



March 11, 2016

Ms. Jennifer Elkins  
Work Assignment Manager  
U.S. Environmental Protection Agency Region 5  
77 W. Jackson Blvd.  
Chicago, Illinois 60604

**Subject: December 2015 Data Summary Report and 2014 Remedial Action Evaluation  
Aircraft Components, Inc.  
Benton Harbor, Berrien County, Michigan  
Remedial Action Contract (RAC) 2  
Contract No. EP-S5-06-02  
Work Assignment No. 117-LRLR-050W**

Dear Ms. Elkins:

SulTRAC is submitting this Data Summary Report and 2014 Remedial Action Evaluation regarding Operable Unit #2 (OU2) at the Aircraft Components, Inc. (ACI), Site. In situ chemical oxidation (ISCO) was performed at the site in February and March 2014. In March 2013 and before the ISCO was performed, field parameters and contaminants of concern were measured to serve as a baseline for comparisons to data provided in this and future post-ISCO data summary reports.

This data summary report summarizes the data collected in December 2015 and provides comparisons to sample results from March 2013 (baseline) as well as sampling in September 2013 (post-ISCO pilot test), March 2015 (post-full-scale ISCO), June 2015, and September 2015. This report also provides an evaluation of the overall effectiveness of the 2014 remedial action. All previous groundwater sampling results are available in the September 2012 data summary report.

The objective of the 2014 remedial action was to decrease the mass of chlorinated solvents (tetrachlorethene [PCE], trichloroethene [TCE], *cis*-1,2-dichloroethene [DCE], and vinyl chloride [VC]) present within the plume on the north side of the Paw Paw River and thus accelerate the expected timeframe of monitored natural attenuation required to meet remediation objectives (RO) for groundwater.

Based on the December 2015 data, concentrations of PCE, TCE, DCE, and VC across the site have been reduced as a result of the 2014 ISCO remediation. However, concentrations of PCE, TCE, DCE, and VC in groundwater near well MW08-R remain well above ROs. Concentrations of DCE and VC above ROs are also present to the south, across the Paw Paw River. Concentrations of PCE, TCE, DCE, and VC throughout the remainder of most of the site continue to be below ROs.

If you have any questions regarding this report, please call me at (312) 201-7778.

Ms. Jennifer Elkins  
March 11, 2016  
Page 2 of 2

Sincerely,

A handwritten signature in cursive script, appearing to read "Dave Franc".

Dave Franc  
SulTRAC Project Manager

Enclosure

cc: Daniel Olsson, EPA Contracting Officer (letter only)  
Mindy Gould, SulTRAC Program Manager (letter only)  
Judith Alfano, MDEQ Project Manager  
File

**DECEMBER 2015 DATA SUMMARY REPORT AND  
2014 REMEDIAL ACTION EVALUATION  
AIRCRAFT COMPONENTS, INC. SITE  
BERRIEN COUNTY, MICHIGAN**

**Prepared for  
U.S. Environmental Protection Agency  
Region 5  
77 West Jackson  
Chicago, Illinois 60604**

Work Assignment No.	:	117-LRLR-050W
Contract No.	:	EP-S5-06-02
Date Prepared	:	March 11, 2016
Prepared by	:	SulTRAC
SulTRAC Project Manager	:	Dave Franc
Telephone No.	:	(312) 201-7778
EPA Work Assignment Manager	:	Jennifer Elkins
Telephone No.	:	(312) 353-4627

## CONTENTS

<b><u>Section</u></b>	<b><u>Page</u></b>
1.0 INTRODUCTION .....	1
2.0 SITE BACKGROUND .....	2
3.0 SAMPLING ACTIVITIES .....	4
4.0 GROUNDWATER SAMPLING RESULTS.....	5
4.1 SITE-WIDE EVALUATION .....	5
4.2 VOCs .....	5
4.3 INDICATOR PARAMETERS .....	9
4.3.1 Chloride.....	9
4.3.2 Oxidation-Reduction Potential.....	9
4.3.3 Sodium .....	10
4.3.4 Sulfate .....	10
4.4 ADDITIONAL ANALYTES.....	10
4.4.1 Dissolved Oxygen .....	10
4.4.2 Ferrous Iron.....	11
4.4.3 Metals.....	11
4.4.4 Methane.....	12
4.4.5 Total Organic Carbon .....	13
5.0 SUMMARY OF METHANE GAS ANALYSIS.....	13
6.0 CONCLUSIONS AND RECOMMENDATIONS .....	15
7.0 REFERENCES .....	17

## **TABLES**

TABLE 1 – COC VOLUME AND MASS COMPARISON.....	7
TABLE 2 – NUMBERS OF WELLS EXHIBITING INCREASING OR DECREASING TRENDS FOR CONTAMINANTS OF CONCERN BETWEEN MARCH 2013 AND DECEMBER .....	8
TABLE 3 – ARSENIC COMPARISON .....	12

## **FIGURES**

- 1 GROUNDWATER MONITORING WELL AND METHANE GAS PROBE LOCATIONS
- 2 POTENTIOMETRIC SURFACE MAP SHALLOW ZONE – DECEMBER 2015
- 3 CONFINED AQUIFER GROUNDWATER FLOW – DECEMBER 2015
- 4 PCE CONTAMINATION PLUME – MARCH 2013 AND DECEMBER 2015 (PLAN VIEW) – PCE CONTAMINATION GREATER THAN REMEDIATION OBJECTIVE (5 µg/L)
- 5 PCE CONTAMINATION PLUME – MARCH 2013 AND DECEMBER 2015 (3D VIEW) – PCE CONTAMINATION GREATER THAN REMEDIATION OBJECTIVE (5 µg/L)
- 6 TCE CONTAMINATION PLUME – MARCH 2013 AND DECEMBER 2015 (PLAN VIEW) – TCE CONTAMINATION GREATER THAN REMEDIATION OBJECTIVE (5 µg/L)
- 7 TCE CONTAMINATION PLUME – MARCH 2013 AND DECEMBER 2015 (3D VIEW) – TCE CONTAMINATION GREATER THAN REMEDIATION OBJECTIVE (5 µg/L)
- 8 DCE CONTAMINATION PLUME – MARCH 2013 AND DECEMBER 2015 (PLAN VIEW) – DCE CONTAMINATION GREATER THAN REMEDIATION OBJECTIVE (70 µg/L)
- 9 DCE CONTAMINATION PLUME – MARCH 2013 AND DECEMBER 2015 (3D VIEW) – DCE CONTAMINATION GREATER THAN REMEDIATION OBJECTIVE (70 µg/L)
- 10 VC CONTAMINATION PLUME – MARCH 2013 AND DECEMBER 2015 (PLAN VIEW) – VC CONTAMINATION GREATER THAN REMEDIATION OBJECTIVE (2 µg/L)
- 11 VC CONTAMINATION PLUME – MARCH 2013 AND DECEMBER 2015 (PLAN VIEW) – VC CONTAMINATION GREATER THAN REMEDIATION OBJECTIVE (2 µg/L)

## **APPENDICES**

- A Monitoring Well Summary Tables and Graphs
  - Exhibit 1 – Water Quality Parameters, Field Measurements, and Site Contaminants of Concern
  - Exhibit 2 – Specific VOC Summaries for Monitoring Wells
  - Exhibit 3 – Indicator Parameter Summaries for Monitoring Wells
- B VOC and Metals Data Summary Sheets for Monitoring Wells
- C Data Validation Report
- D Methane Gas Probe Summary
- E Groundwater Elevation Data and Low-Flow Sampling Stabilization Summary Sheets
- F Mann-Kendall

## **ATTACHMENT**

- 1 Laboratory Analytical Results

## **1.0 INTRODUCTION**

SulTRAC prepared this data summary report and remedial action evaluation for the U.S. Environmental Protection Agency (EPA) under EPA Remedial Action Contract No. EP-S5-06-02 (RAC 2), Work Assignment No. 117-LRLR-050W. Under this work assignment, EPA tasked SulTRAC to perform routine groundwater and surface water sampling as part of a long-term remedial action (LTRA) at the Aircraft Components, Inc. (ACI), site, Operable Unit #2 (OU2), in Benton Harbor, Berrien County, Michigan. The objectives of the sampling are to (1) measure the effectiveness of the remedial approach and verify the reduction in contaminants of concern (COC) in groundwater; (2) determine the impact (if any) to surface water of the Paw Paw River as a result of groundwater treatment; (3) evaluate whether final cleanup levels or standards, as specified in the Record of Decision (ROD), have been achieved; and (4) determine if methane gas detected in the groundwater is accumulating in the vadose zone and migrating outside of the horizontal zone of the treated contaminant plume and off site.

This data summary report and remedial action evaluation summarizes data for groundwater and methane gas obtained during the December 2015 sampling event, assesses the four quarters of post-In Situ Chemical Oxidation (ISCO) monitoring data, and evaluates the effectiveness of the 2014 remedial action. Included in the September 2012 data summary report are discussions of previous sampling events at the site between 2004 and 2012 associated with monitoring and evaluating remediation by use of hydrogen-releasing compound (HRC) (SulTRAC 2012a).

This data summary report and remedial action evaluation is organized into several sections, starting with this Introduction, Section 1.0. Section 2.0 briefly describes the site background and 2014 remedial action activities. A full description and summary of the 2014 remedial action was provided in the March 2015 Data Summary Report (SulTRAC 2015). Section 3.0 briefly describes the December 2015 sampling activities. Section 4.0 presents the analytical results for groundwater samples. Section 5.0 presents the methane gas probe monitoring results. Section 6.0 provides conclusions and offers recommendations for steps forward at the ACI site. Section 7.0 lists sources used to prepare this report. Eleven figures follow the report. After the figures are appendices: Appendix A – Monitoring Well Summary Tables and Graphs; Appendix B – VOC and Metals Data Summary Sheets for Monitoring Wells; Appendix C – Data Validation Report; Appendix D –Methane Gas Probe Summary; Appendix E – Groundwater Elevation Data and Low-Flow Sampling Stabilization Summary Sheets; and Appendix F – Mann-Kendall. Laboratory analytical results are provided in Attachment 1.

## 2.0 SITE BACKGROUND

The ACI site is a 17-acre parcel adjacent to the Paw Paw River at 671 North Shore Drive in Benton Harbor, Michigan. Between 1995 and 1999, the site underwent several removal actions to address contamination in soil and sediment. As part of the site operation and maintenance (O&M), 37 on-site monitoring wells and five off-site monitoring wells were installed and three surface water sampling locations were identified to create a site monitoring and sampling network. A groundwater sampling event in May 2004 established baseline levels of the site COCs: tetrachloroethene (PCE), trichloroethene (TCE), *cis*-1,2-dichloroethene (DCE), and vinyl chloride (VC). In August 2004, the first round of bioremediation treatment using an HRC and HRC-X substrate was completed at 423 location points throughout the site. To facilitate site development, 28 of the 42 monitoring wells and 10 of the 24 methane probes were abandoned in June 2007 with the intent to evaluate site conditions and replace appropriate wells later. As a result of site development and well abandonment, quarterly groundwater sampling was suspended from April 2007 through the June 2008 event.

In December 2007 and March 2008, Harbor Shores (a private developer) injected additional HRC at 100 location points. After site development was complete, 25 of the 28 abandoned monitoring wells and nine of the 10 methane probes were replaced in April and May 2008. The replacement wells and methane probes (identified by “R”) were developed after they were installed. The three monitoring wells not replaced included TW02, TW03, and MWF. Monitoring wells TW02 and TW03, upgradient of the chlorinated plume, typically had not been sampled. Monitoring well MWF had been generally dry and was replaced by other wells south of the Paw Paw River. Methane gas probe MP-2B was not replaced because peat that naturally produces methane was present in the boring from the proposed screen elevation to approximately 10 feet below ground surface (bgs).

In March 2012, SulTRAC installed a groundwater monitoring well (MW41) approximately 135 feet southeast of well MW31 to assess the extent of groundwater contamination historically identified in the confined aquifer south of the Paw Paw River. Five additional groundwater monitoring wells (MW42, MW43, and MW44 in March 2013 and MW48 and MW49 in January 2016) were installed to further delineate the contaminant plume. The January 2016 analytical results for samples from wells MW48 and MW49 have not yet been received and are not included in this report. Wells MW45 and MW46 were installed in February 2014 to monitor for potential migration of ISCO to the Paw Paw River.

SulTRAC performed the ISCO pilot test in April 2013, and the full-scale ISCO application was completed in February and March 2014. The pilot test and full-scale ISCO was performed using a sodium persulfate mixture (PersulfOx). The pilot test findings are documented in the In Situ Chemical Oxidation Pilot Study Report dated July 30, 2013 (SulTRAC 2013). A summary of full-scale ISCO activities was included in the March 2015 data summary report (SulTRAC 2015).



### **3.0 SAMPLING ACTIVITIES**

SulTRAC sampled 43 groundwater monitoring wells on December 7 through 10, 2015 (the December 2015 sampling event) (see Figure 1). The groundwater monitoring wells were purged using low-flow methodology, and samples were collected using a peristaltic pump. The sampling approach and sampling procedures for each medium followed the field sampling plan (Appendix A of the sampling and analysis plan) (SulTRAC 2012b).

Existing groundwater monitoring wells were gauged on the first day of the sampling event to measure depth to groundwater and potentiometric surface. Figure 2 shows a potentiometric surface map for the December 2015 sampling event. Figure 3 shows the direction of groundwater flow in the confined aquifer south of the Paw Paw River in December 2015.

Water quality and field parameter data were obtained for each monitoring well, and results are summarized in Appendix A, Exhibits 1 through 3. Listings of analytical results from locations where field duplicates were collected include only the highest concentrations detected. The water quality and field parameter data in Appendix A include the March 2013 (baseline), September 2013, March 2015 (post-injection), June 2015, September 2015, and December 2015 data for comparison. The December 2015 field parameter data for 15 monitoring wells were lost during data transfer and are therefore not included in this report; only laboratory analytical results for these wells are included in this report.

During the December 2015 sampling event, concentrations of methane gas were measured using a methane gas meter at all 21 methane probes throughout the site (see Figure 1).

## **4.0 GROUNDWATER SAMPLING RESULTS**

Each groundwater sample collected was analyzed for Target Compound List (TCL) volatile organic compounds (VOC), Target Analyte List (TAL) metals, ferrous iron, total organic carbon (TOC), sulfate, chloride, and methane by the special analytical service (SAS) private laboratory, TriMatrix Laboratories, Inc. (TriMatrix).

A brief evaluation of site-wide and specific analytical results appears below in sections discussing the site-wide evaluation; VOCs; indicator parameters (chloride, oxidation-reduction potential [ORP], sodium, and sulfate); and additional analyses (dissolved oxygen [DO], ferrous iron, metals, methane, and TOC).

### **4.1 SITE-WIDE EVALUATION**

In general, concentrations of PCE, TCE, and DCE have decreased as a result of the 2014 ISCO remediation and continue to be below remedial objectives (ROs) throughout the site (except near wells MW08-R and MWM-R and across the river in a confined aquifer for DCE). VC concentrations, although also decreased, remain persistent within a slightly larger area in the aquifer at concentrations exceeding its RO. This area extends northeast toward well MW05, northwest toward well MW40-R, and in the confined aquifer across the river. A plan view figure was prepared for each COC comparing the horizontal extent of the plume for March 2013 and December 2015 (Figures 4, 6, 8, and 10). The plan view comparison figure is followed by a three-dimensional figure comparing the estimated plume configurations for each event (Figures 5, 7, 9, and 11). The DCE and VC contamination south of the Paw Paw River is limited to the confined aquifer. Analytical results for shallow groundwater south of the Paw Paw River indicate that PCE, TCE, DCE, and VC are not present.

### **4.2 VOCs**

Each groundwater sample collected was analyzed for VOCs to delineate the extent of the current COC plume and evaluate the effectiveness of the 2014 remedial action. Below is a discussion of significant VOC detections during the December 2015 sampling event.

Twelve monitoring wells sampled during the December 2015 sampling event contained VOCs at concentrations exceeding their ROs (EPA 2002). ROs for the VOC COCs are:

- PCE: 5 micrograms per liter (µg/L)
- TCE: 5 µg/L
- DCE: 70 µg/L
- VC: 2 µg/L.

Concentrations of PCE (440 µg/L), TCE (320 µg/L), DCE (180 µg/L), and VC (32 µg/L) exceeded their ROs in monitoring well MW08-R.

Concentrations of TCE (10 µg/L), DCE (470 µg/L), and VC (560 µg/L) exceeded their ROs in monitoring well MWM-R.

Concentrations of TCE (20 µg/L) and VC (17 µg/L) exceeded their ROs in monitoring well MDEQE-R.

Concentrations of DCE and VC exceeded their ROs in six monitoring wells (MW07-R, MW31, MW40-R, MW41, MW42, and MW43). DCE concentrations ranged from 80 µg/L (in MW07-R) to 710 µg/L (in MW41). VC concentrations ranged from 8.0 µg/L (in MW41) to 540 µg/L (in MW42).

VC concentrations were above the RO in four monitoring wells (MW06-R, MWI, MWJ-R, and MWK-R). VC concentrations in these wells ranged from 6.0 µg/L (in MW06-R) to 42 µg/L (in MWJ-R).

Trace concentrations of other VOCs were also detected throughout the site. Appendix A provides a numeric representation of current analytical results for the COCs. Appendix B includes the complete December 2015 data summary tables for VOCs and metals for monitoring wells. Appendix C includes the data validation report for the analytical data.

Figures 4 through 11 illustrate the March 2013 and December 2015 horizontal locations and vertical depths of the VOC plume. The figures were created using interpolated analytical data and generated using Mining Visualization Software (CTech Development Corporation 2012) Version 9.64. Analytical data were imported into the program from a Microsoft Excel spreadsheet. The interval datum representing the contaminant concentration at each depth was targeted for the interpolation. A new model was created and the specific parameter was targeted. Based on this model, the volume and mass of COCs in groundwater at concentrations above their ROs were calculated. Volumes and masses of COC VOCs in December 2015 as compared with March, June, and September 2015 and March and September 2013 are summarized in Table 1:

**TABLE 1 – COC VOLUME AND MASS COMPARISON**

COC	March 2013		September 2013		March 2015		June 2015		September 2015		December 2015	
	Volume (ft <sup>3</sup> )	Mass (kg)	Volume (ft <sup>3</sup> )	Mass (kg)	Volume (ft <sup>3</sup> )	Mass (kg)	Volume (ft <sup>3</sup> )	Mass (kg)	Volume (ft <sup>3</sup> )	Mass (kg)	Volume (ft <sup>3</sup> )	Mass (kg)
PCE	47,347	0.0676	87,739	0.47466	38,138	0.08799	15,888	0.02722	16,378	0.02944	14,505	0.021388
TCE	61,714	0.0332	57,628	0.025778	34,870	0.02334	24,430	0.019383	52,543	0.045648	24,352	0.028817
DCE	1,292,500	32.4	1,120,500	16.717	377,550	3.1894	821,180	12.918	1,063,700	9.8492	594,820	3.6673
VC	2,365,100	0.9	1,873,300	0.67533	1,015,000	0.57167	1,144,000	1.0897	1,352,700	1.2198	1,230,700	1.4456
Totals	3,766,661	33.4	3,139,167	17.893	1,465,558	3.8724	2,005,498	14.054	2,485,321	11.144	1,864,377	5.163105

COC	March 2013 – December 2015 Difference			
	Volume (ft <sup>3</sup> )	Percent Reduction	Mass (kg)	Percent Reduction
PCE	-32.842	69.4	-0.046212	68.4
TCE	-37,362	60.5	-0.004383	13.2
DCE	-697,680	54.0	-28.7327	88.7
VC	-1,134,400	48.0	0.5456	(60.6)
Totals	-1,902,284	50.5	-28.2369	84.5

Notes:

COC Contaminant of concern

DCE Dichloroethene

ft<sup>3</sup> Cubic foot

kg Kilogram

PCE Tetrachloroethene

TCE Trichloroethene

VC Vinyl Chloride

The volumes and masses in Table 1 include the expanded DCE and VC plume identified across the Paw Paw River. Future monitoring reports will also include volumes and masses of COC VOCs to evaluate the COC VOCs at the site.

SulTRAC used the Mann-Kendall (M-K) test to statistically evaluate trends in COC concentrations in groundwater between the March 2013 baseline and the December 2015 groundwater sampling events (a total of six sampling events). This test is recommended in EPA's "Data Quality Assessment: Statistical Methods for Practitioners" (EPA QA/G-9S). The M-K test does not assume any particular distributional form and can handle results below the detection limit by assigning them a common value. (All non-detected results were assigned a value of one-half the laboratory reporting limit.) The test involves computing a statistic  $S$ , which is the difference between the number of pairwise differences that are positive minus the number that are negative. A large positive value for  $S$  indicates an increasing trend in the data; conversely, a large negative value for  $S$  indicates a decreasing trend in the data. The null hypothesis or baseline condition for M-K test is no trend in COC concentrations over time. The alternative hypothesis is that the data show either an upward trend or a downward trend.

Specific parameters used to select the monitoring wells included in the trend analysis were:

- Any monitoring well with less than 50 percent of the analytical results as non-detects
- Any monitoring well with COC concentrations showing variation; with at least one result above the COC-specific RO.

Based on the parameters listed above, the M-K test was not performed for PCE or TCE for 40 monitoring wells, DCE for 34 monitoring wells, and VC for 24 monitoring wells.

Appendix F presents the results of the trend analyses and the data sheets for each trend analysis conducted. Table 2 summarizes the site-wide trend analysis results.

**TABLE 2**  
**NUMBERS OF WELLS EXHIBITING INCREASING OR DECREASING**  
**TRENDS FOR CONTAMINANTS OF CONCERN BETWEEN MARCH 2013 AND DECEMBER**  
**2015**

<b>Contaminant of Concern</b>	<b>Statistically Significant Increasing Trend</b>	<b>Statistically Significant Decreasing Trend</b>	<b>Tested, but No Significant Trend</b>	<b>Not Tested</b>
Vinyl chloride	3	4	12	24
<i>cis</i> -1,2-Dichloroethene	0	1	8	34
Trichloroethene	0	0	3	40
Tetrachloroethene	0	0	3	40

### 4.3 INDICATOR PARAMETERS

Indicator parameters are measured during remediation to assess the oxidative state of the aquifer undergoing remediation. For example, the chemical reaction between site TCE and sodium persulfate is:



SulTRAC selected four indicator parameters (chloride, ORP, sodium, and sulfate) that are being measured at the site. Significant indicator parameter detections from the December 2015 sampling event are discussed below and are summarized in Appendix A.

#### 4.3.1 Chloride

An increase in free chloride in the groundwater is expected during oxidation of chlorinated solvents. The December 2015 chloride concentrations detected ranged from 4.5 milligrams per liter (mg/L) (MW03-R) to 6,600 mg/L (MWC-R). However, the field duplicate sample for MWC-R contained a chloride concentration of 59 J mg/L. This value correlates to historical chloride data for this location. If the suspected erroneous concentration from well MWC-R is removed, the highest chloride concentration detected in December 2015 was 150 mg/L (MW44). An increase in chloride after ISCO was not observed throughout the post-injection monitoring. EPA and MDEQ agreed that chloride may be removed from the analytical list because chloride results have proved to be ineffective for ISCO evaluation at the site and there is no regulatory requirement for chloride. Appendix A, Exhibit 3, presents historical and current analytical results for chloride numerically and graphically.

#### 4.3.2 Oxidation-Reduction Potential

High positive ORP levels are required for successful implementation of ISCO. December 2015 ORP values ranged between -125.2 millivolts (mV) in well TW01-R and 31.9 mV in MW03-R. However, as discussed on Section 3.0, ORP values from 15 wells are not included in this evaluation. Consistent with the September 2015 ORP results, positive ORP levels were again recorded in only two monitoring wells during the December 2015 event, indicating that the aquifer is returning to its pre-ISCO reducing state. ORP monitoring will continue in the future, and the ORP values are expected to stabilize over time and return to a reducing aquifer. Appendix A, Exhibit 3, provides a numeric and graphic representation of historical and current ORP values.

### **4.3.3 Sodium**

An increase in sodium in the groundwater is expected during oxidation of chlorinated solvents because sodium persulfate is used as the oxidant. The December 2015 sodium concentrations detected ranged from 4.0 mg/L (MW03-R) to 4,300 mg/L (MW40-R). Wells horizontally and vertically present within the ISCO treatment area continue to show elevated sodium concentrations since the baseline monitoring event, indicating that some PersulfOx or residual sodium is still present. Sodium will continue to be monitored. Appendix A, Exhibit 3, provides a numeric and graphic representation of historical and current sodium values.

### **4.3.4 Sulfate**

An increase in sulfate in the groundwater is expected during oxidation of chlorinated solvents because sodium persulfate is used as the oxidant. The December 2015 sulfate concentrations detected ranged from non-detect (results from wells MW29 and MWD were below the detection limit of 1 mg/L) to 9,100 mg/L (MW40-R). Wells horizontally and vertically present within the ISCO treatment area continue to show elevated sulfate concentrations since the baseline monitoring event, indicating that some PersulfOx or residual sulfate is still present. Sulfate will continue to be monitored. Appendix A, Exhibit 3, provides a numeric and graphic representation of historical and current sulfate values.

## **4.4 ADDITIONAL ANALYTES**

Additional analytes useful in evaluating the desired change from a reducing aquifer to an oxidizing aquifer include DO, ferrous iron, metals, methane, and TOC. Significant parameter detections during the December 2015 sampling event are discussed below and are summarized in Appendix A.

### **4.4.1 Dissolved Oxygen**

DO concentrations in groundwater during ISCO are expected to increase. The December 2015 DO concentrations ranged from 0.09 mg/L (MW40-R) to 0.87 mg/L (TW01-R). However, DO values from 15 wells are not included in this evaluation. DO concentrations throughout the site are at or near baseline levels. DO levels were likely much higher during and for a short time after ISCO application, but these increases would have occurred well before the December 2015 sampling event. DO monitoring will continue, but levels are not expected to change significantly over time.

#### **4.4.2 Ferrous Iron**

During ISCO, ferrous iron in groundwater is expected to undergo oxidation, precipitate to ferric iron, and decrease. December 2015 concentrations of ferrous iron ranged from 0.022 J mg/L (MW43) to 180 J mg/L (MW40-R). A decrease in ferrous iron was not observed throughout the post-injection monitoring period. However, similar to chloride, the rate the ferric iron is formed may be slower than the rate of groundwater flow, and ferric iron may not be present within the portion of the aquifer being sampled. EPA and MDEQ have agreed that ferrous iron may be analyzed annually in September because ferrous iron results have generally proven to be ineffective for ISCO evaluation at the site and there is no regulatory requirement for ferrous iron.

#### **4.4.3 Metals**

Metals may mobilize during ISCO. Therefore, monitoring for potential migration of metals is necessary. Groundwater in nine monitoring wells (MW03-R, MW08-R, MW37-R, MW38-R, MW40-R, MW44, MWL-R, MWM-R, and TW01) sampled during the December 2015 sampling event contained arsenic concentrations at or exceeding its EPA maximum contaminant level (MCL) (EPA 2003) for drinking water (10 µg/L). Arsenic was the only metals constituent to exceed the EPA MCL. Arsenic concentrations in groundwater samples collected from these wells ranged from 10 µg/L (MW08-R) to 96 µg/L (MW37-R). It appears some arsenic may have become mobilized as a result of ISCO in wells MW08-R, MW38-R, MW40-R, MWL-R, and TW01. However, mobilization of arsenic does not appear to be the case site-wide, as arsenic concentrations detected at wells MW03-R (upgradient background well), MW37-R, and MWM-R are consistent with previous sampling events. Well MW44 is located across the Paw Paw River, and the arsenic concentration detected (11 µg/L) is not considered an effect of ISCO. Arsenic concentrations for wells MW08-R, MW37-R, MW38-R, MW40-R, MWL-R, MWM-R, and TW01 in December 2015 are compared with previous sampling events in Table 3:



**TABLE 3 – ARSENIC COMPARISON**

Well ID	March 2013	September 2013	March 2015	June 2015	September 2015	December 2015
	Arsenic Concentration (µg/L)					
MW08-R	2.6	1.9	0.97	1.1	9.7	10
MW37-R	190	200	82	96	83	96
MW38-R	Non-detect	Non-detect	42	31	24	18
MW40-R	Non-detect	1.2	1.1	0.86	8	15
MWL-R	3.4	3	23	29	48	63
MWM-R	8	14	14	21	15	17
TW01	29	Not sampled	Not sampled	36	7.5	84

Note:  
µg/L      Micrograms per liter

EPA and MDEQ have agreed that metals may be analyzed annually in September because limited mobilization as a result of ISCO has occurred..

#### **4.4.4 Methane**

Methane concentrations in groundwater during ISCO are expected to undergo oxidation and decrease. In general, December 2015 methane concentrations in groundwater remained unchanged from September 2015 concentrations and ranged from 0.0046 mg/L (MW03-R) to 24 mg/L (MW30). The applicable Michigan Department of Environmental Quality (MDEQ) flammability criterion for methane of 28 mg/L (MDEQ 2013) was not exceeded. However, methane concentrations at 16 sample locations equaled or exceeded 10 mg/L, indicating possible increases in methane concentrations to dangerous levels in groundwater (Eltschlager and others 2001).

#### **4.4.5 Total Organic Carbon**

TOC concentrations in groundwater during ISCO are expected to undergo oxidation and decrease. TOC concentrations in December 2015 ranged from 2.8 mg/L (well MWA) to 79 mg/L (well MWL-R). In general, TOC concentrations increased from the baseline. Several samples showed an increase in TOC while VOCs decreased. It is possible that the PersulfOx acted as a solvent and desorbed organics from the soil, causing an increase in TOC. These organics may be native or may include residual electron donor material entrained in soil, or both. TOC monitoring will continue in future sampling events.

## **5.0 SUMMARY OF METHANE GAS DATA ANALYSIS**

Each of the 21 methane gas probes present throughout the site was monitored in December 2015. The “A” gas probes are screened between 1.5 and 5 feet bgs, and the “B” gas probes are screened between 2.5 and 8 feet bgs. Gas probe locations are shown on Figure 1.

Results (percent methane) from methane probes MP-4AR (1.7 percent), MP-4BR (2.7 percent), and MP-5BR (27.7 percent) indicate that some methane is still present within the shallow soils in the plume area. Results from all other gas probes sampled were 0.2 percent methane or less, indicating decreased methane off-gassing. Appendix D includes concentration data for methane gas probes from September 2015 and December 2015.

## 7.0 CONCLUSIONS AND RECOMMENDATIONS

On December 7 through 10, 2015, SulTRAC sampled 43 groundwater monitoring wells and measured methane gas concentrations at 21 gas probes. Based on the water quality data, field measurements, and analytical results, SulTRAC presents the following conclusions and offers the following recommendations regarding site groundwater contamination and performance of the LTRA:

- Current PCE contamination exceeding ROs is limited to a small area near well MW08-R. TCE contamination exceeding ROs is limited to a small area near wells MW08-R and MWM-R. DCE concentrations exceeding ROs are also present at those locations, MW07-R and MW40-R, and in a confined aquifer across the Paw Paw River (wells MW31, MW41, MW42, and MW43). VC at concentrations at or exceeding its RO is present in four additional monitoring wells (MW06-R, MWI, MWJ-R, and MWK-R). Horizontal and 3D characterization of the March 2013 and December 2015 plume is depicted on Figures 4 through 11.
- Results from groundwater monitoring wells MW41, MW42, and MW43 indicate that DCE and VC are present above ROs within a confined aquifer south of the Paw Paw River. However, sample results obtained from groundwater monitoring well MW44 indicate that DCE and VC contamination in the confined aquifer does not extend to this location. Sampling results indicate that the shallow aquifer groundwater monitoring wells south of the river (MWG and MWH) are not contaminated (see Appendix A and B).
- December 2015 sample results for major indicator parameters (chloride, ORP, sodium, and sulfate) and additional analytes (DO, ferrous iron, metals, methane, and TOC) indicate that 2014 ISCO remediation — with the exception of localized increases in sodium and sulfate — did not significantly affect the aquifer geochemistry. TOC increases were noted at several of the wells, which is likely caused by desorption of carbon mass from soil during the injection. This carbon mass may include native organics, residual electron donor from prior applications, or both. Data obtained during future sampling events will also be compared with the baseline results to assess the effectiveness of ISCO.
- Methane gas concentrations measured during the sampling event did indicate the presence of methane gas from within the historical plume area (MP-4AR/BR and MP-5BR).

SulTRAC used these data in conjunction with data obtained from previous sampling events to:

- *Measure the effectiveness of a full-scale ISCO injection and verify oxidation of COCs in the groundwater.* COC concentrations decreased significantly from the March and September 2013 sampling events.
- *Determine the impact of ISCO on surface water of the Paw Paw River.* Surface water samples are collected annually and were last collected during the September 2015 sampling event. COCs or ISCO byproducts were not detected. Surface water samples will be collected in September 2016.
- *Determine if final cleanup levels or standards, as specified in the ROD, have been achieved.* Cleanup levels for site COCs have not yet been achieved, but concentrations have been significantly reduced.

- *Determine if methane gas detected in the groundwater is accumulating in vadose zone areas and then migrating outside of the horizontal zone of the treated contaminant plume and off site.* Methane continues to be detected in gas probes located near wells MW08-R and MWM-R. However, methane concentrations in groundwater were significantly reduced.

In January 2016, SulTRAC installed and sampled two additional monitoring wells south of the Paw Paw River in the confined aquifer. An additional monitoring well is planned to be installed south of the Paw Paw River in the confined aquifer before or during the March 2016 sampling event. The results from these new monitoring wells will help further delineate the extent of contamination present in that area and assist in placement of appropriate and applicable restrictive covenants.

## 8.0 REFERENCES

- CTech Development Corporation. 2012. Mining Visualization Software (MVS), Version 9.64.
- Eltschlager, K.K., J.W. Hawkins, W.C. Ehler, and Fred Baldassare. 2001. "Technical measures for the investigation and mitigation of fugitive methane hazards in areas of coal mining." Office of Surface Mining Reclamation and Enforcement. 125 pages.
- Michigan Department of Environmental Quality. 2013. Table 1. Groundwater: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels. On-line address: [http://www.michigan.gov/documents/deq/deq-rrd-Rules-Table1GroundwaterResidentialandNon\\_447070\\_7.pdf](http://www.michigan.gov/documents/deq/deq-rrd-Rules-Table1GroundwaterResidentialandNon_447070_7.pdf)
- SulTRAC. 2012a. September 2012 Data Summary Report, Aircraft Components Site, Berrien County, Michigan. December 10.
- SulTRAC. 2012b. Sampling and Analysis Plan, Aircraft Components Site, Berrien County, Michigan. November 16.
- SulTRAC. 2013. In Situ Chemical Oxidation Pilot Study Report, Aircraft Components Site, Berrien County, Michigan. July 30.
- SulTRAC. 2015. March 2015 Data Summary Report, Aircraft Components Site, Berrien County, Michigan. July 2.
- U.S. Environmental Protection Agency (EPA). 2002. Record of Decision, Operable Unit 2, Aircraft Components, Inc. Superfund Site, Benton Township, Berrien County, Michigan. September.
- EPA. 2003. List of Contaminants and Their Maximum Contaminant Levels. On-line address: <http://www.epa.gov/ogwdw/consumer/pdf/mcl.pdf>

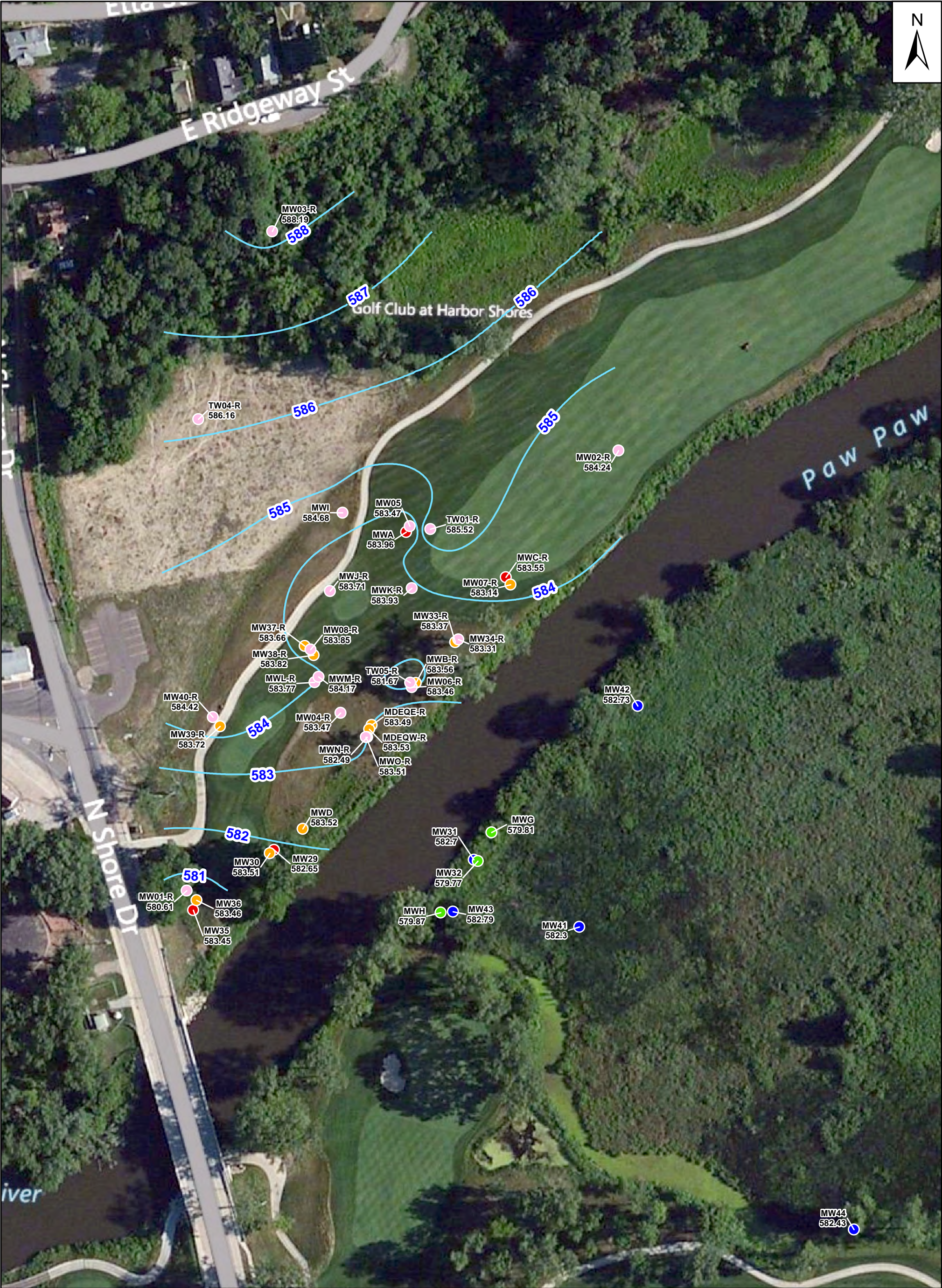
## **FIGURES**

- 1 GROUNDWATER MONITORING WELL AND METHANE GAS PROBE LOCATIONS
- 2 POTENTIOMETRIC SURFACE MAP SHALLOW ZONE – DECEMBER 2015
- 3 CONFINED AQUIFER GROUNDWATER FLOW – DECEMBER 2015
- 4 PCE CONTAMINATION PLUME – MARCH 2013 AND DECEMBER 2015 (PLAN VIEW) – PCE CONTAMINATION GREATER THAN REMEDIATION OBJECTIVE (5 µg/L)
- 5 PCE CONTAMINATION PLUME – MARCH 2013 AND DECEMBER 2015 (3D VIEW) – PCE CONTAMINATION GREATER THAN REMEDIATION OBJECTIVE (5 µg/L)
- 6 TCE CONTAMINATION PLUME – MARCH 2013 AND DECEMBER 2015 (PLAN VIEW) – TCE CONTAMINATION GREATER THAN REMEDIATION OBJECTIVE (5 µg/L)
- 7 TCE CONTAMINATION PLUME – MARCH 2013 AND DECEMBER 2015 (3D VIEW) – TCE CONTAMINATION GREATER THAN REMEDIATION OBJECTIVE (5 µg/L)
- 8 DCE CONTAMINATION PLUME – MARCH 2013 AND DECEMBER 2015 (PLAN VIEW) – DCE CONTAMINATION GREATER THAN REMEDIATION OBJECTIVE (70 µg/L)
- 9 DCE CONTAMINATION PLUME – MARCH 2013 AND DECEMBER 2015 (3D VIEW) – DCE CONTAMINATION GREATER THAN REMEDIATION OBJECTIVE (70 µg/L)
- 10 VC CONTAMINATION PLUME – MARCH 2013 AND DECEMBER 2015 (PLAN VIEW) – VC CONTAMINATION GREATER THAN REMEDIATION OBJECTIVE (2 µg/L)
- 11 VC CONTAMINATION PLUME – MARCH 2013 AND DECEMBER 2015 (PLAN VIEW) – VC CONTAMINATION GREATER THAN REMEDIATION OBJECTIVE (2 µg/L)









Legend

Shallow Monitoring Well

Middle Monitoring Well

Deep Monitoring Well

Monitoring Well located S. of Paw Paw River

Monitoring Well located S. of Paw Paw River/Confined

581

Groundwater Elevation

Groundwater Elevation Contour

0

100

200

Feet

AIRCRAFT COMPONENTS SITE  
BENTON HARBOR, MICHIGAN

FIGURE 2

POTENTIOMETRIC SURFACE MAP  
SHALLOW ZONE - DECEMBER 2015

ST

SuITRAC





Legend

●

Shallow Monitoring Well

●

Middle Monitoring Well

●

Deep Monitoring Well

●

Monitoring Well located S. of Paw Paw River

●

Monitoring Well located S. of Paw Paw River/Confined

—

Groundwater Elevation Contour

582.1

Groundwater Elevation

→

Groundwater Flow Direction

0100200

Feet

AIRCRAFT COMPONENTS SITE  
BENTON HARBOR, MICHIGAN

FIGURE 3

CONFINED AQUIFER GROUNDWATER FLOW  
DECEMBER 2015

ST

SuITRAC

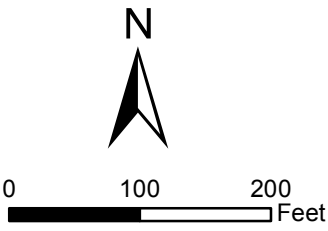
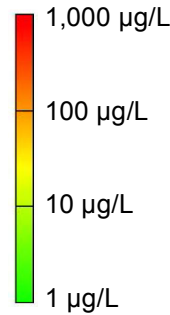




**LEGEND**

• Monitoring Well Location

**PCE Results:**



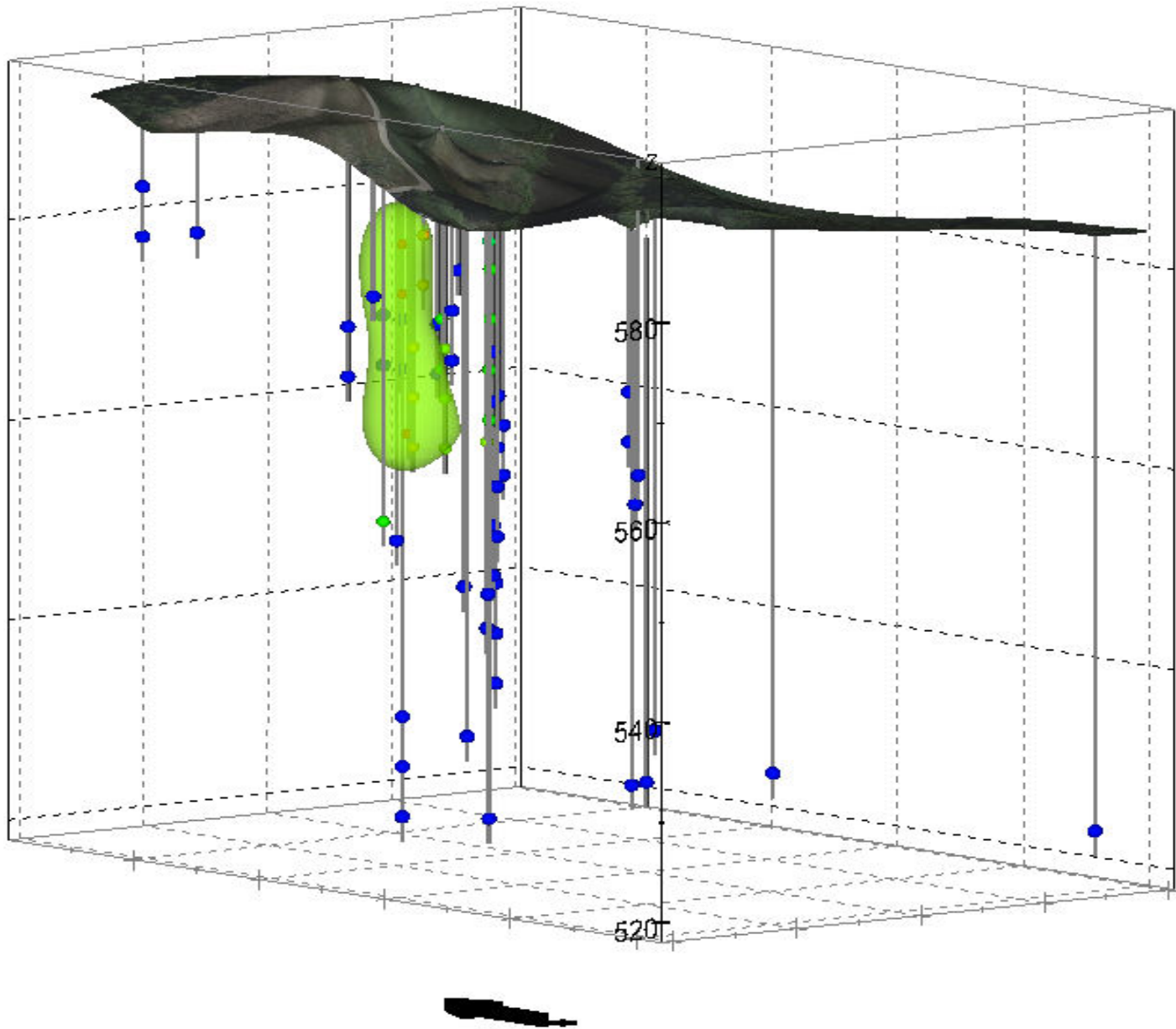
AIRCRAFT COMPONENTS SITE  
BENTON HARBOR, MICHIGAN

**FIGURE 4**  
PCE CONTAMINATION PLUMES - PLAN VIEW  
PCE CONTAMINATION GREATER THAN  
REMEDIATION OBJECTIVE (5 µg/L)

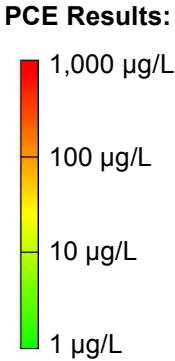
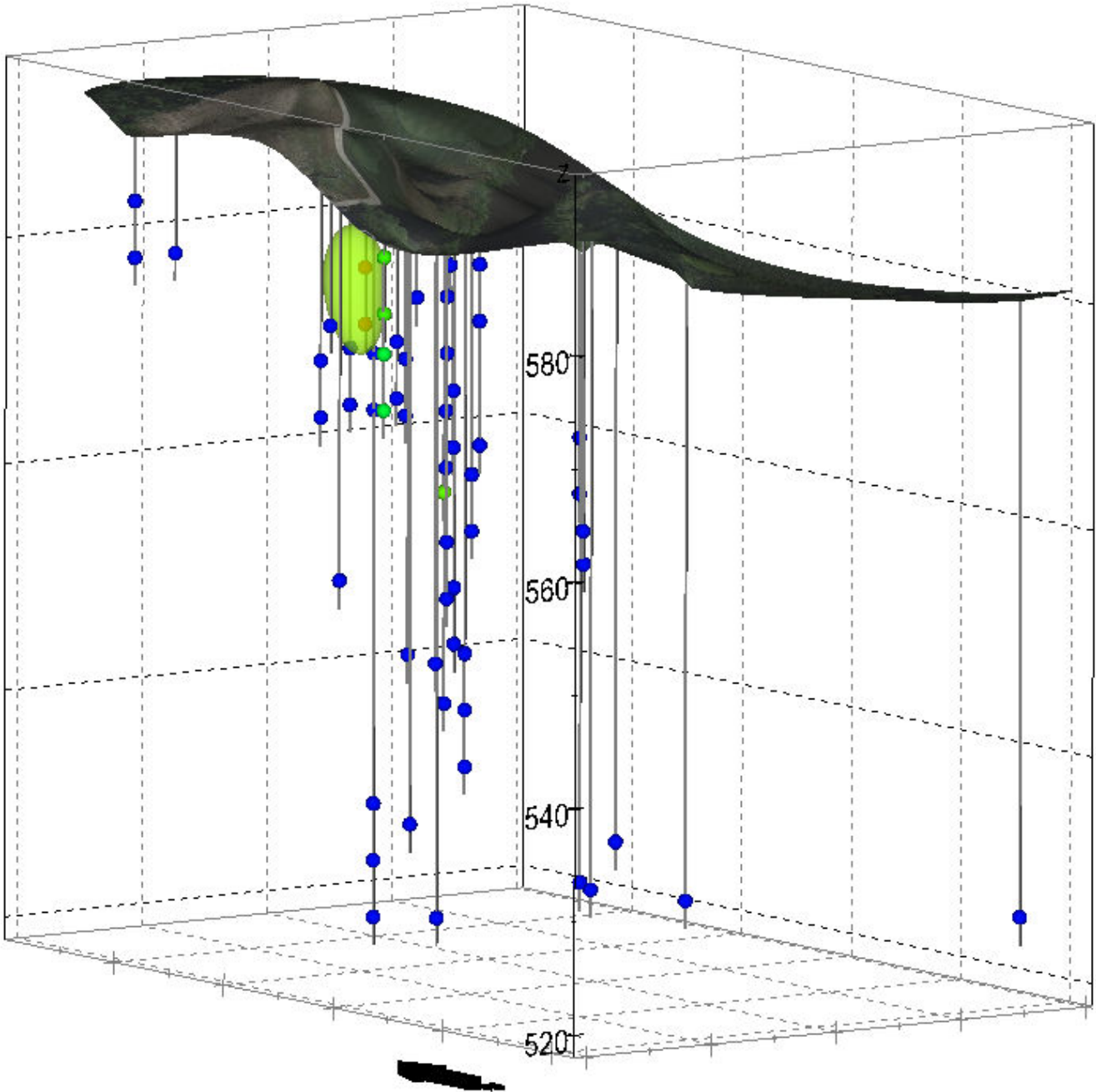




MARCH 2013 SAMPLE EVENT



DECEMBER 2015 SAMPLE EVENT



AIRCRAFT COMPONENTS SITE  
BENTON HARBOR, MICHIGAN

**FIGURE 5**  
PCE CONTAMINATION PLUMES  
3-DIMENSIONAL VIEW  
PCE CONTAMINATION GREATER THAN  
REMEDATION OBJECTIVE (5 µg/L)

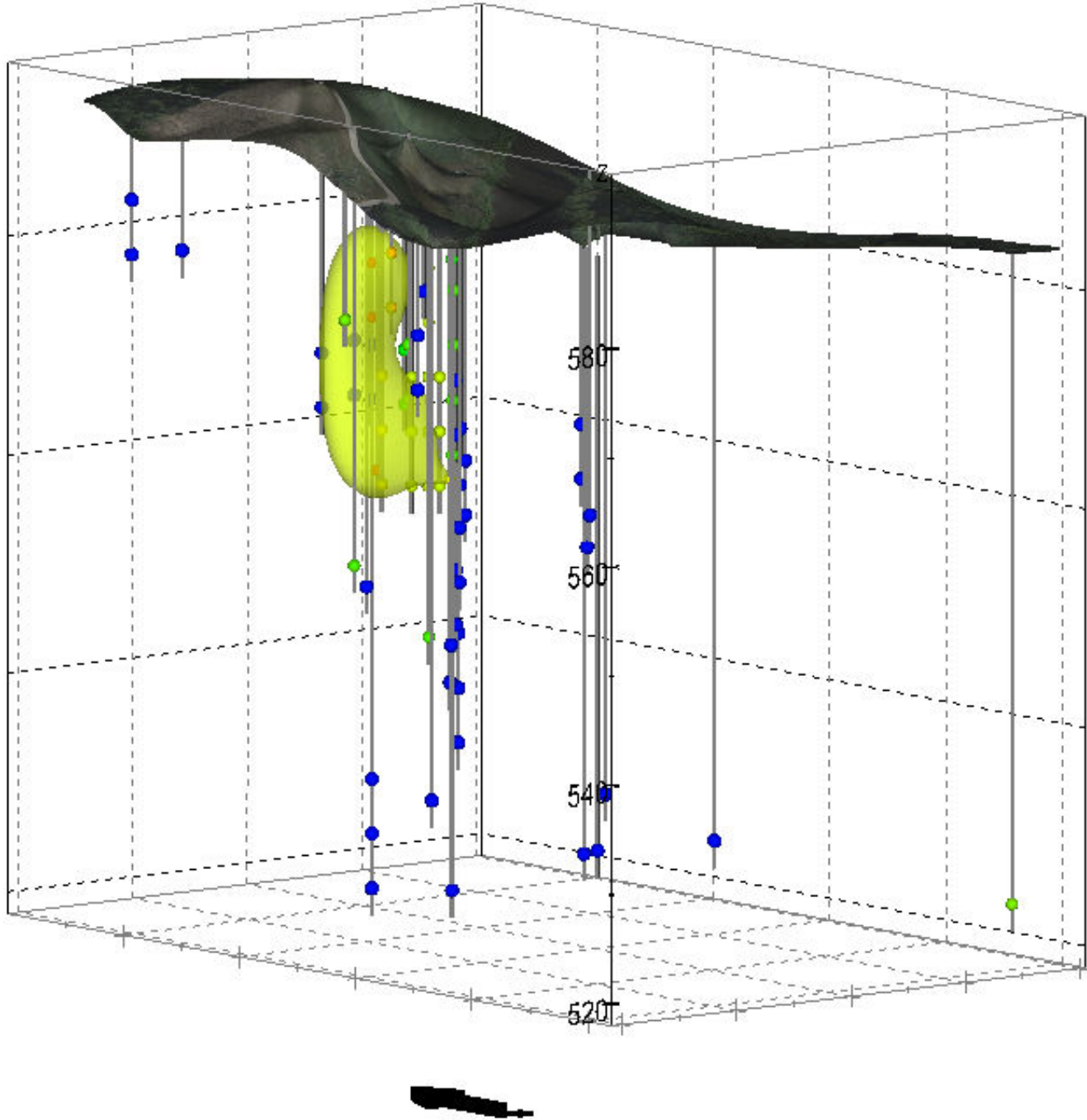




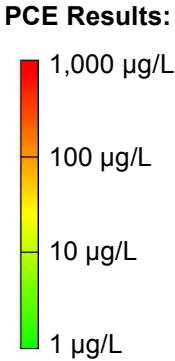
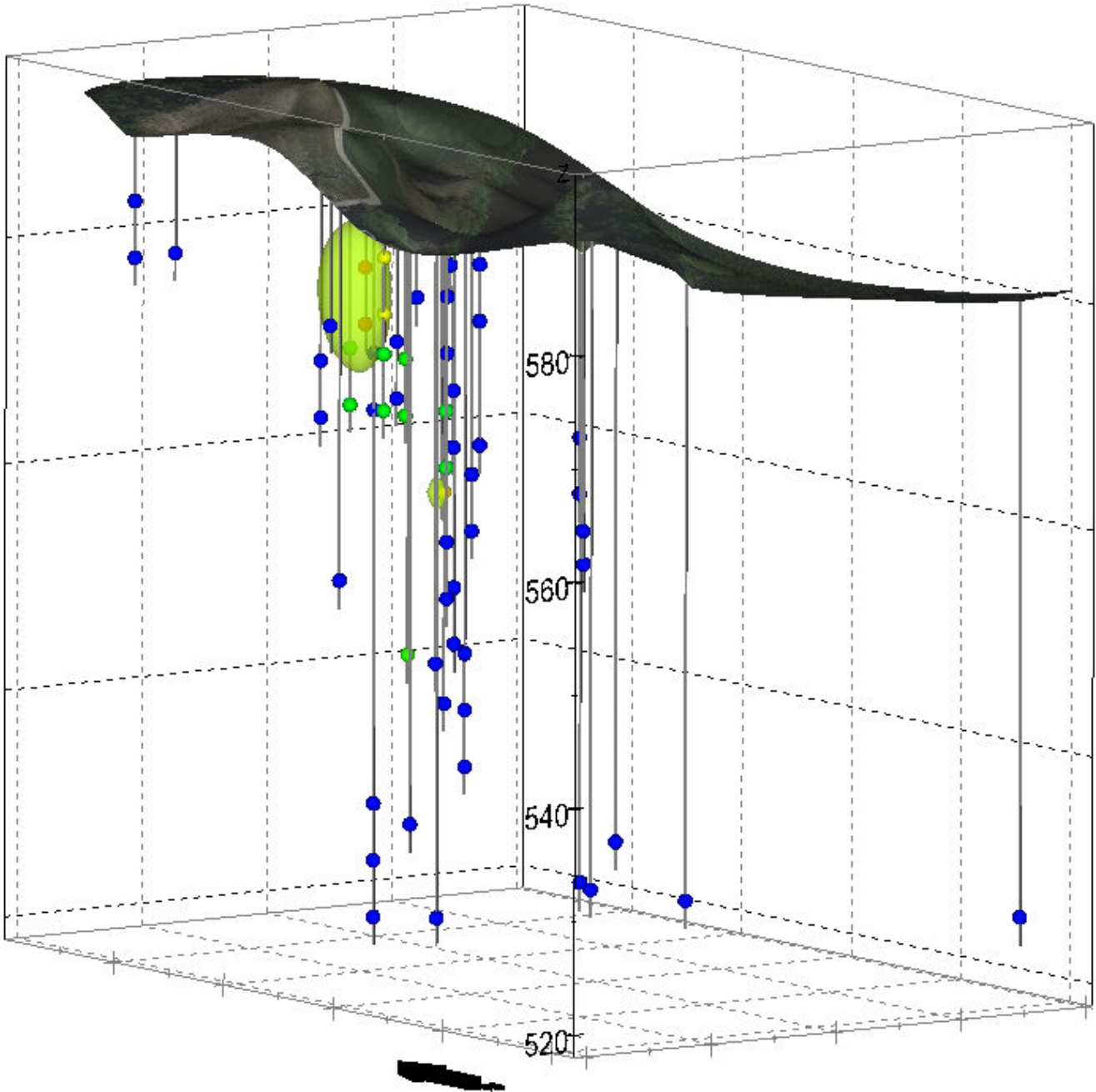




MARCH 2013 SAMPLE EVENT



DECEMBER 2015 SAMPLE EVENT



AIRCRAFT COMPONENTS SITE  
BENTON HARBOR, MICHIGAN

**FIGURE 7**  
TCE CONTAMINATION PLUMES  
3-DIMENSIONAL VIEW  
TCE CONTAMINATION GREATER THAN  
REMEDIATION OBJECTIVE (5 µg/L)



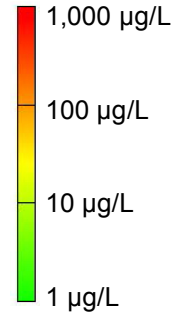




**LEGEND**

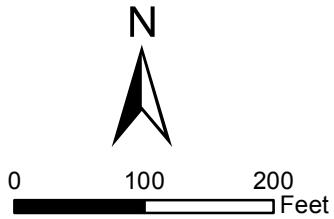
● Monitoring Well Location

**DCE Results:**



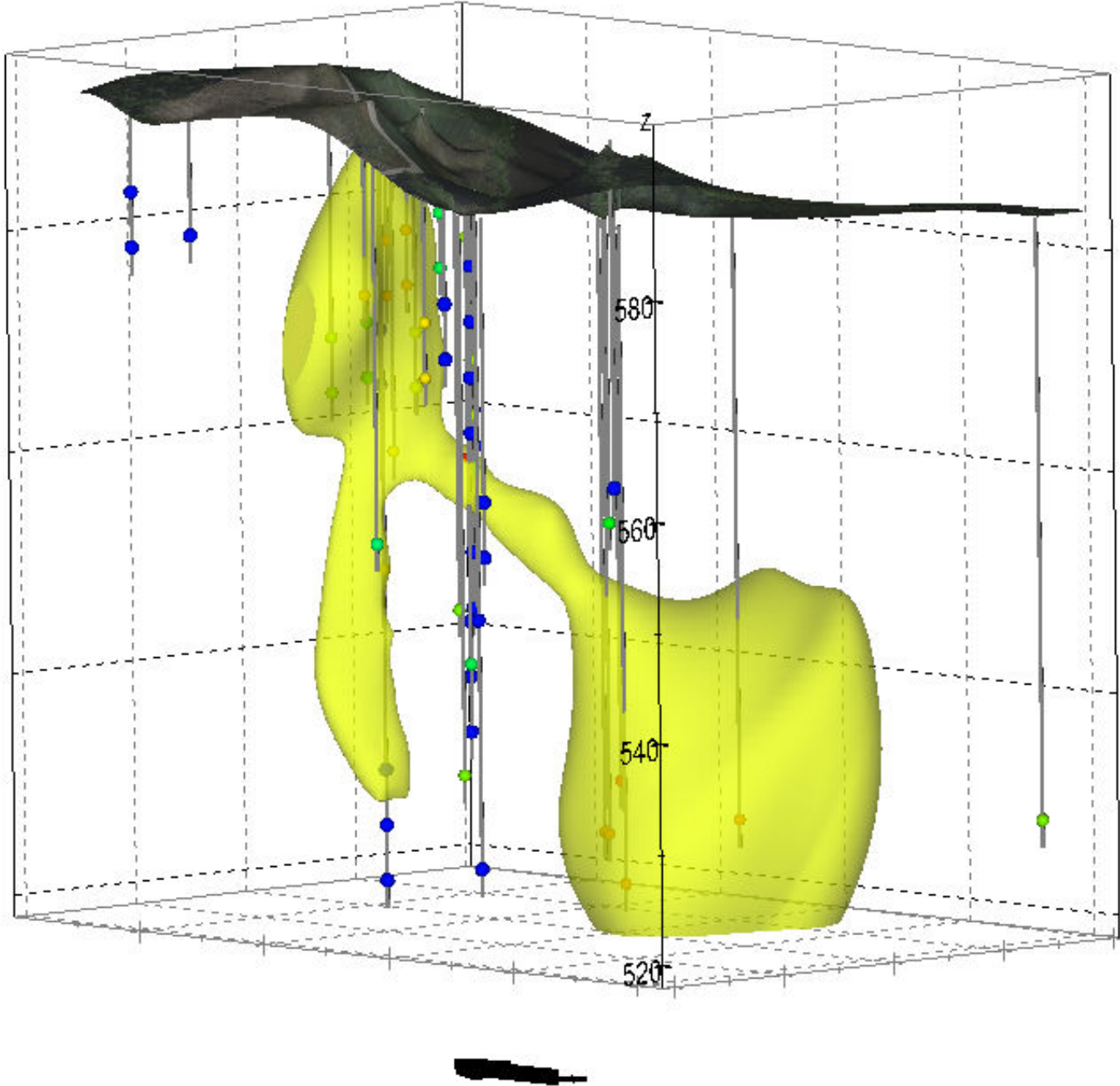
AIRCRAFT COMPONENTS SITE  
BENTON HARBOR, MICHIGAN

**FIGURE 8**  
DCE CONTAMINATION PLUMES - PLAN VIEW  
DCE CONTAMINATION GREATER THAN  
REMEDATION OBJECTIVE (70 µg/L)

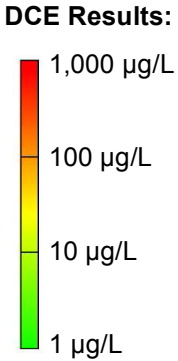
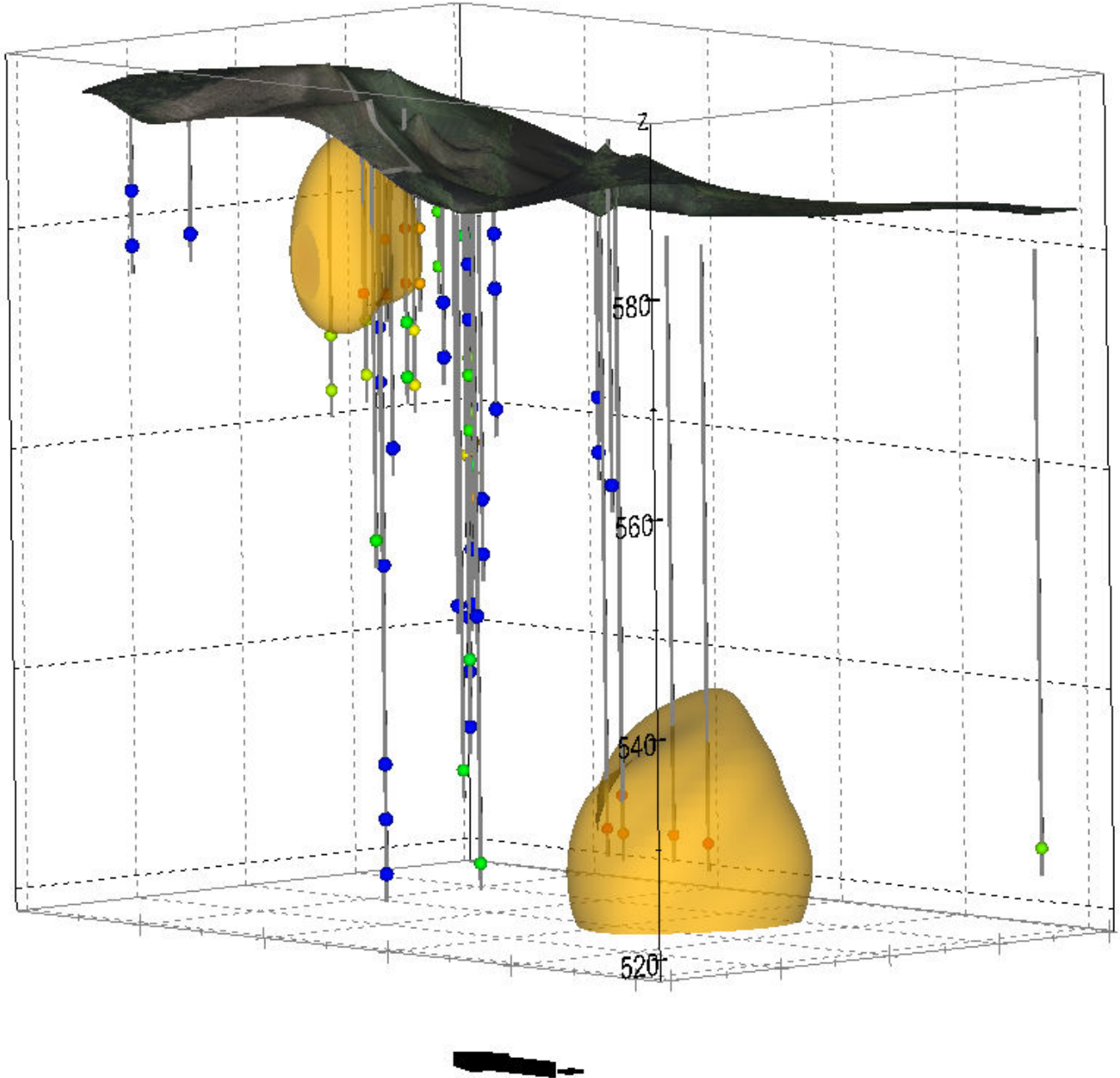




MARCH 2013 SAMPLE EVENT



DECEMBER 2015 SAMPLE EVENT

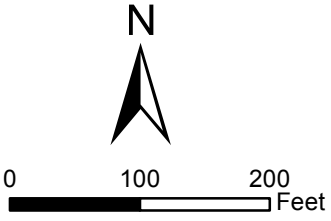
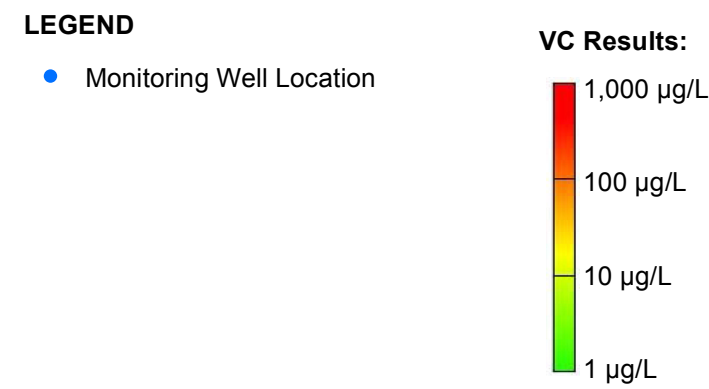


AIRCRAFT COMPONENTS SITE  
BENTON HARBOR, MICHIGAN

**FIGURE 9**  
DCE CONTAMINATION PLUMES  
3-DIMENSIONAL VIEW  
DCE CONTAMINATION GREATER THAN  
REMEDIATION OBJECTIVE (70 µg/L)







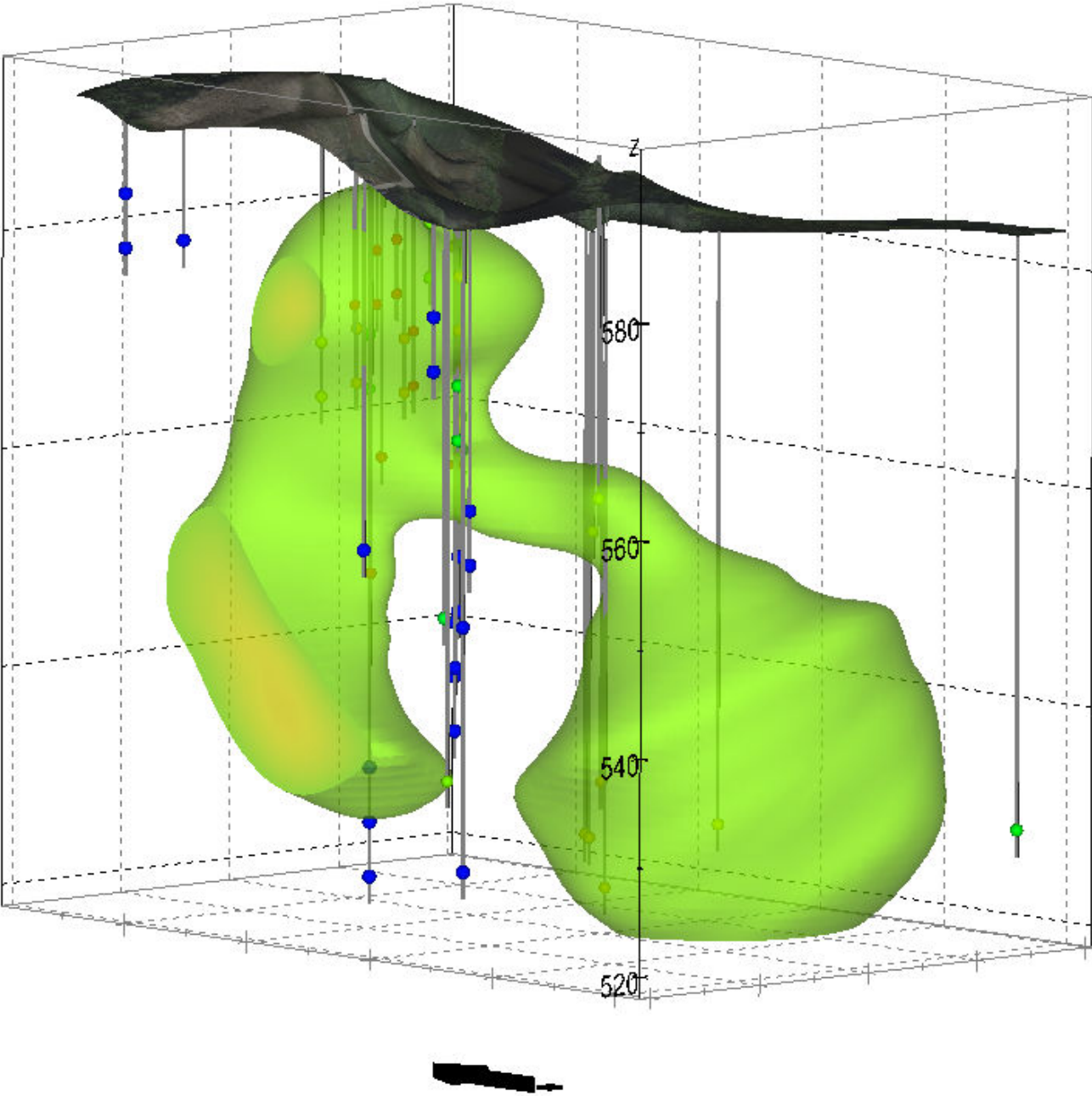
AIRCRAFT COMPONENTS SITE  
BENTON HARBOR, MICHIGAN

**FIGURE 10**  
VC CONTAMINATION PLUMES - PLAN VIEW  
VC CONTAMINATION GREATER THAN  
REMEDATION OBJECTIVE (2 µg/L)

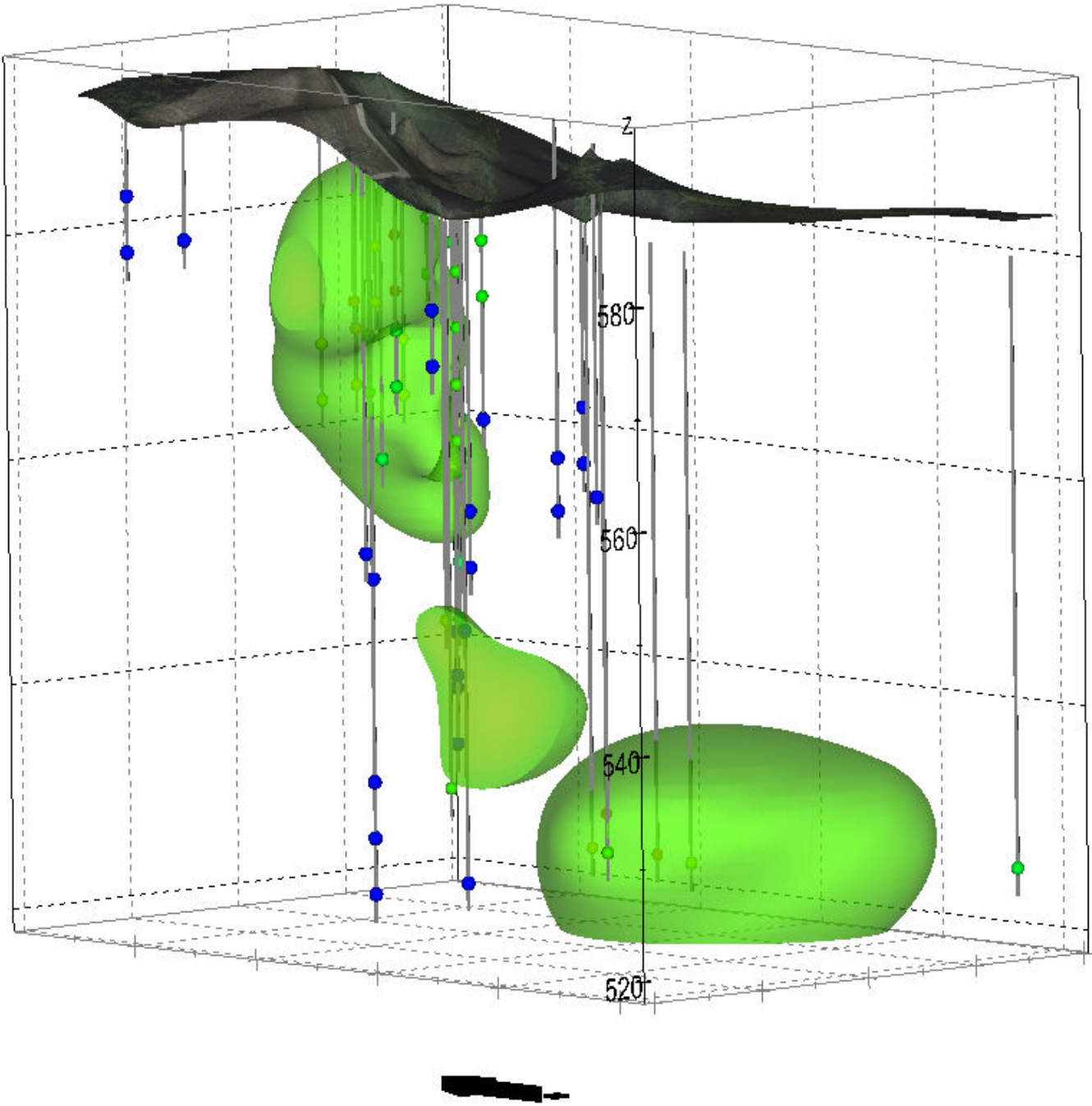




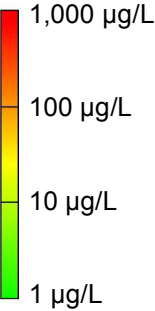
MARCH 2013 SAMPLE EVENT



DECEMBER 2015 SAMPLE EVENT



DCE Results:



AIRCRAFT COMPONENTS SITE  
BENTON HARBOR, MICHIGAN

**FIGURE 11**  
VC CONTAMINATION PLUMES  
3-DIMENSIONAL VIEW  
VC CONTAMINATION GREATER THAN  
REMEDATION OBJECTIVE (2 µg/L)



## **APPENDIX A**

### **MONITORING WELL SUMMARY TABLES AND GRAPHS**

- Exhibit 1: Water Quality Parameters, Field Measurements, and Site Contaminants of Concern
- Exhibit 2: Specific VOC Summaries for Monitoring Wells
- Exhibit 3: Indicator Parameter Summaries for Monitoring Wells

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW01-R					
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/27/2013	9/17/2013	3/17/2015	6/24/2015	9/23/2015	12/8/2015
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	2.8	6	4.7	5.4	7.4 J+	5.5
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	9.6	1 U	22	21	5.3	22
SODIUM	Inc from baseline	MG/L	19	19	21	16	22	21
METHANE	28	MG/L	1.2	1.4	0.0005 U	0.0005 U	0.71	0.029
FERROUS IRON	Dec from baseline	MG/L	0.08 J	11 J	0.088 J	0.094 J+	5.6 J-	0.2 J
CHLORIDE	Inc from baseline	MG/L	32	27	6.2	2.2	20	9.6
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	0.649	0.886	3.100	1.488	0.886	--
pH	Inc from baseline	NA	7.21	6.96	5.57	7.17	6.97	--
TURBIDITY	NA	NTU	1.06	17.79	13.81	0.00	6.83	0.33
TEMPERATURE	NA	°C	8.99	15.45	5.26	14.56	18.53	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	42.30	-237.09	258.36	158.56	-46.04	--
DISSOLVED OXYGEN	Inc from baseline	MG/L	4.13	0.20	7.05	1.81	0.82	--
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	0.2 J	1 U	1 U	1 U	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW03-R					
	Remediation Objective or Optimal Range	Sample Date:	3/26/2013	9/16/2013	3/19/2015	6/23/2015	9/22/2015	12/8/2015
Chemical Name		Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	15	15	18	16	17	18
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	42	31	32	30	48	48
SODIUM	Inc from baseline	MG/L	7.6	4.5	2.7	5.5	4.5	4
METHANE	28	MG/L	0.0021	0.00054	0.0056	0.0005 U	0.0051	0.0046
FERROUS IRON	Dec from baseline	MG/L	2.3 J	1.8 J	0.59 J	0.81 J	0.17 J-	0.99 J
CHLORIDE	Inc from baseline	MG/L	4 J+	3.8 J+	4.1	3.7	4.1 J+	4.5
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	0.62	0.553	0.483	0.542	0.592	0.736
pH	Inc from baseline	NA	6.65	6.63	6.61	6.5	6.46	6.62
TURBIDITY	NA	NTU	68.46	25.46	14.58	31.57	40.4	16.60
TEMPERATURE	NA	°C	6.01	13.29	6.73	12.74	13.55	10.61
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	54.25	-159.21	113.07	138.37	81.07	31.90
DISSOLVED OXYGEN	Inc from baseline	MG/L	4.09	0.27	1.75	3.83	0.26	0.48
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	0.42 J	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW04-R					
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/27/2013	9/18/2013	3/18/2015	6/25/2015	9/22/2015	12/9/2015
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	6.6	8	26	23	20	20
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1.7 J+	1700	1900	1700	1700
SODIUM	Inc from baseline	MG/L	11	10	600	530	460	480
METHANE	28	MG/L	11	8.9	4.2	7.1	5.9	8.3
FEROUS IRON	Dec from baseline	MG/L	7.4 J	10 J	73 J	100	99 J-	120 J
CHLORIDE	Inc from baseline	MG/L	17	21	19	22	17	29 J
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.062	0.848	6.360	4.663	4.005	5.146
pH	Inc from baseline	NA	7.01	6.93	6.4	6.22	6.11	6.21
TURBIDITY	NA	NTU	0.37	8.31	2.37	0	34.26	3.23
TEMPERATURE	NA	°C	8.73	18.7	9.93	16.96	19.57	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-36.9	-86.97	-59.65	-43.78	-154.12	-37.80
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.27	0.14	0	0.11	0.08	0.22
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	0.45 J	0.52 J	3.0	2.2	1.4	1.8
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	0.29 J	0.30 J	1 U	1 U
VINYL CHLORIDE	2	UG/L	1.3	2.7	6.0	5.0	2.1	1.8

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW05					
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/26/2013	9/17/2013	3/18/2015	6/23/2015	9/22/2015	12/8/2015
<b>WATER QUALITY PARAMETERS</b>								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	15	14	15	19	18	22
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	270	740	1100	1700
SODIUM	Inc from baseline	MG/L	1	10	59	190	280	610
METHANE	28	MG/L	9.3	16	12	9.8	9	7
FERROUS IRON	Dec from baseline	MG/L	3.4 J	4.3 J	22 J	33 J	46 J-	53 J
CHLORIDE	Inc from baseline	MG/L	21	16	18	15	14	14
<b>FIELD MEASUREMENTS</b>								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.007	1.001	1.284	2.834	3.738	4.300
pH	Inc from baseline	NA	7.13	6.99	6.64	6.14	6.12	6.26
TURBIDITY	NA	NTU	0.77	0.00	75.97	99.96	4.29	4.25
TEMPERATURE	NA	°C	10.45	13.99	9.65	16.42	18.60	11.93
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-66.65	-104.64	64.95	-85.68	-36.56	-45.60
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.16	0.22	0.17	0.09	0.07	0.31
<b>SITE CONTAMINANTS OF CONCERN</b>								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	1 U	0.45 J	1 U	1 U	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	0.4 J	1 U	5.6	1.3	2.8	1.8

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW06-R					
	Remediation Objective	Sample Date:	3/27/2013	9/17/2013	3/17/2015	6/23/2015	9/23/2015	12/8/2015
Chemical Name	or Optimal Range	Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	5.5	6.1	7.0	10	12	11
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	3.8	3.7	16	1200	1300	1400
SODIUM	Inc from baseline	MG/L	17	20	33	410	430	460
METHANE	28	MG/L	20	23	12	15	16	16
FERROUS IRON	Dec from baseline	MG/L	18 J	18 J	10 J	45 J	84 J-	58 J
CHLORIDE	Inc from baseline	MG/L	25	26	31	35	34	34
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.042	1.075	1.919	3.493	3.467	4.446
pH	Inc from baseline	NA	6.77	6.58	6.27	6.32	6.32	6.33
TURBIDITY	NA	NTU	16.8	14.69	8.11	20.64	-1.16	3.21
TEMPERATURE	NA	°C	9.06	17.63	10.51	15.81	16.85	12.06
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-59.78	-82.56	-37.9	-92.11	-62.02	-50.70
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.03	0.03	0.06	0.1	0.08	0.12
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	19	26	1 U	1.5	1.2	4.1
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	48	57	1 U	5.4	2.5	6



**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW07-R					
	Remediation Objective	Sample Date:	3/26/2013	9/17/2013	3/17/2015	6/25/2015	9/24/2015	12/8/2015
Chemical Name	or Optimal Range	Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	7.7	8.1	7.2	11	9.2	8.7
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	54	710	880	210
SODIUM	Inc from baseline	MG/L	21	22	27	170	230	74
METHANE	28	MG/L	16	24	16	16 J-	18	16
FERROUS IRON	Dec from baseline	MG/L	24 J	24 J	8 J	37 J	41 J-	36 J
CHLORIDE	Inc from baseline	MG/L	38	43	44	33	39	52
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.500	1.500	1.506	5.618	1.841	1.7047
pH	Inc from baseline	NA	6.76	6.62	6.68	7.04	6.61	6.36
TURBIDITY	NA	NTU	0.85	10	29.78	0	6.17	2.23
TEMPERATURE	NA	°C	9.19	16.4	7.82	14.24	17.01	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-58.29	-100.67	-12.77	133.2	-62.97	-75.6
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.09	0.04	0.01	0.21	0.22	0.29
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	1 U	2.1	29	85	80
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1 U	1 U	8.8	67	78	71

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW08-R					
	Remediation Objective	Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/24/2015	9/23/2015	12/9/2015
Chemical Name	or Optimal Range	Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	6	14	23	21	24	27
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	48	1200	1700	1600	1700	1900
SODIUM	Inc from baseline	MG/L	14	530	690	610	700	780
METHANE	28	MG/L	7	7.2	6.3	5.4	4.7	7.3
FERROUS IRON	Dec from baseline	MG/L	5.6 J	0.2 J	0.16 J	4 J	39 J-	53 J
CHLORIDE	Inc from baseline	MG/L	24	59	21	22	20	24
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	0.879	3.309	4.102	8.283	3.48	--
pH	Inc from baseline	NA	6.8	6.34	6.25	7.16	6.08	--
TURBIDITY	NA	NTU	37.99	18.16	12.51	199.78	99.46	--
TEMPERATURE	NA	°C	8.65	16.27	9.65	15.54	18.62	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-50.54	340.87	212.82	273.89	-11.57	--
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.14	0.04	0.22	0.23	0.46	--
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	330	180	85	100	120	180
TETRACHLOROETHENE	5	UG/L	650	700	790	530	610	440
TRICHLOROETHENE	5	UG/L	160	80	120	140	210	320
VINYL CHLORIDE	2	UG/L	140	25	37	16	20	32

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW29					
	Remediation Objective	Sample Date:	3/27/2013	9/17/2013	3/17/2015	6/25/2015	9/24/2015	12/9/2015
Chemical Name	or Optimal Range	Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	7.7	8.1	9.0	8.7	7.4	5.1
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	1 U	1 U	1 U	1 U
SODIUM	Inc from baseline	MG/L	23	26	23	24	25	26
METHANE	28	MG/L	17	20	31	30 J-	15	2.6
FERROUS IRON	Dec from baseline	MG/L	33 J	36 J	33 J	34 J	26 J-	4.5 J
CHLORIDE	Inc from baseline	MG/L	59	61	61	60	57	46
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.610	1.545	10.706	NA	1.510	--
pH	Inc from baseline	NA	6.89	6.74	5.77	NA	6.89	--
TURBIDITY	NA	NTU	3.10	8.49	9.97	NA	-0.70	--
TEMPERATURE	NA	°C	10.50	18.40	9.99	NA	22.06	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-81.48	-236.55	-101.22	NA	-80.90	--
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.03	0.11	0.00	NA	0.41	--
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	0.36 J	1 U	1 U	0.39	0.64 J
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1 U	0.69 J	1 U	1 U	0.26	1 U

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW30					
	Remediation Objective	Sample Date:	3/27/2013	9/17/2013	3/17/2015	6/25/2015	9/24/2015	12/10/2015
Chemical Name	or Optimal Range	Unit						
<b>WATER QUALITY PARAMETERS</b>								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	7.7	7.9	7.8	8.1	8.2	8.8
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	1 U	1 U	1 U	19
SODIUM	Inc from baseline	MG/L	28	33	27	28	29	31
METHANE	28	MG/L	21	25	19	20	20	24
FERROUS IRON	Dec from baseline	MG/L	17 J	17 J	11 J	14 J	18 J-	20 J
CHLORIDE	Inc from baseline	MG/L	71	72	62	62	65	66
<b>FIELD MEASUREMENTS</b>								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.262	1.266	7.025	3.62	1.168	--
pH	Inc from baseline	NA	7.01	6.8	5.85	7.12	6.79	--
TURBIDITY	NA	NTU	6.26	4.01	11.65	8.62	3.13	--
TEMPERATURE	NA	°C	10.53	17.17	9.37	15.7	16.33	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-88.84	-264.23	-97.63	-102.02	-86.27	--
DISSOLVED OXYGEN	Inc from baseline	MG/L	0	0.07	0	0.08	0.13	--
<b>SITE CONTAMINANTS OF CONCERN</b>								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	0.23 J	1 U	1 U	0.32	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW31					
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/28/2013	9/18/2013	3/19/2015	6/24/2015	9/24/2015	12/10/2015
<b>WATER QUALITY PARAMETERS</b>								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	6.1	6.9	6.8	6.8	6.6 J+	6.2
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	12	12	5.9	8.5	7.7 J	1.1 J+
SODIUM	Inc from baseline	MG/L	20	21	20	19	20	21
METHANE	28	MG/L	4.2	5.9	11	8.5	10	12
FERROUS IRON	Dec from baseline	MG/L	6.3 J	7.6 J	7.5 J	7 J	8.7 J-	8.3 J
CHLORIDE	Inc from baseline	MG/L	42	44	39	36	37	38
<b>FIELD MEASUREMENTS</b>								
SPECIFIC CONDUCTANCE	NA	mS/cm	0.826	0.807	2.801	1.193	4.195	--
pH	Inc from baseline	NA	7.35	7.15	6.62	6.72	6.9	--
TURBIDITY	NA	NTU	1.93	0.79	10.46	0	6.24	--
TEMPERATURE	NA	°C	6.39	17.48	8.5	12.35	18.33	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-76.62	-120.55	-92.66	-110.38	-102.32	--
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.27	0.09	0	0.25	0.24	--
<b>SITE CONTAMINANTS OF CONCERN</b>								
CIS-1,2-DICHLOROETHENE	70	UG/L	670	800	910	930	510	560
TETRACHLOROETHENE	5	UG/L	5 U	5 U	5 U	10 U	1 U	5 U
TRICHLOROETHENE	5	UG/L	5 U	5 U	1.2 J	10 U	1 U	5 U
VINYL CHLORIDE	2	UG/L	16	19	31	68	60	66

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW32					
	Remediation Objective	Sample Date:	3/28/2013	9/18/2013	3/19/2015	6/24/2015	9/24/2015	12/10/2015
Chemical Name	or Optimal Range	Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	40	40	39	38	--	20
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	57	47	67	72	--	56
SODIUM	Inc from baseline	MG/L	24	25	26	26	--	26
METHANE	28	MG/L	0.66	1.7	0.14	0.15	--	0.033
FERROUS IRON	Dec from baseline	MG/L	43 J	36 J	32 J	40 J	--	35 J
CHLORIDE	Inc from baseline	MG/L	36	37	38	38	--	37
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.135	1.155	4.171	0.836	5.165	--
pH	Inc from baseline	NA	6.91	6.75	6.53	7.02	6.56	--
TURBIDITY	NA	NTU	1.14	0	1.52	9.37	1.86	--
TEMPERATURE	NA	°C	8.06	14.26	8.17	13.64	17.48	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-78.22	-130.1	-95.52	-100.35	-105.18	--
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.15	0.11	0.14	0.17	0.28	--
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	0.2 J	1 U	1 U	--	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	--	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	--	1 U
VINYL CHLORIDE	2	UG/L	1 U	1 U	1 U	1 U	--	1 U

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW33-R			
	Remediation Objective	Sample Date:	3/26/2013	3/17/2015	9/22/2015	12/8/2015
Chemical Name	or Optimal Range	Unit				
<b>WATER QUALITY PARAMETERS</b>						
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	9.2	8	11	11
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	1 U	250 U
SODIUM	Inc from baseline	MG/L	37	21	36	36
METHANE	28	MG/L	13	19	21	17
FERROUS IRON	Dec from baseline	MG/L	27 J	29 J	28 J-	32 J
CHLORIDE	Inc from baseline	MG/L	54	76	57	62
<b>FIELD MEASUREMENTS</b>						
SPECIFIC CONDUCTANCE	NA	mS/cm	1.647	1.946	1.660	1.848
pH	Inc from baseline	NA	6.62	6.62	6.54	6.42
TURBIDITY	NA	NTU	7.21	9.47	0.65	13.56
TEMPERATURE	NA	°C	9.47	9.38	18.04	11.71
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-60.22	-119.56	-79.30	-60.00
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.03	0.00	0.12	0.13
<b>SITE CONTAMINANTS OF CONCERN</b>						
CIS-1,2-DICHLOROETHENE	70	UG/L	0.24 J	1 U	0.22 J	0.31 J
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	0.49 J	1 U	0.47 J	0.43 J

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW34-R			
	Remediation Objective	Sample Date:	3/26/2013	3/17/2015	9/22/2015	12/8/2015
Chemical Name	or Optimal Range	Unit				
<b>WATER QUALITY PARAMETERS</b>						
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	6	12	8	8.7
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	49	98
SODIUM	Inc from baseline	MG/L	18	34	26	38
METHANE	28	MG/L	15	17	20	19
FERROUS IRON	Dec from baseline	MG/L	32 J	28 J	34 J-	36 J
CHLORIDE	Inc from baseline	MG/L	75	58	80	83
<b>FIELD MEASUREMENTS</b>						
SPECIFIC CONDUCTANCE	NA	mS/cm	1.27	1.564	1.466	1.788
pH	Inc from baseline	NA	6.68	6.45	6.6	6.48
TURBIDITY	NA	NTU	2.57	1.62	8.8	6.75
TEMPERATURE	NA	°C	9.31	7.48	15.24	11.67
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-68.3	-109.74	-92.98	-75.20
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.04	0.08	0.13	0.15
<b>SITE CONTAMINANTS OF CONCERN</b>						
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	0.18 J	1 U	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1 U	0.46 J	1 U	0.25 J



**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW35				
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/27/2013	9/17/2013	3/17/2015	9/23/2015	12/10/2015
<b>WATER QUALITY PARAMETERS</b>							
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	4	4.8	2.8	5.2 J+	3.7
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	74	70	35	59	46
SODIUM	Inc from baseline	MG/L	45	61	33	52	43
METHANE	28	MG/L	0.78	1.1	0.5 U	2.9	0.54
FERROUS IRON	Dec from baseline	MG/L	4.1 J	6.4 J	0.069 J	7.1 J-	3.1 J
CHLORIDE	Inc from baseline	MG/L	81	97	52	99	59
<b>FIELD MEASUREMENTS</b>							
SPECIFIC CONDUCTANCE	NA	mS/cm	1.222	1.095	3.609	3.771	--
pH	Inc from baseline	NA	7.27	7.13	5.76	6.95	--
TURBIDITY	NA	NTU	4.87	55.90	1.66	6.74	--
TEMPERATURE	NA	°C	10.65	16.97	8.05	16.86	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-54.01	-278.06	174.52	-107.80	--
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.30	0.14	3.33	0.19	--
<b>SITE CONTAMINANTS OF CONCERN</b>							
CIS-1,2-DICHLOROETHENE	70	UG/L	9	8.5	1 U	4.4	0.59 J
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1.6	5.2	1 U	4.9	1.5

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW36					
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/27/2013	9/17/2013	3/17/2015	6/25/2015	9/23/2015	12/10/2015
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	3.4	3.5	3	3.8	4.4 J+	4
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	51	51	48	55	55	54
SODIUM	Inc from baseline	MG/L	30	35	34	44	48	41
METHANE	28	MG/L	0.8	0.89	0.05	0.64	0.83	1.1
FERROUS IRON	Dec from baseline	MG/L	4 J	3.4 J	0.02 UJ	3.7 J	5.1 J-	5 J
CHLORIDE	Inc from baseline	MG/L	75	89	92	110	110	100
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.009	1.016	5.152	3.365	1.134	--
pH	Inc from baseline	NA	7.33	7.17	5.63	7.46	7.21	--
TURBIDITY	NA	NTU	0.00	42.65	0.98	0.20	0.11	--
TEMPERATURE	NA	°C	11.19	16.93	8.17	14.06	16.24	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-82	-266.87	201.81	-97.22	-96.79	--
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.12	0.39	7.20	0.35	0.34	--
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	8.7	9.6	3.6	8.8	7.6	9.6
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	0.92 J	0.87 J	0.59 J	0.84 J	0.81	1 J+
VINYL CHLORIDE	2	UG/L	0.19 J	0.29 J	1 U	1 U	0.42	1 U

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW37-R					
	Remediation Objective	Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/24/2015	9/23/2015	12/9/2015
Chemical Name	or Optimal Range	Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	19	21	28	27	34	31
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	1200	980	1300	1000
SODIUM	Inc from baseline	MG/L	18	15	400	390	520	490
METHANE	28	MG/L	16	21	19	17	16 J-	11
FERROUS IRON	Dec from baseline	MG/L	63 J	55 J	63 J	63 J	62 J-	74 J
CHLORIDE	Inc from baseline	MG/L	15	15	15	15	15	16
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	2.638	2.121	7.008	3.566	7.631	--
pH	Inc from baseline	NA	6.82	6.74	6.31	6.93	6.51	--
TURBIDITY	NA	NTU	99.53	10.51	16.85	6.28	9.6	--
TEMPERATURE	NA	°C	10.61	13.18	10.50	19.97	16.4	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-94	-119.96	-38.53	-110.32	-117.03	--
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.07	0.08	0.00	0.08	0.14	--
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW38-R					
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/26/2013	9/17/2013	3/18/2015	6/24/2015	9/23/2015	12/9/2015
<b>WATER QUALITY PARAMETERS</b>								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	7.5	7.8	22	31	44	42
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	3000	4300	4600	3500
SODIUM	Inc from baseline	MG/L	37	41	1200	1900	2200	2200
METHANE	28	MG/L	19	24	12 J-	11	10	6.4
FERROUS IRON	Dec from baseline	MG/L	11 J	8.7 J	46 J	61 J	63 J-	55 J
CHLORIDE	Inc from baseline	MG/L	80	67	120	82	65	58
<b>FIELD MEASUREMENTS</b>								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.226	1.025	5.330	20.268	10.105	--
pH	Inc from baseline	NA	6.72	6.70	6.83	6.76	6.43	--
TURBIDITY	NA	NTU	99.66	4.61	6.66	2.13	5.99	--
TEMPERATURE	NA	°C	9.76	19.29	8.08	16.53	16.55	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-86.72	-62.37	-108.08	166.50	-52.62	--
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.04	0.37	0.17	0.15	0.15	--
<b>SITE CONTAMINANTS OF CONCERN</b>								
CIS-1,2-DICHLOROETHENE	70	UG/L	0.3 J	1 U	0.21 J	0.25 J	1 U	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	0.22 J	1 U	0.29 J	0.39 J	0.24	0.33 J

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW39-R					
	Remediation Objective	Sample Date:	3/27/2013	9/17/2013	3/18/2015	6/24/2015	9/24/2015	12/10/2015
Chemical Name	or Optimal Range	Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	9.1	9.1	16	17	18	15
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	50	45	1400	1600	1600	1100
SODIUM	Inc from baseline	MG/L	14	16	550	610	660	480
METHANE	28	MG/L	1.1	1.3	0.31	0.78	0.47	0.71
FERROUS IRON	Dec from baseline	MG/L	20 J	16 J	47 J	48 J	56 J-	46 J
CHLORIDE	Inc from baseline	MG/L	57	57	67	67	65	62
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.026	0.998	1.75	0.221	0.579	--
pH	Inc from baseline	NA	7.22	7.05	7.81	7.15	7.63	--
TURBIDITY	NA	NTU	2.02	2.61	16.78	5.54	2.29	--
TEMPERATURE	NA	°C	9.52	14.19	12.74	16.08	17.13	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-105.71	-238.00	-49.84	-13.82	-118	--
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.23	0.15	2.37	0.12	0.2	--
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	0.28 J	0.41 J	0.27 J	0.89 J	0.75	0.85 J
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW40-R					
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/27/2013	9/17/2013	3/18/2015	6/24/2015	9/24/2015	12/9/2015
<b>WATER QUALITY PARAMETERS</b>								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	5.3	8	38	40	33	41
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	53	580	4900	6100	5700	9100
SODIUM	Inc from baseline	MG/L	14	230	2600	2800	3300	4300
METHANE	28	MG/L	5.4	10	7.5	8.5	4.3	2.1
FERROUS IRON	Dec from baseline	MG/L	12 J	13 J	0.36	0.45 J	100 J-	180 J
CHLORIDE	Inc from baseline	MG/L	15	16	15	15	14	19
<b>FIELD MEASUREMENTS</b>								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.134	1.982	7.729	12.086	15.22	16.713
pH	Inc from baseline	NA	7.10	6.83	8.06	6.62	6.43	6.40
TURBIDITY	NA	NTU	1.69	2.23	27.44	21.05	3.58	27.00
TEMPERATURE	NA	°C	9.03	14.95	10.60	16.77	20.39	12.61
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-76.84	-237.05	110.19	249.62	-45.11	-61.60
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.20	0.26	0.00	0.04	0.22	0.09
<b>SITE CONTAMINANTS OF CONCERN</b>								
CIS-1,2-DICHLOROETHENE	70	UG/L	310	700	33	26	350	530
TETRACHLOROETHENE	5	UG/L	5 U	5 U	1 U	1 U	1 U	5 U
TRICHLOROETHENE	5	UG/L	1.6 J	2 J	0.36 J	1 U	0.94	5 U
VINYL CHLORIDE	2	UG/L	120	320	36	34	68	120

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW41					
	Remediation Objective	Sample Date:	3/28/2013	9/18/2013	3/19/2015	6/24/2015	9/24/2015	12/10/2015
Chemical Name	or Optimal Range	Unit						
<b>WATER QUALITY PARAMETERS</b>								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	7.9	6.6	NA	7.8	7.9	8
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	2.6	5.6	6.3	6.2	4.2	1.5 J+
SODIUM	Inc from baseline	MG/L	18	19	19	18	18	20
METHANE	28	MG/L	0.1	1	1.5	2.3	2.4	2.7
FERROUS IRON	Dec from baseline	MG/L	8.1 J	0.5 J	0.22 J	5.4 J	8.0 J-	7.9 J
CHLORIDE	Inc from baseline	MG/L	25	28	27	28	26	26
<b>FIELD MEASUREMENTS</b>								
SPECIFIC CONDUCTANCE	NA	mS/cm	0.940	0.674	0.700	0.716	3.441	--
pH	Inc from baseline	NA	7.25	7.14	7.15	7.08	6.95	--
TURBIDITY	NA	NTU	1.64	3.70	4.48	0.62	1.93	--
TEMPERATURE	NA	°C	7.96	14.29	9.28	18.61	18.94	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-84.83	-30.70	97.80	-96.60	-107.29	--
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.21	0.06	0.57	0.23	0.36	--
<b>SITE CONTAMINANTS OF CONCERN</b>								
CIS-1,2-DICHLOROETHENE	70	UG/L	780	510	630	760	610	710
TETRACHLOROETHENE	5	UG/L	10 U	5 U	5 U	5 U	5 U	5 U
TRICHLOROETHENE	5	UG/L	10 U	5 U	5 U	5 U	5 U	5 U
VINYL CHLORIDE	2	UG/L	9.4 J	4.4 J	5.4	8.2	6.4	8



**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW42					
	Remediation Objective	Sample Date:	4/1/2013	9/18/2013	3/19/2015	6/24/2015	9/24/2015	12/10/2015
Chemical Name	or Optimal Range	Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	8.1	7.6	4.8	8	8.3	6.7
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	23	5.1	1 U	9.1
SODIUM	Inc from baseline	MG/L	12	13	14	13	12	14
METHANE	28	MG/L	5.4	7	0.5	5.9	6.2	4
FERROUS IRON	Dec from baseline	MG/L	7.6 J	4.1 J	0.97 J	7.2 J	9.0 J-	4.9 J
CHLORIDE	Inc from baseline	MG/L	25	24	24	29	25	24
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	0.918	0.671	2.007	NA	3.614	0.599
pH	Inc from baseline	NA	7.14	7.06	7.73	NA	6.91	7.32
TURBIDITY	NA	NTU	17.14	2.75	0.77	NA	1.69	3.99
TEMPERATURE	NA	°C	7.55	13.14	7.12	NA	13.75	9.97
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-59.23	-78.90	-68.47	NA	-109.87	-74.60
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.12	0.07	0.58	NA	0.33	0.29
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	2500	1900	20	1900	1300	650
TETRACHLOROETHENE	5	UG/L	25 U	20 U	1 U	20 U	10 U	5 U
TRICHLOROETHENE	5	UG/L	25 U	20 U	1 U	20 U	10 U	5 U
VINYL CHLORIDE	2	UG/L	19 J	13 J	130	490	620	540

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW43					
	Remediation Objective	Sample Date:	4/1/2013	9/18/2013	3/19/2015	6/23/2015	9/24/2015	12/10/2015
Chemical Name	or Optimal Range	Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	5.7	6.2	NA	7.7	8.1	3.2
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	21	21	31	17	12	29
SODIUM	Inc from baseline	MG/L	23	24	24	20	20	26
METHANE	28	MG/L	3.1	4.3	0.0005 U	1.9	1.1	0.077
FERROUS IRON	Dec from baseline	MG/L	8.1 J	7.1 J	0.076 J	8 J	8.5 J-	0.022 J
CHLORIDE	Inc from baseline	MG/L	33	35	23	29	27	23
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	0.783	0.761	1.741	7.064	3.234	0.503
pH	Inc from baseline	NA	7.25	7.23	7.76	--	6.94	7.33
TURBIDITY	NA	NTU	5.93	0.51	1.50	254.65	1.69	4.59
TEMPERATURE	NA	°C	8.60	12.80	8.35	13.75	19.83	12.70
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-100.57	-219.62	2.03	-111.03	-110.68	-6.70
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.29	0.06	5.76	0.25	0.27	0.24
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	640	700	110	900	690	200
TETRACHLOROETHENE	5	UG/L	5 U	5 U	1 U	6.1 J	5 U	2 U
TRICHLOROETHENE	5	UG/L	1.8 J	1.7 J	0.23 J	10 U	5 U	2 U
VINYL CHLORIDE	2	UG/L	16	19	0.42 J	27	21	1.7 J

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW44					
	Remediation Objective	Sample Date:	4/1/2013	9/18/2013	3/19/2015	6/25/2015	9/25/2015	12/10/2015
Chemical Name	or Optimal Range	Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	4.3	4.6	NA	5.2	5.3 J+	5
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1.9	1.9 J+	1 U	1 U	1 U	120 U
SODIUM	Inc from baseline	MG/L	100	99	NA	94	92	96
METHANE	28	MG/L	4.4	2.3	0.52	12 J-	9.7	8.2
FERROUS IRON	Dec from baseline	MG/L	1.8 J	0.25 J	0.5 J	4.6 J	10 J-	7.3 J
CHLORIDE	Inc from baseline	MG/L	148	160	160	160	160	150
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.093	1.030	1.097	1.182	1.194	--
pH	Inc from baseline	NA	7.36	7.20	7.38	7.20	7.47	--
TURBIDITY	NA	NTU	15.69	2.38	0.33	0.00	1.61	--
TEMPERATURE	NA	°C	9.40	17.55	9.38	16.64	13.89	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-46.38	-17.00	-95.27	-136.07	-134.17	--
DISSOLVED OXYGEN	Inc from baseline	MG/L	1.65	0.13	0.29	0.26	0.28	--
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	9.8	5.4	3.4	4.8	4.3	3.7
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	0.26 J	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	0.27 J	0.24 J	1 U	0.28 J	0.37	0.35 J

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW45				
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	2/27/2014	3/18/2015	6/25/2015	9/23/2015	12/9/2015
<b>WATER QUALITY PARAMETERS</b>							
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	NA	8.5	9.4	9.4	9.2
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	13	460	710	560	670
SODIUM	Inc from baseline	MG/L	13	110	200	190	240
METHANE	28	MG/L	NA	10	7.2	7.3	8.3
FERROUS IRON	Dec from baseline	MG/L	NA	24 J	27 J	27 J-	28 J
CHLORIDE	Inc from baseline	MG/L	23	23	22	25	25
<b>FIELD MEASUREMENTS</b>							
SPECIFIC CONDUCTANCE	NA	mS/cm	1.041	3.315	5.295	2.3	2.911
pH	Inc from baseline	NA	6.98	6.73	7.07	6.63	6.44
TURBIDITY	NA	NTU	8.95	21.62	6.87	8.94	7.20
TEMPERATURE	NA	°C	6.40	10.60	14.06	17.85	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-31.32	-35.78	161.86	-42.83	-20.30
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.71	0.14	0.61	0.33	0.35
<b>SITE CONTAMINANTS OF CONCERN</b>							
CIS-1,2-DICHLOROETHENE	70	UG/L	0.99 J	0.26 J	0.27 J	0.26	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1.3	0.79 J	0.90 J	0.71	0.78 J

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MW46				
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	2/27/2014	3/18/2015	6/25/2015	9/23/2015	12/9/2015
<b>WATER QUALITY PARAMETERS</b>							
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	NA	7.4	7.7	7.9	8
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	1 U	1 U	250 U
SODIUM	Inc from baseline	MG/L	18	19	22	24	25
METHANE	28	MG/L	NA	18	20 J-	18	21
FERROUS IRON	Dec from baseline	MG/L	NA	19 J	29 J	29 J-	29 J
CHLORIDE	Inc from baseline	MG/L	14	18	21	24	29
<b>FIELD MEASUREMENTS</b>							
SPECIFIC CONDUCTANCE	NA	mS/cm	1.088	4.113	2.936	1.451	1.6992
pH	Inc from baseline	NA	6.84	6.76	7.06	6.61	6.49
TURBIDITY	NA	NTU	32.36	39.80	0.57	-0.53	3.9
TEMPERATURE	NA	°C	8.06	9.39	15.52	19.78	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-66.40	-52.54	140.62	-63.87	-37.1
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.16	0.22	0.10	0.26	0.26
<b>SITE CONTAMINANTS OF CONCERN</b>							
CIS-1,2-DICHLOROETHENE	70	UG/L	5.1	1 U	1 U	0.25	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	0.45 J	1 U	1 U	0.24	1 U

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MWA					
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/26/2013	9/17/2013	3/18/2015	6/23/2015	9/22/2015	12/8/2015
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	6.3	2.6	2.8	2.8	2.8 J+	2.8
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	65	62	54	56	62	62
SODIUM	Inc from baseline	MG/L	13	15	15	15	14	14
METHANE	28	MG/L	0.0019	0.02	0.0005 U	0.0021	0.0019	0.026
FERROUS IRON	Dec from baseline	MG/L	0.006 U	0.021 J	0.02 U	0.02 UJ	0.35 J-	0.8 J
CHLORIDE	Inc from baseline	MG/L	47	50	36	38	47	50
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	0.756	0.752	2.024	1.431	0.675	0.722
pH	Inc from baseline	NA	7.71	7.52	7.8	7.57	7.44	7.47
TURBIDITY	NA	NTU	0	0	0.85	0	-0.03	2.26
TEMPERATURE	NA	°C	9.78	15.16	10.51	17.85	16.97	12.57
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-45.53	9.5	-25.86	207.87	33.96	-46.20
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.29	0.38	0.68	1.41	0.3	0.46
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MWB-R					
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/26/2013	9/17/2013	3/17/2015	6/25/2015	9/22/2015	12/8/2015
<b>WATER QUALITY PARAMETERS</b>								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	8.2	8.6	7	9.4	11	12
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	430	660	720	880
SODIUM	Inc from baseline	MG/L	34	33	110	240	220	170
METHANE	28	MG/L	17	27	7.6	18	22	19
FERROUS IRON	Dec from baseline	MG/L	28 J	24 J	22 J	38 J	42 J-	62 J
CHLORIDE	Inc from baseline	MG/L	51	37	14	35	37	43
<b>FIELD MEASUREMENTS</b>								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.725	1.37	1.804	5.459	2.744	2.933
pH	Inc from baseline	NA	6.68	6.68	6.77	6.93	6.46	6.39
TURBIDITY	NA	NTU	9.72	9.72	8.78	0	3.12	3.65
TEMPERATURE	NA	°C	9.38	9.38	8.2	15.32	17.3	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-62.44	-62.44	-77.4	145.94	-71.61	-71.20
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.04	0.04	0.07	0.15	0.07	0.18
<b>SITE CONTAMINANTS OF CONCERN</b>								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	1 U	0.45 J	0.21 J	1 U	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1 U	1 U	0.4 J	0.43 J	0.29	0.21 J



**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MWC-R					
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/26/2013	9/17/2013	3/17/2015	6/25/2015	9/24/2015	12/8/2015
<b>WATER QUALITY PARAMETERS</b>								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	6	6.3	5.6	5.9	6.2	6
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	1 U	1 U	1 U	120 U
SODIUM	Inc from baseline	MG/L	19	19	15	18	19	21
METHANE	28	MG/L	12	18	16	17	8.9	12
FERROUS IRON	Dec from baseline	MG/L	10 J	11 J	4.4 J	4.6 J	9.3 J-	3.4 J
CHLORIDE	Inc from baseline	MG/L	58	62	45	55	58	6600
<b>FIELD MEASUREMENTS</b>								
SPECIFIC CONDUCTANCE	NA	mS/cm	0.864	0.875	NA	1.73	0.879	0.813
pH	Inc from baseline	NA	7.17	7.05	NA	7.7	6.91	7.15
TURBIDITY	NA	NTU	0.38	5.99	NA	27.76	-0.36	18.60
TEMPERATURE	NA	°C	8.64	16.53	NA	14.26	15.53	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-76.38	-124.45	NA	103.37	-110.4	-44.10
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.15	0.07	NA	0.17	0.23	0.29
<b>SITE CONTAMINANTS OF CONCERN</b>								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	1 U	1 U	0.23 J	8.3	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MWD					
	Remediation Objective	Sample Date:	3/27/2013	9/18/2013	3/17/2015	6/25/2015	9/24/2015	12/9/2015
Chemical Name	or Optimal Range	Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	6.2	6.2	7.6	6.3	6.8 J+	7.1
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	1 U	1 U	12 J-	1 U
SODIUM	Inc from baseline	MG/L	15	16	15	16	16	18
METHANE	28	MG/L	17	16	19	19	16	15
FERROUS IRON	Dec from baseline	MG/L	14 J	14 J-	6.5 J	6.4 J	7.6 J-	6.7 J
CHLORIDE	Inc from baseline	MG/L	21	25	35	38	45	50
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.026	0.794	7.075	3.437	0.882	--
pH	Inc from baseline	NA	7.07	6.96	5.74	7.22	6.92	--
TURBIDITY	NA	NTU	35.73	19.29	149.3	1.25	9.14	--
TEMPERATURE	NA	°C	8.11	13.86	7.69	16.85	17.15	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-46.52	-157.53	-92.13	-87.4	-87.87	--
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.04	0.02	0	0.02	0.24	--
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	0.34 J	1 U	1 U	1 U	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MWG					
	Remediation Objective	Sample Date:	3/28/2013	9/18/2013	3/19/2015	6/24/2015	9/24/2015	12/10/2015
Chemical Name	or Optimal Range	Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	38	42	41	44	45	42
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	140	30	18	1 U	3.1	41 J
SODIUM	Inc from baseline	MG/L	26	30	24	25	27	24
METHANE	28	MG/L	0.54	1.1	0.19	0.48	0.6	0.034
FERROUS IRON	Dec from baseline	MG/L	40 J	29 J	27 J	29 J	37 J-	27 J
CHLORIDE	Inc from baseline	MG/L	35	38	27	29	30	23
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.135	1.131	0.987	1.034	5.115	0.817
pH	Inc from baseline	NA	6.91	6.71	6.83	6.75	6.61	7.18
TURBIDITY	NA	NTU	92.48	3.78	56.79	10.3	10.77	27.00
TEMPERATURE	NA	°C	9.55	13.96	9.35	13.63	15.23	10.91
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-79.84	-98.99	-85.11	-100.76	-106.76	20.30
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.12	0.18	0	0.18	0.19	0.79
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MWH					
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/28/2013	9/18/2013	3/19/2015	6/24/2015	9/25/2015	12/10/2015
<b>WATER QUALITY PARAMETERS</b>								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	31	14	NA	17	16	22
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	1 U	1 U	1 U	250 U
SODIUM	Inc from baseline	MG/L	23	13	14	15	14	17
METHANE	28	MG/L	11	2.6	6.7	6.1	12	14
FERROUS IRON	Dec from baseline	MG/L	40 J	24 J	9 J	30 J+	34 J-	41 J
CHLORIDE	Inc from baseline	MG/L	43	24	25	29	24	32
<b>FIELD MEASUREMENTS</b>								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.770	0.819	2.385	0.931	3.231	0.956
pH	Inc from baseline	NA	6.83	6.94	7.26	6.98	6.66	6.83
TURBIDITY	NA	NTU	44.24	11.99	57.34	0.22	1.86	9.34
TEMPERATURE	NA	°C	7.62	14.47	8.12	13.77	13.94	13.40
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-111.58	-151.62	-70.94	-101.94	-115.45	-116.00
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.08	0.2	0.31	0.27	0.37	0.20
<b>SITE CONTAMINANTS OF CONCERN</b>								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	0.29 J	1 U	0.49 J	0.21	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MWI					
	Remediation Objective	Sample Date:	3/26/2013	9/16/2013	3/19/2015	6/23/2015	9/22/2015	12/8/2015
Chemical Name	or Optimal Range	Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	12	13	16	13	25	15
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	10	9.5	390	200	1800	340
SODIUM	Inc from baseline	MG/L	15	16	120	120	780	73
METHANE	28	MG/L	1.4	0.8	2.2	2.3	0.91	0.85
FERROUS IRON	Dec from baseline	MG/L	5.1 J	5.7 J	29 J	12 J	31 J-	13 J
CHLORIDE	Inc from baseline	MG/L	12	12	9.5	9.1	12	9.9
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	0.892	0.877	3.788	3.857	4.43	--
pH	Inc from baseline	NA	7.08	6.93	6.81	7.10	6.4	--
TURBIDITY	NA	NTU	1.62	0.53	0.73	0.88	1.49	--
TEMPERATURE	NA	°C	8.18	16.40	8.66	15.02	15.24	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-69.06	-132.06	-57.18	52.67	-82.95	--
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.69	0.15	0.10	0.14	0.21	--
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	11	15	8.2	9.7	7.8	8.6
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	5.1	5.4	4.4	5.8	3	8

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MWJ-R					
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/26/2013	9/17/2013	3/18/2015	6/24/2015	9/22/2015	12/8/2015
<b>WATER QUALITY PARAMETERS</b>								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	11	12	16	14	22	16
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	2.3	13	460	320	1200	190
SODIUM	Inc from baseline	MG/L	13	11	110	80	430	53
METHANE	28	MG/L	15	16	8.5	9.1	7.7	7.1
FERROUS IRON	Dec from baseline	MG/L	9.2 J	6 J	32 J	30 J	40 J-	35 J
CHLORIDE	Inc from baseline	MG/L	19	14	14	13	16	12
<b>FIELD MEASUREMENTS</b>								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.210	1.151	2.295	3.543	3.457	1.592
pH	Inc from baseline	NA	6.82	6.86	6.3	6.51	6.35	6.44
TURBIDITY	NA	NTU	2.06	0.25	3.71	0.47	5.51	0.95
TEMPERATURE	NA	°C	9.28	14.47	11.15	14.23	17.21	12.29
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-26.74	-82.18	-43.19	-58.87	-44.78	-41.40
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.25	0.06	0.11	0.07	0.17	0.35
<b>SITE CONTAMINANTS OF CONCERN</b>								
CIS-1,2-DICHLOROETHENE	70	UG/L	2.3	2	18	18	10	13
TETRACHLOROETHENE	5	UG/L	1 U	1 U	4.6	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	0.69 J	1.3	0.43	1 U
VINYL CHLORIDE	2	UG/L	15	20	37	42	24	42

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MWK-R					
	Remediation Objective	Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/25/2015	9/24/2015	12/8/2015
Chemical Name	or Optimal Range	Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	7.2	8.8	9.5	9.5	10	10
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	41	66	140	100	130	73
SODIUM	Inc from baseline	MG/L	6.8	8.6	20	25	31	18
METHANE	28	MG/L	8	11	11	8.7	10	6.5
FERROUS IRON	Dec from baseline	MG/L	7 J	4.4 J	5.3 J	4.6 J	5.7 J-	4.5 J
CHLORIDE	Inc from baseline	MG/L	16	25	21	20	18	19
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	0.783	0.832	0.999	1.895	0.936	0.960
pH	Inc from baseline	NA	7.25	7.11	6.9	7.55	7.12	7.00
TURBIDITY	NA	NTU	0.33	0	3.67	1.51	0.26	1.61
TEMPERATURE	NA	°C	9.36	14.65	13.57	14.67	16.29	12.95
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-75.77	-112.96	-51.54	124.18	-76.5	-85.90
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.28	0.22	0.4	0.27	0.27	0.22
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	27	28	22	30	19	26
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1.8	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	0.36 J	0.35 J	0.46 J	1 U	0.44	0.52 J
VINYL CHLORIDE	2	UG/L	27	30	33	24	22	22



**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MWL-R					
	Remediation Objective	Sample Date:	3/27/2013	9/17/2013	3/18/2015	6/24/2015	9/23/2015	12/8/2015
Chemical Name	or Optimal Range	Unit						
<b>WATER QUALITY PARAMETERS</b>								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	7.8	7.9	69	61	77	79
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	38	34	5800	3300	4100	4300
SODIUM	Inc from baseline	MG/L	12	14	2900	1600	2000	2400
METHANE	28	MG/L	9.9	17	4.8	4	7.6	7.6
FERROUS IRON	Dec from baseline	MG/L	9.1 J	8.6 J	92 J	100 J	200 J-	150 J
CHLORIDE	Inc from baseline	MG/L	31	30	27	19	27	34
<b>FIELD MEASUREMENTS</b>								
SPECIFIC CONDUCTANCE	NA	mS/cm	0.941	0.712	10.725	15.616	9.485	11.387
pH	Inc from baseline	°C	7.13	6.99	9.68	6.90	6.48	6.38
TURBIDITY	NA	NTU	2.03	1.77	399.12	88.90	25.47	6.10
TEMPERATURE	NA	°C	9.63	18.00	11.69	16.34	18.69	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-62.59	-98.67	34.94	137.24	-71.68	-57.20
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.27	0.16	0.00	0.13	0.16	0.45
<b>SITE CONTAMINANTS OF CONCERN</b>								
CIS-1,2-DICHLOROETHENE	70	UG/L	75	38	16	8.9	0.72	0.63 J
TETRACHLOROETHENE	5	UG/L	1 U	1 U	0.45 J	0.40 J	0.39	0.28 J
TRICHLOROETHENE	5	UG/L	1 U	1 U	0.55 J	0.39 J	0.31	0.37 J
VINYL CHLORIDE	2	UG/L	140	150	10	8.4	0.73	0.48 J

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MWM-R					
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/27/2013	9/17/2013	3/18/2015	6/24/2015	9/23/2015	12/9/2015
<b>WATER QUALITY PARAMETERS</b>								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	9.1	8.7	17	14	15	14
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	45	68	1500	1200	780	860
SODIUM	Inc from baseline	MG/L	12	16	440	340	240	280
METHANE	28	MG/L	9.7	8.1	6.3	4.7	5.8	6.6
FERROUS IRON	Dec from baseline	MG/L	9.4 J	9.5 J	75 J	66 J	65 J-	70 J
CHLORIDE	Inc from baseline	MG/L	37	26	23	25	24	26
<b>FIELD MEASUREMENTS</b>								
SPECIFIC CONDUCTANCE	NA	mS/cm	0.945	0.736	19.29	7.411	6.052	3.335
pH	Inc from baseline	NA	7.31	7.05	10.5	6.98	6.25	6.37
TURBIDITY	NA	NTU	1.46	0.81	9.22	2.46	8.81	9.46
TEMPERATURE	NA	°C	7.07	18.98	8.26	15.78	19.68	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-95.02	-114.47	-44.12	134.49	-60.02	-33.90
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.30	0.25	0.02	0.22	0.14	0.32
<b>SITE CONTAMINANTS OF CONCERN</b>								
CIS-1,2-DICHLOROETHENE	70	UG/L	330	720	200	260	420	470
TETRACHLOROETHENE	5	UG/L	46	4 J	5.4	13	4	1.4 J
TRICHLOROETHENE	5	UG/L	15	15	40	50	35	10
VINYL CHLORIDE	2	UG/L	150	380	210	330	310	560

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MWN-R					
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/27/2013	9/18/2013	3/17/2015	6/25/2015	9/23/2015	12/9/2015
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	5.1	5.6	18	13	22	26
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	4.7 J+	2.2 J+	1500	1500	2400	3000
SODIUM	Inc from baseline	MG/L	13	14	500	560	1200	1500
METHANE	28	MG/L	12	13	12	10	8.3	9.4
FERROUS IRON	Dec from baseline	MG/L	9.4 J	9.6 J	39 J	42 J	57 J-	61 J
CHLORIDE	Inc from baseline	MG/L	22	29	26	38	28	28
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.021	1.05	4.249	4.094	9.751	7.678
pH	Inc from baseline	NA	7.01	6.78	6.46	6.4	6.27	6.45
TURBIDITY	NA	NTU	49.83	2.44	12.71	0.31	1.1	3.53
TEMPERATURE	NA	°C	8.99	15.48	9.77	13.98	16.48	11.89
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-.62.50	-158.01	-97.24	-52.66	-59.02	-62.60
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.05	0.07	0	0.14	0.09	0.18
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	1.4	3.4	1.1	0.23	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	21	97	17	8.1	2	1.1

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MWO-R					
	Remediation Objective	Sample Date:	3/27/2013	9/18/2013	3/18/2015	6/25/2015	9/22/2015	12/9/2015
Chemical Name	or Optimal Range	Unit						
<b>WATER QUALITY PARAMETERS</b>								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	6.3	7.3	16	16	16	15
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	1700	2100	1600	1500
SODIUM	Inc from baseline	MG/L	16	20	740	840	630	580
METHANE	28	MG/L	14	17	8.4	8.1 J-	10 J-	12
FERROUS IRON	Dec from baseline	MG/L	26 J	25 J	98 J	110 J	88 J-	98 J
CHLORIDE	Inc from baseline	MG/L	27	34	45	47	43	50
<b>FIELD MEASUREMENTS</b>								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.106	1.202	5.997	5.461	5.043	4.032
pH	Inc from baseline	NA	6.64	6.45	6.28	6.14	6.03	6.21
TURBIDITY	NA	NTU	3.35	3.32	245.48	0.28	12.59	3.24
TEMPERATURE	NA	°C	9.99	14.37	8.47	15.39	19.83	11.55
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-46.69	-129.21	-77.65	-57.32	-106.29	-40.80
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.02	0.13	0	0.14	0.02	0.11
<b>SITE CONTAMINANTS OF CONCERN</b>								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	0.21 J	1.1	1.4	0.98	1.2
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	0.39 J	0.38 J	1 U	0.3 J
VINYL CHLORIDE	2	UG/L	0.27 J	0.22 J	0.8 J	1.9	1.4	1.8

# EXHIBIT 1

## WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

		Well ID:	TW01-R			
	Remediation Objective	Sample Date:	3/26/2013	6/23/2015	9/22/2015	12/8/2015
Chemical Name	or Optimal Range	Unit				
<b>WATER QUALITY PARAMETERS</b>						
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	9.9	13	12	16
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	42	38	7.7	8.9
SODIUM	Inc from baseline	MG/L	13	10	11	10
METHANE	28	MG/L	3.9	3.8	0.095	3.4
FERROUS IRON	Dec from baseline	MG/L	21 J	34 J	8.2 J-	47 J
CHLORIDE	Inc from baseline	MG/L	21	21	15	14
<b>FIELD MEASUREMENTS</b>						
SPECIFIC CONDUCTANCE	NA	mS/cm	1.007	2.803	0.85	0.890
pH	Inc from baseline	NA	7.37	9.57	6.68	6.96
TURBIDITY	NA	NTU	9.55	0.96	111.24	5.02
TEMPERATURE	NA	°C	9.05	16.81	20.74	10.83
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-141.35	55.47	-68.7	-125.20
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.27	0.14	3.33	0.87
<b>SITE CONTAMINANTS OF CONCERN</b>						
CIS-1,2-DICHLOROETHENE	70	UG/L	3.6	3.8	2.5	2.8
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	0.17 J	0.84 J	0.28	0.78 J

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	TW04-R					
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/26/2013	9/16/2013	3/19/2015	6/23/2015	9/22/2015	12/8/2015
<b>WATER QUALITY PARAMETERS</b>								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	20	28	23	19	26	29
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	1 U	1 U	1 U	250 U
SODIUM	Inc from baseline	MG/L	9.6	10	8.6	8	8.6	8.6
METHANE	28	MG/L	12	11	15	12	11	11
FERROUS IRON	Dec from baseline	MG/L	27 J	27 J	28 J	26 J	26 J-	32 J
CHLORIDE	Inc from baseline	MG/L	5.6 J+	7.8	5.4	5	4.8	5.5
<b>FIELD MEASUREMENTS</b>								
SPECIFIC CONDUCTANCE	NA	mS/cm	1.083	1.122	3.603	2.447	1.132	1.134
pH	Inc from baseline	NA	6.82	6.56	7.01	NA	6.45	6.63
TURBIDITY	NA	NTU	2.31	4.93	7.88	0.00	0.33	4.51
TEMPERATURE	NA	°C	6.93	19.24	5.65	17.18	17.75	12.13
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-76.04	-83.98	-71.15	96.63	-73.81	-114.40
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.55	0.11	0.28	0.25	0.48	0.23
<b>SITE CONTAMINANTS OF CONCERN</b>								
CIS-1,2-DICHLOROETHENE	70	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	TW05-R					
Chemical Name	Remediation Objective or Optimal Range	Sample Date: Unit	3/26/2013	9/18/2013	3/17/2015	6/23/2015	9/23/2015	12/8/2015
<b>WATER QUALITY PARAMETERS</b>								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	5.4	6	11	6.6	8.1	7.9
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	37	24	1100	340	410	490
SODIUM	Inc from baseline	MG/L	7.3	7.8	410	89	97	120
METHANE	28	MG/L	4.7	5.5	19	7.4	6.8	4.9
FERROUS IRON	Dec from baseline	MG/L	13 J	8.7 J	43 J	26 J	33 J-	35 J
CHLORIDE	Inc from baseline	MG/L	25	18	35	14	15	16
<b>FIELD MEASUREMENTS</b>								
SPECIFIC CONDUCTANCE	NA	mS/cm	0.84	0.789	3.126	1.499	1.627	--
pH	Inc from baseline	NA	7.12	6.9	6.49	6.73	6.67	--
TURBIDITY	NA	NTU	10.40	38.21	8.80	6.69	0	--
TEMPERATURE	NA	°C	6.56	21.26	9.2	15.17	22.84	--
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-65.08	-151.64	-104	-90.5	-94.14	--
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.11	0.32	0	0.38	0.47	--
<b>SITE CONTAMINANTS OF CONCERN</b>								
CIS-1,2-DICHLOROETHENE	70	UG/L	16	2.2	1.9	0.30 J	0.78	0.39 J
TETRACHLOROETHENE	5	UG/L	0.21 J	0.31 J	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	0.54 J	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	4.6	2.6	5.4	0.59 J	0.56	0.55 J

**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MDEQE-R					
	Remediation Objective	Sample Date:	3/27/2013	9/18/2013	3/17/2015	6/23/2015	9/23/2015	12/9/2015
Chemical Name	or Optimal Range	Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	6.1	6.4	16	15	18	17
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	4.1	1 U	2000	2100	2000	1700
SODIUM	Inc from baseline	MG/L	15	14	710	870	750	690
METHANE	28	MG/L	16	16	13	12	9.1	13
FERROUS IRON	Dec from baseline	MG/L	14 J	16 J	67 J	80 J	86 J-	100 J
CHLORIDE	Inc from baseline	MG/L	21	23	32	37	44	51
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	0.986	1.065	4.748	12.845	8.175	4.491
pH	Inc from baseline	NA	6.76	6.52	6.31	6.65	6.06	6.26
TURBIDITY	NA	NTU	6.94	6.21	90.4	2.53	0.4	8.97
TEMPERATURE	NA	°C	8.65	18.52	8.69	14.52	22	11.61
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-50.19	-170.31	-107.3	120.62	-67.82	-41.30
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.11	0.06	0	0.04	0.1	0.17
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	1300	2300	38	18	24	30
TETRACHLOROETHENE	5	UG/L	4.3 J	5.4 J	1 U	1 U	0.35	2.4
TRICHLOROETHENE	5	UG/L	7.9 J	15 J	0.16 J	1 U	4.7	20
VINYL CHLORIDE	2	UG/L	130	430	45	22	13	17



**EXHIBIT 1**

**WATER QUALITY PARAMETERS, FIELD MEASUREMENTS, AND SITE CONTAMINANTS OF CONCERN  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

		Well ID:	MDEQW-R					
	Remediation Objective	Sample Date:	3/27/2013	9/18/2013	3/17/2015	6/24/2015	9/23/2015	12/9/2015
Chemical Name	or Optimal Range	Unit						
WATER QUALITY PARAMETERS								
TOTAL ORGANIC CARBON	Dec from baseline	MG/L	13	13	9.8	9.7	12	13
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1 U	1 U	30	30	310	650
SODIUM	Inc from baseline	MG/L	19	20	25	25	61	150
METHANE	28	MG/L	16	18	23	19 J-	18 J-	19
FERROUS IRON	Dec from baseline	MG/L	46 J	41 J	49 J	63 J	73 J-	81 J
CHLORIDE	Inc from baseline	MG/L	27	29	26	27	27	28
FIELD MEASUREMENTS								
SPECIFIC CONDUCTANCE	NA	mS/cm	2.497	2.52	3.12	3.857	7.652	2.499
pH	Inc from baseline	NA	6.99	6.62	6.51	7.48	6.23	6.52
TURBIDITY	NA	NTU	9.18	10.61	370.47	2.22	62.44	26.00
TEMPERATURE	NA	°C	9.75	15.86	8.98	15.37	16.54	11.96
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-114.89	-149.28	-116.58	117.09	-100.28	-99.90
DISSOLVED OXYGEN	Inc from baseline	MG/L	0.00	0.03	0.00	0.06	0.03	0.18
SITE CONTAMINANTS OF CONCERN								
CIS-1,2-DICHLOROETHENE	70	UG/L	0.47 J	0.78 J	1 U	1 U	1 U	0.42 J
TETRACHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW01-R					
Sample Date:	3/27/2013	9/17/2013	3/17/2015	6/24/2015	9/23/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	0.2	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW03-R					
Sample Date:	3/26/2013	9/16/2013	3/19/2015	6/23/2015	9/22/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	0.42	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

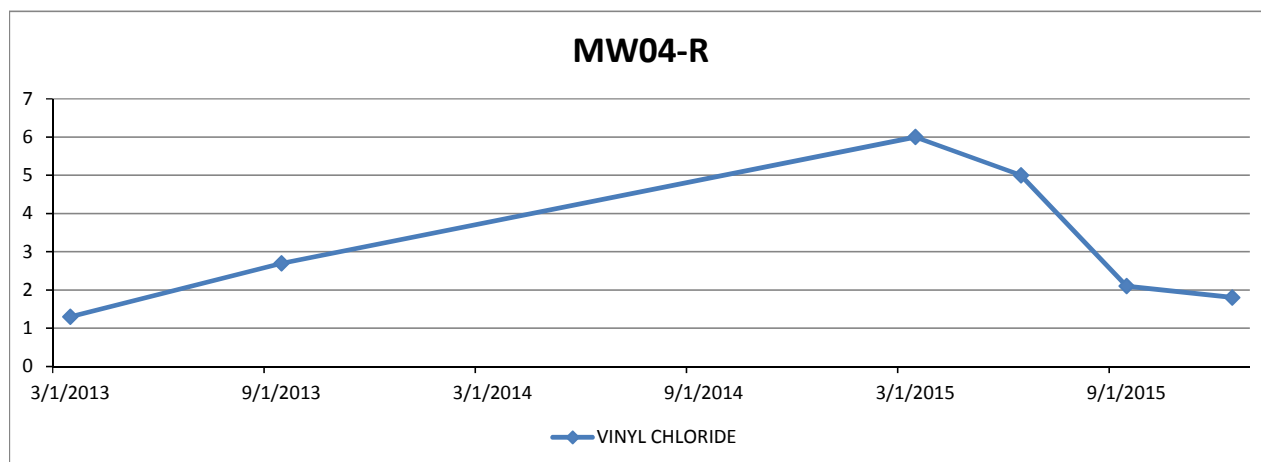
Well ID:	MW04-R					
Sample Date:	3/26/2013	9/16/2013	3/19/2015	6/25/2015	9/22/2015	12/9/2015
CIS-1,2-DICHLOROETHENE	0.45	0.52	3.0	2.2	1.4	1.8
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	0.29	0.3	<i>1</i>	<i>1</i>
VINYL CHLORIDE	1.3	<b>2.7</b>	<b>6.0</b>	<b>5.0</b>	<b>2.1</b>	1.8

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

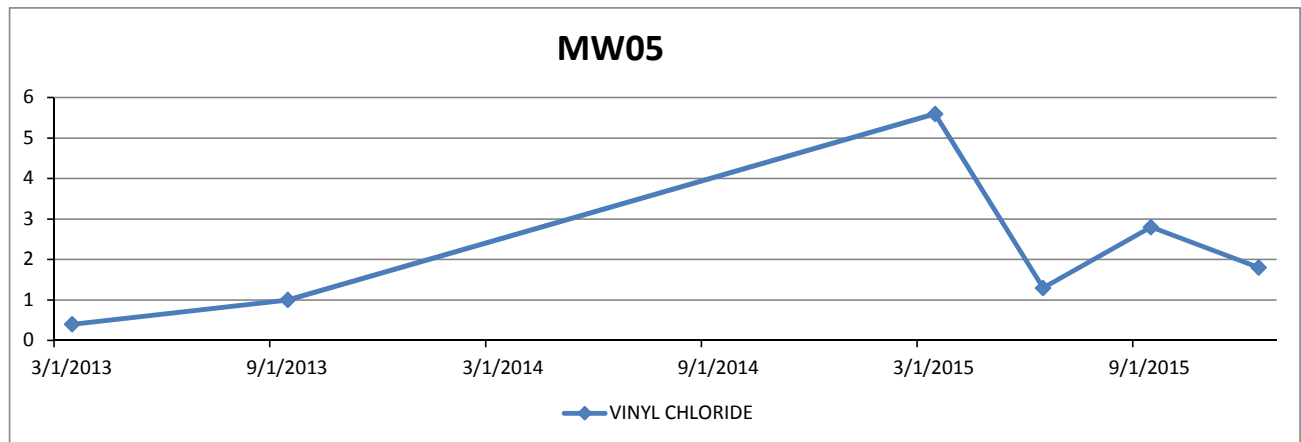
Well ID:	MW05					
Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/23/2015	9/22/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	0.4	<i>1</i>	<b>5.6</b>	1.3	<b>2.8</b>	1.8

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

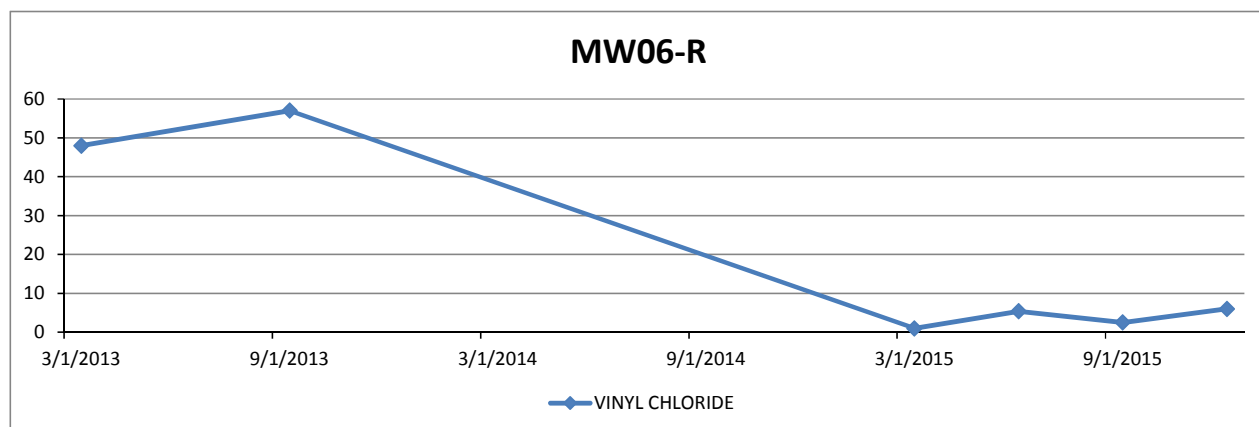
SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW06-R					
Sample Date:	3/27/2013	9/17/2013	3/17/2015	6/23/2015	9/23/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	19	26	<i>1</i>	1.5	1.2	4.1
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<b>48</b>	<b>57</b>	<i>1</i>	<b>5.4</b>	<b>2.5</b>	<b>6</b>

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;  
Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

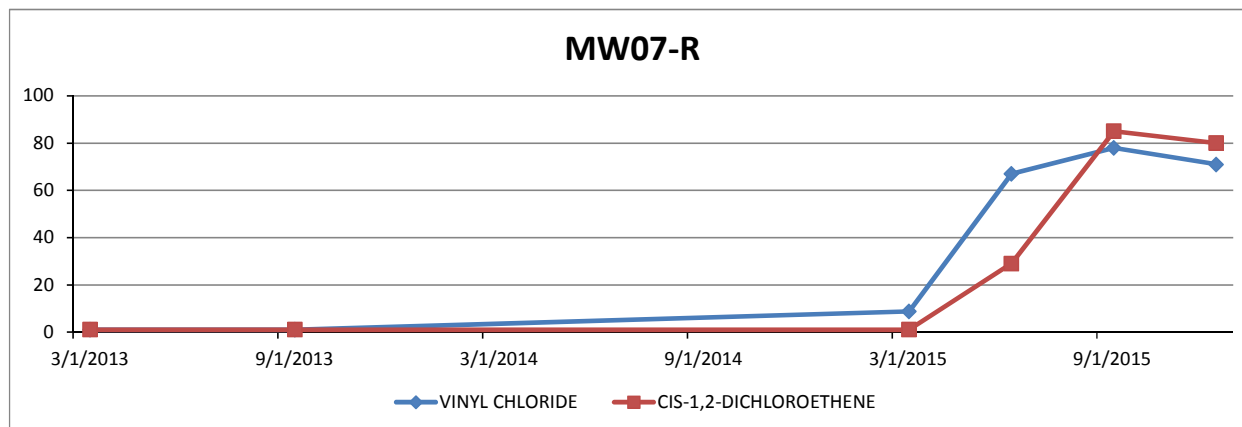
Well ID:	MW07-R					
Sample Date:	3/26/2013	9/17/2013	3/17/2015	6/25/2015	9/24/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	29	85	80
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	<i>1</i>	8.8	67	78	71

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

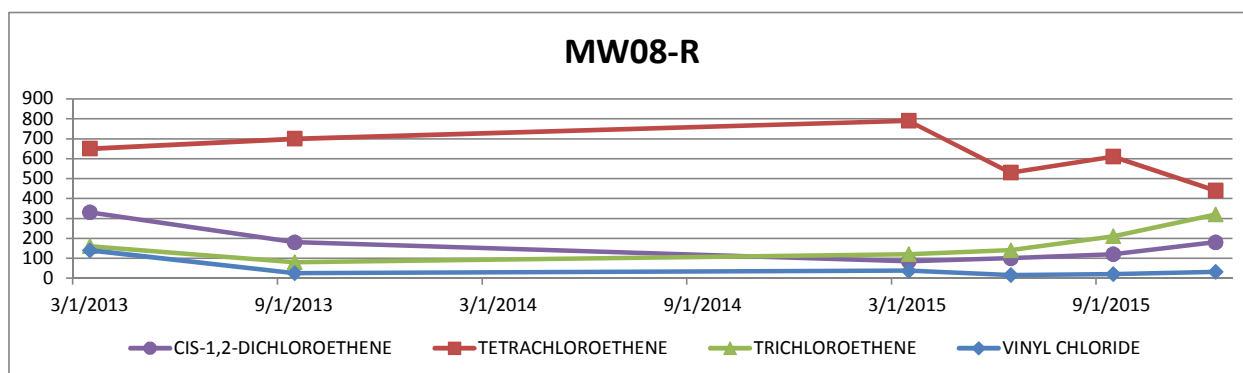
Well ID:	MW08-R					
Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/24/2015	9/23/2015	12/9/2015
CIS-1,2-DICHLOROETHENE	330	180	85	100	120	180
TETRACHLOROETHENE	650	700	790	530	610	440
TRICHLOROETHENE	160	80	120	140	210	320
VINYL CHLORIDE	140	25	37	16	20	32

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed





## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW29					
Sample Date:	3/27/2013	9/17/2013	3/17/2015	6/25/2015	9/24/2015	12/9/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	0.36	<i>1</i>	<i>1</i>	0.39	0.64
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	0.69	<i>1</i>	<i>1</i>	0.26	<i>1</i>

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW30					
Sample Date:	3/27/2013	9/17/2013	3/17/2015	6/25/2015	9/24/2015	12/10/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	0.23	<i>1</i>	<i>1</i>	0.32	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

# EXHIBIT 2

## SPECIFIC VOC SUMMARIES FOR MONITORING WELLS AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

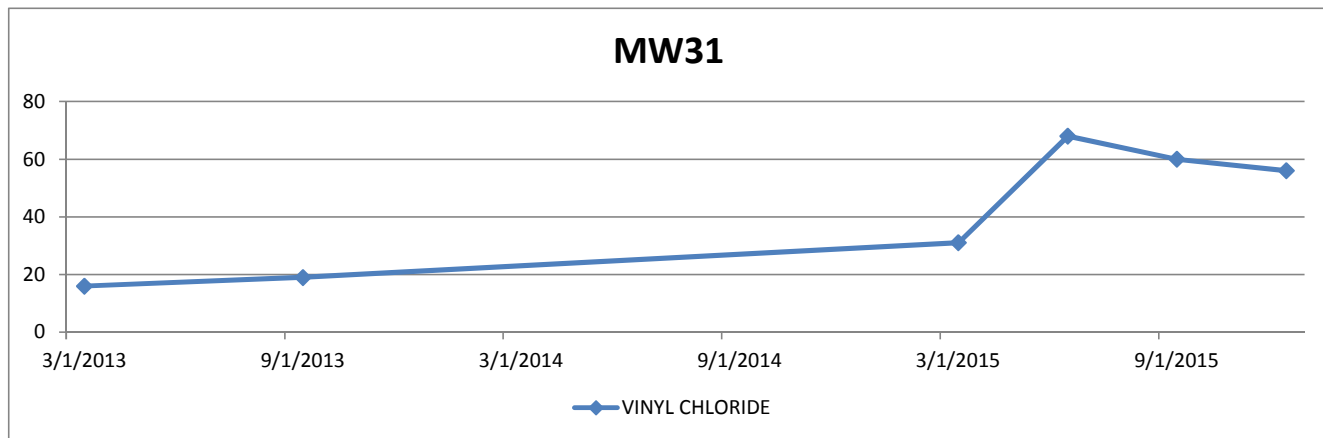
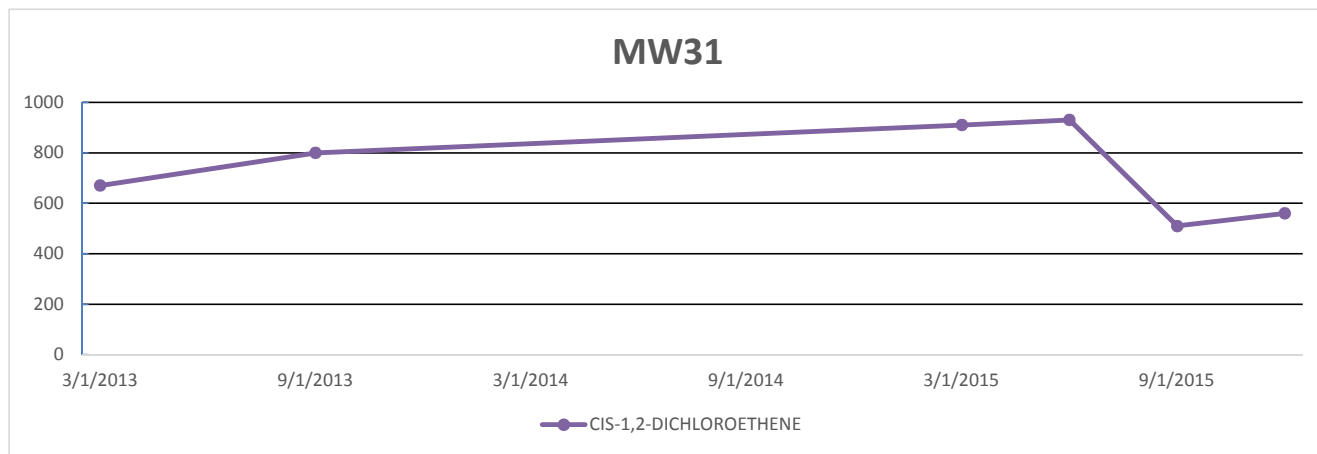
Well ID:	MW31					
Sample Date:	3/28/2013	9/18/2013	3/19/2015	6/24/2015	9/24/2015	12/10/2015
CIS-1,2-DICHLOROETHENE	<b>670</b>	<b>800</b>	<b>910</b>	<b>930</b>	<b>510</b>	<b>560</b>
TETRACHLOROETHENE	<i>5</i>	<i>5</i>	<i>5</i>	<i>10</i>	<i>5</i>	<i>5</i>
TRICHLOROETHENE	<i>5</i>	<i>5</i>	<i>1.2</i>	<i>10</i>	<i>5</i>	<i>5</i>
VINYL CHLORIDE	<b>16</b>	<b>19</b>	<b>31</b>	<b>68</b>	<b>60</b>	<b>56</b>

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW32				
Sample Date:	3/28/2013	9/18/2013	3/19/2015	6/24/2015	12/10/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	0.2	<i>1</i>	<i>1</i>	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW33-R			
Sample Date:	3/26/2013	3/17/2015	9/22/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	0.24	<i>1</i>	0.22	0.31
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	0.49	<i>1</i>	0.47	0.43

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW34-R			
Sample Date:	3/26/2013	3/17/2015	9/22/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	0.18	<i>1</i>	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	0.46	<i>1</i>	0.25

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

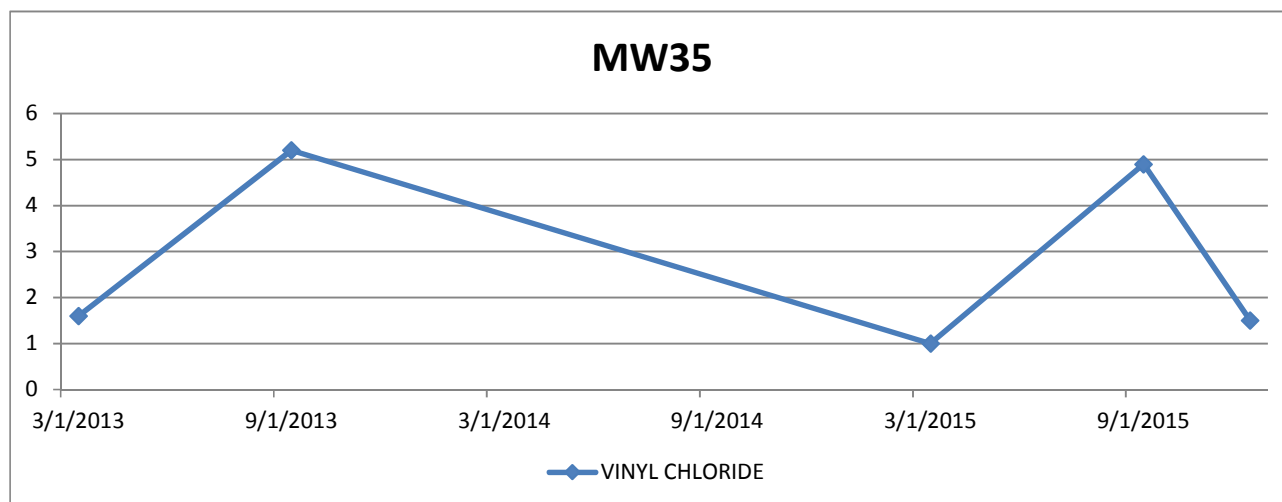
Well ID:	MW35				
Sample Date:	3/27/2013	9/17/2013	3/17/2015	9/23/2015	12/10/2015
CIS-1,2-DICHLOROETHENE	9	8.5	<i>1</i>	4.4	0.59
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	1.6	<b>5.2</b>	<i>1</i>	<b>4.9</b>	1.5

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW36					
Sample Date:	3/27/2013	9/17/2013	3/17/2015	6/25/2015	9/23/2015	12/10/2015
CIS-1,2-DICHLOROETHENE	8.7	9.6	3.6	8.8	7.6	9.6
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	0.92	0.87	0.59	0.84	0.81	1
VINYL CHLORIDE	0.19	0.29	<i>1</i>	<i>1</i>	0.42	<i>1</i>

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW37-R					
Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/24/2015	9/23/2015	12/9/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
 AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW38-R					
Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/24/2015	9/23/2015	12/9/2015
CIS-1,2-DICHLOROETHENE	0.3	<i>1</i>	0.21	0.25	<i>1</i>	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	0.22	<i>1</i>	0.29	0.39	0.24	0.33

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW39-R					
Sample Date:	3/27/2013	9/17/2013	3/18/2015	6/24/2015	9/24/2015	12/10/2015
CIS-1,2-DICHLOROETHENE	0.28	0.41	0.27	0.89	0.75	0.85
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

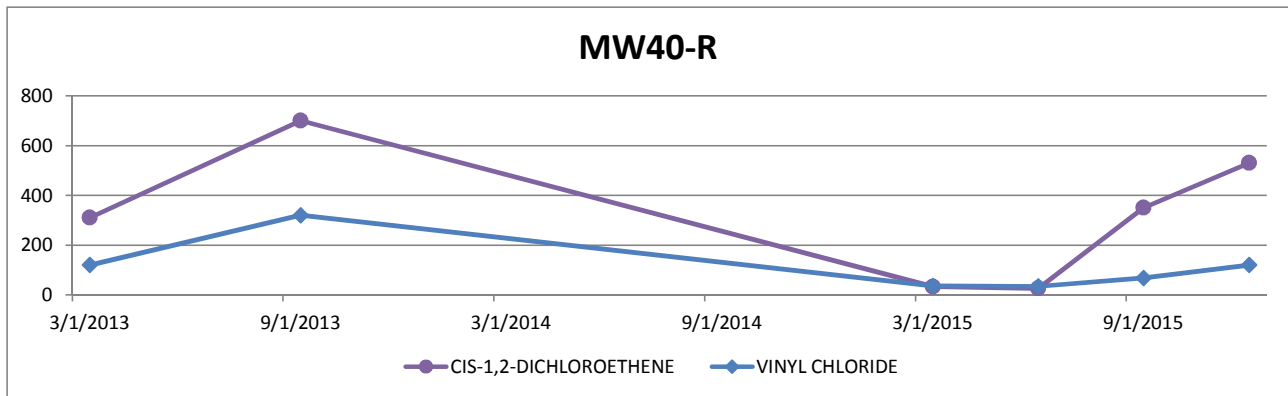
Well ID:	MW40-R					
Sample Date:	3/27/2013	9/17/2013	3/18/2015	6/24/2015	9/24/2015	12/9/2015
CIS-1,2-DICHLOROETHENE	<b>310</b>	<b>700</b>	33	26	<b>350</b>	<b>530</b>
TETRACHLOROETHENE	5	5	<i>1</i>	<i>1</i>	<i>1</i>	5
TRICHLOROETHENE	1.6	2	0.36	<i>1</i>	0.94	5
VINYL CHLORIDE	<b>120</b>	<b>320</b>	<b>36</b>	<b>34</b>	<b>68</b>	<b>120</b>

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

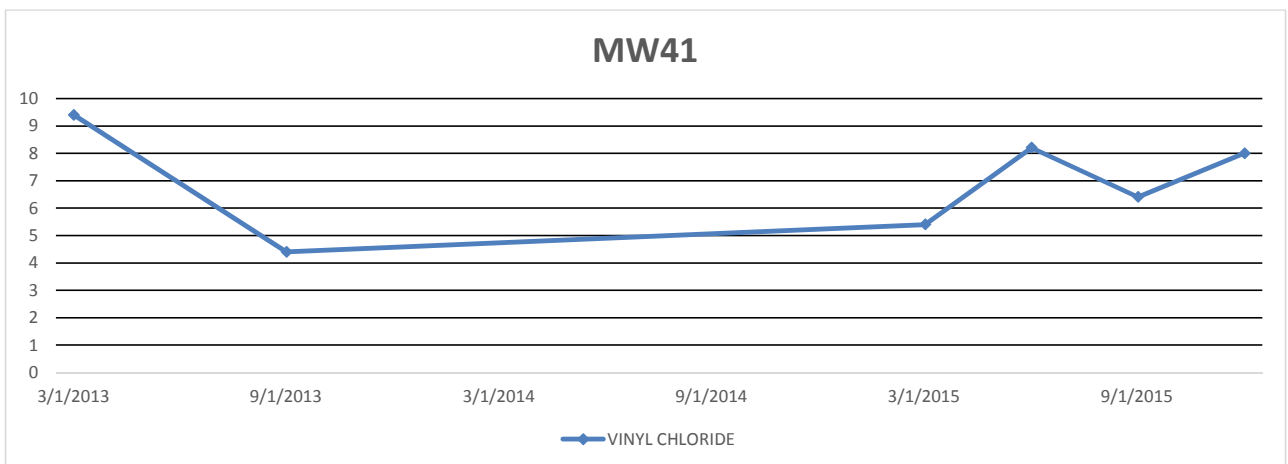
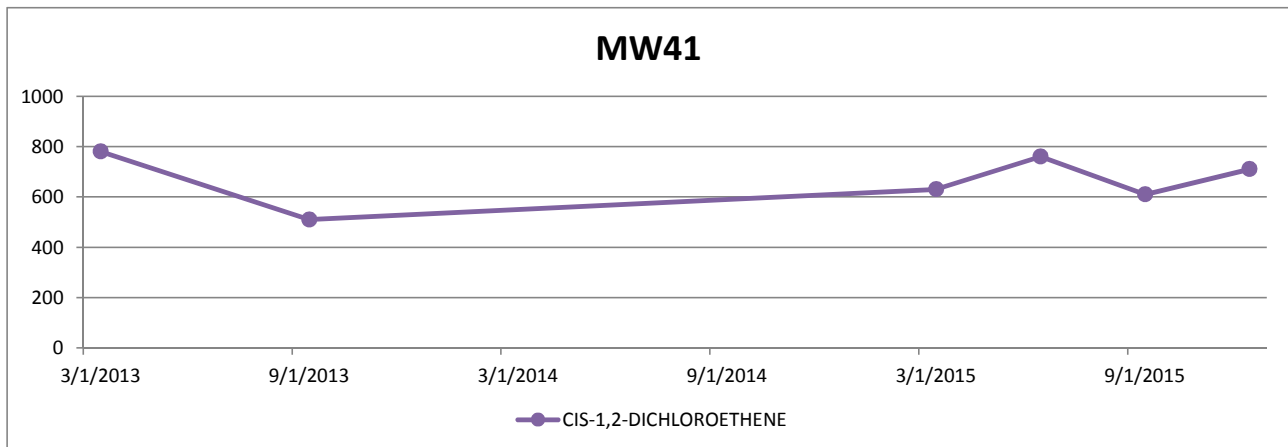
Well ID:	MW41					
Sample Date:	3/28/2013	9/18/2013	3/19/2015	6/24/2015	9/24/2015	12/10/2015
CIS-1,2-DICHLOROETHENE	780	510	630	760	610	710
TETRACHLOROETHENE	10	5	5	5	5	5
TRICHLOROETHENE	10	5	5	5	5	5
VINYL CHLORIDE	9.4	4.4	5.4	8.2	6.4	8

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



# EXHIBIT 2

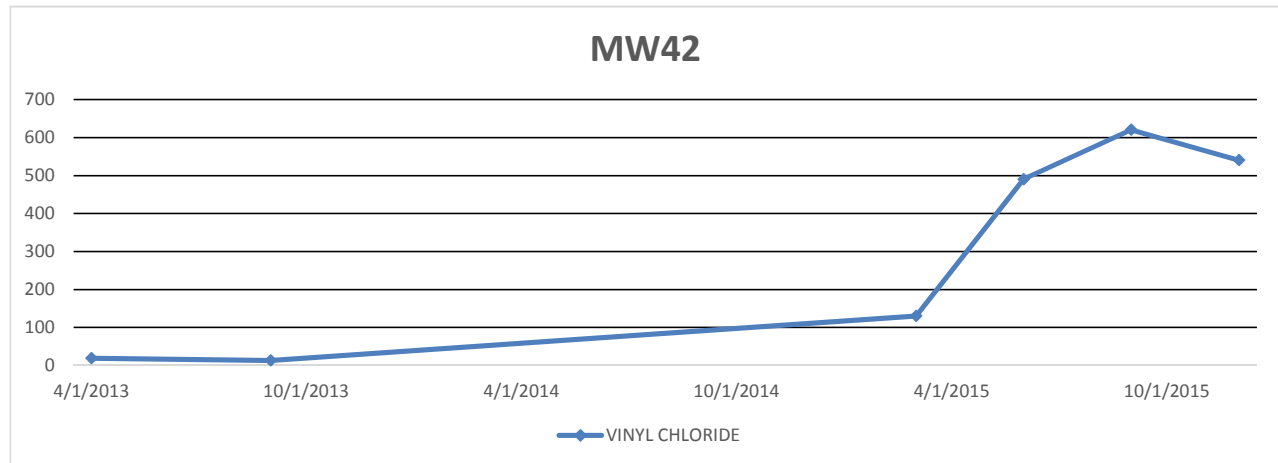
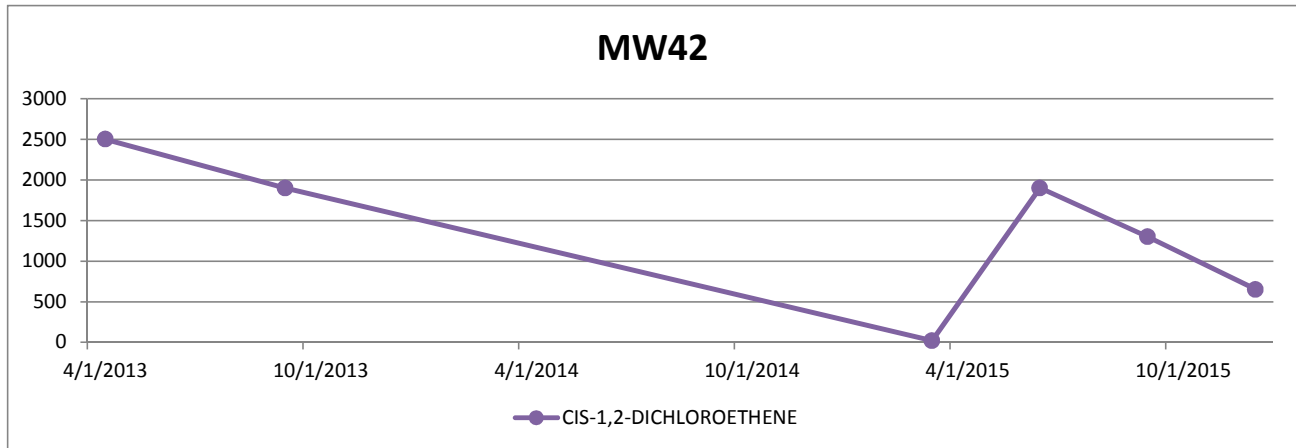
## SPECIFIC VOC SUMMARIES FOR MONITORING WELLS AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW42					
Sample Date:	4/1/2013	9/18/2013	3/19/2015	6/24/2015	9/24/2015	12/10/2015
CIS-1,2-DICHLOROETHENE	<b>2500</b>	<b>1900</b>	20	<b>1900</b>	<b>1300</b>	<b>650</b>
TETRACHLOROETHENE	25	20	<i>1</i>	20	<i>10</i>	5
TRICHLOROETHENE	25	20	<i>1</i>	20	<i>10</i>	5
VINYL CHLORIDE	<b>19</b>	<b>13</b>	<b>130</b>	<b>490</b>	<b>620</b>	<b>540</b>

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;  
Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

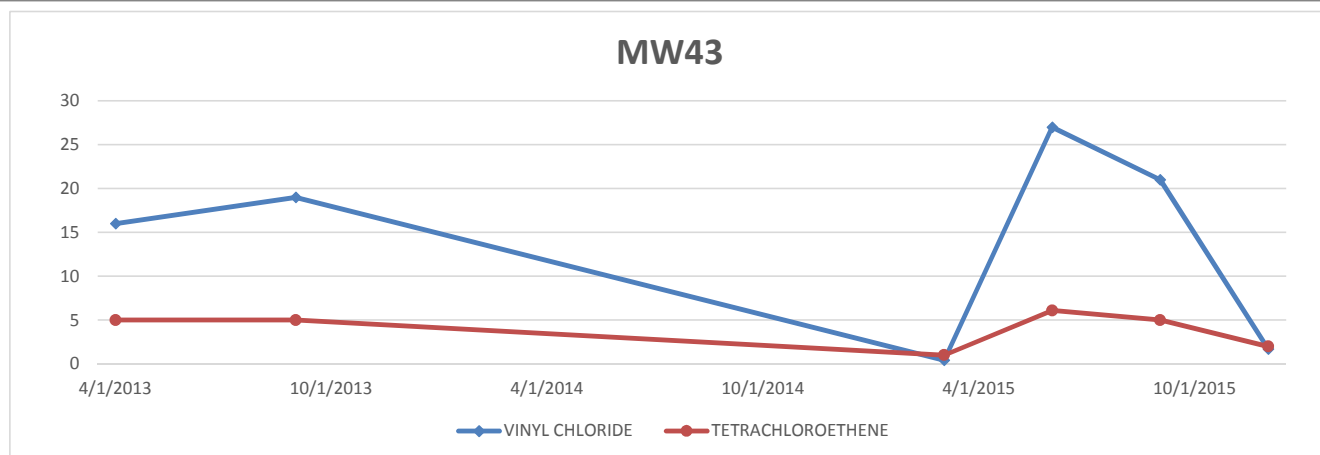
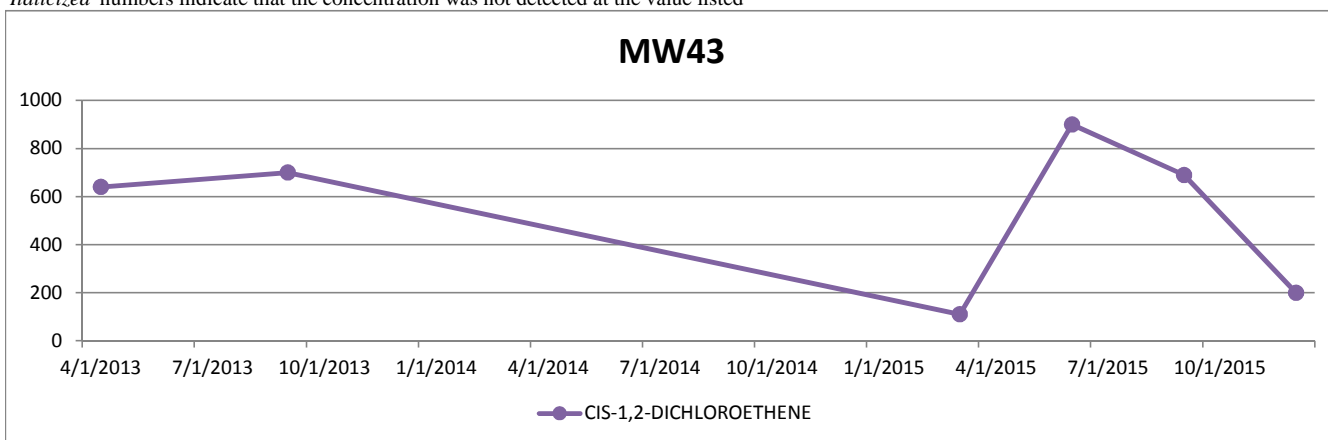
Well ID:	MW43					
Sample Date:	4/1/2013	9/18/2013	3/19/2015	6/23/2015	9/24/2015	12/10/2015
CIS-1,2-DICHLOROETHENE	<b>640</b>	<b>700</b>	<b>110</b>	<b>900</b>	<b>690</b>	<b>200</b>
TETRACHLOROETHENE	<i>5</i>	<i>5</i>	<i>1</i>	<b>6.1</b>	<i>5</i>	<i>2</i>
TRICHLOROETHENE	1.8	1.7	0.23	<i>10</i>	<i>5</i>	<i>2</i>
VINYL CHLORIDE	<b>16</b>	<b>19</b>	0.42	<b>27</b>	<b>21</b>	1.7

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW44					
Sample Date:	4/1/2013	9/18/2013	3/19/2015	6/25/2015	9/25/2015	12/10/2015
CIS-1,2-DICHLOROETHENE	9.8	5.4	3.4	4.8	4.3	3.7
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	0.26	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	0.27	0.24	<i>1</i>	0.28	0.37	0.35

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW45				
Sample Date:	2/27/2014	3/18/2015	6/25/2015	9/23/2015	12/9/2015
CIS-1,2-DICHLOROETHENE	0.99	0.26	0.27	0.26	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	1.3	0.79	0.9	0.71	0.78

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW46				
Sample Date:	2/27/2014	3/18/2015	6/25/2015	9/23/2015	12/9/2015
CIS-1,2-DICHLOROETHENE	5.1	<i>1</i>	<i>1</i>	0.25	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	0.45	<i>1</i>	<i>1</i>	0.24	<i>1</i>

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
 AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MWA					
Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/23/2015	9/22/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MWB-R					
Sample Date:	3/26/2013	9/17/2013	3/17/2015	6/25/2015	9/22/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	<i>1</i>	0.45	0.21	<i>1</i>	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	<i>1</i>	0.4	0.43	0.29	0.21

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MWC-R					
Sample Date:	3/26/2013	9/17/2013	3/17/2015	6/25/2015	9/24/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	0.23	8.3	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MWD					
Sample Date:	3/17/2013	9/18/2013	3/17/2015	6/25/2015	9/24/2015	12/9/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	0.34 <i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MWG					
Sample Date:	3/28/2013	9/18/2013	3/19/2015	6/24/2015	9/24/2015	12/10/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MWH					
Sample Date:	3/28/2013	9/18/2013	3/19/2015	6/24/2015	9/25/2015	12/10/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	0.29	<i>1</i>	0.49	0.21	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

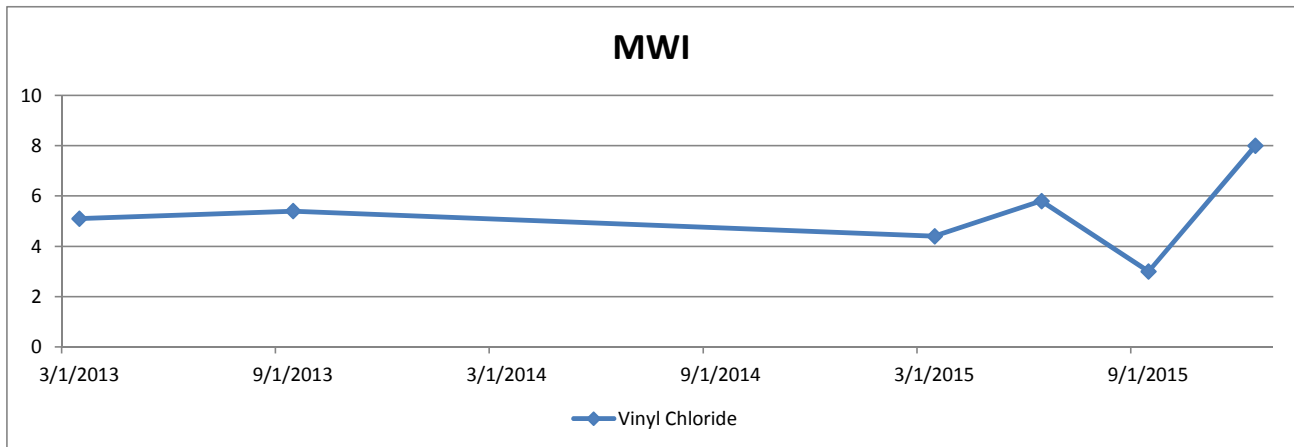
Well ID:	MWI					
Sample Date:	3/26/2013	9/16/2013	3/19/2015	6/23/2015	9/22/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	11	15	8.2	9.7	7.8	8.6
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<b>5.1</b>	<b>5.4</b>	<b>4.4</b>	<b>5.8</b>	<b>3</b>	<b>8</b>

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

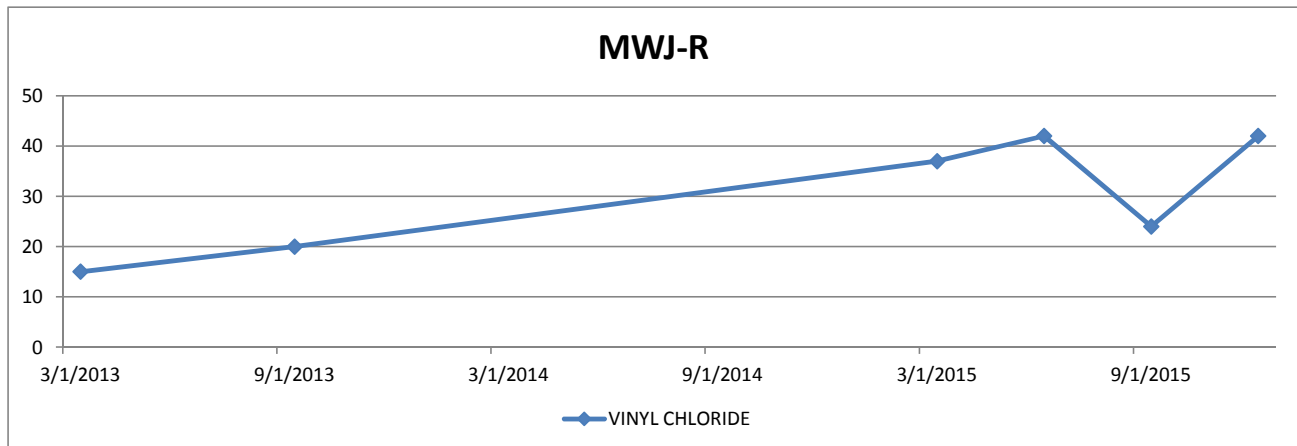
Well ID:	MWJ-R					
Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/24/2015	9/22/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	2.3	2	18	18	10	13
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	4.6	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	0.69	1.3	0.43	<i>1</i>
VINYL CHLORIDE	<b>15</b>	<b>20</b>	<b>37</b>	<b>42</b>	<b>24</b>	<b>42</b>

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

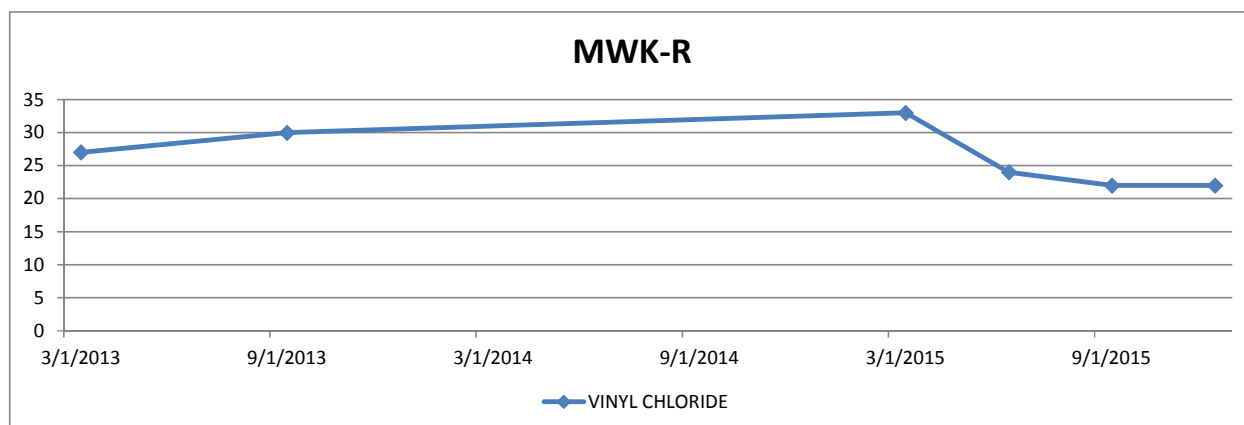
Well ID:	MWK-R					
Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/25/2015	9/24/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	27	28	22	30	19	26
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	1.8	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	0.36	0.35	0.46	<i>1</i>	0.44	0.52
VINYL CHLORIDE	<b>27</b>	<b>30</b>	<b>33</b>	<b>24</b>	<b>22</b>	<b>22</b>

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

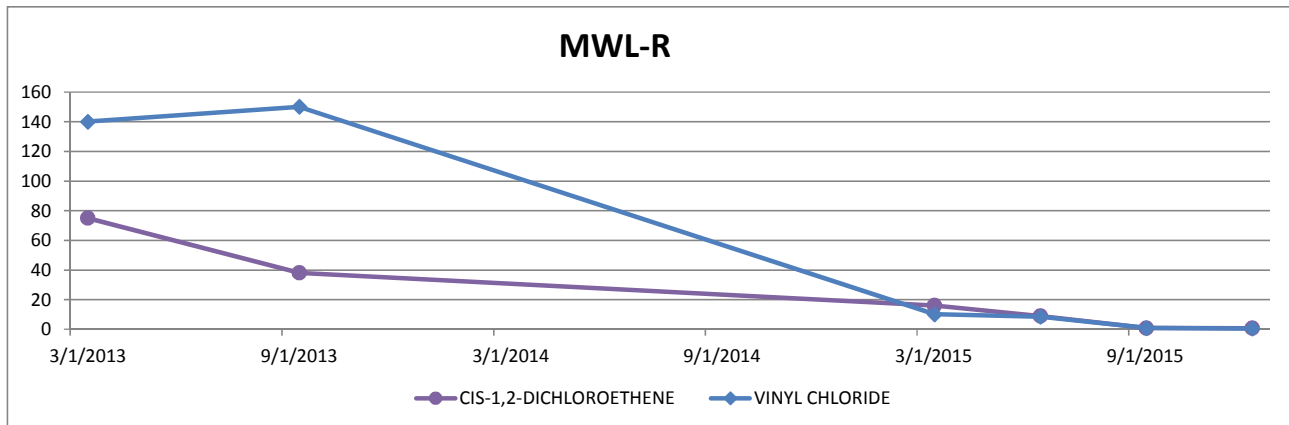
Well ID:	MWL-R					
Sample Date:	3/27/2013	9/17/2013	3/18/2015	6/24/2015	9/23/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	<b>75</b>	38	16	8.9	0.72	0.63
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	0.45	0.4	0.39	0.28
TRICHLOROETHENE	<i>1</i>	<i>1</i>	0.55	0.39	0.31	0.37
VINYL CHLORIDE	<b>140</b>	<b>150</b>	<b>10</b>	<b>8.4</b>	0.73	0.48

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



# EXHIBIT 2

## SPECIFIC VOC SUMMARIES FOR MONITORING WELLS AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

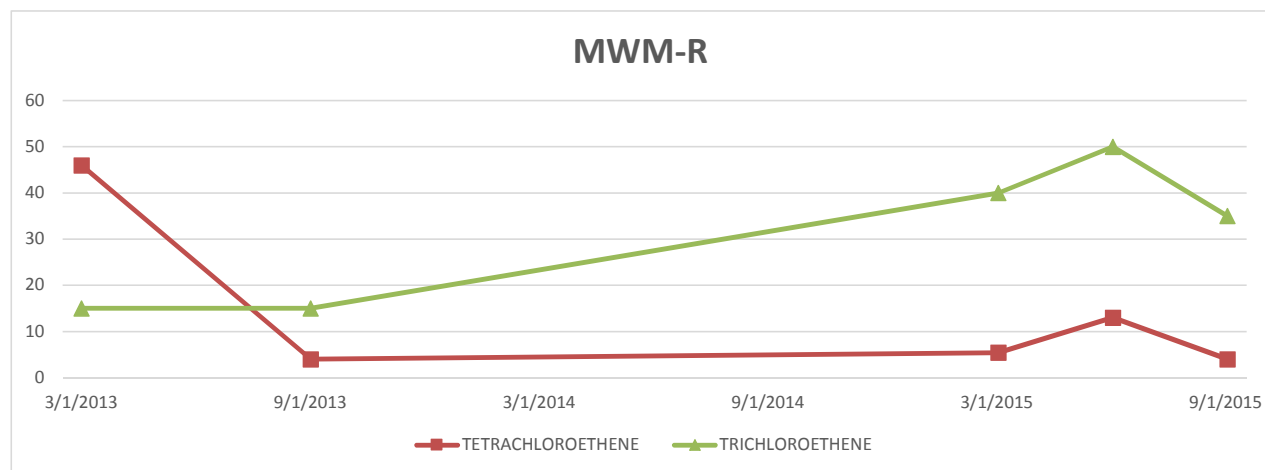
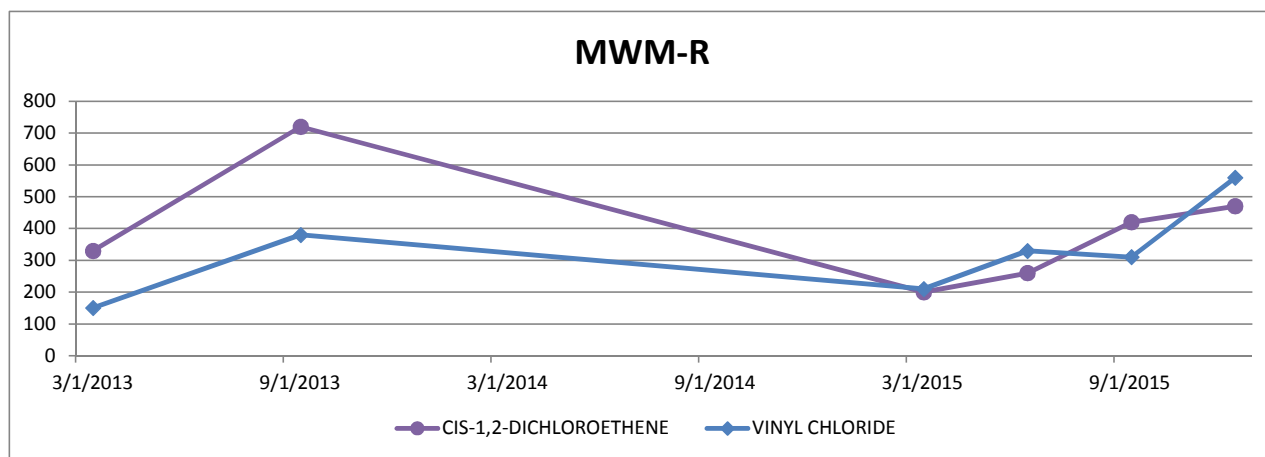
Well ID:	MWM-R					
Sample Date:	3/27/2013	9/17/2013	3/18/2015	6/24/2015	9/23/2015	12/9/2015
CIS-1,2-DICHLOROETHENE	330	720	200	260	420	470
TETRACHLOROETHENE	46	4	5.4	13	4	1.4
TRICHLOROETHENE	15	15	40	50	35	10
VINYL CHLORIDE	150	380	210	330	310	560

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

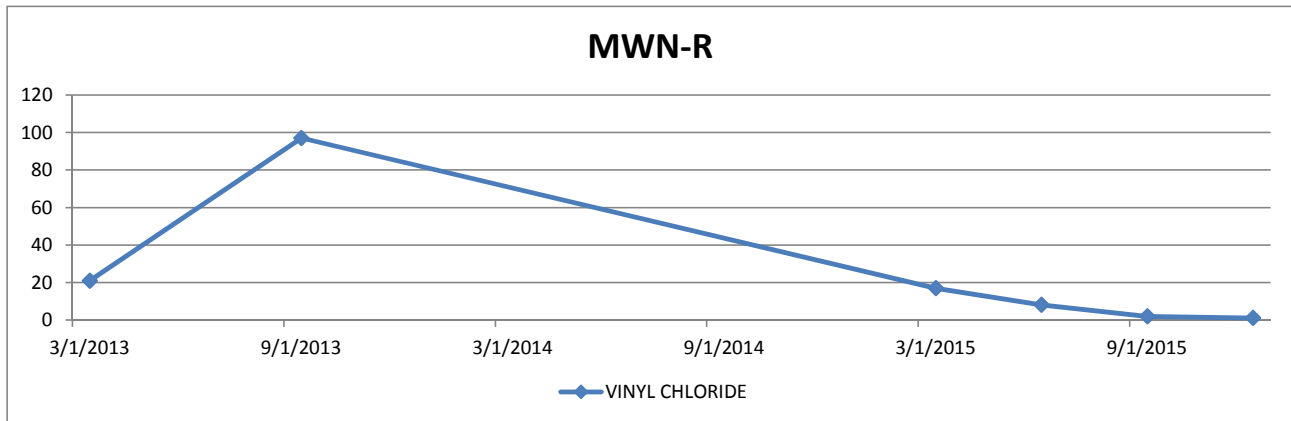
Well ID:	MWN-R					
Sample Date:	3/27/2013	9/18/2013	3/17/2015	6/25/2015	9/23/2015	12/9/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	1.4	3.4	1.1	0.23	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<b>21</b>	<b>97</b>	<b>17</b>	<b>8.1</b>	<b>2</b>	1.1

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MWO-R					
Sample Date:	3/27/2013	9/18/2013	3/18/2015	6/25/2015	9/22/2015	12/9/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	0.21	1.1	1.4	0.98	1.2
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	0.39	0.38	1	0.3
VINYL CHLORIDE	0.27	0.22	0.8	1.9	1.4	1.8

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
 AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	TW01-R			
Sample Date:	3/26/2013	6/23/2015	9/22/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	3.6	3.8	2.5	2.8
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	0.17	0.84	0.28	0.78

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	TW04-R					
Sample Date:	3/26/2013	9/16/2013	3/19/2015	6/23/2015	9/22/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	TW05-R					
Sample Date:	3/26/2013	9/18/2013	3/17/2015	6/23/2015	9/23/2015	12/8/2015
CIS-1,2-DICHLOROETHENE	16	2.2	1.9	0.3	0.78	0.39
TETRACHLOROETHENE	0.21	0.31	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	0.54	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<b>4.6</b>	<b>2.6</b>	<b>5.4</b>	0.59	0.56	0.55

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed

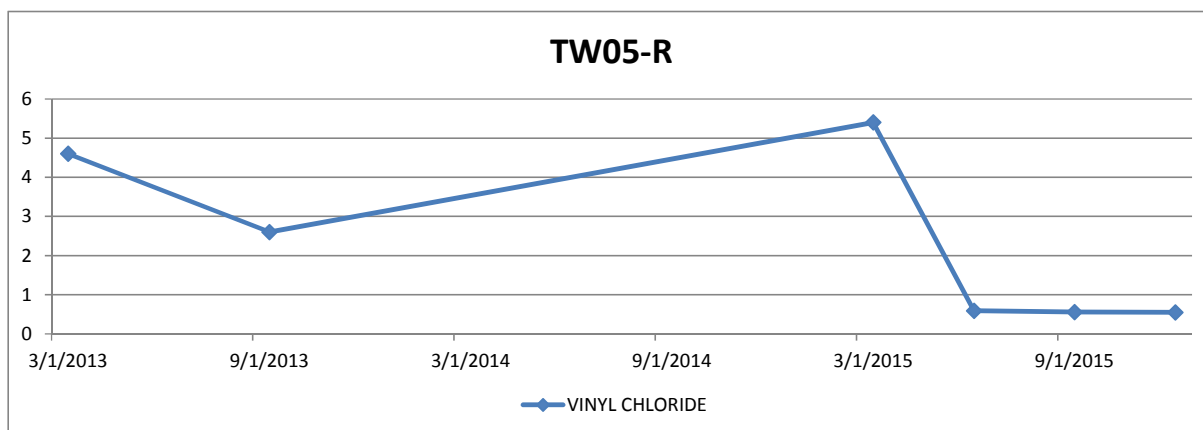


EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

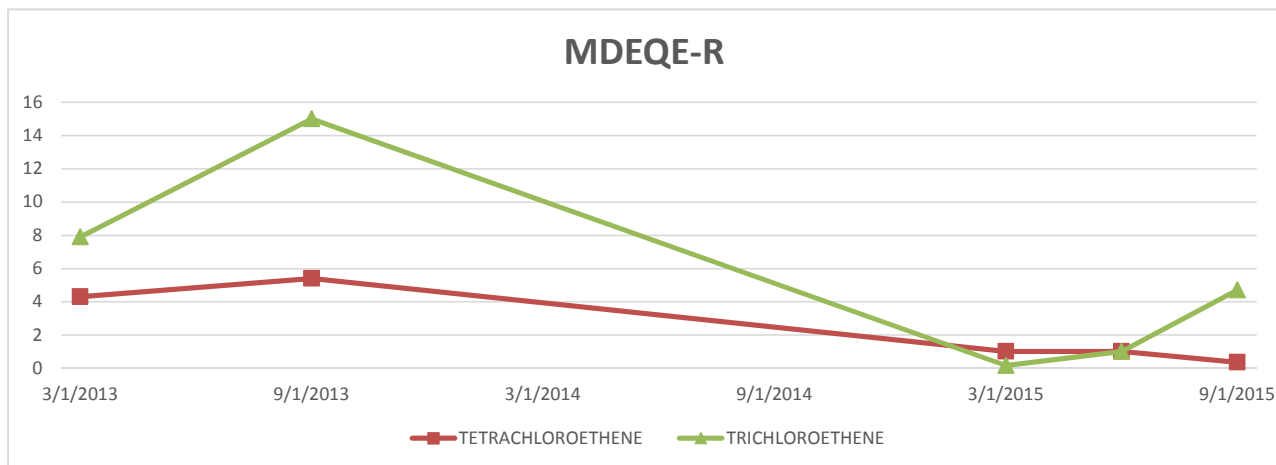
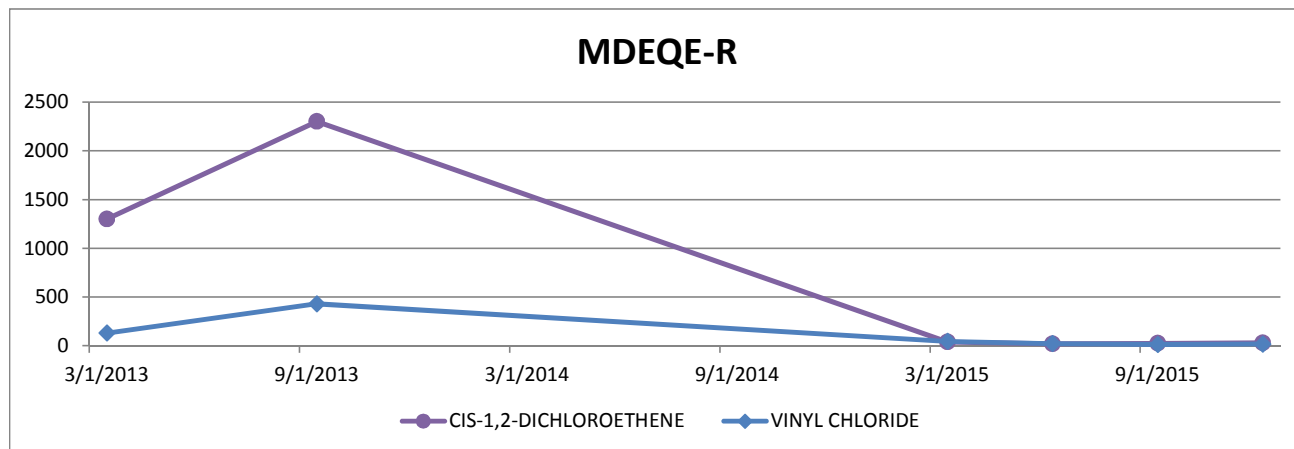
Well ID:	MDEQE-R					
Sample Date:	3/27/2013	9/18/2013	3/17/2015	6/23/2015	9/23/2015	12/9/2015
CIS-1,2-DICHLOROETHENE	<b>1300</b>	<b>2300</b>	38	18	24	30
TETRACHLOROETHENE	4.3	<b>5.4</b>	<i>1</i>	<i>1</i>	0.35	2.4
TRICHLOROETHENE	<b>7.9</b>	<b>15</b>	0.16	<i>1</i>	4.7	<b>20</b>
VINYL CHLORIDE	<b>130</b>	<b>430</b>	<b>45</b>	<b>22</b>	<b>13</b>	<b>17</b>

All sample results are presented in micrograms per liter

**Bold** values exceed site-specific remediation objectives (Cis-1,2-Dichloroethene = 70 ug/L;

Tetrachloroethene = 5 ug/L; Trichloroethene = 5 ug/L; Vinyl Chloride = 2 ug/L)

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 2

SPECIFIC VOC SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MDEQW-R					
Sample Date:	3/27/2013	9/18/2013	3/17/2015	6/24/2015	9/23/2015	12/9/2015
CIS-1,2-DICHLOROETHENE	0.47	0.78	<i>1</i>	<i>1</i>	<i>1</i>	0.42
TETRACHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
TRICHLOROETHENE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
VINYL CHLORIDE	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>

All sample results are presented in micrograms per liter

All contaminants were below remediation objectives; therefore, a graph is not included.

*Italicized* numbers indicate that the concentration was not detected at the value listed

## EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW01-R					
		Sample Date:	3/27/2013	9/17/2013	3/17/2015	6/24/2015	9/23/2015	12/8/2015
CHLORIDE	Inc from baseline	Unit	32	27	6.2	2.2	20	9.6
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	9.6	<i>1</i>	22	21	5.3	22
SODIUM	Inc from baseline	MG/L	19	19	21	16	22	21
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	42.30	-237.09	258.36	158.56	-46.04	--

*Italicized* numbers indicate that the concentration was not detected at the value listed

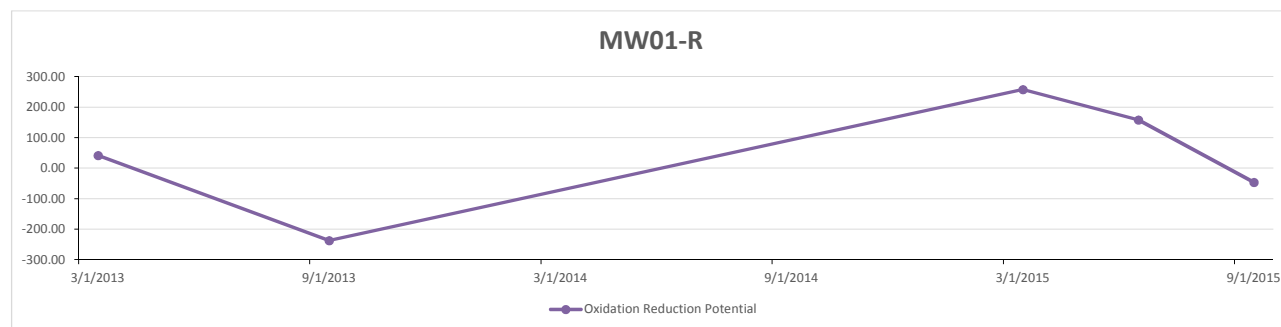
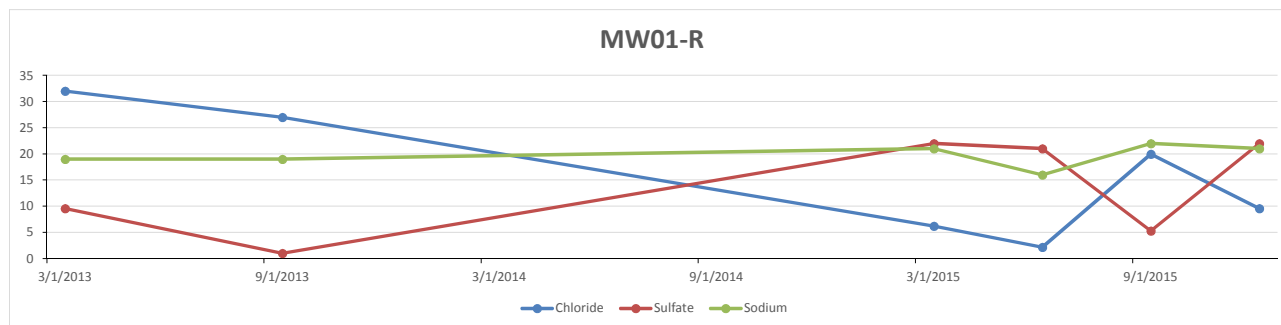


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW03-R					
		Sample Date:	3/26/2013	9/16/2013	3/19/2015	6/23/2015	9/22/2015	12/8/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	4	3.8	4.1	3.7	4.1	4.5
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	42	31	32	30	48	48
SODIUM	Inc from baseline	MG/L	7.6	4.5	2.7	5.5	4.5	4
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	54.25	-159.21	113.07	138.37	81.07	31.9

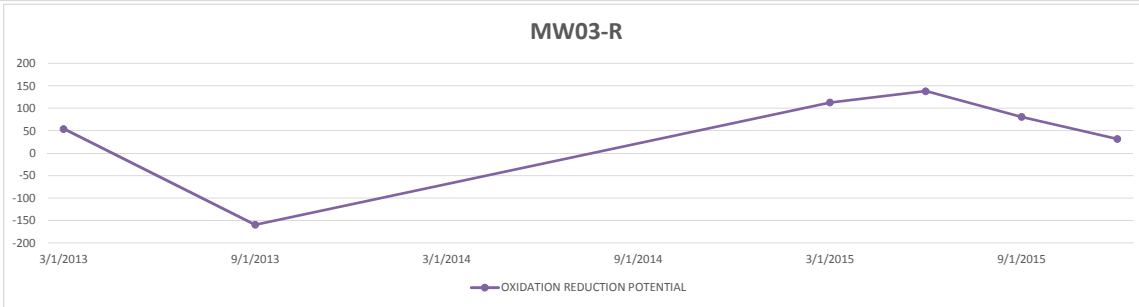
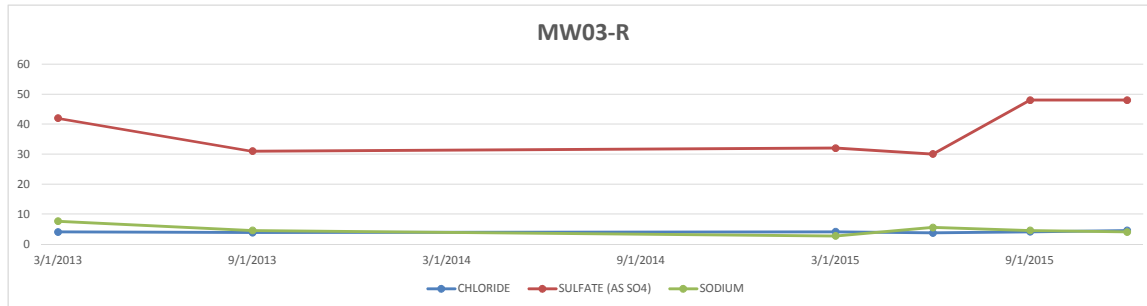


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW04-R					
		Sample Date: Unit	3/27/2013	9/18/2013	3/18/2015	6/25/2015	9/22/2015	12/9/2015
CHLORIDE	Inc from baseline	MG/L	17	21	19	22	17	29
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	<i>1</i>	1.7	1700	1900	1700	1700
SODIUM	Inc from baseline	MG/L	11	10	600	530	460	480
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-36.9	-86.97	-59.65	-43.78	-154.12	-37.8

*Italicized* numbers indicate that the concentration was not detected at the value listed

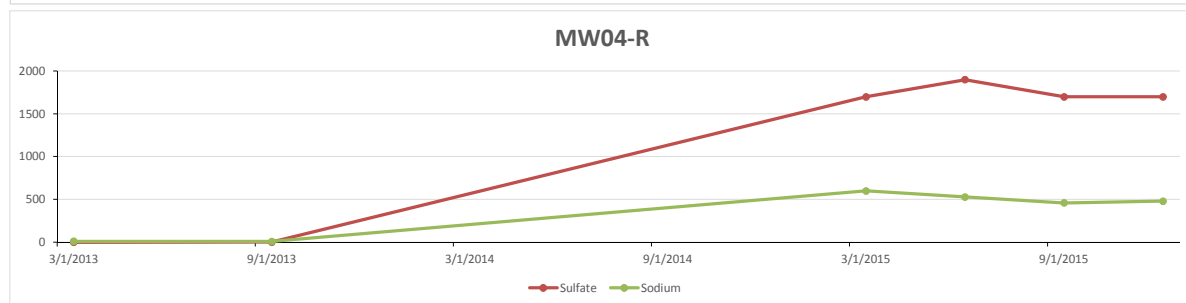
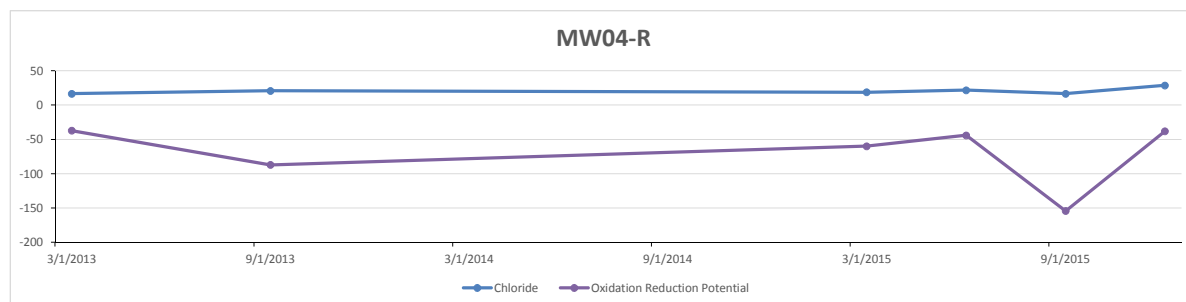


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW05					
		Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/23/2015	9/22/2015	12/8/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	21	16	18	15	14	14
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	<i>1</i>	<i>1</i>	270	740	1100	1700
SODIUM	Inc from baseline	MG/L	1	10	59	190	280	610
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-66.65	-104.64	64.95	-85.68	-36.56	-45.6

*Italicized* numbers indicate that the concentration was not detected at the value listed

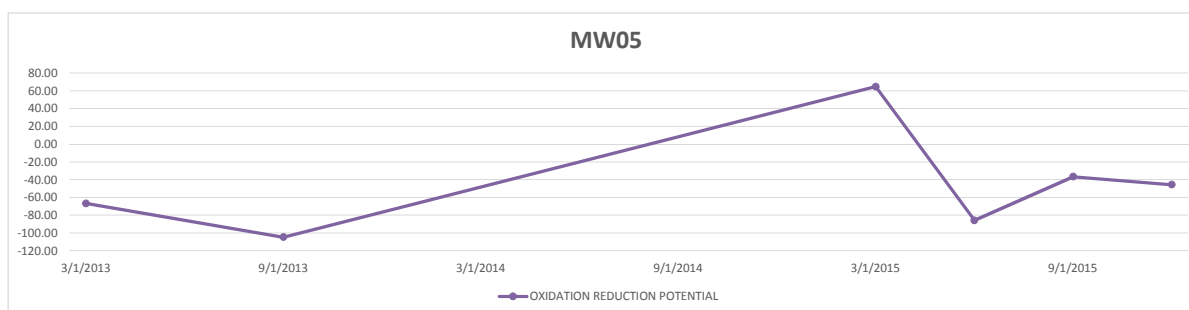
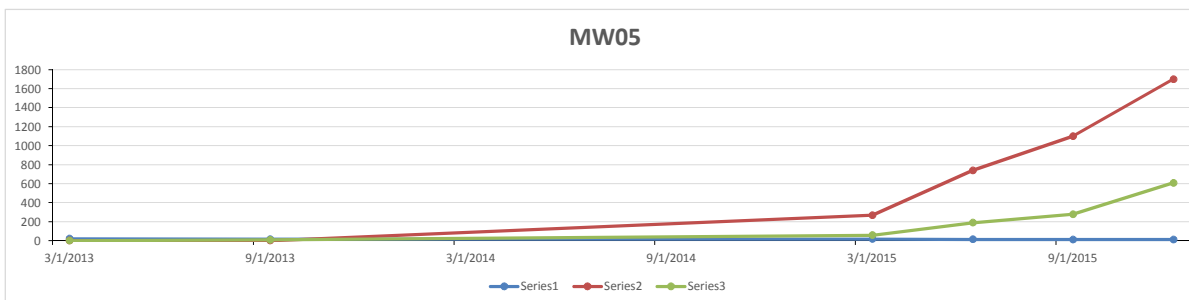
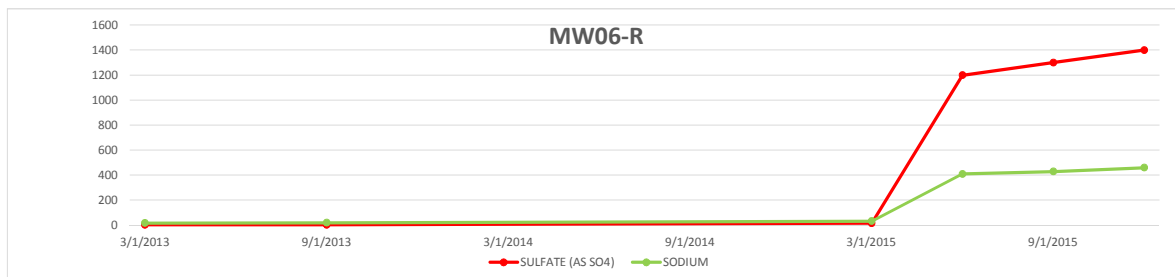
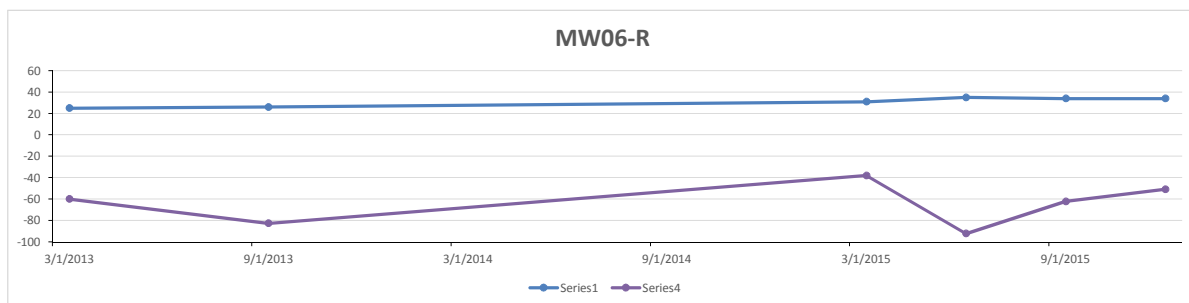




EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW06-R					
		Sample Date:	3/27/2013	9/17/2013	3/17/2015	6/23/2015	9/23/2015	12/8/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	25	26	31	35	34	34
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	3.8	3.7	16	1200	1300	1400
SODIUM	Inc from baseline	MG/L	17	20	33	410	430	460
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-59.78	-82.56	-37.9	-92.11	-62.02	-50.7



## EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW07-R					
		Sample Date:	3/26/2013	9/17/2013	3/17/2015	6/25/2015	9/24/2015	12/8/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	38	43	44	33	39	52
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	<i>1</i>	<i>1</i>	54	710	880	210
SODIUM	Inc from baseline	MG/L	21	22	27	170	230	74
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-58.29	-100.67	-12.77	133.2	-62.97	-75.6

*Italicized* numbers indicate that the concentration was not detected at the value listed

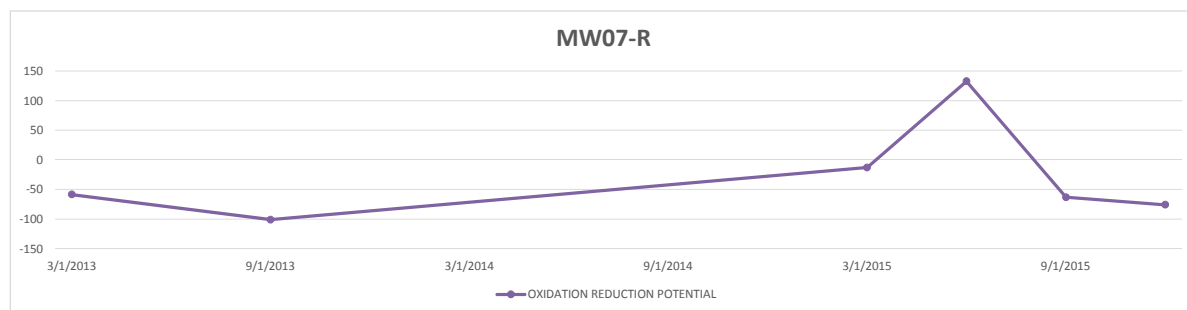
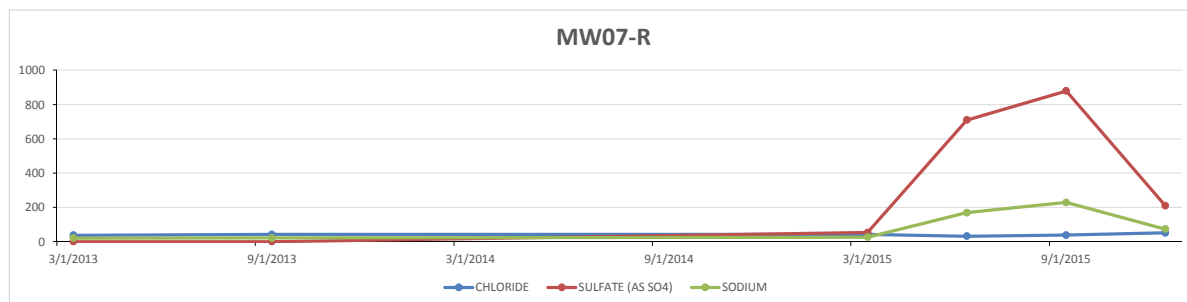


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW08-R					
		Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/24/2015	9/23/2015	12/9/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	24	59	21	22	20	24
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	48	1200	1700	1600	1700	1900
SODIUM	Inc from baseline	MG/L	14	530	690	610	700	780
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-50.54	340.87	212.82	273.89	-11.57	--

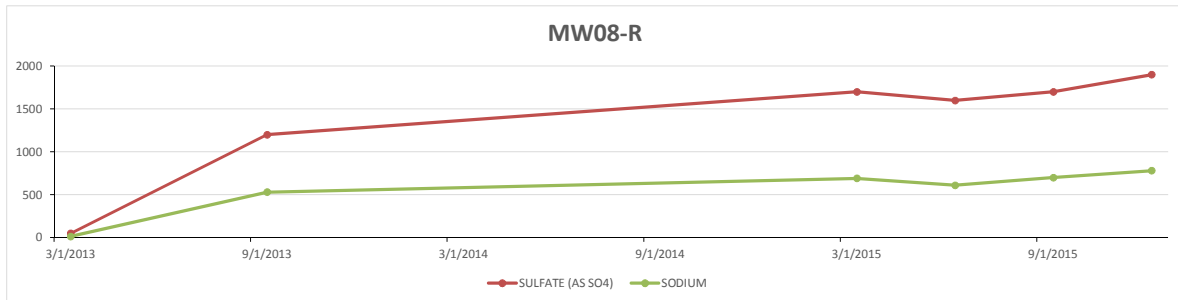
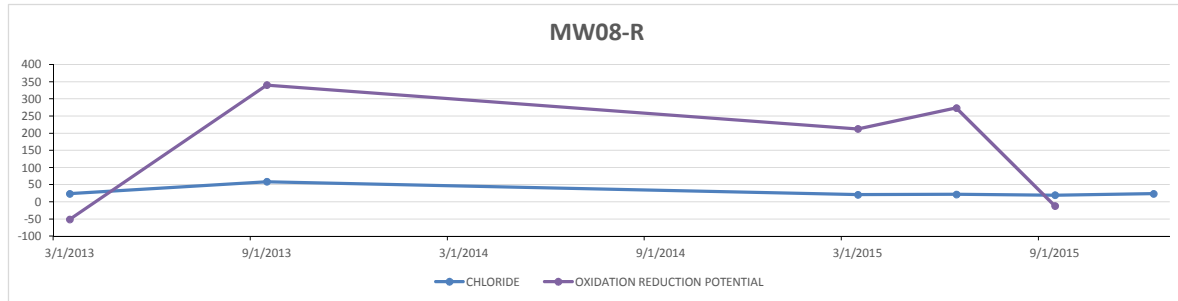
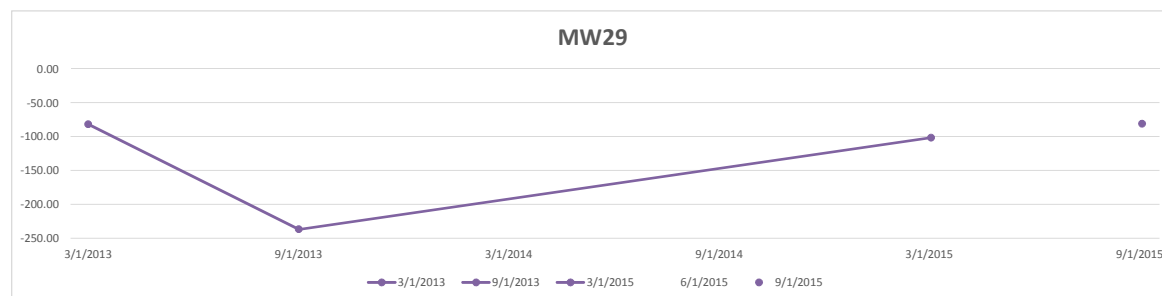
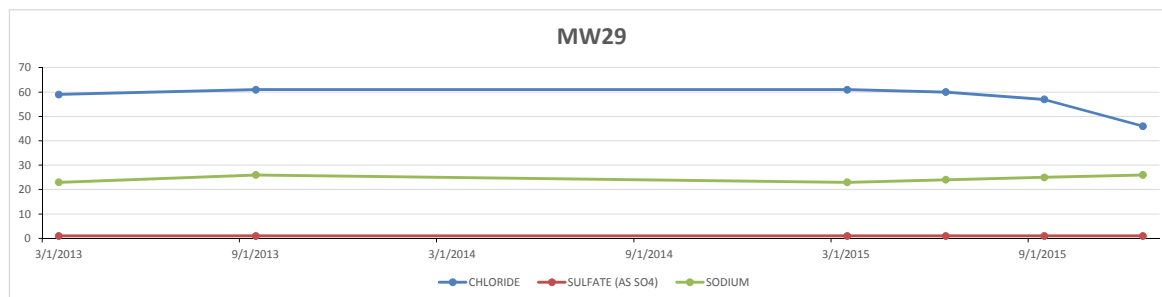


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW29					
		Sample Date:	3/27/2013	9/17/2013	3/17/2015	6/25/2015	9/24/2015	12/9/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	59	61	61	60	57	46
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>
SODIUM	Inc from baseline	MG/L	23	26	23	24	25	26
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-81.48	-236.55	-101.22	--	-80.9	--

*Italicized numbers indicate that the concentration was not detected at the value listed*

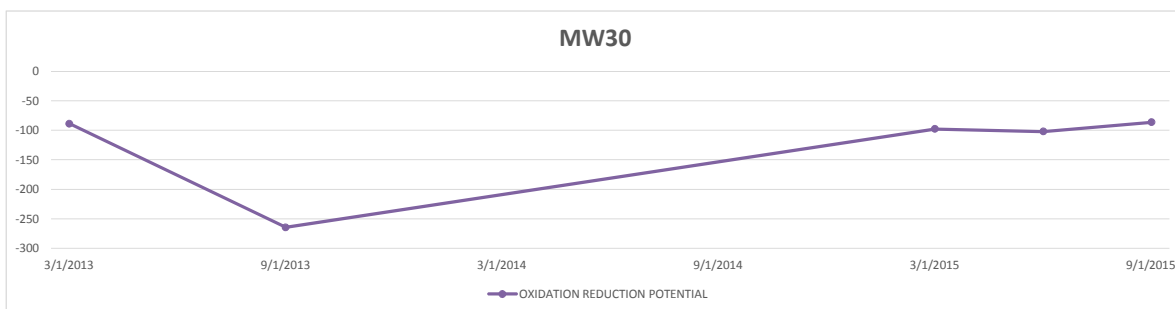
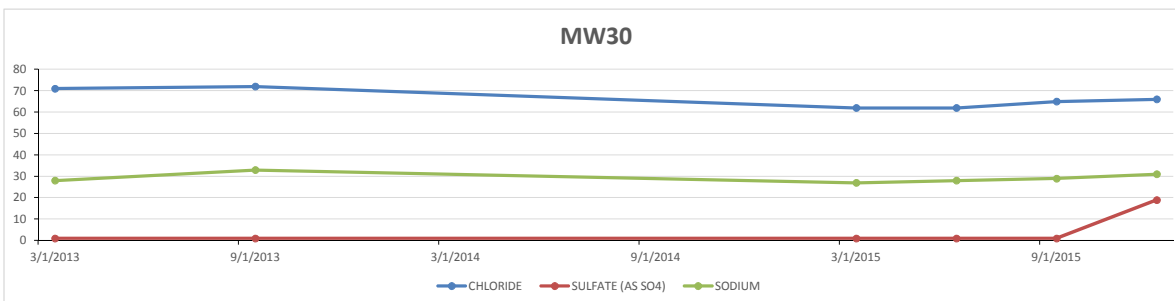


## EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW30					
		Sample Date:	3/27/2013	9/17/2013	3/17/2015	6/25/2015	9/24/2015	12/10/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	71	72	62	62	65	66
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	19
SODIUM	Inc from baseline	MG/L	28	33	27	28	29	31
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-88.84	-264.23	-97.63	-102.02	-86.27	--

*Italicized* numbers indicate that the concentration was not detected at the value listed



## EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW31					
		Sample Date:	3/28/2013	9/18/2013	3/19/2015	6/24/2015	9/24/2015	12/10/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	42	44	39	36	37	38
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	12	12	5.9	8.5	7.7	1.1
SODIUM	Inc from baseline	MG/L	20	21	20	19	20	21
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-76.62	-120.55	-92.66	-110.38	-102.32	--

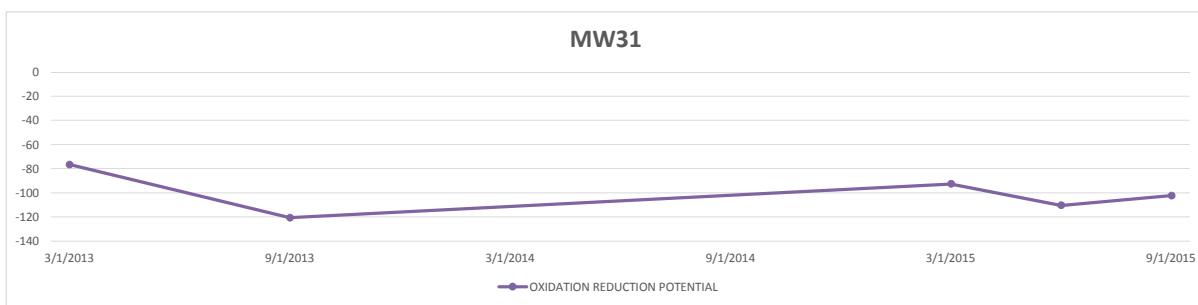
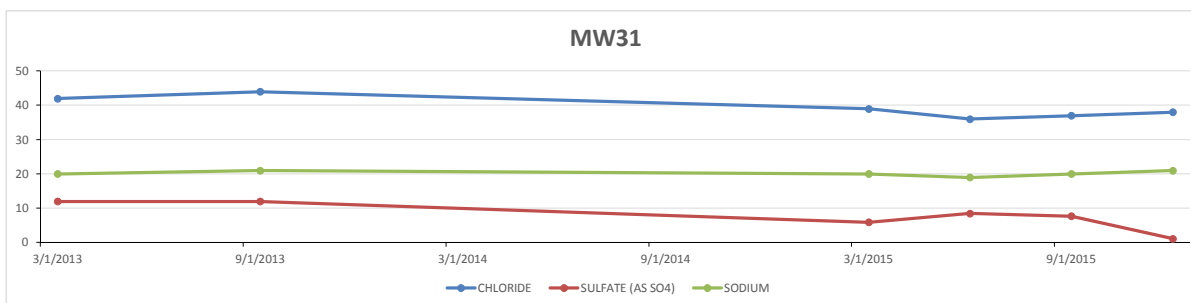


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW32					
		Sample Date:	3/28/2013	9/18/2013	3/19/2015	6/24/2015	9/24/2015	12/10/2015
CHLORIDE	Inc from baseline	MG/L	36	37	38	72	--	37
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	57	47	67	67	--	56
SODIUM	Inc from baseline	MG/L	24	25	26	26	--	26
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-78.22	-130.1	-95.52	-100.35	-105.18	--

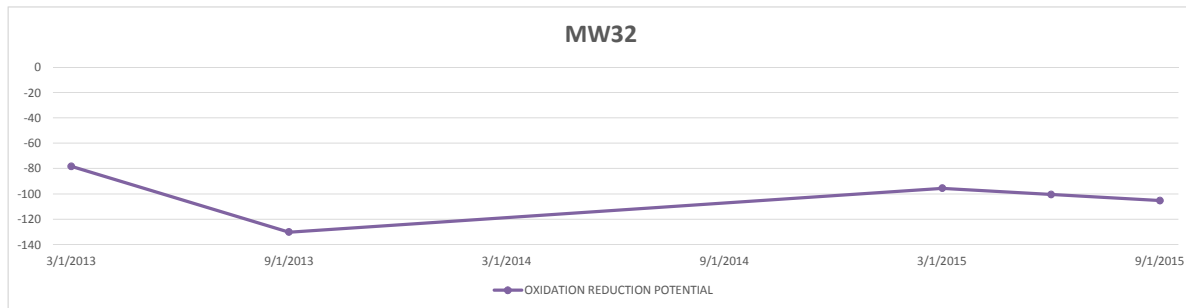
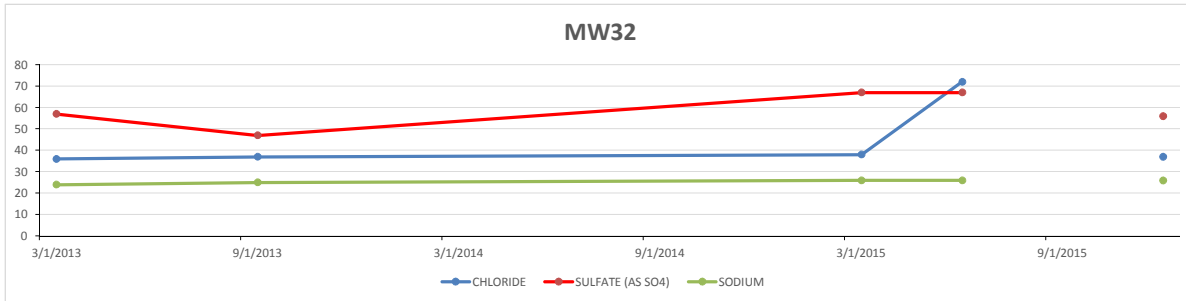


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW33-R			
		Sample Date:	3/26/2013	3/17/2015	9/22/2015	12/8/2015
CHLORIDE	Inc from baseline	MG/L	36	37	38	62
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1	1	1	250
SODIUM	Inc from baseline	MG/L	37	21	36	36
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-60.22	-119.56	-79.30	-60.00

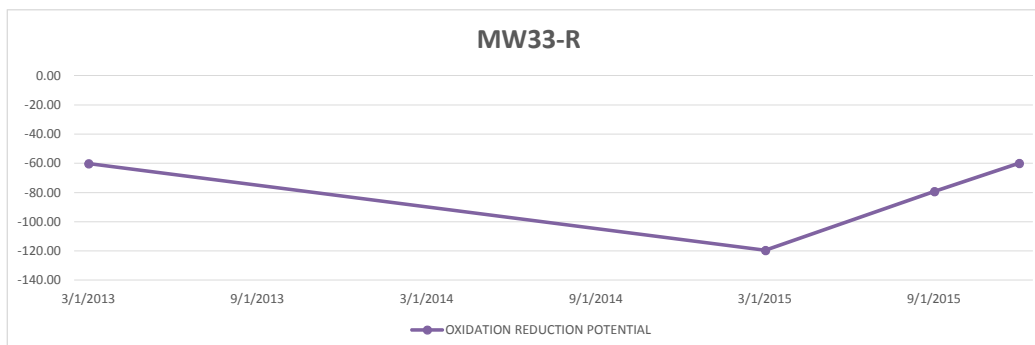
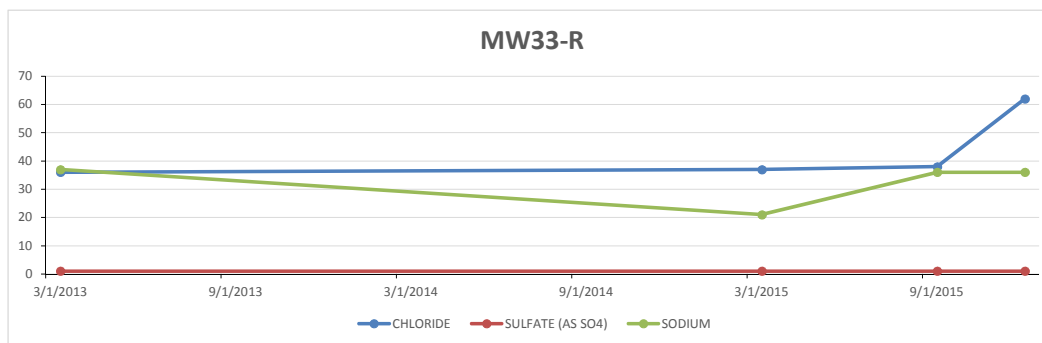




EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW34-R			
		Sample Date:	3/26/2013	3/17/2015	9/22/2015	12/8/2015
CHLORIDE	Inc from baseline	MG/L	75	58	80	83
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1	1	49	98
SODIUM	Inc from baseline	MG/L	18	34	26	38
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-68.3	-109.74	-92.98	-75.2

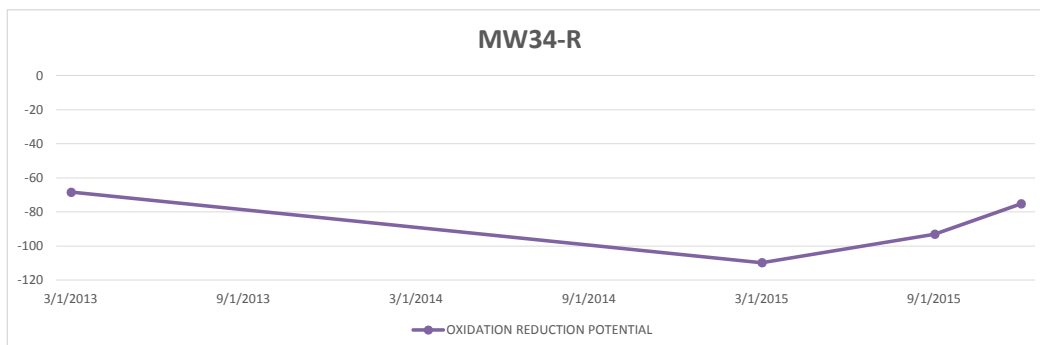
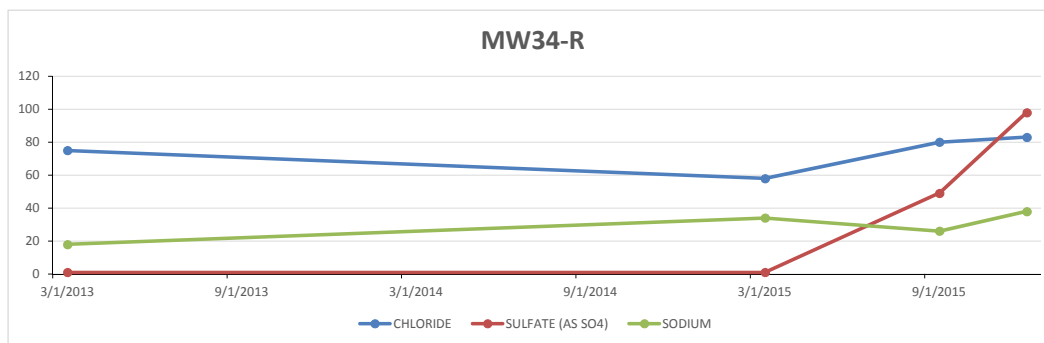
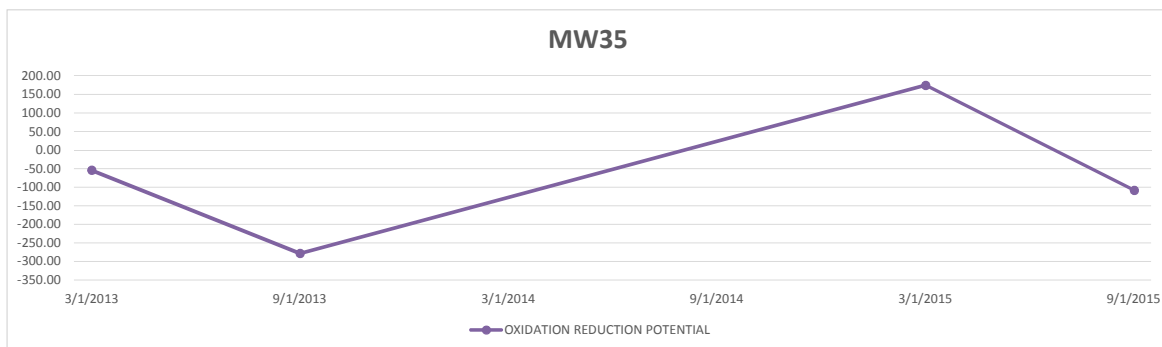
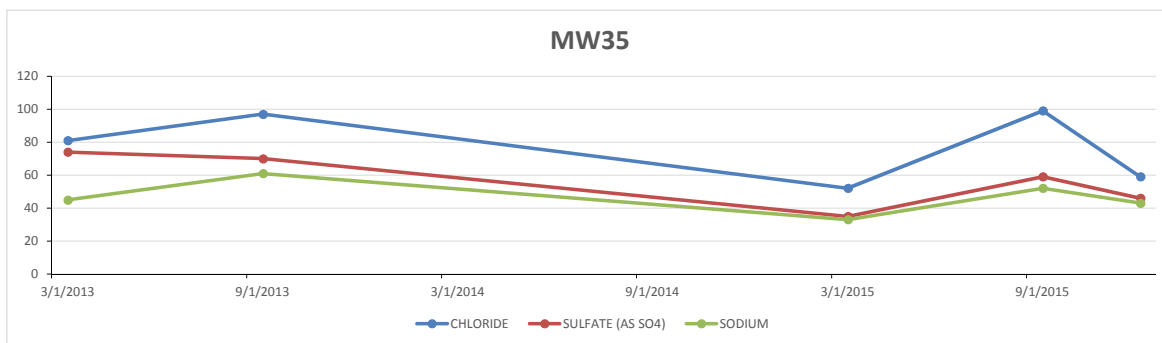


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW35				
		Sample Date:	3/27/2013	9/17/2013	3/17/2015	9/23/2015	12/10/2015
CHLORIDE	Inc from baseline	MG/L	81	97	52	99	59
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	74	70	35	59	46
SODIUM	Inc from baseline	MG/L	45	61	33	52	43
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-54.01	-278.06	174.52	-107.80	--



## EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW36					
		Sample Date:	3/27/2013	9/17/2013	3/17/2015	6/25/2015	9/23/2015	12/10/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	75	89	92	110	110	100
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	51	51	48	55	55	54
SODIUM	Inc from baseline	MG/L	30	35	34	44	48	41
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-82	-266.87	201.81	-97.22	-96.79	--

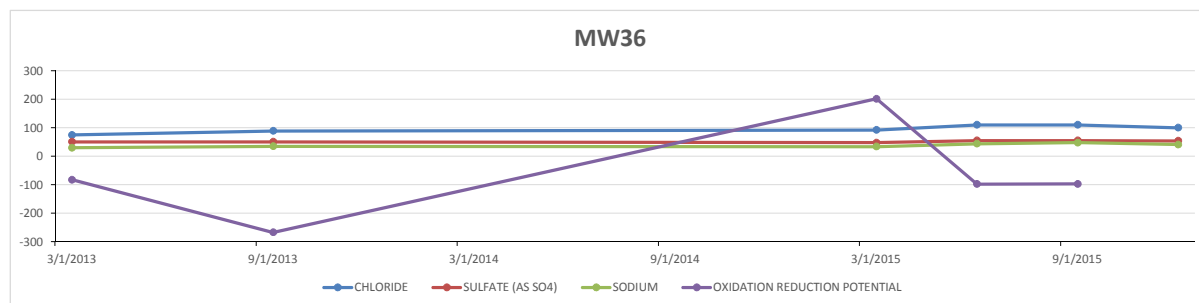


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW37-R					
		Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/24/2015	9/23/2015	12/9/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	15	15	15	15	15	16
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	<i>I</i>	<i>I</i>	1200	980	1300	1000
SODIUM	Inc from baseline	MG/L	18	15	400	390	520	490
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-94	-119.96	-38.53	-110.32	-117.03	--

*Italicized* numbers indicate that the concentration was not detected at the value listed

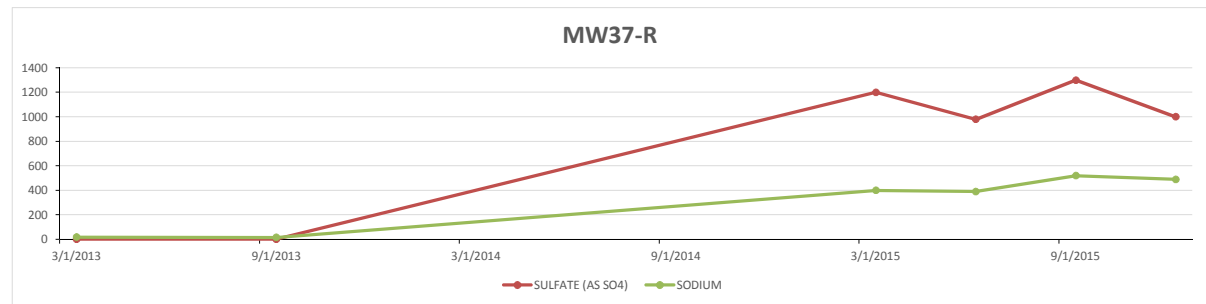
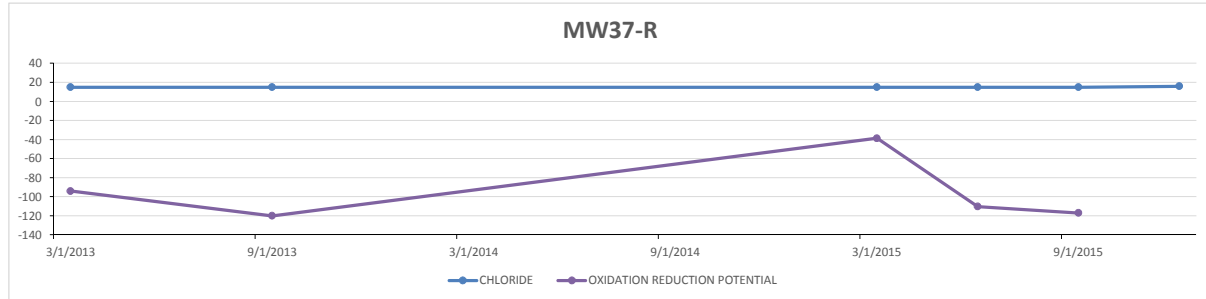


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW38-R					
		Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/24/2015	9/23/2015	12/9/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	80	67	120	82	65	58
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	<i>1</i>	<i>1</i>	3000	4300	4600	3500
SODIUM	Inc from baseline	MG/L	37	41	1200	1900	2200	2200
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-86.72	-62.37	-108.08	166.50	-52.62	--

*Italicized* numbers indicate that the concentration was not detected at the value listed

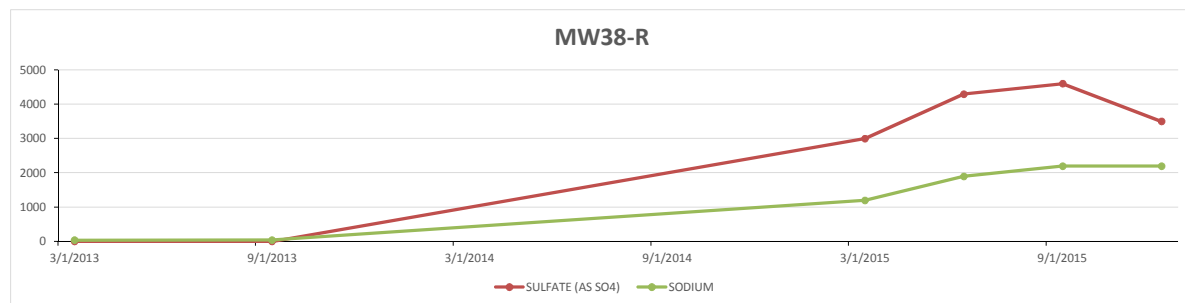
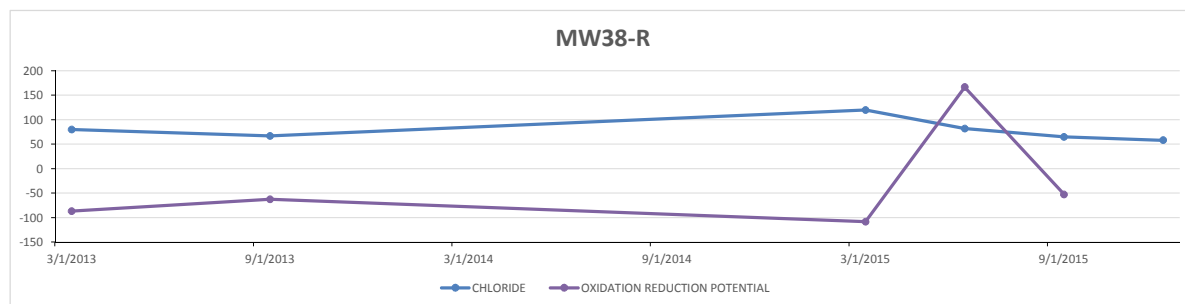


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW39-R					
		Sample Date:	3/27/2013	9/17/2013	3/18/2015	6/24/2015	9/24/2015	12/10/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	57	57	67	67	65	62
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	50	45	1400	1600	1600	1100
SODIUM	Inc from baseline	MG/L	14	16	550	610	660	480
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-105.71	-238.00	-49.84	-13.82	-118	--

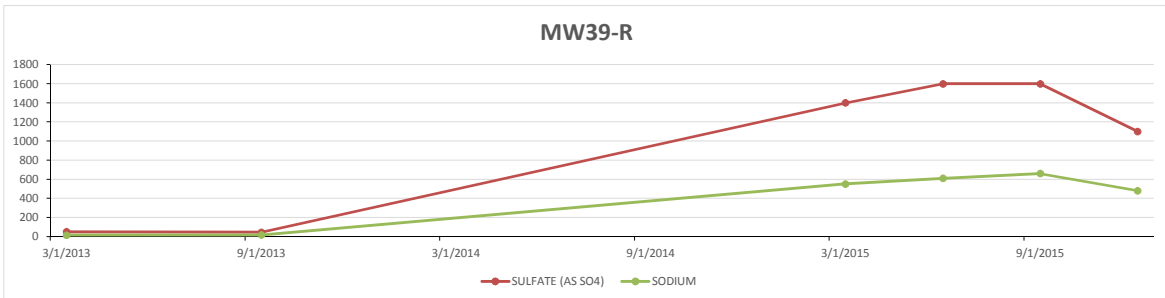
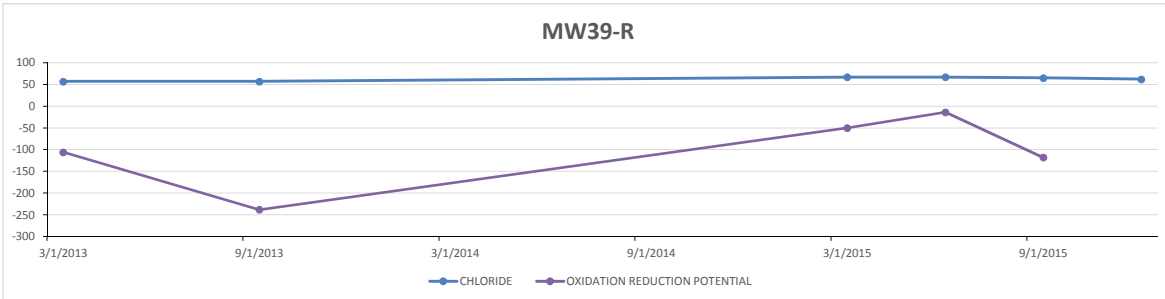


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW40-R					
		Sample Date:	3/27/2013	9/17/2013	3/18/2015	6/24/2015	9/24/2015	12/9/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	15	16	15	15	14	19
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	53	580	4900	6100	5700	9100
SODIUM	Inc from baseline	MG/L	14	230	2600	2800	3300	4300
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-76.84	-237.05	110.19	249.62	-45.11	-61.6

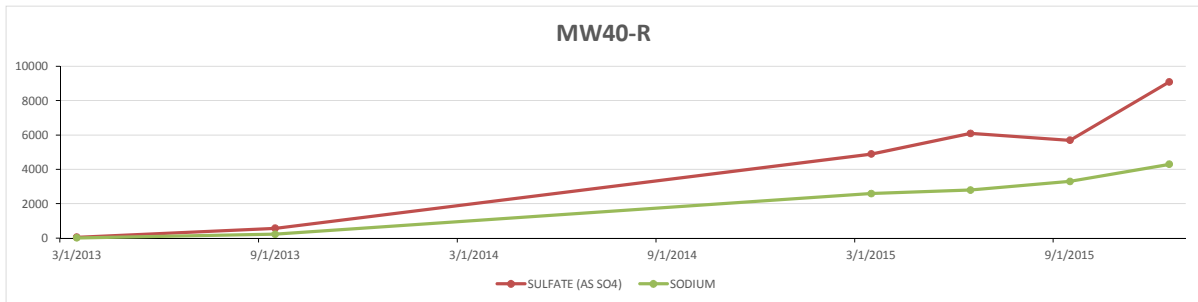
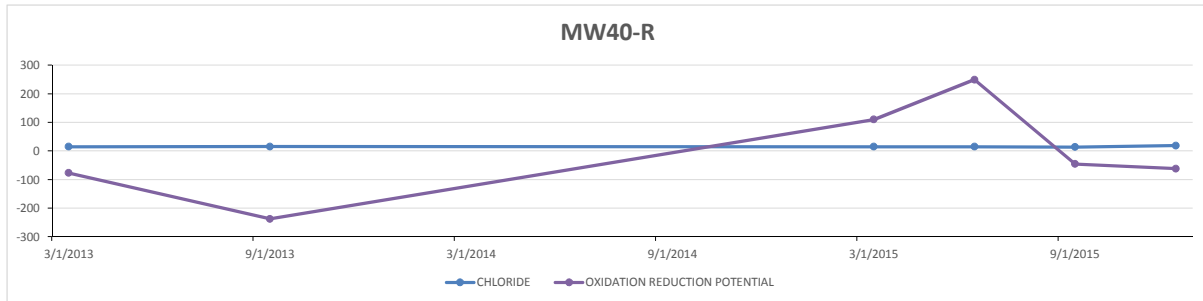


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW41					
		Sample Date:	3/28/2013	9/18/2013	3/19/2015	6/24/2015	9/24/2015	12/10/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	25	28	27	28	26	26
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	2.6	5.6	6.3	6.2	4.2	1.5
SODIUM	Inc from baseline	MG/L	18	19	19	18	18	20
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-84.83	-30.70	97.80	-96.60	-107.29	--

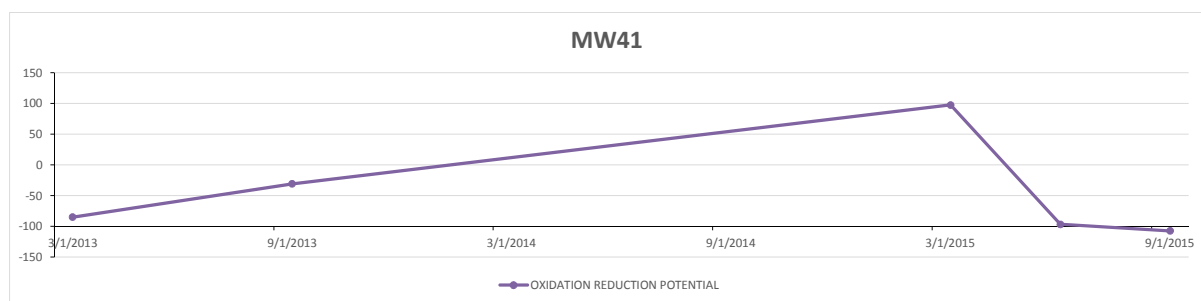
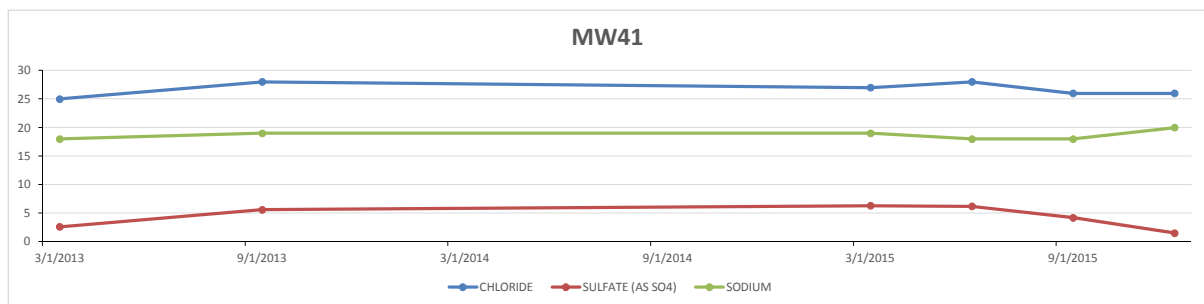




EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW42					
		Sample Date:	4/1/2013	9/18/2013	3/19/2015	6/24/2015	9/24/2015	12/10/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	25	24	24	29	25	24
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1	1	23	5.1	1	9.1
SODIUM	Inc from baseline	MG/L	12	13	14	13	12	14
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-59.23	-78.90	-68.47	NA	-109.87	-74.6

*Italicized* numbers indicate that the concentration was not detected at the value listed

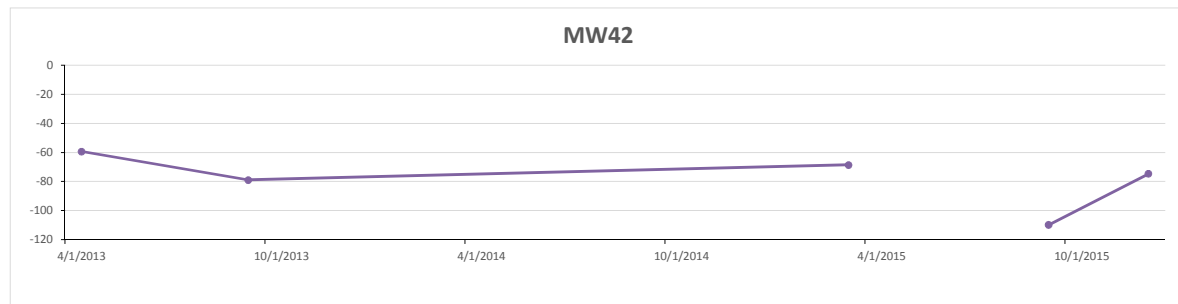
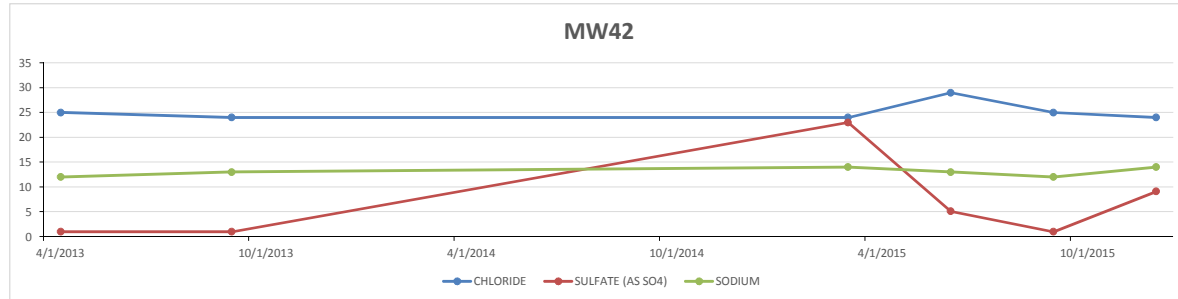
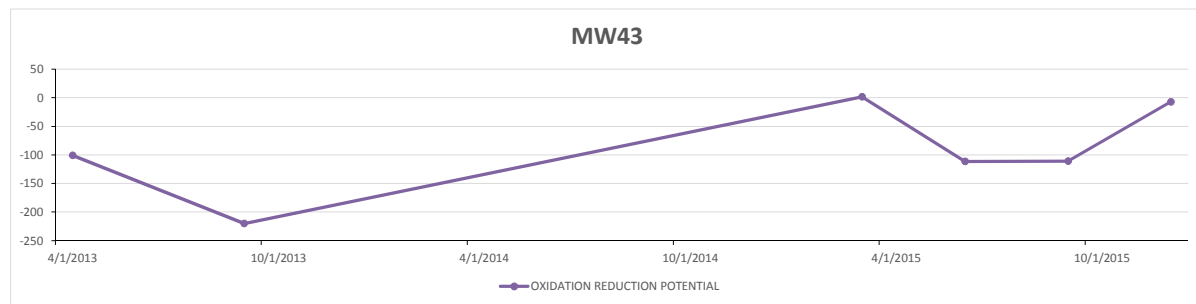
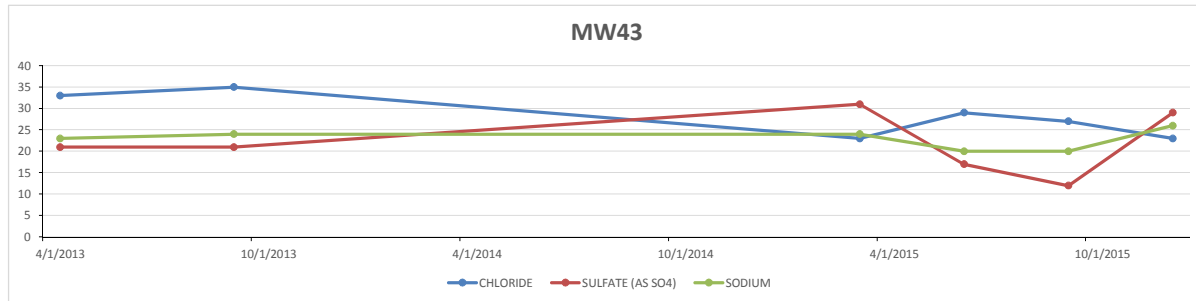


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW43					
		Sample Date:	4/1/2013	9/18/2013	3/19/2015	6/23/2015	9/24/2015	12/10/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	33	35	23	29	27	23
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	21	21	31	17	12	29
SODIUM	Inc from baseline	MG/L	23	24	24	20	20	26
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-100.57	-219.62	2.03	-111.03	-110.68	-6.7



## EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW44					
		Sample Date:	4/1/2013	9/18/2013	3/19/2015	6/25/2015	9/25/2015	12/10/2015
		Unit						
CHLORIDE	Inc from baseline	MG/L	148	160	160	160	160	150
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	1.9	1.9	<i>1</i>	<i>1</i>	<i>1</i>	<i>120</i>
SODIUM	Inc from baseline	MG/L	100	99	--	94	92	96
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-46.38	-17.00	-95.27	-136.37	-134.17	--

*Italicized* numbers indicate that the concentration was not detected at the value listed  
NA = Not analyzed

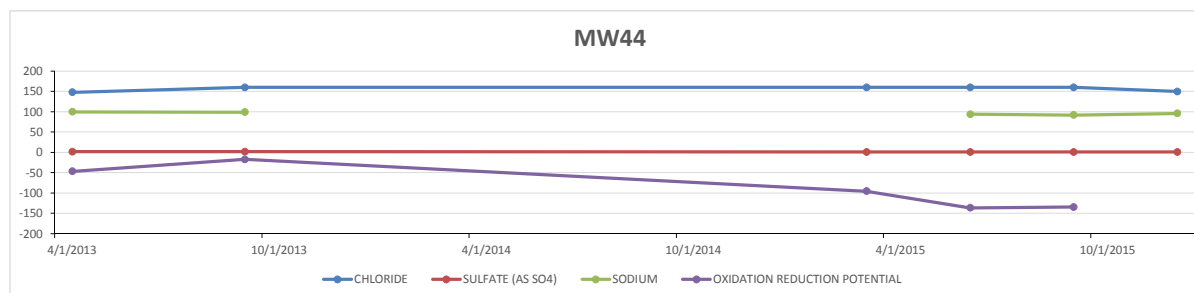


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW45				
		Sample Date:	2/27/2014	3/18/2015	6/25/2015	9/23/2015	12/9/2015
CHLORIDE	Inc from baseline	MG/L	23	23	22	25	25
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	13	460	710	560	670
SODIUM	Inc from baseline	MG/L	13	110	200	190	240
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-31.32	-35.78	161.86	-42.83	-20.30

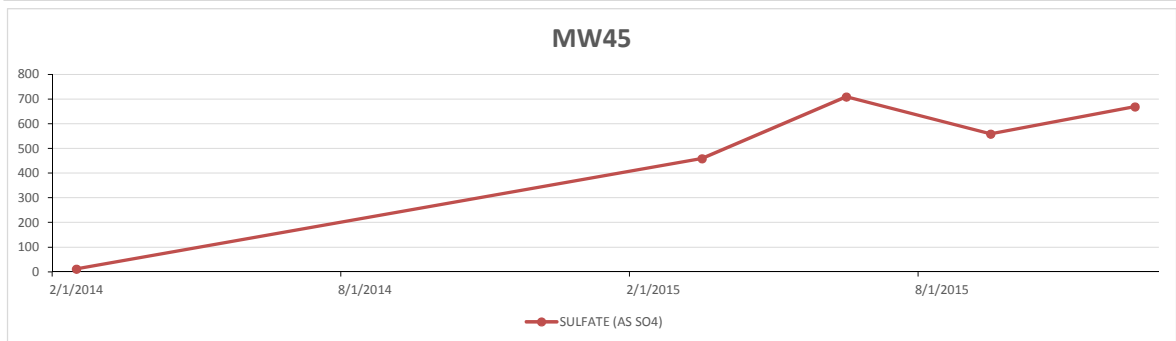
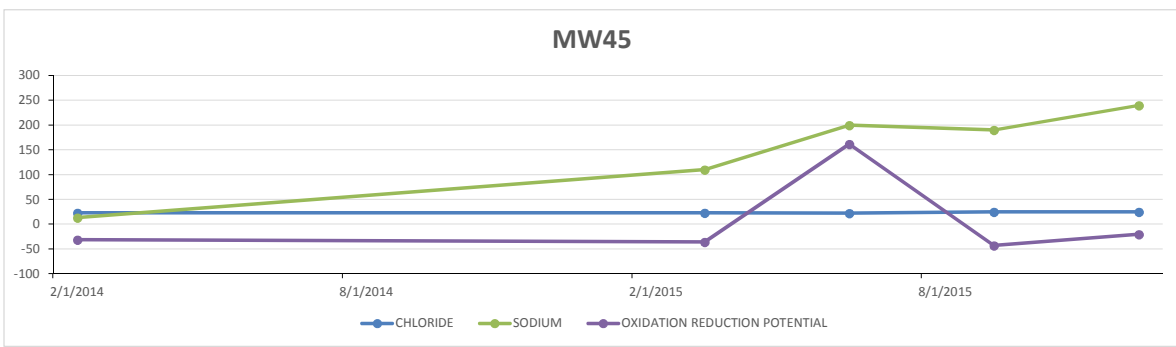


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MW46				
		Sample Date:	2/27/2014	3/18/2015	6/25/2015	9/23/2015	12/9/2015
CHLORIDE	Inc from baseline	MG/L	14	18	21	24	29
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	250
SODIUM	Inc from baseline	MG/L	18	19	22	24	25
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-66.40	-52.54	140.62	-63.87	-37.10

*Italicized* numbers indicate that the concentration was not detected at the value listed

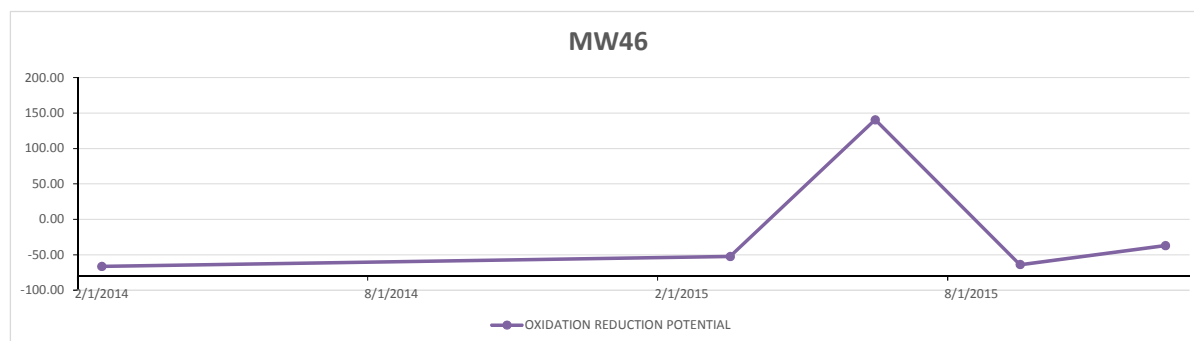
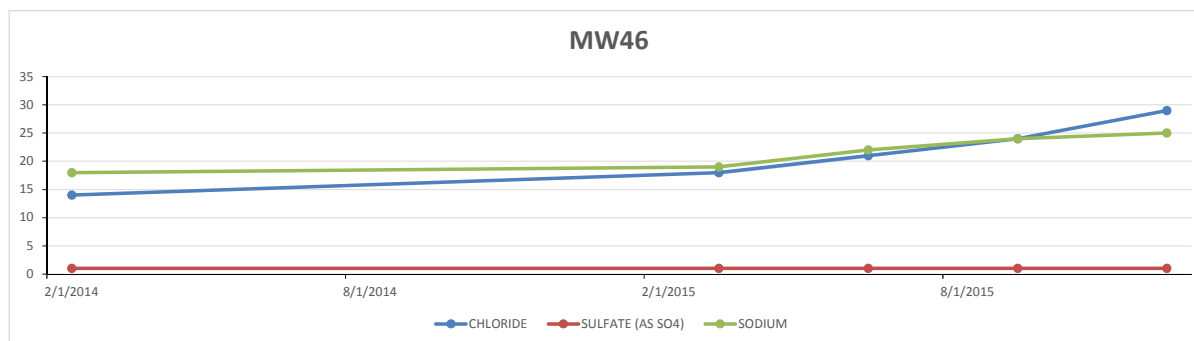


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MWA				
		Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/23/2015	9/22/2015
		Unit					
CHLORIDE	Inc from baseline	MG/L	47	50	36	38	47
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	65	62	54	56	62
SODIUM	Inc from baseline	MG/L	13	15	15	15	14
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-45.53	9.5	-25.86	207.87	33.96

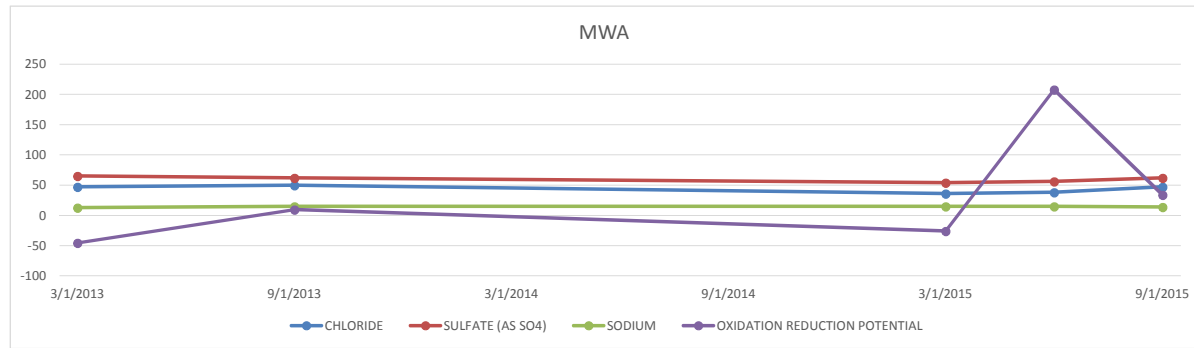


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MWB-R				
		Sample Date:	3/26/2013	9/17/2013	3/17/2015	6/25/2015	9/22/2015
CHLORIDE	Inc from baseline	MG/L	51	37	14	35	37
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	<i>1</i>	<i>1</i>	430	660	720
SODIUM	Inc from baseline	MG/L	34	33	110	240	220
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-62.44	-62.44	-77.4	145.94	-71.61

*Italicized* numbers indicate that the concentration was not detected at the value listed

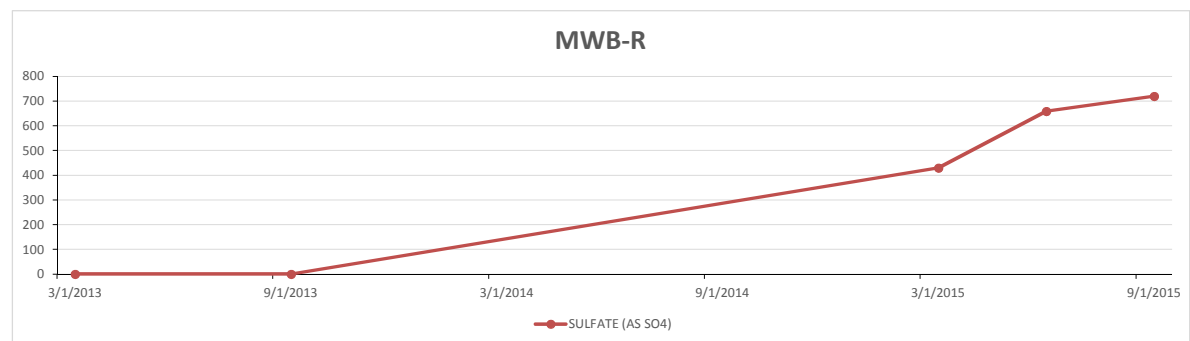
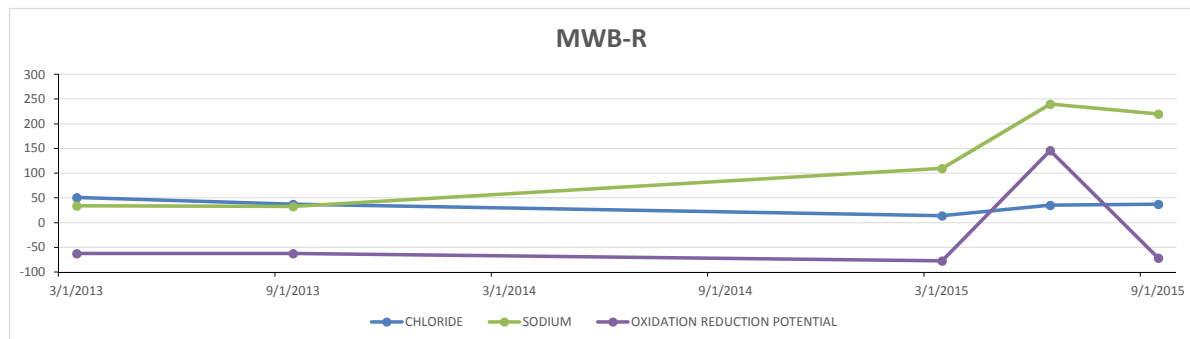


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MWC-R				
		Sample Date:	3/26/2013	9/17/2013	3/17/2015	6/25/2015	9/24/2015
CHLORIDE	Inc from baseline	MG/L	58	62	45	55	58
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
SODIUM	Inc from baseline	MG/L	19	19	15	18	19
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-76.38	-124.45	NA	103.37	-110.4

*Italicized* numbers indicate that the concentration was not detected at the value listed  
NA = Not analyzed

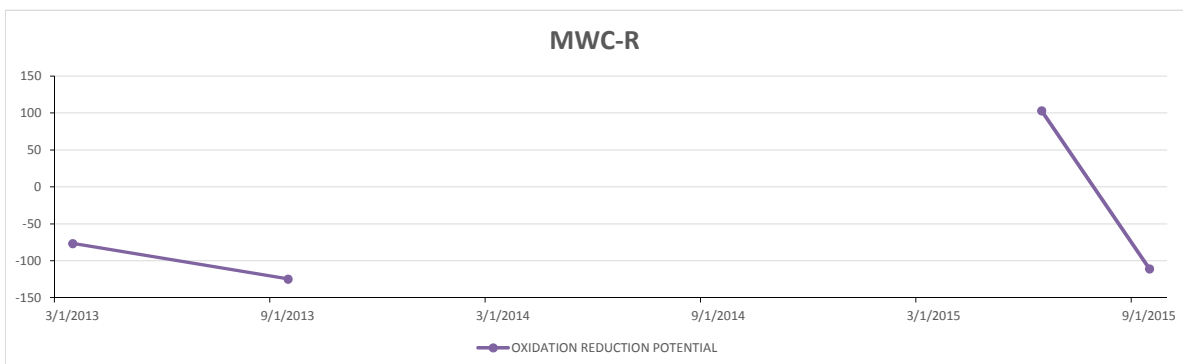
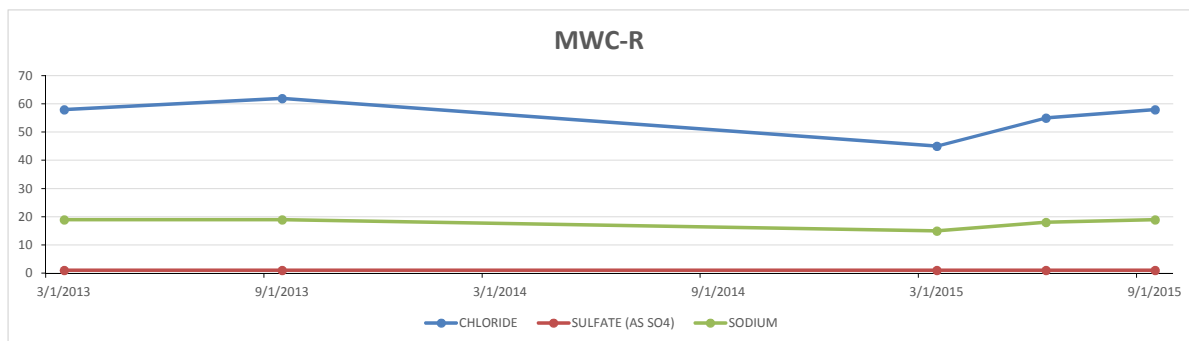




EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MWD				
		Sample Date:	3/27/2013	9/18/2013	3/17/2015	6/25/2015	9/24/2015
CHLORIDE	Inc from baseline	MG/L	21	25	35	38	45
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	12
SODIUM	Inc from baseline	MG/L	15	16	15	16	16
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-46.52	-157.53	-92.13	-87.4	-87.87

*Italicized* numbers indicate that the concentration was not detected at the value listed

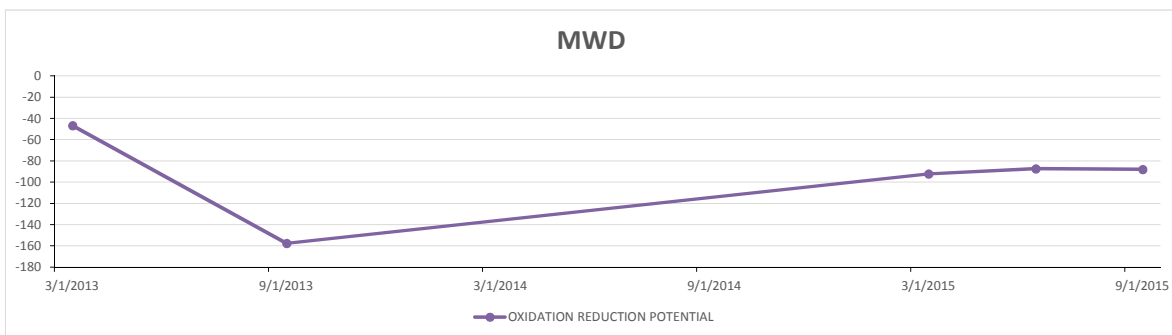
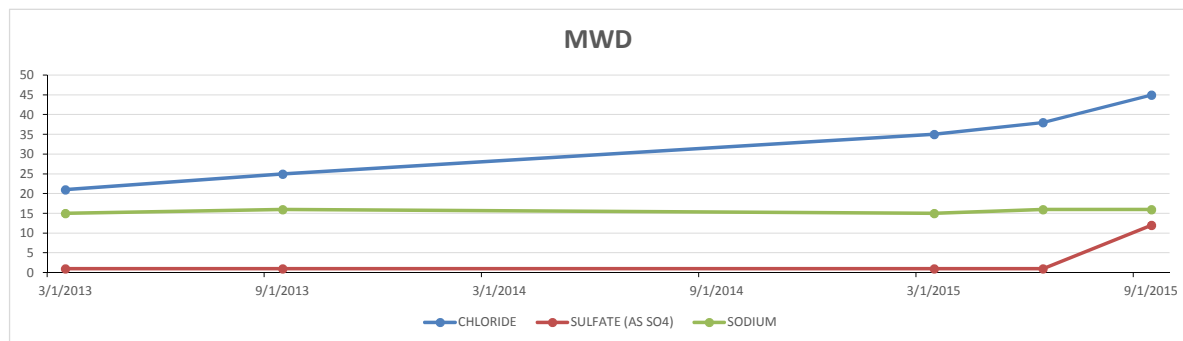


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MWG				
		Sample Date:	3/28/2013	9/18/2013	3/19/2015	6/24/2015	9/24/2015
CHLORIDE	Inc from baseline	Unit					
		MG/L	35	38	27	29	30
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	140	30	18	1	3.1
SODIUM	Inc from baseline	MG/L	26	30	24	25	27
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-79.84	-98.99	-85.11	-100.76	-106.76

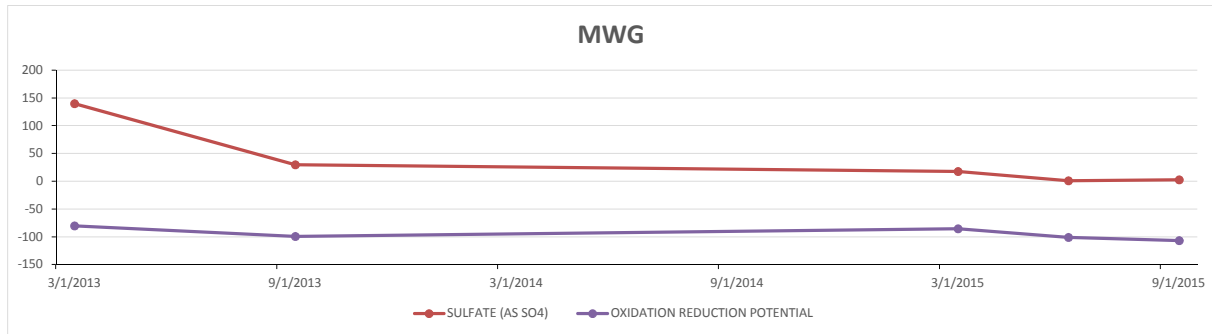
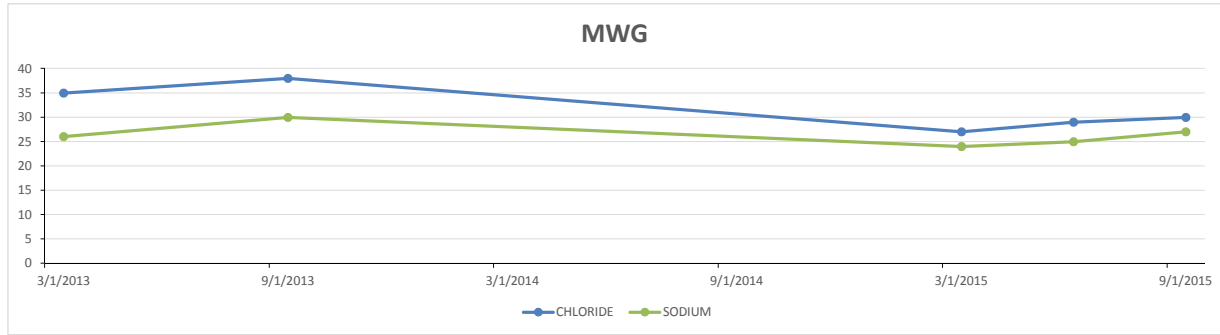


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MWH				
		Sample Date:	3/28/2013	9/18/2013	3/19/2015	6/24/2015	9/25/2015
CHLORIDE	Inc from baseline	MG/L	43	24	25	29	24
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
SODIUM	Inc from baseline	MG/L	23	13	14	15	14
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-111.58	-151.62	-70.94	-101.94	-115.45

*Italicized* numbers indicate that the concentration was not detected at the value listed

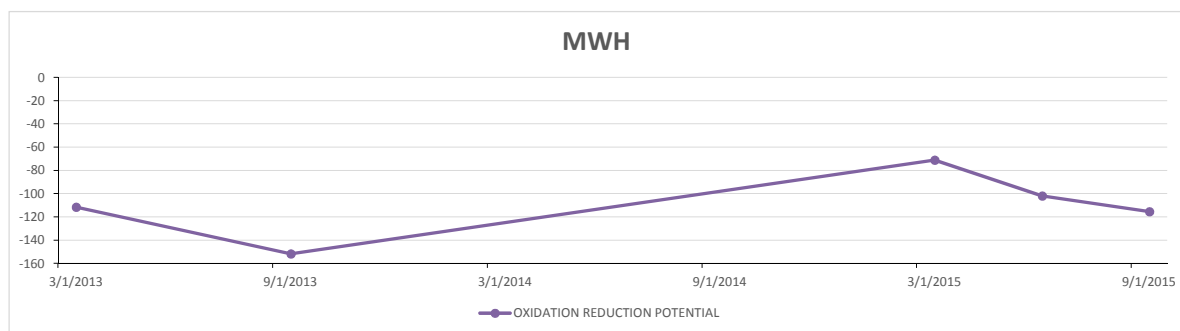
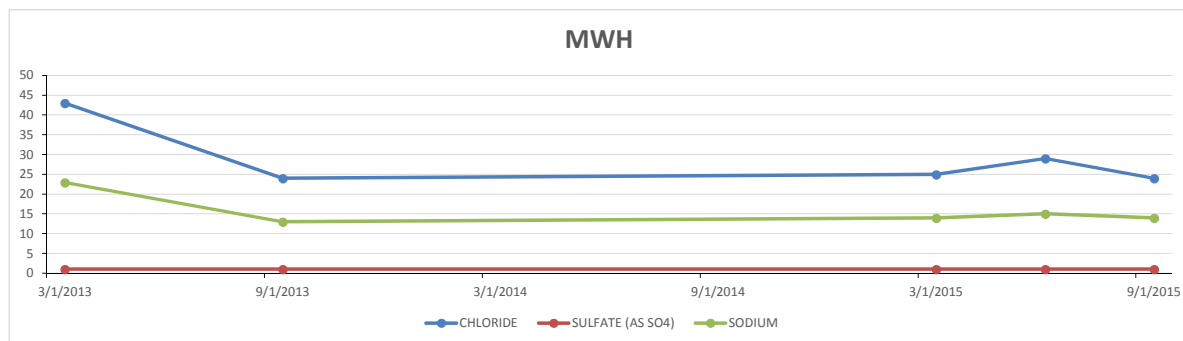


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MWI				
		Sample Date:	3/26/2013	9/16/2013	3/19/2015	6/23/2015	9/22/2015
CHLORIDE	Inc from baseline	MG/L	12	12	9.5	9.1	12
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	10	9.5	390	200	1800
SODIUM	Inc from baseline	MG/L	15	16	120	120	780
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-69.06	-132.06	-57.18	52.67	-82.95

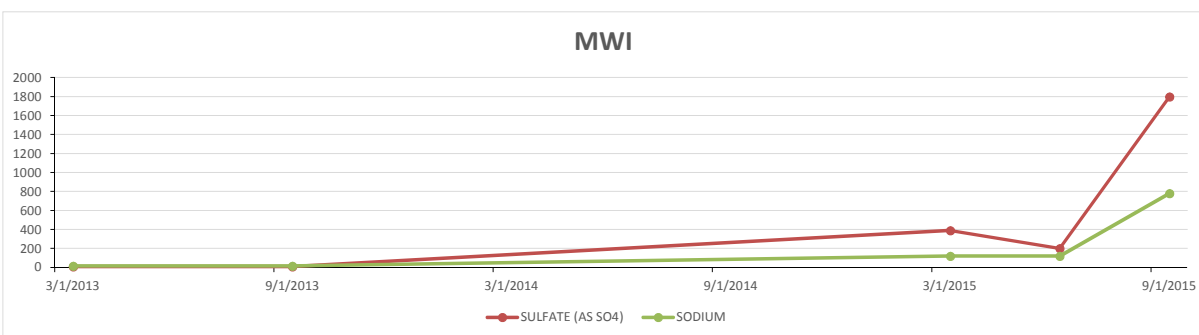
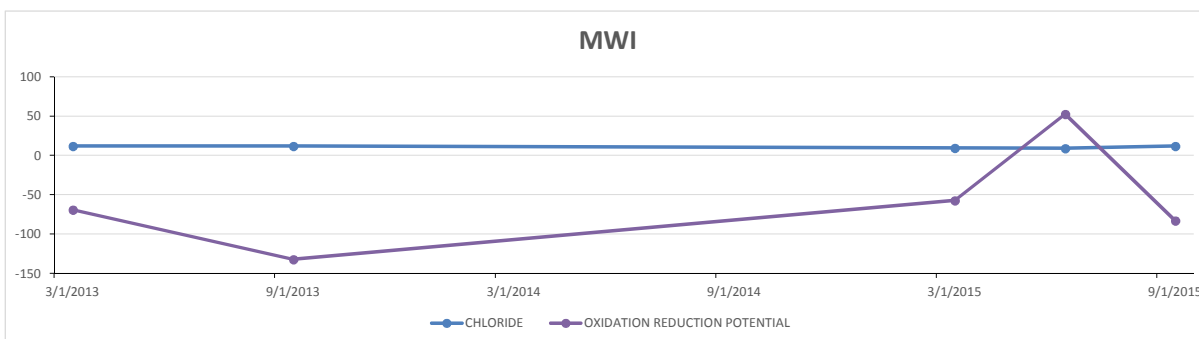


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MWJ-R				
		Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/24/2015	9/22/2015
		Unit					
CHLORIDE	Inc from baseline	MG/L	19	14	14	13	16
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	2.3	13	460	320	1200
SODIUM	Inc from baseline	MG/L	13	11	110	80	430
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-26.74	-82.18	-43.19	-58.87	-44.78

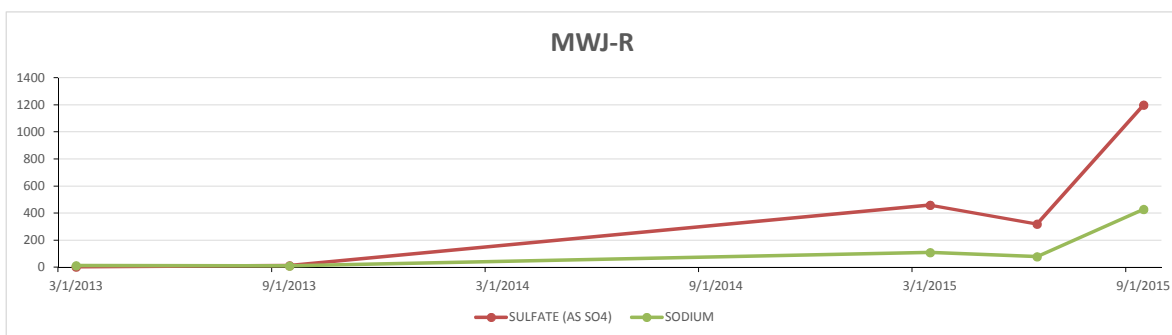
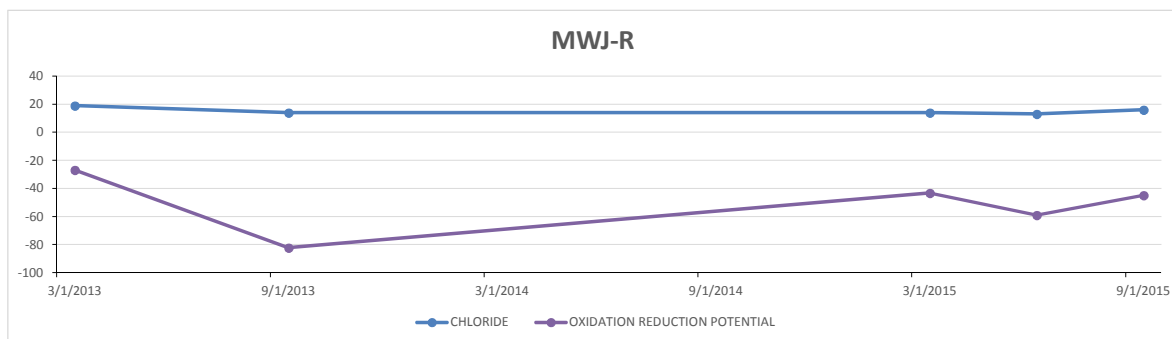


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MWK-R				
		Sample Date:	3/26/2013	9/17/2013	3/18/2015	6/25/2015	9/24/2015
CHLORIDE	Inc from baseline	Unit					
		MG/L	16	25	21	20	18
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	41	66	140	100	130
SODIUM	Inc from baseline	MG/L	6.8	8.6	20	25	31
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-75.77	-112.96	-51.54	124.18	-76.5

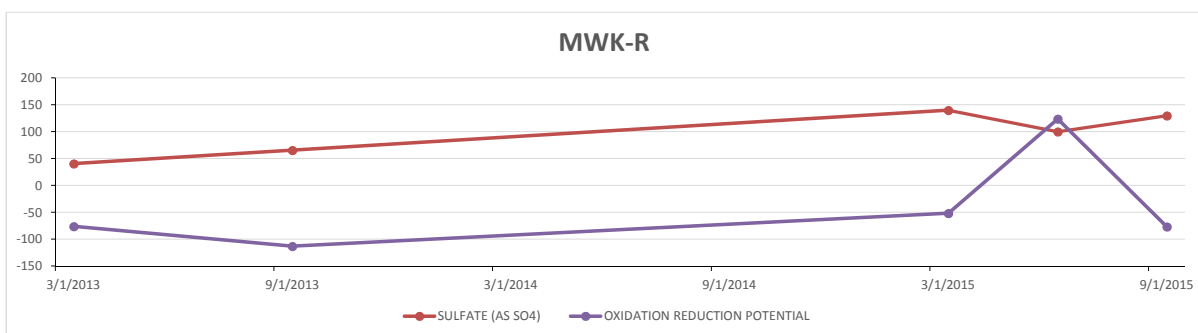
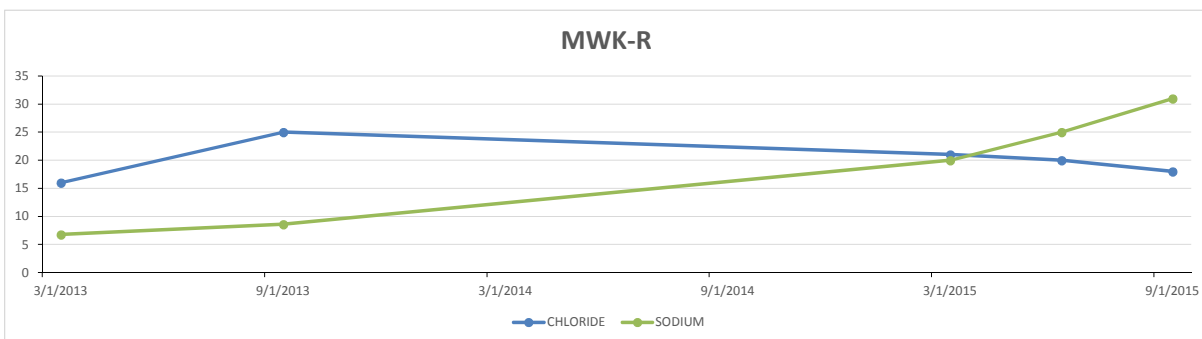


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MWL-R				
		Sample Date: Unit	3/27/2013	9/17/2013	3/18/2015	6/24/2015	9/23/2015
CHLORIDE	Inc from baseline	MG/L	31	30	27	19	27
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	38	34	5800	3300	4100
SODIUM	Inc from baseline	MG/L	12	14	2900	1600	2000
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-62.59	-98.67	34.94	137.24	-71.68

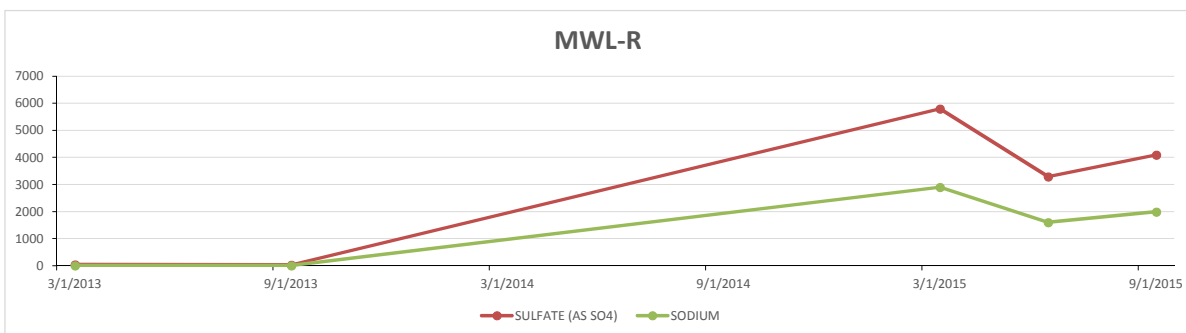
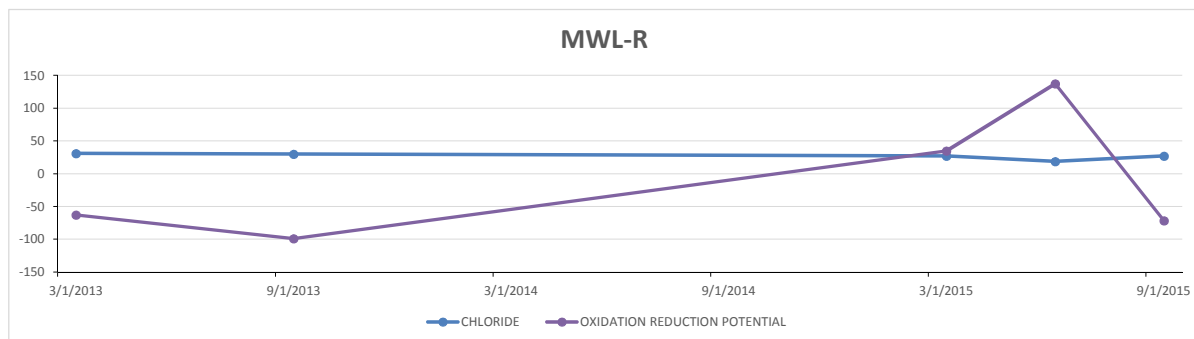


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MWM-R				
		Sample Date:	3/27/2013	9/17/2013	3/18/2015	6/24/2015	9/23/2015
CHLORIDE	Inc from baseline	MG/L	37	26	23	25	24
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	45	68	1500	1200	780
SODIUM	Inc from baseline	MG/L	12	16	440	340	240
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-95.02	-114.47	-44.12	134.49	-60.02

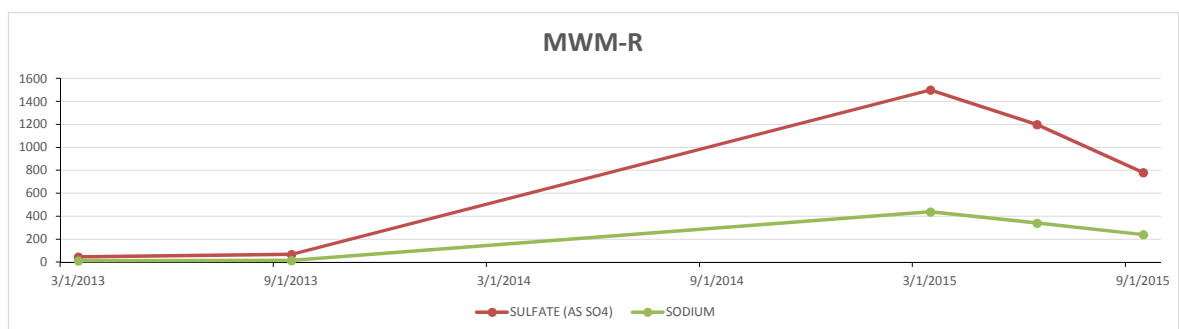
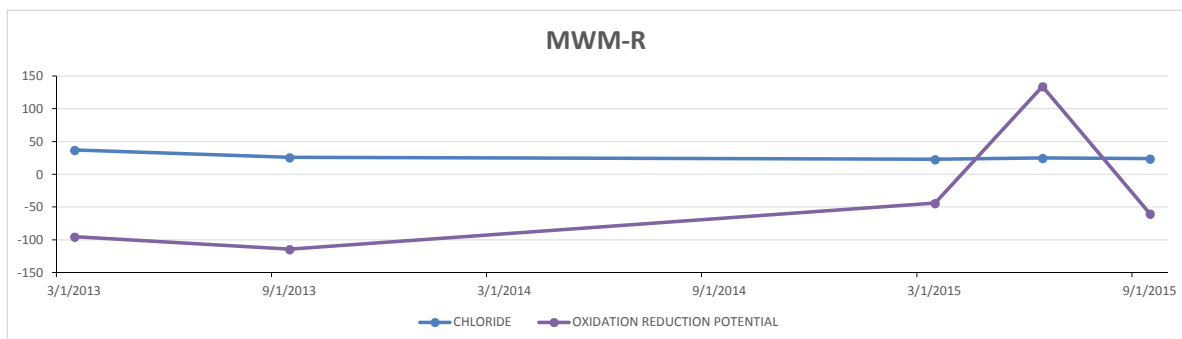




EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MWN-R				
		Sample Date:	3/27/2013	9/18/2013	3/17/2015	6/25/2015	9/23/2015
		Unit					
CHLORIDE	Inc from baseline	MG/L	22	29	26	38	28
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	4.7	2.2	1500	1500	2400
SODIUM	Inc from baseline	MG/L	13	14	500	560	1200
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-62.5	-158.01	-97.24	-52.66	-59.02

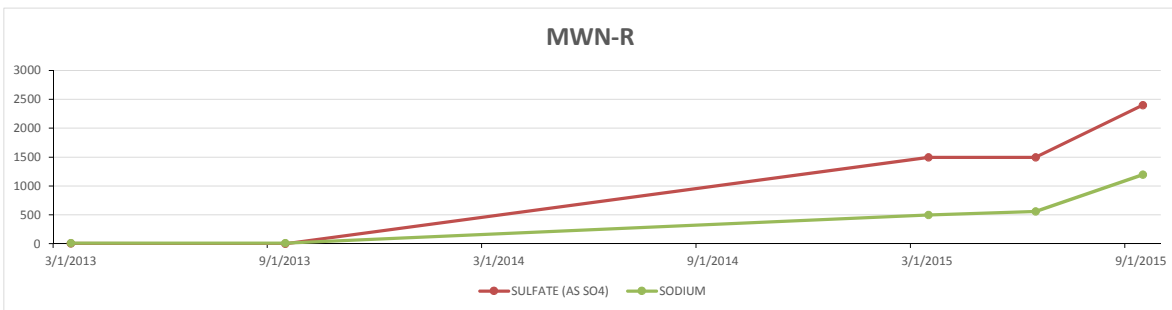
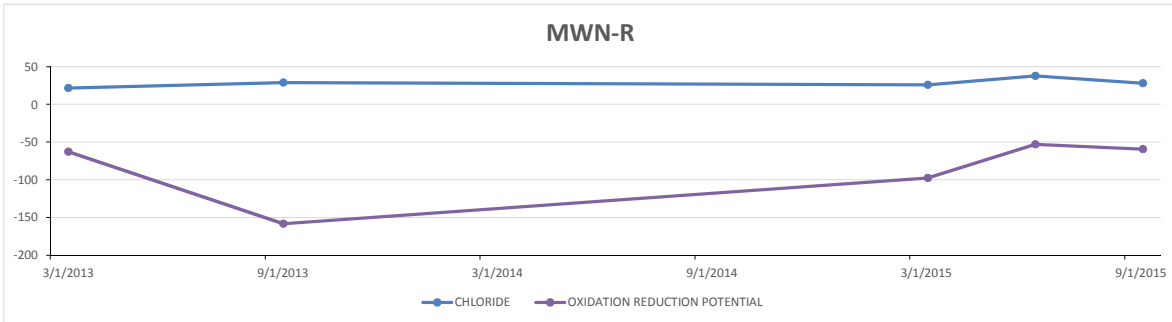


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MWO-R				
		Sample Date: Unit	3/27/2013	9/18/2013	3/18/2015	6/25/2015	9/22/2015
CHLORIDE	Inc from baseline	MG/L	27	34	45	47	43
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	<i>1</i>	<i>1</i>	1700	2100	1600
SODIUM	Inc from baseline	MG/L	16	20	740	840	630
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-46.69	-129.21	-77.65	-57.32	-106.29

*Italicized* numbers indicate that the concentration was not detected at the value listed

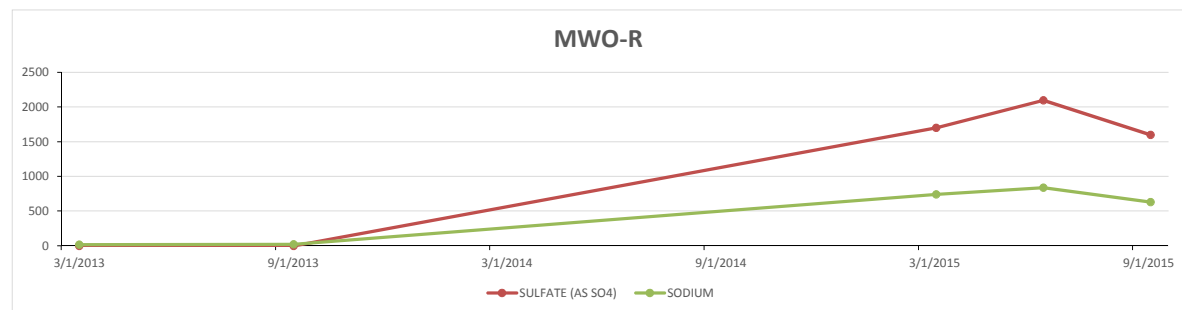
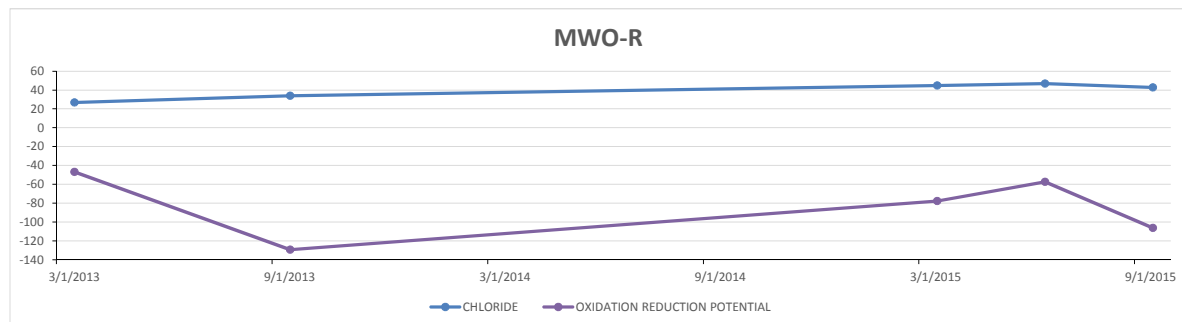


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MDEQE-R				
		Sample Date:	3/27/2013	9/18/2013	3/17/2015	6/23/2015	
		Unit					
CHLORIDE	Inc from baseline	MG/L	21	23	32	37	44
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	4.1	<i>1</i>	2000	2100	2000
SODIUM	Inc from baseline	MG/L	15	14	710	870	750
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-50.19	-170.31	-107.3	120.62	-67.82

*Italicized* numbers indicate that the concentration was not detected at the value listed

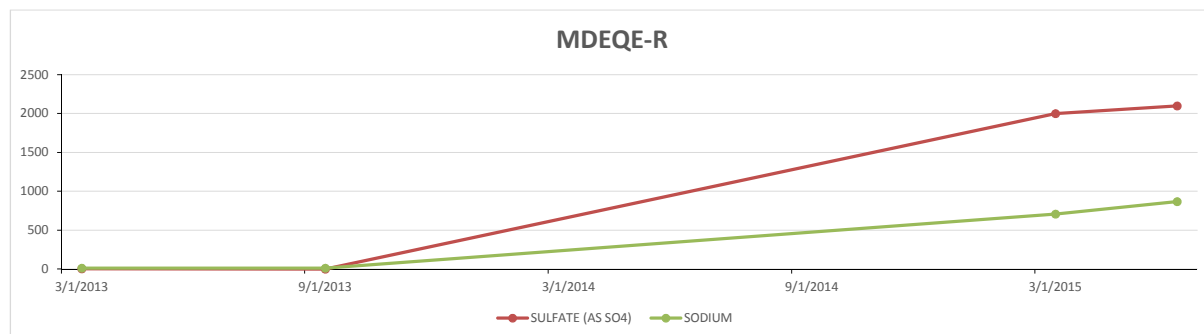
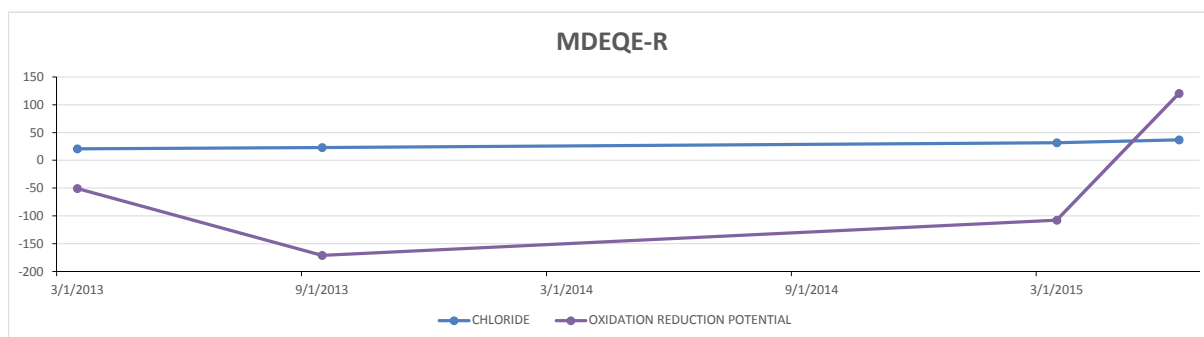


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	MDEQW-R				
		Sample Date:	3/27/2013	9/18/2013	3/17/2015	6/24/2015	9/23/2015
		Unit					
CHLORIDE	Inc from baseline	MG/L	27	29	26	27	27
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	<i>1</i>	<i>1</i>	30	30	310
SODIUM	Inc from baseline	MG/L	19	20	25	25	61
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-114.89	-149.28	-116.58	117.09	-100.28

*Italicized* numbers indicate that the concentration was not detected at the value listed

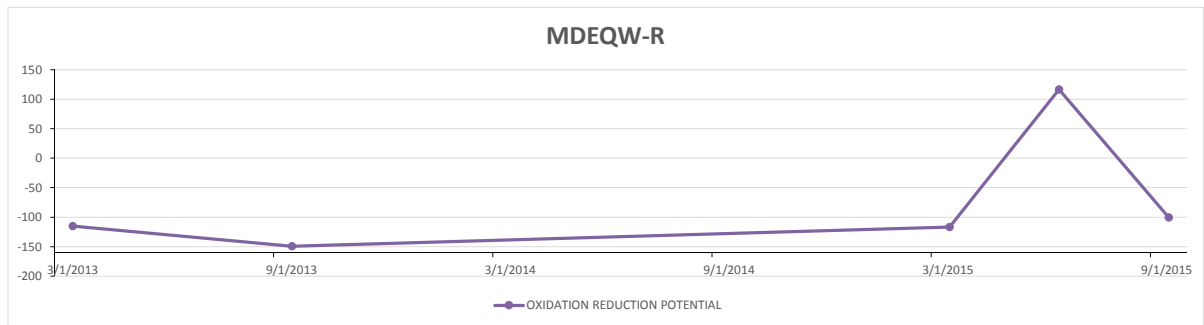
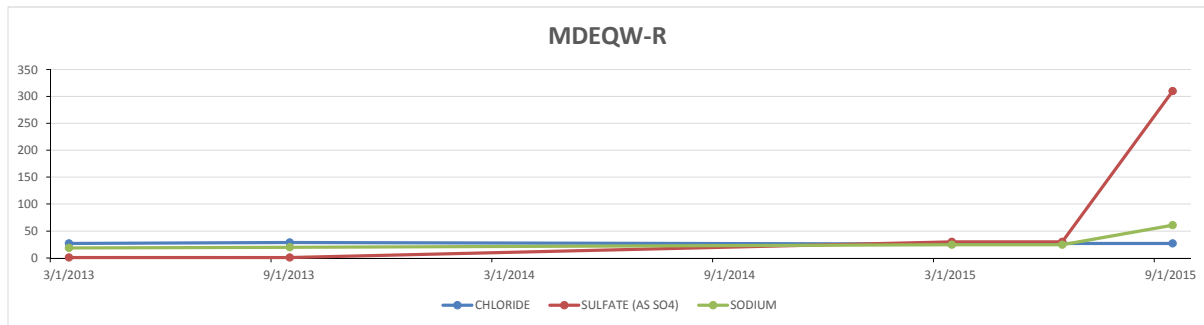


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	TW01-R		
		Sample Date:	3/26/2013	6/23/2015	9/22/2015
		Unit			
CHLORIDE	Inc from baseline	MG/L	21	21	15
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	42	38	7.7
SODIUM	Inc from baseline	MG/L	13	10	11
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-141.35	55.47	-68.7

*Italicized* numbers indicate that the concentration was not detected at the value listed

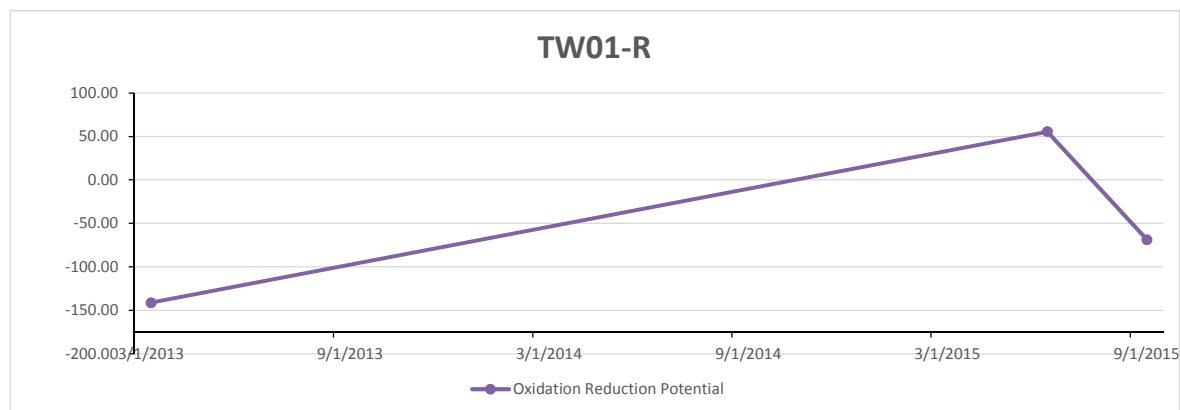
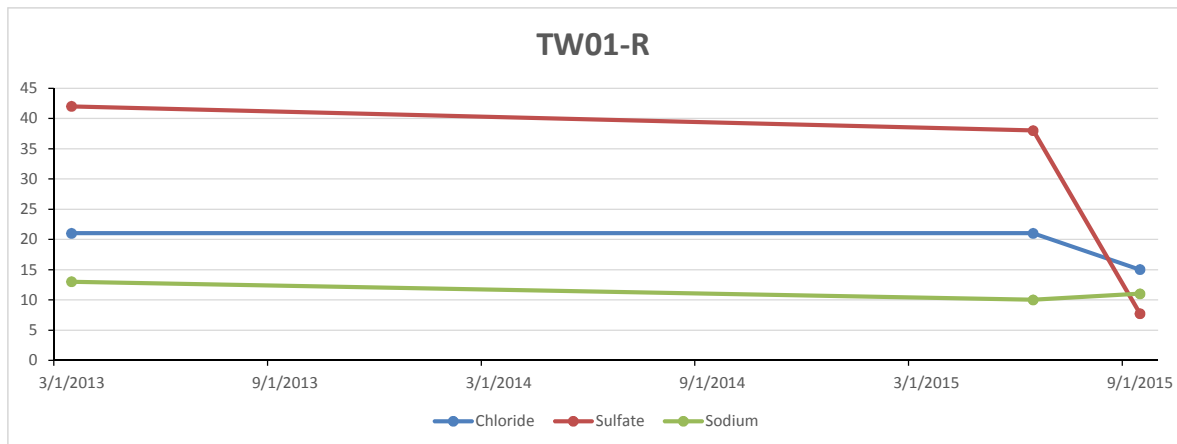


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	TW04-R				
		Sample Date:	3/26/2013	9/16/2013	3/19/2015	6/23/2015	9/22/2015
		Unit					
CHLORIDE	Inc from baseline	MG/L	5.6	7.8	5.4	5	4.8
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
SODIUM	Inc from baseline	MG/L	9.6	10	8.6	8	8.6
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-76.04	-83.98	-71.15	96.63	-73.81

*Italicized* numbers indicate that the concentration was not detected at the value listed

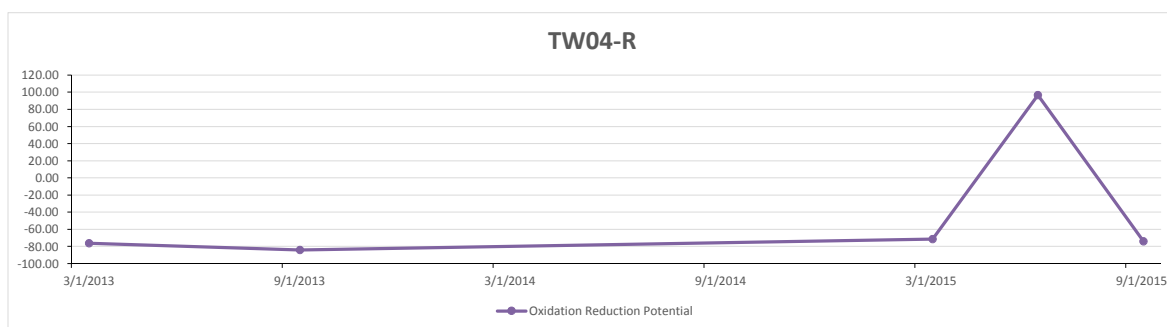
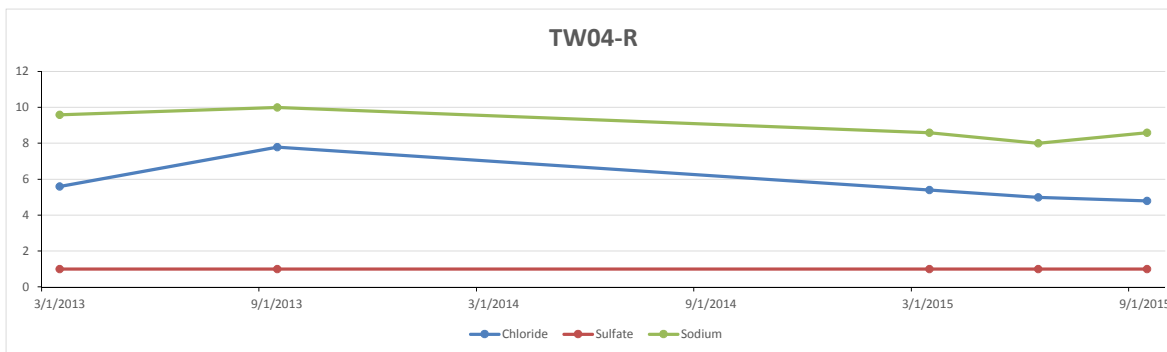
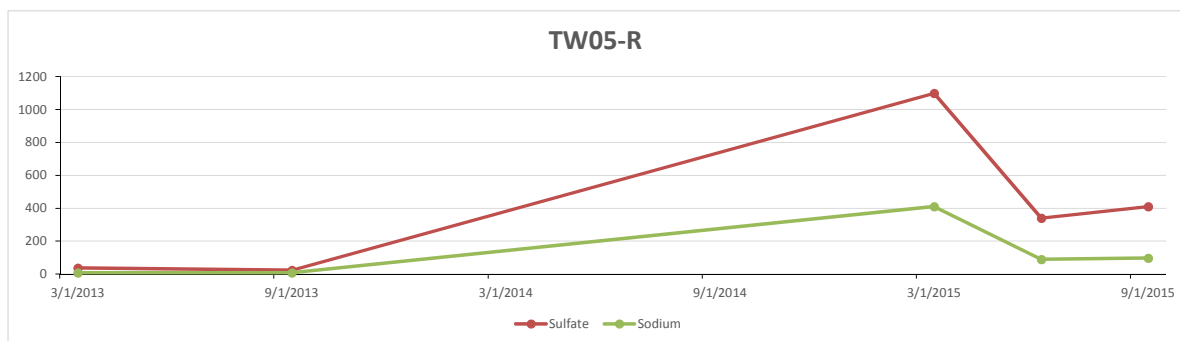
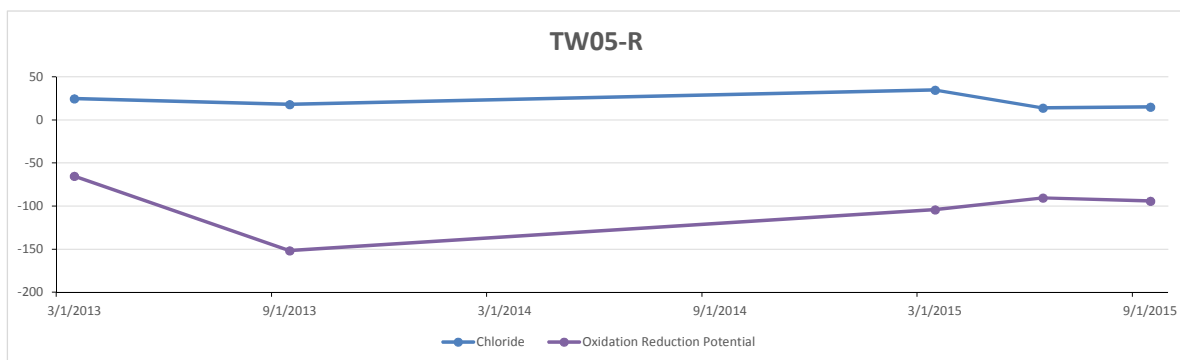


EXHIBIT 3

INDICATOR PARAMETER SUMMARIES FOR MONITORING WELLS  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Chemical Name	Remediation Objective or Optimal Range	Well ID:	TW05-R				
		Sample Date:	3/26/2013	9/18/2013	3/17/2015	6/23/2015	9/23/2015
		Unit					
CHLORIDE	Inc from baseline	MG/L	25	18	35	14	15
SULFATE (AS SO <sub>4</sub> )	Inc from baseline	MG/L	37	24	1100	340	410
SODIUM	Inc from baseline	MG/L	7.3	7.8	410	89	97
OXIDATION REDUCTION POTENTIAL	Inc from baseline	mV	-65.08	-151.64	-104	-90.5	-94.14



## **APPENDIX B**

### **VOC AND METALS DATA SUMMARY SHEETS FOR MONITORING WELLS**



VOC DATA SUMMARY SHEETS FOR MONITORING WELLS  
DECEMBER 2015  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW01-R	MW03-R	MW04-R	MW05	MW06-R	MW07-R	MW08-R	MW29	MW30	MW31	MW32
Sample Date:	12/8/2015	12/8/2015	12/9/2015	12/8/2015	12/8/2015	12/8/2015	12/9/2015	12/9/2015	12/10/2015	12/10/2015	12/10/2015
1,1,1-TRICHLOROETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 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	1.6 J	1.0 U	1.0 U	5.0 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	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 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	5.0 U	1.0 U	1.0 U	5.0 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	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
1,2,3-TRICHLOROBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
1,2,4-TRICHLOROBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.2 J	1.0 U	1.0 U	5.0 U	1.0 U
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
1,2-DIBROMOETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
1,2-DICHLOROBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 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	5.0 U	1.0 U	1.0 U	5.0 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	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
1,3-DICHLOROBENZENE	1.0 U	1.0 U	1.0 U	0.20 J	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
1,4-DICHLOROBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3 J	1.0 U	1.0 U	5.0 U	1.0 U
2-BUTANONE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	25 U	5.0 U
2-HEXANONE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	25 U	5.0 U
4-METHYL-2-PENTANONE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	25 U	5.0 U
ACETONE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	15 J+	5.0 U	5.0 U	25 U	5.0 U
BENZENE	1.0 U	1.0 U	0.34 J	1.0 U	1.0 U	0.68 J	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
BROMOCHLOROMETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
BROMODICHLOROMETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
BROMOFORM	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
BROMOMETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
CARBON DISULFIDE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.17 J	3.5 J	5.0 U	5.0 U	25 U	5.0 U
CARBON TETRACHLORIDE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
CHLOROBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
CHLOROETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
CHLOROFORM	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
CHLOROMETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
CIS-1,2-DICHLOROETHENE	1.0 U	1.0 U	1.8	1.0 U	4.1	80	180	0.64 J	1.0 U	560	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	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
CYCLOHEXANE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	25 U	5.0 U
DIBROMOCHLOROMETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
DICHLORODIFLUOROMETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
ETHYLBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
ISOPROPYLBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
METHYL ACETATE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	25 U	5.0 U
METHYLCYCLOHEXANE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	25 U	5.0 U
METHYLENE CHLORIDE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
STYRENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
TETRACHLOROETHENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	440	1.0 U	1.0 U	5.0 U	1.0 U
TOLUENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
TRANS-1,2-DICHLOROETHENE	1.0 U	1.0 U	0.86 J	1.0 U	1.0 U	1.4	5.8	1.0 U	1.0 U	4.8 J	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	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
TRICHLOROETHENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	320	1.0 U	1.0 U	5.0 U	1.0 U
TRICHLOROFLUOROMETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U
VINYL CHLORIDE	1.0 U	1.0 U	1.8	1.8	6	71	32	1.0 U	1.0 U	66	1.0 U
M,P-XYLENE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	2.0 U	2.0 U	10 U	2.0 U
O-XYLENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U

VOC DATA SUMMARY SHEETS FOR MONITORING WELLS  
DECEMBER 2015  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW33-R	MW34-R	MW35	MW36	MW37-R	MW38-R	MW39-R	MW40-R	MW41	MW42	MW43
Sample Date:	12/8/2015	12/8/2015	12/10/2015	12/10/2015	12/9/2015	12/9/2015	12/10/2015	12/9/2015	12/10/2015	12/10/2015	12/10/2015
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	5.0 U	5.0 U	5.0 U	2.0 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	5.0 U	5.0 U	5.0 U	2.0 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	5.0 U	5.0 U	5.0 U	2.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 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	5.0 U	5.0 U	5.0 U	2.0 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	5.0 U	5.0 U	5.0 U	2.0 U
1,2,3-TRICHLOROBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
1,2,4-TRICHLOROBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
1,2-DIBROMOETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
1,2-DICHLOROBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 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	5.0 U	5.0 U	5.0 U	2.0 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	5.0 U	5.0 U	5.0 U	2.0 U
1,3-DICHLOROBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
1,4-DICHLOROBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
2-BUTANONE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	25 U	25 U	10 U
2-HEXANONE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	25 U	25 U	10 U
4-METHYL-2-PENTANONE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	25 U	25 U	10 U
ACETONE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	25 U	25 U	10 U
BENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
BROMOCHLOROMETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
BROMODICHLOROMETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
BROMOFORM	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
BROMOMETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
CARBON DISULFIDE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	22 J	25 U	25 U	10 U
CARBON TETRACHLORIDE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	2.0 U	2.0 U	2.0 U
CHLOROBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
CHLOROETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
CHLOROFORM	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
CHLOROMETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
CIS-1,2-DICHLOROETHENE	0.31 J	1.0 U	0.59 J	9.6	1.0 U	1.0 U	0.85 J	530	710	650	200
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	5.0 U	5.0 U	5.0 U	2.0 U
CYCLOHEXANE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	25 U	25 U	10 U
DIBROMOCHLOROMETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
DICHLORODIFLUOROMETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
ETHYLBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
ISOPROPYLBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
METHYL ACETATE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	25 U	25 U	10 U
METHYLCYCLOHEXANE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	25 U	25 U	10 U
METHYLENE CHLORIDE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
STYRENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
TETRACHLOROETHENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
TOLUENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
TRANS-1,2-DICHLOROETHENE	1.0 U	1.0 U	1.0 U	0.51 J	1.0 U	1.0 U	1.0 U	18	3.6 J	2.7 J	2.0 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	5.0 U	5.0 U	5.0 U	2.0 U
TRICHLOROETHENE	1.0 U	1.0 U	1.0 U	1.0 J+	1.0 U	1.0 U	1.0 U	2.0 J	5.0 U	5.0 U	2.0 U
TRICHLOROFUOROMETHANE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U
VINYL CHLORIDE	0.43 J	0.25 J	1.5	1.0 U	1.0 U	0.33 J	1.0 U	120	8	540	1.7 J
M,P-XYLENE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	10 U	10 U	4.0 U
O-XYLENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.0 U

VOC DATA SUMMARY SHEETS FOR MONITORING WELLS  
DECEMBER 2015  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MW44	MW45	MW46	MWA	MWB-R	MWC-R	MWD	MWG	MWH	MWI	MWJ-R
Sample Date:	12/10/2015	12/9/2015	12/9/2015	12/8/2015	12/8/2015	12/8/2015	12/9/2015	12/10/2015	12/10/2015	12/8/2015	12/8/2015
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
1,1,2,2-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
1,1,2-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
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	1.0 U	1.0 U	1.0 U	1.0 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
1,1-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
1,2,3-TRICHLOROBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-TRICHLOROBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	1.0 U	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROBENZENE	1.0 U	1.0 U	1.0 U	1.0 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	3.9	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
1,3-DICHLOROBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-DICHLOROBENZENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-BUTANONE	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
4-METHYL-2-PENTANONE	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
BENZENE	21	1.0 U	1.0 U	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
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
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
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
CARBON DISULFIDE	0.21 J	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	0.18 J	5.0 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
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
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
CHLOROFORM	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 J	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
CIS-1,2-DICHLOROETHENE	3.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.6	13
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
CYCLOHEXANE	1.2 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
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
DICHLORODIFLUOROMETHANE	1.0 U	1.0 U	1.0 U	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
ISOPROPYLBENZENE	1.0 U	1.0 U	1.0 U	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 ACETATE	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
METHYLCYCLOHEXANE	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
METHYLENE CHLORIDE	1.0 U	1.0 U	1.1 U	1.1 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
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
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
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	0.61 J
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
TRICHLOROETHENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROFLUOROMETHANE	1.0 U	1.0 U	1.0 U	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	0.35 J	0.78 J	1.0 U	1.0 U	0.21 J	1.0 U	1.0 U	1.0 U	1.0 U	8	42
M,P-XYLENE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
O-XYLENE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

VOC DATA SUMMARY SHEETS FOR MONITORING WELLS  
DECEMBER 2015  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID:	MWK-R	MWL-R	MWM-R	MWN-R	MWO-R	TW01	TW04-R	TW05-R	MDEQE-R	MDEQW-R
Sample Date:	12/8/2015	12/8/2015	12/9/2015	12/9/2015	12/9/2015	12/8/2015	12/8/2015	12/8/2015	12/9/2015	12/9/2015
1,1,1-TRICHLOROETHANE	1.0 U	1.0 U	5.0 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	5.0 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	5.0 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-TRICHLORO-1,2,2-TRIFLUOROETHANE	1.0 U	1.0 U	5.0 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	5.0 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	3.0 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.39 J	1.0 U
1,2,3-TRICHLOROBENZENE	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-TRICHLOROBENZENE	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	1.0 U	1.0 U	5.0 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	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROBENZENE	1.0 U	1.0 U	5.0 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	5.0 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	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-DICHLOROBENZENE	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-DICHLOROBENZENE	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-BUTANONE	5.0 U	5.0 U	25 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	25 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	5.0 U	5.0 U	25 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	25 U	5.0 U	5.0 U	5.9 J+	8.3 J+	5.0 U	5.0 U	5.0 U
BENZENE	1.0 U	0.54 J	5.0 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	5.0 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	5.0 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	5.0 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	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CARBON DISULFIDE	5.0 U	0.23 J	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
CARBON TETRACHLORIDE	1.0 U	1.0 U	5.0 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	5.0 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	5.0 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	5.0 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	5.0 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	26	0.63 J	470	1.0 U	1.2	2.8	1.0 U	0.39 J	30	0.42 J
CIS-1,3-DICHLOROPROPENE	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CYCLOHEXANE	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
DIBROMOCHLOROMETHANE	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
DICHLORODIFLUOROMETHANE	1.0 U	1.0 U	5.0 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	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.11 J	1.0 U
ISOPROPYLBENZENE	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYL ACETATE	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
METHYLCYCLOHEXANE	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
METHYLENE CHLORIDE	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.5 U	1.0 U	1.0 U
STYRENE	1.0 U	1.0 U	5.0 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	0.28 J	1.4 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.4	1.0 U
TOLUENE	1.0 U	1.0 U	5.0 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	1.3	2.4	5.2	1.0 U	1.0 U	0.29 J	1.0 U	1.0 U	1.0 U	0.81 J
TRANS-1,3-DICHLOROPROPENE	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROETHENE	0.52 J	0.37 J	10	1.0 U	0.3 J	1.0 U	1.0 U	1.0 U	20	1.0 U
TRICHLOROFLUOROMETHANE	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
VINYL CHLORIDE	22	0.48 J	560	1.1	1.8	0.78 J	1.0 U	0.55 J	17	1.0 U
M,P-XYLENE	2.0 U	2.0 U	10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
O-XYLENE	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.17 J	1.0 U

Notes:

RED values are site contaminants of concern

Bolded values exceed U.S. EPA Maximum Contaminant Levels

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

J+ = Analyte detected, but concentration is estimated for QC reasons and may be biased high.

U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

**METAL DATA SUMMARY SHEETS FOR MONITORING WELLS  
DECEMBER 2015  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

Well ID:	MW01-R	MW03-R	MW04-R	MW05	MW06-R	MW07-R	MW08-R	MW29	MW30	MW31	MW32	U.S. EPA
Sample Date:	12/8/2015	12/8/2015	12/9/2015	12/8/2015	12/8/2015	12/8/2015	12/9/2015	12/9/2015	12/10/2015	12/10/2015	12/10/2015	MCLs
ALUMINUM	50 U	620	250 U	250 U	250 U	250 U	50 U	50 U	250 U	50 U	50 U	NE
ANTIMONY	0.4 J	0.75 J	2 U	2 U	0.24 J	2 U	0.36 J	2 U	2 U	1 U	0.21 J	6
ARSENIC	1.6	<b>14</b>	1.7	3.4	0.79 J	0.39 J	<b>10</b>	0.2 J	0.45 J	1.4	0.61 J	10
BARIUM	67	35	85	240	130	350	91	270	170	150	380	2,000
BERYLLIUM	1 U	1 U	1 U	1 U	1 U	1 U	0.12 J	1 U	1 U	1 U	1 U	4
CADMIUM	0.1 J	0.2	0.2 U	0.13 J	0.19 J	0.2 U	0.36	0.2 U	0.2 U	0.2 U	0.2 U	5
CALCIUM METAL	93000	100000	530000	540000	430000	260000	300000	190000	150000	130000	130000	NE
CHROMIUM	0.33 J	3.2 J	1.3 J	1.6 J	0.5 J	0.37 J	2.7 J	0.2 J	0.47 J	0.29 J	0.29 J	100
COBALT	2	0.9 J	1.1	0.23 J	0.52 J	0.57 J	110	0.23 J	0.34 J	0.2 J	0.67 J	NE
COPPER	2.8	15	0.93 J	0.93 J	2 U	2 U	9.8	0.18 J	0.21 J	1.4 J	12	1,300
IRON	980	3300	100000	47000	52000	29000	48000	3900	17000	7700	15000	NE
LEAD	1 U	1 U	5 U	5 U	5 U	1 U	5 U	1 U	1 U	1 U	1 U	15
MAGNESIUM	15000	23000	73000	110000	76000	52000	87000	43000	41000	33000	38000	NE
MANGANESE	1400	69	7100	1900	2200	1100	3600	300	400	330	1200	NE
MERCURY	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	2
NICKEL	10 U	10 U	10 U	10 U	10 U	10 U	2100	10 U	10 U	10 U	10 U	NE
POTASSIUM	4000	3000	23000	14000	17000	15000	31000	4600	6700	5700	1200	NE
SELENIUM	2 U	2 U	1.4 J	2 U	0.64 J	2 U	2.9	2 U	2 U	2 U	2 U	50
SILVER	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.025 J	0.2 U	0.2 U	0.2 U	0.2 U	NE
SODIUM	21000	4000	480000	610000	460000	74000	780000	26000	31000	21000	26000	NE
THALLIUM	1 U	0.05 J	1 U	1 U	1 U	0.043 J	1 U	0.034 J	0.038 J	1 U	0.028 J	2
VANADIUM	0.3 J	12	2.5	3.1	0.89 J	0.72 J	5.9	1 U	0.63 J	0.33 J	0.12 J	NE
ZINC	50 U	50 U	50 U	50 U	50 U	50 U	75 J+	50 U	50 U	50 U	50 U	NE

**METAL DATA SUMMARY SHEETS FOR MONITORING WELLS  
DECEMBER 2015  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

Well ID:	MW33-R	MW34-R	MW35	MW36	MW37-R	MW38-R	MW39-R	MW40-R	MW41	MW42	MW43	U.S. EPA
Sample Date:	12/8/2015	12/8/2015	12/10/2015	12/10/2015	12/9/2015	12/9/2015	12/10/2015	12/9/2015	12/10/2015	12/10/2015	12/10/2015	MCLs
ALUMINUM	50 U	250 U	50 U	50 U	250 U	50 U	250 U	50 U	50 U	50 U	50 U	NE
ANTIMONY	2 U	2 U	2 U	2 U	2 U	5 U	2 U	10 U	2 U	2 U	0.34 J	6
ARSENIC	0.22 J	0.16 J	1.3	0.42 J	<b>96</b>	<b>18</b>	8.4	<b>15</b>	1.7	2.8	0.2 J	10
BARIUM	240	270	84	110	250	93	120	70	290	210	79	2,000
BERYLLIUM	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	4
CADMIUM	0.2 U	0.053 J	0.31	0.2 U	0.099 J	1 U	0.044 J	2 U	0.2 U	0.2 U	0.2 U	5
CALCIUM METAL	230000	220000	86000	130000	350000	570000	250000	470000	94000	80000	63000	NE
CHROMIUM	0.61 J	0.34 J	0.2 J	0.2 J	0.79 J	4.5 J	0.96 J	3.8 J	5 U	0.22 J	5 U	100
COBALT	0.72 J	0.38 J	0.36 J	1 U	2.3	1.4 J	0.21 J	37	0.11 J	0.21 J	0.078 J	NE
COPPER	2 U	2 U	0.46 J	1.9 J	0.16 J	0.48 J	0.39 J	7.3 J	2 U	0.12 J	0.22 J	1,300
IRON	29000	33000	2900	4500	65000	51000	43000	190000	7800	4400	66	NE
LEAD	1 U	1 U	1 U	1 U	5 U	10 U	5 U	10 U	1 U	1 U	1 U	15
MAGNESIUM	51000	46000	25000	37000	110000	140000	70000	440000	23000	20000	16000	NE
MANGANESE	950	1100	240	310	1100	2300	900	10000	330	230	74	NE
MERCURY	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	2
NICKEL	10 U	10 U	10 U	10 U	10 U	12 J+	10 U	39 J+	10 U	10 U	10 U	NE
POTASSIUM	7700	8800	4000	4000	6800	23000	3400	44000	2500	2100	2800	NE
SELENIUM	2 U	2 U	2 U	2 U	2 U	10 U	2 U	20 U	2 U	2 U	2 U	50
SILVER	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1 U	0.2 U	2 U	0.2 U	0.2 U	0.2 U	NE
SODIUM	36000	38000	43000	41000	490000	2200000	480000	4300000	20000	14000	26000	NE
THALLIUM	0.027 J	0.044 J	0.039 J	1 U	1 U	2 U	1 U	2 U	1 U	0.028 J	1 U	2
VANADIUM	1.4	0.72 J	0.23 J	0.21 J	1.1	12	2.6	6.4 J	0.11 J	0.26 J	1 U	NE
ZINC	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NE

**METAL DATA SUMMARY SHEETS FOR MONITORING WELLS**  
**DECEMBER 2015**  
**AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

Well ID:	MW44	MW45	MW46	MWA	MWB-R	MWC-R	MWD	MWG	MWH	MWI	MWJ-R	U.S. EPA
Sample Date:	12/10/2015	12/9/2015	12/9/2015	12/8/2015	12/8/2015	12/8/2015	12/9/2015	12/10/2015	12/10/2015	12/8/2015	12/8/2015	MCLs
ALUMINUM	50 U	250 U	50 U	50 U	250 U	50 U	50 U	50 U	250 U	250 U	250 U	NE
ANTIMONY	0.19 J	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.29 J	2 U	6
ARSENIC	11	1.1	0.27 J	2.1	1.2	0.35 J	0.41 J	1.7	5.8	0.43 J	8	10
BARIUM	530	280	250	120	390	120	70	470	550	200	180	2,000
BERYLLIUM	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4
CADMIUM	0.2 U	0.2 U	0.2 U	2	0.052 J	0.2 U	0.3	0.2 U	0.2 U	0.2 U	0.2 U	5
CALCIUM METAL	83000	320000	210000	86000	480000	110000	120000	110000	120000	230000	270000	NE
CHROMIUM	5 U	0.45 J	0.38 J	1 J	0.59 J	5 U	0.49 J	0.82 J	0.45 J	0.49 J	1 J	100
COBALT	0.2 J	0.37 J	0.45 J	0.21 J	0.83 J	0.16 J	0.19 J	0.84 J	0.5 J	0.22 J	0.21 J	NE
COPPER	1.4 J	2 U	2 U	4.1	2 U	2 U	0.1 J	1.2 J	1.6 J	0.46 J	2 U	1,300
IRON	6400	28000	27000	580	55000	5100	6700	23000	37000	12000	31000	NE
LEAD	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	15
MAGNESIUM	24000	57000	45000	36000	110000	32000	30000	34000	30000	55000	45000	NE
MANGANESE	270	1600	910	49	1700	230	310	1000	800	520	1400	NE
MERCURY	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	2
NICKEL	10 U	10 U	10 U	10 U	10	10 U	10 U	10 U	10 U	10 U	10 U	NE
POTASSIUM	3300	18000	7500	1300	11000	2400	3100	390 J+	1500	2800	12000	NE
SELENIUM	2 U	2 U	2 U	2 U	2 U	1.3 J	2 U	2 U	2 U	1.2 J	0.65 J	50
SILVER	0.2 U	0.2 U	0.2 U	0.04 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NE
SODIUM	96000	240000	25000	14000	170000	21000	18000	24000	17000	73000	53000	NE
THALLIUM	1 U	1 U	1 U	0.038 J	1 U	0.0042 J	0.039 J	1 U	1 U	1 U	1 U	2
VANADIUM	0.22 J	0.65 J	0.73 J	0.12 J	1.3	0.16 J	0.57 J	0.77 J	0.37 J	0.42 J	2.5	NE
ZINC	50 U	50 U	50 U	66	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NE

**METAL DATA SUMMARY SHEETS FOR MONITORING WELLS**  
**DECEMBER 2015**  
**AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN**

Well ID:	MWK-R	MWL-R	MWM-R	MWN-R	MWO-R	TW01	TW04-R	TW05-R	MDEQE-R	MDEQW-R	U.S. EPA
Sample Date:	12/8/2015	12/8/2015	12/9/2015	12/9/2015	12/9/2015	12/8/2015	12/8/2015	12/8/2015	12/9/2015	12/9/2015	MCLs
ALUMINUM	50 U	250 U	50 U	250 U	250 U	310	50 U	50 U	50 U	250 U	NE
ANTIMONY	2 U	5 U	2 U	2 U	2 U	0.64 J	0.6 J	2 U	2 U	2 U	6
ARSENIC	0.49 J	<b>63</b>	<b>17</b>	1.3 J	1.3	<b>84</b>	2.2	5	1.3	1.8	10
BARIUM	73	76	73	180	180	130	230	230	220	370	2,000
BERYLLIUM	1 U	0.13 J	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	4
CADMIUM	0.2 U	1 U	0.19 J	1 U	0.2 U	0.36	2	0.2 U	0.064 J	0.2 U	5
CALCIUM METAL	120000	480000	320000	520000	470000	140000	170000	220000	550000	380000	NE
CHROMIUM	0.26 J	13	0.7 J	5 U	0.96 J	1.4 J	0.84 J	0.24 J	1.1 J	0.54 J	100
COBALT	0.17 J	7.6	12	0.38 J	0.34 J	2.7	0.49 J	3.3	0.32 J	0.82 J	NE
COPPER	2 U	3.8 J	0.6 J	2 J	2 U	3.2	4.9	0.094 J	0.27 J	2 U	1,300
IRON	4400	150000	62000	55000	83000	49000	29000	33000	84000	73000	NE
LEAD	1 U	10 U	5 U	10 U	5 U	1 U	1 U	1 U	5 U	1 U	15
MAGNESIUM	26000	85000	56000	91000	65000	22000	31000	41000	69000	67000	NE
MANGANESE	320	6100	6900	2800	2500	2800	1000	2900	3100	1200	NE
MERCURY	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	2
NICKEL	10 U	23 J+	17 J+	10 U	10 U	12 J+	10 U	10 U	10 U	10 U	NE
POTASSIUM	7800	33000	17000	37000	16000	7300	6400	13000	19000	18000	NE
SELENIUM	2 U	10 U	2 U	10 U	2 U	0.55 J	2 U	2 U	0.75 J	0.54 J	50
SILVER	0.2 U	1 U	0.2 U	1 U	0.2 U	0.022 J	0.2 U	0.2 U	0.2 U	0.2 U	NE
SODIUM	18000	2400000	280000	1500000	580000	10000	8600	120000	690000	150000	NE
THALLIUM	0.032 J	2 U	1 U	2 U	1 U	0.036 J	1 U	1 U	1 U	0.035 J	2
VANADIUM	0.58 J	23	1	2.2 J	2.6	3.6	1.6	0.52 J	2.4	1.6	NE
ZINC	50 U	50 J+	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NE

Notes:

All values expressed as micrograms per liter

J = The associated numerical value was an estimated quantity.

J- = The result is an estimated quantity, but the result may be biased low.

J+ = The result is an estimated quantity, but the result may be biased high.

NE = Not established

U = The analyte was analyzed for, but not detected above the reported detection limit. The associated numerical value is the sample quantitation limit.



## **APPENDIX C**

### **DATA VALIDATION REPORT**

## DATA VALIDATION REPORT

This data validation report documents validation of the analytical results for groundwater samples collected during the December 2015 sampling event at the Aircraft Components, Inc., site in Benton Harbor, Berrien County, Michigan. As part of the long-term response action at the site, SulTRAC collected groundwater samples on December 8 through 10, 2015. The collected samples totaled 43 groundwater samples and 7 field quality control (QC) samples (4 groundwater field duplicates, and 3 trip blanks). SulTRAC procured the services of TriMatrix Laboratories, Inc., (TriMatrix) of Grand Rapids, Michigan, to perform the analyses, which include:

- Volatile organic compounds (VOCs) by Environmental Protection Agency (EPA) SW-846 Method 8260B
- Total metals by EPA SW-846 Methods 6010C, 6020A, and 7470A
- Ferrous iron by Standard Methods (SM) 3500-Fe B
- Chloride by SM 4500-Cl E
- Sulfate by EPA SW-846 Method 9038
- Dissolved methane by EPA Method RSK-175
- Total organic carbon (TOC) by SM 5310C

SulTRAC validated the data from the analyses in general accordance with the EPA National Functional Guidelines (NFG) for organic and inorganic review, both dated August 2014. The requirements of the NFG were modified, as appropriate, to correspond to the specific requirements of the non-Contract Laboratory Program methods used in the analyses. The validation was based on the following quality control (QC) parameters, as applicable to each analysis:

- Holding times and sample preservation
- Initial and continuing calibrations
- Blanks
- Surrogates
- Matrix spike, matrix spike duplicate, and matrix duplicate (MS/MSD/MD) analyses
- Laboratory control samples (LCS)
- Field duplicate results
- Analyte quantitation.

TriMatrix logged in the samples received each day in a separate sample delivery group (SDG), numbers 1512207, 1512231, and 1512267. However, all samples were analyzed more or less together. The following sections discuss each of the analyses or groups of analyses, with each section focusing only on parameters with irregularities. The final section of this report provides an overall evaluation of the results of the validation of all analyses and samples. Analytical tables derived from TriMatrix's electronic data

deliverable contain data qualifiers added by SulTRAC. These tables are provided in other attachments of the Data Summary Report. The added qualifiers may include:

- No qualifier: Data are acceptable as reported.
- U: Analyte analyzed but was not detected above the listed reporting limit.
- J: Analyte detected, but concentration is estimated for QC reasons.
- J-: Analyte detected, but concentration is estimated for QC reasons and may be biased low.
- J+: Analyte detected, but concentration is estimated for QC reasons and may be biased high.
- UJ: Analyte not detected and the sample reporting limit is considered estimated for QC reasons.
- R: Data are unusable; the analyte may or may not be present. Re-sampling and re-analysis are necessary for verification.

## **1.0 Volatile Organic Compound Analyses**

The VOC analyses had no problems with holding times and sample preservation, initial calibrations, MS/MSD results, and field duplicate results.

One continuing calibration standard yielded slightly excessive recoveries for carbon disulfide and carbon tetrachloride. TriMatrix then analyzed an LCS and a second continuing calibration standard, both with acceptable results, before analyzing any samples collected during the December 2015 event. No qualifications were applied.

Results from the laboratory (method) blanks were non-detect, but all three trip blanks yielded positive results for the common laboratory contaminant acetone and two of them also yielded positive results for another common laboratory contaminant, methylene chloride. The associated field sample concentrations that were less than their reporting limit and less than the highest associated blank result were raised to the reporting limit and qualified as laboratory artifacts (flagged “U”). These included acetone for samples MW37-R-1215, MWL-R-1215, and MWL-R-1215D. In cases where the field sample yielded a concentration greater than the reporting limit but less than 10 times the highest associated blank concentration, the results were qualified as estimated with a possible high bias (flagged “J+”). These included acetone for samples MW08-R-1215, TW01-1215, and TW04-R-1215.

One LCS yielded a slightly excessive recovery for trichloroethene (121 percent versus QC limits of 82 to 119 percent). The MS/MSD samples analyzed after that LCS yielded essentially identical recoveries of 119 and 120 percent (versus their QC limits of 75 to 127 percent). It is not certain if these results are due

to an irregularity in the spiking solution. The only associated detected result for trichloroethene, in sample MW36-1215, was qualified as estimated with a possible high bias (flagged “J+”).

A number of results were less than their sample reporting limit, which corresponds to the lowest calibration standard, but above their sample detection limits. These extrapolations were flagged “J” to indicate that they were qualified as estimated. In a few of the samples, some of the analytical results for chlorinated ethenes exceeded the calibration range. The laboratory reanalyzed those samples at 2- or 5-fold dilutions to bring the high concentration analytes within calibration range. The laboratory reported the VOC results for only the diluted reanalyses. Therefore, the sample detection and reporting limits for these samples were raised accordingly.

## 2.0 Metals Analyses

The metals analyses had no problems with holding times and sample preservation, initial calibrations and LCS results.

Two low-concentration continuing calibration standards yielded excessive recoveries for aluminum. The associated field samples yielded no reportable aluminum; therefore, no qualifications were applied.

Many of the calibration and preparation blanks contained low concentrations of aluminum, antimony, barium, calcium, lead, manganese, mercury, nickel, potassium, sodium, and zinc. In some cases, the field samples contained much higher concentrations; therefore, no qualifications were applied. The associated field sample concentrations that were less than their reporting limit and less than the highest associated blank result were raised to the reporting limit and qualified as laboratory artifacts (flagged “U”). In cases where the field sample yielded a concentration greater than the reporting limit but less than 10 times the highest associated blank concentration, the results were qualified as estimated with a possible high bias (flagged “J+”). The following qualifiers were applied based on these exceedances:

Qualifier	Analyte	Affected Samples
J+	Aluminum	TW01-1215
U	Antimony	MW01-R-1215, MW03-R-1215, MW06-R-1215, MW08-R-1215, MW32-1215, MW43-1215, MW44-1215, MWI-1215, TW01-1215, and TW04-R-1215
U	Lead	MDEQE-R-1215, MW45-1215, and TW05-R-1215
U	Mercury	MW03-R-1215, MW04-R-1215, MW06-R-1215, MW33-R-1215, MWC-R-1215, MWC-R-1215D, and MWI-1215
J+	Nickel	MW40-R-1215, MWB-R-1215, and TW01-1215

Qualifier	Analyte	Affected Samples
U	Nickel	MW03-R-1215, MW05-1215, MW07-R-1215, MW33-R-1215, MW34-R-1215, MWA-1215, MWC-R-1215, MWI-1215, MWJ-R-1215, MWK-R-1215, and TW04-R-1215
J+	Potassium	MWG-1215
J+	Zinc	MWL-R-1215
U	Zinc	MW01-R-1215, MW30-1215, MW31-1215, MW32-1215, MW32-1215D, MW35-1215, MW36-1215, MW38-R-1215, MW39-R-1215, MW41-1215, MW42-1215, MW43-1215, MW44-1215, and MWL-R-1215D

Most MS/MSD recoveries and relative percent differences (RPDs) were within their QC limits of 75 to 125 percent and 20 percent, respectively. However, the MS/MSD analyses performed on sample MW39-R-1215, with selenium recoveries of 108 and 130 percent and vanadium recoveries of 117 and 127 percent. Average recoveries and RPD were acceptable; therefore, no qualifications were applied. The MS/MSD analyses performed on sample MW40-R-1215 yielded selenium recoveries of 109 and 74 percent, and an RPD of 39 percent. Selenium was not detected in the un-spiked sample; therefore, no qualification was applied.

Most field duplicate results were quite similar. However, sample MWL-R-1215 and its duplicate yielded a RPD of 35.9 percent for nickel; sample MW04-R-1215 and its duplicate yielded an RPD of 34.5 percent for arsenic; and sample MW32-1215 and its duplicate yielded RPDs of 100 percent for copper, 177 percent for iron, and 51.3 percent for manganese. These irregularities are probably due to different concentrations of suspended solids in the two portions of the sample. Due to the uncertainty in the true concentrations at that location, the associated results were qualified as estimated (flagged “J”).

Some positive results were less than the lowest calibration standard. These extrapolations were qualified as estimated (flagged “J”). In addition, several samples were re-analyzed at 5- to 250-fold dilutions to minimize matrix interference. In some cases, the problem analytes (most commonly aluminum) were not detected in the diluted reanalysis; therefore, non-detect results are not always fully comparable.

### 3.0 Dissolved Methane Analyses

The dissolved methane analyses had no problems with holding times and sample preservation, initial and continuing calibrations, blanks, and LCS results.

The MS/MSD analyses performed on sample MWG-1215 yielded recoveries above QC limits. The methane result for that sample was qualified as estimated with a possible high bias (flagged “J+”). In the

MS/MSD analyses for MDEQW-R-1215 and MW39-R-1215, recoveries could not be determined because the unspiked samples contained more than 10 times the methane as the spikes. No qualifications were applied for these data gaps.

Most field duplicate results were quite similar. However, sample MW32-1215 and its duplicate yielded an RPD of 69.4 percent for methane. These irregularities are probably due to different concentrations of suspended solids in the two portions of the sample. Due to the uncertainty in the true concentrations at that location, the associated results were qualified as estimated (flagged “J”).

Most detected methane results exceeded the calibration range. The laboratory reanalyzed these samples at 2- to 800-fold dilutions to bring the high concentrations within calibration range; therefore, no qualifications were applied.

#### **4.0 Indicator Parameters Analyses**

The indicator parameter analyses (TOC, ferrous iron, chloride, and sulfate) had no problems with sample preservation, initial and continuing calibrations, and LCS results.

The ferrous iron analyses were not performed until 7 to 51 hours after sample collection. Because of this delay, all ferrous iron results were qualified “J” to indicate that they were considered estimated.

Method and calibration blanks contained low (less than reporting limit) concentrations of chloride and sulfate. In some cases, the field samples contained much higher concentrations; therefore, no qualifications were applied. In cases where the field sample yielded a concentration greater than the reporting limit but less than 10 times the highest associated blank concentration, the results were qualified as estimated with a possible high bias (flagged “J+”). These included sulfate for MW31-1215 and MW41-1215.

Most MS/MSD results were within QC limits. However, for MS/MSDs performed on samples MDEQW-R-1215 and MW39-R-1215, sulfate recoveries could not be determined because the unspiked sample contained more than 30 times the spike concentration. No qualifications were applied for these data gaps. The sulfate MS/MSD analyses performed on sample MWG-1215 yielded recoveries of 41 and 97 percent (versus the QC limits of 76 to 126 percent), as well as a high RPD. Due to this irregular

response, the sulfate result for sample MWG-0915 was qualified as estimated with a possible low bias (flagged “J-”).

Most field duplicate results were similar. However, sample MW04-R-1215 and its duplicate yielded an RPD of 52.2 percent for chloride, and sample MWC-R-1215 and its duplicate yielded RPDs of 196 percent for chloride and 155 percent for ferrous iron. Therefore, the associated results were qualified as estimated (flagged “J”).

Some positive results were less than the lowest calibration standard. These extrapolations were qualified as estimated (flagged “J”). In addition, in some samples the analyte concentration exceeded the calibration range. These samples were re-analyzed at a 2- to 1,000-fold dilution, which brought the results within calibration range. Therefore, no further qualifications were applied.

## **5.0 Overall Evaluation**

The analyses went acceptably, with no results rejected. The most significant problem requiring qualification of sample results was holding time exceedances for ferrous iron results. Although ferrous iron is readily susceptible to oxidation by oxygen in the air (including the dissolved oxygen in ground water), and to oxidation and reduction reactions with many other chemical species and some bacteria routinely found in groundwater, analyses were delayed until after the samples arrived at the laboratory. Therefore, some of the relatively high results for ferrous iron may be biased low and all are uncertain.

Other than the holding time issue, there were no systematic problems with the results, except for typical trace concentration (less than reporting limit) blank contamination in most analyses.

## **APPENDIX D**

### **METHANE GAS PROBE SUMMARY**



METHANE GAS PROBE SUMMARY  
DECEMBER 2015  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID	Depth Interval (ft bgs)	Sample Date	Parameters			
			CH <sub>4</sub> (%)	CO <sub>2</sub> (%)	O <sub>2</sub> (%)	BAL (%)
MP-1AR	4-5	9/21/2015	0	3.2	17.4	79.4
MP-1BR	7-8	9/21/2015	0	4.6	16.3	79.1
MP-2AR	3-4	9/21/2015	0	8	7.4	84.6
MP-3AR	4-5	9/22/2015	0	0.1	20.4	79.5
MP-3BR	7-8	9/21/2015	0.1	11.5	3.9	84.5
MP-4AR	4-5	9/21/2015	4.4	13.3	1.2	81.1
MP-4BR	7-8	9/21/2015	6.8	13.8	1	78.4
MP-5AR	2-3	9/21/2015	0	7.1	12.3	80.6
MP-5BR	4-5	9/21/2015	25.7	46.5	1.7	26.1
MP-6AR	4-5	9/21/2015	0	11.3	7.3	81.4
MP-6BR	7-8	9/21/2015	0	11	7.9	81.1
MP-7AR	4-5	9/21/2015	0	4.3	17.5	78.2
MP-7BR	7-8	9/21/2015	0	5.1	13.2	81.7
MP-8AR	4-5	9/21/2015	0	3.1	17.2	79.7
MP-8BR	7-8	9/21/2015	0	1.2	18.6	80.2
MP-9AR	1.5-2.5	9/21/2015	0	0.6	19.5	79.9
MP-9BR	2.25-3.25	9/21/2015	0	1.8	16.3	81.9
MP-10AR	1.5-2.5	9/21/2015	0	2	18.3	79.7
MP-10BR	4.5-5.5	9/21/2015	0	2.4	18.2	79.4
MP-11AR	1.25-2.25	9/21/2015	0	4.9	12.8	82.3
MP-11BR	4.25-5.25	9/21/2015	0	5.3	12.4	82.3

Well ID	Depth Interval (ft bgs)	Sample Date	Parameters			
			CH <sub>4</sub> (%)	CO <sub>2</sub> (%)	O <sub>2</sub> (%)	BAL (%)
MP-1AR	4-5	12/7/2015	0	4.3	18.5	77.2
MP-1BR	7-8	12/7/2015	0	4.7	18.4	76.9
MP-2AR	3-4	12/7/2015	0	3.5	8.9	87.6
MP-3AR	4-5	12/7/2015	0	0.3	21.6	78.1
MP-3BR	7-8	12/7/2015	0.2	9.8	0.3	89.7
MP-4AR	4-5	12/7/2015	1.7	13	0	85.3
MP-4BR	7-8	12/7/2015	2.7	10.9	0	86.4
MP-5AR	2-3	12/7/2015	0	14.3	7.6	78.1
MP-5BR	4-5	12/7/2015	27.7	46.9	0.2	25.2
MP-6AR	4-5	12/7/2015	0	7.2	13.2	79.6
MP-6BR	7-8	12/7/2015	0	8.1	12.5	79.4
MP-7AR	4-5	12/7/2015	0	2.6	17.2	80.2
MP-7BR	7-8	12/7/2015	0	4.9	10.8	84.3
MP-8AR	4-5	12/7/2015	0	2.3	18.7	79
MP-8BR	7-8	12/7/2015	0	5.5	14.6	79.9
MP-9AR	1.5-2.5	12/7/2015	0	0.5	19.9	79.6
MP-9BR	2.25-3.25	12/7/2015	0	0.8	19.5	79.7
MP-10AR	1.5-2.5	12/7/2015	0	1.9	19.3	78.8
MP-10BR	4.5-5.5	12/7/2015	0	2.5	18.6	78.9
MP-11AR	1.25-2.25	12/7/2015	0	4.4	15.5	80.1
MP-11BR	4.25-5.25	12/7/2015	0	4.9	14.9	80.2

NOTES:

% - percent

**APPENDIX E**

**GROUNDWATER ELEVATION DATA  
AND  
LOW-FLOW SAMPLING STABILIZATION SUMMARY SHEETS**

GROUNDWATER ELEVATION SUMMARY  
DECEMBER 2015  
AIRCRAFT COMPONENTS, INC., BERRIEN COUNTY, MICHIGAN

Well ID	Top of Casing Elevation	Total Depth	Screen Depth	Top of Screen Elevation	Bottom of Screen Elevation	Aquifer Designation*	Depth to Water	Groundwater Elevation
MDEQE-R	587.29	28.5	23.5-28.5	563.79	558.79	Middle	3.8	583.49
MDEQW-R	587.4	47.2	42.2-47.2	545.2	540.2	Middle	3.87	583.53
MW01-R	587.4	17.7	7.7-17.7	579.7	569.7	Shallow	6.79	580.61
MW02-R	590.57	12.2	7.2-12.2	583.37	578.37	Shallow	6.33	584.24
MW03-R	593.7	18	8-18	585.7	575.7	Shallow	5.51	588.19
MW04-R	588.07	12	2-12	586.07	576.07	Shallow	4.6	583.47
MW05	593.06	29	19-29	574.06	564.06	Shallow	9.59	583.47
MW06-R	588.68	26.5	16.5-26.5	572.18	562.18	Shallow	5.22	583.46
MW07-R	590.45	37.2	27.2-37.2	563.25	553.25	Middle	7.31	583.14
MW08-R	590.96	17.6	7.6-17.6	583.36	573.36	Shallow	7.11	583.85
MW29	586.38	63.48	58.48-63.48	527.9	522.9	Deep	3.73	582.65
MW30	586.86	41.43	36.43-41.43	550.43	545.43	Middle	3.35	583.51
MW31	582.9	58	53-58	529.9	524.9	S. of Paw Paw/Confined	0.2	582.7
MW32	582.99	30	25-30	557.99	552.99	S. of Paw Paw	3.22	579.77
MW33-R	587.51	30.6	25.6-30.6	561.91	556.91	Middle	4.14	583.37
MW34-R	588.06	26	21-26	567.06	562.06	Shallow	4.75	583.31
MW35	585.22	53	48-53	537.22	532.22	Deep	1.77	583.45
MW36	586.81	39.73	34.73-39.73	552.08	547.08	Middle	3.35	583.46
MW37-R	591.49	42.8	37.8-42.8	553.69	548.69	Middle	7.83	583.66
MW38-R	590.96	31.6	26.6-31.6	564.36	559.36	Middle	7.14	583.82
MW39-R	594.52	42.6	37.6-42.6	556.92	551.92	Middle	10.8	583.72
MW40-R	594.5	20.1	15.1-20.1	579.4	574.4	Shallow	10.08	584.42
MW41	582.8	57	52-57	530.8	525.8	S. of Paw Paw/Confined	0.5	582.3
MW42	584.08	55	50-55	534.08	529.08	S. of Paw Paw/Confined	1.35	582.73
MW43	590.1	62	57-62	533.1	528.1	S. of Paw Paw/Confined	7.31	582.79
MW44	583.03	57	52-57	531.03	526.03	S. of Paw Paw/Confined	0.6	582.43
MW45								
MW46	Wells installed for monitoring during injection and have not been surveyed							
MWA	592.75	73.39	58.39-73.39	534.36	519.36	Deep	8.79	583.96
MWB-R	588.73	44	34-44	544.73	544.73	Middle	5.17	583.56
MWC-R	590.4	58	43-58	547.4	532.4	Deep	6.85	583.55
MWD	584.03	33.29	23.29-33.29	560.74	550.74	Middle	0.51	583.52
MWG	583.86	25	15-25	568.86	558.86	S. of Paw Paw	4.05	579.81
MWH	590.62	34	29-34	561.62	556.62	S. of Paw Paw	10.75	579.87
MWI	595.98	32.31	22.31-32.31	573.67	563.67	Shallow	11.3	584.68
MWJ-R	591.88	26.3	16.3-26.3	575.58	565.58	Shallow	8.17	583.71
MWK-R	589.81	25.7	15.7-25.7	574.11	564.11	Shallow	5.88	583.93
MWL-R	592.97	27	17-27	575.97	565.97	Shallow	6.65	586.32
MWM-R	590.64	16.5	6.5-16.5	584.44	574.44	Shallow	6.47	584.17
MWN-R	587.4	16.2	6.2-16.2	581.2	571.2	Shallow	4.91	582.49
MWO-R	587.32	26.2	16.2-26.2	571.12	561.12	Shallow	3.81	583.51
TW01	594.95	11.9	6.9-11.9	588.05	583.05	Shallow	8.05	586.9
TW04-R	591.26	13	8-13	583.26	578.26	Shallow	5.1	586.16
TW05-R	588.45	10.2	5.2-10.2	583.25	578.25	Shallow	6.78	581.67

Notes

- \* Shallow designated as screened at or near the water table (bottom screen elevation greater than 562 feet amsl)
- Middle designated as bottom of well screen elevation between 540 and 562 feet amsl
- Deep designated as bottom of well screen elevation less than 540 feet amsl
- S. of Paw Paw/Confined designated as those wells located south of the Paw Paw River and screened below competent clay
- S. of Paw Paw designated as all other wells located south of Paw Paw River

Product Name: Low-Flow System

Date: 2015-12-08 10:19:12

Project Information:

Operator Name SC  
Company Name TT  
Project Name Aircraft  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 384121  
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID MW03-R  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 8.59 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	09:57:14	3299.98	10.46	6.61	740.95	15.90	8.70	0.43	29.48
Last 5	10:02:14	3599.98	10.48	6.61	740.55	14.50	8.70	0.43	29.85
Last 5	10:07:14	3899.98	10.61	6.61	737.52	16.70	8.70	0.45	30.64
Last 5	10:12:14	4199.98	10.61	6.62	734.89	17.80	8.70	0.48	31.06
Last 5	10:17:14	4499.97	10.61	6.62	735.50	16.60	8.70	0.48	31.90
Variance 0			0.13	0.00	-3.03			0.02	0.79
Variance 1			0.00	0.00	-2.64			0.03	0.42
Variance 2			-0.00	0.00	0.62			0.00	0.84

Notes

MW-03R

Grab Samples

Product Name: Low-Flow System

Date: 2015-12-08 10:14:47

Project Information:

Operator Name Tanner Hess  
Company Name SulTRAC  
Project Name  
Site Name Aircraft  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369099  
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID MW05  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 9.57 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	10:02:14	300.03	11.83	6.26	4180.64	2.64	9.55	0.35	-44.46
Last 5	10:07:14	600.03	11.85	6.26	4257.98	2.65	9.54	0.32	-45.33
Last 5	10:12:14	900.03	11.93	6.26	4300.31	4.25	9.54	0.31	-45.63
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.02	-0.00	77.34			-0.02	-0.87
Variance 2			0.07	-0.00	42.33			-0.02	-0.30

Notes

Actual time started purging 0935  
Actual start time 0935

Grab Samples

Product Name: Low-Flow System

Date: 2015-12-08 16:02:46

Project Information:

Operator Name SC  
Company Name TT  
Project Name Aircraft  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 384121  
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID MW06-R-1215  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 5.11 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	15:45:55	300.02	11.38	6.37	4447.75	5.79	5.16	0.49	-42.58
Last 5	15:50:55	600.02	11.72	6.35	4446.72	3.72	5.17	0.22	-46.46
Last 5	15:55:55	900.01	11.98	6.34	4444.00	2.38	5.18	0.15	-48.92
Last 5	16:00:55	1200.02	12.06	6.33	4445.95	3.21	5.17	0.12	-50.69
Last 5									
Variance 0			0.34	-0.02	-1.02			-0.27	-3.87
Variance 1			0.25	-0.01	-2.72			-0.07	-2.47
Variance 2			0.08	-0.01	1.95			-0.03	-1.76

Notes

MW06-R-1215  
MW06-R-1215

Grab Samples

Product Name: Low-Flow System

Date: 2015-12-08 15:01:37

Project Information:

Operator Name SC  
Company Name TT  
Project Name Aircraft  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 384121  
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID MW33-R-1215  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 4.19 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	14:39:44	600.02	11.58	6.49	1782.41	19.00	4.19	0.39	-23.90
Last 5	14:44:44	900.02	11.58	6.44	1842.89	15.25	4.19	0.31	-36.67
Last 5	14:49:44	1200.01	11.66	6.42	1843.19	12.30	4.19	0.22	-51.96
Last 5	14:54:43	1500.01	11.67	6.42	1844.55	14.87	4.19	0.16	-56.19
Last 5	14:59:43	1800.01	11.71	6.42	1848.33	13.56	4.19	0.13	-59.96
Variance 0			0.08	-0.01	0.30			-0.10	-15.30
Variance 1			0.01	-0.00	1.35			-0.06	-4.22
Variance 2			0.03	-0.01	3.79			-0.03	-3.77

Notes

MW33-R-1215  
MW33-R-1215

Grab Samples

Product Name: Low-Flow System

Date: 2015-12-08 13:45:32

Project Information:

Operator Name SC  
Company Name TT  
Project Name Aircraft  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 384121  
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID MW34-R-1215  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 4.9 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	13:23:50	300.09	11.52	6.52	1709.25	13.40	5.00	0.45	-52.97
Last 5	13:28:50	600.02	11.79	6.51	1719.50	14.20	5.00	0.34	-59.83
Last 5	13:33:50	900.02	11.85	6.50	1740.96	11.80	4.98	0.18	-66.36
Last 5	13:38:50	1200.01	11.70	6.48	1776.61	9.40	4.98	0.17	-71.52
Last 5	13:43:50	1500.00	11.67	6.48	1787.78	6.75	4.96	0.15	-75.18
Variance 0			0.05	-0.01	21.46			-0.16	-6.52
Variance 1			-0.14	-0.02	35.65			-0.02	-5.16
Variance 2			-0.04	-0.01	11.17			-0.01	-3.66

Notes

MW34-R-1215  
MW34-R-1215

Grab Samples



Product Name: Low-Flow System

Date: 2015-12-09 16:23:58

Project Information:

Operator Name Tanner Hess  
Company Name SulTRAC  
Project Name  
Site Name Aircraft  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369099  
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft  
  
Pump placement from TOC ft

Well Information:

Well ID MW40-R  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 10.7 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	15:57:12	1500.03	12.79	6.39	16483.71	14.30	10.88	0.11	-53.87
Last 5	16:02:12	1800.03	12.58	6.39	17478.74	15.70	10.89	0.10	-56.55
Last 5	16:07:12	2099.99	12.66	6.40	14324.36	26.70	10.89	0.10	-57.99
Last 5	16:12:12	2399.99	12.61	6.40	16770.44	28.50	10.89	0.10	-59.48
Last 5	16:22:13	3001.04	12.61	6.40	16712.89	27.00	10.90	0.09	-61.59
Variance 0			0.08	0.00	-3154.38			-0.01	-1.44
Variance 1			-0.05	0.00	2446.08			-0.00	-1.50
Variance 2			-0.00	0.00	-57.55			-0.00	-2.11

Notes

Unable to stabilize

Grab Samples

Product Name: Low-Flow System

Date: 2015-12-10 09:06:53

Project Information:

Operator Name Tanner Hess  
Company Name SulTRAC  
Project Name  
Site Name Aircraft  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369099  
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft  
  
Pump placement from TOC ft

Well Information:

Well ID MW42  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 1.34 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	08:45:41	300.19	9.03	7.77	725.46	15.90	1.41	0.82	-41.37
Last 5	08:50:41	600.02	9.41	7.52	632.66	8.66	1.41	0.43	-59.35
Last 5	08:55:41	900.01	9.56	7.41	605.36	4.04	1.42	0.35	-66.91
Last 5	09:00:41	1200.01	9.69	7.35	601.07	4.33	1.42	0.32	-71.40
Last 5	09:05:41	1500.02	9.97	7.32	598.89	3.99	1.42	0.29	-74.62
Variance 0			0.16	-0.11	-27.30			-0.08	-7.56
Variance 1			0.13	-0.06	-4.30			-0.03	-4.48
Variance 2			0.28	-0.04	-2.17			-0.02	-3.23

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2015-12-10 15:07:41

Project Information:

Operator Name Tanner Hess  
Company Name SulTRAC  
Project Name  
Site Name Aircraft  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369099  
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID MW43  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 7.3 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	14:46:36	1800.02	12.75	7.33	503.10	3.33	7.31	0.42	-27.07
Last 5	14:51:36	2100.02	12.69	7.33	503.27	3.43	7.31	0.36	-20.73
Last 5	14:56:36	2400.02	12.61	7.33	503.46	4.95	7.31	0.30	-15.15
Last 5	15:01:36	2700.00	12.66	7.33	503.66	4.05	7.31	0.27	-10.53
Last 5	15:06:36	2999.99	12.70	7.33	502.96	4.59	7.31	0.24	-6.73
Variance 0			-0.08	-0.00	0.19			-0.06	5.58
Variance 1			0.05	-0.00	0.20			-0.04	4.62
Variance 2			0.04	-0.00	-0.69			-0.03	3.80

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2015-12-08 14:07:38

Project Information:

Operator Name Tanner Hess  
Company Name SulTRAC  
Project Name  
Site Name Aircraft  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369099  
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID MWA  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 8.67 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	13:45:50	900.03	12.43	7.47	710.59	2.71	9.25	1.08	-39.51
Last 5	13:50:50	1200.03	12.54	7.45	716.28	2.18	9.27	1.13	-39.05
Last 5	13:55:50	1500.01	12.46	7.46	717.11	1.66	9.28	0.61	-38.36
Last 5	14:00:50	1800.01	12.47	7.46	721.61	1.84	9.29	0.58	-40.58
Last 5	14:05:50	2100.01	12.57	7.47	721.49	2.26	9.30	0.46	-46.25
Variance 0			-0.07	0.01	0.83			-0.52	0.69
Variance 1			0.01	0.00	4.50			-0.03	-2.23
Variance 2			0.09	0.01	-0.12			-0.13	-5.66

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2015-12-10 10:22:17

Project Information:

Operator Name Tanner Hess  
Company Name SulTRAC  
Project Name  
Site Name Aircraft  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369099  
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID MWG  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 4.35 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	10:03:31	300.06	10.58	7.37	820.09	28.10	4.78	1.19	6.91
Last 5	10:08:31	600.03	10.70	7.25	818.58	27.60	4.92	0.94	14.02
Last 5	10:13:31	900.02	10.81	7.20	818.07	28.30	5.01	0.84	17.99
Last 5	10:18:31	1200.03	10.91	7.18	816.75	27.00	5.10	0.79	20.31
Last 5									
Variance 0			0.12	-0.12	-1.51			-0.25	7.10
Variance 1			0.11	-0.05	-0.50			-0.10	3.97
Variance 2			0.10	-0.02	-1.33			-0.05	2.32

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2015-12-10 13:33:41

Project Information:

Operator Name Tanner Hess  
Company Name SulTRAC  
Project Name  
Site Name Aircraft  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369099  
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID MWH  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 11.0 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	13:12:22	300.08	13.80	6.87	911.07	9.39	11.40	1.24	-85.62
Last 5	13:17:22	600.03	13.52	6.86	918.89	6.98	11.65	0.40	-102.74
Last 5	13:22:22	900.02	13.49	6.84	935.97	10.02	11.76	0.27	-109.84
Last 5	13:27:22	1200.02	13.52	6.84	950.31	20.40	11.86	0.21	-113.46
Last 5	13:32:22	1500.03	13.40	6.83	955.53	9.34	11.90	0.20	-116.03
Variance 0			-0.02	-0.02	17.08			-0.13	-7.10
Variance 1			0.03	-0.01	14.34			-0.06	-3.62
Variance 2			-0.13	-0.00	5.22			-0.01	-2.57

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2015-12-08 15:09:23

Project Information:

Operator Name Tanner Hess  
Company Name SulTRAC  
Project Name  
Site Name Aircraft  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369099  
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID MWJ-R  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 8.13 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	14:53:00	300.03	11.31	6.48	1596.13	4.04	8.15	0.75	-33.74
Last 5	14:58:00	600.02	11.95	6.45	1602.80	1.85	8.15	0.49	-37.89
Last 5	15:03:00	900.03	12.20	6.44	1595.18	1.25	8.12	0.40	-40.16
Last 5	15:08:00	1200.01	12.29	6.44	1591.97	0.95	8.14	0.35	-41.44
Last 5									
Variance 0			0.64	-0.03	6.67			-0.25	-4.16
Variance 1			0.25	-0.01	-7.62			-0.09	-2.26
Variance 2			0.09	-0.00	-3.21			-0.05	-1.29

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2015-12-08 12:00:05

Project Information:

Operator Name SC  
Company Name TT  
Project Name Aircraft  
Site Name Default Site  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 384121  
Turbidity Make/Model LaMotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID MWK-R-1215  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 5.97 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 2.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	11:38:19	1200.01	12.61	7.02	880.32	2.66	6.00	0.30	-83.62
Last 5	11:43:19	1500.00	12.63	7.01	909.18	2.15	6.00	0.28	-84.84
Last 5	11:48:19	1800.01	12.63	7.01	934.66	2.64	6.00	0.25	-85.27
Last 5	11:53:19	2100.00	12.73	7.00	950.19	2.18	6.00	0.23	-85.28
Last 5	11:58:19	2400.00	12.95	7.00	960.23	1.61	6.00	0.22	-85.93
Variance 0			0.00	-0.01	25.48			-0.03	-0.43
Variance 1			0.10	-0.01	15.54			-0.01	-0.01
Variance 2			0.21	-0.00	10.04			-0.02	-0.65

Notes

MWK-R-1215  
MWK-R-1215

Grab Samples



Product Name: Low-Flow System

Date: 2015-12-09 13:07:47

Project Information:

Operator Name Tanner Hess  
Company Name SulTRAC  
Project Name  
Site Name Aircraft  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369099  
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID MWN-R  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 4.95 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	12:46:22	300.09	12.06	6.40	8008.40	10.40	5.03	0.46	-69.89
Last 5	12:51:22	600.02	12.05	6.44	7776.16	3.93	5.05	0.28	-66.08
Last 5	12:56:22	900.02	12.01	6.45	7614.57	4.14	5.05	0.24	-64.10
Last 5	13:01:22	1200.03	11.97	6.45	7473.56	5.34	5.05	0.20	-62.72
Last 5	13:06:22	1500.02	11.89	6.45	7678.31	3.53	5.06	0.18	-62.62
Variance 0			-0.03	0.01	-161.58			-0.04	1.98
Variance 1			-0.04	0.01	-141.01			-0.03	1.38
Variance 2			-0.08	-0.01	204.75			-0.02	0.10

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2015-12-09 14:32:11

Project Information:

Operator Name Tanner Hess  
Company Name SulTRAC  
Project Name  
Site Name Aircraft  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369099  
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID MWO-R  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 3.76 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	14:09:47	1500.02	11.55	6.23	3992.84	15.10	3.81	0.14	-35.78
Last 5	14:14:47	1800.00	11.64	6.22	3969.82	13.80	3.82	0.13	-37.46
Last 5	14:19:47	2100.00	11.55	6.22	4052.16	2.80	3.82	0.12	-38.77
Last 5	14:24:47	2400.00	11.57	6.21	4055.89	10.51	3.82	0.11	-39.78
Last 5	14:29:47	2699.99	11.55	6.21	4032.33	3.24	3.82	0.11	-40.78
Variance 0			-0.08	-0.00	82.35			-0.01	-1.32
Variance 1			0.02	-0.00	3.73			-0.01	-1.01
Variance 2			-0.02	-0.00	-23.56			-0.01	-1.00

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2015-12-08 11:55:48

Project Information:

Operator Name Tanner Hess  
Company Name SulTRAC  
Project Name  
Site Name Aircraft  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369099  
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID TW01  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 8.97 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	11:42:54	300.03	11.08	6.96	1228.23	10.30	9.65	0.99	-121.63
Last 5	11:47:54	600.03	11.37	6.98	998.03	5.37	9.80	0.68	-132.30
Last 5	11:52:54	900.01	10.83	6.96	890.06	5.02	10.05	0.87	-125.20
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.29	0.03	-230.20			-0.31	-10.66
Variance 2			-0.54	-0.02	-107.96			0.19	7.09

Notes

Purged until dry

Grab Samples

Product Name: Low-Flow System

Date: 2015-12-08 08:34:33

Project Information:

Operator Name Tanner Hess  
Company Name SulTRAC  
Project Name  
Site Name Aircraft  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369099  
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID TW04-R  
Well diameter 2 in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 4.96 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	08:21:28	300.12	11.83	6.69	1147.04	4.31	5.65	0.35	-116.48
Last 5	08:26:28	600.02	11.92	6.64	1134.38	4.73	5.75	0.26	-115.28
Last 5	08:31:28	900.02	12.13	6.63	1133.98	4.51	5.84	0.23	-114.40
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.09	-0.05	-12.66			-0.09	1.20
Variance 2			0.21	-0.01	-0.39			-0.03	0.88

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2015-12-09 08:36:27

Project Information:

Operator Name Tanner Hess  
Company Name SulTRAC  
Project Name  
Site Name Aircraft  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369099  
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID MDEQE-R  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 3.67 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	08:17:35	300.16	11.13	6.37	4415.15	5.41	3.70	0.36	-31.60
Last 5	08:22:35	600.03	11.48	6.29	4424.56	9.94	3.71	0.24	-35.99
Last 5	08:27:35	900.01	11.61	6.27	4472.96	13.40	3.72	0.19	-39.12
Last 5	08:32:35	1200.02	11.61	6.26	4491.10	8.97	3.72	0.17	-41.28
Last 5									
Variance 0			0.34	-0.07	9.41			-0.12	-4.39
Variance 1			0.14	-0.02	48.41			-0.05	-3.13
Variance 2			-0.00	-0.01	18.14			-0.02	-2.16

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2015-12-09 10:32:40

Project Information:

Operator Name Tanner Hess  
Company Name SulTRAC  
Project Name  
Site Name Aircraft  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 369099  
Turbidity Make/Model Lamotte 2020

Pump Information:

Pump Model/Type  
Tubing Type  
Tubing Diameter in  
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID MDEQW-R  
Well diameter in  
Well Total Depth ft  
Screen Length ft  
Depth to Water 3.72 ft

Pumping Information:

Final Pumping Rate 0 mL/min  
Total System Volume 0.09 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10%		+/- 0.3	+/- 10
Last 5	10:10:56	3003.99	11.46	6.55	2416.91	26.10	3.89	0.21	-99.48
Last 5	10:15:56	3303.98	11.51	6.54	2450.95	42.70	3.89	0.21	-99.44
Last 5	10:20:56	3604.00	11.51	6.53	2475.40	20.40	3.90	0.20	-99.31
Last 5	10:25:56	3903.99	11.83	6.53	2496.07	43.00	3.89	0.17	-99.64
Last 5	10:30:56	4203.99	11.96	6.52	2498.69	26.00	3.89	0.18	-99.87
Variance 0			0.01	-0.01	24.45			-0.01	0.13
Variance 1			0.31	-0.01	20.67			-0.03	-0.33
Variance 2			0.14	-0.00	2.62			0.01	-0.23

Notes

Unable to stabilize turbidity after 1+ hours

Grab Samples



MW1-1215 - Depth to Water = 11.27 5 minutes				
	SC	ORP	DO	NTU
				11.68 At
				11.55
				11.66
				11.66

MWC-1215 - Starting Depth to Water 6.84 ft

	pH	SC	ORP	DO	NTU	Depth
1	7.16	814.78	-40.30	0.47	25.8	7.21
2	7.15	817.51	-40.00	0.33	21.7	7.31
	7.15	812.76	-44.10	0.20	22.1	7.31
	7.15	813.76	-44.10	0.20	18.6	7.31
	7.15	815.51	-41.0	0.20	18.6	7.31
	7.15	818.17	-43.90	0.20	18.9	7.30
1045						

Stable... NTU's

Water being purged at slowest rate possible

MWD7-R-1215

7.29 At

	pH	SC	ORP	DO	NTU	Depth
	6.69	1692.38	-72.60	0.53	4.94	7.29
	6.59	1646.93	-74.70	0.35	2.30	7.29
	6.50	1704.70	-75.00	0.29	2.25	7.29

- Did not write last line

MWB-R-1215

5.09 At

	pH	SC	ORP	DO	NTU	Depth
	6.90	2652.85	-67.30	0.26	3.37	5.08
	6.39	2087.32	-69.90	0.19	0.90	5.10
	6.39	2853.15	-71.20	0.17	5.29	5.09
	6.39	2681.53	-71.30	0.15	2.84	5.08
	6.39	2732.59	-71.2	0.18	3.05	5.06





SUBJECT Aircraft Personal Notes - PWB

12.9.15

min		MW04-R-1215					Depth to water = 4.65		Start - 815	
		PH	SC	ORP	DO	TURB	Depth			
5		6.21	5192.33	-33.90	0.34	2.4	4.65			
10		6.21	5162.80	-36.20	0.28	1.97	4.60			
15		6.21	5146.41	-37.80	0.22	3.23	4.65			→ stable (not temp)
										stable

MW2-R-1215 Depth to water: 6.59 Start - 940

min		MW2-R-1215					Depth	
		PH	SC	ORP	DO	TURB	Depth	
5		6.39	11383.37	-53.40	0.61	8.49	6.95	→ Pump slowed
10		6.39	11250.74	-65.60	0.50	6.79	6.89	
15		6.38	11386.51	-57.20	0.45	6.10	6.84	→ Stable

MW4-R-1215 WL Depth: 6.48

min		MW4-R-1215					Depth	
		PH	SC	ORP	DO	TURB	Depth	
5		6.37	3665.75	-28.40	0.55	12.90	6.65	→ increased pumping rate to 1.71
10		6.37	3383.14	-31.80	0.40	10.75	6.65	
15		6.37	3359.51	-32.60	0.34	10.66	6.63	→ SC only parameter not stabilized
20		6.37	3334.62	-33.90	0.32	9.46	6.63	→ stable

MW45-1215 Depth to WT: 5.71

min		MW45-1215					Depth	
		PH	SC	ORP	DO	TURB	Depth	
5		6.45	2965.35	-19.30	0.86	8.85	6.62	→ Decreased pump to 1.60
10		6.45	2973.94	-20.70	0.62	7.93	6.60	
15		6.45	2944.31	-21.80	0.43	7.54	6.61	
20		6.44	2911.00	-20.30	0.35	7.20	5.99	

MW46-1215 Depth: 3.12

min		MW46-1215					Depth	
		PH	SC	ORP	DO	TURB	Depth	
5		6.50	1699.11	-30.10	0.52	6.44	3.16	
10		6.49	1695.80	-34.40	0.32	3.85	3.18	
15		6.49	1699.20	-37.10	0.26	3.90	3.17	



SUBJECT 12.8.15 - PLWB Gen. Notes Benton Harbor

SHEET 1 of 1  
PROJECT NO. A.C.

MW1-1215 - Depth to Water = 11.27  
5 minutes) 3.27 NTU 11.68 ft  
1.51 11.65  
1.04 11.66  
0.33 11.66

MWC-1215 - Starting Depth to Water 6.84 ft

	pH	SC	ORP	DO	NTU	Depth
①	7.16	834.78	-40.30	0.47	25.8	7.21
②	7.15	817.51	-40.60	0.33	21.7	7.21
	7.15	812.76	-44.10	0.29	22.1	7.21
	7.15	812.76	-44.10	0.29	18.6	7.21
	7.15	812.51	-41.8	0.26	18.6	7.21
	7.15	812.17	-43.90	0.26	18.9	7.20
1015						

Stable... NTU?

Water being purged at slowest rate possible

MW07-R-1215

7.29 ft

	pH	SC	ORP	DO	NTU	Depth
	6.69	1692.38	-72.60	0.53	4.94	7.29
	6.59	1646.93	-74.70	0.35	2.30	7.29
	6.56	1704.90	-75.60	0.29	2.25	7.29

- Did not write last line

MW03-R-1215

5.09 ft

	pH	SC	ORP	DO	NTU	Depth
	6.40	2852.85	-62.30	0.26	3.37	5.08
	6.39	2887.32	-69.90	0.19	0.90	5.10
	6.39	2853.15	-71.20	0.17	5.29	5.09
	6.39	2881.53	-71.30	0.15	2.89	5.08
✓	6.39	2832.59	-71.2	0.18	3.15	5.06

SUBJECT

Aircraft Personal Notes - PLW13

PROJECT NO.

12.9.15

MW04-R-1215 Depth to water = 4.65 Start = 815

min	pH	SC	ORP	DO	TURB	Depth
5	6.21	5192.33	-33.90	0.34	2.4	4.65
10	6.21	5162.80	-36.20	0.28	1.97	4.66
15	6.21	5146.41	-37.80	0.22	3.23	4.65

~ stabilize (not temp)  
Stable

MWL-R-1215 Depth to Water: 6.59 Start = 940

min	pH	SC	ORP	DO	TURB	Depth
5	6.39	11383.37	-53.40	0.61	8.47	6.95
10	6.39	11290.74	-45.60	0.50	6.79	6.89
15	6.38	11386.51	-57.20	0.45	6.10	6.88

- Pump slowed  
- stabilize stable

MWL-R-1215 WL. Depth: 6.48

	pH	SC	ORP	DO	TURB	Depth
5	6.37	3665.75	-28.40	0.59	12.90	6.65
10	6.37	3383.4	-31.80	0.40	10.95	6.65
15	6.37	3359.51	-32.60	0.34	10.66	6.63
20	6.37	3334.62	-33.90	0.32	9.46	6.63

- lowered pumping rate to 1.71  
- SC only parameter not stabilized  
- stable

MW45-1215 Depth to WT: 5.71

	pH	SC	ORP	DO	Turb	Depth
	6.45	296535	-19.30	0.86	8.85	6.62
	6.45	2893.94	-20.70	0.62	7.93	6.00
	6.45	2904.31	-21.80	0.43	7.54	6.01
	6.44	2911.00	-20.30	0.35	7.20	5.98

- Decreased pump to 1.60

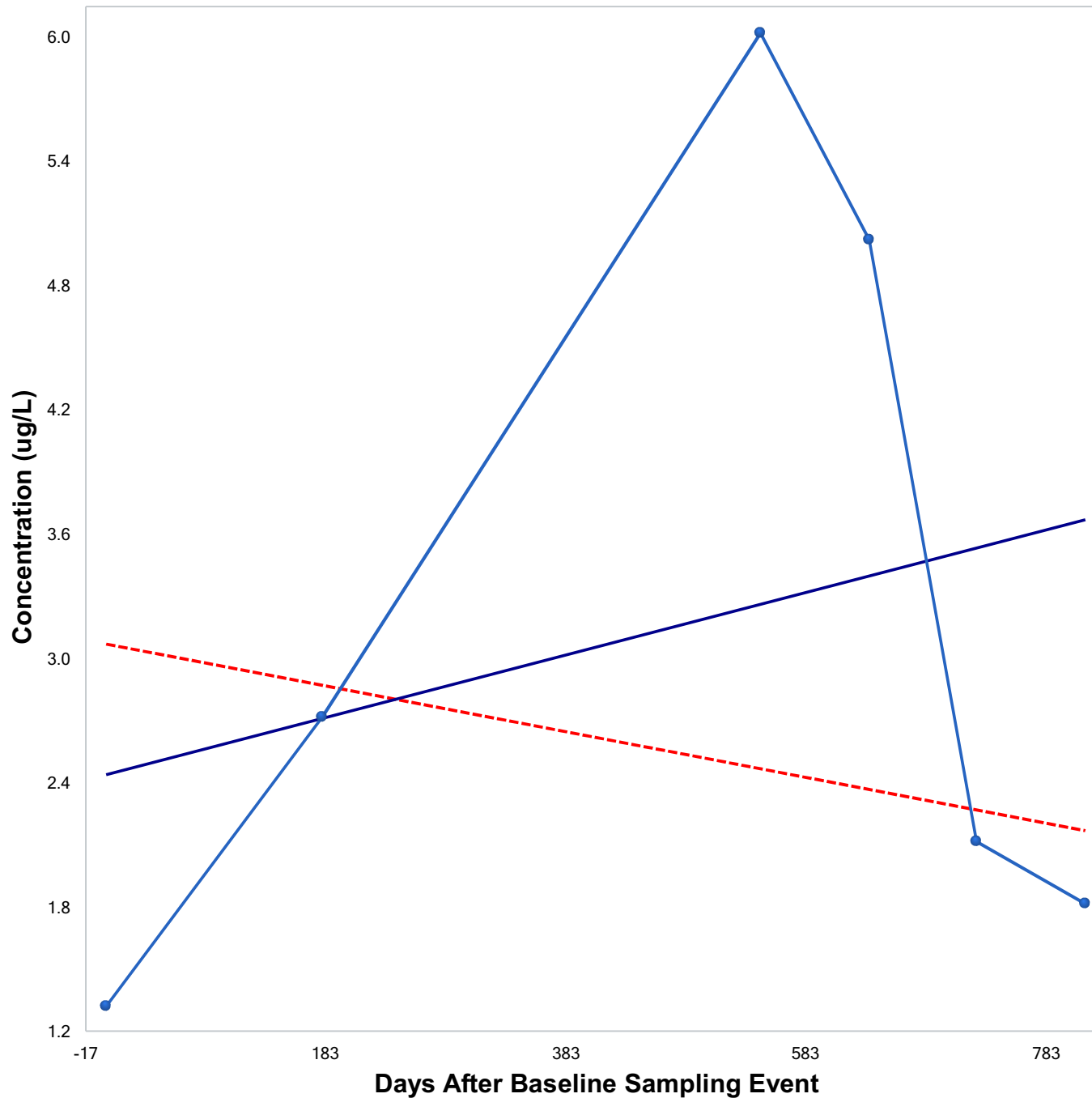
MW46-1215 Depth: 3.12

	pH	SC	ORP	DO	Turb	Depth
	6.50	1699.1	-30.10	0.52	6.44	3.16
	6.49	1695.80	-34.40	0.32	3.85	3.18
	6.49	1699.20	-37.10	0.26	3.90	3.17

## **APPENDIX F**

### **MANN-KENDALL**

## MW04-R Mann-Kendall Trend Test - Vinyl Chloride



### Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	0.0000
Test Value (S)	-1
Tabulated p-value	0.5000
Approximate p-value	0.5000

### OLS Regression Line (Blue)

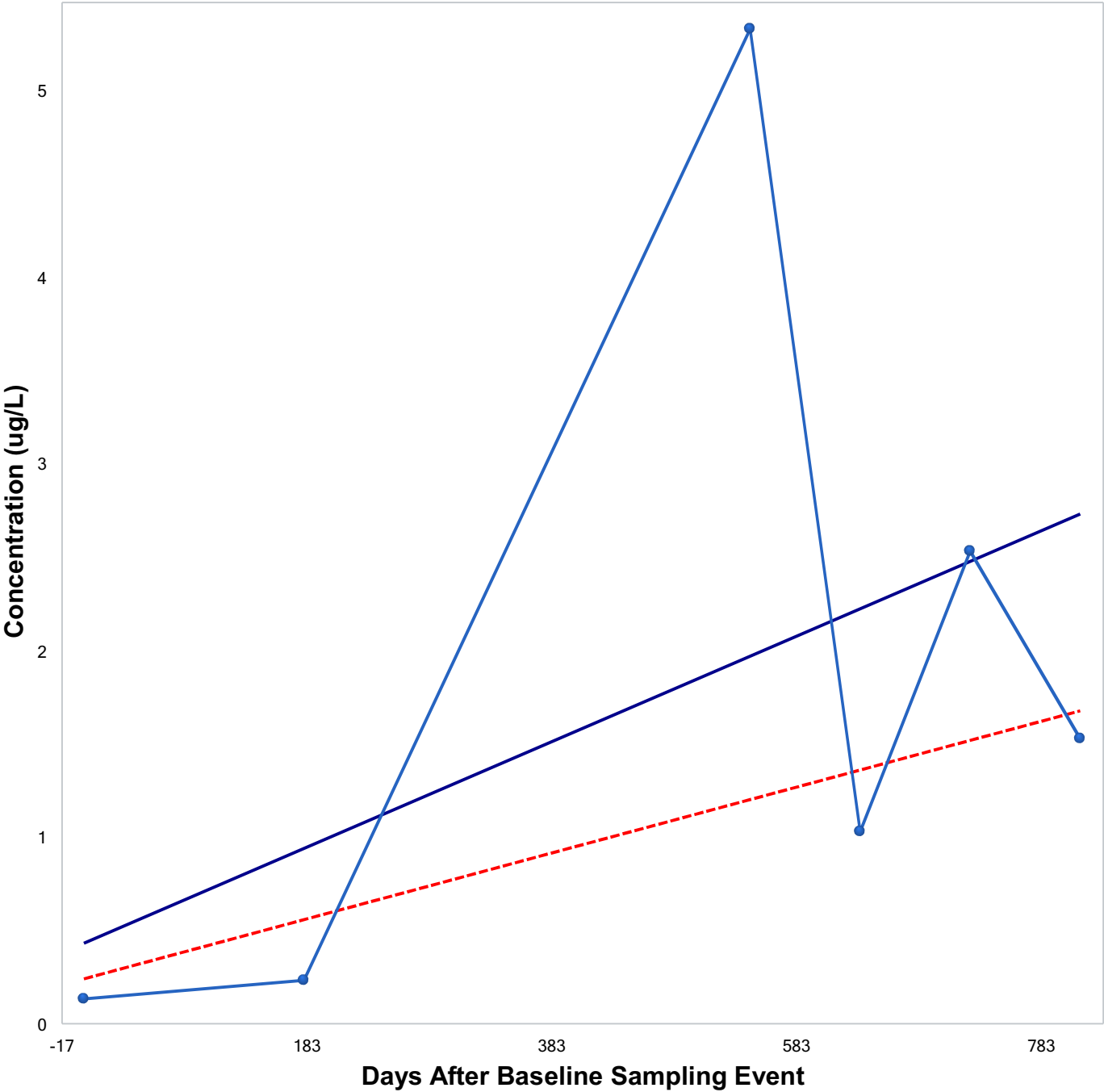
OLS Regression Slope	0.0015
OLS Regression Intercept	2.4211

### Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0011
Theil-Sen Intercept	3.0495

Insufficient statistical evidence  
of a significant trend at the  
specified level of significance.

MW05 Mann-Kendall Trend Test - Vinyl Chloride



Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	1.1272
Test Value (S)	7
Tabulated p-value	0.1360
Approximate p-value	0.1298

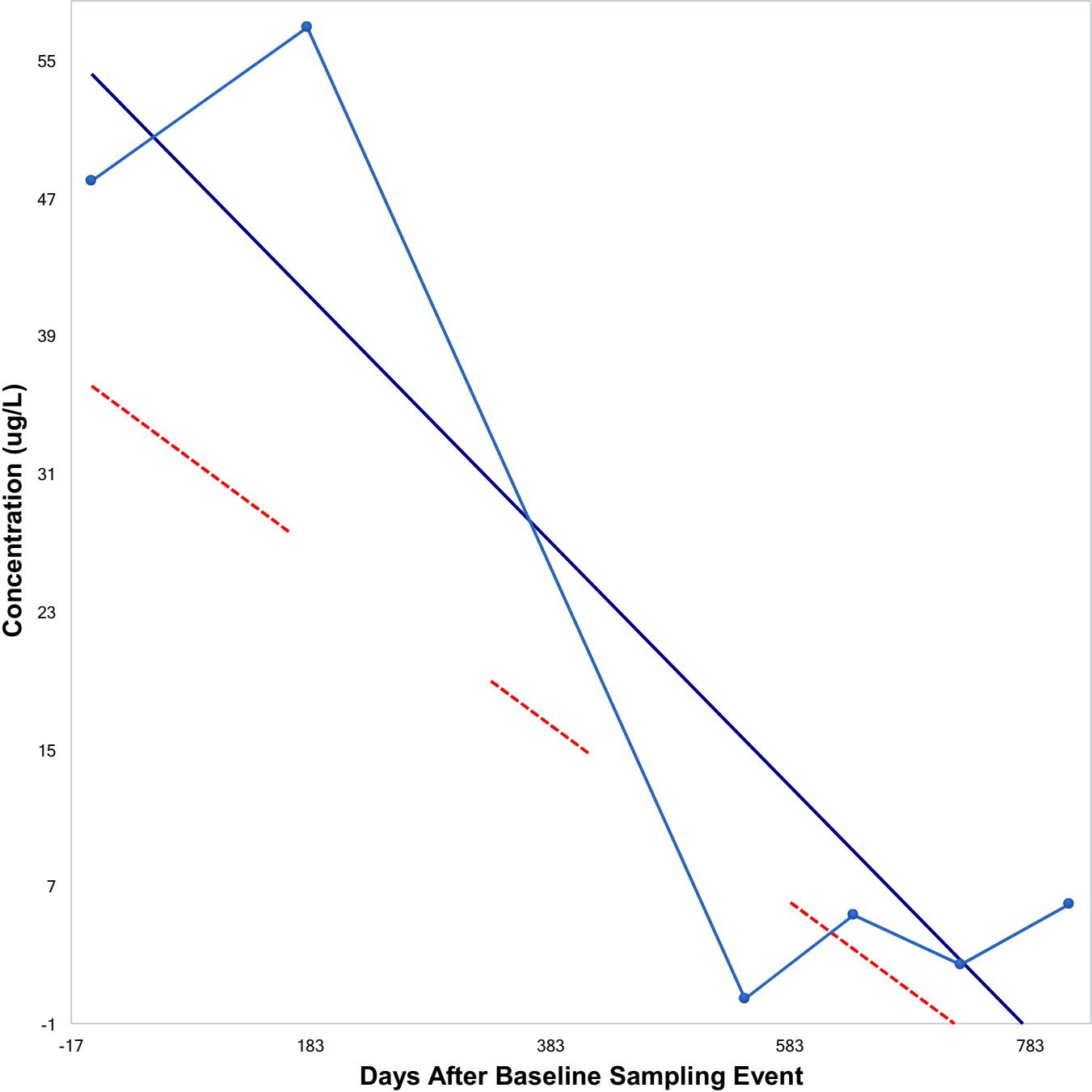
OLS Regression Line (Blue)	
OLS Regression Slope	0.0028
OLS Regression Intercept	0.7014

Theil-Sen Trend Line (Red)	
Theil-Sen Slope	0.0018
Theil-Sen Intercept	0.5126

Insufficient statistical evidence  
of a significant trend at the  
specified level of significance.

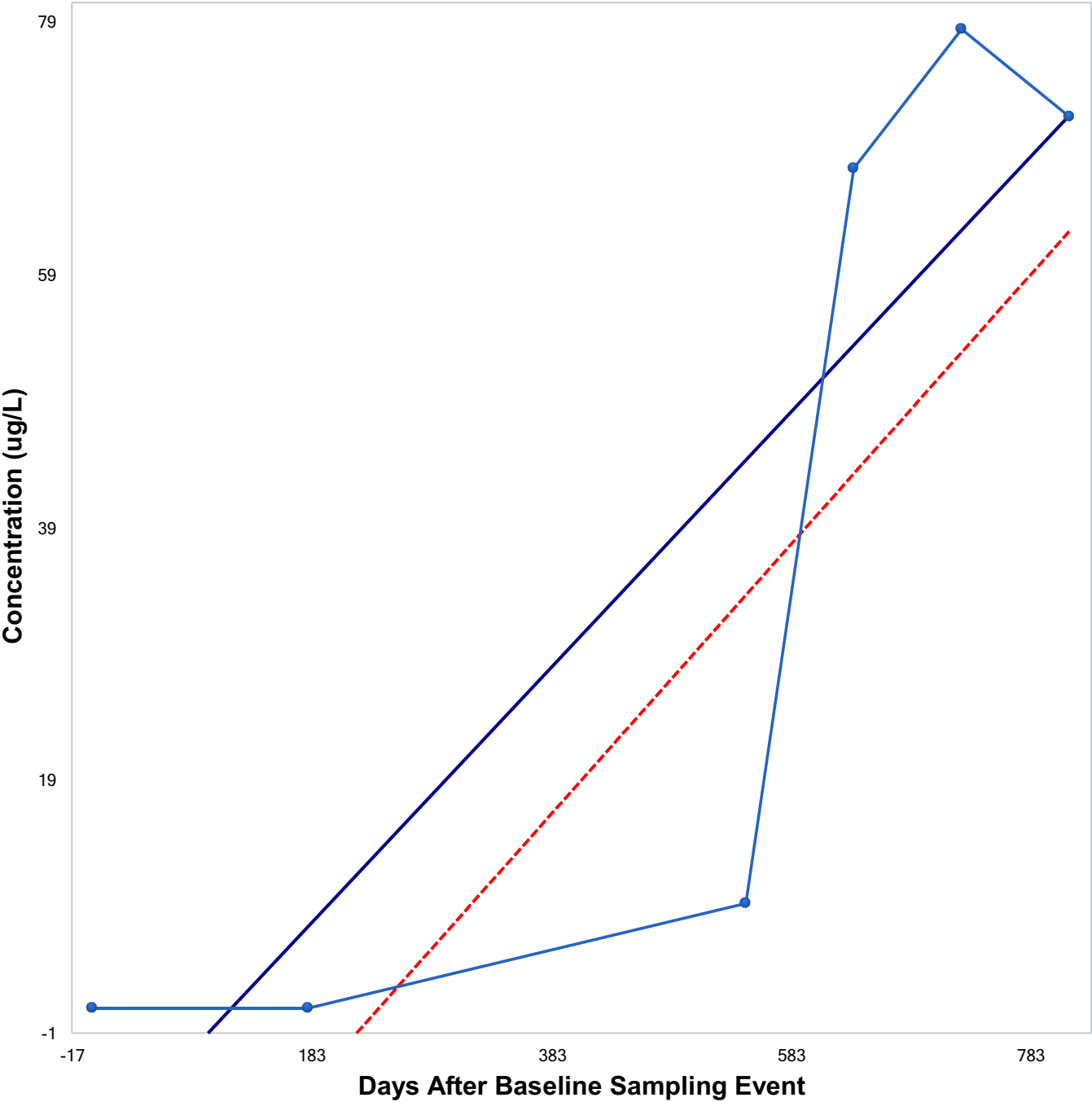


MW06-R Mann-Kendall Trend Test - Vinyl Chloride



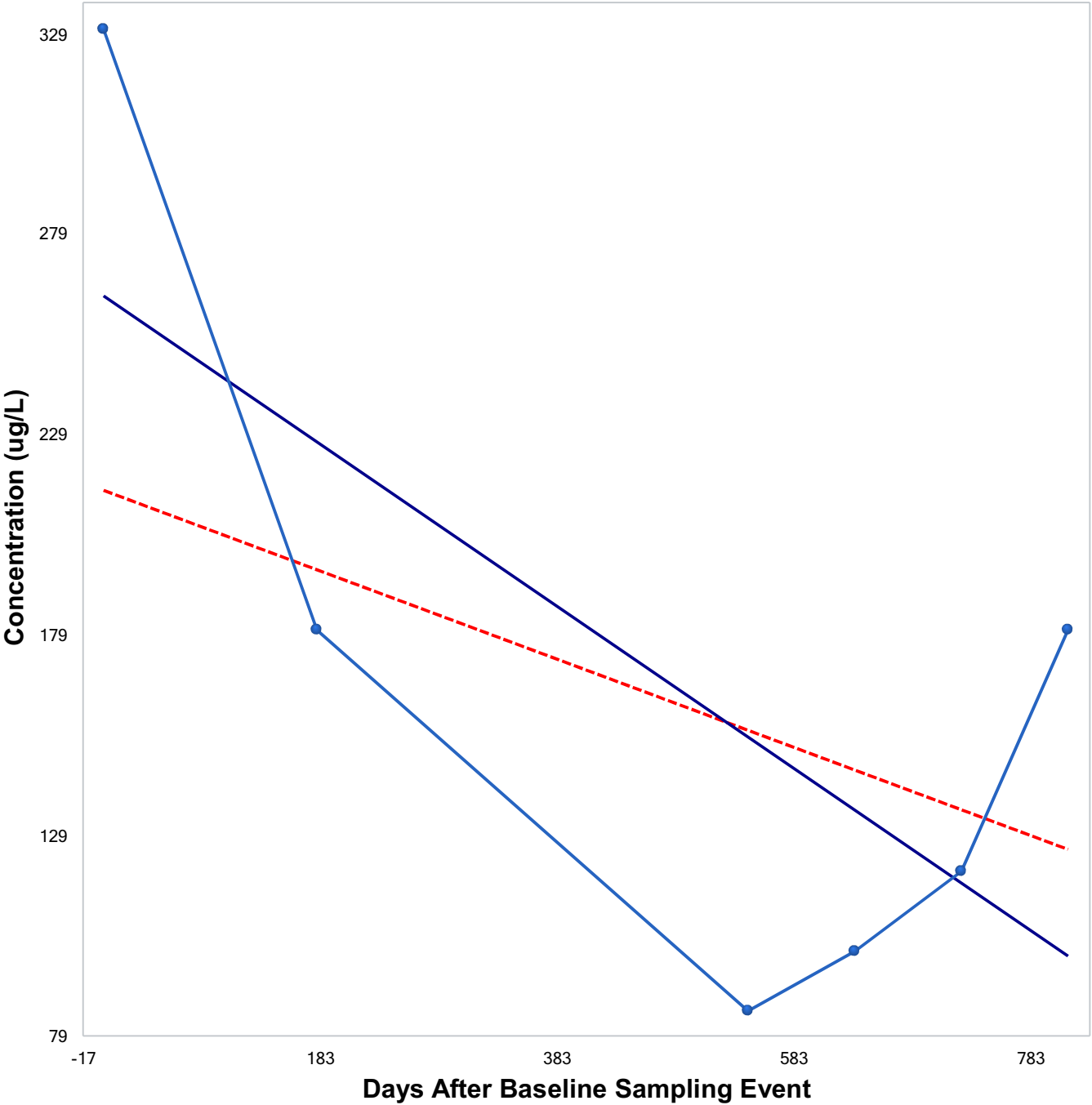
Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	-0.3757
Test Value (S)	-3
Tabulated p-value	0.3600
Approximate p-value	0.3536
OLS Regression Line (Blue)	
OLS Regression Slope	-0.0711
OLS Regression Intercept	54.2787
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	-0.0515
Theil-Sen Intercept	36.1049
Insufficient statistical evidence of a significant trend at the specified level of significance.	

# MW07-R Mann-Kendall Trend Test - Vinyl Chloride



Mann-Kendall Trend Analysis		
n		6
Confidence Coefficient		0.9500
Level of Significance		0.0500
Standard Deviation of S		5.2281
Standardized Value of S		2.1040
Test Value (S)		12
Tabulated p-value		0.0080
Approximate p-value		0.0177
OLS Regression Line (Blue)		
OLS Regression Slope		0.1012
OLS Regression Intercept		-11.2809
Theil-Sen Trend Line (Red)		
Theil-Sen Slope		0.1069
Theil-Sen Intercept		-25.1690
Statistically significant evidence of an increasing trend at the specified level of significance.		

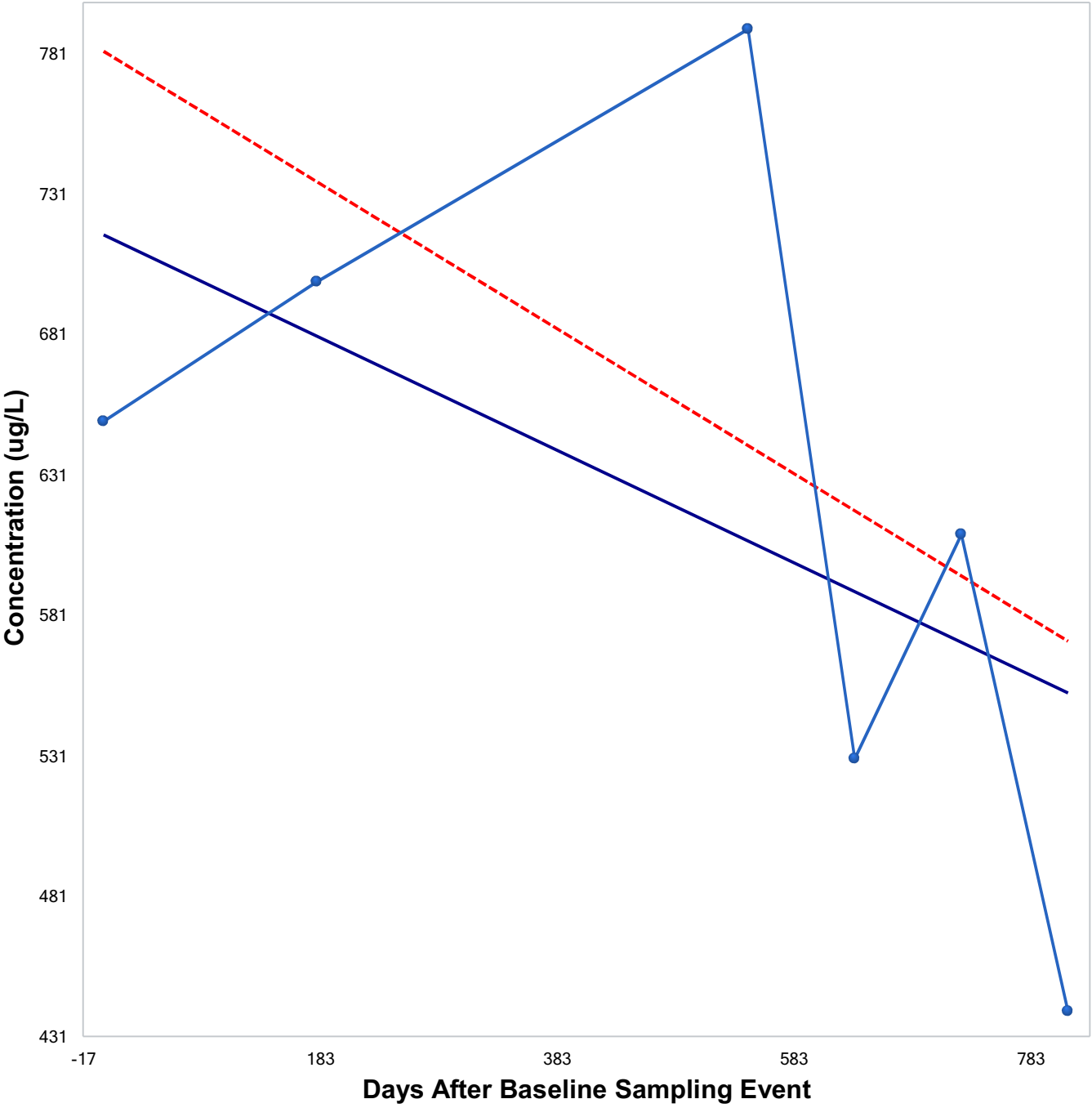
MW08-R Mann-Kendall Trend Test - cis-1,2-DCE



Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.2281
Standardized Value of S	-0.1913
Test Value (S)	-2
Tabulated p-value	0.3600
Approximate p-value	0.4242
OLS Regression Line (Blue)	
OLS Regression Slope	-0.2016
OLS Regression Intercept	263.2656
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	-0.1101
Theil-Sen Intercept	214.9541
Insufficient statistical evidence of a significant trend at the specified level of significance.	

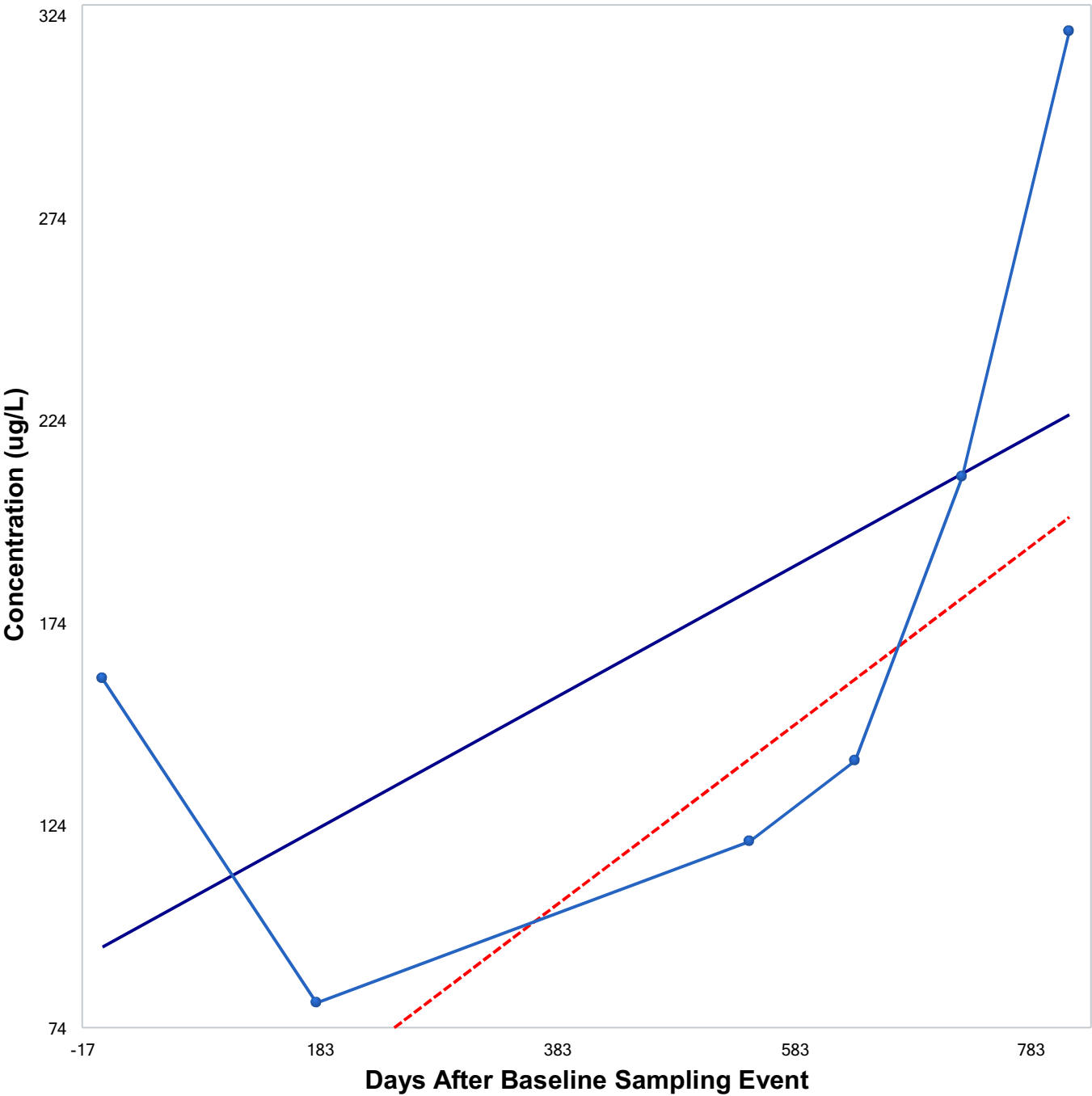


MW08-R Mann-Kendall Trend Test - Tetrachloroethene



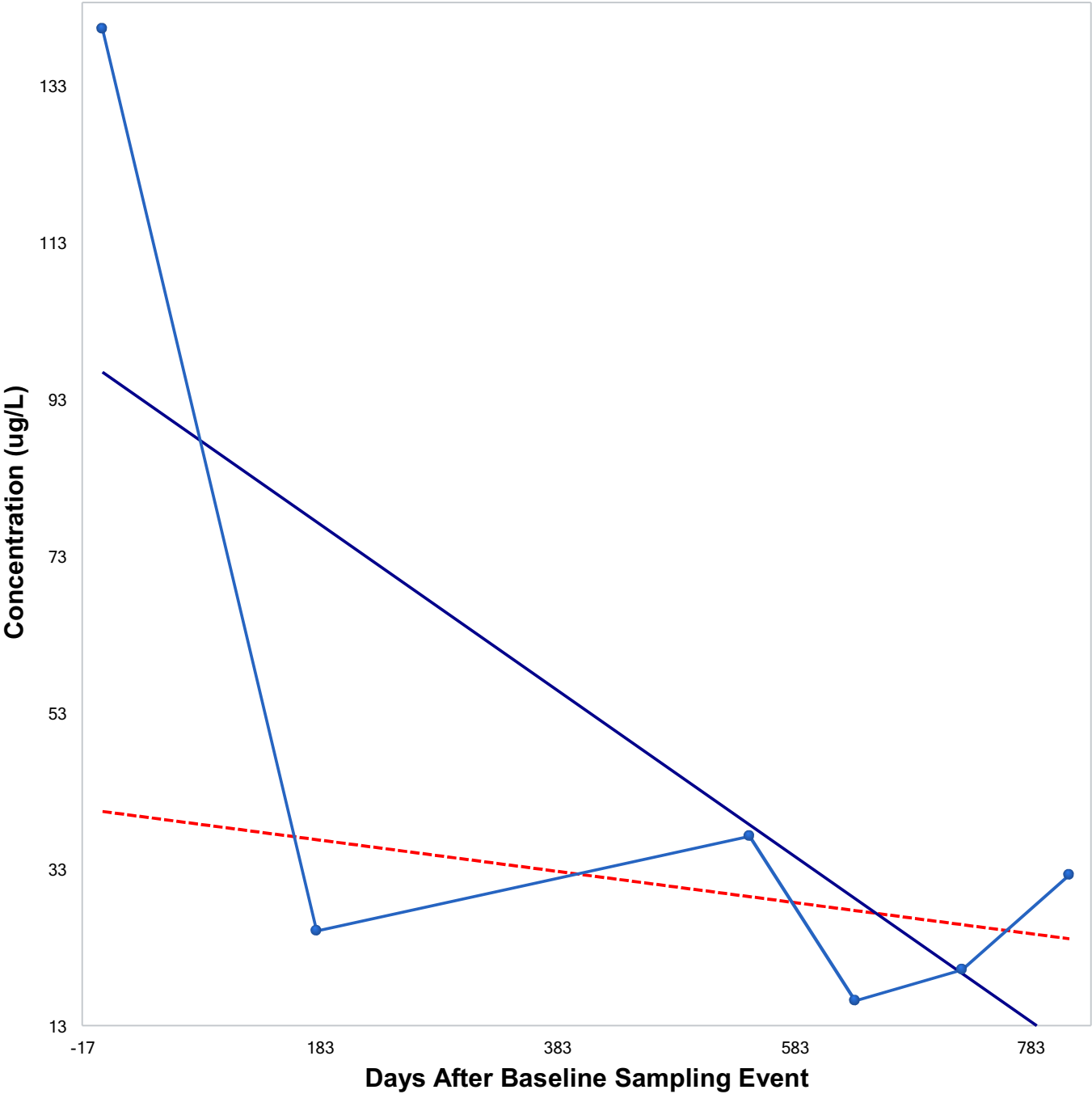
Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	-1.1272
Test Value (S)	-7
Tabulated p-value	0.1360
Approximate p-value	0.1298
OLS Regression Line (Blue)	
OLS Regression Slope	-0.1998
OLS Regression Intercept	716.5584
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	-0.2577
Theil-Sen Intercept	782.0245
Insufficient statistical evidence of a significant trend at the specified level of significance.	

# MW08-R Mann-Kendall Trend Test - Trichloroethene



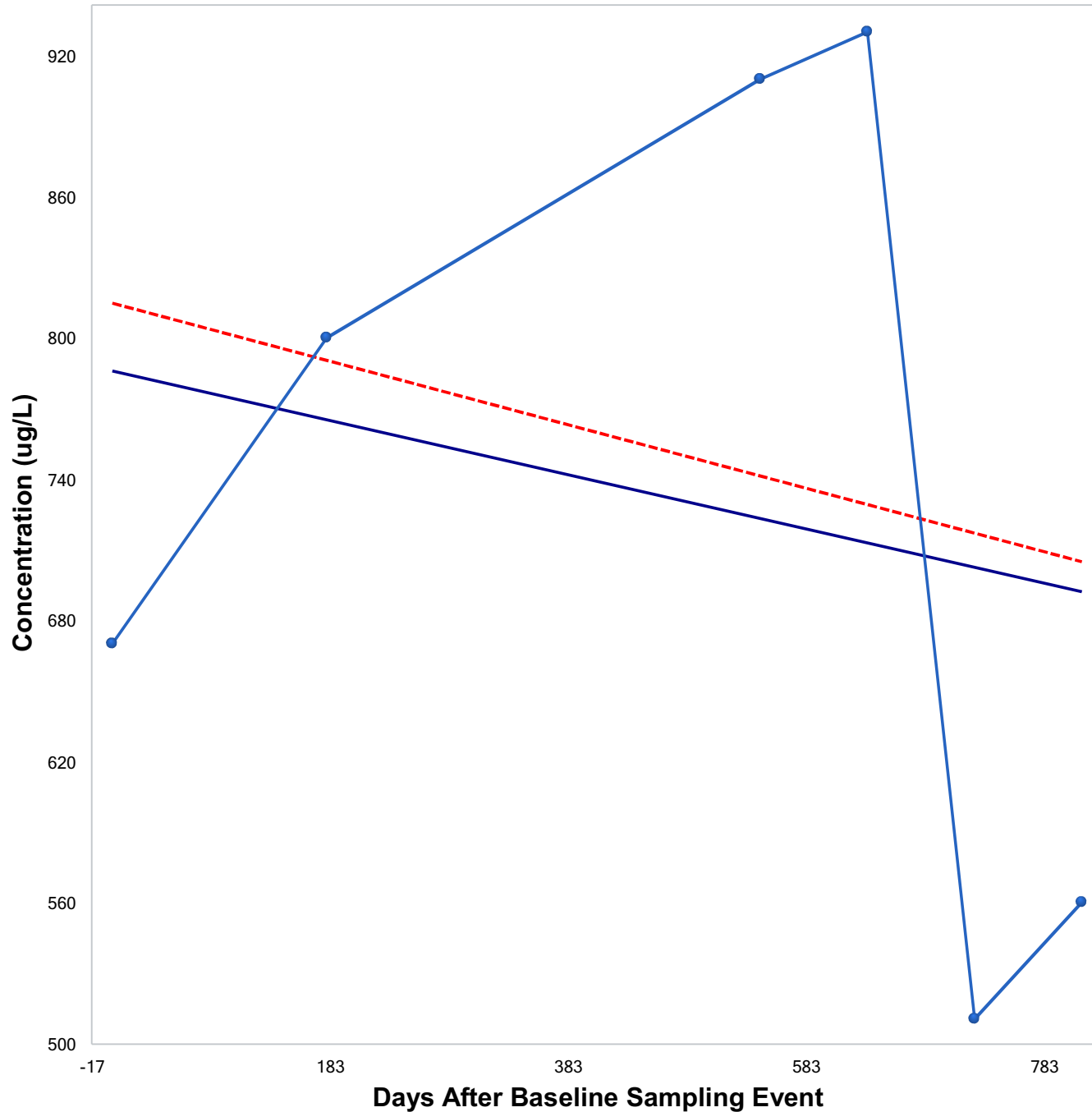
Mann-Kendall Trend Analysis		
n		6
Confidence Coefficient		0.9500
Level of Significance		0.0500
Standard Deviation of S		5.3229
Standardized Value of S		1.5029
Test Value (S)		9
Tabulated p-value		0.0680
Approximate p-value		0.0664
OLS Regression Line (Blue)		
OLS Regression Slope		0.1611
OLS Regression Intercept		93.7920
Theil-Sen Trend Line (Red)		
Theil-Sen Slope		0.2222
Theil-Sen Intercept		18.8889
Insufficient statistical evidence of a significant trend at the specified level of significance.		

MW08-R Mann-Kendall Trend Test - Vinyl Chloride



Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	-0.7515
Test Value (S)	-5
Tabulated p-value	0.2350
Approximate p-value	0.2262
OLS Regression Line (Blue)	
OLS Regression Slope	-0.1058
OLS Regression Intercept	96.1282
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	-0.0198
Theil-Sen Intercept	40.1703
Insufficient statistical evidence of a significant trend at the specified level of significance.	

## MW31 Mann-Kendall Trend Test - cis-1,2-DCE



### Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	0.0000
Test Value (S)	-1
Tabulated p-value	0.5000
Approximate p-value	0.5000

### OLS Regression Line (Blue)

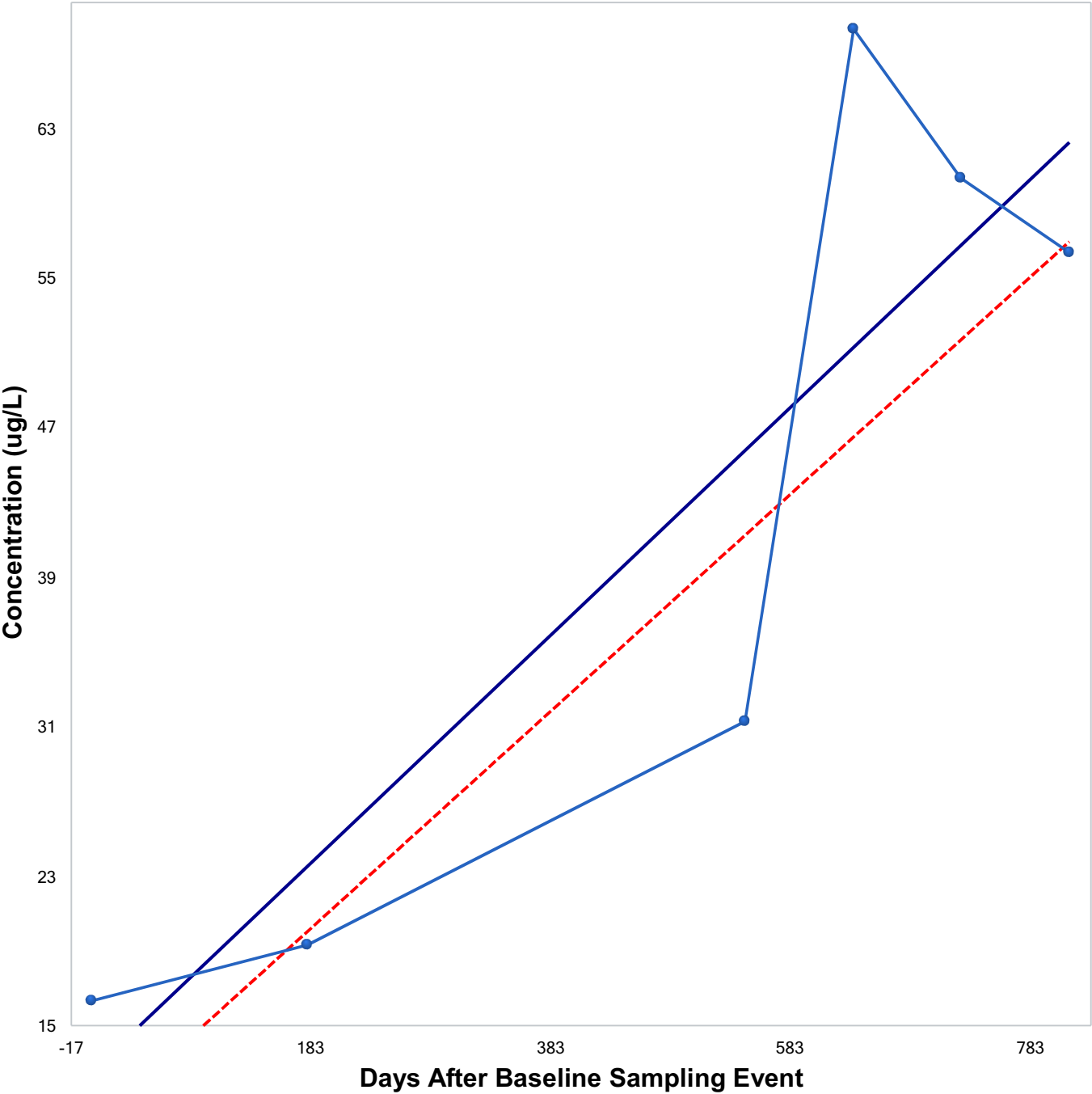
OLS Regression Slope	-0.1159
OLS Regression Intercept	786.0048

### Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.1350
Theil-Sen Intercept	814.6319

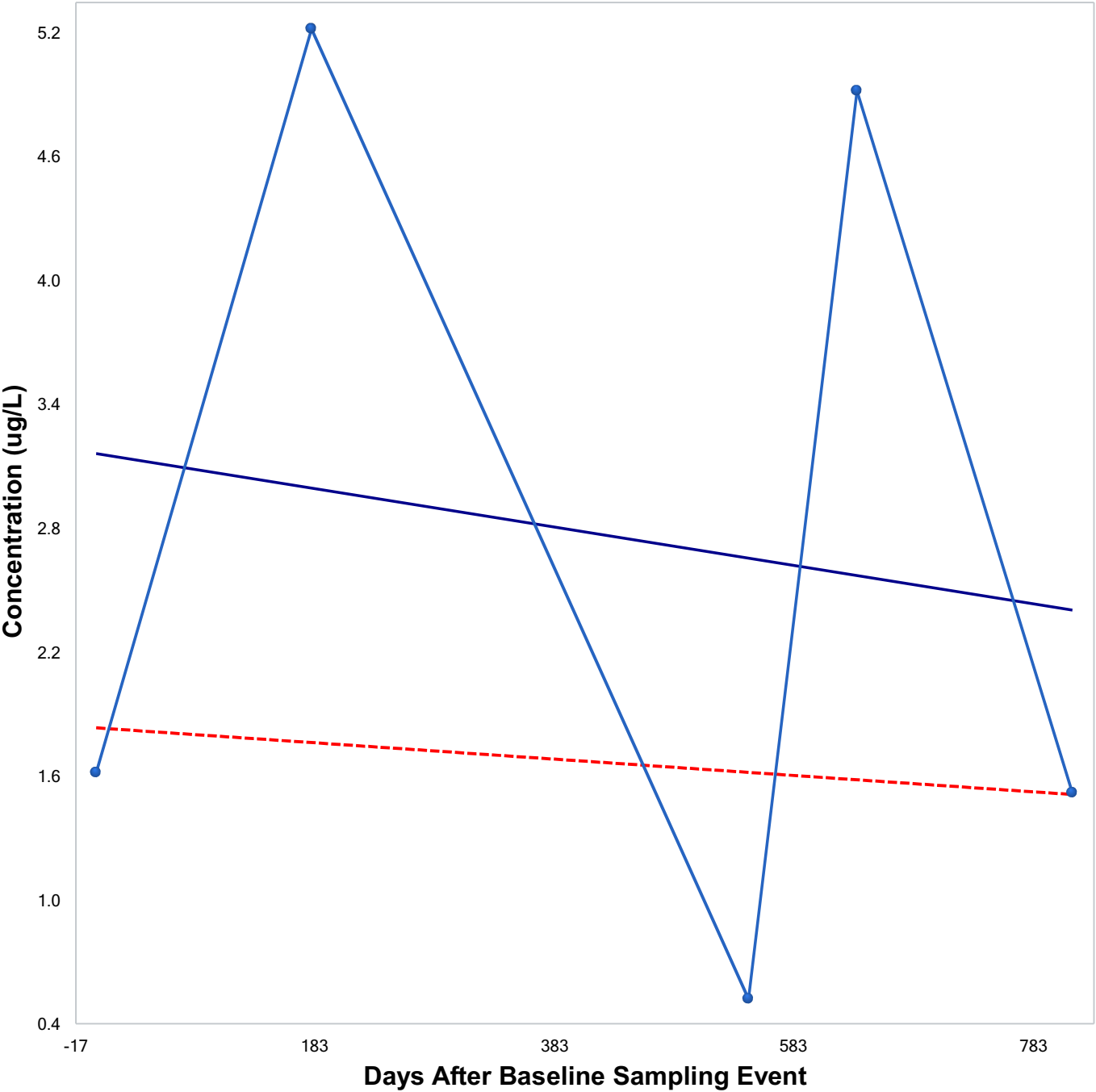
Insufficient statistical evidence  
of a significant trend at the  
specified level of significance.

# MW31 Mann-Kendall Trend Test - Vinyl Chloride



Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	1.5029
Test Value (S)	9
Tabulated p-value	0.0680
Approximate p-value	0.0664
OLS Regression Line (Blue)	
OLS Regression Slope	0.0611
OLS Regression Intercept	12.1547
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	0.0583
Theil-Sen Intercept	9.1220
Insufficient statistical evidence of a significant trend at the specified level of significance.	

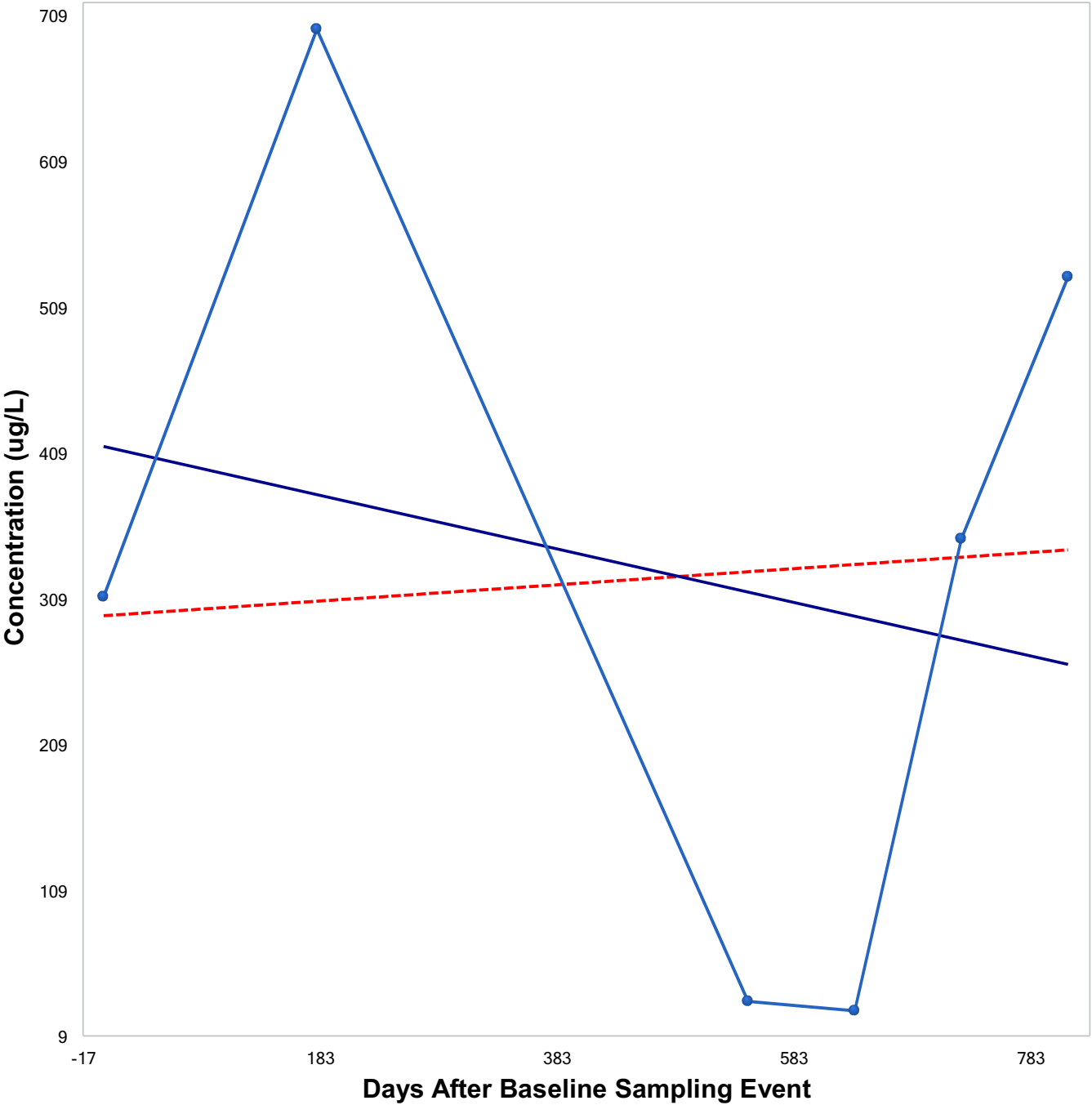
MW35 Mann-Kendall Trend Test - Vinyl Chloride



Mann-Kendall Trend Analysis	
n	5
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	4.0825
Standardized Value of S	-0.2449
Test Value (S)	-2
Tabulated p-value	0.4080
Approximate p-value	0.4032
OLS Regression Line (Blue)	
OLS Regression Slope	-0.0009
OLS Regression Intercept	3.1424
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	-0.0004
Theil-Sen Intercept	1.8131

Insufficient statistical evidence  
of a significant trend at the  
specified level of significance.

# MW40-R Mann-Kendall Trend Test - cis-1,2-DCE



## Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	0.0000
Test Value (S)	1
Tabulated p-value	0.5000
Approximate p-value	0.5000

## OLS Regression Line (Blue)

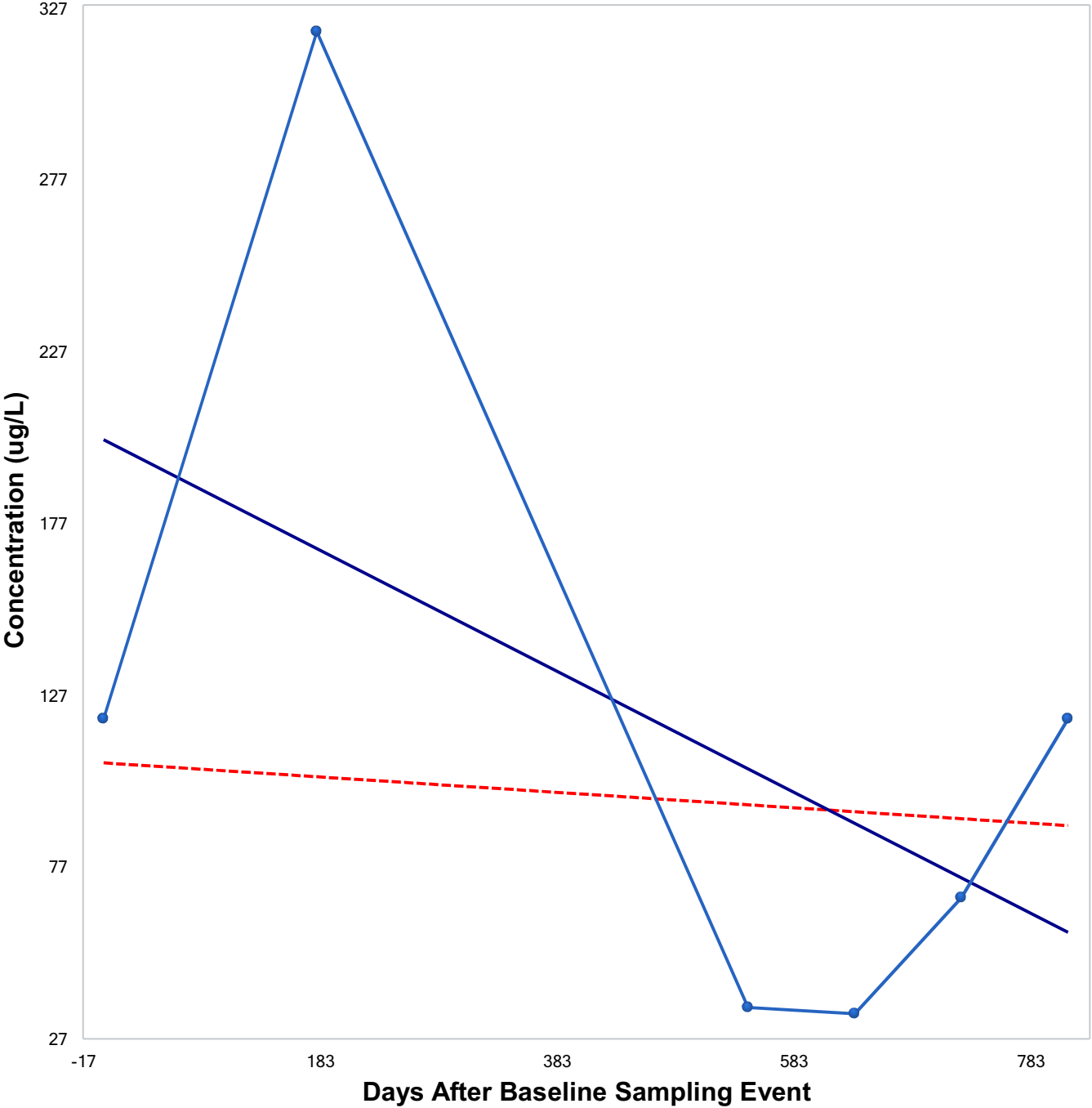
OLS Regression Slope	-0.1840
OLS Regression Intercept	413.7558

## Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0552
Theil-Sen Intercept	297.4483

Insufficient statistical evidence  
of a significant trend at the  
specified level of significance.

MW40-R Mann-Kendall Trend Test - Vinyl Chloride



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.2281
Standardized Value of S	-0.1913
Test Value (S)	-2
Tabulated p-value	0.3600
Approximate p-value	0.4242

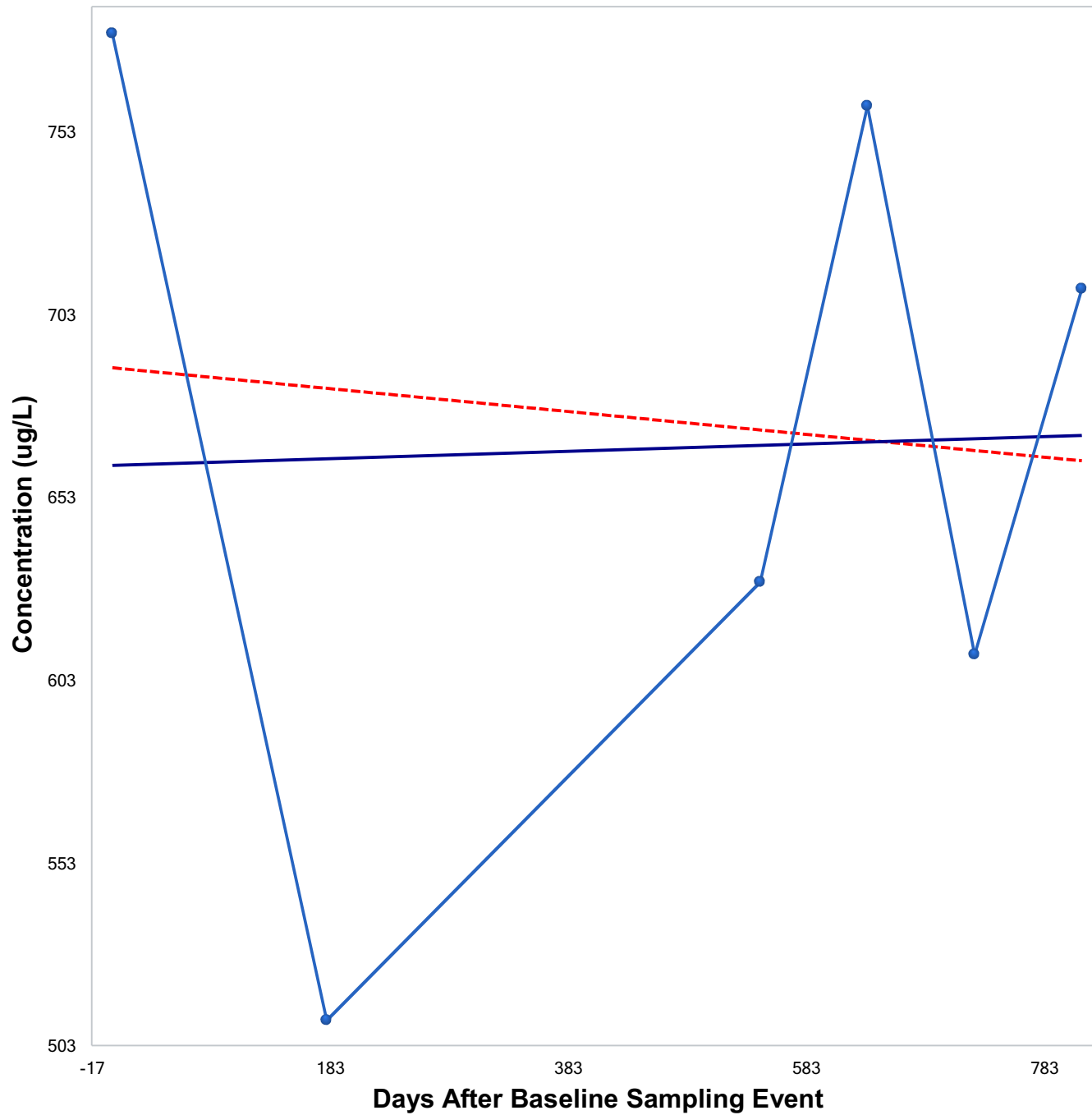
OLS Regression Line (Blue)	
OLS Regression Slope	-0.1756
OLS Regression Intercept	201.2051

Theil-Sen Trend Line (Red)	
Theil-Sen Slope	-0.0222
Theil-Sen Intercept	107.1111

Insufficient statistical evidence  
of a significant trend at the  
specified level of significance.



## MW41 Mann-Kendall Trend Test - cis-1,2-DCE



### Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	0.0000
Test Value (S)	-1
Tabulated p-value	0.5000
Approximate p-value	0.5000

### OLS Regression Line (Blue)

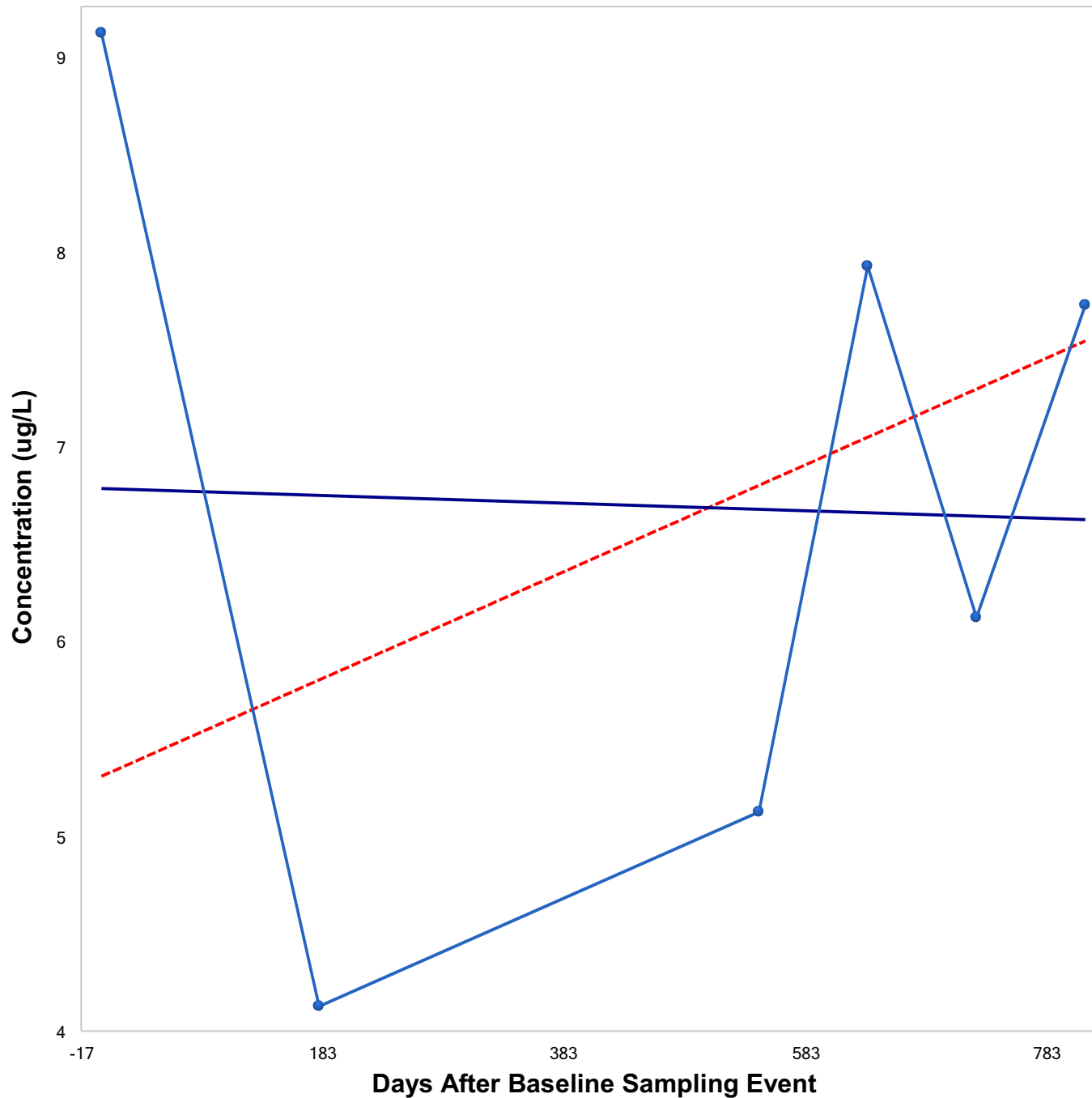
OLS Regression Slope	0.0102
OLS Regression Intercept	661.7328

### Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0315
Theil-Sen Intercept	688.5827

Insufficient statistical evidence  
of a significant trend at the  
specified level of significance.

## MW41 Mann-Kendall Trend Test - Vinyl Chloride



### Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	0.0000
Test Value (S)	1
Tabulated p-value	0.5000
Approximate p-value	0.5000

### OLS Regression Line (Blue)

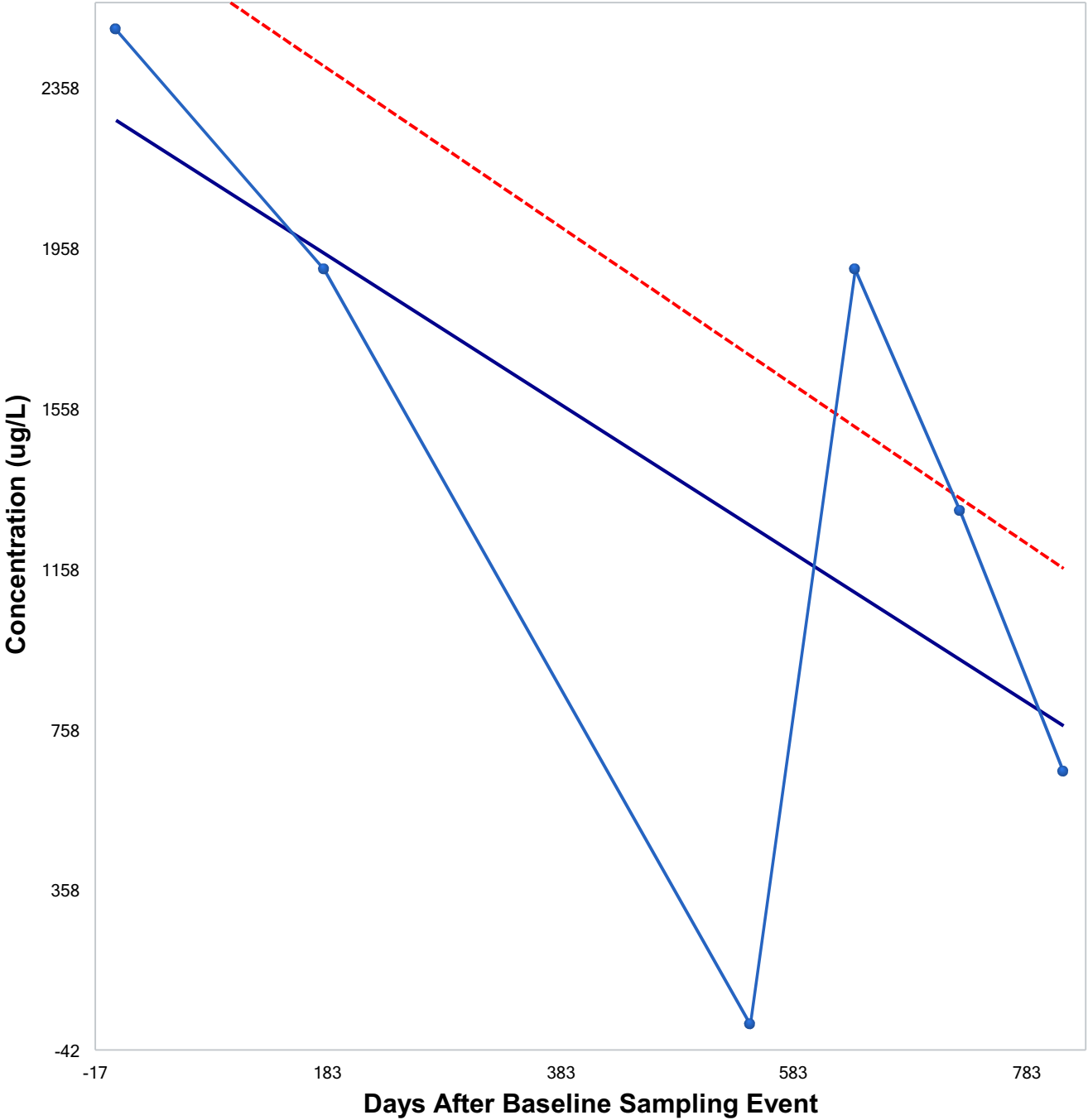
OLS Regression Slope	-0.0002
OLS Regression Intercept	7.0607

### Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0027
Theil-Sen Intercept	5.5836

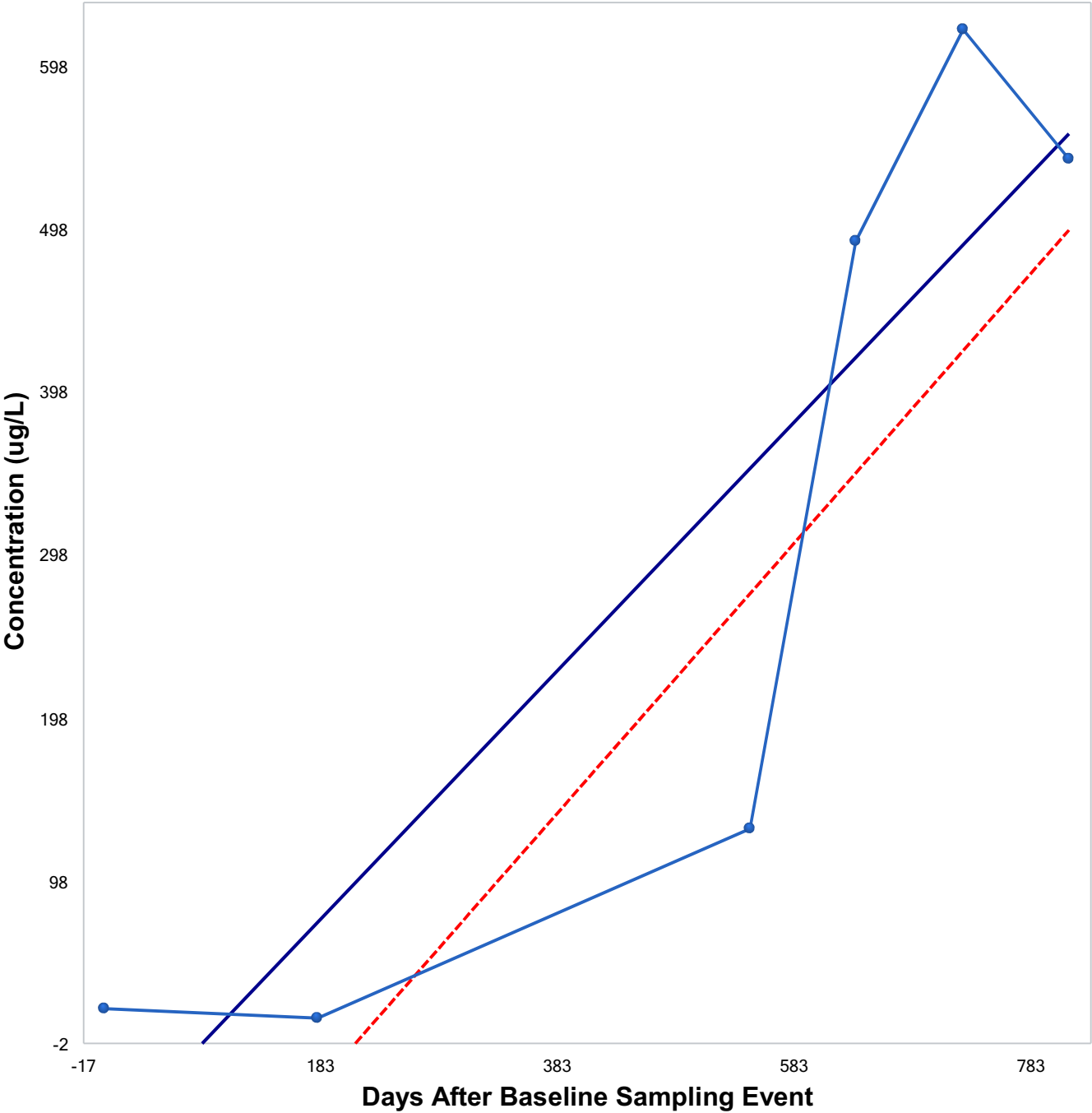
Insufficient statistical evidence  
of a significant trend at the  
specified level of significance.

MW42 Mann-Kendall Trend Test - cis-1,2-DCE



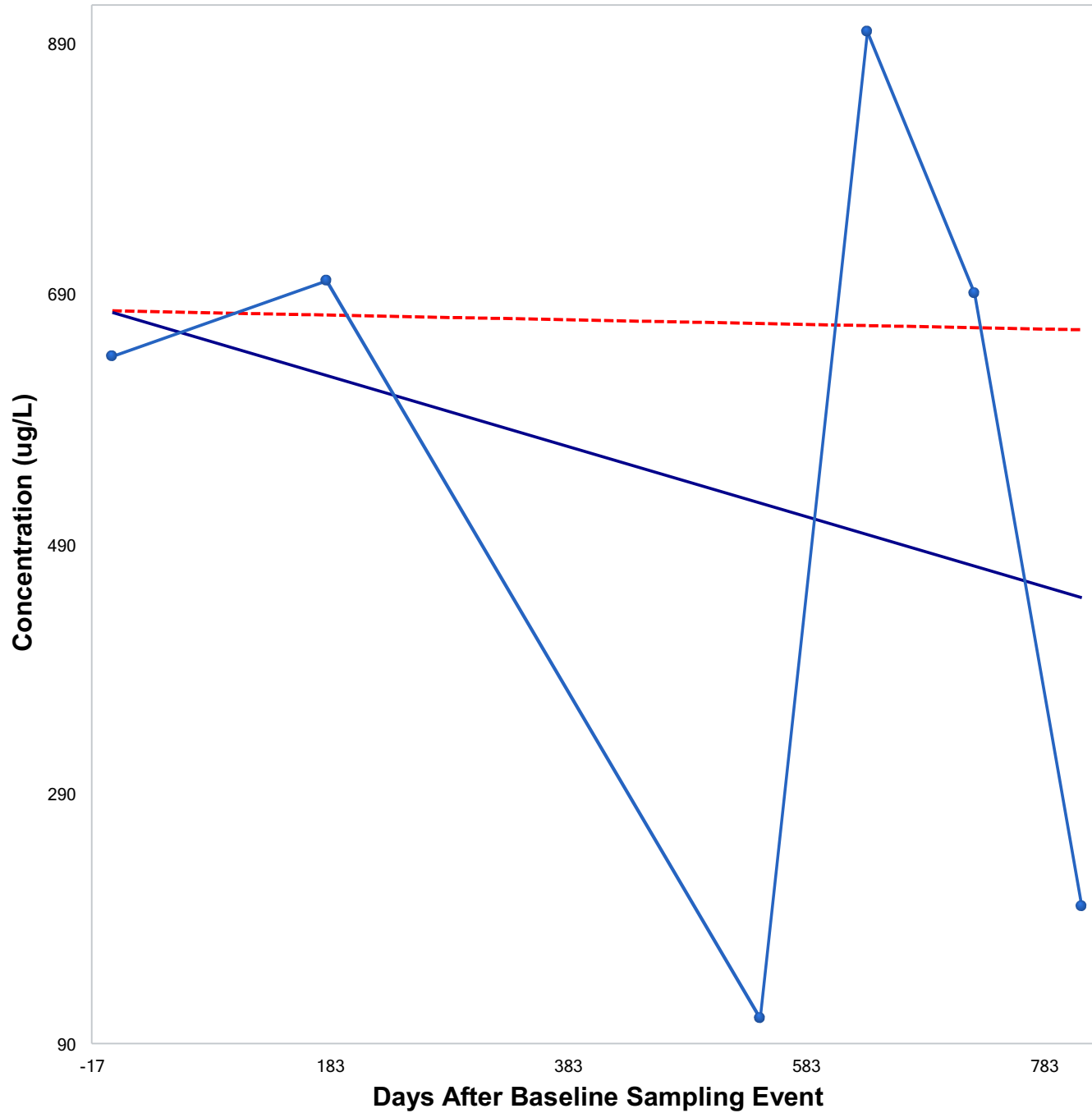
Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.2281
Standardized Value of S	-1.3389
Test Value (S)	-8
Tabulated p-value	0.0680
Approximate p-value	0.0903
OLS Regression Line (Blue)	
OLS Regression Slope	-1.8538
OLS Regression Intercept	2,274.3328
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	-1.9685
Theil-Sen Intercept	2,761.4173
Insufficient statistical evidence of a significant trend at the specified level of significance.	

# MW42 Mann-Kendall Trend Test - Vinyl Chloride



Mann-Kendall Trend Analysis		
n		6
Confidence Coefficient		0.9500
Level of Significance		0.0500
Standard Deviation of S		5.3229
Standardized Value of S		1.8787
Test Value (S)		11
Tabulated p-value		0.0280
Approximate p-value		0.0301
OLS Regression Line (Blue)		
OLS Regression Slope		0.7644
OLS Regression Intercept		-67.4739
Theil-Sen Trend Line (Red)		
Theil-Sen Slope		0.8290
Theil-Sen Intercept		-179.0897
Statistically significant evidence of an increasing trend at the specified level of significance.		

## MW43 Mann-Kendall Trend Test - cis-1,2-DCE



### Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	0.0000
Test Value (S)	-1
Tabulated p-value	0.5000
Approximate p-value	0.5000

### OLS Regression Line (Blue)

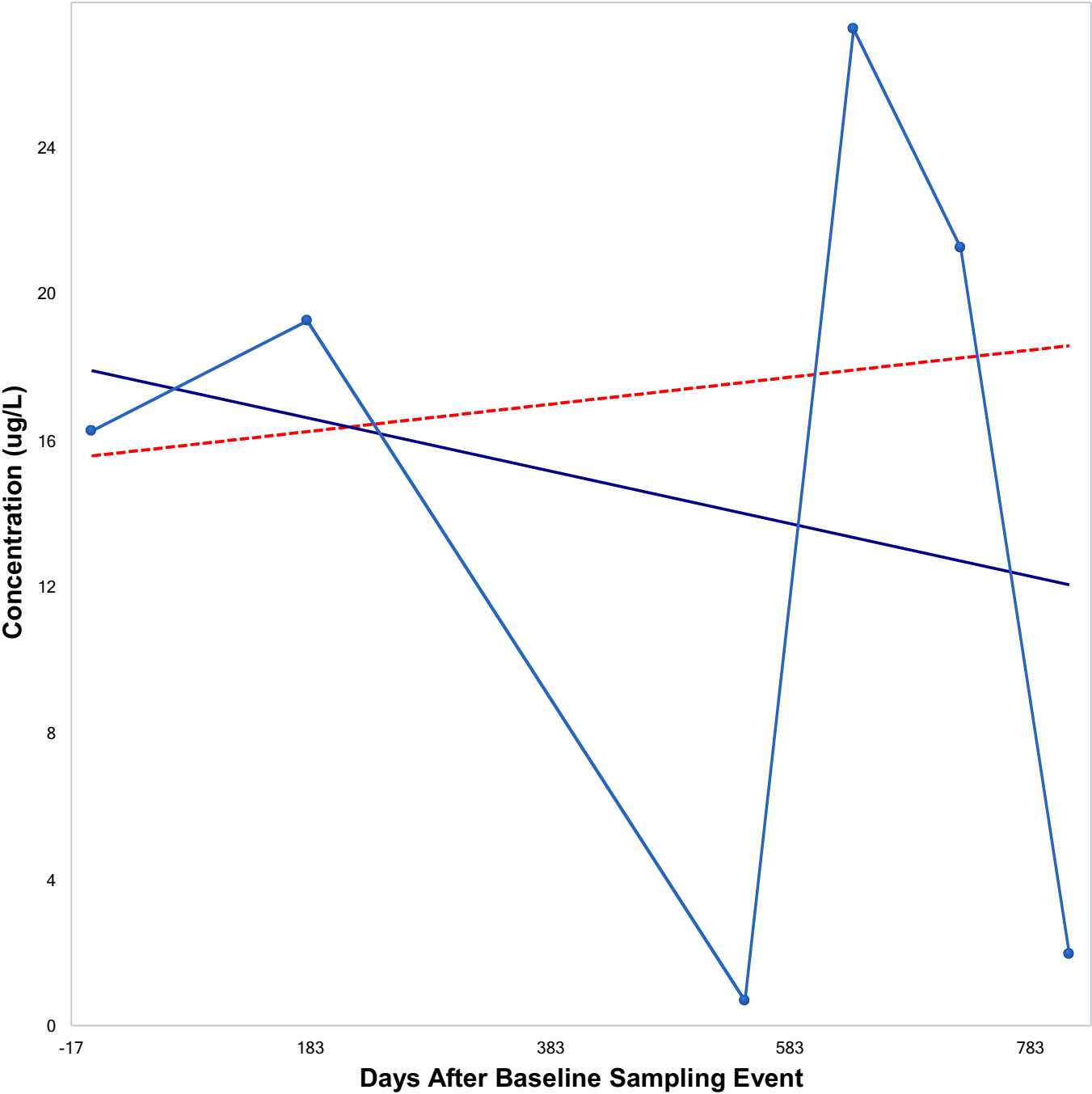
OLS Regression Slope	-0.2790
OLS Regression Intercept	674.8384

### Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0183
Theil-Sen Intercept	675.8257

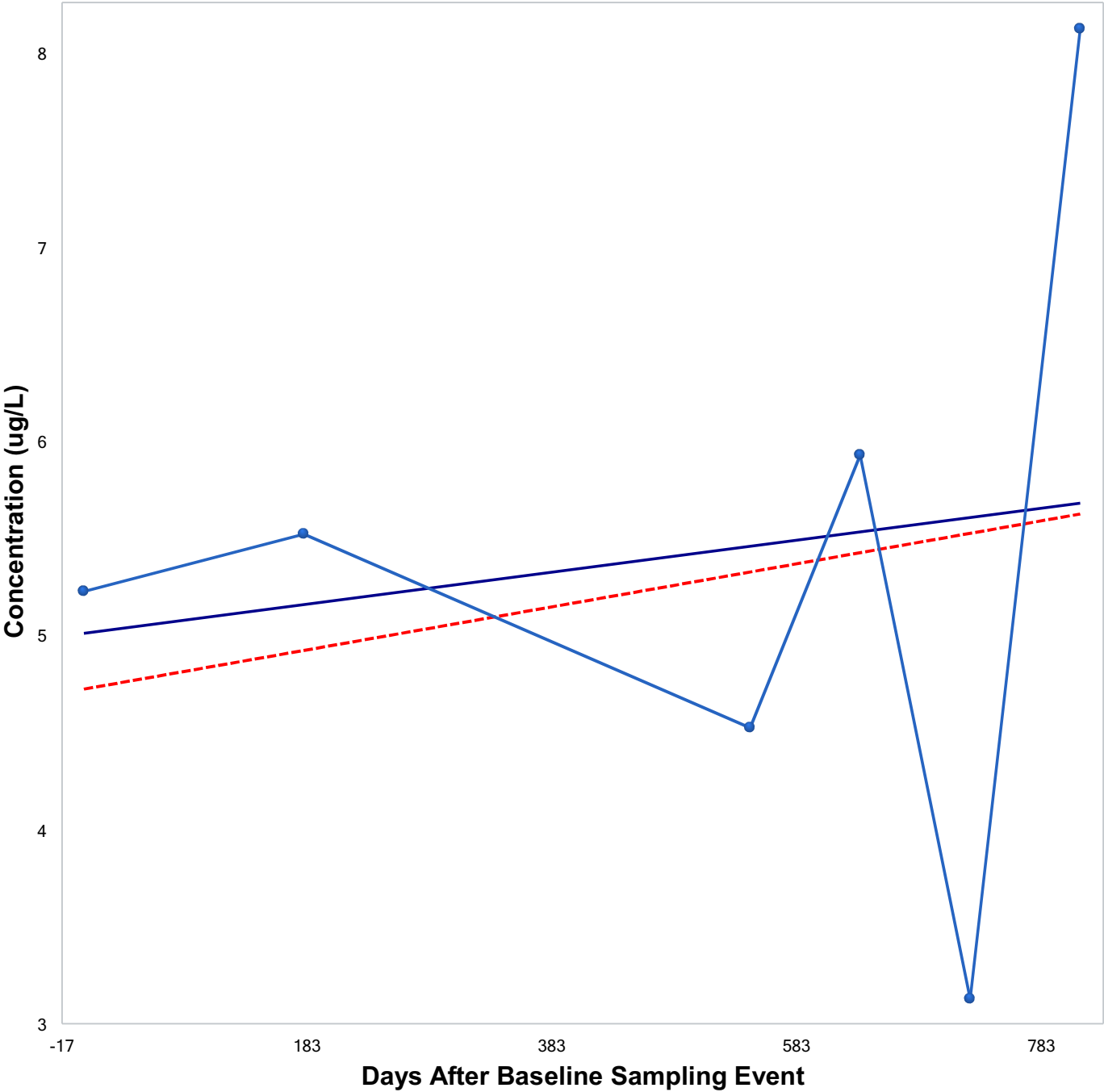
Insufficient statistical evidence  
of a significant trend at the  
specified level of significance.

# MW43 Mann-Kendall Trend Test - Vinyl Chloride



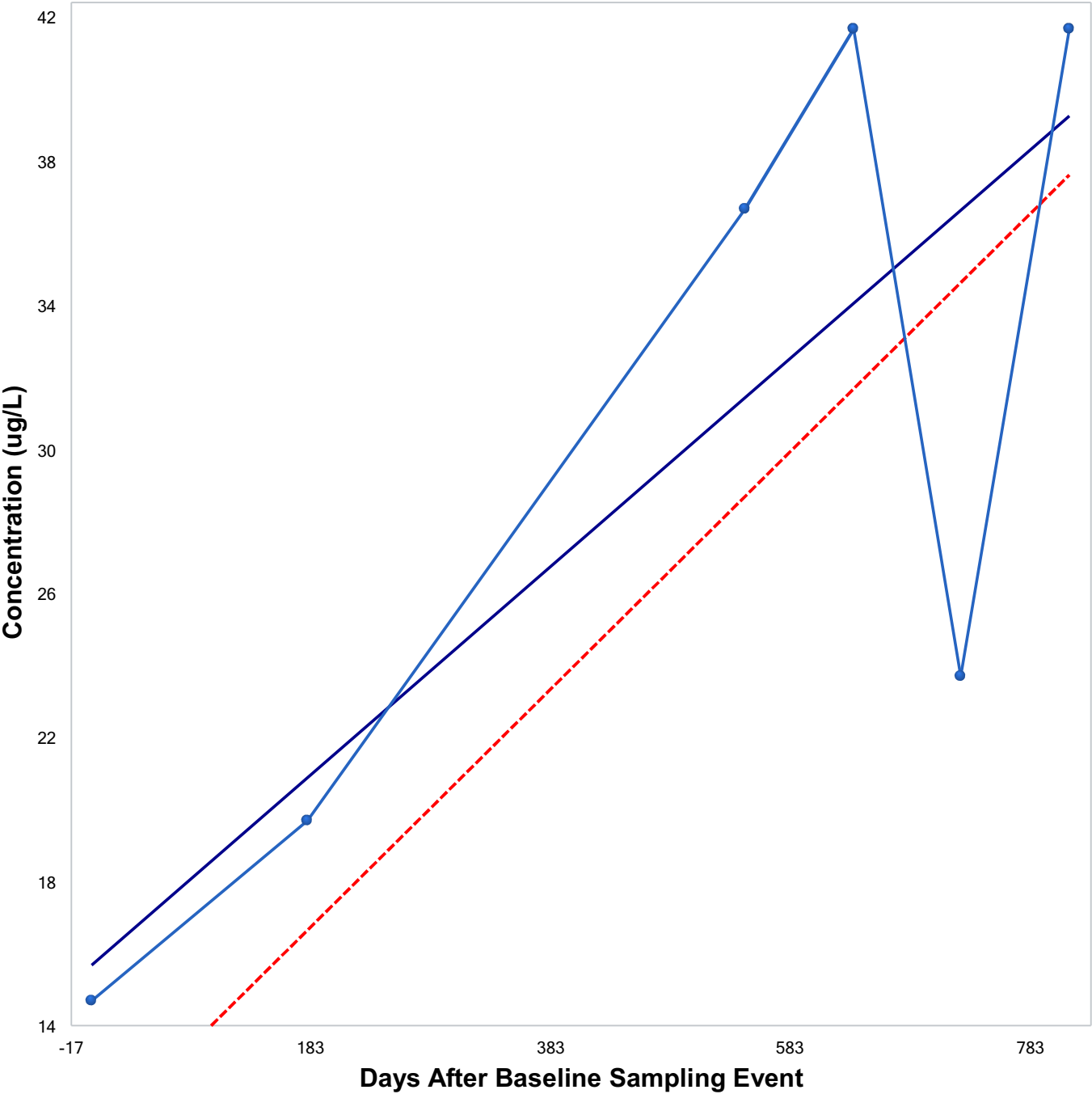
Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	0.0000
Test Value (S)	1
Tabulated p-value	0.5000
Approximate p-value	0.5000
OLS Regression Line (Blue)	
OLS Regression Slope	-0.0072
OLS Regression Intercept	17.6545
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	0.0037
Theil-Sen Intercept	15.3349
Insufficient statistical evidence of a significant trend at the specified level of significance.	

MWI Mann-Kendall Trend Test - Vinyl Chloride



Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	0.3757
Test Value (S)	3
Tabulated p-value	0.3600
Approximate p-value	0.3536
OLS Regression Line (Blue)	
OLS Regression Slope	0.0008
OLS Regression Intercept	4.8877
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	0.0011
Theil-Sen Intercept	4.5996
Insufficient statistical evidence of a significant trend at the specified level of significance.	

MWJ-R Mann-Kendall Trend Test - Vinyl Chloride

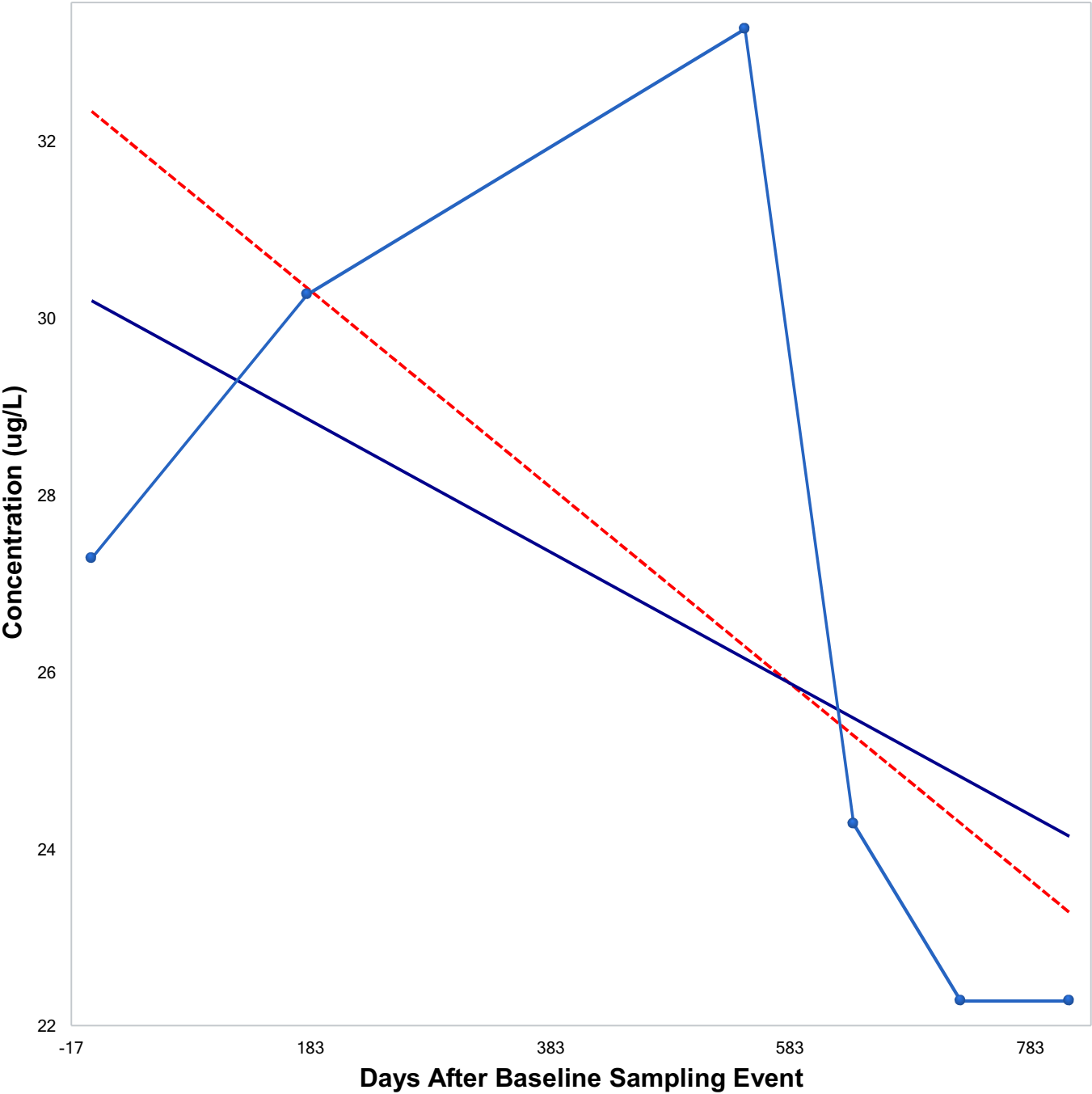


Mann-Kendall Trend Analysis		
n		6
Confidence Coefficient		0.9500
Level of Significance		0.0500
Standard Deviation of S		5.2281
Standardized Value of S		1.7215
Test Value (S)		10
Tabulated p-value		0.0280
Approximate p-value		0.0426
OLS Regression Line (Blue)		
OLS Regression Slope		0.0289
OLS Regression Intercept		16.0197
Theil-Sen Trend Line (Red)		
Theil-Sen Slope		0.0331
Theil-Sen Intercept		10.9540

Statistically significant evidence  
of an increasing trend at the  
specified level of significance.

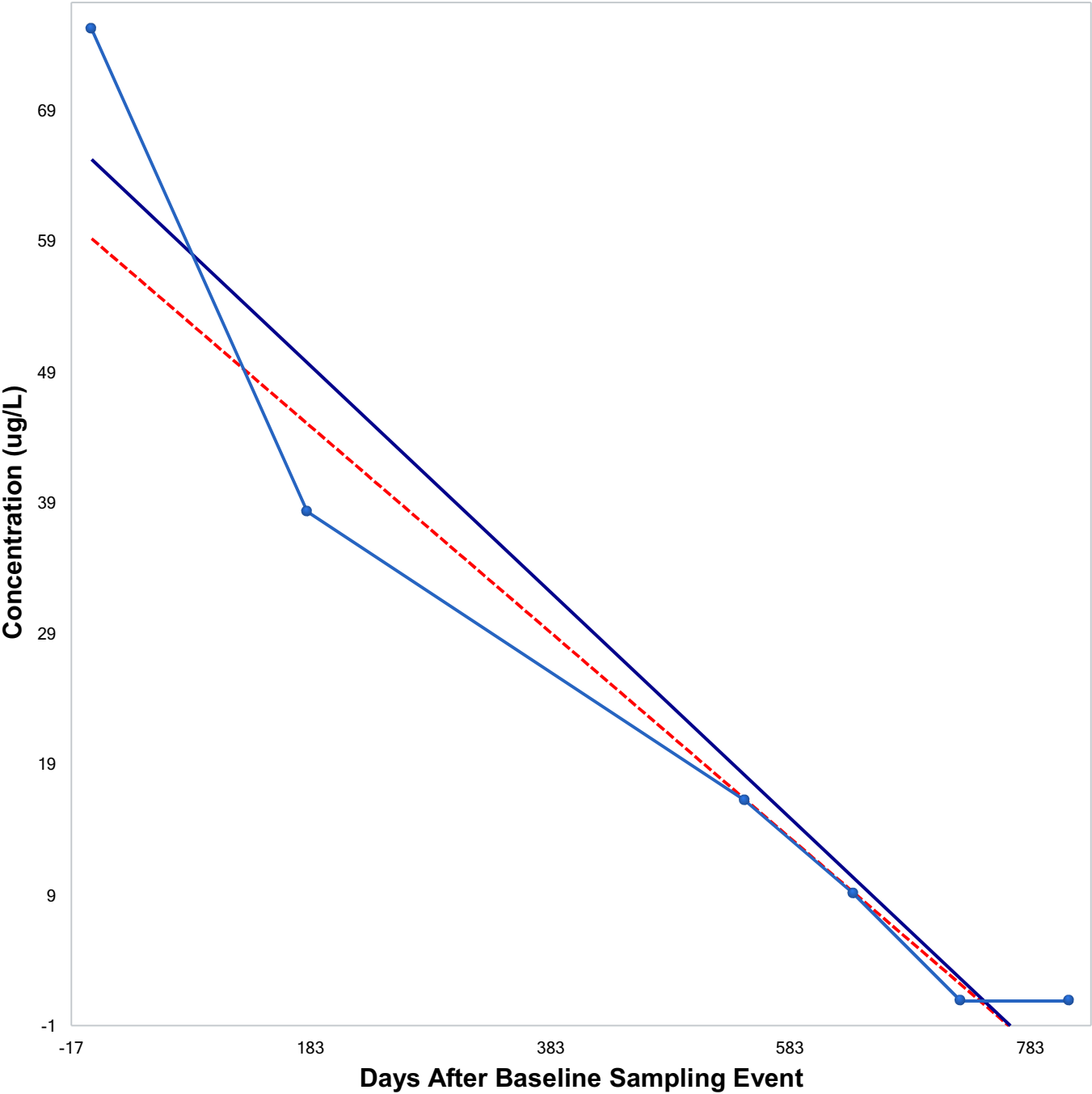


# MWK-R Mann-Kendall Trend Test - Vinyl Chloride



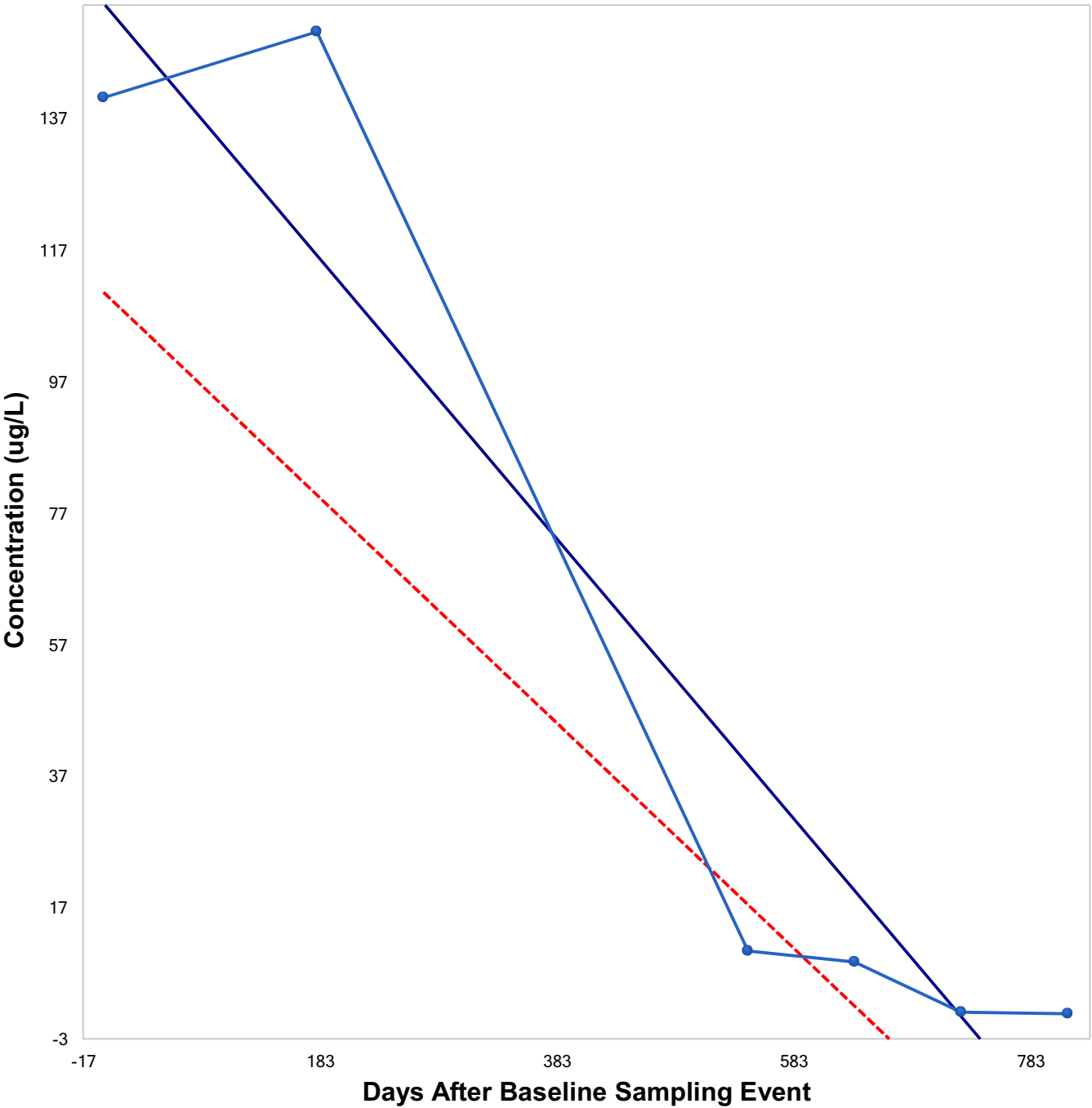
Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.2281
Standardized Value of S	-1.3389
Test Value (S)	-8
Tabulated p-value	0.0680
Approximate p-value	0.0903
OLS Regression Line (Blue)	
OLS Regression Slope	-0.0074
OLS Regression Intercept	29.9170
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	-0.0111
Theil-Sen Intercept	32.0556
Insufficient statistical evidence of a significant trend at the specified level of significance.	

MWL-R Mann-Kendall Trend Test - cis-1,2-DCE



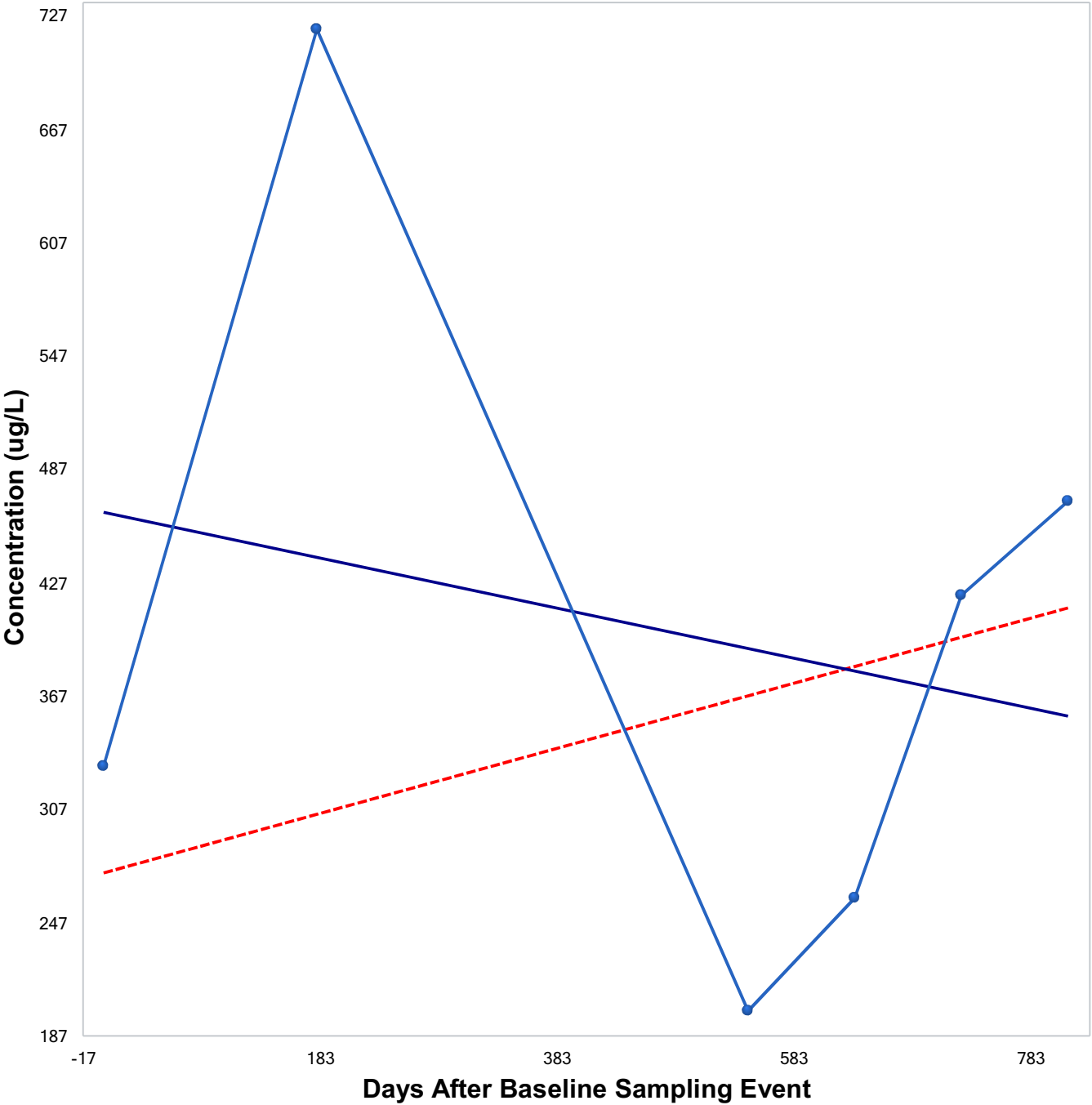
Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	-2.6301
Test Value (S)	-15
Tabulated p-value	0.0010
Approximate p-value	0.0043
OLS Regression Line (Blue)	
OLS Regression Slope	-0.0865
OLS Regression Intercept	65.0214
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	-0.0789
Theil-Sen Intercept	58.9944
Statistically significant evidence of a decreasing trend at the specified level of significance.	

# MWL-R Mann-Kendall Trend Test - Vinyl Chloride



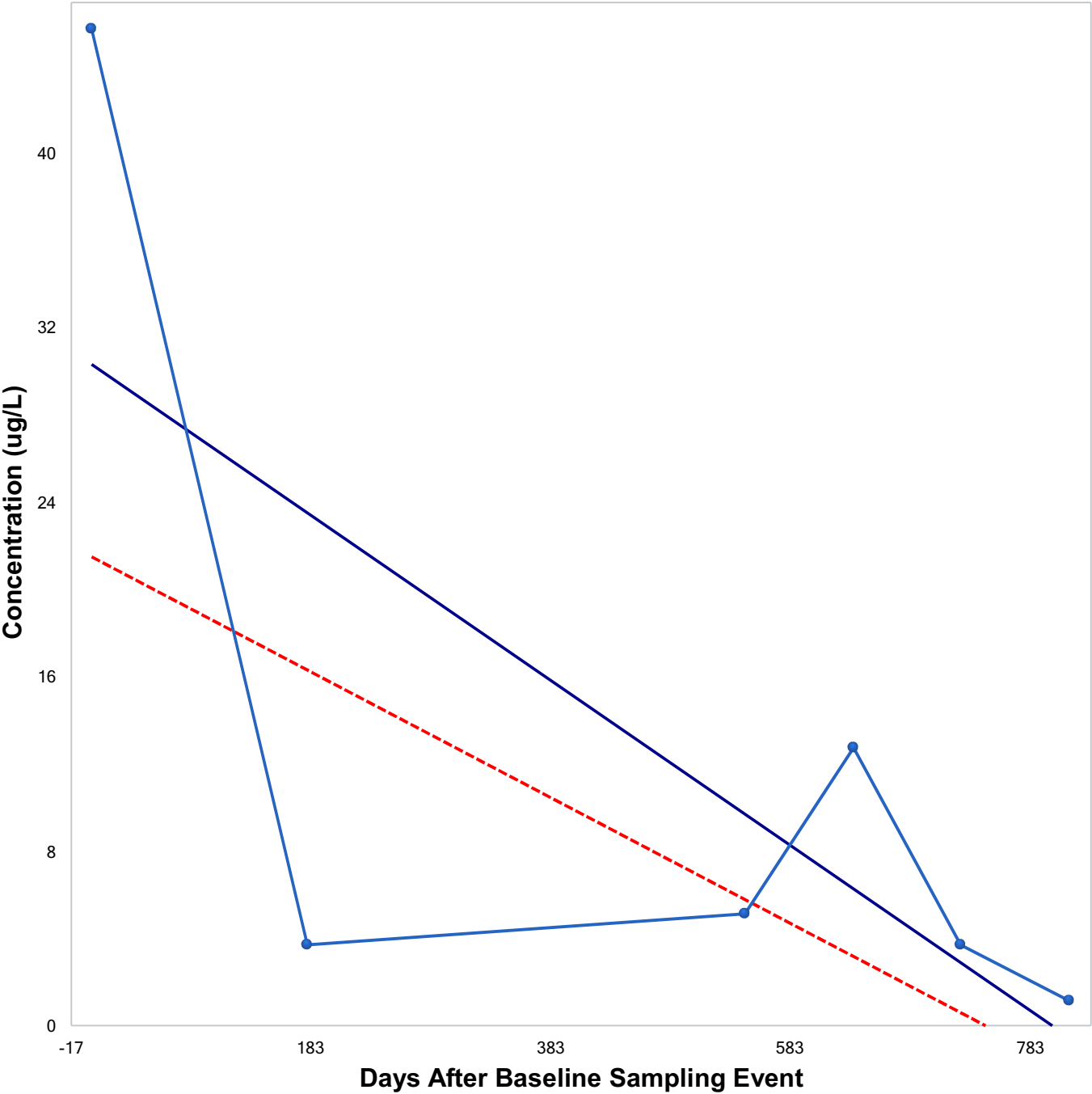
Mann-Kendall Trend Analysis		
n		6
Confidence Coefficient		0.9500
Level of Significance		0.0500
Standard Deviation of S		5.3229
Standardized Value of S		-2.2544
Test Value (S)		-13
Tabulated p-value		0.0080
Approximate p-value		0.0121
OLS Regression Line (Blue)		
OLS Regression Slope		-0.2130
OLS Regression Intercept		154.5543
Theil-Sen Trend Line (Red)		
Theil-Sen Slope		-0.1712
Theil-Sen Intercept		110.2022
Statistically significant evidence of a decreasing trend at the specified level of significance.		

# MWM-R Mann-Kendall Trend Test - cis-1,2-DCE



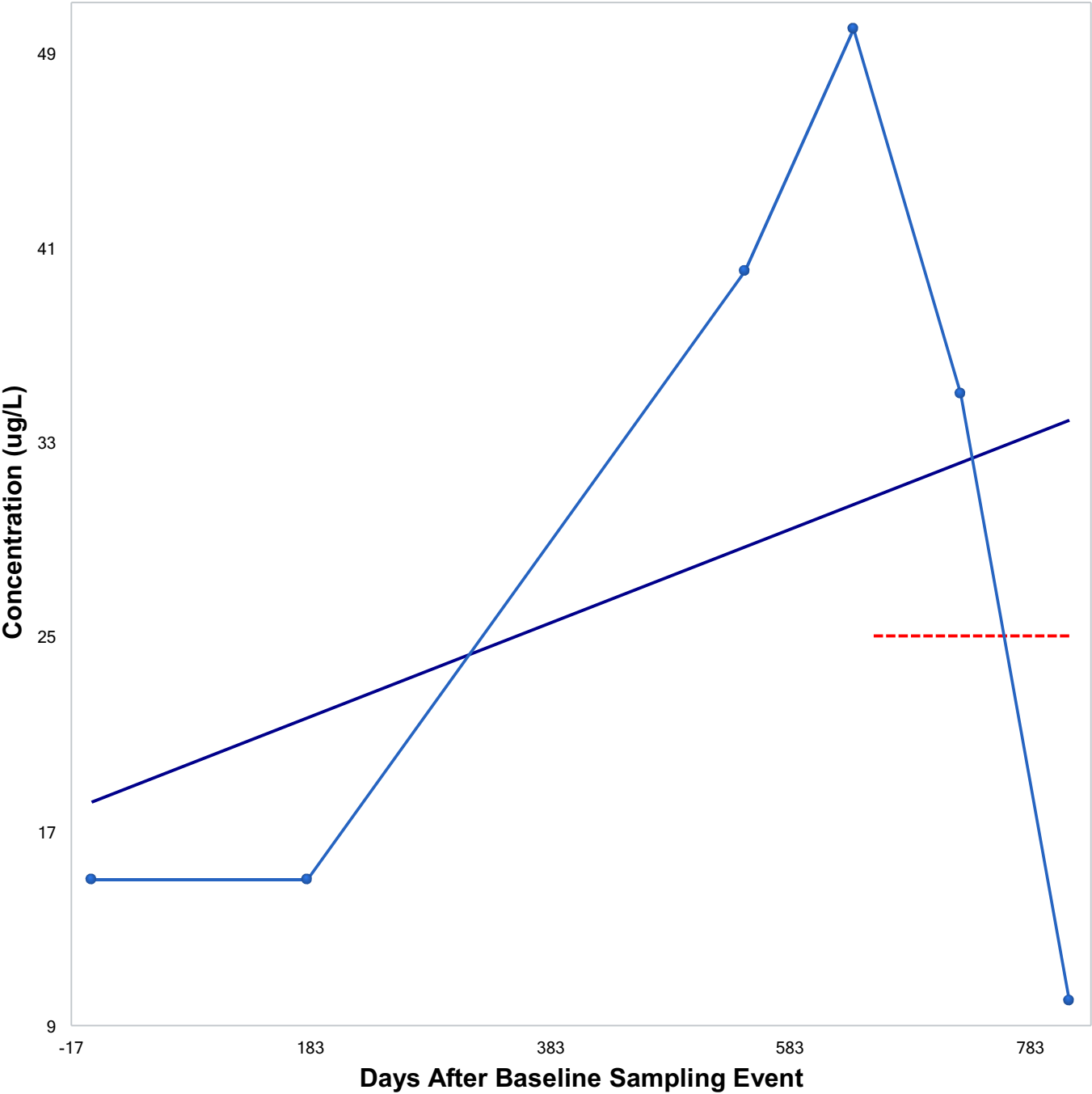
Mann-Kendall Trend Analysis		
n		6
Confidence Coefficient		0.9500
Level of Significance		0.0500
Standard Deviation of S		5.3229
Standardized Value of S		0.3757
Test Value (S)		3
Tabulated p-value		0.3600
Approximate p-value		0.3536
OLS Regression Line (Blue)		
OLS Regression Slope		-0.1320
OLS Regression Intercept		463.8000
Theil-Sen Trend Line (Red)		
Theil-Sen Slope		0.1718
Theil-Sen Intercept		273.6503
Insufficient statistical evidence of a significant trend at the specified level of significance.		

MWM-R Mann-Kendall Trend Test - Tetrachloroethene



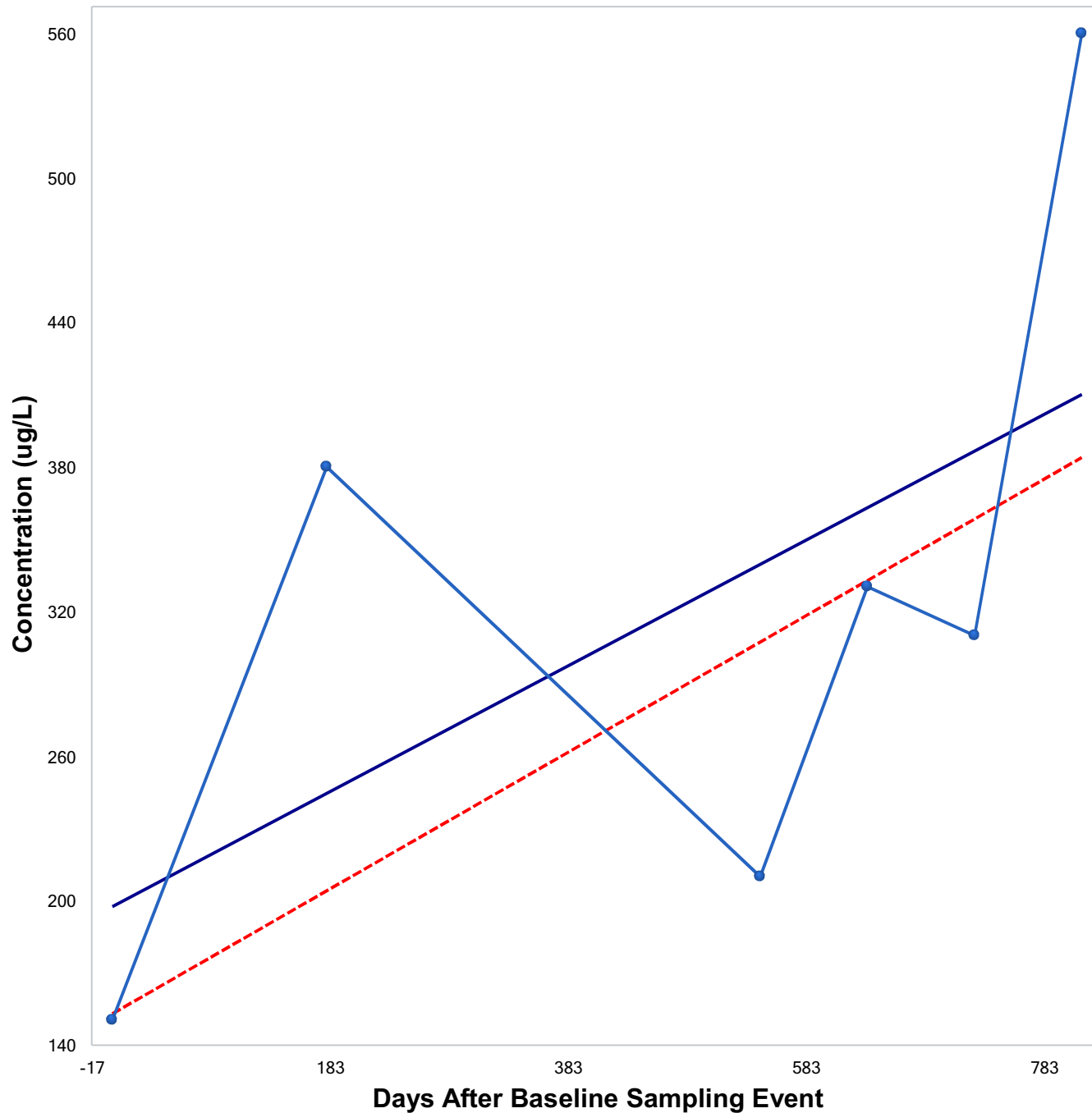
Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.2281
Standardized Value of S	-1.3389
Test Value (S)	-8
Tabulated p-value	0.0680
Approximate p-value	0.0903
OLS Regression Line (Blue)	
OLS Regression Slope	-0.0378
OLS Regression Intercept	30.5918
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	-0.0289
Theil-Sen Intercept	21.7444
Insufficient statistical evidence of a significant trend at the specified level of significance.	

MWM-R Mann-Kendall Trend Test - Trichloroethene



Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.2281
Standardized Value of S	
Test Value (S)	0
Tabulated p-value	0.5000
Approximate p-value	
OLS Regression Line (Blue)	
OLS Regression Slope	0.0192
OLS Regression Intercept	18.1968
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	0.0000
Theil-Sen Intercept	25.0000
Insufficient statistical evidence of a significant trend at the specified level of significance.	

## MWM-R Mann-Kendall Trend Test - Vinyl Chloride



### Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	1.1272
Test Value (S)	7
Tabulated p-value	0.1360
Approximate p-value	0.1298

### OLS Regression Line (Blue)

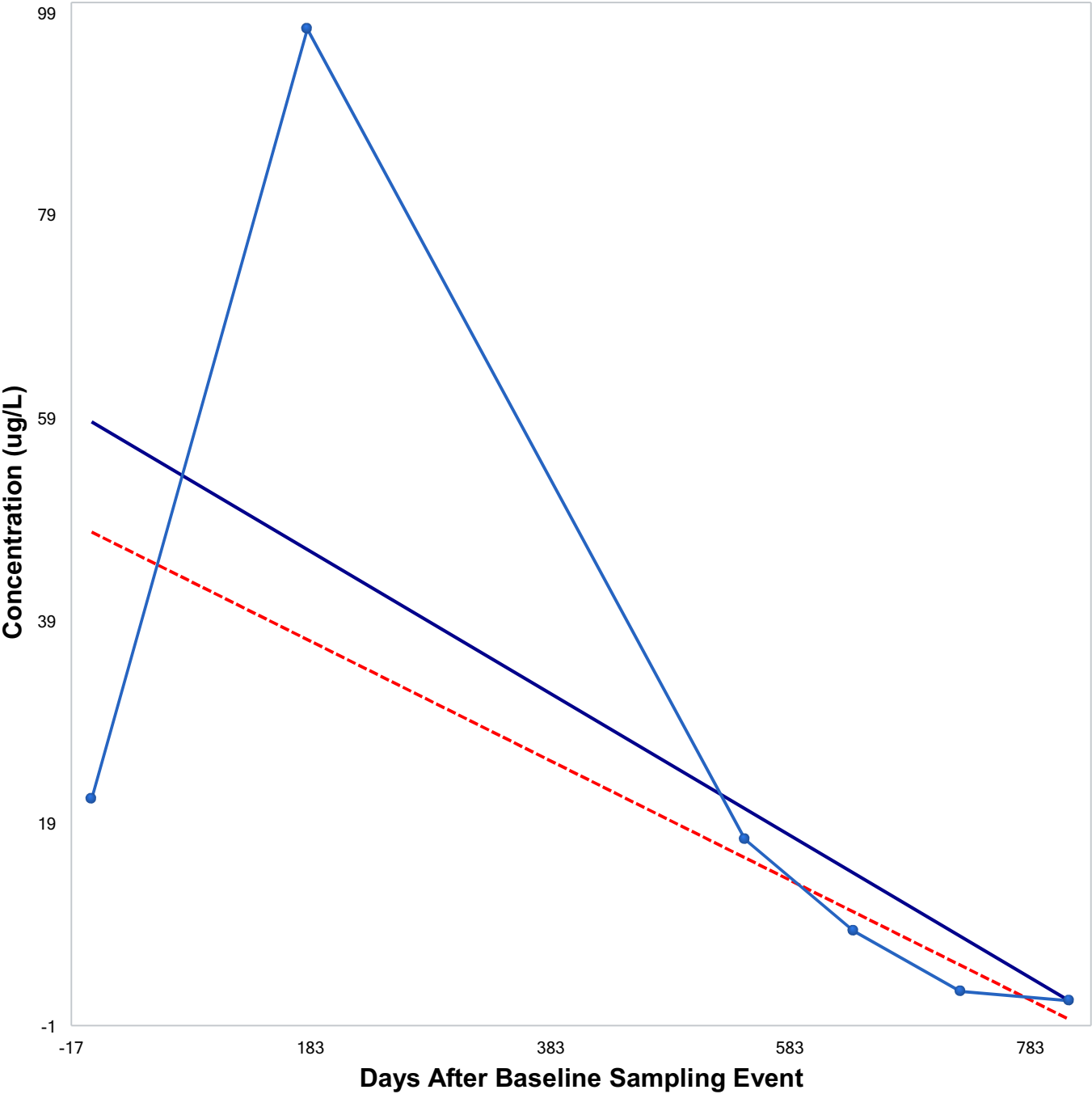
OLS Regression Slope	0.2609
OLS Regression Intercept	197.2336

### Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.2835
Theil-Sen Intercept	152.7559

Insufficient statistical evidence  
of a significant trend at the  
specified level of significance.

# MWN-R Mann-Kendall Trend Test - Vinyl Chloride

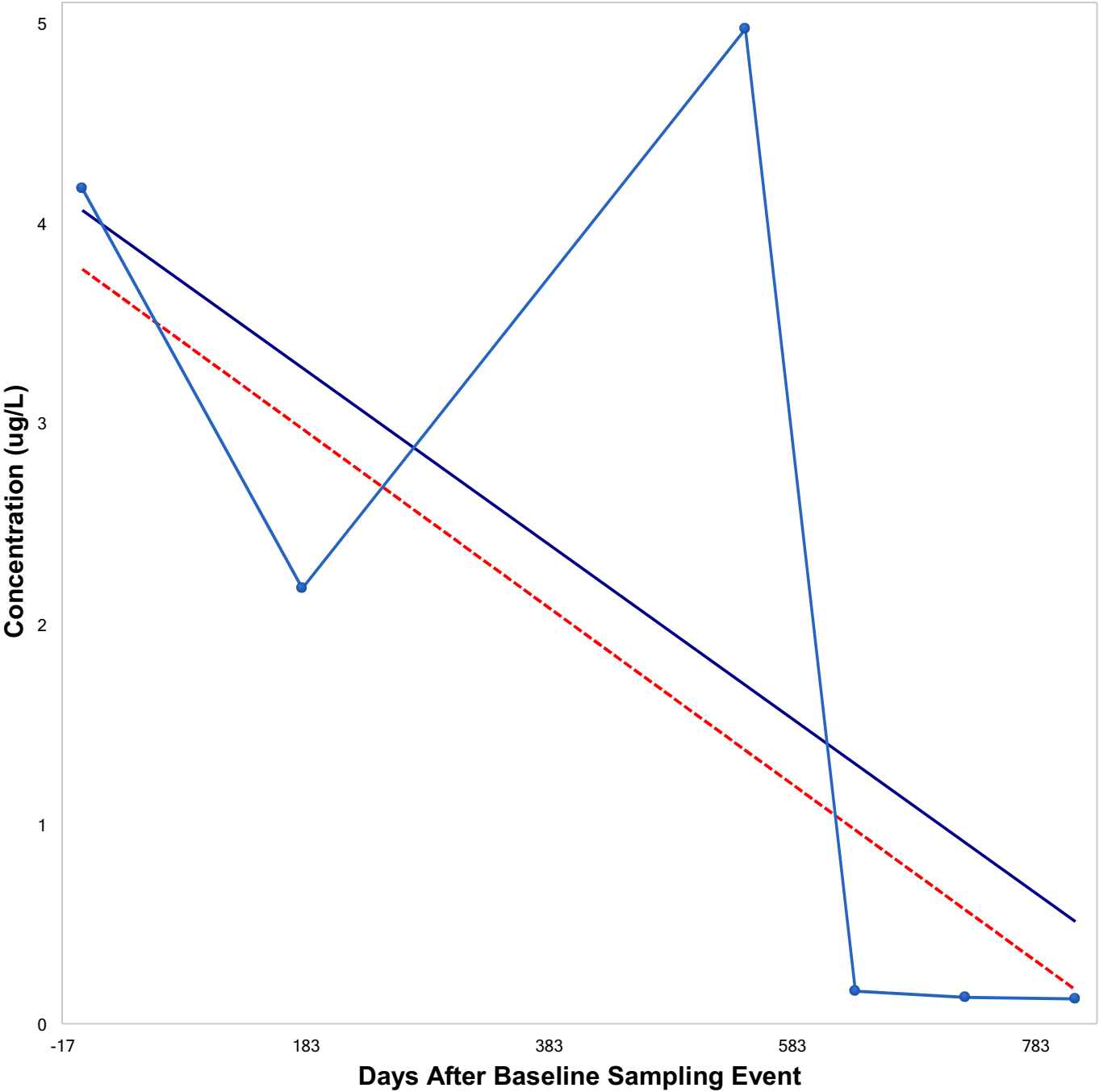


Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	-2.2544
Test Value (S)	-13
Tabulated p-value	0.0080
Approximate p-value	0.0121
OLS Regression Line (Blue)	
OLS Regression Slope	-0.0700
OLS Regression Intercept	58.1907
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	-0.0589
Theil-Sen Intercept	47.2944

Statistically significant evidence  
of a decreasing trend at the  
specified level of significance.

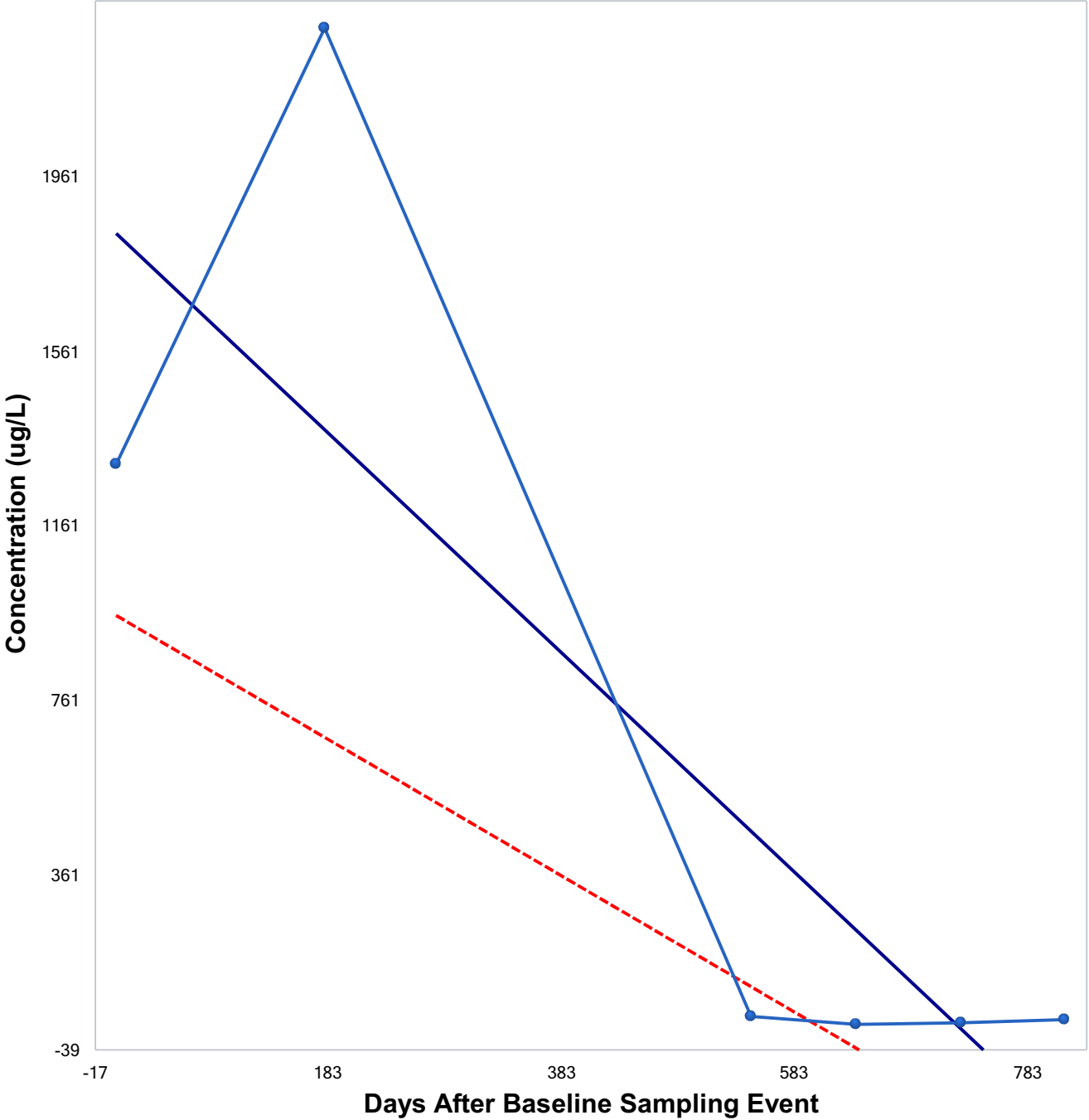


TW05-R Mann-Kendall Trend Test - Vinyl Chloride



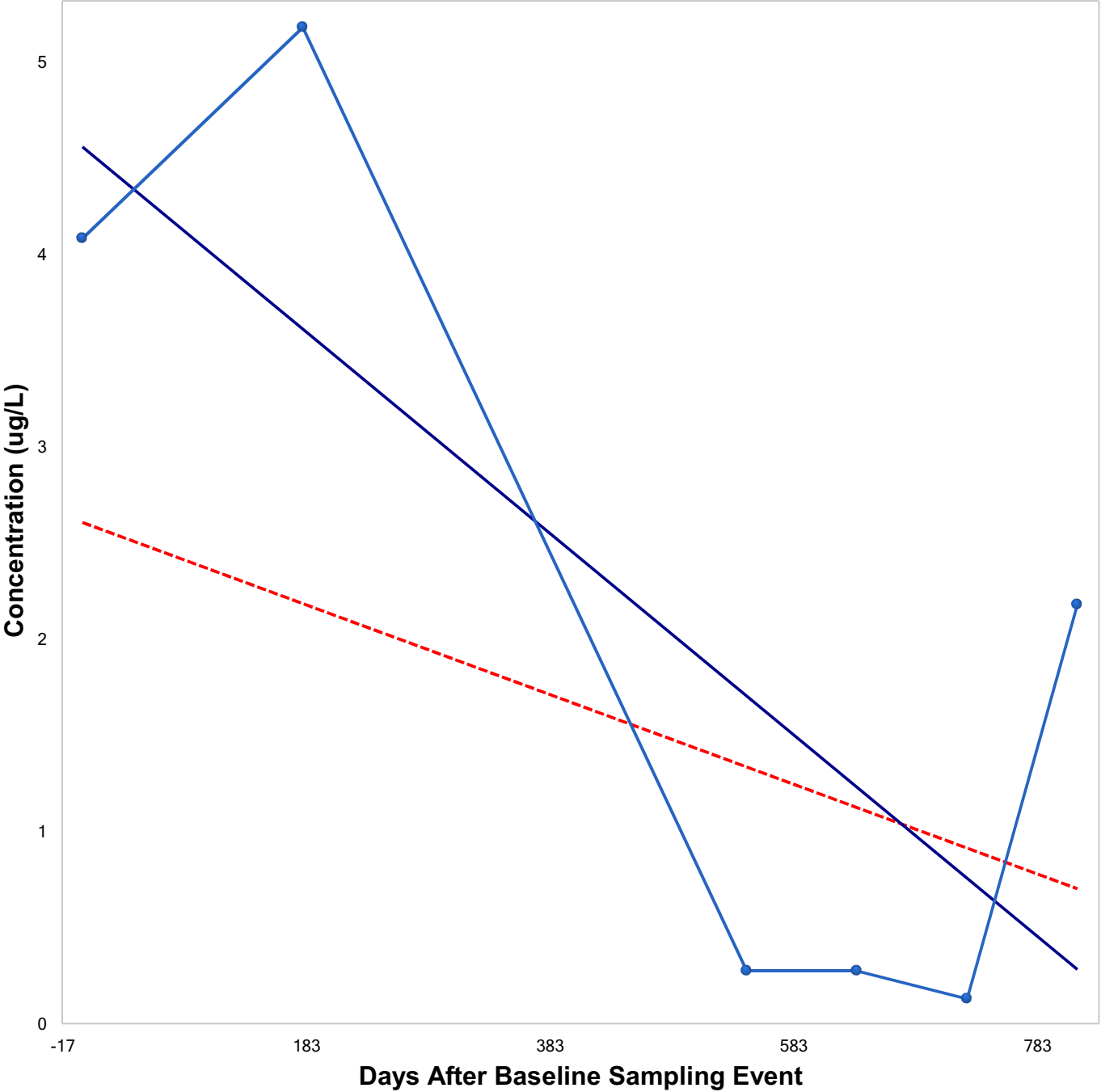
Mann-Kendall Trend Analysis		
n		6
Confidence Coefficient		0.9500
Level of Significance		0.0500
Standard Deviation of S		5.3229
Standardized Value of S		-1.8787
Test Value (S)		-11
Tabulated p-value		0.0280
Approximate p-value		0.0301
OLS Regression Line (Blue)		
OLS Regression Slope		-0.0044
OLS Regression Intercept		4.4915
Theil-Sen Trend Line (Red)		
Theil-Sen Slope		-0.0044
Theil-Sen Intercept		4.2014
Statistically significant evidence of a decreasing trend at the specified level of significance.		

MDEQE-R Mann-Kendall Trend Test - cis-1,2-DCE



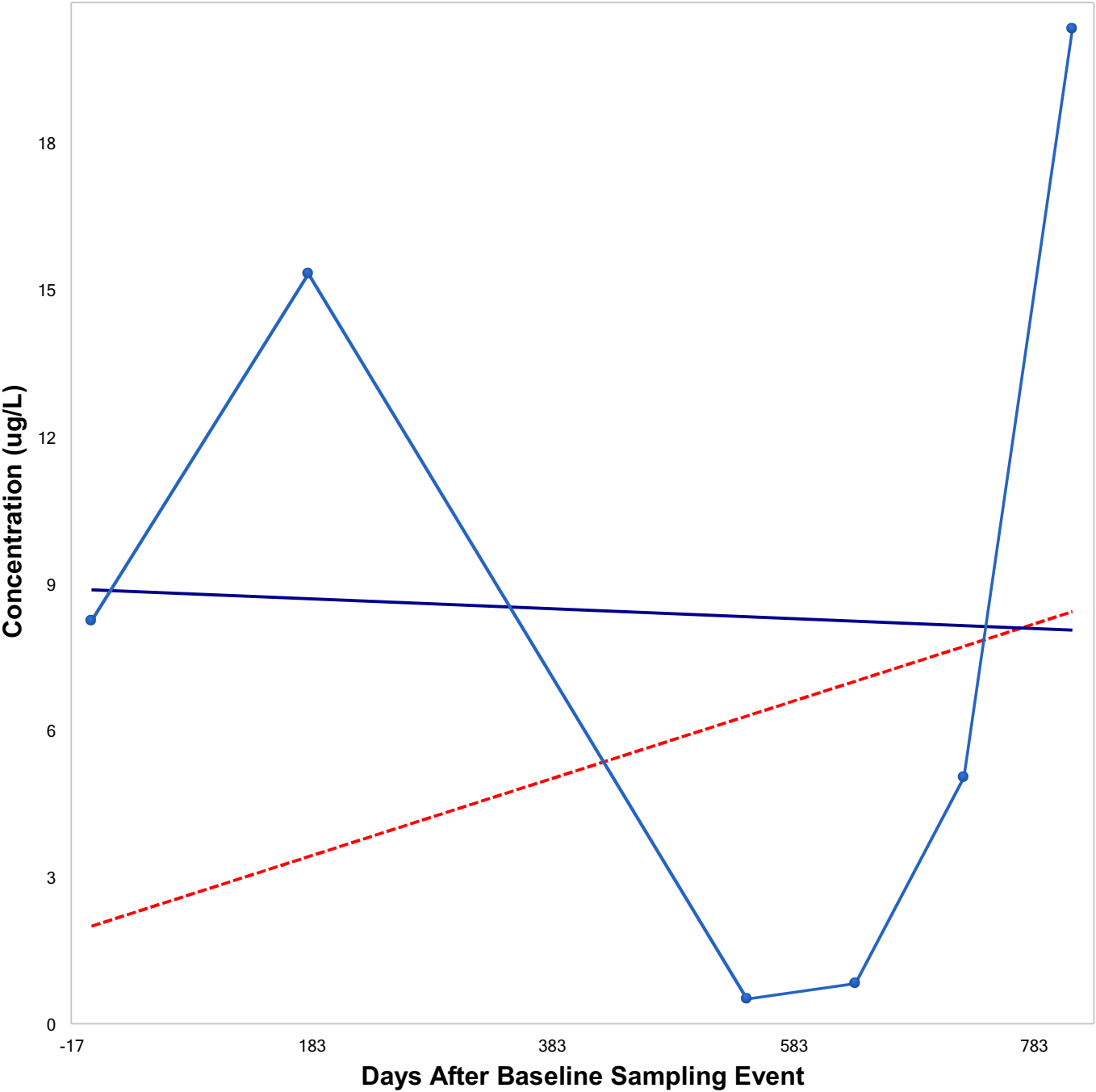
Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	-1.1272
Test Value (S)	-7
Tabulated p-value	0.1360
Approximate p-value	0.1298
OLS Regression Line (Blue)	
OLS Regression Slope	-2.5059
OLS Regression Intercept	1,829.5373
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	-1.5583
Theil-Sen Intercept	953.3865
Insufficient statistical evidence of a significant trend at the specified level of significance.	

MDEQE-R Mann-Kendall Trend Test - Tetrachloroethene



Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.2281
Standardized Value of S	-0.9564
Test Value (S)	-6
Tabulated p-value	0.1360
Approximate p-value	0.1694
OLS Regression Line (Blue)	
OLS Regression Slope	-0.0052
OLS Regression Intercept	4.7743
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	-0.0023
Theil-Sen Intercept	2.8255
Insufficient statistical evidence of a significant trend at the specified level of significance.	

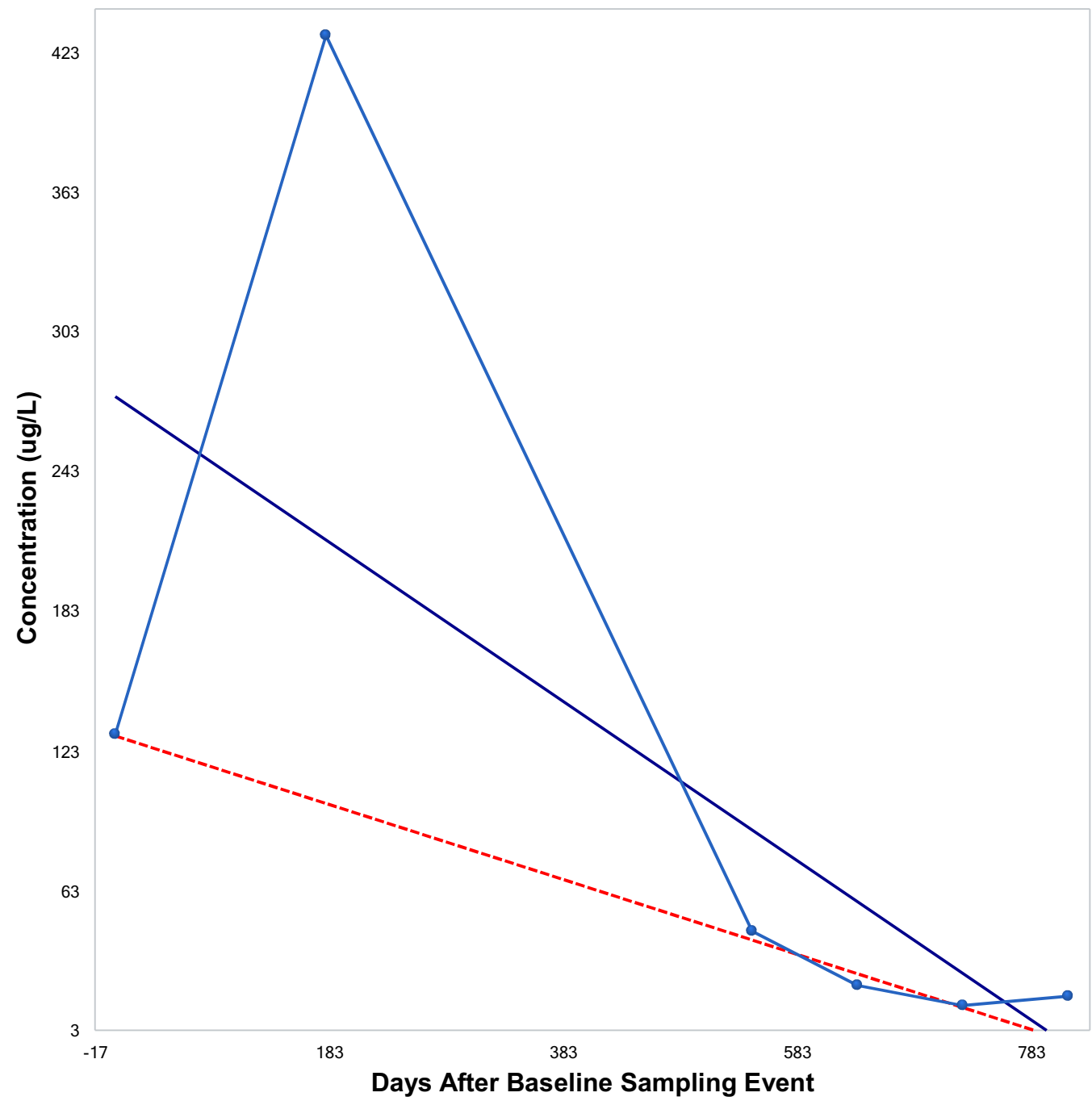
# MDEQE-R Mann-Kendall Trend Test - Trichloroethene



Mann-Kendall Trend Analysis	
n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	0.3757
Test Value (S)	3
Tabulated p-value	0.3600
Approximate p-value	0.3536
OLS Regression Line (Blue)	
OLS Regression Slope	-0.0010
OLS Regression Intercept	8.5198
Theil-Sen Trend Line (Red)	
Theil-Sen Slope	0.0079
Theil-Sen Intercept	1.6543

Insufficient statistical evidence  
of a significant trend at the  
specified level of significance.

MDEQE-R Mann-Kendall Trend Test - Vinyl Chloride



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	-1.8787
Test Value (S)	-11
Tabulated p-value	0.0280
Approximate p-value	0.0301

OLS Regression Line (Blue)

OLS Regression Slope	-0.3425
OLS Regression Intercept	275.0320

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.1614
Theil-Sen Intercept	128.7138

Statistically significant evidence  
of a decreasing trend at the  
specified level of significance.