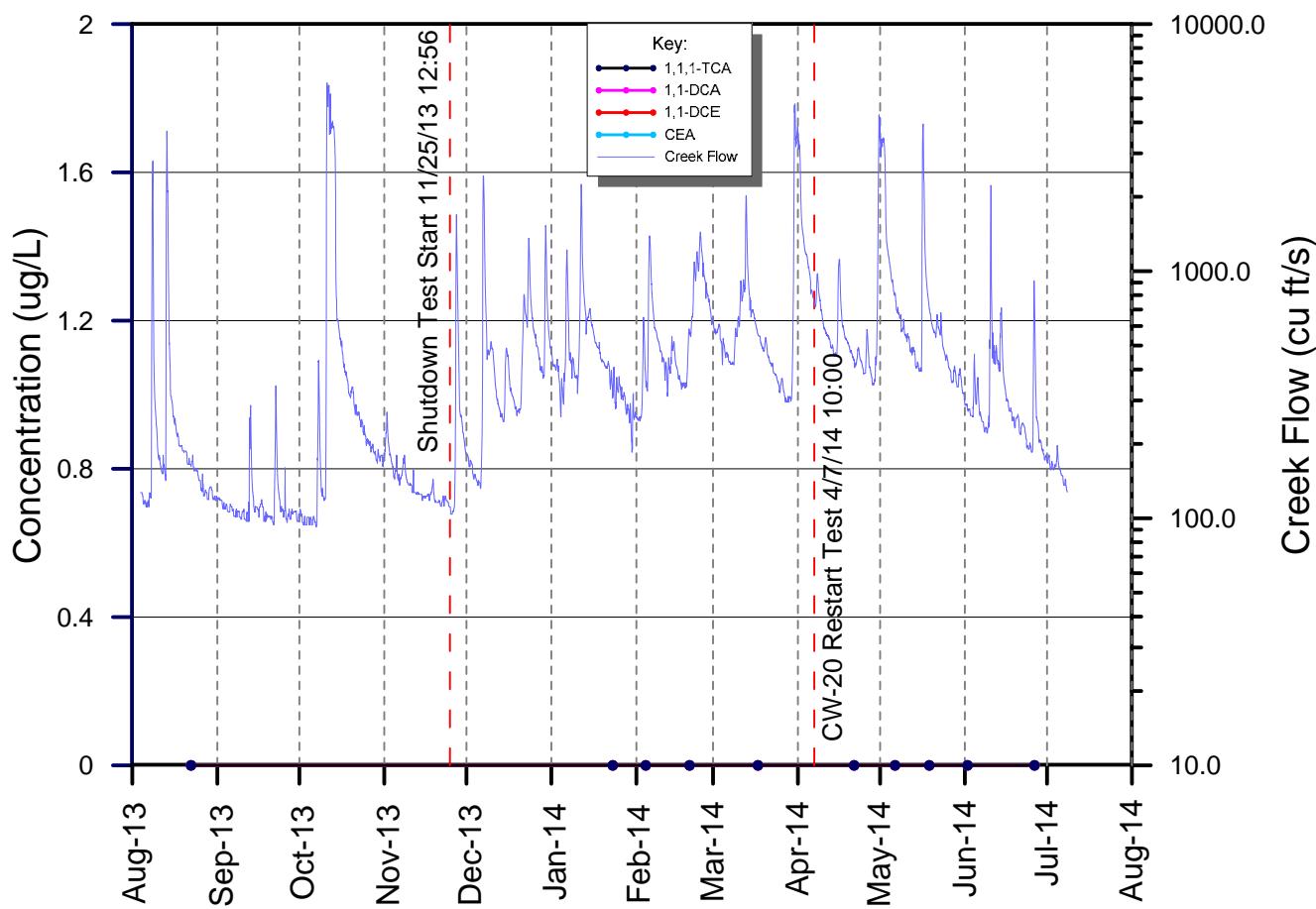
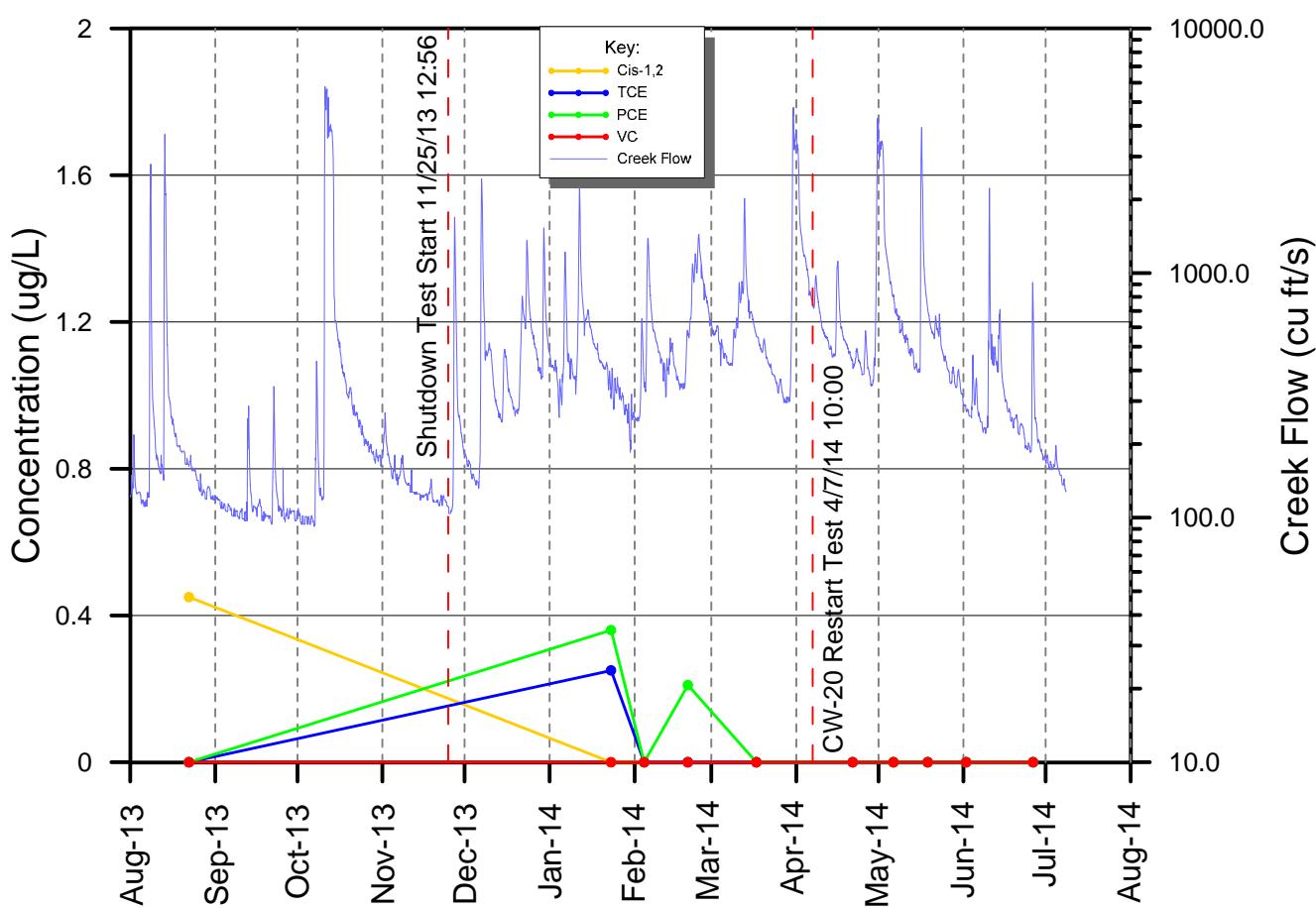
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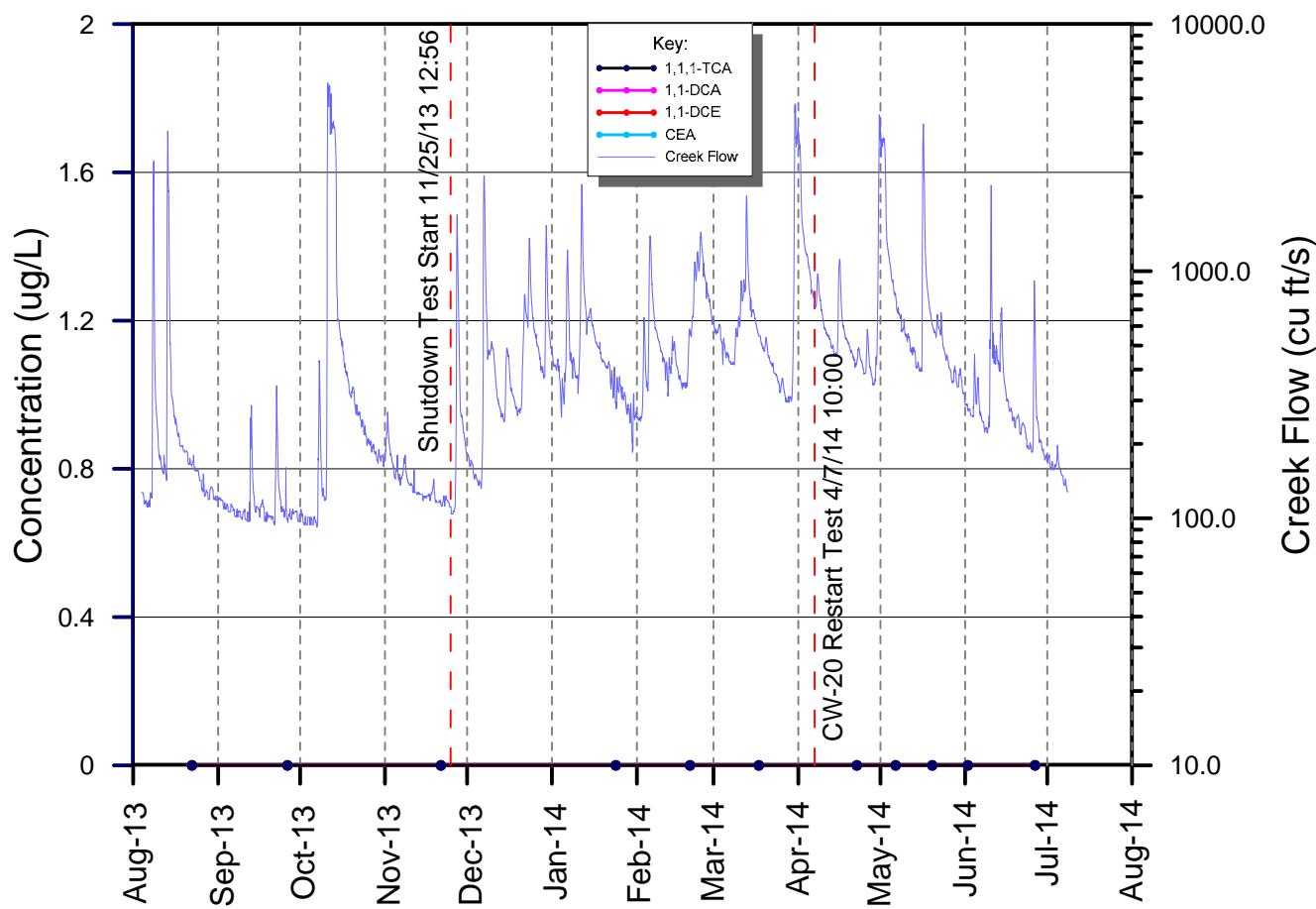
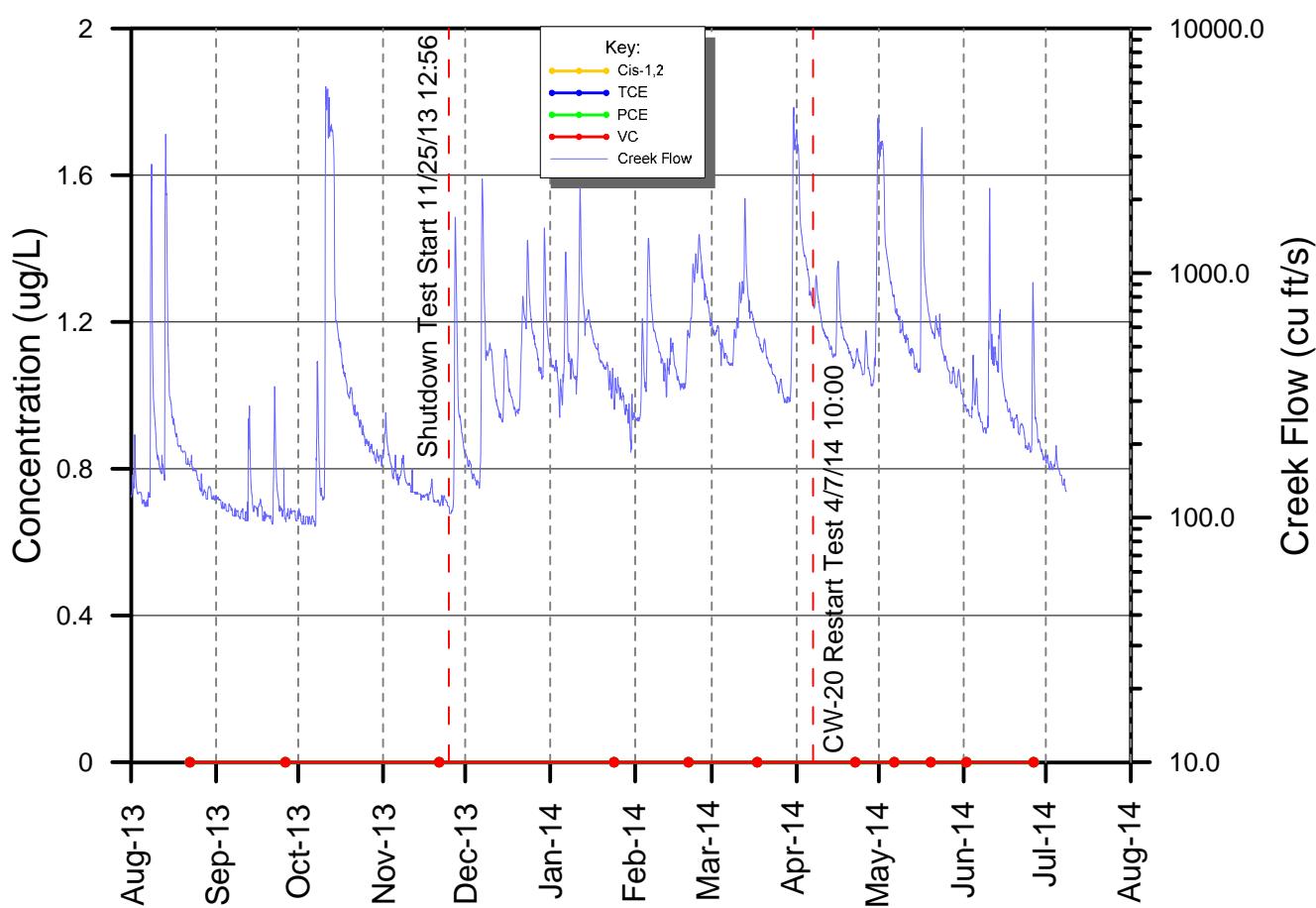




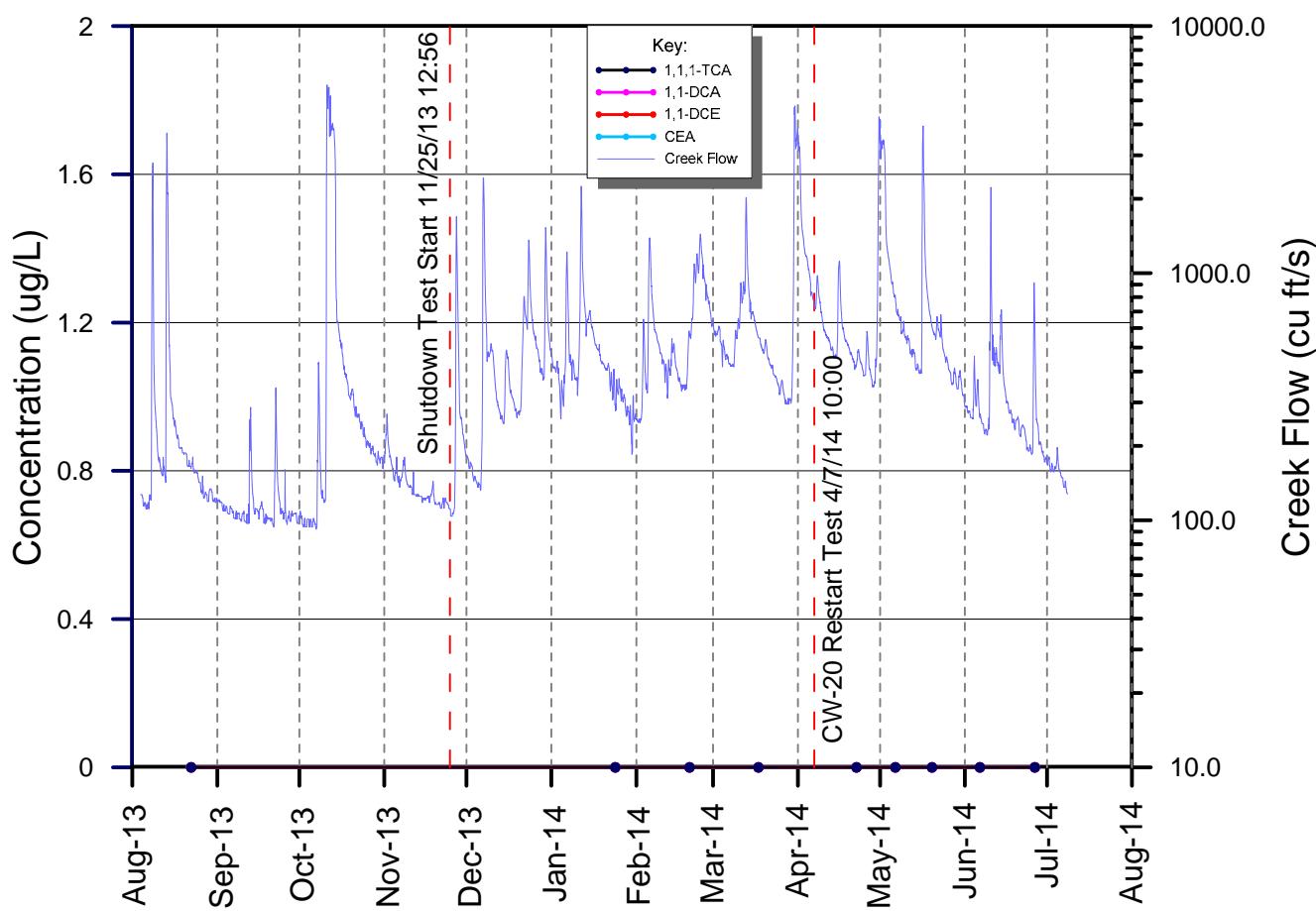
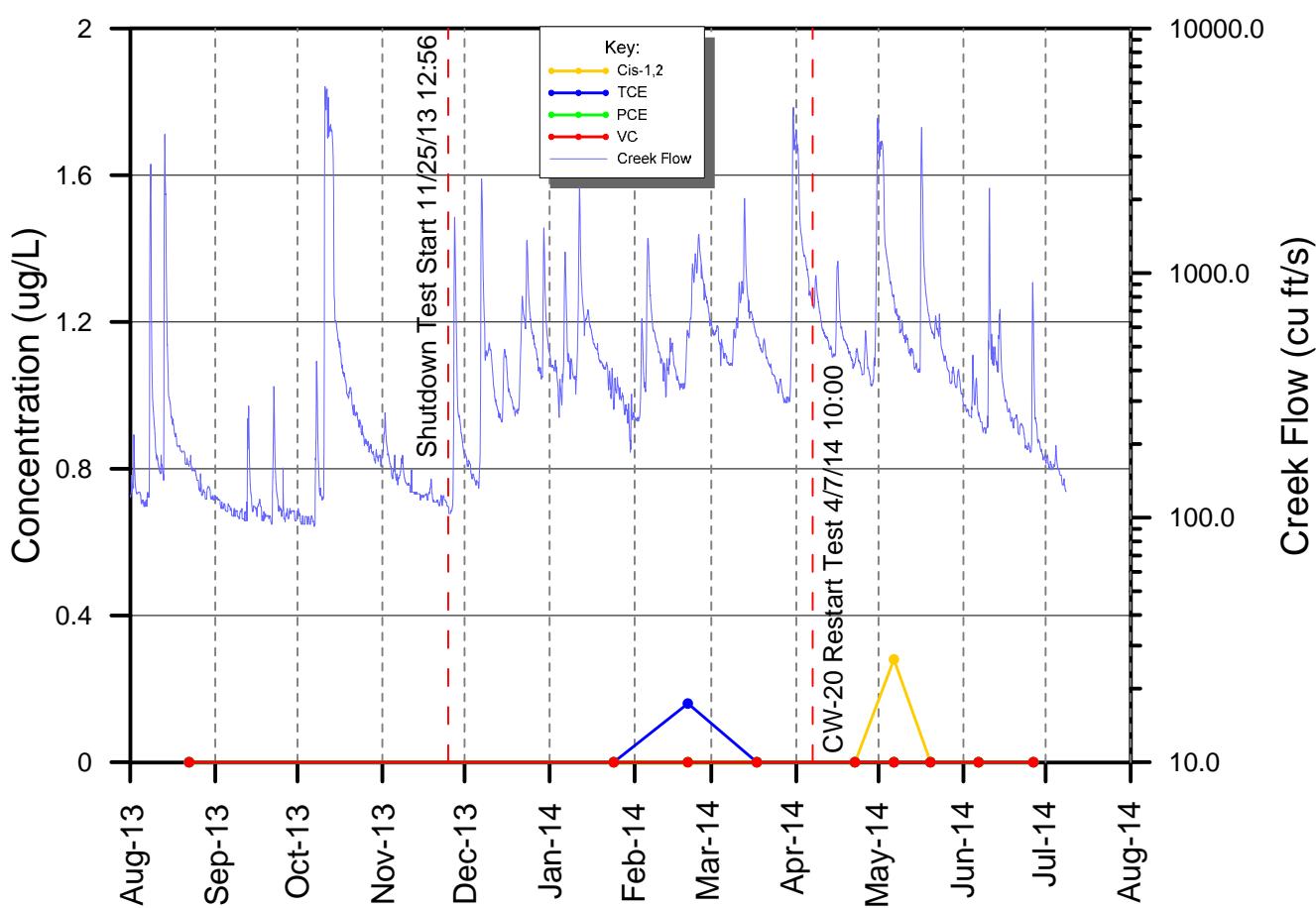
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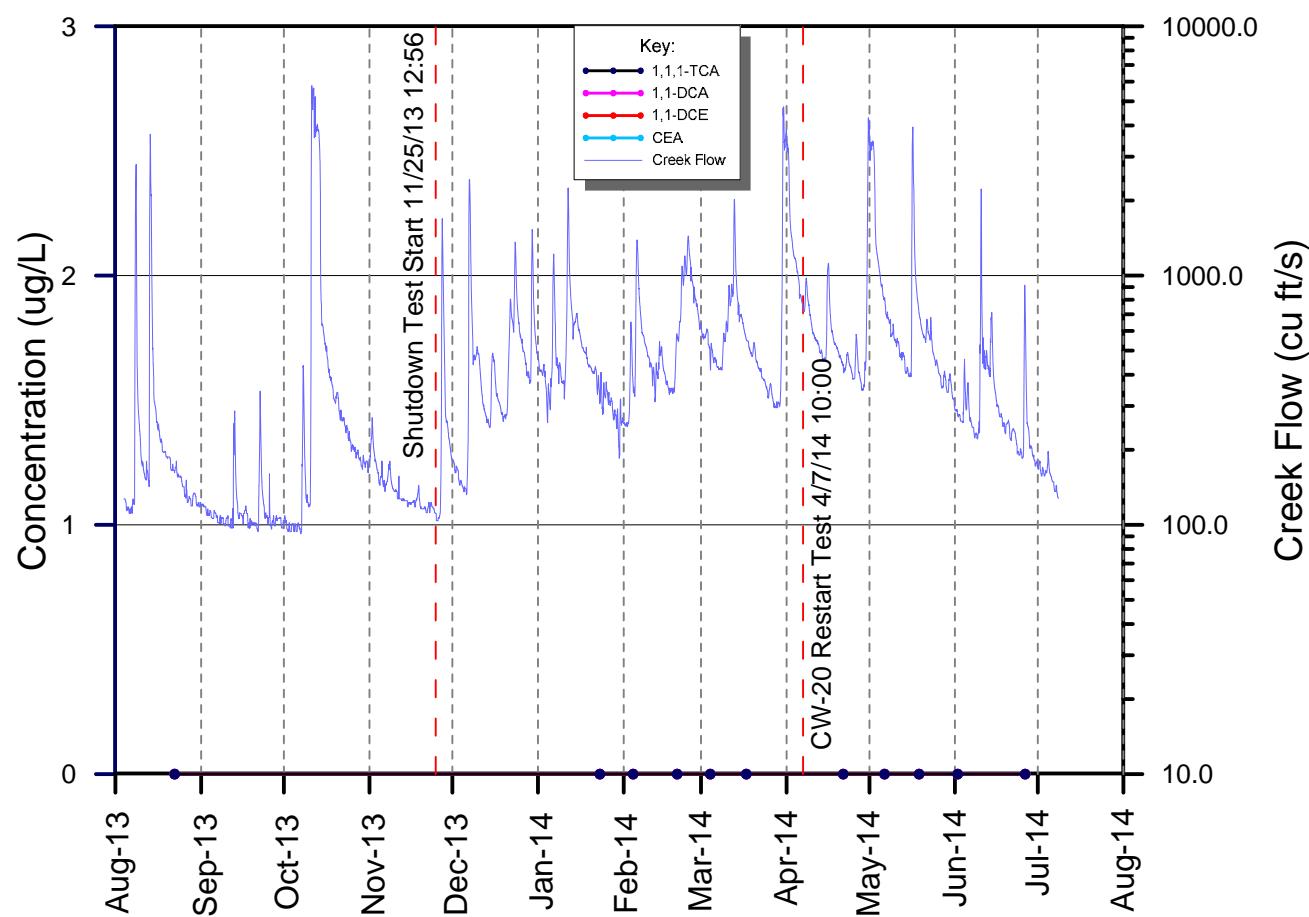
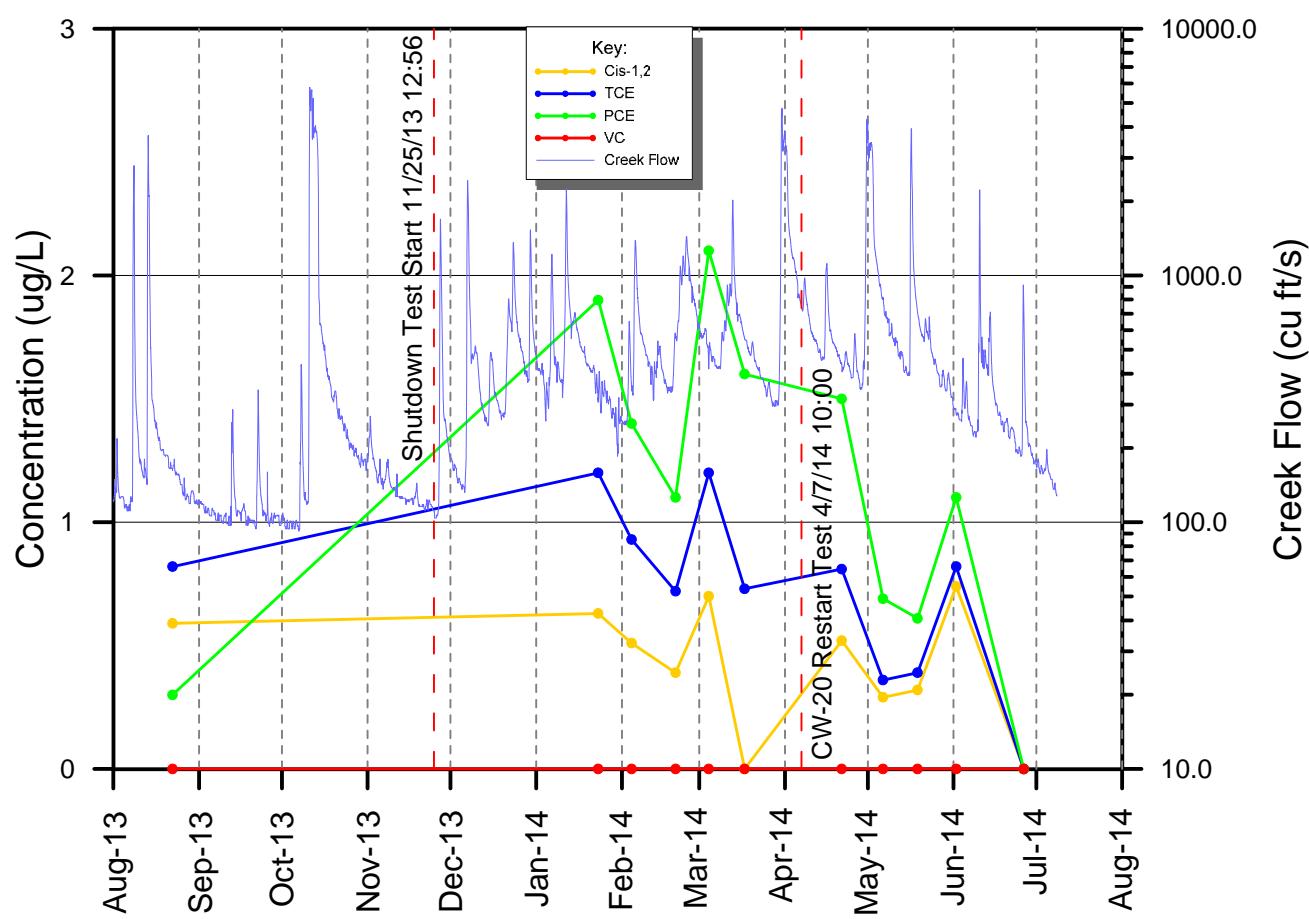
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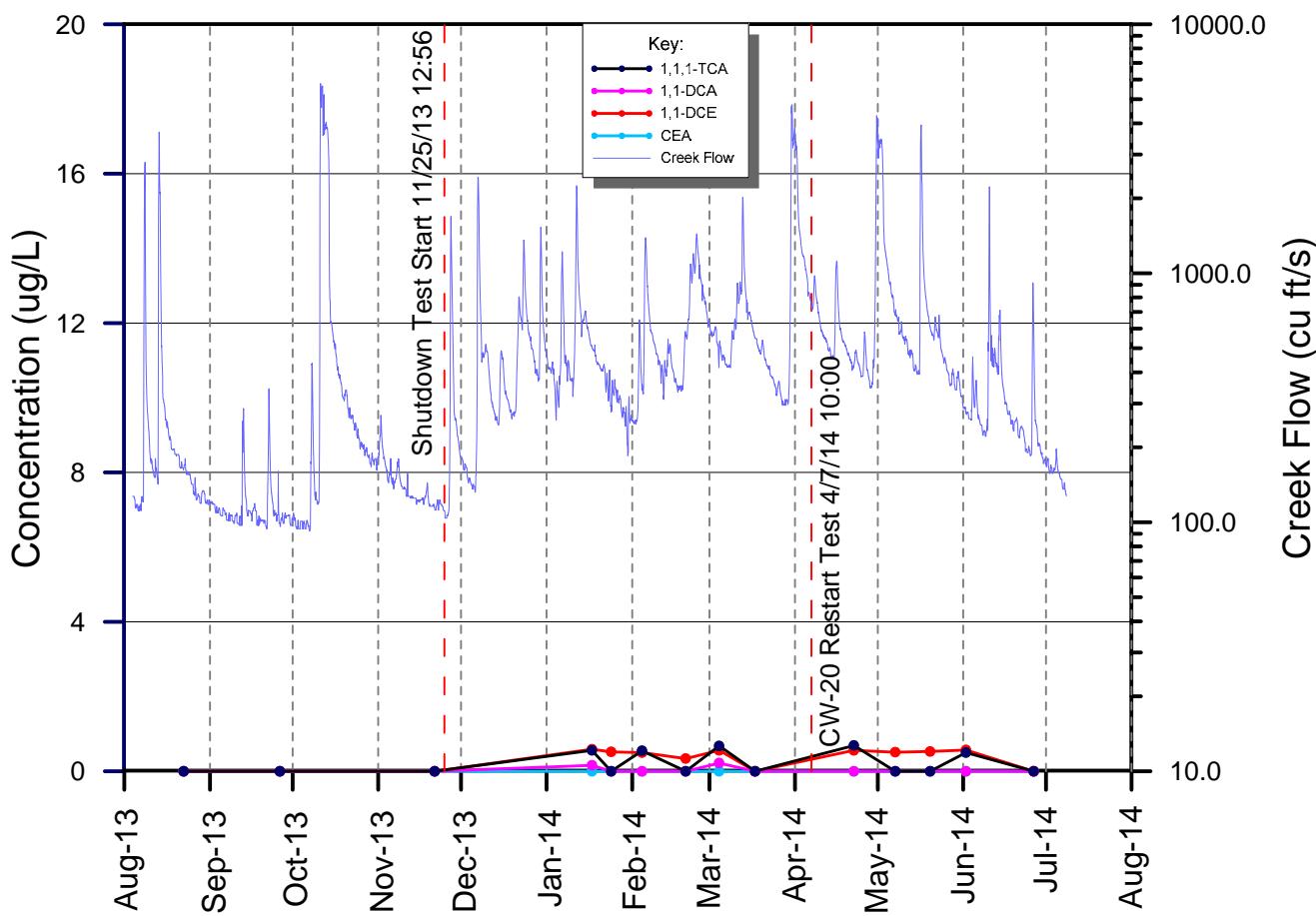
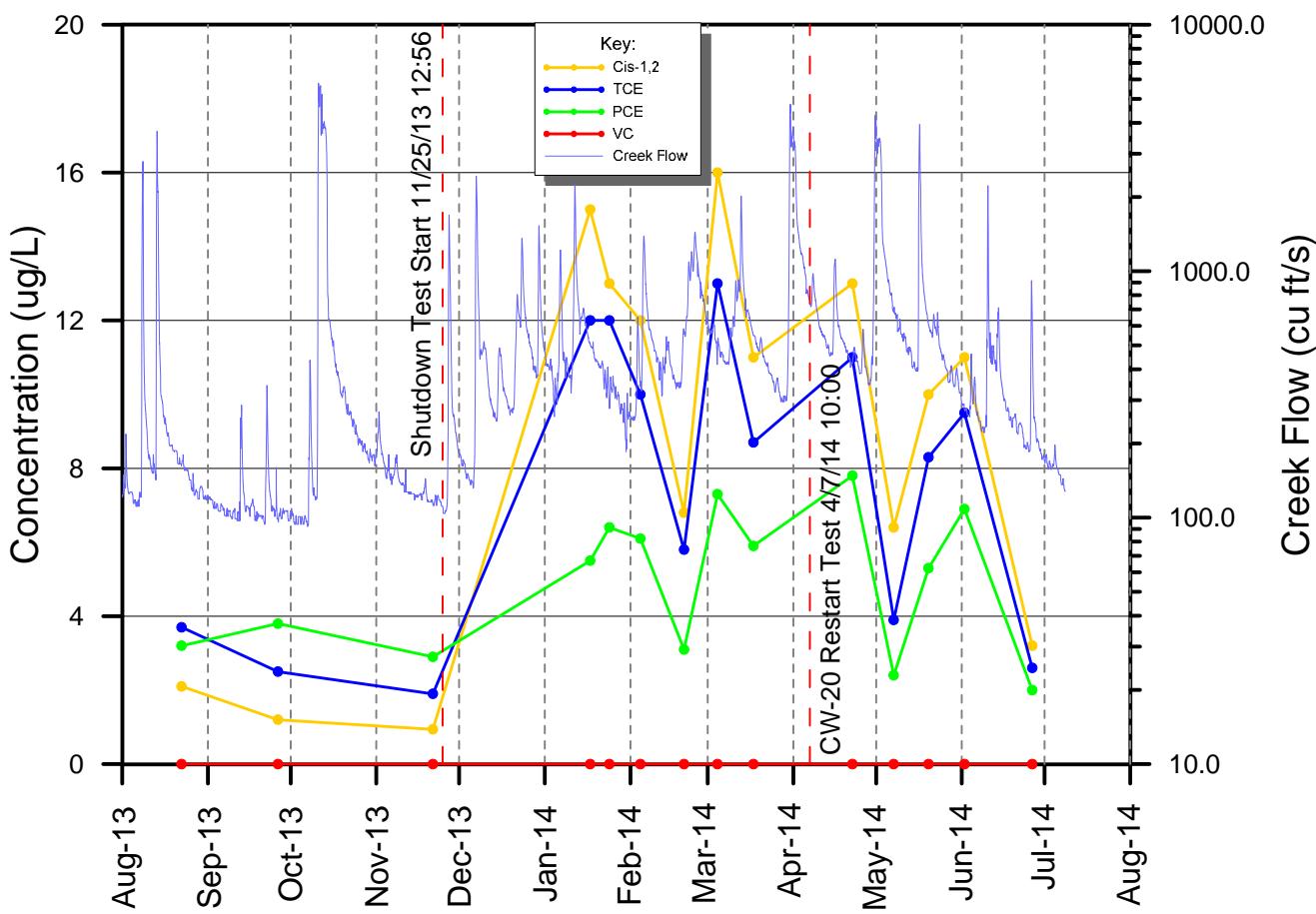
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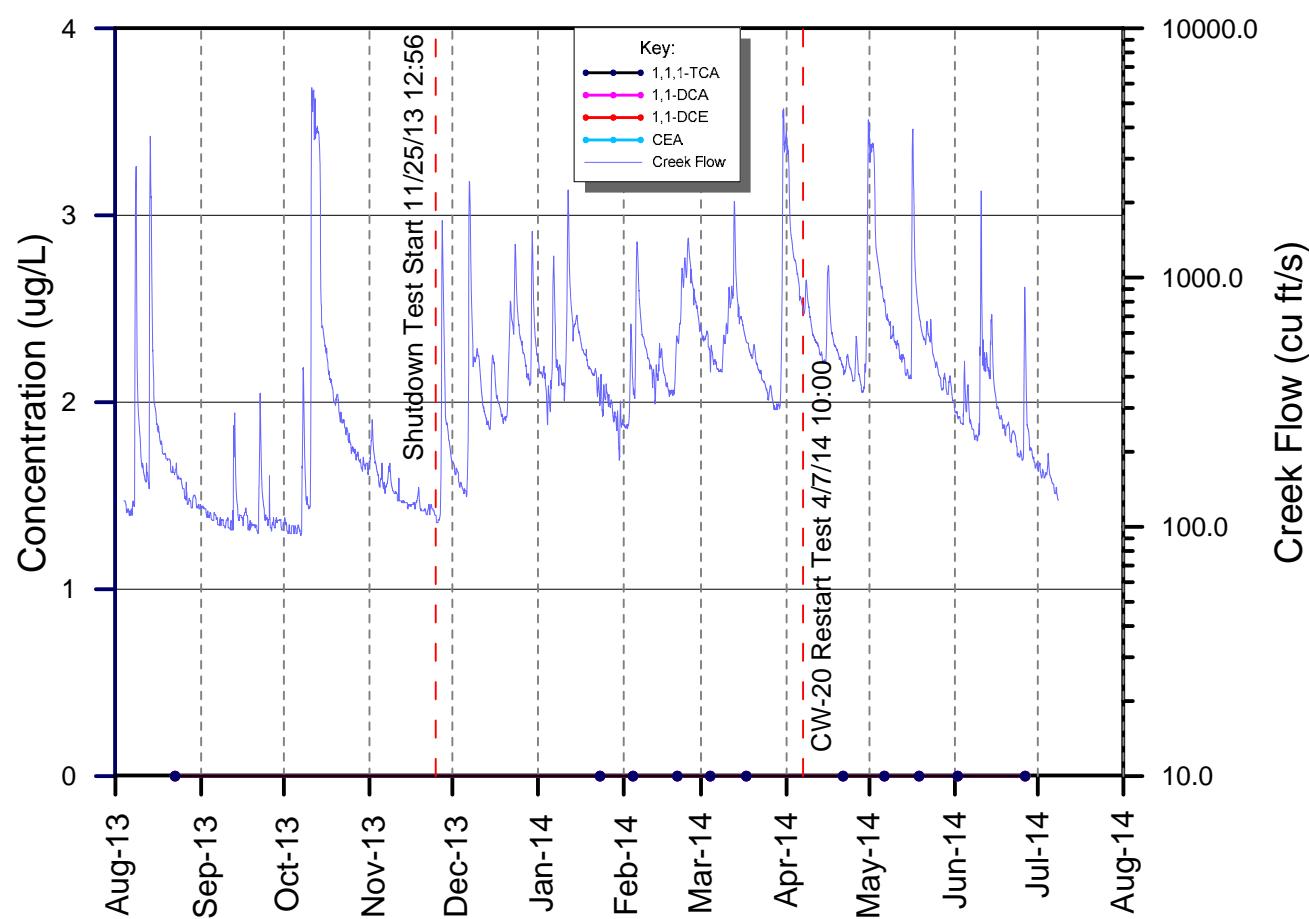
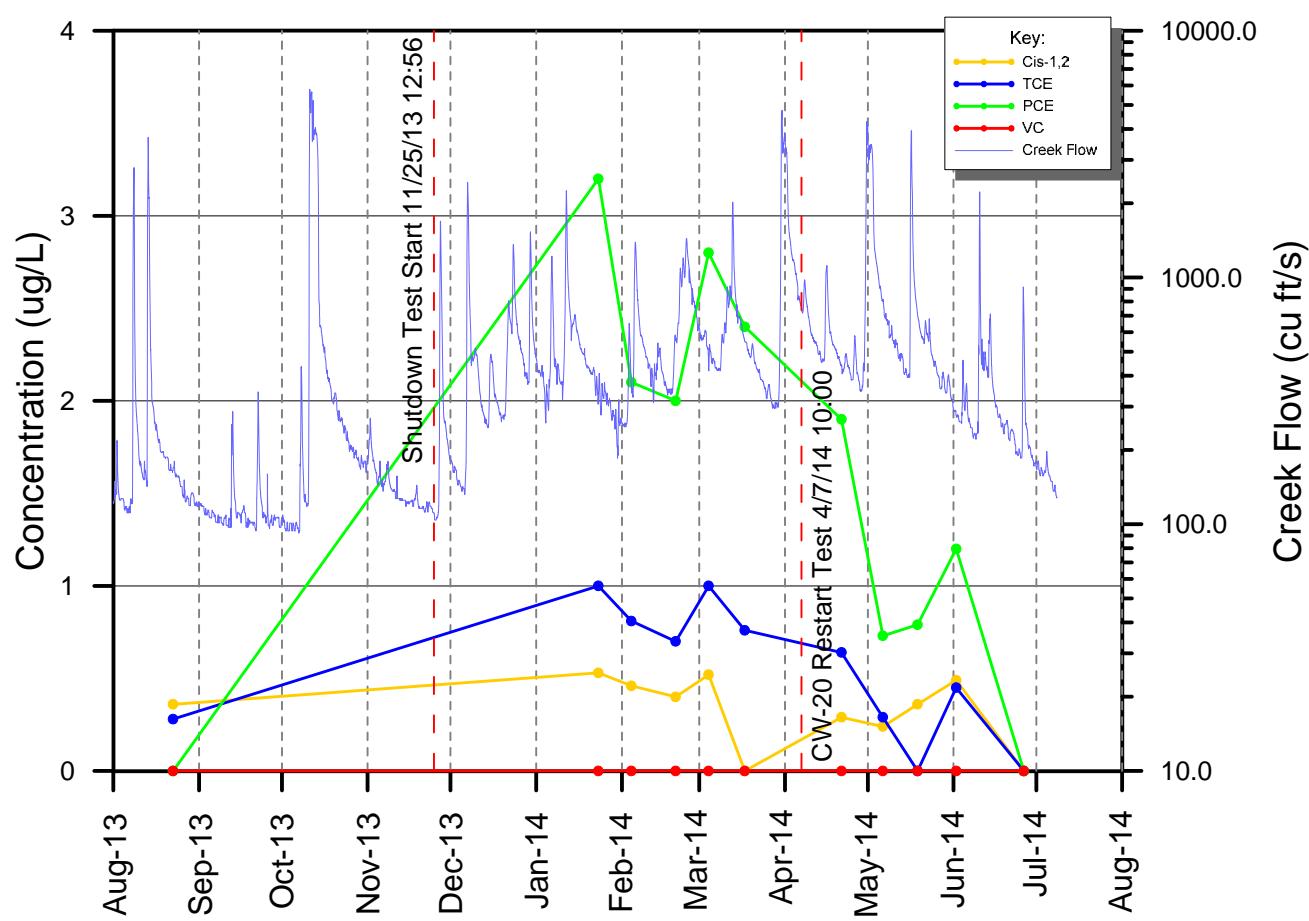
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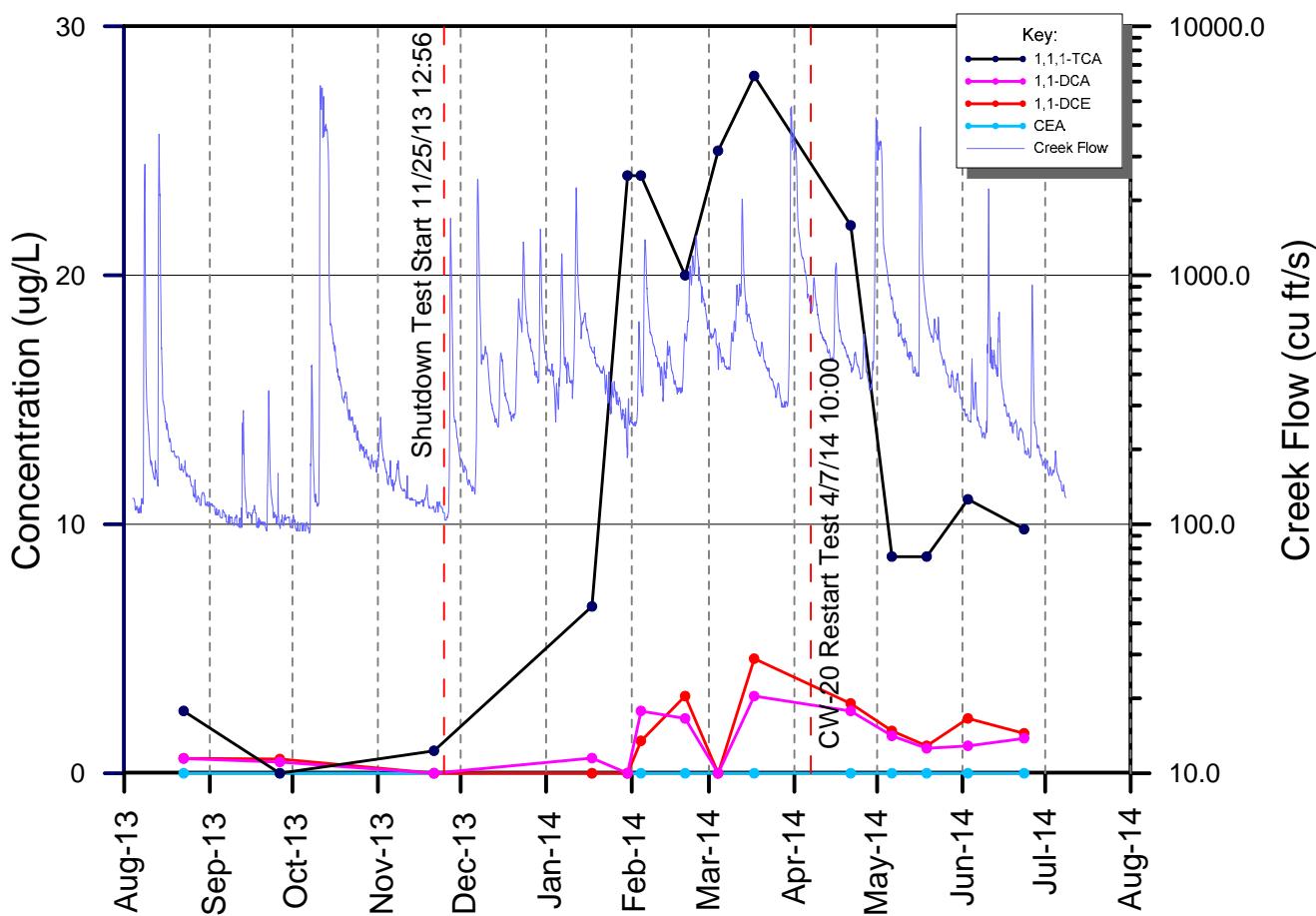
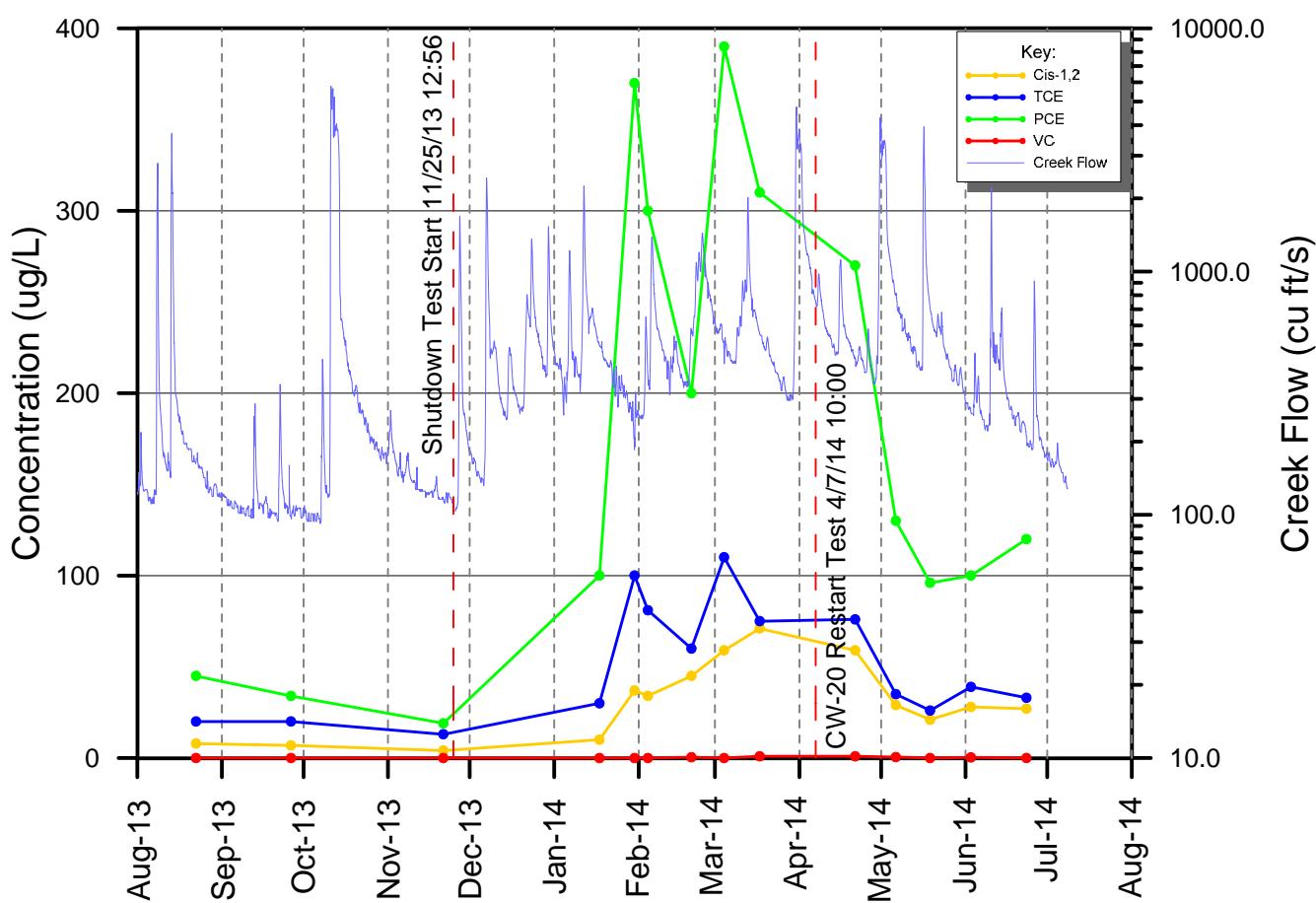
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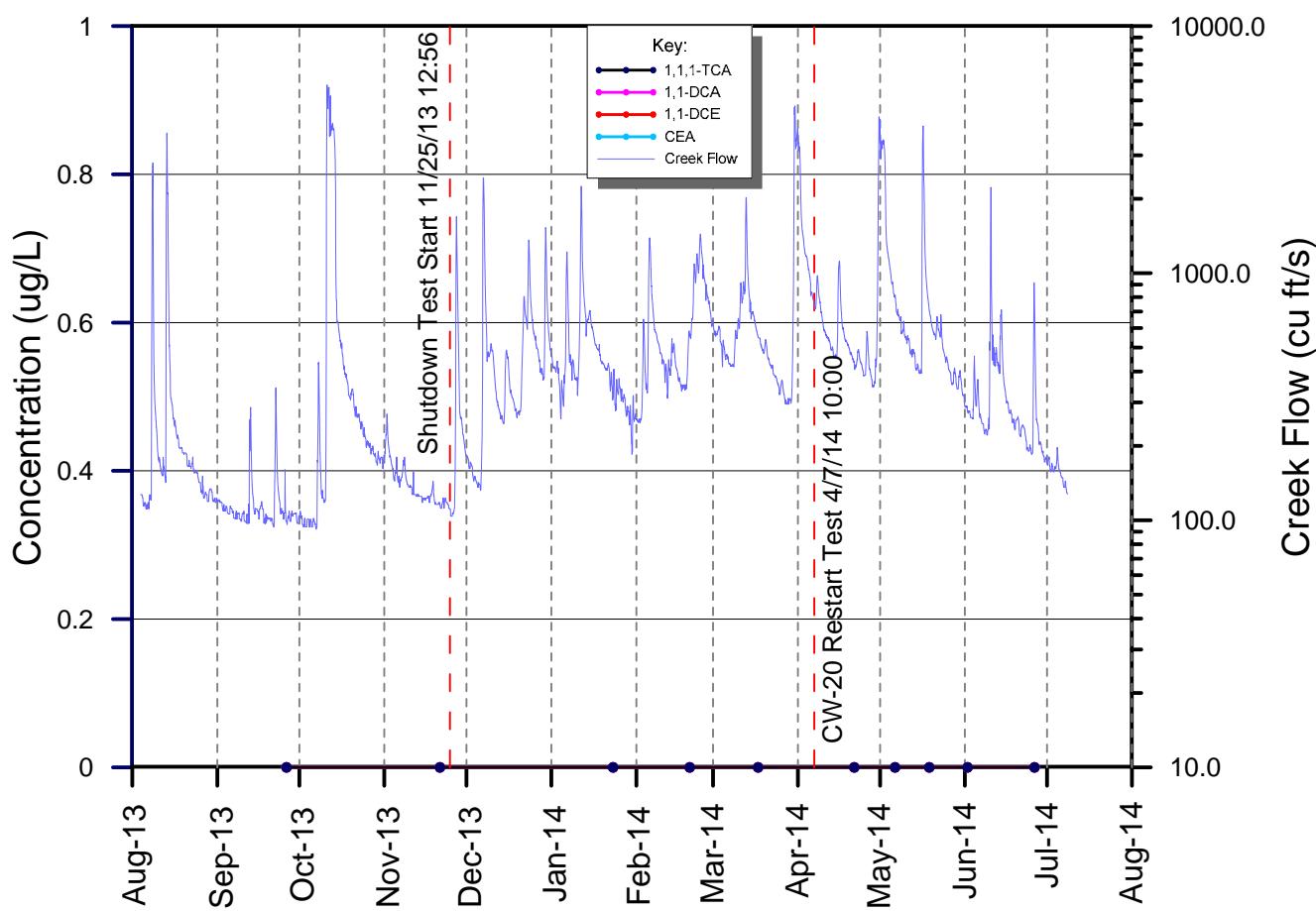
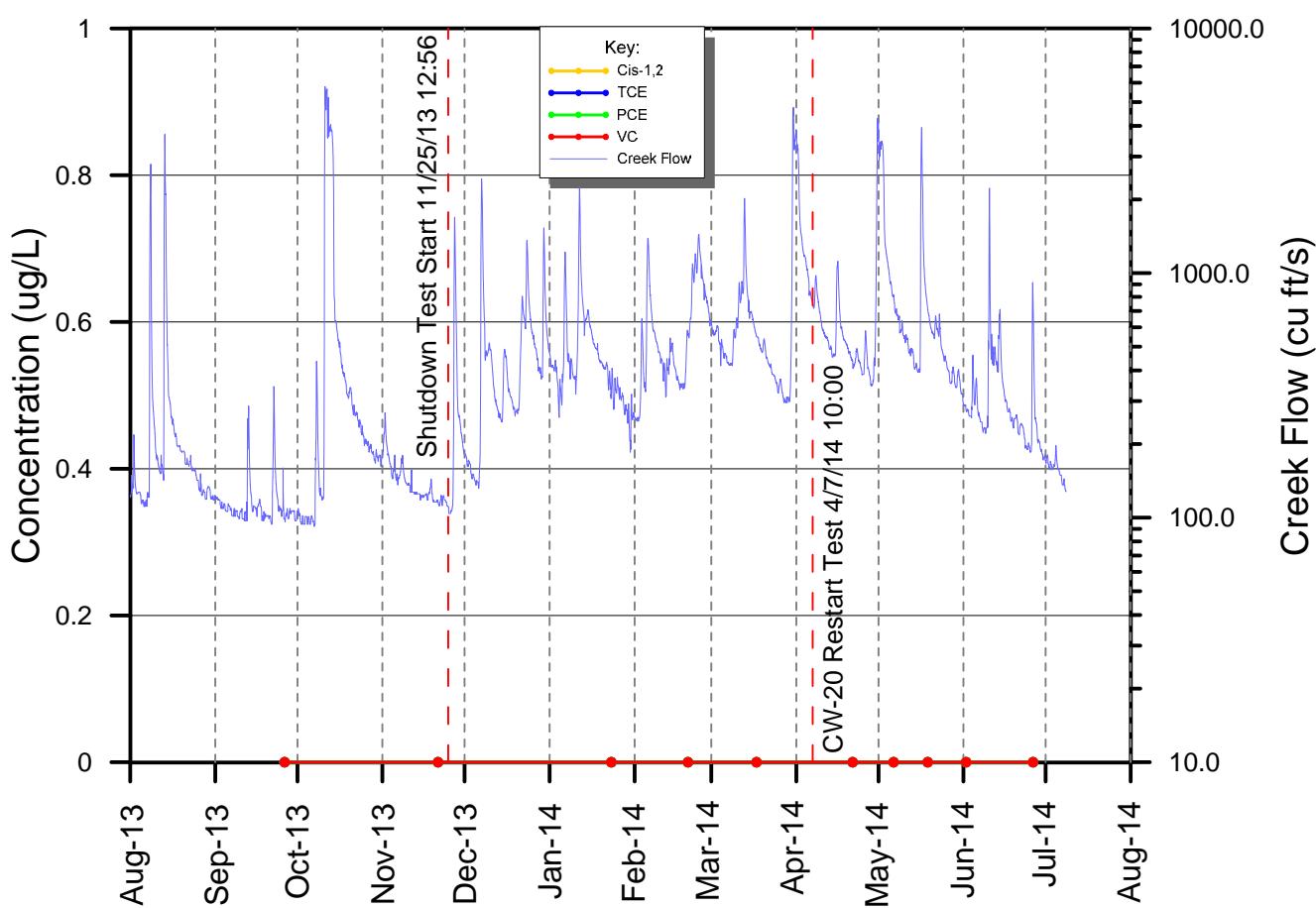
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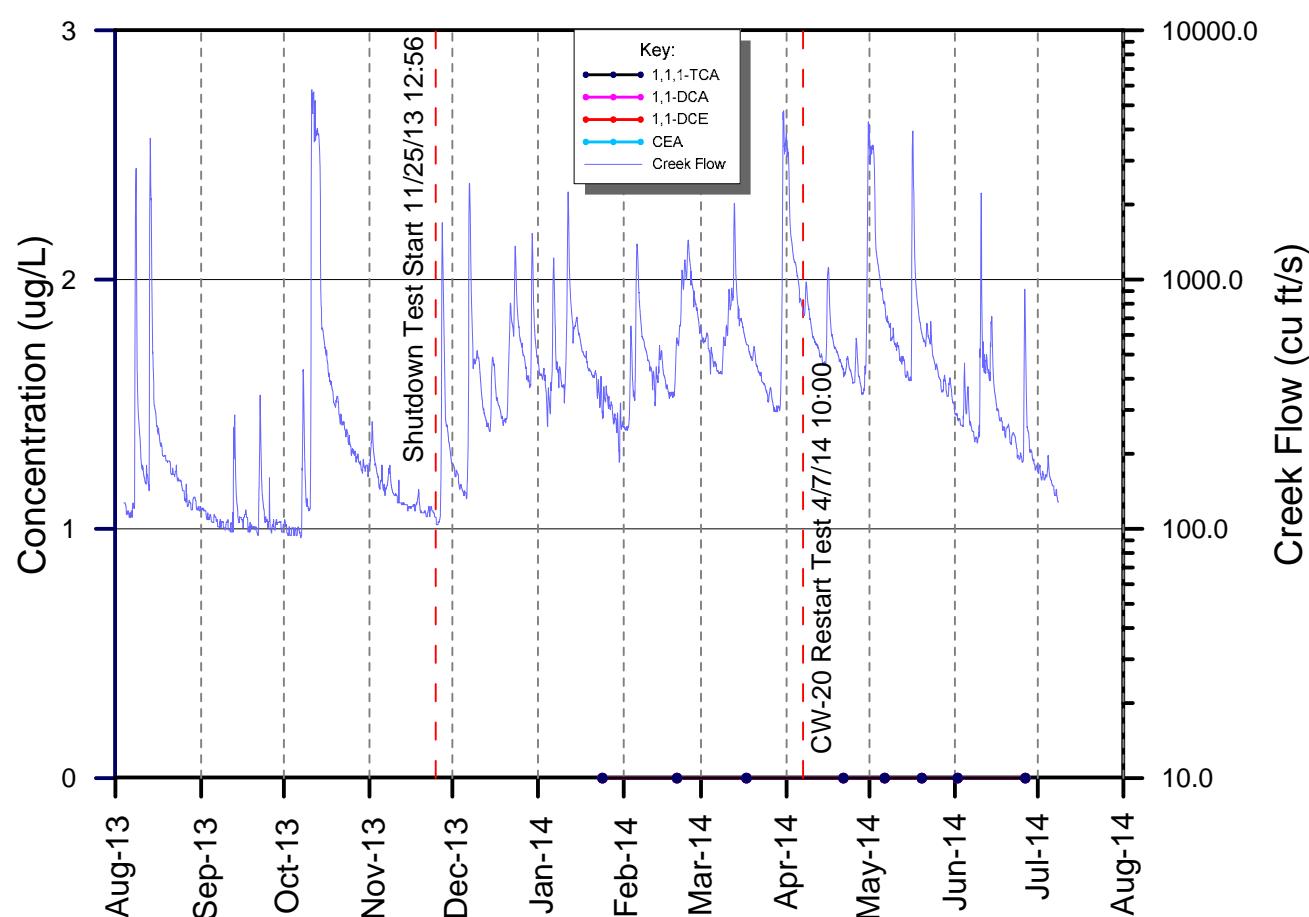
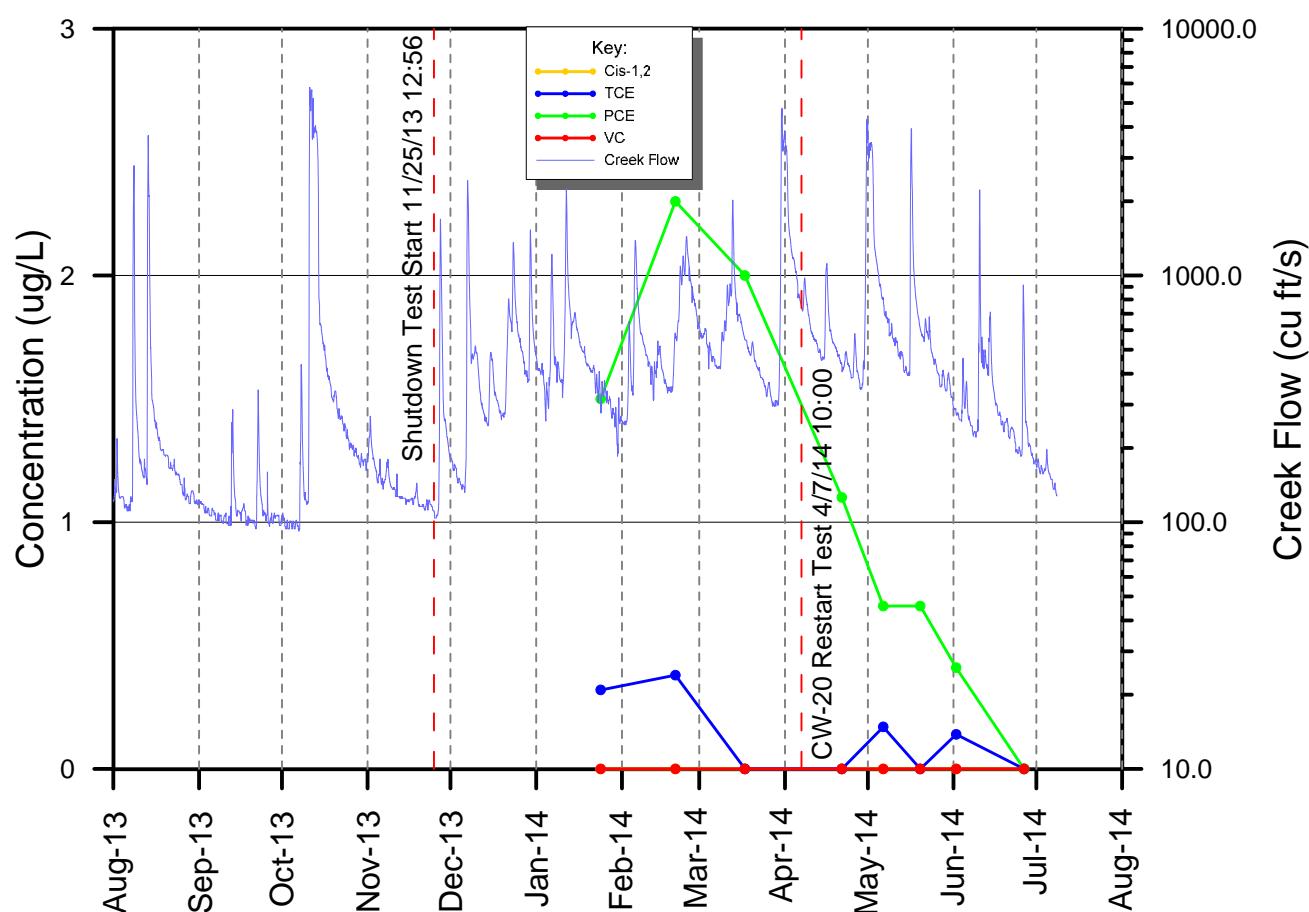
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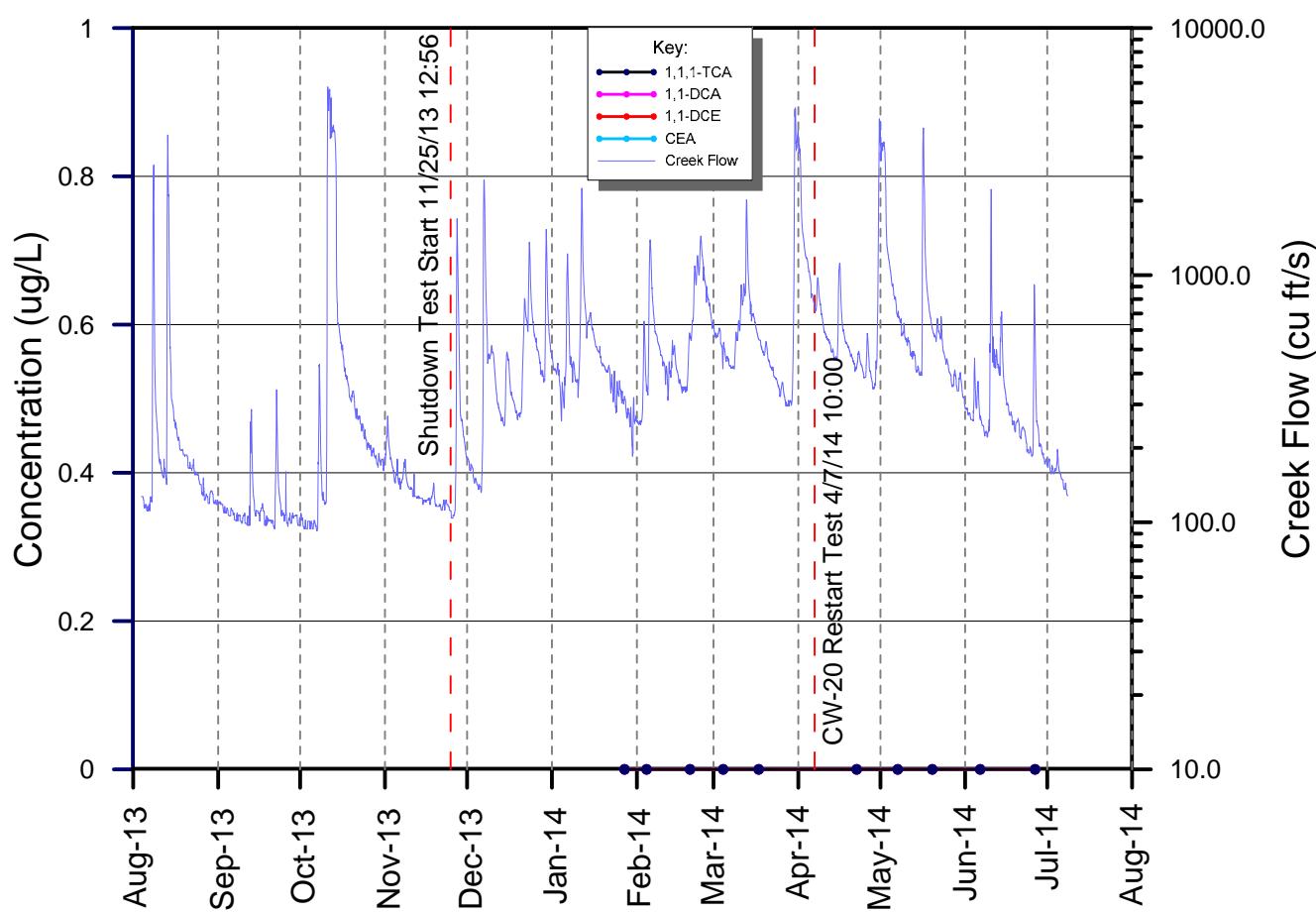
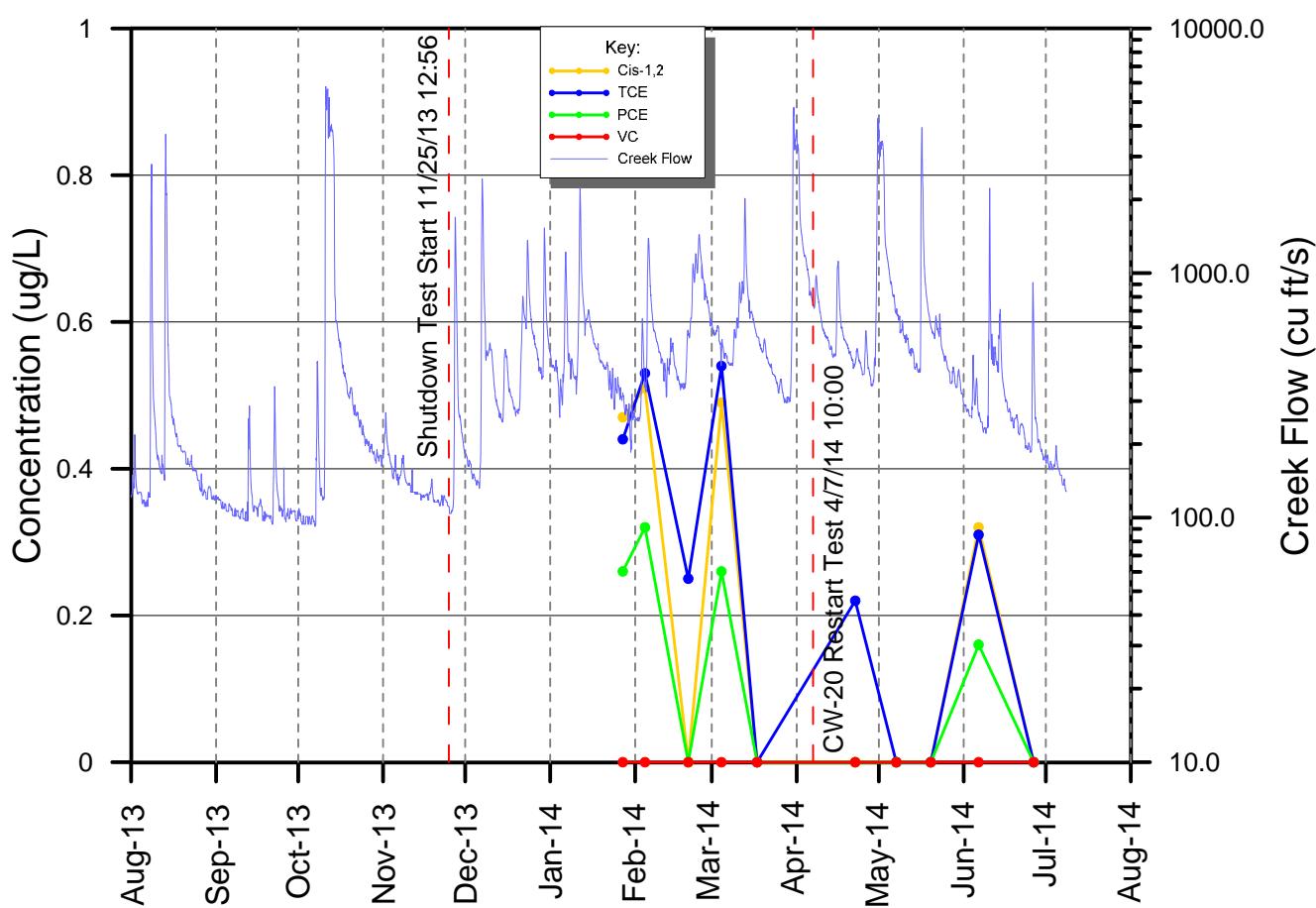
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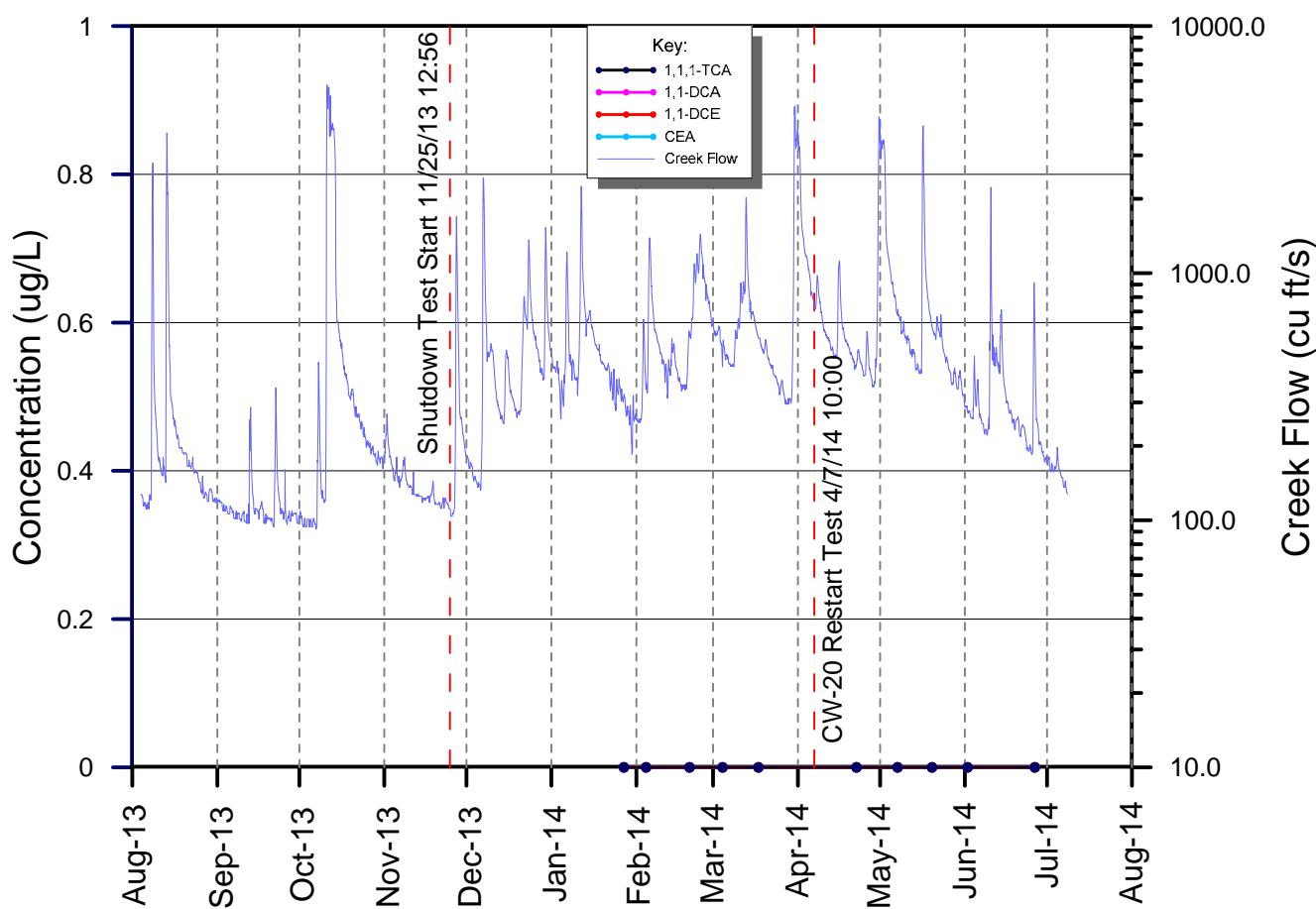
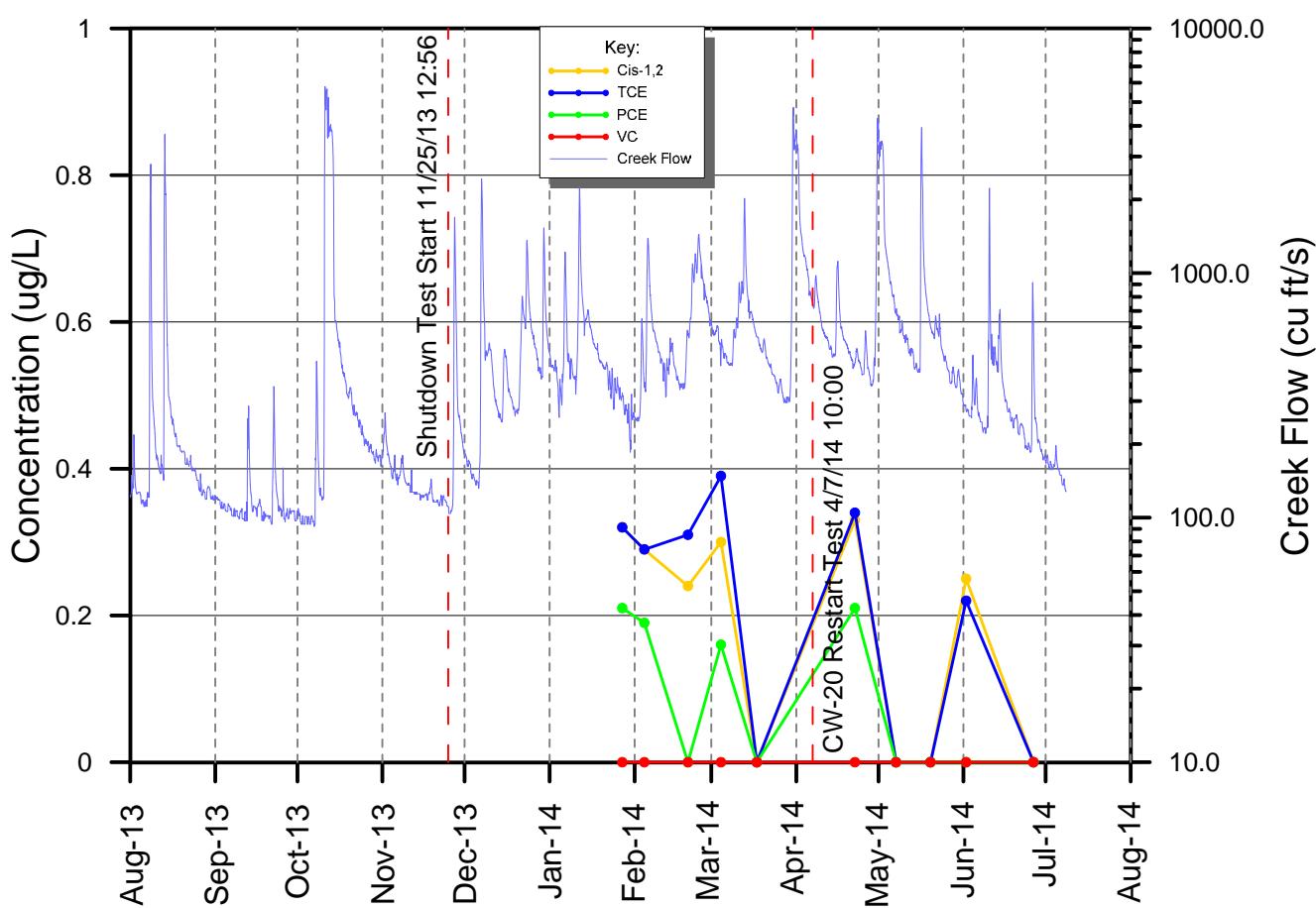
### SW-26



### SW-27



### SW-28



### SW-29

