

GHD Project Number: 11156780-LTR-2

June 01, 2022

Mr. Matt Culp
Contaminated Sites Section
Iowa Department of Natural Resources
Wallace State Office Building
502 East 9th Street
Des Moines, Iowa 50319

Request to Terminate Groundwater Monitoring and Proposed Project Close-Out Activities Albia Former Manufactured Gas Plant Site Albia, Iowa

Dear Mr. Culp:

On behalf of Interstate Power and Light Company (IPL), GHD has prepared this request to terminate groundwater monitoring at the Albia, Iowa former manufactured gas plant (FMGP) site based on the recently completed quarterly groundwater monitoring program. This letter also provides a summary of proposed project close-out activities to the Iowa Department of Natural Resources (IDNR). GHD completed the site investigation activities in accordance with the April 2018 Site Investigation Work Plan (Work Plan), March 2018 Quality Assurance Project Plan (QAPP), the March 2019 Site Investigation Report, the April 2020 Interim Response Action Work Plan (IRAWP), and the June 2021 Interim Response Action/Risk Evaluation (IRA/RE) Report for the site.

1. Summary of Recent Investigation Activities

As presented in the IRA/RE Report, soil exceeding the statewide standards (SWSs) was removed during November 2020 through January 2021. As proposed in the IRAWP, and as approved by the IDNR in their April 14, 2020 correspondence, GHD completed four quarters of groundwater monitoring at the Site after the soil exceeding the SWSs was removed from the site (post remediation). Groundwater elevation measurements were collected on April 29, 2021, July 7, 2021, October 26, 2021, and January 12, 2022. As seen in Figures 1 through 4, groundwater flow was consistently toward the east-southeast, with a horizontal hydraulic gradient of approximately 0.07 feet per foot (ft/ft). A summary of groundwater elevations is provided in Table 1.

Groundwater samples were collected on and following the above dates from monitoring wells MW-01 through MW-09. Groundwater sample collection records are provided in Attachment A. A summary of laboratory analytical results for monitoring well samples are provided in Table 2; trip blank, blind duplicate, and equipment blank sample data are provided in Tables 3, 4, and 5, respectively. Copies of the laboratory analytical reports for the four recent quarterly sampling events are provided in Attachment B.

Samples from monitoring wells were analyzed for volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), arsenic, and lead. Groundwater sample analytes above applicable IDNR Statewide Standards (SWSs) for a non-protected water source were detected at three locations: monitoring wells MW-01, MW-02, and MW-03.

At MW-01, benzene was detected above the SWS for a non-protected water source of 64 micrograms per liter ($\mu\text{g/L}$) during all four quarterly sampling events, with concentrations ranging from a low of 283 $\mu\text{g/L}$ (January 13, 2022) to a high of 494 $\mu\text{g/L}$ (July 8, 2021). No other constituents were detected above SWSs for a non-protected water source at MW-01 during the four quarterly sampling events.

At MW-02, benzene was detected above the SWS for a non-protected water source during three of the four quarterly sampling events, with concentrations ranging from a low of 38.6 $\mu\text{g/L}$ (October 27, 2021) to a high of 279 $\mu\text{g/L}$ (April 30, 2021). No other constituents were detected above SWSs for a non-protected water source at MW-02 during the four quarterly sampling events.

At MW-03, benzene was detected above the SWS for a non-protected water source during all four quarterly sampling events, with concentrations ranging from a low of 172 $\mu\text{g/L}$ (January 13, 2022) to a high of 507 $\mu\text{g/L}$ (May 28, 2021). No other constituents were detected above SWSs for a non-protected water source during the four quarterly sampling events. Naphthalene exceeded the SWS of 700 $\mu\text{g/L}$ at MW-3 prior to remediation but fell from 593 $\mu\text{g/L}$ during the first post remediation quarterly event (May 28, 2021) and to 14 $\mu\text{g/L}$ during the fourth post remediation quarterly event (January 13, 2022).

No constituents were detected above SWSs for a non-protected water source at MW-06 during the most recent four quarterly sampling events, however, benzene was detected above the SWS for a non-protected water source prior to remediation. Benzene was not detected above the SWS for a non-protected water source after remediation.

No constituents of concern were detected above SWSs for a non-protected water source in downgradient monitoring wells MW-07, MW-08, or MW-09, or cross gradient monitoring wells MW-04 or MW-05 before or after the soil removal action.

2. Groundwater Concentration Trend Analysis

The following statistical and graphical methods performed with ProUCL (Version 5.1.002) were used to develop multiple lines of evidence to evaluate changes in analyte concentrations over time: concentration versus time plots, ordinary least squares (OLS) regression analysis, Theil-Sen Line Test, and Mann-Kendall test for trend. Descriptions of each of these methods are provided in the *ProUCL Version 5.1 Technical Guide* (USEPA, 2015). Trend analyses were conducted for each analyte that was detected one or more times in each monitoring well during the four quarterly post-remediation monitoring events, which resulted in a total of 89 individual trend analyses.

2.1 Concentration versus Time Plots

Concentration versus time plots were created with ProUCL to graph concentrations of each detected analyte during the four quarterly post-remediation monitoring events. The concentration versus time plots were visually inspected to evaluate individual analyte concentration trends in concert with the corresponding OLS regression, Theil-Sen, and Mann-Kendall results; and identify visually apparent temporally-correlated data. Copies of the constructed concentration versus time plots are provided in Attachment C. Thumbnails of the concentration versus time plots are provided in Table 6, which summarizes the results of each analyte concentration trend line of evidence.

In each plot, the vertical axis represents the measured concentrations of analytes in $\mu\text{g/L}$, with the exception of arsenic and lead, which are plotted in mg/L . An analyte concentration not detected above the reporting limit is represented by the value of a common reporting limit for that analyte for that monitoring well. The horizontal axis represents the time period in years over which the corresponding groundwater samples were collected. Year "0" represents the sample collection date for a given monitoring well during the first quarterly monitoring event conducted in April/May 2021.

2.2 OLS Regression Line Slope

OLS regression is typically used to determine linear relationships between a dependent response variable (e.g., an analyte concentration) and an independent predictor variable. With time as the predictor variable, OLS regression can be used to determine potential increasing or decreasing trends in mean analyte concentrations over time. A significant positive slope or negative slope of the OLS regression line calculated from the time series data set suggests an upward trend or downward trend, respectively. However, OLS regression is a parametric analysis and trend evaluation based on OLS regression line slope is only valid if the OLS residuals are normally distributed. In lieu of performing data distribution goodness-of-fit tests on each OLS residual data set for each detected analyte in each monitoring well, the OLS regression line slopes were evaluated qualitatively in combination with the corresponding concentration versus time plots, nonparametric Theil-Sen test results, and Mann-Kendall test results. The OLS regression lines and slope values are presented on the corresponding analyte concentration versus time plots in Attachment C. The OLS regression line slopes are also summarized in Table 6.

2.3 Theil-Sen Line Slope

The Theil-Sen test is a nonparametric version of the parametric OLS regression analysis that requires the values of the time variable at which the response measurements were collected. The Theil-Sen test does not require an underlying data distribution or equally-spaced time intervals, and can handle missing data. The slope of the generated Theil-Sen line estimates the change in median analyte concentration over time, while the OLS regression line slope estimates the change in mean analyte concentration over time. By using the median slope rather than the mean slope of each pair of successive analyte concentrations, extreme pairwise slopes potentially caused by data outliers have less impact on the final Theil-Sen slope than on the final OLS regression slope for an analyte data set in a particular well. The Theil-Sen lines and slope values are presented on the corresponding analyte concentration versus time plots in Attachment C. The Theil-Sen slope values are also summarized in Table 6.

2.4 Mann-Kendall Test for Trend

To determine the presence of statistically-significant increasing or decreasing concentration trends, analyte data collected during the four quarterly monitoring events were evaluated using the Mann-Kendall test for trend. The Mann-Kendall trend test is a nonparametric test used to determine increasing and decreasing trends of a single variable at a given statistical significance for a time series data set. The Mann-Kendall trend test can handle data sets with missing, nondetect, and extreme values and does not require the data set to follow a specific distribution (e.g., normal, lognormal, gamma).

The Mann-Kendall trend analysis provided in ProUCL (Version 5.1) was used to identify increasing and decreasing concentration trends to the 90 percent confidence level (CL) for each analyte detected one or more times in a monitoring well.

The Mann-Kendall test uses the relative magnitudes of concentrations rather than the actual measured concentrations of an analyte in a monitoring well over time to detect a trend. Due to the variation in analyte concentrations and reporting limits over time and high incidence of nondetect values, the following adjustment was made to the data set to evaluate concentration trends using the Mann-Kendall test: for a given COPC at a given monitoring well, concentrations reported as not detected were assigned a common value less than the smallest measured value in the data set.

Copies of the Mann-Kendall analyses are provided in Attachment C. Concentration trends determined by the Mann-Kendall analyses are summarized in Table 6.

2.5 Summary of Groundwater Concentration Trend Analysis

The Mann-Kendall evaluation identified a statistically significant increasing trend (90 percent CL) for a single analyte (arsenic) at monitoring well MW-03. A statistically significant decreasing trend was observed for eleven analytes (2-methylnaphthalene, anthracene, fluoranthene, fluorene, naphthalene, phenanthrene, pyrene, xylenes, 1,3,5-trinethylbenzene, n-butylbenzene, and lead), at monitoring well MW-03 and for a single analyte (arsenic) at MW-08/08R. MW-03 is located downgradient of the relief holder that was excavated and the deepest area soil excavated during remediation. Noticeable improvements in groundwater concentrations at MW-03 would be a reasonable outcome of the remediation efforts. As presented in Table 6, the corresponding concentration versus time plot, OLS regression slope, and Theil-Sen Slope support the Mann-Kendall increasing/decreasing trend determination for the analytes identified above.

In both situations where an analyte was observed to have a statistically significant increasing or decreasing trend, the analyte concentrations remained below applicable statewide standards. Other than the specific analytes and locations listed above, the Mann-Kendall evaluation indicated there was insufficient statistical evidence of a significant trend at the 90 percent CL for all remaining analytes/locations.

Although not statistically significant, OLS regression and/or Theil-Sen lines showed increasing or decreasing trends for datasets including at least one detection. Of the trend datasets analyzed via OLS regression, 22 of 89 datasets indicated an apparent increasing trend in groundwater concentrations, while 65 of 89 datasets indicated an apparent decreasing trend in groundwater concentrations; 2 of 89 OLS data sets did not indicate either increasing or decreasing trend. Of the trend datasets analyzed via Theil-Sen lines, 20 of 89 datasets indicated an apparent increasing trend in groundwater concentrations, while 61 of 89 datasets indicated an apparent decreasing trend in groundwater concentrations; 8 of 89 Theil-Sen data sets did not indicate either increasing or decreasing trend. However, it should be re-iterated that OLS regression and Theil-Sen data do not necessarily indicate a statistically significant trend in groundwater concentration, and these apparent trends may simply be the result of natural/seasonal variation and/or inherent variability in sample collection/analytical methods.

3. Summary and Proposed Activities

The current monitoring well network delineates the extent of shallow groundwater impacts and the results of quarterly groundwater sampling from April 2021 through January 2022 demonstrate a stable (non-expanding) groundwater plume. Furthermore, while Mann-Kendall groundwater trend analysis does not indicate a statistically significant decreasing trend in groundwater concentrations for all constituents at all locations, apparent trends assessed using OLS regression and Theil-Sen lines are predominantly decreasing. Although not at statistically significant levels using Mann-Kendall, constituents detected above the SWS during the quarterly monitoring (benzene at MW-01, MW-02, and MW-03) were identified as having decreasing trends by both OLS regression and Theil-Sen lines.

Based on the removal of all soil above SWSs during remediation, full delineation of shallow groundwater impacts, and predominantly stable or decreasing trends, no further groundwater monitoring is warranted at the site.

To minimize the potential for future exposure to residual soil and groundwater impacts, IPL proposes to implement the following institutional controls and activities:

- IPL will update the well search in the vicinity of the site via the IDNR's Facility Explorer internet application to assess the potential presence of water wells in the area. The initial well search for the site was presented in the March 2019 Site Investigation Report.
- IPL will provide notification of groundwater impact to the Appanoose, Davis, Lucas, and Monroe Counties (ADLM) Environmental Health department.

- IPL, in coordination with site property owners, will establish an environmental covenant on the site property to prohibit future residential land use, subsurface structures, and water well installation. IDNR's model environmental covenant will be used for development of the environmental covenant. IPL will seek IDNR's review and approval of the draft environmental covenant prior to full execution of the covenant.
- IPL will provide notification to the City of Albia regarding soil and groundwater impacts. Notification will include data summary tables and figures showing the extent and magnitude of site related impacts.
- Upon completion of IDNR's review of groundwater sampling data and concurrence that no additional monitoring is required, IPL will coordinate abandonment of site monitoring wells by a licensed well contractor.
- Upon completion of proposed activities, IPL will prepare a final site report summarizing all institutional controls and close-out activities for submittal to the IDNR.

4. Closing

IPL requests your written concurrence with termination of groundwater monitoring activities and the proposed site close-out activities. If you have questions, or need additional information, please contact Jill Stevens of IPL at 608-458-0446 or me at 515-414-3935.

Regards



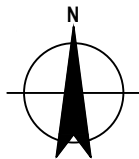
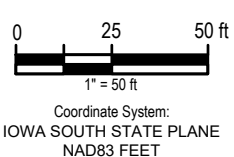
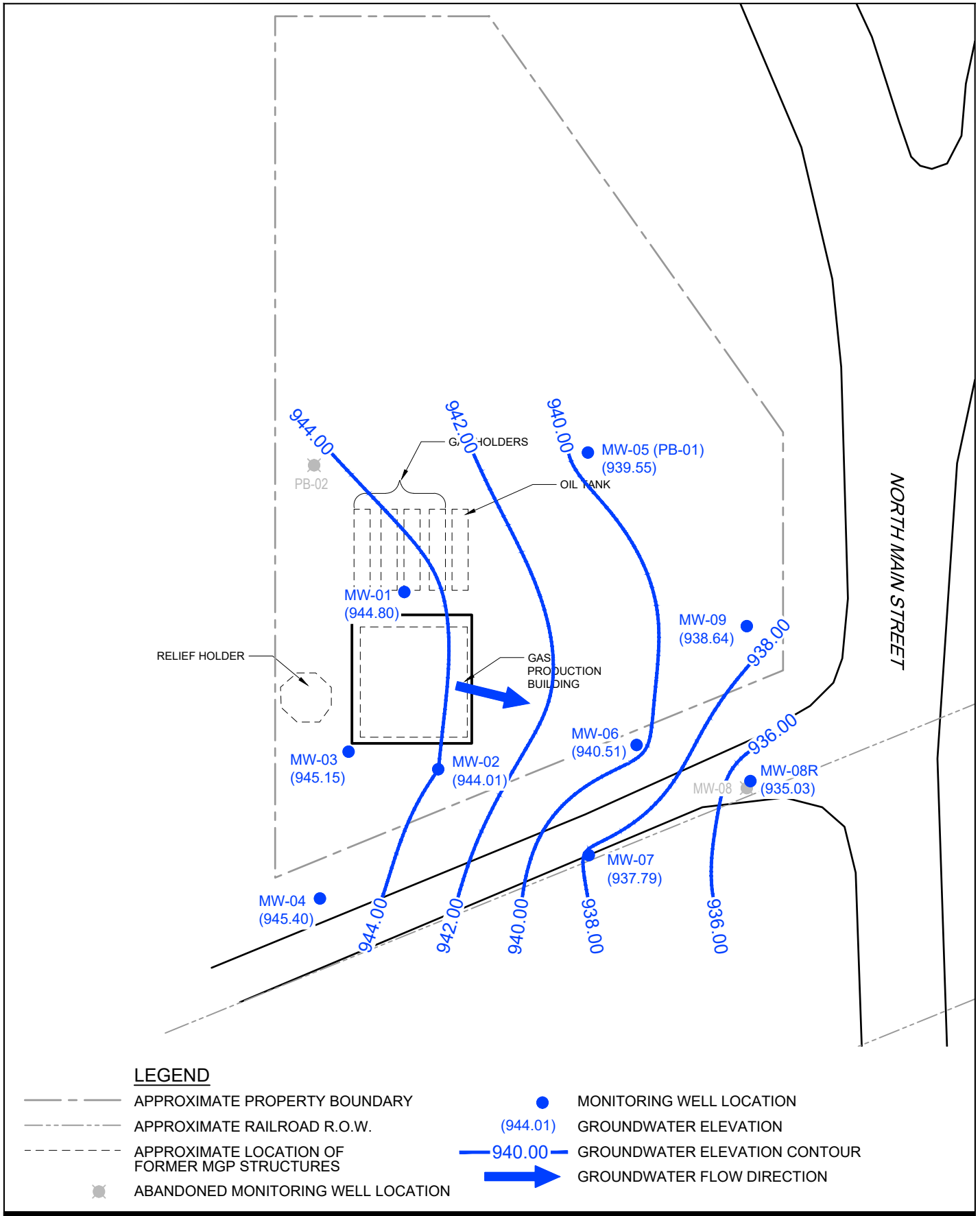
Kevin G. Armstrong, C.P.G, P.M.P.
Project Manager

+1 515 414-3935
kevin.armstrong@ghd.com

Copy to: Jill Stevens, IPL

Attachments: Figure 1 – Groundwater Flow Map – April 29, 2021
Figure 2 – Groundwater Flow Map – July 7, 2021
Figure 3 – Groundwater Flow Map – October 26, 2021
Figure 4 – Groundwater Flow Map – January 12, 2022
Figure 5 – Groundwater Exceedance Map
Table 1 – Groundwater Elevations
Table 2 – Groundwater Analytical Results Summary – Monitoring Wells
Table 3 – Groundwater Trip Blank Results
Table 4 – Groundwater Duplicate Results
Table 5 – Groundwater Equipment Blank Results
Table 6 – Groundwater Trend Analysis Summary
Attachment A – Groundwater Collection Records
Attachment B – Laboratory Analytical Reports
Attachment C – Groundwater Trend Analysis

Figures

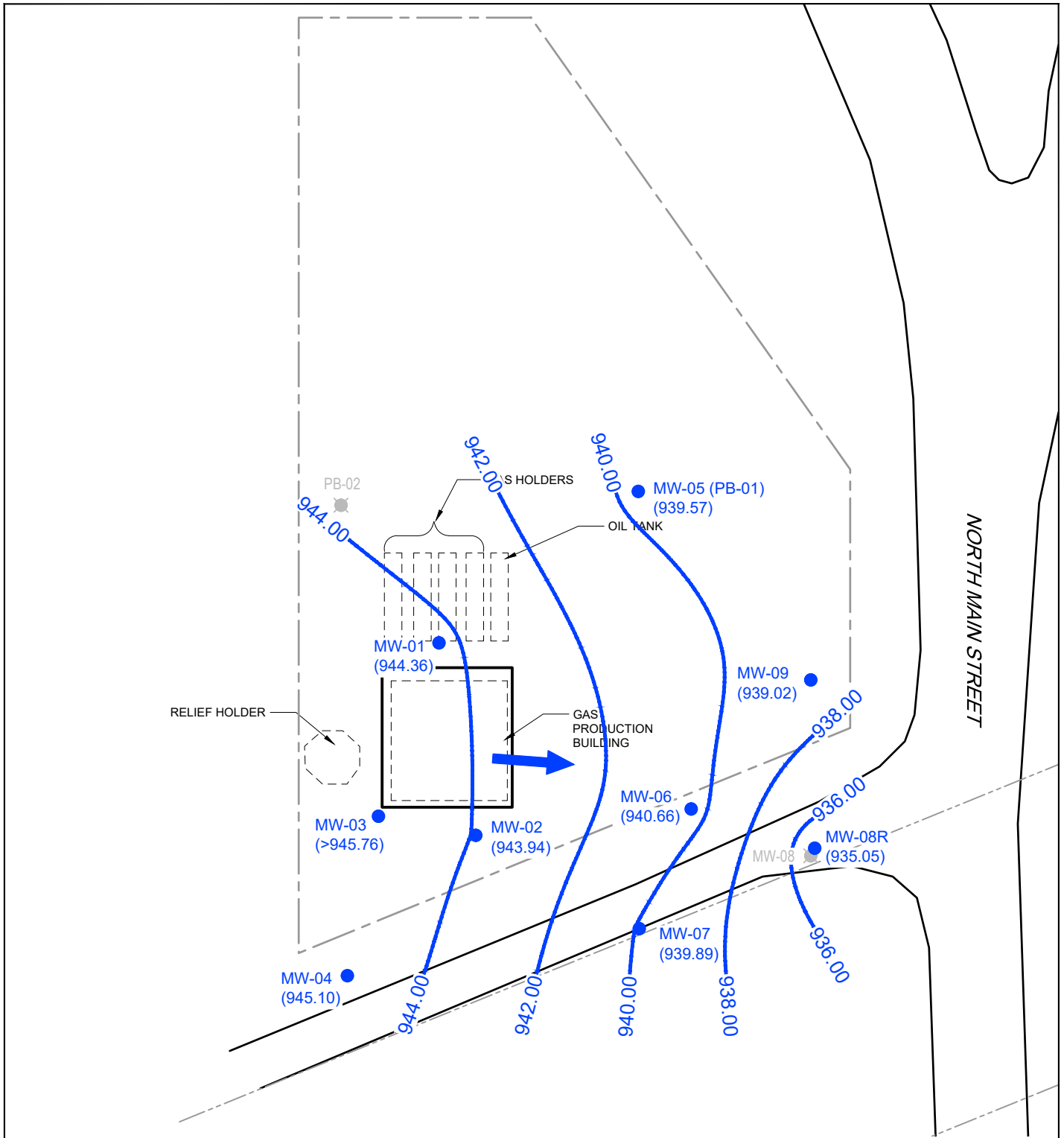


INTERSTATE POWER AND LIGHT COMPANY
ALBIA FORMER MANUFACTURED GAS PLANT SITE
ALBIA, IOWA

**GROUNDWATER ELEVATION CONTOUR
MAP - APRIL 29, 2021**

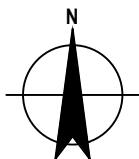
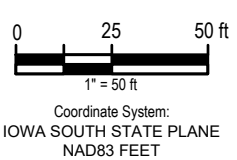
Project No. 11156780
Date April 2022

FIGURE 1



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- APPROXIMATE RAILROAD R.O.W.
- · - · - APPROXIMATE LOCATION OF FORMER MGP STRUCTURES
- MONITORING WELL LOCATION
- (944.01) GROUNDWATER ELEVATION
- 940.00 — GROUNDWATER ELEVATION CONTOUR
- ➔ GROUNDWATER FLOW DIRECTION
- ⊗ ABANDONED MONITORING WELL LOCATION

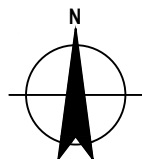
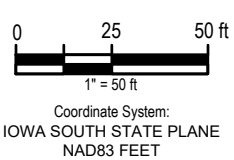
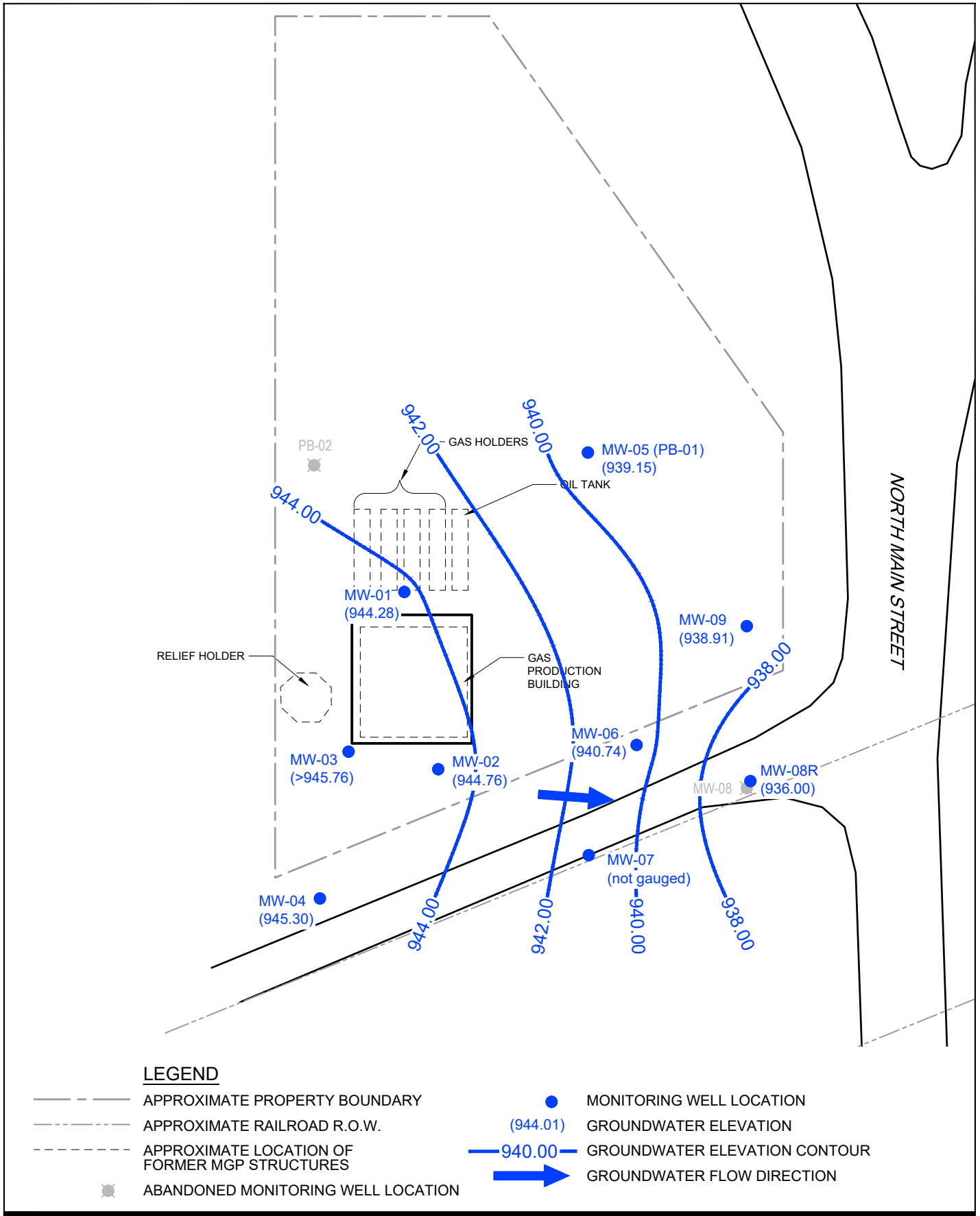


INTERSTATE POWER AND LIGHT COMPANY
ALBIA FORMER MANUFACTURED GAS PLANT SITE
ALBIA, IOWA

Project No. 11156780
Date April 2022

**GROUNDWATER ELEVATION CONTOUR
MAP - JULY 7, 2021**

FIGURE 2

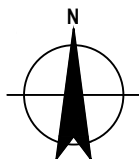
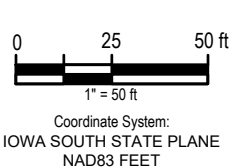
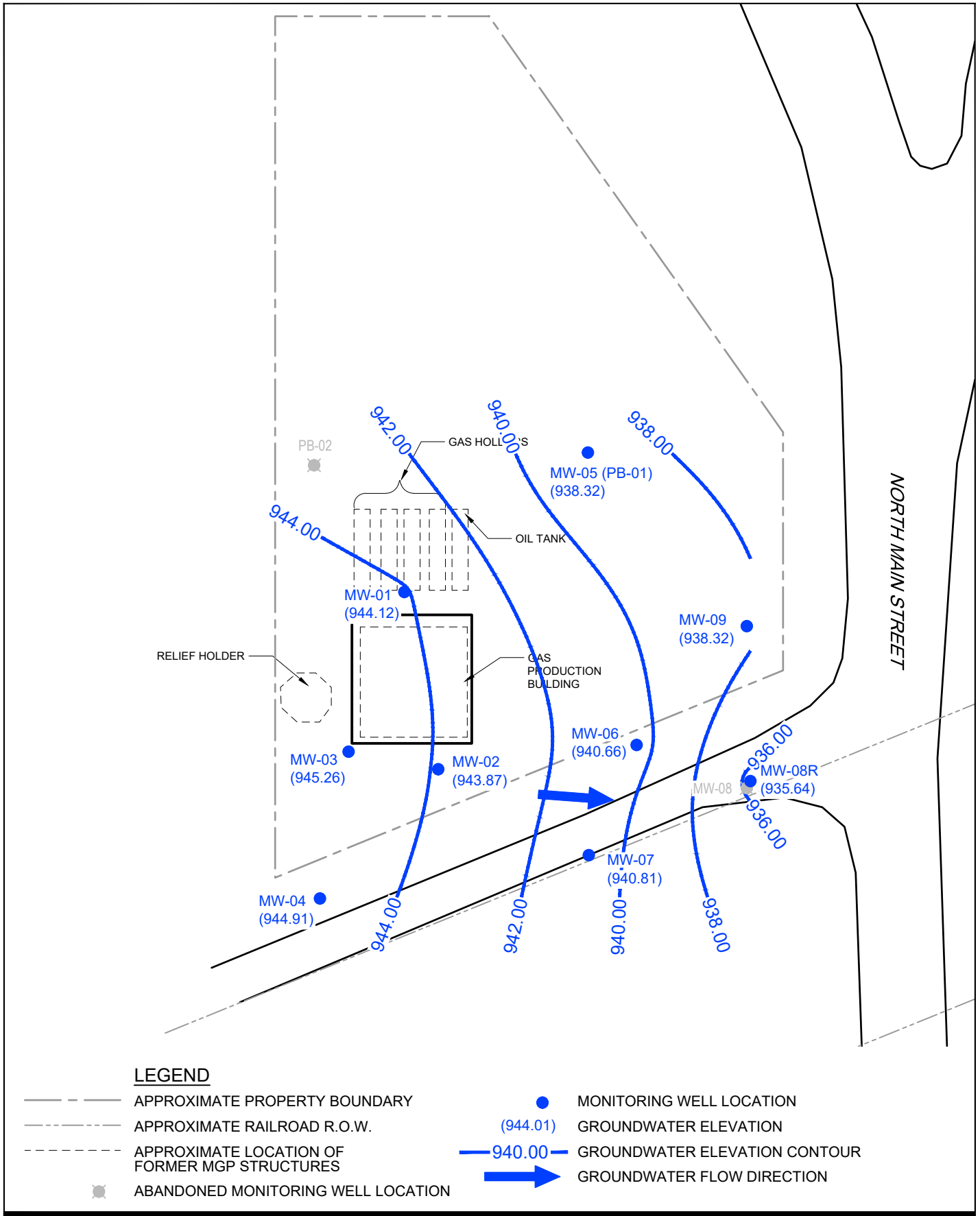


INTERSTATE POWER AND LIGHT COMPANY
ALBIA FORMER MANUFACTURED GAS PLANT SITE
ALBIA, IOWA

Project No. 11156780
Date April 2022

**GROUNDWATER ELEVATION CONTOUR
MAP - OCTOBER 26, 2021**

FIGURE 3



INTERSTATE POWER AND LIGHT COMPANY
ALBIA FORMER MANUFACTURED GAS PLANT SITE
ALBIA, IOWA

Project No. 11156780
Date April 2022

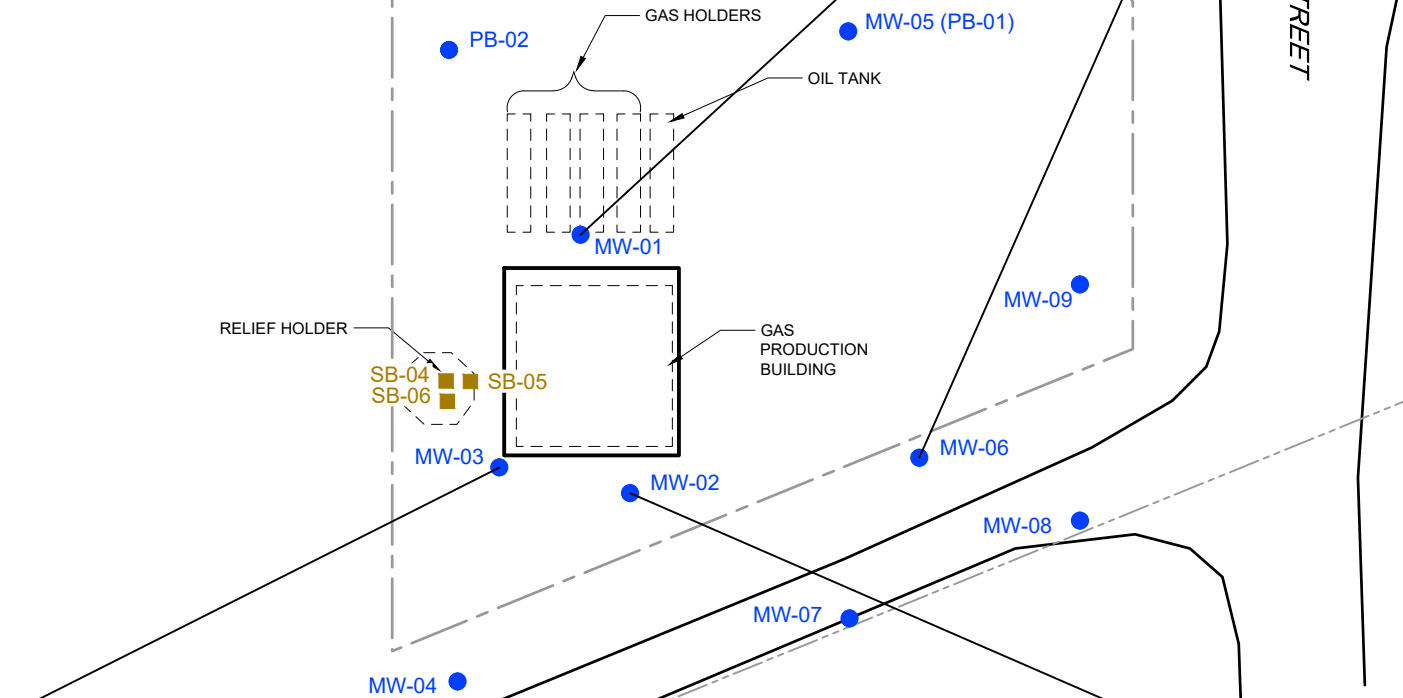
**GROUNDWATER ELEVATION CONTOUR
MAP - JANUARY 12, 2022**

FIGURE 4

NORTH MAIN STREET

MW-06	SWS-NPGW µg/L	5/23/2018 µg/L	8/2/2018 µg/L	5/28/2021 µg/L	7/8/2021 µg/L	10/26/2021 µg/L	1/13/2022 µg/L
Benzene	64	121	24.4/64.6	-	-	-	-

MW-01	SWS-NPGW µg/L	5/23/2018 µg/L	8/2/2018 µg/L	4/29/2021 µg/L	7/8/2021 µg/L	10/26/2021 µg/L	1/13/2022 µg/L
Benzene	64	-	463/453	390	494/459	395	283



MW-03	SWS-NPGW µg/L	5/23/2018 µg/L	8/2/2018 µg/L	5/28/2021 µg/L	7/8/2021 µg/L	10/26/2021 µg/L	1/13/2022 µg/L
Naphthalene	700	2210/1560	-	-	-	-	-
Benzene	64	1190/1220	721	507	449	468/473	172/173

MW-02	SWS-NPGW µg/L	5/23/2018 µg/L	8/2/2018 µg/L	4/30/2021 µg/L	7/8/2021 µg/L	10/27/2021 µg/L	1/13/2022 µg/L
Benzene	64	602	564	279	231	-	146

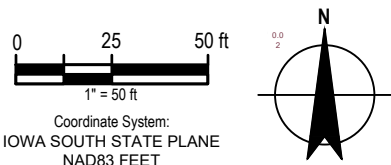
LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- APPROXIMATE RAILROAD R.O.W.
- APPROXIMATE LOCATION OF FORMER MGP STRUCTURES
- SOIL BORING
- SOIL BORING COMPLETED AS SHALLOW MONITORING WELL

MW-01	SWS-NPGW µg/L	5/23/2018 µg/L	8/2/2018 µg/L
Benzene	64	-	463/453

— SAMPLE LOCATION
— SAMPLE DATE
— RESULT UNIT
— RESULT
— PARAMETER

NOTES:
 µg/L = MICROGRAMS PER LITER
 SWS-NPGW = STATEWIDE STANDARD FOR NON-PROTECTED GROUNDWATER
 - = NO EXCEEDANCE
 24.4/64.6 = DUPLICATE SAMPLE



INTERSTATE POWER AND LIGHT COMPANY
 ALBIA FORMER MANUFACTURED GAS PLANT SITE
 ALBIA, IOWA

Project No. 11156780
 Date April 2022

GROUNDWATER EXCEEDANCE MAP

FIGURE 5

Tables

Table 1

**Groundwater Elevations
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa**

Location	Top of Casing Elevation (feet)	Water Level Elevation (feet)							
		4/24/2018	5/3/2018	7/11/2018	7/23/2018	8/2/2018	9/6/2018	9/19/2018	10/18/2018
MW-01	945.01	932.96	943.18	943.07	942.70	942.29	943.63	944.00	944.33
MW-02	945.14	dry	933.86	943.22	942.86	942.44	944.96	944.03	944.17
MW-03	945.76	942.69	944.50	943.86	943.57	943.23	945.54	944.77	944.92
MW-04	945.69	-	-	-	943.23	942.88	944.99	944.83	944.83
MW-05	942.38	-	-	-	929.19	930.12	941.93	940.64	941.63
MW-06	941.95	-	-	-	934.63	937.94	940.63	940.33	940.38
MW-07	942.46	-	-	-	-	-	-	dry	934.70
MW-08	939.61	-	-	-	-	-	-	937.52	937.76
MW-08R	938.97	-	-	-	-	-	-	-	-
MW-09	940.77	-	-	-	-	-	-	938.49	938.75

Notes:

NM - Not measured.

Table 1

**Groundwater Elevations
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa**

Location	Top of Casing Elevation (feet)	Water Level Elevation (feet)						
		1/15/2019	7/27/2020	11/6/2020	4/29/2021	7/7/2021	10/26/2021	1/12/2022
MW-01	945.01	944.23	943.71	943.40	944.80	944.36	944.28	944.12
MW-02	945.14	944.55	943.46	943.51	944.01	943.94	944.76	943.87
MW-03	945.76	945.03	944.39	944.41	945.15	>945.76	>945.76	945.26
MW-04	945.69	945.35	944.06	944.33	945.40	945.10	945.30	944.91
MW-05	942.38	942.38	939.85	938.78	939.55	939.57	939.15	938.32
MW-06	941.95	940.52	939.30	940.16	940.51	940.66	940.74	940.66
MW-07	942.46	941.35	941.58	941.48	937.79	939.89	NM	940.81
MW-08	939.61	938.07	Unable to Locate	Unable to Locate	Abandoned	Abandoned	Abandoned	Abandoned
MW-08R	938.97	-	-	-	935.03	935.05	936.00	935.64
MW-09	940.77	938.90	938.58	938.26	938.64	939.02	938.91	938.32

Notes:

NM - Not measured.

Table 2

**Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa**

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	
				MW01-GW-0518	MW01-GW-0818	DP01-GW-0818	MW01-GW-0421	MW01-GW-0721	DUP1-GW-0721	MW01-GW-1021	MW01-GW-0122	MW02-GW-0518	MW02-GW-0818	MW02-GW-0421	MW02-GW-0721	MW02-GW-1021	MW02-GW-0122	
				5/23/2018	8/2/2018	8/2/2018	4/29/2021	7/8/2021	7/8/2021	7/8/2021	10/26/2021	1/13/2022	5/23/2018	8/2/2018	4/30/2021	7/8/2021	10/27/2021	1/13/2022
<u>Inorganics</u>																		
Cyanide, Free	mg/L	-	-	<0.00500	<0.00500	<0.00500	-	-	-	-	-	-	<0.00500	<0.00500	-	-	-	-
Arsenic, Total	mg/L	0.05	0.01	<0.00200	0.00677	0.00618	0.0134	0.00610	0.00598	0.0124	0.0166	0.00204	0.0184	0.0147	0.0153	0.0228	0.0149	
Lead, Total	mg/L	0.075	0.015	<0.000500	<0.000500	<0.000500	<0.000500	0.000664	0.000583	0.000590	0.000715	<0.000500	<0.000500	<0.000500	<0.000500	0.000533	<0.000500	
<u>Polynuclear Aromatic Hydrocarbons</u>																		
2-Methylnaphthalene	µg/L	140	28	<0.200	<0.161	0.573	<0.200	0.280	0.259	<0.227	<0.200	41.4	6.64	1.74	1.03	<0.217	<0.238	
Acenaphthene	µg/L	2100	420	<0.200	11.8	21.3	11.9	19.3	20.1	11.6	17.6	46.4	14.3	22.5	20.7	<0.217	13.9	
Acenaphthylene	µg/L	1000	210	<0.200	0.511	4.39	2.63 F1	4.71	5.05	1.43	3.33	95.5	17.5	24.8	25.8	<0.217	9.58	
Anthracene	µg/L	10000	2100	<0.200	1.61	4.74	0.844	1.83	1.98	1.04	1.43	5.43	2.07	1.57	1.33	<0.217	0.808	
Benzo[a]anthracene	µg/L	4.8	0.24	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238	
Benzo[a]pyrene	µg/L	3.5	0.18	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238	
Benzo[b]fluoranthene	µg/L	4.8	0.24	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238	
Benzo[g,h,i]perylene	µg/L	100	21	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238	
Benzo[k]fluoranthene	µg/L	48	2.4	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238	
Chrysene	µg/L	480	24	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238	
Dibenz(a,h)anthracene	µg/L	0.48	0.024	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238	
Fluoranthene	µg/L	1400	280	<0.200	2.91	4.47	0.579	1.65	1.68	1.05	0.924	1.24	1.18	0.896	0.799	<0.217	0.972	
Fluorene	µg/L	1400	280	<0.200	19.6	42.3	9.01	15.4	17.2	10.0	13.9	37.5	11.3	16.8	16.7	<0.217	8.83	
Indeno[1,2,3-cd]pyrene	µg/L	4.8	0.24	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238	
Naphthalene	µg/L	700	100	<0.500	<0.403	0.660	13.6 F2	66.9	80.9	0.848 F1 F2	4.39	178	0.699	39.4	22.6	<0.543	0.909	
Phenanthrene	µg/L	1000	210	<0.200	2.35	18.5	4.32	12.0	13.3	3.08 F1 F2	6.75	28.0	11.6	8.82	8.59	<0.217	2.9	
Pyrene	µg/L	1000	210	<0.200	2.59	4.10	0.473	1.55	1.56	1.02	0.909	1.01	0.924	0.831	0.760	0.234	1.05	
<u>Volatile Organic Compounds</u>																		
Benzene	µg/L	64	5	51.2	463	453	390	494	459	395	283	602	564	279	231	38.6	146	
Ethylbenzene	µg/L	3500	700	126	1270	1200	407	565	562	531	384	126	180	89.5	81.5	12.4	27.6	
Toluene	µg/L	5000	1000	<10.0	11.9	11.1	4.60	6.58	6.51	4.78	2.87	54.1	58.7	6.48	5.80	<1.00	1.31	
Xylenes, Total	µg/L	50000	10000	70.5	773	740	49.5	57.5	55.2	41.9	29.6	284	300	58.1	51.7	10.1	24.8	
1,1,1,2-Tetrachloroethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	µg/L	70000	200	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1,2-Tetrachloroethane	µg/L	18	0.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	µg/L	61	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	µg/L	700	140	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	µg/L	180	7	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
1,1-Dichloropropene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,3-Trichloropropane	µg/L	0.12	0.0058	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	µg/L	350	70	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,4-Trimethylbenzene	µg/L	350	70	17.7	158	156	85.2	111	104	78.2	69.6	44.8	47.3	45.9	41.5	10.3	21	
1,2-Dibromo-3-Chloropropane	µg/L	2.9	0.2	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-Dibromoethane (EDB)	µg/L	1.8	0.05	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	µg/L	38	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	3.61
1,2-Dichloropropane	µg/L	60	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene	µg/L	350	70	<10.0	63.5	60.1	<1.00	<1.00	<1.00	<1.00 F1 F2	<1.00	27.3	15.2	4.32	3.54	1.17	1.62	
1,3-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	µg/L	650	75	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	µg/L	-	-	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
2-Butanone (MEK)	µg/L	21000	4000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Table 2

**Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa**

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01	MW-01
				MW01-GW-0518	MW01-GW-0818	DP01-GW-0818	MW01-GW-0421	MW01-GW-0721	DUP1-GW-0721	MW01-GW-1021	MW01-GW-0122	MW02-GW-0518	MW02-GW-0818	MW02-GW-0421	MW02-GW-0721	MW02-GW-1021	MW02-GW-0122
				5/23/2018	8/2/2018	8/2/2018	4/29/2021	7/8/2021	7/8/2021	10/26/2021	1/13/2022	5/23/2018	8/2/2018	4/30/2021	7/8/2021	10/27/2021	1/13/2022
<u>Volatile Organic Compounds (cont'd)</u>																	
4-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Acetone	µg/L	32000	6300	<100	<10.0	<10.0	<10.0 F1	<10.0	<10.0	<10.0	<10.0	<100	<10.0	<10.0	<10.0	<10.0	<10.0
Bromobenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromochloromethane	µg/L	450	90	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromodichloromethane	µg/L	400	80	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	µg/L	440	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromomethane	µg/L	50	10	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Carbon disulfide	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.15	<1.00	<1.00
Carbon tetrachloride	µg/L	50	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Chlorobenzene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	µg/L	400	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Chloroethane	µg/L	14000	2800	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Chloroform	µg/L	-	80	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Chloromethane	µg/L	-	-	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Dibromomethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	µg/L	7000	1000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Hexachlorobutadiene	µg/L	45	1	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Hexane	µg/L	2100	420	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	µg/L	3500	700	<1.00	9.54	9.24	4.30	6.17	6.17	4.78	4.62	<10.0	3.57	2.78	2.45	<1.00	1.18
Methyl tert-butyl ether	µg/L	1000	210	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	µg/L	1800	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
n-Butylbenzene	µg/L	1800	350	<1.00	2.47	2.42	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	1.20	1.14	<1.00	<1.00	<1.00
N-Propylbenzene	µg/L	17000	3400	<1.00	23.7	22.4	6.43	11.0	10.8	7.84	7.91	<1.00	3.71	2.31	1.96	<1.00	<1.00
p-Isopropyltoluene	µg/L	-	-	<1.00	1.60	1.33	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00
sec-Butylbenzene	µg/L	-	-	<1.00	1.17	1.10	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	µg/L	-	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	µg/L	1700	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Trichloroethene	µg/L	76	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	µg/L	10000	2000	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Vinyl chloride	µg/L	10	2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
<u>Phenols</u>																	
2,4,5-Trichlorophenol	µg/L	3500	700	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2,4,6-Trichlorophenol	µg/L	320	16	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2,4-Dichlorophenol	µg/L	100	20	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2,4-Dimethylphenol	µg/L	700	100	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2,4-Dinitrophenol	µg/L	70	14	<206	-	-	-	-	-	-	-	<208	-	-	-	-	-
2-Chlorophenol	µg/L	200	40	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2-Methylphenol	µg/L	-	35	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2-Nitrophenol	µg/L	-	-	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/L	-	-	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
4-Chloro-3-methylphenol	µg/L	3500	700	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	µg/L	-	70	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
4-Nitrophenol	µg/L	300	60	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
Pentachlorophenol	µg/L	8.8	1	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
Phenol	µg/L	10000	2000	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
Total Cresols	µg/L	-	-	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-

Notes:

Concentrations above Statewide Standard for a Protected Water Source are in bold font.
 Concentrations above Statewide Standard for a Non-Protected Water Source are in bold red font with red outline.
 F1 - MS and/or MSD Recovery is outside acceptance limits.
 *1 - LCS/LCSD RPD exceeds control limits.
 + - LCS and/or LCSD is outside acceptance limit, high biased.

Table 2

Groundwater Analytical Results Interstate Power and Light Company Former Manufactured Gas Plant - Albia, Iowa																			
Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	
				MW03-GW-0518	DP01-GW-0518	MW03-GW-0818	MW3-GW-0521	MW03-GW-0721	MW03-GW-1021	DUP1-GW-1021	MW03-GW-0122	DUP1-GW-0122	MW04-GW-0818	MW04-GW-0918	MW04-GW-0421	DP01-GW-0421	MW04-GW-0721	MW04-GW-1021	MW04-GW-0122
				5/23/2018	5/23/2018	8/2/2018	5/28/2021	7/8/2021	10/26/2021	10/26/2021	11/13/2022	1/13/2022	8/2/2018	9/6/2018	4/30/2021	4/30/2021	7/7/2021	10/26/2021	1/13/2022
Inorganics																			
Cyanide, Free	mg/L	-	-	<0.00500 F1	<0.00500	<0.00500 F1	-	-	-	-	-	-	-	<0.00500	-	-	-	-	-
Arsenic, Total	mg/L	0.05	0.01	0.00593	0.00575	0.0173	0.00353	0.00416	0.00637	0.00673	0.0111	0.0069	0.00243	0.00351	0.00409	0.00448	0.00598	0.00394	0.00537
Lead, Total	mg/L	0.075	0.015	<0.000500	<0.000500	<0.000500	<0.000500	0.000999	0.000571	0.000933	0.000558	0.000592	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.000704	0.000799
Polynuclear Aromatic Hydrocarbons																			
2-Methylnaphthalene	µg/L	140	28	72.2	39.2	18.5	3.62 *1	1.29	0.295	0.238	0.273	0.266	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Acenaphthene	µg/L	2100	420	43.6	27.1	13.8	27.0 *1	18.7	21.6	21.1	18.3	20.9	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Acenaphthylene	µg/L	1000	210	180	122	67.1 F2	159 *1	129	130	114	70.4	96.1	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Anthracene	µg/L	10000	2100	7.60	4.98	2.65 F2 F1	6.09 *1	4.22	2.50	3.26	1.56	1.49	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Benzo[a]anthracene	µg/L	4.8	0.24	<0.227	<0.200	<0.172	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Benzo[a]pyrene	µg/L	3.5	0.18	<0.227	<0.200	<0.172	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	0.177	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Benzo[b]fluoranthene	µg/L	4.8	0.24	<0.227	<0.200	<0.172	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	<0.167	<0.192	<0.208	<0.208	0.219	<0.227	<0.200
Benzo[g,h,i]perylene	µg/L	100	21	<0.227	<0.200	<0.172 F2	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	0.356	<0.192 F2	<0.208	<0.208	<0.200	<0.227	<0.200
Benzo[k]fluoranthene	µg/L	48	2.4	<0.227	<0.200	<0.172	<0.200	<0.217	<0.208	<0.227	<0.200	<0.200	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Chrysene	µg/L	480	24	<0.227	<0.200	<0.172	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Dibenz(a,h)anthracene	µg/L	0.48	0.024	<0.227	<0.200	<0.172 F2	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	0.352	<0.192 F2	<0.208	<0.208	<0.200	<0.227	<0.200
Fluoranthene	µg/L	1400	280	5.41	3.60	1.70	5.37 *1	4.66	3.99	4.36	1.03	1.05	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Fluorene	µg/L	1400	280	29.2	18.7	9.95 F2	17.2 *1	12.2	11.5	11.1	8.64	9.23	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Indeno[1,2,3-cd]pyrene	µg/L	4.8	0.24	<0.227	<0.200	<0.172 F2	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	0.393	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Naphthalene	µg/L	700	100	2210	1560	618 F2	ing	266	39.9	32.7	14	15.7	<0.417	<0.481	<0.521	<0.521	<0.500	<0.568	<0.500
Phenanthrene	µg/L	1000	210	90.8	64.2	24.2	66.4	54.3	27.8	22.3	15	16.3	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Pyrene	µg/L	1000	210	5.34	3.59	1.66	5.55 *1	5.07	4.09	4.48	0.959	1.03	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Volatile Organic Compounds																			
Benzene	µg/L	64	5	1190	1220	721	507	449	468	473	172	173	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Ethylbenzene	µg/L	3500	700	293	265	174	154	133	188	194	49.8	49.8	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Toluene	µg/L	5000	1000	23.7	22.1	15.7	19.0	20.1	7.86	7.91	2.5	2.39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Xylenes, Total	µg/L	50000	10000	309	281	158 F1	130	121	95.6	96.9	48.8	47.4	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
1,1,1,2-Tetrachloroethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	µg/L	70000	200	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	µg/L	18	0.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	µg/L	61	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	µg/L	700	140	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	µg/L	180	7	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
1,1-Dichloropropene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,3-Trichloropropane	µg/L	0.12	0.0058	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	µg/L	350	70	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,4-Trimethylbenzene	µg/L	350	70	122	111	57.8	69.7	72.1	69.5	71.5	42.7	41.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dibromo-3-Chloropropane	µg/L	2.9	0.2	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-Dibromoethane (EDB)	µg/L	1.8	0.05	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	µg/L	38	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	µg/L	60	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene	µg/L	350	70	30.4	27.3	12.2	7.97	7.16	4.10	4.25	2.95	2.81	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	µg/L	650	75	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	µg/L	-	-	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
2-Butanone (MEK)	µg/L	21000	4000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

**Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa**

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-03	MW-04	MW-04	MW-04	MW-04	MW-04	MW-04	MW-04
				MW03-GW- 0518	DP01-GW- 0518	MW03-GW- 0818	MW3-GW- 0521	MW03-GW- 0721	MW03-GW- 1021	DUP1-GW- 1021	MW03-GW- 0122	DUP1-GW- 0122	MW04-GW- 0818	MW04-GW- 0918	MW04-GW- 0421	DP01-GW- 0421	MW04-GW- 0721	MW04-GW- 1021	MW04-GW- 0122	
<u>Volatile Organic Compounds (cont'd)</u>																				
4-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Acetone	µg/L	32000	6300	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Bromobenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromochloromethane	µg/L	450	90	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromodichloromethane	µg/L	400	80	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	µg/L	440	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromomethane	µg/L	50	10	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Carbon disulfide	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Carbon tetrachloride	µg/L	50	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Chlorobenzene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	µg/L	400	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Chloroethane	µg/L	14000	2800	<4.00	<4.00	<4.00	<4.00	21.9	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00 *	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Chloroform	µg/L	-	80	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Chloromethane	µg/L	-	-	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Dibromomethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	µg/L	7000	1000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Hexachlorobutadiene	µg/L	45	1	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Hexane	µg/L	2100	420	<1.00	<1.00	<1.00 F2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	µg/L	3500	700	22.4	20.5	10.3	12.9	13.8	16.4	17.3	4.76	4.74	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methyl tert-butyl ether	µg/L	1000	210	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	µg/L	1800	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
n-Butylbenzene	µg/L	1800	350	2.81	2.83	1.63	2.12	1.75	1.62	1.69	1.04	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
N-Propylbenzene	µg/L	17000	3400	10.1	9.07	4.10	4.68	4.58	5.21	5.47	1.23	1.27	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
p-Isopropyltoluene	µg/L	-	-	2.55	2.21	<1.00	1.02	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
sec-Butylbenzene	µg/L	-	-	1.23	1.09	<1.00	1.01	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	µg/L	-	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	µg/L	1700	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Trichloroethene	µg/L	76	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	µg/L	10000	2000	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Vinyl chloride	µg/L	10	2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 *	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
<u>Phenols</u>																				
2,4,5-Trichlorophenol	µg/L	3500	700	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	µg/L	320	16	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	100	20	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	µg/L	700	100	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	µg/L	70	14	<211	<213	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	200	40	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	µg/L	-	35	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	µg/L	-	-	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/L	-	-	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	µg/L	3500	700	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	µg/L	-	70	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	µg/L	300	60	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	µg/L	8.8	1	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	µg/L	10000	2000	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cresols	µg/L	-	-	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

Concentrations above Statewide Standard for a Protected Water Source are in bold font.

Concentrations above Statewide Standard for a Non-Protected Water Source are in bold red font with red outline.

F1 - MS and/or MSD Recovery is outside acceptance limits.

*1 - LCS/LCSD RPD exceeds control limits.

+ - LCS and/or LCSD is outside acceptance limit, high biased.

Table 2

**Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa**

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-05	MW-05	MW-05	MW-05	MW-05	MW-05	MW-06	MW-06	MW-06	MW-06	MW-06	MW-06	MW-06
				MW05-GW- 0818	MW05-GW- 0918	MW05-GW- 0421	MW05-GW- 0721	MW05-GW- 1021	MW05-GW- 0122	MW06-GW- 0818	MW06-GW- 0918	MW06-GW- 0918	MW06-GW- 0421	MW06-GW- 0721	MW06-GW- 1021	MW06-GW- 0122
<u>Inorganics</u>																
Cyanide, Free	mg/L	-	-	<0.00500	-	-	-	-	-	<0.00500	-	-	-	-	-	-
Arsenic, Total	mg/L	0.05	0.01	<0.00200 ^	0.00242	0.00342	<0.00200	<0.00200	<0.00200	<0.00200 ^	0.00468	0.00470	0.0422	0.0257	0.0193	0.0266
Lead, Total	mg/L	0.075	0.015	<0.000500	<0.000500	<0.000500	<0.000500	0.000737	<0.000500	<0.000500	<0.000500	<0.000500	0.000534	<0.000500	0.00127	0.00065
<u>Polynuclear Aromatic Hydrocarbons</u>																
2-Methylnaphthalene	µg/L	140	28	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	13.1	6.40	9.50	<0.200	0.319	<0.217	<0.208
Acenaphthene	µg/L	2100	420	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	8.80	3.59	4.08	1.53	2.06	<0.217	3.02
Acenaphthylene	µg/L	1000	210	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	66.5	31.5	37.3	3.77	5.72	<0.217	4.9
Anthracene	µg/L	10000	2100	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	5.55	1.57	1.50	<0.200	0.544	<0.217	0.74
Benzo[a]anthracene	µg/L	4.8	0.24	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Benzo[a]pyrene	µg/L	3.5	0.18	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Benzo[b]fluoranthene	µg/L	4.8	0.24	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Benzo[g,h,i]perylene	µg/L	100	21	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Benzo[k]fluoranthene	µg/L	48	2.4	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Chrysene	µg/L	480	24	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Dibenz(a,h)anthracene	µg/L	0.48	0.024	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Fluoranthene	µg/L	1400	280	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	2.90	2.04	2.09	0.654	0.804	<0.217	1.28
Fluorene	µg/L	1400	280	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	27.7	11.5	12.9	0.744	1.63	<0.217	2.82
Indeno[1,2,3-cd]pyrene	µg/L	4.8	0.24	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Naphthalene	µg/L	700	100	0.432	<0.500	<0.543	<0.500	<0.543	<0.568	226	121	342	0.733	6.83	<0.543	0.933
Phenanthrene	µg/L	1000	210	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	27.4	8.07	9.79	<0.200	4.07	<0.217	5.4
Pyrene	µg/L	1000	210	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	3.26	3.14	3.21	0.914	0.927	<0.217	1.34
<u>Volatile Organic Compounds</u>																
Benzene	µg/L	64	5	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	121	24.4	64.6	41.7	22.7	9.16	20.9
Ethylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	20.0	<10.0	13.6	6.05	4.63	2.04	6.54
Toluene	µg/L	5000	1000	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	179	40.5	89.0	4.32	3.28	<1.00	1.25
Xylenes, Total	µg/L	50000	10000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	169	<30.0	59.7	44.7	29.7	4.23	19.3
1,1,1,2-Tetrachloroethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	µg/L	70000	200	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1,1,2-Tetrachloroethane	µg/L	18	0.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	µg/L	61	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	µg/L	700	140	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	µg/L	180	7	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<20.0	<20.0	<2.00	<2.00	<2.00	<2.00
1,1-Dichloropropene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
1,2,3-Trichloropropane	µg/L	0.12	0.0058	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	µg/L	350	70	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
1,2,4-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	26.1	<10.0	11.4	17.4	14.6	2.71	15.2
1,2-Dibromo-3-Chloropropane	µg/L	2.9	0.2	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
1,2-Dibromoethane (EDB)	µg/L	1.8	0.05	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	µg/L	38	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	µg/L	60	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	10.5	<10.0	<10.0	<1.00	<1.00	<1.00	1.15
1,3-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	µg/L	650	75	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	µg/L	-	-	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<40.0	<40.0	<4.00	<4.00	<4.00	<4.00
2-Butanone (MEK)	µg/L	21000	4000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<100	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00

Table 2

**Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa**

Analyte	Units	Iowa Statewide	Iowa Statewide	MW-05	MW-05	MW-05	MW-05	MW-05	MW-05	MW-05	MW-06	MW-06	MW-06	MW-06	MW-06	MW-06
		Standard (Non-Protected)	Standard (Protected)	MW05-GW- 0818	MW05-GW- 0918	MW05-GW- 0421	MW05-GW- 0721	MW05-GW- 1021	MW05-GW- 0122	MW06-GW- 0818	MW06-GW- 0918	DP01-GW- 0918	MW06-GW- 0421	MW06-GW- 0721	MW06-GW- 1021	MW06-GW- 0122
				8/2/2018	9/6/2018	4/29/2021	7/7/2021	10/26/2021	1/13/2022	8/2/2018	9/6/2018	9/6/2018	4/30/2021	7/8/2021	10/27/2021	1/13/2022
<u>Volatile Organic Compounds (cont'd)</u>																
4-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Acetone	µg/L	32000	6300	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<100	<10.0	<10.0	<10.0	<10.0
Bromobenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Bromochloromethane	µg/L	450	90	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Bromodichloromethane	µg/L	400	80	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Bromoform	µg/L	440	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Bromomethane	µg/L	50	10	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<40.0	<40.0	<4.00	<4.00	<4.00	<4.00
Carbon disulfide	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Carbon tetrachloride	µg/L	50	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<20.0	<20.0	<2.00	<2.00	<2.00	<2.00
Chlorobenzene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	µg/L	400	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Chloroethane	µg/L	14000	2800	<4.00	<4.00 *	<4.00	<4.00	<4.00	<4.00	<4.00	<40.0	<40.0	<4.00	<4.00	<4.00	<4.00
Chloroform	µg/L	-	80	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<30.0	<30.0	<3.00	<3.00	<3.00	<3.00
Chloromethane	µg/L	-	-	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<30.0	<30.0	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Dibromomethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	µg/L	7000	1000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<30.0	<30.0	<3.00	<3.00	<3.00	<3.00
Hexachlorobutadiene	µg/L	45	1	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Hexane	µg/L	2100	420	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.23	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Methyl tert-butyl ether	µg/L	1000	210	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	µg/L	1800	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
n-Butylbenzene	µg/L	1800	350	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.12	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
N-Propylbenzene	µg/L	17000	3400	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
p-Isopropyltoluene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
sec-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Styrene	µg/L	-	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	µg/L	1700	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Trichloroethene	µg/L	76	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	µg/L	10000	2000	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<40.0	<40.0	<4.00	<4.00	<4.00	<4.00
Vinyl chloride	µg/L	10	2	<1.00	<1.00 *	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
<u>Phenols</u>																
2,4,5-Trichlorophenol	µg/L	3500	700	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	µg/L	320	16	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	100	20	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	µg/L	700	100	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	µg/L	70	14	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	200	40	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	µg/L	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	µg/L	3500	700	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	µg/L	-	70	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	µg/L	300	60	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	µg/L	8.8	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	µg/L	10000	2000	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cresols	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 Concentrations above Statewide Standard for a Protected Water Source are in bold font.
 Concentrations above Statewide Standard for a Non-Protected Water Source are in bold red font with red outline.
 F1 - MS and/or MSD Recovery is outside acceptance limits.
 *1 - LCS/LCSD RPD exceeds control limits.
 + - LCS and/or LCSD is outside acceptance limit, high biased.

Table 2

**Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa**

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-08	MW-08	MW-08	MW-08R	MW-08R	MW-08R	MW-08R
				MW07-GW- 1018 10/18/2018	MW07-GW- 0119 1/15/2019	MW07-GW- 0521 5/28/2021	MW07-GW- 0721 7/7/2021	MW07-GW- 1021 10/29/2021	MW07-GW- 0122 1/13/2022	MW08-GW- 1018 10/18/2018	MW08-GW- 0119 1/15/2019	MW08-GW- 0119 1/15/2019	MW08-GW- 0421 4/30/2021	MW08R- GW-0721 7/7/2021	MW08R- GW-1021 10/26/2021	MW08R- GW-0122 1/13/2022
<u>Inorganics</u>																
Cyanide, Free	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic, Total	mg/L	0.05	0.01	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.0133	0.0112	0.0110	<0.00200
Lead, Total	mg/L	0.075	0.015	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.000819	<0.000500	0.000695	0.000578	0.000614	0.000536	0.00577	<0.000500
<u>Polynuclear Aromatic Hydrocarbons</u>																
2-Methylnaphthalene	µg/L	140	28	<0.185	<0.192	1.02 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Acenaphthene	µg/L	2100	420	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	0.389	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Acenaphthylene	µg/L	1000	210	<0.185	<0.192	0.453 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Anthracene	µg/L	10000	2100	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Benzo[a]anthracene	µg/L	4.8	0.24	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Benzo[a]pyrene	µg/L	3.5	0.18	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Benzo[b]fluoranthene	µg/L	4.8	0.24	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Benzo[g,h,i]perylene	µg/L	100	21	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Benzo[k]fluoranthene	µg/L	48	2.4	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Chrysene	µg/L	480	24	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Dibenz(a,h)anthracene	µg/L	0.48	0.024	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Fluoranthene	µg/L	1400	280	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Fluorene	µg/L	1400	280	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Indeno[1,2,3-cd]pyrene	µg/L	4.8	0.24	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Naphthalene	µg/L	700	100	<0.463	<0.481	2.91 *1 **	<0.568	<0.568	<0.500	<0.481	<0.481	<0.500	<0.500	<0.500	<0.568	<0.595
Phenanthrene	µg/L	1000	210	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Pyrene	µg/L	1000	210	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
<u>Volatile Organic Compounds</u>																
Benzene	µg/L	64	5	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Ethylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Toluene	µg/L	5000	1000	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Xylenes, Total	µg/L	50000	10000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
1,1,1,2-Tetrachloroethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	µg/L	70000	200	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 F2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1,2-Tetrachloroethane	µg/L	18	0.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	µg/L	61	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	µg/L	700	140	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	µg/L	180	7	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
1,1-Dichloropropene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 F2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,3-Trichloropropane	µg/L	0.12	0.0058	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	µg/L	350	70	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,4-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dibromo-3-Chloropropane	µg/L	2.9	0.2	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-Dibromoethane (EDB)	µg/L	1.8	0.05	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	µg/L	38	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	µg/L	60	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	µg/L	650	75	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	µg/L	-	-	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
2-Butanone (MEK)	µg/L	21000	4000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Table 2

**Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa**

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-08	MW-08	MW-08	MW-08R	MW-08R	MW-08R	MW-08R
				MW07-GW-1018	MW07-GW-0119	MW07-GW-0521	MW07-GW-0721	MW07-GW-1021	MW07-GW-0122	MW08-GW-1018	MW08-GW-0119	DP01-GW-0119	MW8R-GW-0421	MW08R-GW-0721	MW08R-GW-1021	MW08R-GW-0122
<u>Volatile Organic Compounds (cont'd)</u>																
4-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Acetone	µg/L	32000	6300	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Bromobenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromochloromethane	µg/L	450	90	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromodichloromethane	µg/L	400	80	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	µg/L	440	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromomethane	µg/L	50	10	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Carbon disulfide	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Carbon tetrachloride	µg/L	50	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00 F2	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Chlorobenzene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	µg/L	400	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Chloroethane	µg/L	14000	2800	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Chloroform	µg/L	-	80	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Chloromethane	µg/L	-	-	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Dibromomethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	µg/L	7000	1000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Hexachlorobutadiene	µg/L	45	1	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Hexane	µg/L	2100	420	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methyl tert-butyl ether	µg/L	1000	210	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	µg/L	1800	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
n-Butylbenzene	µg/L	1800	350	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
N-Propylbenzene	µg/L	17000	3400	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
p-Isopropyltoluene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
sec-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	µg/L	-	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	µg/L	1700	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Trichloroethene	µg/L	76	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	µg/L	10000	2000	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Vinyl chloride	µg/L	10	2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
<u>Phenols</u>																
2,4,5-Trichlorophenol	µg/L	3500	700	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	µg/L	320	16	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	100	20	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	µg/L	700	100	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	µg/L	70	14	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	200	40	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	µg/L	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	µg/L	3500	700	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	µg/L	-	70	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	µg/L	300	60	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	µg/L	8.8	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	µg/L	10000	2000	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cresols	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
 Concentrations above Statewide Standard for a Protected Water Source are in bold font.
 Concentrations above Statewide Standard for a Non-Protected Water Source are in bold red font with red outline.
 F1 - MS and/or MSD Recovery is outside acceptance limits.
 *1 - LCS/LCSD RPD exceeds control limits.
 + - LCS and/or LCSD is outside acceptance limit, high biased.

Table 2

**Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa**

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-09	MW-09	MW-09	MW-09	MW-09	MW-09	MW-09	PB-02
				MW09-GW- 1018 10/18/2018	DP01-GW- 1018 10/18/2018	MW09-GW- 0119 1/15/2019	MW09-GW- 0421 4/29/2021	MW09-GW- 0721 7/7/2021	MW09-GW- 1021 10/27/2021	MW09-GW- 0122 1/13/2022	PB02-GW- 0718 7/12/2018
<u>Inorganics</u>											
Cyanide, Free	mg/L	-	-	-	-	-	-	-	-	-	<0.00500
Arsenic, Total	mg/L	0.05	0.01	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.0116
Lead, Total	mg/L	0.075	0.015	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.000509	<0.000500	0.0158
<u>Polynuclear Aromatic Hydrocarbons</u>											
2-Methylnaphthalene	µg/L	140	28	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Acenaphthene	µg/L	2100	420	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Acenaphthylene	µg/L	1000	210	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Anthracene	µg/L	10000	2100	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Benzo[a]anthracene	µg/L	4.8	0.24	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Benzo[a]pyrene	µg/L	3.5	0.18	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Benzo[b]fluoranthene	µg/L	4.8	0.24	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Benzo[g,h,i]perylene	µg/L	100	21	<0.192	<0.192	<0.200 F2	<0.250	<0.200	<0.227	<0.200	<0.108
Benzo[k]fluoranthene	µg/L	48	2.4	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Chrysene	µg/L	480	24	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Dibenz(a,h)anthracene	µg/L	0.48	0.024	<0.192	<0.192	<0.200 F2	<0.250	<0.200	<0.227	<0.200	<0.108
Fluoranthene	µg/L	1400	280	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Fluorene	µg/L	1400	280	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Indeno[1,2,3-cd]pyrene	µg/L	4.8	0.24	<0.192	<0.192	<0.200 F2	<0.250	<0.200	<0.227	<0.200	<0.108
Naphthalene	µg/L	700	100	<0.481	<0.481	<0.500	<0.625	<0.500	<0.568	<0.500	<0.538
Phenanthrene	µg/L	1000	210	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Pyrene	µg/L	1000	210	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
<u>Volatile Organic Compounds</u>											
Benzene	µg/L	64	5	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Ethylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Toluene	µg/L	5000	1000	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Xylenes, Total	µg/L	50000	10000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
1,1,1,2-Tetrachloroethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	µg/L	70000	200	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	µg/L	18	0.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	µg/L	61	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	µg/L	700	140	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	µg/L	180	7	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
1,1-Dichloropropene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,3-Trichloropropane	µg/L	0.12	0.0058	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	µg/L	350	70	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,4-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dibromo-3-Chloropropane	µg/L	2.9	0.2	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-Dibromoethane (EDB)	µg/L	1.8	0.05	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	µg/L	38	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	µg/L	60	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	µg/L	650	75	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	µg/L	-	-	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
2-Butanone (MEK)	µg/L	21000	4000	<10.0	<10.0	<10.0 F2	<10.0	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Table 2

**Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa**

Analyte	Units	Iowa Statewide	Iowa Statewide	MW-09	MW-09	MW-09	MW-09	MW-09	MW-09	MW-09	PB-02
		Standard	Standard	MW09-GW-1018	DP01-GW-1018	MW09-GW-0119	MW09-GW-0421	MW09-GW-0721	MW09-GW-1021	MW09-GW-0122	PB02-GW-0718
		(Non-Protected)	(Protected)	10/18/2018	10/18/2018	1/15/2019	4/29/2021	7/7/2021	10/27/2021	1/13/2022	7/12/2018
<u>Volatile Organic Compounds (cont'd)</u>											
4-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Acetone	µg/L	32000	6300	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Bromobenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromochloromethane	µg/L	450	90	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromodichloromethane	µg/L	400	80	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	µg/L	440	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromomethane	µg/L	50	10	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Carbon disulfide	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Carbon tetrachloride	µg/L	50	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Chlorobenzene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	µg/L	400	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Chloroethane	µg/L	14000	2800	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Chloroform	µg/L	-	80	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Chloromethane	µg/L	-	-	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Dibromomethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	µg/L	7000	1000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Hexachlorobutadiene	µg/L	45	1	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Hexane	µg/L	2100	420	<1.00	<1.00	<1.00 F2	<1.00	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methyl tert-butyl ether	µg/L	1000	210	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	µg/L	1800	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
n-Butylbenzene	µg/L	1800	350	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
N-Propylbenzene	µg/L	17000	3400	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
p-Isopropyltoluene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
sec-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	µg/L	-	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	µg/L	1700	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Trichloroethene	µg/L	76	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	µg/L	10000	2000	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Vinyl chloride	µg/L	10	2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
<u>Phenols</u>											
2,4,5-Trichlorophenol	µg/L	3500	700	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	µg/L	320	16	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	100	20	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	µg/L	700	100	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	µg/L	70	14	-	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	200	40	-	-	-	-	-	-	-	-
2-Methylphenol	µg/L	-	35	-	-	-	-	-	-	-	-
2-Nitrophenol	µg/L	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/L	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	µg/L	3500	700	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	µg/L	-	70	-	-	-	-	-	-	-	-
4-Nitrophenol	µg/L	300	60	-	-	-	-	-	-	-	-
Pentachlorophenol	µg/L	8.8	1	-	-	-	-	-	-	-	-
Phenol	µg/L	10000	2000	-	-	-	-	-	-	-	-
Total Cresols	µg/L	-	-	-	-	-	-	-	-	-	-

Notes:

Concentrations above Statewide Standard for a Protected Water Source are in bold font.

Concentrations above Statewide Standard for a Non-Protected Water Source are in bold red font with red outline.

F1 - MS and/or MSD Recovery is outside acceptance limits.

*1 - LCS/LCSD RPD exceeds control limits.

+ - LCS and/or LCSD is outside acceptance limit, high biased.

Table 4

**Groundwater Duplicate Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa**

Analyte	Units	MW-03-GW-0518	DP01-GW-0518	RPD	MW01-GW-0818	DP01-GW-0818	RPD	MW06-GW-0918	DP01-GW-0918	RPD	MW09-GW-1018	DP01-GW-1018	RPD	MW08-GW-0119	DP01-GW-0119	RPD
		5/23/2018	5/23/2018		8/2/2018	8/2/2018		9/6/2018	9/6/2018		10/18/2018	10/18/2018		1/15/2019	1/15/2019	
<u>Inorganics</u>																
Cyanide, Free	mg/L	<0.00500 F1	<0.00500		<0.00500	<0.00500		-	-		-	-		-	-	
Arsenic, Total	mg/L	0.00593	0.00575	3%	0.00677	0.00618	9%	0.00468	0.00470	0%	<0.00200	<0.00200		<0.00200	<0.00200	
Lead, Total	mg/L	<0.000500	<0.000500		<0.000500	<0.000500		<0.000500	<0.000500		<0.000500	<0.000500		0.000695	0.000578	18%
<u>Polynuclear Aromatic Hydrocarbons</u>																
2-Methylnaphthalene	mg/L	72.2	39.2	59%	<0.161	0.573		6.40	9.50	39%	<0.192	<0.192		<0.192	<0.200	
Acenaphthene	mg/L	43.6	27.1	47%	11.8	21.3	57%	3.59	4.08	13%	<0.192	<0.192		<0.192	<0.200	
Acenaphthylene	mg/L	180	122	38%	0.511	4.39	158%	31.5	37.3	17%	<0.192	<0.192		<0.192	<0.200	
Anthracene	mg/L	7.60	4.98	42%	1.61	4.74	99%	1.57	1.50	5%	<0.192	<0.192		<0.192	<0.200	
Benzo[a]anthracene	mg/L	<0.227	<0.200		<0.161	<0.172		<0.200	<0.192		<0.192	<0.192		<0.192	<0.200	
Benzo[a]pyrene	mg/L	<0.227	<0.200		<0.161	<0.172		<0.200	<0.192		<0.192	<0.192		<0.192	<0.200	
Benzo[b]fluoranthene	mg/L	<0.227	<0.200		<0.161	<0.172		<0.200	<0.192		<0.192	<0.192		<0.192	<0.200	
Benzo[g,h,i]perylene	mg/L	<0.227	<0.200		<0.161	<0.172		<0.200	<0.192		<0.192	<0.192		<0.192	<0.200	
Benzo[k]fluoranthene	mg/L	<0.227	<0.200		<0.161	<0.172		<0.200	<0.192		<0.192	<0.192		<0.192	<0.200	
Chrysene	mg/L	<0.227	<0.200		<0.161	<0.172		<0.200	<0.192		<0.192	<0.192		<0.192	<0.200	
Dibenz[a,h]anthracene	mg/L	<0.227	<0.200		<0.161	<0.172		<0.200	<0.192		<0.192	<0.192		<0.192	<0.200	
Fluoranthene	mg/L	5.41	3.60	40%	2.91	4.47	42%	2.04	2.09	2%	<0.192	<0.192		<0.192	<0.200	
Fluorene	mg/L	29.2	18.7	44%	19.6	42.3	73%	11.5	12.9	11%	<0.192	<0.192		<0.192	<0.200	
Indeno[1,2,3-cd]pyrene	mg/L	<0.227	<0.200		<0.161	<0.172		<0.200	<0.192		<0.192	<0.192		<0.192	<0.200	
Naphthalene	mg/L	2210	1560	34%	<0.403	0.660		121	342	95%	<0.481	<0.481		<0.481	<0.500	
Phenanthrene	mg/L	90.8	64.2	34%	2.35	18.5	155%	8.07	9.79	19%	<0.192	<0.192		<0.192	<0.200	
Pyrene	mg/L	5.34	3.59	39%	2.59	4.10	45%	3.14	3.21	2%	<0.192	<0.192		<0.192	<0.200	
<u>Phenols</u>																
2,4,5-Trichlorophenol	mg/L	<105	<106		-	-		-	-		-	-		-	-	
2,4,6-Trichlorophenol	mg/L	<105	<106		-	-		-	-		-	-		-	-	
2,4-Dichlorophenol	mg/L	<105	<106		-	-		-	-		-	-		-	-	
2,4-Dimethylphenol	mg/L	<105	<106		-	-		-	-		-	-		-	-	
2,4-Dinitrophenol	mg/L	<211	<213		-	-		-	-		-	-		-	-	
2-Chlorophenol	mg/L	<105	<106		-	-		-	-		-	-		-	-	
2-Methylphenol	mg/L	<105	<106		-	-		-	-		-	-		-	-	
2-Nitrophenol	mg/L	<105	<106		-	-		-	-		-	-		-	-	
4,6-Dinitro-2-methylphenol	mg/L	<105	<106		-	-		-	-		-	-		-	-	
4-Chloro-3-methylphenol	mg/L	<105	<106		-	-		-	-		-	-		-	-	
4-Methylphenol (and/or 3-Methylphenol)	mg/L	<105	<106		-	-		-	-		-	-		-	-	
4-Nitrophenol	mg/L	<105	<106		-	-		-	-		-	-		-	-	
Pentachlorophenol	mg/L	<105	<106		-	-		-	-		-	-		-	-	
Phenol	mg/L	<105	<106		-	-		-	-		-	-		-	-	
Total Cresols	mg/L	<105	<106		-	-		-	-		-	-		-	-	
<u>Volatile Organic Compounds</u>																
Benzene	mg/L	1190	1220	2%	463	453	2%	24.4	64.6	90%	<0.500	<0.500		<0.500	<0.500	
Ethylbenzene	mg/L	293	265	10%	1270	1200	6%	<10.0	13.6		<1.00	<1.00		<1.00	<1.00	
Toluene	mg/L	23.7	22.1	7%	11.9	11.1	7%	40.5	89.0	75%	<1.00	<1.00		<1.00	<1.00	
Xylenes, Total	mg/L	309	281	9%	773	740	4%	<30.0	59.7		<3.00	<3.00		<3.00	<3.00	
1,1,1,2-Tetrachloroethane	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
1,1,1-Trichloroethane	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
1,1,2,2-Tetrachloroethane	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
1,1,2-Trichloroethane	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
1,1-Dichloroethane	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
1,1-Dichloroethene	mg/L	<2.00	<2.00		<2.00	<2.00		<20.0	<20.0		<2.00	<2.00		<2.00	<2.00	
1,1-Dichloropropene	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
1,2,3-Trichlorobenzene	mg/L	<5.00	<5.00		<5.00	<5.00		<50.0	<50.0		<5.00	<5.00		<5.00	<5.00	
1,2,3-Trichloropropane	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
1,2,4-Trichlorobenzene	mg/L	<5.00	<5.00		<5.00	<5.00		<50.0	<50.0		<5.00	<5.00		<5.00	<5.00	
1,2,4-Trimethylbenzene	mg/L	122	111	9%	158	156	1%	<10.0	11.4		<1.00	<1.00		<1.00	<1.00	
1,2-Dibromo-3-Chloropropane	mg/L	<5.00	<5.00		<5.00	<5.00		<50.0	<50.0		<5.00	<5.00		<5.00	<5.00	
1,2-Dibromoethane (EDB)	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
1,2-Dichlorobenzene	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
1,2-Dichloroethane	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
1,2-Dichloropropane	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	

Table 4

Groundwater Duplicate Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	MW-03-GW-0518	DP01-GW-0518	RPD	MW01-GW-0818	DP01-GW-0818	RPD	MW06-GW-0918	DP01-GW-0918	RPD	MW09-GW-1018	DP01-GW-1018	RPD	MW08-GW-0119	DP01-GW-0119	RPD
		5/23/2018	5/23/2018		8/2/2018	8/2/2018		9/6/2018	9/6/2018		10/18/2018	10/18/2018		1/15/2019	1/15/2019	
<u>Volatile Organic Compounds (cont'd)</u>																
1,3,5-Trimethylbenzene	mg/L	30.4	27.3	11%	63.5	60.1	6%	<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
1,3-Dichlorobenzene	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
1,3-Dichloropropane	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
1,4-Dichlorobenzene	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
2,2-Dichloropropane	mg/L	<4.00	<4.00		<4.00	<4.00		<40.0	<40.0		<4.00	<4.00		<4.00	<4.00	
2-Butanone (MEK)	mg/L	<10.0	<10.0		<10.0	<10.0		<100	<100		<10.0	<10.0		<10.0	<10.0	
2-Chlorotoluene	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
4-Chlorotoluene	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
Acetone	mg/L	<10.0	<10.0		<10.0	<10.0		<100	<100		<10.0	<10.0		<10.0	<10.0	
Bromobenzene	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
Bromochloromethane	mg/L	<5.00	<5.00		<5.00	<5.00		<50.0	<50.0		<5.00	<5.00		<5.00	<5.00	
Bromodichloromethane	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
Bromoform	mg/L	<5.00	<5.00		<5.00	<5.00		<50.0	<50.0		<5.00	<5.00		<5.00	<5.00	
Bromomethane	mg/L	<4.00	<4.00		<4.00	<4.00		<40.0	<40.0		<4.00	<4.00		<4.00	<4.00	
Carbon disulfide	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
Carbon tetrachloride	mg/L	<2.00	<2.00		<2.00	<2.00		<20.0	<20.0		<2.00	<2.00		<2.00	<2.00	
Chlorobenzene	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
Chlorodibromomethane	mg/L	<5.00	<5.00		<5.00	<5.00		<50.0	<50.0		<5.00	<5.00		<5.00	<5.00	
Chloroethane	mg/L	<4.00	<4.00		<4.00	<4.00		<40.0	<40.0		<4.00	<4.00		<4.00	<4.00	
Chloroform	mg/L	<3.00	<3.00		<3.00	<3.00		<30.0	<30.0		<3.00	<3.00		<3.00	<3.00	
Chloromethane	mg/L	<3.00	<3.00		<3.00	<3.00		<30.0	<30.0		<3.00	<3.00		<3.00	<3.00	
cis-1,2-Dichloroethene	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
cis-1,3-Dichloropropene	mg/L	<5.00	<5.00		<5.00	<5.00		<50.0	<50.0		<5.00	<5.00		<5.00	<5.00	
Dibromomethane	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
Dichlorodifluoromethane	mg/L	<3.00	<3.00		<3.00	<3.00		<30.0	<30.0		<3.00	<3.00		<3.00	<3.00	
Hexachlorobutadiene	mg/L	<5.00	<5.00		<5.00	<5.00		<50.0	<50.0		<5.00	<5.00		<5.00	<5.00	
Hexane	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
Isopropylbenzene	mg/L	22.4	20.5	9%	9.54	9.24	3%	<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
Methyl tert-butyl ether	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
Methylene Chloride	mg/L	<5.00	<5.00		<5.00	<5.00		<50.0	<50.0		<5.00	<5.00		<5.00	<5.00	
n-Butylbenzene	mg/L	2.81	2.83	1%	2.47	2.42	2%	<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
N-Propylbenzene	mg/L	10.1	9.07	11%	23.7	22.4	6%	<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
p-Isopropyltoluene	mg/L	2.55	2.21	14%	1.60	1.33	18%	<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
sec-Butylbenzene	mg/L	1.23	1.09	12%	1.17	1.10	6%	<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
Styrene	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
tert-Butylbenzene	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
Tetrachloroethene	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
trans-1,2-Dichloroethene	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
trans-1,3-Dichloropropene	mg/L	<5.00	<5.00		<5.00	<5.00		<50.0	<50.0		<5.00	<5.00		<5.00	<5.00	
Trichloroethene	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	
Trichlorofluoromethane	mg/L	<4.00	<4.00		<4.00	<4.00		<40.0	<40.0		<4.00	<4.00		<4.00	<4.00	
Vinyl chloride	mg/L	<1.00	<1.00		<1.00	<1.00		<10.0	<10.0		<1.00	<1.00		<1.00	<1.00	

Notes:

mg/L - Milligrams per liter.

F1 - MS and/or MSD Recovery is outside acceptance limits.

"- " - Not analyzed.

Table 4

**Groundwater Duplicate Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa**

Analyte	Units	MW04-GW-0421	DP01-GW-0421	RPD	MW-1-GW-DP-	DUP1-GW-DP-	RPD	MW-3-GW-1021	DUP1-GW-1021	RPD	MW-3-GW-0122	DUP1-GW-0122	RPD
		4/30/2021	4/30/2021		0721 7/8/2021	0721 7/8/2021		10/26/2021	10/26/2021		1/13/2022	1/13/2022	
<u>Inorganics</u>													
Cyanide, Free	mg/L	-	-		-	-		-	-		-	-	
Arsenic, Total	mg/L	0.00409	0.00448	9%	0.00610	0.00598	2%	0.00637	0.00673	5%	0.0111	0.0069	47%
Lead, Total	mg/L	<0.000500	<0.000500		0.000664	0.000583	13%	0.000571	0.000933	48%	0.000558	0.000592	6%
<u>Polynuclear Aromatic Hydrocarbons</u>													
2-Methylnaphthalene	mg/L	<0.208	<0.208		0.280	0.259	8%	0.295	0.238	21%	0.273	0.266	3%
Acenaphthene	mg/L	<0.208	<0.208		19.3	20.1	4%	21.6	21.1	2%	18.3	20.9	13%
Acenaphthylene	mg/L	<0.208	<0.208		4.71	5.05	7%	130	114	13%	70.4	96.1	31%
Anthracene	mg/L	<0.208	<0.208		1.83	1.98	8%	2.50	3.26	26%	1.56	1.49	5%
Benzo[a]anthracene	mg/L	<0.208	<0.208		<0.227	<0.238		<0.208	<0.227		<0.200	<0.200	
Benzo[a]pyrene	mg/L	<0.208	<0.208		<0.227	<0.238		<0.208	<0.227		<0.200	<0.200	
Benzo[b]fluoranthene	mg/L	<0.208	<0.208		<0.227	<0.238		<0.208	<0.227		<0.200	<0.200	
Benzo[g,h,i]perylene	mg/L	<0.208	<0.208		<0.227	<0.238		<0.208	<0.227		<0.200	<0.200	
Benzo[k]fluoranthene	mg/L	<0.208	<0.208		<0.227	<0.238		<0.208	<0.227		<0.200	<0.200	
Chrysene	mg/L	<0.208	<0.208		<0.227	<0.238		<0.208	<0.227		<0.200	<0.200	
Dibenz(a,h)anthracene	mg/L	<0.208	<0.208		<0.227	<0.238		<0.208	<0.227		<0.200	<0.200	
Fluoranthene	mg/L	<0.208	<0.208		1.65	1.68	2%	3.99	4.36	9%	1.03	1.05	2%
Fluorene	mg/L	<0.208	<0.208		15.4	17.2	11%	11.5	11.1	4%	8.64	9.23	7%
Indeno[1,2,3-cd]pyrene	mg/L	<0.208	<0.208		<0.227	<0.238		<0.208	<0.227		<0.200	<0.200	
Naphthalene	mg/L	<0.521	<0.521		66.9	80.9	19%	39.9	32.7	20%	14	15.7	11%
Phenanthrene	mg/L	<0.208	<0.208		12.0	13.3	10%	27.8	22.3	22%	15	16.3	8%
Pyrene	mg/L	<0.208	<0.208		1.55	1.56	1%	4.09	4.48	9%	0.959	1.03	7%
<u>Phenols</u>													
2,4,5-Trichlorophenol	mg/L	-	-		-	-		-	-		-	-	
2,4,6-Trichlorophenol	mg/L	-	-		-	-		-	-		-	-	
2,4-Dichlorophenol	mg/L	-	-		-	-		-	-		-	-	
2,4-Dimethylphenol	mg/L	-	-		-	-		-	-		-	-	
2,4-Dinitrophenol	mg/L	-	-		-	-		-	-		-	-	
2-Chlorophenol	mg/L	-	-		-	-		-	-		-	-	
2-Methylphenol	mg/L	-	-		-	-		-	-		-	-	
2-Nitrophenol	mg/L	-	-		-	-		-	-		-	-	
4,6-Dinitro-2-methylphenol	mg/L	-	-		-	-		-	-		-	-	
4-Chloro-3-methylphenol	mg/L	-	-		-	-		-	-		-	-	
4-Methylphenol (and/or 3-Methylphenol)	mg/L	-	-		-	-		-	-		-	-	
4-Nitrophenol	mg/L	-	-		-	-		-	-		-	-	
Pentachlorophenol	mg/L	-	-		-	-		-	-		-	-	
Phenol	mg/L	-	-		-	-		-	-		-	-	
Total Cresols	mg/L	-	-		-	-		-	-		-	-	
<u>Volatile Organic Compounds</u>													
Benzene	mg/L	<0.500	<0.500		494	459	7%	468	473	1%	172	173	1%
Ethylbenzene	mg/L	<1.00	<1.00		565	562	1%	188	194	3%	49.8	49.8	0%
Toluene	mg/L	<1.00	<1.00		6.58	6.51	1%	7.86	7.91	1%	2.5	2.39	4%
Xylenes, Total	mg/L	<3.00	<3.00		57.5	55.2	4%	95.6	96.9	1%	48.8	47.4	3%
1,1,1,2-Tetrachloroethane	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
1,1,1-Trichloroethane	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
1,1,2,2-Tetrachloroethane	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
1,1,2-Trichloroethane	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
1,1-Dichloroethane	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
1,1-Dichloroethene	mg/L	<2.00	<2.00		<2.00	<2.00		<2.00	<2.00		<2.00	<2.00	
1,1-Dichloropropene	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
1,2,3-Trichlorobenzene	mg/L	<5.00	<5.00		<5.00	<5.00		<5.00	<5.00		<5.00	<5.00	
1,2,3-Trichloropropane	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
1,2,4-Trichlorobenzene	mg/L	<5.00	<5.00		<5.00	<5.00		<5.00	<5.00		<5.00	<5.00	
1,2,4-Trimethylbenzene	mg/L	<1.00	<1.00		111	104	7%	69.5	71.5	3%	42.7	41.3	3%
1,2-Dibromo-3-Chloropropane	mg/L	<5.00	<5.00		<5.00	<5.00		<5.00	<5.00		<5.00	<5.00	
1,2-Dibromoethane (EDB)	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
1,2-Dichlorobenzene	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
1,2-Dichloroethane	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
1,2-Dichloropropane	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	

Table 4

**Groundwater Duplicate Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa**

Analyte	Units	MW04-GW-0421	DP01-GW-0421	MW-1-GW-DP-		DUP1-GW-DP-		MW-3-GW-1021	DUP1-GW-1021	RPD	MW-3-GW-0122	DUP1-GW-0122	RPD
		4/30/2021	4/30/2021	RPD	0721 7/8/2021	0721 7/8/2021	RPD	10/26/2021	10/26/2021		10/26/2021	10/26/2021	
<i>Volatile Organic Compounds (cont'd)</i>													
1,3,5-Trimethylbenzene	mg/L	<1.00	<1.00		<1.00	<1.00		4.10	4.25	4%	2.95	2.81	5%
1,3-Dichlorobenzene	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
1,3-Dichloropropane	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
1,4-Dichlorobenzene	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
2,2-Dichloropropane	mg/L	<4.00	<4.00		<4.00	<4.00		<4.00	<4.00		<4.00	<4.00	
2-Butanone (MEK)	mg/L	<10.0	<10.0		<10.0	<10.0		<10.0	<10.0		<10.0	<10.0	
2-Chlorotoluene	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
4-Chlorotoluene	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
Acetone	mg/L	<10.0	<10.0		<10.0	<10.0		<10.0	<10.0		<10.0	<10.0	
Bromobenzene	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
Bromochloromethane	mg/L	<5.00	<5.00		<5.00	<5.00		<5.00	<5.00		<5.00	<5.00	
Bromodichloromethane	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
Bromoform	mg/L	<5.00	<5.00		<5.00	<5.00		<5.00	<5.00		<5.00	<5.00	
Bromomethane	mg/L	<4.00	<4.00		<4.00	<4.00		<4.00	<4.00		<4.00	<4.00	
Carbon disulfide	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
Carbon tetrachloride	mg/L	<2.00	<2.00		<2.00	<2.00		<2.00	<2.00		<2.00	<2.00	
Chlorobenzene	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
Chlorodibromomethane	mg/L	<5.00	<5.00		<5.00	<5.00		<5.00	<5.00		<5.00	<5.00	
Chloroethane	mg/L	<4.00	<4.00		<4.00	<4.00		<4.00	<4.00		<4.00	<4.00	
Chloroform	mg/L	<3.00	<3.00		<3.00	<3.00		<3.00	<3.00		<3.00	<3.00	
Chloromethane	mg/L	<3.00	<3.00		<3.00	<3.00		<3.00	<3.00		<3.00	<3.00	
cis-1,2-Dichloroethene	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
cis-1,3-Dichloropropene	mg/L	<5.00	<5.00		<5.00	<5.00		<5.00	<5.00		<5.00	<5.00	
Dibromomethane	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
Dichlorodifluoromethane	mg/L	<3.00	<3.00		<3.00	<3.00		<3.00	<3.00		<3.00	<3.00	
Hexachlorobutadiene	mg/L	<5.00	<5.00		<5.00	<5.00		<5.00	<5.00		<5.00	<5.00	
Hexane	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
Isopropylbenzene	mg/L	<1.00	<1.00		6.17	6.17	0%	16.4	17.3	5%	4.76	4.74	0%
Methyl tert-butyl ether	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
Methylene Chloride	mg/L	<5.00	<5.00		<5.00	<5.00		<5.00	<5.00		<5.00	<5.00	
n-Butylbenzene	mg/L	<1.00	<1.00		<1.00	<1.00		1.62	1.69	4%	1.04	<1.00	
N-Propylbenzene	mg/L	<1.00	<1.00		11.0	10.8	2%	5.21	5.47	5%	1.23	1.27	3%
p-Isopropyltoluene	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
sec-Butylbenzene	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
Styrene	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
tert-Butylbenzene	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
Tetrachloroethene	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
trans-1,2-Dichloroethene	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
trans-1,3-Dichloropropene	mg/L	<5.00	<5.00		<5.00	<5.00		<5.00	<5.00		<5.00	<5.00	
Trichloroethene	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	
Trichlorofluoromethane	mg/L	<4.00	<4.00		<4.00	<4.00		<4.00	<4.00		<4.00	<4.00	
Vinyl chloride	mg/L	<1.00	<1.00		<1.00	<1.00		<1.00	<1.00		<1.00	<1.00	

Notes:

mg/L - Milligrams per liter.

F1 - MS and/or MSD Recovery is outside acceptance limits.

"-" - Not analyzed.

Table 5

**Groundwater Equipment Blank Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa**

Analyte	Units	EB01-GW-0518	EB01-GW-0818	EB01-GW-0918	EB01-GW-1018	EB01-GW-0119	EB01-GW-0421	EB-GW-DP- 0721 7/8/2021	EB1-GW-1021	EB1-GW-0122
		5/23/2018	8/2/2018	9/6/2018	10/18/2018	1/15/2019	4/29/2021		10/26/2021	1/13/2022
<u>Inorganics</u>										
Cyanide, Free	mg/L	<0.00500	<0.00500	-	-	-	-	-	-	-
Arsenic, Total	mg/L	<0.00200	<0.00200 ^	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
Lead, Total	mg/L	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.00107	<0.000500	<0.000500	<0.000500
<u>Polynuclear Aromatic Hydrocarbons</u>										
2-Methylnaphthalene	mg/L	<0.192	<0.172	<0.185	<0.200	<0.185	<0.238	<0.192	<0.227	<0.200
Acenaphthene	mg/L	<0.192	<0.172	<0.185	<0.200	<0.185	<0.238	<0.192	<0.227	<0.200
Acenaphthylene	mg/L	<0.192	<0.172	<0.185	<0.200	<0.185	<0.238	<0.192	<0.227	<0.200
Anthracene	mg/L	<0.192	<0.172	<0.185	<0.200	<0.185	<0.238	<0.192	<0.227	<0.200
Benzo[a]anthracene	mg/L	<0.192	<0.172	0.254	<0.200	<0.185	<0.238	<0.192	<0.227	<0.200
Benzo[a]pyrene	mg/L	<0.192	<0.172	0.726	<0.200	<0.185	<0.238	<0.192	<0.227	<0.200
Benzo[b]fluoranthene	mg/L	<0.192	<0.172	0.442	<0.200	<0.185	<0.238	<0.192	<0.227	<0.200
Benzo[g,h,i]perylene	mg/L	<0.192	<0.172	2.15	<0.200	<0.185	<0.238	<0.192	<0.227	<0.200
Benzo[k]fluoranthene	mg/L	<0.192	<0.172	0.429	<0.200	<0.185	<0.238	<0.192	<0.227	<0.200
Chrysene	mg/L	<0.192	<0.172	<0.185	<0.200	<0.185	<0.238	<0.192	<0.227	<0.200
Dibenz(a,h)anthracene	mg/L	<0.192	<0.172	2.82	<0.200	<0.185	<0.238	<0.192	<0.227	<0.200
Fluoranthene	mg/L	<0.192	<0.172	<0.185	<0.200	<0.185	<0.238	<0.192	<0.227	<0.200
Fluorene	mg/L	<0.192	<0.172	<0.185	<0.200	<0.185	<0.238	<0.192	<0.227	<0.200
Indeno[1,2,3-cd]pyrene	mg/L	<0.192	<0.172	2.52	<0.200	<0.185	<0.238	<0.192	<0.227	<0.200
Naphthalene	mg/L	<0.481	<0.431	<0.463	<0.500	<0.463	<0.595	<0.481	<0.568	<0.500
Phenanthrene	mg/L	<0.192	<0.172	<0.185	<0.200	<0.185	<0.238	<0.192	<0.227	<0.200
Pyrene	mg/L	<0.192	<0.172	<0.185	<0.200	<0.185	<0.238	<0.192	<0.227	<0.200
<u>Phenols</u>										
2,4,5-Trichlorophenol	mg/L	<10.5	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	<10.5	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	<10.5	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	<10.5	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	<21.1	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	<10.5	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	<10.5	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	<10.5	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	<10.5	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	<10.5	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	mg/L	<10.5	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/L	<10.5	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	<10.5	-	-	-	-	-	-	-	-
Phenol	mg/L	<10.5	-	-	-	-	-	-	-	-
Total Cresols	mg/L	<10.5	-	-	-	-	-	-	-	-
<u>Volatile Organic Compounds</u>										
Benzene	mg/L	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Ethylbenzene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Toluene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Xylenes, Total	mg/L	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
1,1,1,2-Tetrachloroethane	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	mg/L	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
1,1-Dichloropropene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,3-Trichloropropane	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,4-Trimethylbenzene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dibromo-3-Chloropropane	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-Dibromoethane (EDB)	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Groundwater Equipment Blank Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	EB01-GW-0518	EB01-GW-0818	EB01-GW-0918	EB01-GW-1018	EB01-GW-0119	EB01-GW-0421	EB-GW-DP-	EB1-GW-1021	EB1-GW-0122
		5/23/2018	8/2/2018	9/6/2018	10/18/2018	1/15/2019	4/29/2021	0721 7/8/2021	10/26/2021	1/13/2022
<u>Volatile Organic Compounds (cont'd)</u>										
1,3,5-Trimethylbenzene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	mg/L	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
2-Butanone (MEK)	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
4-Chlorotoluene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Acetone	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Bromobenzene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromochloromethane	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromodichloromethane	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromomethane	mg/L	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Carbon disulfide	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.90	<1.00
Carbon tetrachloride	mg/L	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Chlorobenzene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Chloroethane	mg/L	<4.00	<4.00	<4.00 *	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Chloroform	mg/L	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Chloromethane	mg/L	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Dibromomethane	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	mg/L	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Hexachlorobutadiene	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Hexane	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methyl tert-butyl ether	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylene chloride	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
n-Butylbenzene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
N-Propylbenzene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
p-Isopropyltoluene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
sec-Butylbenzene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Trichloroethene	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	mg/L	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Vinyl chloride	mg/L	<1.00	<1.00	<1.00 *	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Notes:

mg/L - Milligrams per liter.

F1 - MS and/or MSD Recovery is outside acceptance limits.

Table 6
Groundwater Trend Analysis Summary
Interstate Power and Light Company
Albia, Iowa Former Manufactured Gas Plant Site

	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(b)fluoranthene	Fluoranthene	Fluorene	Naphthalene	Phenanthrene
MW-1					ND				
Concentration vs. Time Plot					ND				
OLS Regression Slope	-0.04	2.87	-0.83	0.29	ND	0.08	3.05	-45.50	-1.70
Theil-Sen Slope	0.00	3.71	-0.72	0.62	ND	-0.05	1.12	-19.42	0.46
Mann-Kendall Trend	NT	NT	NT	NT	ND	NT	NT	NT	NT
MW-2					ND				
Concentration vs. Time Plot					ND				
OLS Regression Slope	-2.18	-20.45	-31.12	-1.46	ND	-0.19	-17.79	-56.89	-11.30
Theil-Sen Slope	-2.36	-12.65	-26.43	-1.17	ND	-0.20	-13.37	-63.49	-9.68
Mann-Kendall Trend	NT	NT	NT	NT	ND	NT	NT	NT	NT
MW-3					ND				
Concentration vs. Time Plot					ND				
OLS Regression Slope	-4.64	-8.81	-115.69	-6.74	ND	-6.19	-11.14	-845.94	-81.92
Theil-Sen Slope	-4.31	-13.43	-126.89	-6.45	ND	-6.60	-13.40	-834.54	-84.75
Mann-Kendall Trend	Decreasing	NT	NT	Decreasing	ND	Decreasing	Decreasing	Decreasing	Decreasing
MW-4	ND	ND	ND	ND		ND	ND	ND	ND
Concentration vs. Time Plot	ND	ND	ND	ND		ND	ND	ND	ND
OLS Regression Slope	ND	ND	ND	ND	-0.06	ND	ND	ND	ND
Theil-Sen Slope	ND	ND	ND	ND	0.00	ND	ND	ND	ND
Mann-Kendall Trend	ND	ND	ND	ND	NT	ND	ND	ND	ND
MW-5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Concentration vs. Time Plot	ND	ND	ND	ND	ND	ND	ND	ND	ND
OLS Regression Slope	ND	ND	ND	ND	ND	ND	ND	ND	ND
Theil-Sen Slope	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mann-Kendall Trend	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 6
Groundwater Trend Analysis Summary
Interstate Power and Light Company
Albia, Iowa Former Manufactured Gas Plant Site

	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(b)fluoranthene	Fluoranthene	Fluorene	Naphthalene	Phenanthrene
MW-6					ND				
Concentration vs. Time Plot					ND				
OLS Regression Slope	-0.06	0.88	-1.42	0.47	ND	0.46	1.79	-3.11	4.25
Theil-Sen Slope	0.00	1.98	0.01	0.57	ND	0.84	2.62	-0.05	4.96
Mann-Kendall Trend	NT	NT	NT	NT	ND	NT	NT	NT	NT
MW-7		ND		ND	ND	ND	ND	ND	ND
Concentration vs. Time Plot		ND		ND	ND	ND	ND	ND	ND
OLS Regression Slope	-0.95	ND	-0.29	ND	ND	ND	ND	ND	ND
Theil-Sen Slope	-0.65	ND	-0.20	ND	ND	ND	ND	ND	ND
Mann-Kendall Trend	NT	ND	NT	ND	ND	ND	ND	ND	ND
MW-8/8R	ND	ND	ND	ND	ND	ND	ND	ND	ND
Concentration vs. Time Plot	ND	ND	ND	ND	ND	ND	ND	ND	ND
OLS Regression Slope	ND	ND	ND	ND	ND	ND	ND	ND	ND
Theil-Sen Slope	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mann-Kendall Trend	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-9	ND	ND	ND	ND	ND	ND	ND	ND	ND
Concentration vs. Time Plot	ND	ND	ND	ND	ND	ND	ND	ND	ND
OLS Regression Slope	ND	ND	ND	ND	ND	ND	ND	ND	ND
Theil-Sen Slope	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mann-Kendall Trend	ND	ND	ND	ND	ND	ND	ND	ND	ND

Decreasing trend identified by green font. Increasing trend identified by red font. ND = Constituent not detected. NT - No trend identified at 90-percent confidence level.
 Concentration versus time plots include data from quarterly monitoring events conducted April 2021 through January 2022. Full size plots are presented in Attachment C. Red outline indicates exceedance of Statewide Standard.

Table 6
Groundwater Trend Analysis Summary
Interstate Power and Light Company
Albia, Iowa Former Manufactured Gas Plant Site

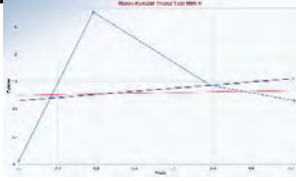
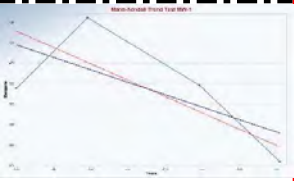
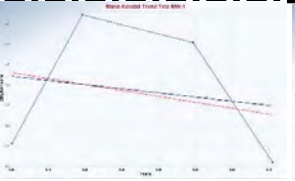
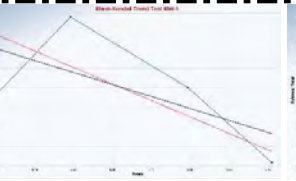
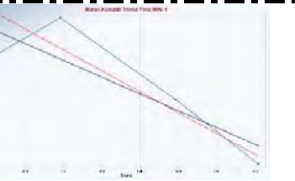
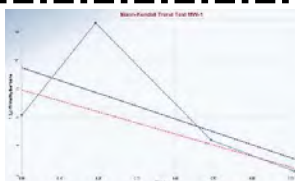
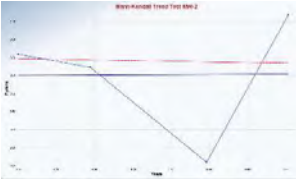
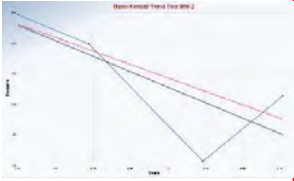
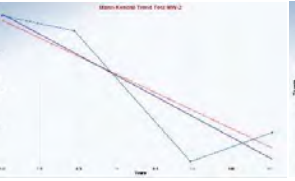
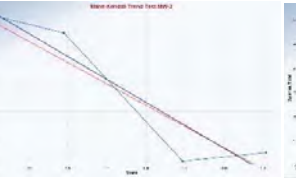
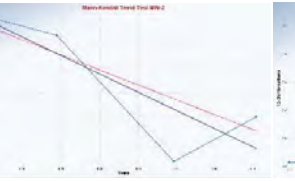
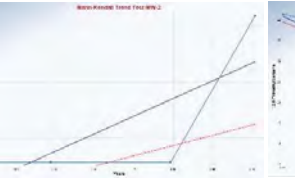
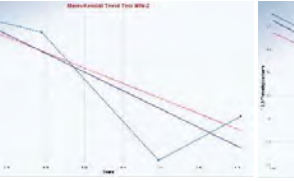
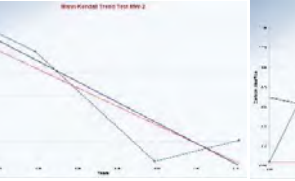
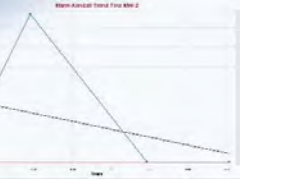
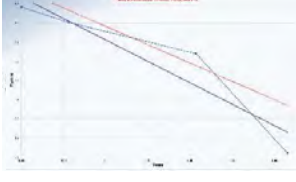
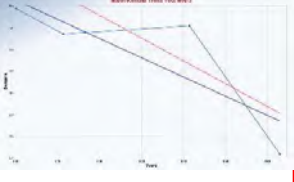
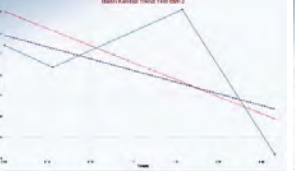
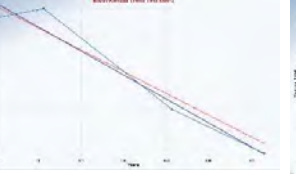
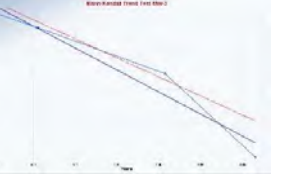
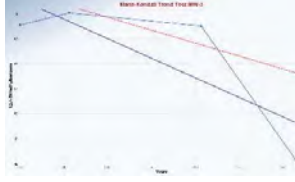
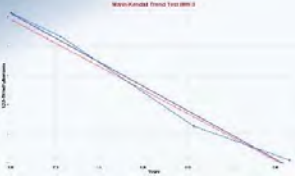
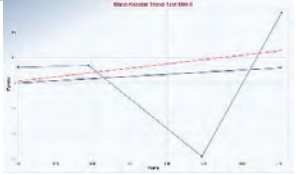
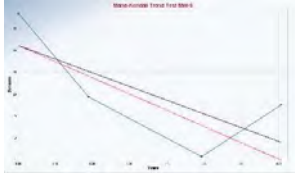
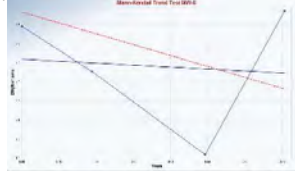
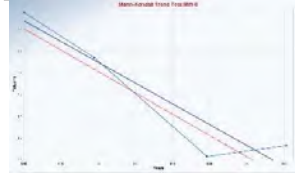
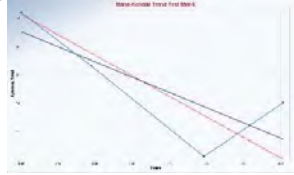
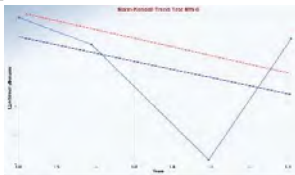
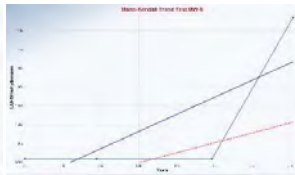
	Pyrene	Benzene	Ethylbenzene	Toluene	Xylenes, Total	1,2-Dichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Carbon Disulfide
MW-1									
Concentration vs. Time Plot						ND		ND	ND
OLS Regression Slope	0.23	-182.34	-51.00	-3.06	-32.07	ND	-35.95	ND	ND
Theil-Sen Slope	0.05	-239.65	-72.62	-4.21	-39.90	ND	-30.86	ND	ND
Mann-Kendall Trend	NT	NT	NT	NT	NT	ND	NT	ND	ND
MW-2									
Concentration vs. Time Plot									
OLS Regression Slope	0.01	-254.22	-108.84	-8.61	-60.65	3.17	-45.41	-4.41	-0.08
Theil-Sen Slope	-0.03	-221.04	-95.83	-7.99	-49.53	1.85	-37.41	-3.97	0.00
Mann-Kendall Trend	NT	NT	NT	NT	NT	NT	NT	NT	NT
MW-3									
Concentration vs. Time Plot						ND			ND
OLS Regression Slope	-6.74	-441.42	-111.87	-29.24	-123.23	ND	-39.16	-8.32	ND
Theil-Sen Slope	-5.78	-523.99	-163.02	-26.56	-106.57	ND	-25.74	-8.05	ND
Mann-Kendall Trend	Decreasing	NT	NT	NT	Decreasing	ND	NT	Decreasing	ND
MW-4									
Concentration vs. Time Plot	ND	ND	ND	ND	ND	ND	ND	ND	ND
OLS Regression Slope	ND	ND	ND	ND	ND	ND	ND	ND	ND
Theil-Sen Slope	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mann-Kendall Trend	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-5									
Concentration vs. Time Plot	ND	ND	ND	ND	ND	ND	ND	ND	ND
OLS Regression Slope	ND	ND	ND	ND	ND	ND	ND	ND	ND
Theil-Sen Slope	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mann-Kendall Trend	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 6
Groundwater Trend Analysis Summary
Interstate Power and Light Company
Albia, Iowa Former Manufactured Gas Plant Site

	Pyrene	Benzene	Ethylbenzene	Toluene	Xylenes, Total	1,2-Dichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Carbon Disulfide
MW-6									
Concentration vs. Time Plot						ND			ND
OLS Regression Slope	0.17	-31.13	-0.62	-4.81	-42.75	ND	-8.41	0.18	ND
Theil-Sen Slope	0.34	-36.97	-3.41	-4.92	-57.64	ND	-8.96	0.11	ND
Mann-Kendall Trend	NT	NT	NT	NT	NT	ND	NT	NT	ND
MW-7									
Concentration vs. Time Plot	ND	ND	ND	ND	ND	ND	ND	ND	ND
OLS Regression Slope	ND	ND	ND	ND	ND	ND	ND	ND	ND
Theil-Sen Slope	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mann-Kendall Trend	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-8/8R									
Concentration vs. Time Plot	ND	ND	ND	ND	ND	ND	ND	ND	ND
OLS Regression Slope	ND	ND	ND	ND	ND	ND	ND	ND	ND
Theil-Sen Slope	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mann-Kendall Trend	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-9									
Concentration vs. Time Plot	ND	ND	ND	ND	ND	ND	ND	ND	ND
OLS Regression Slope	ND	ND	ND	ND	ND	ND	ND	ND	ND
Theil-Sen Slope	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mann-Kendall Trend	ND	ND	ND	ND	ND	ND	ND	ND	ND

Decreasing trend identified by green font. Increasing trend identified by red font. ND = Constituent not detected. NT - No trend identified at 90-percent confidence level.
 Concentration versus time plots include data from quarterly monitoring events conducted April 2021 through January 2022. Full size plots are presented in Attachment C. Red outline indicates exceedance of Statewide Standard.

Table 6
Groundwater Trend Analysis Summary
Interstate Power and Light Company
Albia, Iowa Former Manufactured Gas Plant Site

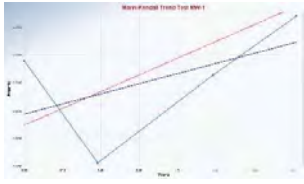
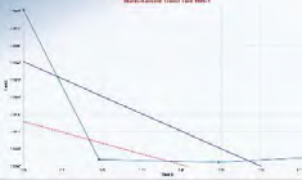
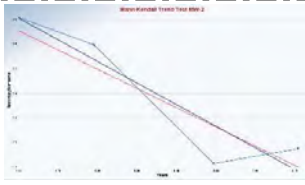
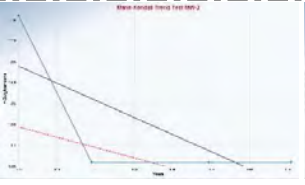
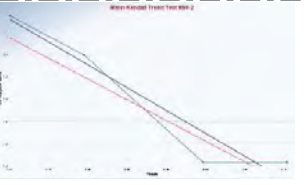
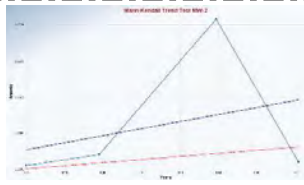
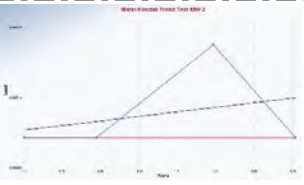
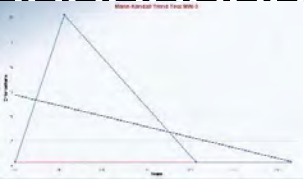
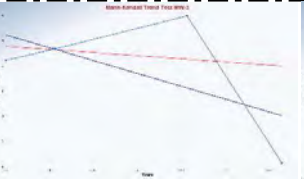
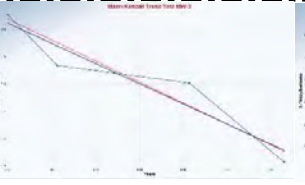
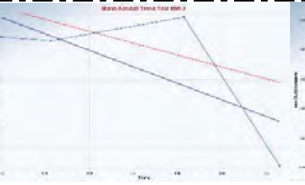
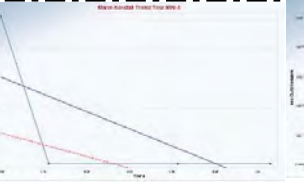
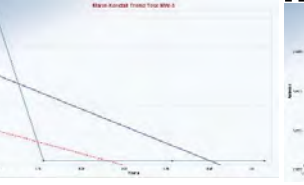
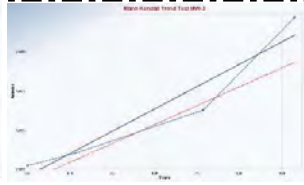
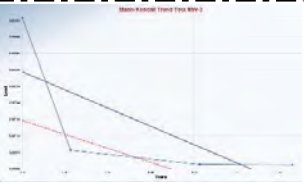
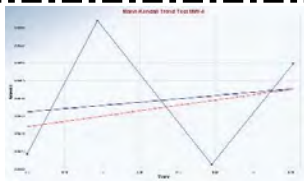
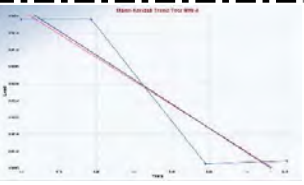
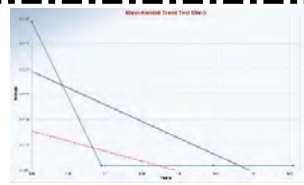
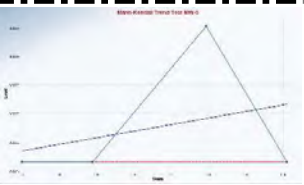
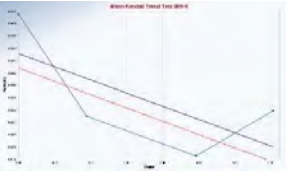
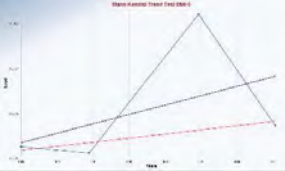
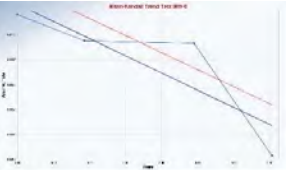
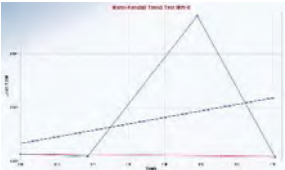
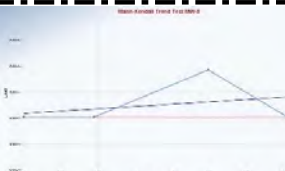
	Chloroethane	Isopropylbenzene	n-Butylbenzene	N-Propylbenzene	P-Isopropyltoluene	sec-Butylbenzene	Arsenic	Lead
MW-1								
Concentration vs. Time Plot	ND		ND		ND	ND		
OLS Regression Slope	ND	-0.36	ND	0.07	ND	ND	0.01	-0.01
Theil-Sen Slope	ND	-0.14	ND	1.20	ND	ND	0.01	0.00
Mann-Kendall Trend	ND	NT	ND	NT	ND	ND	NT	NT
MW-2								
Concentration vs. Time Plot	ND				ND	ND		
OLS Regression Slope	ND	-2.64	-0.16	-2.05	ND	ND	0.00	0.00
Theil-Sen Slope	ND	-2.36	-0.10	-1.85	ND	ND	0.00	0.00
Mann-Kendall Trend	ND	NT	NT	NT	ND	ND	NT	NT
MW-3								
Concentration vs. Time Plot								
OLS Regression Slope	-12.82	-10.13	-1.48	-4.31	-0.02	-0.01	0.01	-0.01
Theil-Sen Slope	0.00	-2.45	-1.54	-3.18	-0.02	-0.01	0.01	0.00
Mann-Kendall Trend	NT	NT	Decreasing	NT	NT	NT	Increasing	Decreasing
MW-4								
Concentration vs. Time Plot	ND	ND	ND	ND	ND	ND		
OLS Regression Slope	ND	ND	ND	ND	ND	ND	0.00	-0.01
Theil-Sen Slope	ND	ND	ND	ND	ND	ND	0.00	-0.01
Mann-Kendall Trend	ND	ND	ND	ND	ND	ND	NT	NT
MW-5								
Concentration vs. Time Plot	ND	ND	ND	ND	ND	ND		
OLS Regression Slope	ND	ND	ND	ND	ND	ND	-0.02	0.00
Theil-Sen Slope	ND	ND	ND	ND	ND	ND	0.00	0.00
Mann-Kendall Trend	ND	ND	ND	ND	ND	ND	NT	NT

Table 6
Groundwater Trend Analysis Summary
Interstate Power and Light Company
Albia, Iowa Former Manufactured Gas Plant Site

	Chloroethane	Isopropylbenzene	n-Butylbenzene	N-Propylbenzene	P-Isopropyltoluene	sec-Butylbenzene	Arsenic	Lead
MW-6								
Concentration vs. Time Plot	ND	ND	ND	ND	ND	ND		
OLS Regression Slope	ND	ND	ND	ND	ND	ND	-0.02	0.00
Theil-Sen Slope	ND	ND	ND	ND	ND	ND	-0.02	0.00
Mann-Kendall Trend	ND	ND	ND	ND	ND	ND	NT	NT
MW-7								
Concentration vs. Time Plot	ND	ND	ND	ND	ND	ND	ND	ND
OLS Regression Slope	ND	ND	ND	ND	ND	ND	ND	ND
Theil-Sen Slope	ND	ND	ND	ND	ND	ND	ND	ND
Mann-Kendall Trend	ND	ND	ND	ND	ND	ND	ND	ND
MW-8/8R								
Concentration vs. Time Plot	ND	ND	ND	ND	ND	ND		
OLS Regression Slope	ND	ND	ND	ND	ND	ND	-0.01	0.00
Theil-Sen Slope	ND	ND	ND	ND	ND	ND	-0.01	0.00
Mann-Kendall Trend	ND	ND	ND	ND	ND	ND	Decreasing	NT
MW-9								
Concentration vs. Time Plot	ND	ND	ND	ND	ND	ND	ND	
OLS Regression Slope	ND	ND	ND	ND	ND	ND	ND	0.00
Theil-Sen Slope	ND	ND	ND	ND	ND	ND	ND	0.00
Mann-Kendall Trend	ND	ND	ND	ND	ND	ND	ND	NT

Decreasing trend identified by green font. Increasing trend identified by red font. ND = Constituent not detected. NT - No trend identified at 90-percent confidence level.
 Concentration versus time plots include data from quarterly monitoring events conducted April 2021 through January 2022. Full size plots are presented in Attachment C. Red outline indicates exceedance of Statewide Standard.

Appendices

Appendix A

Groundwater Collection Records

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-1

Job No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: _____

Client: Interstate Power and Light Co.
 Date: 4/29/21

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) 148 ^{9/19} (Known, Meas.) d. One System Volume (mL) _____
 b. Depth to Water (ft) 0.21 e. Well Diameter (in) 2"
 c. Length of water column (ft) 13.79 14-70 water

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N=14112/14113)
 b. Purge Basis: Stabilization
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = U2MW1H4N w/Flow Through Cell)

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1554	0.29	start							
1555	0.60	Full cell							
1558	1.2	+400	16.30	6.47	1.20	-52	0.00	36.1	
1601	1.2	+800	16.39	6.46	1.21	-53	0.00	38.7	
1604	2.0	+1200	16.62	6.42	1.21	-56	0.00	34.6	
1607	2.1	+1600	16.82	6.39	1.22	-58	0.00	23.8	
1610	2.22	+2000	16.95	6.38	1.23	-59	0.00	13.0	
1613	2.37	+2400	16.99	6.36	1.24	-60	0.00	8.4	

3. SAMPLE COLLECTION:

905 - 200ml

Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____
 Sample ID#: MW01-GW-0421 Sample Time: 1615

4. COMMENTS: _____

QA/QC samples collected: ms/msp EBO1 after this well 1700

Diane Oals
 Sampler (Signature)

Diane Puls
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-4

Job No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: Sunny - partly cloudy 70°

Client: Interstate Power and Light Co.
 Date: 4/30/21

1. WATER LEVEL DATA: (from TOC)

a. Total Well Length (ft) 14.95^{old} (Known, Meas.) d. One System Volume (mL) _____
 b. Depth to Water (ft) 0.29 e. Well Diameter (in) 3"
 c. Length of water column (ft) 14.66 14.95 - post sampling TD

2. WELL PURGING DATA:

a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N= 14112/14113)
 b. Purge Basis: _____
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = 42MW7HYN w/Flow Through Cell)

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1127	0.6	Start	14.39	6.74	1.63	-56	0.64	25.6	
1129	1.0	Full cell							
1132	1.2	+300	13.41	6.70	1.46	-26	0.37	25.4	
1136	<u>held to fix flow cell leak</u>								
1137	1.7		15.22	6.12	0	-25	0.20	cell Refilling	
1140	<u>cell full again</u>								
1142	2.15	+200	12.55	6.68	1.32	40	0.72	26.3	
1145	2.49	+500	12.63	6.63	1.30	21.7	6.00	21.0	
1148	2.63	+800	13.05	6.59	1.30	58	0.00	15.6	
1151	2.72	+1100	13.45	6.56	1.30	62	0.00	11.2	
1153	2.78	+1400	13.88	6.54	1.30	65	0.00	9.1	

3. SAMPLE COLLECTION:

100ml/min

Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____
 Sample ID#: MW04-GW-0421 Sample Time: 1155

4. COMMENTS: 1142 changed to 12R 3D to slow drawdown

 QA/QC samples collected: DUP01-GW-0412

Diane Pals
 Sampler (Signature)

Diane Pals
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-5

Job No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: Sunny 72°

Client: Interstate Power and Light Co.
 Date: 4/29/21

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) 14.88 ^{8/19} (Known, Meas.) d. One System Volume (mL) _____
 b. Depth to Water (ft) 2.83 e. Well Diameter (in) 2"
 c. Length of water column (ft) 12.05 14.88 TD post-sample

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N=14112/14113)
 b. Purge Basis: Stratification minimal purge - after system volume
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = 42MU744N)
w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
<u>1315</u>	<u>2.85</u>	<u>Start</u>							
<u>1318</u>	<u>3.20</u>	<u>Full cell</u>	<u>90.97</u>	<u>6.83</u>	<u>0.824</u>	<u>226</u>	<u>2.66</u>	<u>71.6</u>	
<u>1321</u>	<u>3.55</u>	<u>200ml Holog</u>	<u>1210</u>	<u>6.71</u>	<u>0.822</u>	<u>233</u>	<u>0.39</u>	<u>98.8</u>	
<u>1:</u>									
		<u>Sample after reading</u>							

3. SAMPLE COLLECTION:

Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____
 Sample ID#: MW-5-BW-0421 Sample Time: 1525

4. COMMENTS: _____

 QA/QC samples collected: _____

Diane Pils
Sampler (Signature)
Diane Pils
(Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-6

Job. No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: Sunny 70°

Client: Interstate Power and Light Co.
 Date: 4/30/21

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) 15.12^{old} (Known, Meas.)
- b. Depth to Water (ft) 1.44
- c. Length of water column (ft) 13.68 15.04 after sample JD
- d. One System Volume (mL) _____
- e. Well Diameter (in) 2"

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N=14112/14113)
- b. Purge Basis: Minimal purge
- c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = U2MW7H4N)
w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
12:40	1.15	Start							
12:45	1.80	Pull cell	12.01	6.69	1.31	-48	3.20	93.6	
12:48	2.5		13.73	6.63	1.34	-48	0.49	110	
12:51	2.9	✓L	12.96	6.63	1.33	-49	0.00	103	

3. SAMPLE COLLECTION:

Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____
 Sample ID#: MW06-GW-0421 Sample Time: 1255

4. COMMENTS: _____

 QA/QC samples collected: none

Demo Pat
Sampler (Signature)
Diane Pats
(Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: mw-08R

Job No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: Sunny 65°

Client: Interstate Power and Light Co.
 Date: 4/30/21

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) 1461 ^{after sample} (Known, Meas.) d. One System Volume (mL) _____
 b. Depth to Water (ft) 3.94 e. Well Diameter (in) 2 1/2
 c. Length of water column (ft) _____

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N=14112/14113)
 b. Purge Basis: Stabilization
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = 62mw7H4N w/Flow Through Cell)

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
0955	2.62	Start							
1002	2.75	full cell	14.16	6.47	1.61	-22	1.43	206	adjust flow
1008	4.35	+800	12.21	6.54	1.59	-44	0.23	244	
1011	4.65	+1200	12.07	6.53	1.58	-46	0.07	228	
1014	4.68	+1600	11.92	6.53	1.58	-47	0.00	208	changed to 11R 4D
1017	4.68	+2000	12.02	6.54	1.58	-48	0.00	178	
1020	4.69	+2400	12.01	6.54	1.58	-49	0.00	113	
1023	4.69	+2800	11.97	6.55	1.59	-52	0.00	62.5	
1026	4.69	+3200	11.92	6.55	1.60	-55	0.00	47.4	
1029	4.69	+3600	11.97	6.55	1.62	-57	0.00	40.9	
1032	4.69	+4000	11.96	6.56	1.63	-59	0.00	41.9	
1035	4.69	+4400	12.04	6.57	1.63	-61	0.00	36.2	
1038	4.69	+5200	11.96	6.57	1.63	-62	0.00	29.1	
1041	4.69	+5600	12.03	6.58	1.63	-65	0.00	21.6	

3. SAMPLE COLLECTION:

- Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____

Sample ID#: MW08R-GW-0421 Sample Time: 1055

4. COMMENTS: changed pressure @ full cell - too slow
change to R11 D4 @ 1014 to slow draw down

QA/QC samples collected: none

Diane Pals
 Sampler (Signature)

Diane Pals
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-9

Job. No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: Sunny 70°

Client: Interstate Power and Light Co.
 Date: 4/29/26

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) 14.79^{8/19} (Known, Meas.) d. One System Volume (mL) _____
 b. Depth to Water (ft) 2.13 e. Well Diameter (in) _____
 c. Length of water column (ft) 2.66 post TP 14.79

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N=14112/14113)
 b. Purge Basis: Stabilization
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = U2MW744N)
w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1401	2.13	Start							
1402	2.53	Full cell							
1408	2.54	2100	19.62	6.63	1.03	236	0.02	161	v/t gray
1408	2.57	2500	19.36	6.63	1.04	233	0.00	150	Clear
1414	2.59	2900	19.31	6.63	1.05	230	0.00	120	Clear
1417	2.64	3300	18.93	6.61	1.07	227	0.00	79.6	Clear
1420	2.60	3700	19.43	6.61	1.07	224	0.00	53.2	Clear
1423	2.58	4100	19.98	6.57	1.07	222	0.00	23.4	Clear
1426	2.56	4500	20.22	6.58	1.07	220	0.00	10.4	Clear
1429	2.54	4900	20.26	6.57	1.08	219	0.00	7.1	Clear

3. SAMPLE COLLECTION:

Slowed rate by pressure
 Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____
 Sample ID#: MW09-GW-0421 Sample Time: 1435

4. COMMENTS: 1.5mm-200 ml

QA/QC samples collected: None

Diane Pals
 Sampler (Signature)

Diane Pals
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-3

Job No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: cloudy 45°

Client: Interstate Power and Light Co.
 Date: 5/28/21

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) 14.40 (Known, Meas.) d. One System Volume (mL) _____
 b. Depth to Water (ft) 0.61 e. Well Diameter (in) 2"
 c. Length of water column (ft) 13.79

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N= 14112/14113) ⁰⁸⁷⁹⁵
 b. Purge Basis: _____
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = HJ13563R) w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
10:44	0.61	Start							
10:48	0.05	Full cell	12.87	6.37	1.51	77	6.01	73.1	
1051	1.05	900	12.30	6.50	1.52	4	0.60	51.2	
1055	1.37	1500	12.15	6.53	1.52	-20	0.00	38.1	
1059	1.60	2100	12.13	6.54	1.51	-31	0.00	32.0	
1103	1.79	2700	12.05	6.54	1.52	-36	0.00	30.0	
1107	1.95	3300	12.01	6.55	1.51	-40	0.00	22.8	
1111	2.10	3900	11.88	6.55	1.52	-42	0.00	20.2	
1115	2.21	4500	11.80	6.55	1.52	-44	0.00	18.8	
1119	2.37	5100	11.68	6.54	1.51	-46	0.00	16.8	

3. SAMPLE COLLECTION:

Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____

Sample ID#: MW03-GW-0521 Sample Time: 1120

4. COMMENTS: 750 ml/min @ ~10 psi 10 + 5

QA/QC samples collected: _____

[Signature]
 Sampler (Signature)

Diane Pels
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: mw-2

Job No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: cloudy 73°

Client: Interstate Power and Light Co.
 Date: 7/8/21

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) _____ (Known, Meas.) d. One System Volume (mL) _____
 b. Depth to Water (ft) 1.20 2/7 e. Well Diameter (in) 2
 c. Length of water column (ft) _____

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N= 14112/14113)
 b. Purge Basis: Stabilization
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = X10C8EFO w/Flow Through Cell)

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
<u>1246</u>	<u>0.93</u>	<u>start</u>							
<u>1250</u>	<u>1.38</u>	<u>full cell</u>	<u>21.59</u>	<u>6.52</u>	<u>1.62</u>	<u>-109</u>	<u>0.75</u>	<u>6.0</u>	<u>clear</u>
<u>1253</u>	<u>1.69</u>	<u>700</u>	<u>20.89</u>	<u>6.48</u>	<u>1.64</u>	<u>-119</u>	<u>0.30</u>	<u>4.2</u>	<u>clear</u>
<u>1256</u>	<u>2.02</u>	<u>1000</u>	<u>20.94</u>	<u>6.48</u>	<u>1.65</u>	<u>-126</u>	<u>0.09</u>	<u>2.5</u>	<u>clear</u>
<u>1259</u>	<u>2.30</u>	<u>1300</u>	<u>20.70</u>	<u>6.47</u>	<u>1.65</u>	<u>-131</u>	<u>0.00</u>	<u>1.5</u>	<u>clear</u>
<u>1302</u>	<u>2.68</u>	<u>1600</u>	<u>20.50</u>	<u>6.48</u>	<u>1.65</u>	<u>-137</u>	<u>0.00</u>	<u>0.3</u>	<u>clear</u>
<u>1305</u>	<u>2.89</u>	<u>1900</u>	<u>20.51</u>	<u>6.48</u>	<u>1.65</u>	<u>-141</u>	<u>0.00</u>	<u>0.0</u>	<u>clear</u>
<u>1308</u>	<u>3.04</u>	<u>2200</u>	<u>20.55</u>	<u>6.49</u>	<u>1.65</u>	<u>-144</u>	<u>0.00</u>	<u>0.0</u>	<u>clear</u>

3. SAMPLE COLLECTION:

Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____
 Sample ID#: mw-2-GW-OP-0721 Sample Time: 1310

4. COMMENTS:

12/3 cpsi 100 ml/min

QA/QC samples collected: none

Diane Paul
 Sampler (Signature)

Diane Paul
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: mw-4

Job. No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: cloudy 80°

Client: Interstate Power and Light Co.
 Date: 7/7/21

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) _____ (Known, Meas.)
- b. Depth to Water (ft) 0.59
- c. Length of water column (ft) _____
- d. One System Volume (mL) _____
- e. Well Diameter (in) 2"

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N= 14112/14113)
- b. Purge Basis: Stabilization
- c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = X1008EFO w/Flow Through Cell)

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1307	0.4	Start							
1312	0.9	Pull cell	26.09	7.02	1.18	111	2.16	29.4	clear
1315	1.05	400	24.11	6.82	1.20	-59	1.19	7.7	clear
1318	1.3	550	23.57	6.76	1.20	-81	0.54	8.5	"
1321	1.35	700	23.51	6.75	1.20	-83	0.48	8.6	"
1324	1.40	850	23.40	6.74	1.20	-86	0.34	9.2	clear
1327	1.60	1000	23.39	6.73	1.20	-89	0.22	8.8	clear
1330	1.71	1150	23.47	6.73	1.20	-91	0.14	7.9	clear
1333	1.86	1300	23.57	6.72	1.21	-93	0.13	6.0	clear

3. SAMPLE COLLECTION:

- Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 - Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 - Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 - Container Type: _____ Preservation: _____ Analysis Req.: _____
- Sample ID#: mw-4-GW-DP-0721 Sample Time: 1335

4. COMMENTS:

12/3 Sps1 50 ml/min
well draws down so using very slow purge

QA/QC samples collected: _____

Diane Pals
 Sampler (Signature)

Diane Pals
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-6

Job No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: Cloudy 20°

Client: Interstate Power and Light Co.
 Date: 7/8/2021

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) _____ (Known, Meas.)
- b. Depth to Water (ft) 1.29 - 1/2
- c. Length of water column (ft) _____
- d. One System Volume (mL) _____
- e. Well Diameter (in) 2

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N= 14112/14113)
- b. Purge Basis: Stabilization
- c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = X10C8EFO w/Flow Through Cell)

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
0959	0.7	Start							
1002	1.21	Full cell	19.73	5.83	1.29	222	1.66	10.8	clear
1005	1.54	600	19.51	6.04	1.29	69	0.90	5.4	clear
1008	1.87	900	19.32	6.17	1.29	-27	0.44	3.0	clear
1011	2.22	1200	19.14	6.25	1.29	-60	0.22	0.7	clear
1014	2.48	1500	18.95	6.30	1.28	-76	0.14	0.6	clear
1017	2.62	1800	18.89	6.32	1.27	-86	0.07	0.6	clear

3. SAMPLE COLLECTION:

- Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 - Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 - Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 - Container Type: _____ Preservation: _____ Analysis Req.: _____
- Sample ID#: MW 6 GW DP 0721 Sample Time: 1020

4. COMMENTS: R1203 Sp51 100 ml/min

QA/QC samples collected: none

Diane Pals
 Sampler (Signature)

Diane Pals
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: mw-8R

Job No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: cloudy 80°

Client: Interstate Power and Light Co.
 Date: 7/7/21

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) _____ (Known, Meas.)
- b. Depth to Water (ft) 3.92
- c. Length of water column (ft) _____
- d. One System Volume (mL) _____
- e. Well Diameter (in) _____

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N=14112/14113)
- b. Purge Basis: Stabilization
- c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = X10C8EFO)
w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1112	3.48	Start							
1116	4.16	Full cell	20.44	6.32	1.64	73	2.42	87.7	almost clear
1120	4.80	1400	19.14	6.46	1.60	9	0.91	85.5	
1124	4.64	1800	19.41	6.56	1.56	-49	0.22	73.4	clear
1127	4.63	2100	19.89	6.58	1.56	-70	0.19	77.6	clear
1130	4.64	2500	20.14	6.59	1.56	-86	0.13	74.9	clear
1134	4.63	2800	20.16	6.61	1.56	-94	0.08	66.8	clear
1137	4.64	3100	20.21	6.61	1.56	-97	0.05	58.3	clear
1140	4.64	3400	20.20	6.62	1.56	-101	0.03	49.8	clear
1143	4.63	3700	20.20	6.63	1.56	-103	0.02	39.1	clear

3. SAMPLE COLLECTION:

- Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
- Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
- Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
- Container Type: _____ Preservation: _____ Analysis Req.: _____

Sample ID#: MW-8R-DAP-0721 Sample Time: 1145

4. COMMENTS:

R12 D3 psi 10 175 ml/min
lower pressure @ 1120 to slow draw down → 100 ml/min
~ 5psi

QA/QC samples collected: none

Diane Pals
 Sampler (Signature)

Diane Pals
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: mw 9

Job No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: _____

Client: Interstate Power and Light Co.
 Date: 7/7/21

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) _____ (Known, Meas.) d. One System Volume (mL) _____
 b. Depth to Water (ft) 1.75 e. Well Diameter (in) 2
 c. Length of water column (ft) _____

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N= 14112/14113)
 b. Purge Basis: Stabilization
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = X1008EFO w/Flow Through Cell)

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1503	1.75	Start							
1505	1.75	Full cell	24.04	6.67	0.876	100	0.62	20.1	clear
1508	1.97	500	23.69	6.69	0.891	99	0.64	21.9	clear
1511	2.10	800	22.66	6.74	0.947	96	0.40	18.4	clear
1514	2.19	1100	22.10	6.76	0.969	91	0.20	14.5	clear
1517	2.28	1400	21.76	6.77	0.981	85	0.04	12.9	clear
1520	2.31	1700	21.64	6.78	0.986	81	0.00	10.4	clear
1523	2.36	2000	21.51	6.79	0.989	78	0.00	8.0	clear

3. SAMPLE COLLECTION:

Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____
 Sample ID#: mw-9-GW-DP-0724 Sample Time: 1525

4. COMMENTS: R 11/4^D 5-7 psi 100 ml/min

QA/QC samples collected: none

Diane Pals
 Sampler (Signature)

Diane Pals
 (Print Name)



GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: mw-2

Job. No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: cloudy 53°

Client: Interstate Power and Light Co.
 Date: 10/27/21

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) 14.61 (Known, Meas.) d. One System Volume (mL) _____
 b. Depth to Water (ft) 0.38 e. Well Diameter (in) 2"
 c. Length of water column (ft) _____

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N= 14112/14113)
 b. Purge Basis: Stabilization
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = 4BUT4SXA)
w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1116	<u>Start</u>								
1121	<u>0.9</u>	<u>full cell</u>	<u>13.95</u>	<u>6.86</u>	<u>1.46</u>	<u>73</u>	<u>2.53</u>	<u>53.8</u>	<u>clear</u>
1124	<u>1.14</u>	<u>800</u>	<u>14.44</u>	<u>6.77</u>	<u>1.49</u>	<u>60</u>	<u>0.86</u>	<u>54.5</u>	<u>clear</u>
1127	<u>1.48</u>	<u>1100</u>	<u>14.95</u>	<u>6.74</u>	<u>1.51</u>	<u>63</u>	<u>0.43</u>	<u>59.3</u>	<u>clear</u>
1130	<u>1.69</u>	<u>1400</u>	<u>15.07</u>	<u>6.74</u>	<u>1.51</u>	<u>64</u>	<u>0.34</u>	<u>58.4</u>	<u>clear</u>
1133	<u>1.95</u>	<u>1700</u>	<u>15.14</u>	<u>6.73</u>	<u>1.53</u>	<u>62</u>	<u>0.30</u>	<u>53.6</u>	<u>clear</u>
1136	<u>2.08</u>	<u>2000</u>	<u>15.13</u>	<u>6.73</u>	<u>1.54</u>	<u>60</u>	<u>0.22</u>	<u>51.0</u>	<u>clear</u>

3. SAMPLE COLLECTION:

- Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____

Sample ID#: mw-2-GW-1021 Sample Time: 1140

4. COMMENTS: 12/3 100 ml/min

 QA/QC samples collected: _____

Diane Pals
 Sampler (Signature)

Diane Pals
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-3

Job No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: sunny 55°

Client: Interstate Power and Light Co.
 Date: 10/26/21

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) _____ (Known, Meas.) d. One System Volume (mL) _____
 b. Depth to Water (ft) artesian e. Well Diameter (in) 2"
 c. Length of water column (ft) _____

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N= 14112/14113)
 b. Purge Basis: stabilization
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = 4BUT4SXA)
w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1603	<u>Start</u>								
1607	<u>0.3</u>	<u>560</u>	<u>16.91</u>	<u>6.73</u>	<u>1.50</u>	<u>-16</u>	<u>2.65</u>	<u>43.4</u>	<u>clear</u>
1610	<u>0.5</u>	<u>560</u>	<u>16.78</u>	<u>6.63</u>	<u>1.52</u>	<u>-8</u>	<u>1.15</u>	<u>38.4</u>	<u>clear</u>
1613	<u>0.6</u>	<u>800</u>	<u>16.83</u>	<u>6.61</u>	<u>1.53</u>	<u>-9</u>	<u>0.50</u>	<u>28.0</u>	<u>clear</u>
1616	<u>0.7</u>	<u>1040</u>	<u>16.75</u>	<u>6.60</u>	<u>1.55</u>	<u>-11</u>	<u>0.28</u>	<u>22.0</u>	<u>clear</u>
1619	<u>0.75</u>	<u>1280</u>	<u>16.73</u>	<u>6.60</u>	<u>1.55</u>	<u>-12</u>	<u>0.22</u>	<u>18.3</u>	<u>clear</u>
1622	<u>0.8</u>	<u>1520</u>	<u>16.70</u>	<u>6.59</u>	<u>1.56</u>	<u>-14</u>	<u>0.18</u>	<u>15.0</u>	<u>clear</u>
1625	<u>0.85</u>	<u>1760</u>	<u>16.63</u>	<u>6.59</u>	<u>1.56</u>	<u>-15</u>	<u>0.09</u>	<u>14.0</u>	<u>clear</u>
1628	<u>0.9</u>	<u>2000</u>	<u>16.64</u>	<u>6.59</u>	<u>1.56</u>	<u>-16</u>	<u>0.08</u>	<u>12.4</u>	<u>clear</u>

3. SAMPLE COLLECTION:

Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____
 Sample ID#: MW-3-6W-1021 Sample Time: 1630

4. COMMENTS:

12/3 7.5 PSI 80 ml/min
collected 6B-1-6W-1021 after MW-3 @ 1700
 QA/QC samples collected: collected Dupl-6W-1021

Diane Pals
 Sampler (Signature)

Diane Pals
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-4

Job. No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: Sunny 50°

Client: Interstate Power and Light Co.
 Date: 10/29/21

1. WATER LEVEL DATA: (from TOC)
- a. Total Well Length (ft) 14.94 (Known, Meas.)
 - b. Depth to Water (ft) 0.39
 - c. Length of water column (ft) _____
 - d. One System Volume (mL) _____
 - e. Well Diameter (in) 2"

2. WELL PURGING DATA:
- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N= 14112/14113)
 - b. Purge Basis: Stabilization
 - c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = 4BUT4SXA)
15 x 50 = 750 w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1254	0.39	Start							
1307	0.7	full cell	14.29	6.78	1.28	26	2.08	44.1	clear
1315	0.9	1230	14.80	6.74	1.27	50	1.56	30.3	clear
1318	1.33	1470	15.08	6.73	1.26	56	1.34	28.4	clear
1321	1.58	1710	15.27	6.73	1.26	61	1.18	25.7	clear
1324	1.81	1950	15.29	6.72	1.26	66	0.98	19.4	clear
1327	1.94	2190	15.27	6.72	1.26	67	0.90	18.8	clear
1330	2.05	2430	15.20	6.72	1.26	68	0.85	15.8	clear
1333	2.12	2670	15.15	6.71	1.26	68	0.81	14.5	clear

3. SAMPLE COLLECTION:
- Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 - Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 - Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 - Container Type: _____ Preservation: _____ Analysis Req.: _____
 - Sample ID#: MW-4-1021 Sample Time: 1335

4. COMMENTS: 12/3 spsi was 50 ml/min
10.5/4.5 90ml/min

QA/QC samples collected: _____

Diene Pals (Printer Name)
Diene Pals (Sampler Signature)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: mw-5

Job. No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: Sunny 55°

Client: Interstate Power and Light Co.
 Date: 10/26/21

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) _____ (Known, Meas.) d. One System Volume (mL) _____
 b. Depth to Water (ft) 3.23 e. Well Diameter (in) 2"
 c. Length of water column (ft) _____

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N= 14112/14113)
 b. Purge Basis: stabilization
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = 4BUT4SXA)
w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1415		Start							
1418	3.49	Full cell	16.87	6.83	0.994	111	2.88	57.4	Clear
1421	3.83	600	17.33	6.70	0.972	92	1.14	36.4	Clear
1424	4.09	900	17.50	6.68	0.984	88	0.74	28.9	Clear
1427	4.38	1200	17.78	6.67	0.956	86	0.46	19.5	Clear
1430	4.72	1500	18.03	6.66	0.951	85	0.27	14.0	Clear
1433	4.91	1800	18.13	6.66	0.949	85	0.28	11.4	Clear
1436	4.98	2100	18.20	6.65	0.928	87	0.24	9.0	Clear
1439	4.98	2400	18.22	6.65	0.945	91	0.27	8.3	Clear

3. SAMPLE COLLECTION:

Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____
 Sample ID#: mw-5-GW-2021 Sample Time: 1440

4. COMMENTS:

12/3 7.5 psi 100 ml/min

QA/QC samples collected: none

Drane Pals
 Sampler (Signature)

Drane Pals
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-8

Job No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: Sunny 50°

Client: Interstate Power and Light Co.
 Date: 10/26/21

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) 14.55 (Known, Meas.) d. One System Volume (mL) _____
 b. Depth to Water (ft) 2.97 e. Well Diameter (in) 2"
 c. Length of water column (ft) _____

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N= 14112/14113)
 b. Purge Basis: minimal (from stabilization)
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = 4BUT4SXA) w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1139	2.50	start							
1147	3.09	full cell	18.19	5.71	1.43	97	2.11	59.4	clear
1150	3.41	1100	16.00	6.60	1.51	-1	1.08	46.9	clear
1153	3.74	1400	15.67	6.63	1.53	-13	0.82	55.2	clear
1156	3.79	1700	15.56	6.63	1.54	-15	0.70	53.7	clear
1159	3.82	2000 1850	15.40	6.64	1.55	-18	0.63	43.2	clear
1202	3.90	2000	15.03	6.64	1.56	-19	0.61	42.0	clear
1205	4.04	2150	14.70	6.64	1.57	-20	0.67	49.0	clear
1208	4.12	2300	14.41	6.64	1.57	-20	0.60	41.3	clear
1211	4.17	2450	14.30	6.64	1.57	-20	0.58	41.4	clear

3. SAMPLE COLLECTION:

Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____
 Sample ID#: MW-8R-160/1021 Sample Time: 1215

4. COMMENTS:

R/D 12/3 5psi 700 ml/min
lowered pressure to 150 to reduce drawdown -> 50 ml/min

QA/QC samples collected: none

Diane Pal
 Sampler (Signature)

Diane Pal
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: mw-9

Job. No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: cloudy 53°

Client: Interstate Power and Light Co.
 Date: 10/27/21

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) 14.80 (Known, Meas.)
- b. Depth to Water (ft) 1.86
- c. Length of water column (ft) _____
- d. One System Volume (mL) _____
- e. Well Diameter (in) 2"

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N= 14112/14113)
- b. Purge Basis: Stabilization
- c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = 4BUT4SXA)
w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
0935	Start		14						
0939	2.23	full cell	14.56	6.25	1.05	361	2.39	41.9	Clear
0945	2.36	1200	15.31	6.82	0.997	229	0.96	27.5	Clear
0948	2.45	1560	15.28	6.86	0.994	212	0.64	24.3	Clear
0951	2.48	1920	15.36	6.87	0.990	204	0.66	15.8	Clear
0954	2.55	2280	15.46	6.88	0.988	198	0.52	13.3	Clear
0957	2.60	2640	15.52	6.88	0.988	193	0.52	11.1	Clear
1000	2.64	3,000	15.57	6.89	0.988	189	0.42	9.1	Clear

3. SAMPLE COLLECTION:

Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____
 Sample ID#: mw-9-GW-1021 Sample Time: 1005

4. COMMENTS: 12/3 120 ml/min

QA/QC samples collected: _____

Diane Patis
 Sampler (Signature)

Diane Patis
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-1

Job No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: dusk 40°

Client: Interstate Power and Light Co.
 Date: 1/13/22

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) 14.69 (Known Meas.) d. One System Volume (mL) _____
 b. Depth to Water (ft) 0.73 e. Well Diameter (in) 2
 c. Length of water column (ft) _____

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N=14112/14113)
 b. Purge Basis: stabilization
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = W9D16VAA)
w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
<u>1702</u>	<u>1.06</u>	<u>start</u>							
<u>1706</u>	<u>1.25</u>	<u>full cell</u>	<u>7.59</u>	<u>6.69</u>	<u>1.37</u>	<u>-5</u>	<u>0.43</u>	<u>98.3</u>	<u>clear</u>
<u>1711</u>	<u>1.95</u>	<u>1260</u>	<u>7.58</u>	<u>6.51</u>	<u>1.36</u>	<u>-2</u>	<u>0.00</u>	<u>69.4</u>	<u>clear</u>
<u>1714</u>	<u>2.48</u>	<u>1680</u>	<u>7.48</u>	<u>6.51</u>	<u>1.36</u>	<u>-5</u>	<u>0.00</u>	<u>64.4</u>	<u>clear</u>
<u>1717</u>	<u>2.90</u>	<u>2100</u>	<u>7.45</u>	<u>6.50</u>	<u>1.35</u>	<u>-7</u>	<u>0.00</u>	<u>51.5</u>	<u>clear</u>
<u>1720</u>	<u>3.21</u>	<u>2520</u>	<u>7.38</u>	<u>6.52</u>	<u>1.35</u>	<u>-9</u>	<u>0.00</u>	<u>46.3</u>	<u>clear</u>
<u>1723</u>	<u>3.7</u>	<u>2940</u>	<u>7.34</u>	<u>6.52</u>	<u>1.35</u>	<u>-11</u>	<u>0.00</u>	<u>41.7</u>	<u>clear</u>
<u>1726</u>	<u>3.95</u>	<u>3360</u>	<u>7.33</u>	<u>6.52</u>	<u>1.35</u>	<u>-12</u>	<u>0.00</u>	<u>41.1</u>	<u>clear</u>

3. SAMPLE COLLECTION:

Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____
 Sample ID#: MW-1-020122 Sample Time: 1730

4. COMMENTS:

12/3 140 ml/min
water running into well box - continuously boil out

QA/QC samples collected: none

Daniel Clark
 Sampler (Signature)

Diana Kats
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-2

Job. No.: 11156780-003-01

Client: Interstate Power and Light Co.

Location: IPL Albia FMGP

Date: 11/13/22

Weather: cloudy 45

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) 14.7 (Known, Meas.) d. One System Volume (mL) _____
- b. Depth to Water (ft) 0.38 e. Well Diameter (in) 2
- c. Length of water column (ft) _____

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N=14112/14113)
- b. Purge Basis: stabilization
- c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = W9016VAA)
w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1544	0.93	start							
1549	1.63	full cell	8.56	6.79	1.56	37	12.01	78.2	clear
1552	2.06	1000	8.38	6.72	1.59	5	5.25	66.3	clear
1555	2.24	1375	8.37	6.72	1.59	-1	8.67	82.3	clear
1558	2.50	1750	8.36	6.71	1.59	-6	8.19	74.3	clear
1601	2.90	2125	8.36	6.71	1.59	-9	7.70	73.8	clear
1604	3.11	2500	8.33	6.73	1.60	-11	7.17	45.8	clear
1607	3.21	2875	8.31	6.75	1.59	-14	6.68	52.0	clear
1610	3.30	3250	8.29	6.77	1.60	-16	6.40	35.8	clear
1613	3.53	3625	8.29	6.77	1.60	-20	5.98	30.1	clear
1616	3.68	4000	8.28	6.77	1.60	-23	5.61	28.0	clear
1619	3.88	4375	8.32	6.76	1.60	-25	5.38	24.1	clear

3. SAMPLE COLLECTION:

- Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
- Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
- Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
- Container Type: _____ Preservation: _____ Analysis Req.: _____
- Sample ID#: MW-2-6N-0122 Sample Time: 1620

4. COMMENTS: 12/3 125 ml/min

QA/QC samples collected: ms/msd 1645 collected EB-1-6N-0122 after this work

Diane Pals
Sampler (Signature)

Diane Pals
(Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-4

Job. No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: Sunny 40°

Client: Interstate Power and Light Co.
 Date: 1/13/22

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) 14.95 (Known, Meas.)
 b. Depth to Water (ft) 0.78
 c. Length of water column (ft) _____
 d. One System Volume (mL) _____
 e. Well Diameter (in) 2

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N=14112/14113)
 b. Purge Basis: Stabilization
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = W9DIEVAA)
w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1210	0.3	800							
1218	0.6	Full cell	8.51	6.76	2.000	308	11.72	28.4	Clear
1224	1.0	Full cell	8.14	6.51	1.29	296	6.43	28.1	Clear
1227	1.1	540	8.16	6.57	1.28	287	4.61	28.5	Clear
1230	1.2	620	8.19	6.63	1.28	280	2.95	28.8	Clear
1233	1.42	800	8.22	6.66	1.28	273	2.14	26.0	Clear
1236	1.58	980	8.21	6.68	1.28	266	1.56	25.8	Clear
1238	1.70	1160	8.19	6.69	1.28	260	1.16	24.9	Clear
1242	1.84	1340	8.18	6.70	1.28	252	0.93	22.9	Clear
1245	1.98	1520	8.18	6.71	1.28	243	0.74	20.4	Clear

3. SAMPLE COLLECTION:

Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____

Sample ID#: MW-4-GW-0122 Sample Time: 1250

4. COMMENTS: 12/3 1218 changed to 10/5°
60 ml/min

 QA/QC samples collected: none

Diane Pals
 Sampler (Signature)

Diane Pals
 (Print Name)



GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-5

Job No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: Sunny 45°

Client: Interstate Power and Light Co.
 Date: 1/23/22

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) 14.8 (Known, Meas.)
 b. Depth to Water (ft) 4.06
 c. Length of water column (ft) _____
 d. One System Volume (mL) _____
 e. Well Diameter (in) 2

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N= 14112/14113)
 b. Purge Basis: stabilization
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = W9D16VAP)
w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1308	4.08	Start							
1313	4.24	Full cell	10.08	6.85	1.01	259	1.82	46.0	clear
1319	4.44	1100	10.60	6.68	1.01	257	0.77	38.5	clear
1322	4.48	1400	10.66	6.69	1.00	254	0.62	32.5	clear
1325	4.59	1700	10.61	6.69	1.00	253	0.52	25.8	clear
1328	4.66	2000	10.65	6.70	0.999	252	0.46	20.4	clear
1331	4.78	2300	10.64	6.70	0.998	251	0.41	17.2	clear
1334	4.84	2600	10.71	6.70	0.997	251	0.41	15.5	clear
1337	4.96	2900	10.69	6.70	0.996	251	0.37	14.4	clear

3. SAMPLE COLLECTION:

Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____
 Sample ID#: MW-5-GW-0122 Sample Time: 1340

4. COMMENTS: 12/3 100 ml/min

QA/QC samples collected: none

Diane Pals
 Sampler (Signature)

Diane Pals
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-6

Job No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: partly cloudy 45°

Client: Interstate Power and Light Co.
 Date: 1/13/22

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) 14.85 (Known, Meas.)
 b. Depth to Water (ft) 1.29
 c. Length of water column (ft) _____
 d. One System Volume (mL) _____
 e. Well Diameter (in) 2

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N= 14112/14113)
 b. Purge Basis: Stabilization
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = W9DIGVAA)
w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1459	0.95	Start							
1505	1.6	full cell	9.73	6.73	1.21	110	5.34	70.2	clear
1508	1.71	900	9.72	6.69	1.21	100	1.28	67.6	clear
1512	2.2	1300	9.61	6.66	1.22	75	0.00	63.4	clear
1515	2.4	1600	9.60	6.68	1.22	60	0.00	64.5	clear
1518	2.76	1900	9.47	6.66	1.22	54	0.28	67.9	clear
1521	2.93	2200	9.27	6.65	1.25	56	0.00	71.6	clear
1524	3.14	2500	9.17	6.65	1.25	53	0.00	67.2	clear

3. SAMPLE COLLECTION:

- Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____

Sample ID#: MW-6-02-0122 Sample Time: 1525

4. COMMENTS: 12/3 6 psi 100 ml/min

QA/QC samples collected: none

Diane Pats
 Sampler (Signature)

Diane Pats
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-7

Job. No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: Sunny 40°

Client: Interstate Power and Light Co.
 Date: 1/13/22

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) _____ (Known, Meas.) d. One System Volume (mL) _____
 b. Depth to Water (ft) 1.65 e. Well Diameter (in) 2
 c. Length of water column (ft) _____

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N= 14112/14113)
 b. Purge Basis: stabilization
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = W9D16VAA)
w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
<u>1112</u>	<u>1.03</u>	<u>Start</u>							
<u>11:15</u>	<u>1.35</u>	<u>End</u>	<u>8.45</u>	<u>6.73</u>	<u>1.65</u>	<u>103</u>	<u>0.27</u>	<u>28.9</u>	<u>clear</u>
<u>1118</u>	<u>1.55</u>	<u>450</u>	<u>8.43</u>	<u>6.58</u>	<u>1.48</u>	<u>115</u>	<u>0.31</u>	<u>2.9</u>	<u>clear</u>
<u>1121</u>	<u>1.85</u>	<u>675</u>	<u>8.27</u>	<u>6.27</u>	<u>1.43</u>	<u>141</u>	<u>2.29</u>	<u>4.4</u>	<u>clear</u>
<u>1124</u>	<u>2.04</u>	<u>900</u>	<u>8.34</u>	<u>6.11</u>	<u>1.41</u>	<u>159</u>	<u>2.05</u>	<u>2.8</u>	<u>clear</u>
<u>1127</u>	<u>2.13</u>	<u>1125</u>	<u>8.35</u>	<u>5.98</u>	<u>1.40</u>	<u>195</u>	<u>1.64</u>	<u>4.1</u>	<u>clear</u>
<u>1130</u>	<u>2.35</u>	<u>1350</u>	<u>8.34</u>	<u>5.91</u>	<u>1.40</u>	<u>214</u>	<u>1.32</u>	<u>3.3</u>	<u>clear</u>
<u>1133</u>	<u>2.68</u>	<u>1575</u>	<u>8.21</u>	<u>5.85</u>	<u>1.40</u>	<u>230</u>	<u>1.01</u>	<u>2.9</u>	<u>clear</u>
<u>1136</u>	<u>2.9</u>	<u>1800</u>	<u>8.18</u>	<u>5.81</u>	<u>1.40</u>	<u>239</u>	<u>0.73</u>	<u>2.3</u>	<u>clear</u>
<u>1139</u>	<u>3.09</u>	<u>2025</u>	<u>8.14</u>	<u>5.79</u>	<u>1.40</u>	<u>245</u>	<u>0.56</u>	<u>2.1</u>	<u>clear</u>
<u>1142</u>	<u>3.3</u>	<u>2250</u>	<u>8.00</u>	<u>5.78</u>	<u>1.41</u>	<u>250</u>	<u>0.47</u>	<u>3.9</u>	<u>clear</u>

3. SAMPLE COLLECTION:

- Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____

Sample ID#: MW-7-GW-0122 Sample Time: 1145

4. COMMENTS: 12/3 75 ml/min

QA/QC samples collected: none

Diane Pals
 Sampler (Signature)

Diane Pals
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: MW-8R

Job. No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: Sunny 37°

Client: Interstate Power and Light Co.
 Date: 1/13/22

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) 14.65 (Known, Meas.) d. One System Volume (mL) _____
 b. Depth to Water (ft) 3.33 e. Well Diameter (in) 2
 c. Length of water column (ft) _____

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N= 14112/14113)
 b. Purge Basis: minimal
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = W9D16VAA
w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1001	2.57	Start							
1004	3.30	Full cell	8.55	6.33	1.68	209	14.71	95.6	Clear
1008	3.85	1070	8.57	6.50	1.68	155	1.45	71.9	Clear
1011	4.22	1400	8.30	6.55	1.68	135	0.69	55.7	Clear
1014	4.35	1730	8.23	6.57	1.67	123	0.37	42.9	Clear
1018	4.6	2170	8.25	6.59	1.67	112	0.12	33.5	Clear
1020	4.7	2390	8.21	6.60	1.67	107	0.00	22.7	Clear
1023	4.7	2720	8.25	6.61	1.67	102	0.00	12.3	Clear
1026	4.7	3050	8.23	6.62	1.67	98	0.00	5.7	Clear

3. SAMPLE COLLECTION:

- Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____

Sample ID#: MW-8R-GW-0122 Sample Time: 1030

4. COMMENTS: @ 1007 changed to 12/13 160 ml/min
110 ml/min

 QA/QC samples collected: None

Diane Pats
 Sampler (Signature)

Diane Pats
 (Print Name)

GROUNDWATER SAMPLE COLLECTION RECORD

Well ID: mw-9

Job. No.: 11156780-003-01
 Location: IPL Albia FMGP
 Weather: Sunny 49°

Client: Interstate Power and Light Co.
 Date: 1/13/22

1. WATER LEVEL DATA: (from TOC)

- a. Total Well Length (ft) 14.80 (Known, Meas.) d. One System Volume (mL) _____
 b. Depth to Water (ft) 2.45 e. Well Diameter (in) 2"
 c. Length of water column (ft) _____

2. WELL PURGING DATA:

- a. Purge Method: Sample Pro MP-SPK-4C portable bladder pump (S/N=14112/14113)
 b. Purge Basis: Stabilization
 c. Field Testing Equipment Used: Horiba U-52 Multi-Parameter Meter (S/N = W9D16VAA)
w/Flow Through Cell

Time	DTW (ft)	Volume (mL)	Temperature (°C) (± 0.5 °C)	pH (s.u.) (± 0.1 s.u.)	Spec. Cond. (mS/cm) (± 3%)	ORP (mV) (± 10 mV)	DO (mg/L) (± 0.3 mg/L)	Turbidity (NTU) (if <50, ± 10%)	Color (Visual) NA
1359	2.25	Start							
1405	2.64	Full cell	9.94	6.72	1.23	287	11.21	46.8	clear
1408	2.80	810	9.99	6.67	1.24	280	10.85	32.4	clear
1411	2.84	1080	10.01	6.67	1.24	276	10.47	29.5	clear
1414	2.80	1350	9.99	6.67	1.24	274	10.24	29.5	clear
1417	2.94	1620	9.98	6.68	1.24	270	9.77	28.0	clear
1420	2.96	1890	10.06	6.69	1.24	268	9.40	25.3	clear
1423	3.02	2160	10.05	6.71	1.24	265	9.04	24.8	clear
1426	3.03	2430	10.07	6.72	1.24	263	8.62	24.3	clear
1429	3.06	2700	10.06	6.73	1.24	262	8.27	23.6	clear
1432	3.09	2970	10.07	6.73	1.24	261	7.87	22.9	clear
1435	3.11	3240	10.13	6.73	1.24	259	7.52	20.9	clear
1438	3.13	3510	10.13	6.73	1.24	258	7.17	20.2	clear

3. SAMPLE COLLECTION:

Container Type: 40-ml Purge Vial (3) Preservation: HCl Analysis Req.: VOCs
 Container Type: 1-250ml Amber Glass (1) Preservation: None Analysis Req.: PAHs
 Container Type: HDPE 250-mL (1) Preservation: HNO₃ Analysis Req.: As/Pb
 Container Type: _____ Preservation: _____ Analysis Req.: _____

Sample ID#: mw-9-02-0122 Sample Time: 1440

4. COMMENTS: 12/3 90 ml/min

QA/QC samples collected: none

Diane Pats
 Sampler (Signature)

Diane Pats
 (Print Name)

Appendix B

Laboratory Analytical Reports

ANALYTICAL REPORT

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-205747-1
Laboratory Sample Delivery Group: 11156780
Client Project/Site: IPL Albia FMGP

For:
GHD Services Inc.
11228 Aurora Avenue
Des Moines, Iowa 50322-7905

Attn: Kevin Armstrong



Authorized for release by:
5/13/2021 5:23:00 PM

Shawn Hayes, Senior Project Manager
(319)229-8211
Shawn.Hayes@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	4
Detection Summary	5
Client Sample Results	7
Definitions	28
Surrogate Summary	29
QC Sample Results	31
QC Association	41
Chronicle	43
Certification Summary	46
Method Summary	47
Chain of Custody	48
Receipt Checklists	50



Case Narrative

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Job ID: 310-205747-1

Laboratory: Eurofins TestAmerica, Cedar Falls

Narrative

Job Narrative 310-205747-1

Comments

No additional comments.

Receipt

The samples were received on 5/4/2021 5:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.0° C.

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-314909 recovered above the upper control limit for Tetrachloroethene (20.4 %D). The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: (CCV 310-314909/3).

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-314909 recovered above the upper control limit for Trichlorofluoromethane (24.2 %D). The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: (CCV 310-314909/4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
310-205747-1	MW09-GW-0421	Ground Water	04/29/21 14:35	05/04/21 17:20	
310-205747-2	MW05-GW-0421	Ground Water	04/29/21 15:25	05/04/21 17:20	
310-205747-3	MW01-GW-0421	Ground Water	04/29/21 16:15	05/04/21 17:20	
310-205747-4	EB01-GW-0421	Ground Water	04/29/21 17:00	05/04/21 17:20	
310-205747-5	MW8R-GW-0421	Ground Water	04/30/21 10:55	05/04/21 17:20	
310-205747-6	MW04-GW-0421	Ground Water	04/30/21 11:55	05/04/21 17:20	
310-205747-7	MW06-GW-0421	Ground Water	04/30/21 12:55	05/04/21 17:20	
310-205747-8	MW02-GW-0421	Ground Water	04/30/21 13:25	05/04/21 17:20	
310-205747-9	DP01-GW-0421	Ground Water	04/30/21 00:00	05/04/21 17:20	
310-205747-10	Trip Blank	Water	04/30/21 00:00	05/04/21 17:20	

Detection Summary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW09-GW-0421

Lab Sample ID: 310-205747-1

No Detections.

Client Sample ID: MW05-GW-0421

Lab Sample ID: 310-205747-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00342		0.00200		mg/L	1		6020A	Total/NA

Client Sample ID: MW01-GW-0421

Lab Sample ID: 310-205747-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	390		0.500		ug/L	1		8260D	Total/NA
Ethylbenzene	407		1.00		ug/L	1		8260D	Total/NA
Isopropylbenzene	4.30		1.00		ug/L	1		8260D	Total/NA
Naphthalene	241		5.00		ug/L	1		8260D	Total/NA
n-Propylbenzene	6.43		1.00		ug/L	1		8260D	Total/NA
Toluene	4.60		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	85.2		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	49.5		3.00		ug/L	1		8260D	Total/NA
Acenaphthene	11.9		0.200		ug/L	1		8270E SIM	Total/NA
Acenaphthylene	2.63	F1	0.200		ug/L	1		8270E SIM	Total/NA
Anthracene	0.844		0.200		ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.579		0.200		ug/L	1		8270E SIM	Total/NA
Fluorene	9.01		0.200		ug/L	1		8270E SIM	Total/NA
Naphthalene	13.6	F2	0.500		ug/L	1		8270E SIM	Total/NA
Phenanthrene	4.32		0.200		ug/L	1		8270E SIM	Total/NA
Pyrene	0.473		0.200		ug/L	1		8270E SIM	Total/NA
Arsenic	0.0134		0.00200		mg/L	1		6020A	Total/NA

Client Sample ID: EB01-GW-0421

Lab Sample ID: 310-205747-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00107		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW8R-GW-0421

Lab Sample ID: 310-205747-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0133		0.00200		mg/L	1		6020A	Total/NA
Lead	0.000614		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW04-GW-0421

Lab Sample ID: 310-205747-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00409		0.00200		mg/L	1		6020A	Total/NA

Client Sample ID: MW06-GW-0421

Lab Sample ID: 310-205747-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	41.7		0.500		ug/L	1		8260D	Total/NA
Ethylbenzene	6.05		1.00		ug/L	1		8260D	Total/NA
Naphthalene	51.1		5.00		ug/L	1		8260D	Total/NA
Toluene	4.32		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	17.4		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	44.7		3.00		ug/L	1		8260D	Total/NA
Acenaphthene	1.53		0.200		ug/L	1		8270E SIM	Total/NA
Acenaphthylene	3.77		0.200		ug/L	1		8270E SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW06-GW-0421 (Continued)

Lab Sample ID: 310-205747-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.654		0.200		ug/L	1		8270E SIM	Total/NA
Fluorene	0.744		0.200		ug/L	1		8270E SIM	Total/NA
Naphthalene	0.733		0.500		ug/L	1		8270E SIM	Total/NA
Pyrene	0.914		0.200		ug/L	1		8270E SIM	Total/NA
Arsenic	0.0422		0.00200		mg/L	1		6020A	Total/NA
Lead	0.000534		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW02-GW-0421

Lab Sample ID: 310-205747-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	279		0.500		ug/L	1		8260D	Total/NA
Ethylbenzene	89.5		1.00		ug/L	1		8260D	Total/NA
Isopropylbenzene	2.78		1.00		ug/L	1		8260D	Total/NA
Naphthalene	179		5.00		ug/L	1		8260D	Total/NA
n-Butylbenzene	1.14		1.00		ug/L	1		8260D	Total/NA
n-Propylbenzene	2.31		1.00		ug/L	1		8260D	Total/NA
Toluene	6.48		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	45.9		1.00		ug/L	1		8260D	Total/NA
1,3,5-Trimethylbenzene	4.32		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	58.1		3.00		ug/L	1		8260D	Total/NA
Acenaphthene	22.5		0.200		ug/L	1		8270E SIM	Total/NA
Acenaphthylene	24.8		0.200		ug/L	1		8270E SIM	Total/NA
Anthracene	1.57		0.200		ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.896		0.200		ug/L	1		8270E SIM	Total/NA
Fluorene	16.8		0.200		ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	1.74		0.200		ug/L	1		8270E SIM	Total/NA
Naphthalene	39.4		0.500		ug/L	1		8270E SIM	Total/NA
Phenanthrene	8.82		0.200		ug/L	1		8270E SIM	Total/NA
Pyrene	0.831		0.200		ug/L	1		8270E SIM	Total/NA
Arsenic	0.0147		0.00200		mg/L	1		6020A	Total/NA

Client Sample ID: DP01-GW-0421

Lab Sample ID: 310-205747-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00448		0.00200		mg/L	1		6020A	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 310-205747-10

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW09-GW-0421

Lab Sample ID: 310-205747-1

Date Collected: 04/29/21 14:35

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			05/06/21 07:49	1
Benzene	<0.500		0.500		ug/L			05/06/21 07:49	1
Bromobenzene	<1.00		1.00		ug/L			05/06/21 07:49	1
Bromochloromethane	<5.00		5.00		ug/L			05/06/21 07:49	1
Bromodichloromethane	<1.00		1.00		ug/L			05/06/21 07:49	1
Bromoform	<5.00		5.00		ug/L			05/06/21 07:49	1
Bromomethane	<4.00		4.00		ug/L			05/06/21 07:49	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/06/21 07:49	1
Carbon disulfide	<1.00		1.00		ug/L			05/06/21 07:49	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/06/21 07:49	1
Chlorobenzene	<1.00		1.00		ug/L			05/06/21 07:49	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/06/21 07:49	1
Chloroethane	<4.00		4.00		ug/L			05/06/21 07:49	1
Chloroform	<3.00		3.00		ug/L			05/06/21 07:49	1
Chloromethane	<3.00		3.00		ug/L			05/06/21 07:49	1
2-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 07:49	1
4-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 07:49	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 07:49	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 07:49	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			05/06/21 07:49	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/06/21 07:49	1
Dibromomethane	<1.00		1.00		ug/L			05/06/21 07:49	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 07:49	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 07:49	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 07:49	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			05/06/21 07:49	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/06/21 07:49	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/06/21 07:49	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/06/21 07:49	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/06/21 07:49	1
1,3-Dichloropropane	<1.00		1.00		ug/L			05/06/21 07:49	1
2,2-Dichloropropane	<4.00		4.00		ug/L			05/06/21 07:49	1
1,1-Dichloropropene	<1.00		1.00		ug/L			05/06/21 07:49	1
Ethylbenzene	<1.00		1.00		ug/L			05/06/21 07:49	1
Hexachlorobutadiene	<5.00		5.00		ug/L			05/06/21 07:49	1
Hexane	<1.00		1.00		ug/L			05/06/21 07:49	1
Isopropylbenzene	<1.00		1.00		ug/L			05/06/21 07:49	1
Methylene chloride	<5.00		5.00		ug/L			05/06/21 07:49	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			05/06/21 07:49	1
Naphthalene	<5.00		5.00		ug/L			05/06/21 07:49	1
n-Butylbenzene	<1.00		1.00		ug/L			05/06/21 07:49	1
n-Propylbenzene	<1.00		1.00		ug/L			05/06/21 07:49	1
p-Isopropyltoluene	<1.00		1.00		ug/L			05/06/21 07:49	1
sec-Butylbenzene	<1.00		1.00		ug/L			05/06/21 07:49	1
Styrene	<1.00		1.00		ug/L			05/06/21 07:49	1
tert-Butylbenzene	<1.00		1.00		ug/L			05/06/21 07:49	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 07:49	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 07:49	1
Tetrachloroethene	<1.00		1.00		ug/L			05/06/21 07:49	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW09-GW-0421

Lab Sample ID: 310-205747-1

Date Collected: 04/29/21 14:35

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			05/06/21 07:49	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 07:49	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 07:49	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 07:49	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 07:49	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/06/21 07:49	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/06/21 07:49	1
Trichloroethene	<1.00		1.00		ug/L			05/06/21 07:49	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/06/21 07:49	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/06/21 07:49	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 07:49	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 07:49	1
Vinyl chloride	<1.00		1.00		ug/L			05/06/21 07:49	1
Xylenes, Total	<3.00		3.00		ug/L			05/06/21 07:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		80 - 120					05/06/21 07:49	1
Dibromofluoromethane (Surr)	97		79 - 120					05/06/21 07:49	1
Toluene-d8 (Surr)	89		79 - 120					05/06/21 07:49	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.250		0.250		ug/L		05/06/21 08:57	05/10/21 17:32	1
Acenaphthylene	<0.250		0.250		ug/L		05/06/21 08:57	05/10/21 17:32	1
Anthracene	<0.250		0.250		ug/L		05/06/21 08:57	05/10/21 17:32	1
Benzo(a)anthracene	<0.250		0.250		ug/L		05/06/21 08:57	05/10/21 17:32	1
Benzo(a)pyrene	<0.250		0.250		ug/L		05/06/21 08:57	05/10/21 17:32	1
Benzo(b)fluoranthene	<0.250		0.250		ug/L		05/06/21 08:57	05/10/21 17:32	1
Benzo(g,h,i)perylene	<0.250		0.250		ug/L		05/06/21 08:57	05/10/21 17:32	1
Benzo(k)fluoranthene	<0.250		0.250		ug/L		05/06/21 08:57	05/10/21 17:32	1
Chrysene	<0.250		0.250		ug/L		05/06/21 08:57	05/10/21 17:32	1
Dibenz(a,h)anthracene	<0.250		0.250		ug/L		05/06/21 08:57	05/10/21 17:32	1
Fluoranthene	<0.250		0.250		ug/L		05/06/21 08:57	05/10/21 17:32	1
Fluorene	<0.250		0.250		ug/L		05/06/21 08:57	05/10/21 17:32	1
Indeno(1,2,3-cd)pyrene	<0.250		0.250		ug/L		05/06/21 08:57	05/10/21 17:32	1
2-Methylnaphthalene	<0.250		0.250		ug/L		05/06/21 08:57	05/10/21 17:32	1
Naphthalene	<0.625		0.625		ug/L		05/06/21 08:57	05/10/21 17:32	1
Phenanthrene	<0.250		0.250		ug/L		05/06/21 08:57	05/10/21 17:32	1
Pyrene	<0.250		0.250		ug/L		05/06/21 08:57	05/10/21 17:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	66		21 - 110				05/06/21 08:57	05/10/21 17:32	1
Nitrobenzene-d5 (Surr)	63		15 - 110				05/06/21 08:57	05/10/21 17:32	1
Terphenyl-d14 (Surr)	71		13 - 110				05/06/21 08:57	05/10/21 17:32	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		05/06/21 09:00	05/08/21 18:39	1
Lead	<0.000500		0.000500		mg/L		05/06/21 09:00	05/08/21 18:39	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW05-GW-0421

Lab Sample ID: 310-205747-2

Date Collected: 04/29/21 15:25

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			05/06/21 08:12	1
Benzene	<0.500		0.500		ug/L			05/06/21 08:12	1
Bromobenzene	<1.00		1.00		ug/L			05/06/21 08:12	1
Bromochloromethane	<5.00		5.00		ug/L			05/06/21 08:12	1
Bromodichloromethane	<1.00		1.00		ug/L			05/06/21 08:12	1
Bromoform	<5.00		5.00		ug/L			05/06/21 08:12	1
Bromomethane	<4.00		4.00		ug/L			05/06/21 08:12	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/06/21 08:12	1
Carbon disulfide	<1.00		1.00		ug/L			05/06/21 08:12	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/06/21 08:12	1
Chlorobenzene	<1.00		1.00		ug/L			05/06/21 08:12	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/06/21 08:12	1
Chloroethane	<4.00		4.00		ug/L			05/06/21 08:12	1
Chloroform	<3.00		3.00		ug/L			05/06/21 08:12	1
Chloromethane	<3.00		3.00		ug/L			05/06/21 08:12	1
2-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 08:12	1
4-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 08:12	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 08:12	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 08:12	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			05/06/21 08:12	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/06/21 08:12	1
Dibromomethane	<1.00		1.00		ug/L			05/06/21 08:12	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 08:12	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 08:12	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 08:12	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			05/06/21 08:12	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/06/21 08:12	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/06/21 08:12	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/06/21 08:12	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/06/21 08:12	1
1,3-Dichloropropane	<1.00		1.00		ug/L			05/06/21 08:12	1
2,2-Dichloropropane	<4.00		4.00		ug/L			05/06/21 08:12	1
1,1-Dichloropropene	<1.00		1.00		ug/L			05/06/21 08:12	1
Ethylbenzene	<1.00		1.00		ug/L			05/06/21 08:12	1
Hexachlorobutadiene	<5.00		5.00		ug/L			05/06/21 08:12	1
Hexane	<1.00		1.00		ug/L			05/06/21 08:12	1
Isopropylbenzene	<1.00		1.00		ug/L			05/06/21 08:12	1
Methylene chloride	<5.00		5.00		ug/L			05/06/21 08:12	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			05/06/21 08:12	1
Naphthalene	<5.00		5.00		ug/L			05/06/21 08:12	1
n-Butylbenzene	<1.00		1.00		ug/L			05/06/21 08:12	1
n-Propylbenzene	<1.00		1.00		ug/L			05/06/21 08:12	1
p-Isopropyltoluene	<1.00		1.00		ug/L			05/06/21 08:12	1
sec-Butylbenzene	<1.00		1.00		ug/L			05/06/21 08:12	1
Styrene	<1.00		1.00		ug/L			05/06/21 08:12	1
tert-Butylbenzene	<1.00		1.00		ug/L			05/06/21 08:12	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 08:12	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 08:12	1
Tetrachloroethene	<1.00		1.00		ug/L			05/06/21 08:12	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW05-GW-0421

Lab Sample ID: 310-205747-2

Date Collected: 04/29/21 15:25

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			05/06/21 08:12	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 08:12	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 08:12	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 08:12	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 08:12	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/06/21 08:12	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/06/21 08:12	1
Trichloroethene	<1.00		1.00		ug/L			05/06/21 08:12	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/06/21 08:12	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/06/21 08:12	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 08:12	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 08:12	1
Vinyl chloride	<1.00		1.00		ug/L			05/06/21 08:12	1
Xylenes, Total	<3.00		3.00		ug/L			05/06/21 08:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		80 - 120					05/06/21 08:12	1
Dibromofluoromethane (Surr)	98		79 - 120					05/06/21 08:12	1
Toluene-d8 (Surr)	92		79 - 120					05/06/21 08:12	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.217		0.217		ug/L		05/06/21 08:57	05/10/21 17:53	1
Acenaphthylene	<0.217		0.217		ug/L		05/06/21 08:57	05/10/21 17:53	1
Anthracene	<0.217		0.217		ug/L		05/06/21 08:57	05/10/21 17:53	1
Benzo(a)anthracene	<0.217		0.217		ug/L		05/06/21 08:57	05/10/21 17:53	1
Benzo(a)pyrene	<0.217		0.217		ug/L		05/06/21 08:57	05/10/21 17:53	1
Benzo(b)fluoranthene	<0.217		0.217		ug/L		05/06/21 08:57	05/10/21 17:53	1
Benzo(g,h,i)perylene	<0.217		0.217		ug/L		05/06/21 08:57	05/10/21 17:53	1
Benzo(k)fluoranthene	<0.217		0.217		ug/L		05/06/21 08:57	05/10/21 17:53	1
Chrysene	<0.217		0.217		ug/L		05/06/21 08:57	05/10/21 17:53	1
Dibenz(a,h)anthracene	<0.217		0.217		ug/L		05/06/21 08:57	05/10/21 17:53	1
Fluoranthene	<0.217		0.217		ug/L		05/06/21 08:57	05/10/21 17:53	1
Fluorene	<0.217		0.217		ug/L		05/06/21 08:57	05/10/21 17:53	1
Indeno(1,2,3-cd)pyrene	<0.217		0.217		ug/L		05/06/21 08:57	05/10/21 17:53	1
2-Methylnaphthalene	<0.217		0.217		ug/L		05/06/21 08:57	05/10/21 17:53	1
Naphthalene	<0.543		0.543		ug/L		05/06/21 08:57	05/10/21 17:53	1
Phenanthrene	<0.217		0.217		ug/L		05/06/21 08:57	05/10/21 17:53	1
Pyrene	<0.217		0.217		ug/L		05/06/21 08:57	05/10/21 17:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	56		21 - 110				05/06/21 08:57	05/10/21 17:53	1
Nitrobenzene-d5 (Surr)	55		15 - 110				05/06/21 08:57	05/10/21 17:53	1
Terphenyl-d14 (Surr)	66		13 - 110				05/06/21 08:57	05/10/21 17:53	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00342		0.00200		mg/L		05/06/21 09:00	05/08/21 18:41	1
Lead	<0.000500		0.000500		mg/L		05/06/21 09:00	05/08/21 18:41	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW01-GW-0421

Lab Sample ID: 310-205747-3

Date Collected: 04/29/21 16:15

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0	F1	10.0		ug/L			05/06/21 13:11	1
Benzene	390		0.500		ug/L			05/06/21 13:11	1
Bromobenzene	<1.00		1.00		ug/L			05/06/21 13:11	1
Bromochloromethane	<5.00		5.00		ug/L			05/06/21 13:11	1
Bromodichloromethane	<1.00		1.00		ug/L			05/06/21 13:11	1
Bromoform	<5.00		5.00		ug/L			05/06/21 13:11	1
Bromomethane	<4.00		4.00		ug/L			05/06/21 13:11	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/06/21 13:11	1
Carbon disulfide	<1.00		1.00		ug/L			05/06/21 13:11	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/06/21 13:11	1
Chlorobenzene	<1.00		1.00		ug/L			05/06/21 13:11	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/06/21 13:11	1
Chloroethane	<4.00		4.00		ug/L			05/06/21 13:11	1
Chloroform	<3.00		3.00		ug/L			05/06/21 13:11	1
Chloromethane	<3.00		3.00		ug/L			05/06/21 13:11	1
2-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 13:11	1
4-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 13:11	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 13:11	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 13:11	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			05/06/21 13:11	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/06/21 13:11	1
Dibromomethane	<1.00		1.00		ug/L			05/06/21 13:11	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 13:11	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 13:11	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 13:11	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			05/06/21 13:11	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/06/21 13:11	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/06/21 13:11	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/06/21 13:11	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/06/21 13:11	1
1,3-Dichloropropane	<1.00		1.00		ug/L			05/06/21 13:11	1
2,2-Dichloropropane	<4.00		4.00		ug/L			05/06/21 13:11	1
1,1-Dichloropropene	<1.00		1.00		ug/L			05/06/21 13:11	1
Ethylbenzene	407		1.00		ug/L			05/06/21 13:11	1
Hexachlorobutadiene	<5.00		5.00		ug/L			05/06/21 13:11	1
Hexane	<1.00		1.00		ug/L			05/06/21 13:11	1
Isopropylbenzene	4.30		1.00		ug/L			05/06/21 13:11	1
Methylene chloride	<5.00		5.00		ug/L			05/06/21 13:11	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			05/06/21 13:11	1
Naphthalene	241		5.00		ug/L			05/06/21 13:11	1
n-Butylbenzene	<1.00		1.00		ug/L			05/06/21 13:11	1
n-Propylbenzene	6.43		1.00		ug/L			05/06/21 13:11	1
p-Isopropyltoluene	<1.00		1.00		ug/L			05/06/21 13:11	1
sec-Butylbenzene	<1.00		1.00		ug/L			05/06/21 13:11	1
Styrene	<1.00		1.00		ug/L			05/06/21 13:11	1
tert-Butylbenzene	<1.00		1.00		ug/L			05/06/21 13:11	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 13:11	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 13:11	1
Tetrachloroethene	<1.00		1.00		ug/L			05/06/21 13:11	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW01-GW-0421

Lab Sample ID: 310-205747-3

Date Collected: 04/29/21 16:15

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	4.60		1.00		ug/L			05/06/21 13:11	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 13:11	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 13:11	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 13:11	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 13:11	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/06/21 13:11	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/06/21 13:11	1
Trichloroethene	<1.00		1.00		ug/L			05/06/21 13:11	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/06/21 13:11	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/06/21 13:11	1
1,2,4-Trimethylbenzene	85.2		1.00		ug/L			05/06/21 13:11	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 13:11	1
Vinyl chloride	<1.00		1.00		ug/L			05/06/21 13:11	1
Xylenes, Total	49.5		3.00		ug/L			05/06/21 13:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120					05/06/21 13:11	1
Dibromofluoromethane (Surr)	95		79 - 120					05/06/21 13:11	1
Toluene-d8 (Surr)	98		79 - 120					05/06/21 13:11	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	11.9		0.200		ug/L		05/06/21 08:57	05/10/21 18:13	1
Acenaphthylene	2.63	F1	0.200		ug/L		05/06/21 08:57	05/10/21 18:13	1
Anthracene	0.844		0.200		ug/L		05/06/21 08:57	05/10/21 18:13	1
Benzo(a)anthracene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:13	1
Benzo(a)pyrene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:13	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:13	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:13	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:13	1
Chrysene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:13	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:13	1
Fluoranthene	0.579		0.200		ug/L		05/06/21 08:57	05/10/21 18:13	1
Fluorene	9.01		0.200		ug/L		05/06/21 08:57	05/10/21 18:13	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:13	1
2-Methylnaphthalene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:13	1
Naphthalene	13.6	F2	0.500		ug/L		05/06/21 08:57	05/10/21 18:13	1
Phenanthrene	4.32		0.200		ug/L		05/06/21 08:57	05/10/21 18:13	1
Pyrene	0.473		0.200		ug/L		05/06/21 08:57	05/10/21 18:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	60		21 - 110				05/06/21 08:57	05/10/21 18:13	1
Nitrobenzene-d5 (Surr)	59		15 - 110				05/06/21 08:57	05/10/21 18:13	1
Terphenyl-d14 (Surr)	78		13 - 110				05/06/21 08:57	05/10/21 18:13	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0134		0.00200		mg/L		05/06/21 09:00	05/08/21 18:44	1
Lead	<0.000500		0.000500		mg/L		05/06/21 09:00	05/08/21 18:44	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: EB01-GW-0421

Lab Sample ID: 310-205747-4

Date Collected: 04/29/21 17:00

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			05/06/21 08:35	1
Benzene	<0.500		0.500		ug/L			05/06/21 08:35	1
Bromobenzene	<1.00		1.00		ug/L			05/06/21 08:35	1
Bromochloromethane	<5.00		5.00		ug/L			05/06/21 08:35	1
Bromodichloromethane	<1.00		1.00		ug/L			05/06/21 08:35	1
Bromoform	<5.00		5.00		ug/L			05/06/21 08:35	1
Bromomethane	<4.00		4.00		ug/L			05/06/21 08:35	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/06/21 08:35	1
Carbon disulfide	<1.00		1.00		ug/L			05/06/21 08:35	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/06/21 08:35	1
Chlorobenzene	<1.00		1.00		ug/L			05/06/21 08:35	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/06/21 08:35	1
Chloroethane	<4.00		4.00		ug/L			05/06/21 08:35	1
Chloroform	<3.00		3.00		ug/L			05/06/21 08:35	1
Chloromethane	<3.00		3.00		ug/L			05/06/21 08:35	1
2-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 08:35	1
4-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 08:35	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 08:35	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 08:35	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			05/06/21 08:35	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/06/21 08:35	1
Dibromomethane	<1.00		1.00		ug/L			05/06/21 08:35	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 08:35	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 08:35	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 08:35	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			05/06/21 08:35	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/06/21 08:35	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/06/21 08:35	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/06/21 08:35	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/06/21 08:35	1
1,3-Dichloropropane	<1.00		1.00		ug/L			05/06/21 08:35	1
2,2-Dichloropropane	<4.00		4.00		ug/L			05/06/21 08:35	1
1,1-Dichloropropene	<1.00		1.00		ug/L			05/06/21 08:35	1
Ethylbenzene	<1.00		1.00		ug/L			05/06/21 08:35	1
Hexachlorobutadiene	<5.00		5.00		ug/L			05/06/21 08:35	1
Hexane	<1.00		1.00		ug/L			05/06/21 08:35	1
Isopropylbenzene	<1.00		1.00		ug/L			05/06/21 08:35	1
Methylene chloride	<5.00		5.00		ug/L			05/06/21 08:35	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			05/06/21 08:35	1
Naphthalene	<5.00		5.00		ug/L			05/06/21 08:35	1
n-Butylbenzene	<1.00		1.00		ug/L			05/06/21 08:35	1
n-Propylbenzene	<1.00		1.00		ug/L			05/06/21 08:35	1
p-Isopropyltoluene	<1.00		1.00		ug/L			05/06/21 08:35	1
sec-Butylbenzene	<1.00		1.00		ug/L			05/06/21 08:35	1
Styrene	<1.00		1.00		ug/L			05/06/21 08:35	1
tert-Butylbenzene	<1.00		1.00		ug/L			05/06/21 08:35	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 08:35	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 08:35	1
Tetrachloroethene	<1.00		1.00		ug/L			05/06/21 08:35	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: EB01-GW-0421

Lab Sample ID: 310-205747-4

Date Collected: 04/29/21 17:00

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			05/06/21 08:35	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 08:35	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 08:35	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 08:35	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 08:35	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/06/21 08:35	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/06/21 08:35	1
Trichloroethene	<1.00		1.00		ug/L			05/06/21 08:35	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/06/21 08:35	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/06/21 08:35	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 08:35	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 08:35	1
Vinyl chloride	<1.00		1.00		ug/L			05/06/21 08:35	1
Xylenes, Total	<3.00		3.00		ug/L			05/06/21 08:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		80 - 120					05/06/21 08:35	1
Dibromofluoromethane (Surr)	88		79 - 120					05/06/21 08:35	1
Toluene-d8 (Surr)	84		79 - 120					05/06/21 08:35	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.238		0.238		ug/L		05/06/21 08:57	05/10/21 18:34	1
Acenaphthylene	<0.238		0.238		ug/L		05/06/21 08:57	05/10/21 18:34	1
Anthracene	<0.238		0.238		ug/L		05/06/21 08:57	05/10/21 18:34	1
Benzo(a)anthracene	<0.238		0.238		ug/L		05/06/21 08:57	05/10/21 18:34	1
Benzo(a)pyrene	<0.238		0.238		ug/L		05/06/21 08:57	05/10/21 18:34	1
Benzo(b)fluoranthene	<0.238		0.238		ug/L		05/06/21 08:57	05/10/21 18:34	1
Benzo(g,h,i)perylene	<0.238		0.238		ug/L		05/06/21 08:57	05/10/21 18:34	1
Benzo(k)fluoranthene	<0.238		0.238		ug/L		05/06/21 08:57	05/10/21 18:34	1
Chrysene	<0.238		0.238		ug/L		05/06/21 08:57	05/10/21 18:34	1
Dibenz(a,h)anthracene	<0.238		0.238		ug/L		05/06/21 08:57	05/10/21 18:34	1
Fluoranthene	<0.238		0.238		ug/L		05/06/21 08:57	05/10/21 18:34	1
Fluorene	<0.238		0.238		ug/L		05/06/21 08:57	05/10/21 18:34	1
Indeno(1,2,3-cd)pyrene	<0.238		0.238		ug/L		05/06/21 08:57	05/10/21 18:34	1
2-Methylnaphthalene	<0.238		0.238		ug/L		05/06/21 08:57	05/10/21 18:34	1
Naphthalene	<0.595		0.595		ug/L		05/06/21 08:57	05/10/21 18:34	1
Phenanthrene	<0.238		0.238		ug/L		05/06/21 08:57	05/10/21 18:34	1
Pyrene	<0.238		0.238		ug/L		05/06/21 08:57	05/10/21 18:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		21 - 110				05/06/21 08:57	05/10/21 18:34	1
Nitrobenzene-d5 (Surr)	51		15 - 110				05/06/21 08:57	05/10/21 18:34	1
Terphenyl-d14 (Surr)	78		13 - 110				05/06/21 08:57	05/10/21 18:34	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		05/06/21 09:00	05/08/21 18:54	1
Lead	0.00107		0.000500		mg/L		05/06/21 09:00	05/08/21 18:54	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW8R-GW-0421

Lab Sample ID: 310-205747-5

Date Collected: 04/30/21 10:55

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			05/06/21 12:02	1
Benzene	<0.500		0.500		ug/L			05/06/21 12:02	1
Bromobenzene	<1.00		1.00		ug/L			05/06/21 12:02	1
Bromochloromethane	<5.00		5.00		ug/L			05/06/21 12:02	1
Bromodichloromethane	<1.00		1.00		ug/L			05/06/21 12:02	1
Bromoform	<5.00		5.00		ug/L			05/06/21 12:02	1
Bromomethane	<4.00		4.00		ug/L			05/06/21 12:02	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/06/21 12:02	1
Carbon disulfide	<1.00		1.00		ug/L			05/06/21 12:02	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/06/21 12:02	1
Chlorobenzene	<1.00		1.00		ug/L			05/06/21 12:02	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/06/21 12:02	1
Chloroethane	<4.00		4.00		ug/L			05/06/21 12:02	1
Chloroform	<3.00		3.00		ug/L			05/06/21 12:02	1
Chloromethane	<3.00		3.00		ug/L			05/06/21 12:02	1
2-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 12:02	1
4-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 12:02	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 12:02	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 12:02	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			05/06/21 12:02	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/06/21 12:02	1
Dibromomethane	<1.00		1.00		ug/L			05/06/21 12:02	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 12:02	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 12:02	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 12:02	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			05/06/21 12:02	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/06/21 12:02	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/06/21 12:02	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/06/21 12:02	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/06/21 12:02	1
1,3-Dichloropropane	<1.00		1.00		ug/L			05/06/21 12:02	1
2,2-Dichloropropane	<4.00		4.00		ug/L			05/06/21 12:02	1
1,1-Dichloropropene	<1.00		1.00		ug/L			05/06/21 12:02	1
Ethylbenzene	<1.00		1.00		ug/L			05/06/21 12:02	1
Hexachlorobutadiene	<5.00		5.00		ug/L			05/06/21 12:02	1
Hexane	<1.00		1.00		ug/L			05/06/21 12:02	1
Isopropylbenzene	<1.00		1.00		ug/L			05/06/21 12:02	1
Methylene chloride	<5.00		5.00		ug/L			05/06/21 12:02	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			05/06/21 12:02	1
Naphthalene	<5.00		5.00		ug/L			05/06/21 12:02	1
n-Butylbenzene	<1.00		1.00		ug/L			05/06/21 12:02	1
n-Propylbenzene	<1.00		1.00		ug/L			05/06/21 12:02	1
p-Isopropyltoluene	<1.00		1.00		ug/L			05/06/21 12:02	1
sec-Butylbenzene	<1.00		1.00		ug/L			05/06/21 12:02	1
Styrene	<1.00		1.00		ug/L			05/06/21 12:02	1
tert-Butylbenzene	<1.00		1.00		ug/L			05/06/21 12:02	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 12:02	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 12:02	1
Tetrachloroethene	<1.00		1.00		ug/L			05/06/21 12:02	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW8R-GW-0421

Lab Sample ID: 310-205747-5

Date Collected: 04/30/21 10:55

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			05/06/21 12:02	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 12:02	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 12:02	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 12:02	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 12:02	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/06/21 12:02	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/06/21 12:02	1
Trichloroethene	<1.00		1.00		ug/L			05/06/21 12:02	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/06/21 12:02	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/06/21 12:02	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 12:02	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 12:02	1
Vinyl chloride	<1.00		1.00		ug/L			05/06/21 12:02	1
Xylenes, Total	<3.00		3.00		ug/L			05/06/21 12:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120					05/06/21 12:02	1
Dibromofluoromethane (Surr)	102		79 - 120					05/06/21 12:02	1
Toluene-d8 (Surr)	97		79 - 120					05/06/21 12:02	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:55	1
Acenaphthylene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:55	1
Anthracene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:55	1
Benzo(a)anthracene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:55	1
Benzo(a)pyrene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:55	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:55	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:55	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:55	1
Chrysene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:55	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:55	1
Fluoranthene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:55	1
Fluorene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:55	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:55	1
2-Methylnaphthalene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:55	1
Naphthalene	<0.500		0.500		ug/L		05/06/21 08:57	05/10/21 18:55	1
Phenanthrene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:55	1
Pyrene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 18:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	66		21 - 110				05/06/21 08:57	05/10/21 18:55	1
Nitrobenzene-d5 (Surr)	73		15 - 110				05/06/21 08:57	05/10/21 18:55	1
Terphenyl-d14 (Surr)	71		13 - 110				05/06/21 08:57	05/10/21 18:55	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0133		0.00200		mg/L		05/06/21 09:00	05/08/21 19:10	1
Lead	0.000614		0.000500		mg/L		05/06/21 09:00	05/08/21 19:10	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW04-GW-0421

Lab Sample ID: 310-205747-6

Date Collected: 04/30/21 11:55

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			05/06/21 08:58	1
Benzene	<0.500		0.500		ug/L			05/06/21 08:58	1
Bromobenzene	<1.00		1.00		ug/L			05/06/21 08:58	1
Bromochloromethane	<5.00		5.00		ug/L			05/06/21 08:58	1
Bromodichloromethane	<1.00		1.00		ug/L			05/06/21 08:58	1
Bromoform	<5.00		5.00		ug/L			05/06/21 08:58	1
Bromomethane	<4.00		4.00		ug/L			05/06/21 08:58	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/06/21 08:58	1
Carbon disulfide	<1.00		1.00		ug/L			05/06/21 08:58	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/06/21 08:58	1
Chlorobenzene	<1.00		1.00		ug/L			05/06/21 08:58	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/06/21 08:58	1
Chloroethane	<4.00		4.00		ug/L			05/06/21 08:58	1
Chloroform	<3.00		3.00		ug/L			05/06/21 08:58	1
Chloromethane	<3.00		3.00		ug/L			05/06/21 08:58	1
2-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 08:58	1
4-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 08:58	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 08:58	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 08:58	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			05/06/21 08:58	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/06/21 08:58	1
Dibromomethane	<1.00		1.00		ug/L			05/06/21 08:58	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 08:58	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 08:58	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 08:58	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			05/06/21 08:58	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/06/21 08:58	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/06/21 08:58	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/06/21 08:58	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/06/21 08:58	1
1,3-Dichloropropane	<1.00		1.00		ug/L			05/06/21 08:58	1
2,2-Dichloropropane	<4.00		4.00		ug/L			05/06/21 08:58	1
1,1-Dichloropropene	<1.00		1.00		ug/L			05/06/21 08:58	1
Ethylbenzene	<1.00		1.00		ug/L			05/06/21 08:58	1
Hexachlorobutadiene	<5.00		5.00		ug/L			05/06/21 08:58	1
Hexane	<1.00		1.00		ug/L			05/06/21 08:58	1
Isopropylbenzene	<1.00		1.00		ug/L			05/06/21 08:58	1
Methylene chloride	<5.00		5.00		ug/L			05/06/21 08:58	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			05/06/21 08:58	1
Naphthalene	<5.00		5.00		ug/L			05/06/21 08:58	1
n-Butylbenzene	<1.00		1.00		ug/L			05/06/21 08:58	1
n-Propylbenzene	<1.00		1.00		ug/L			05/06/21 08:58	1
p-Isopropyltoluene	<1.00		1.00		ug/L			05/06/21 08:58	1
sec-Butylbenzene	<1.00		1.00		ug/L			05/06/21 08:58	1
Styrene	<1.00		1.00		ug/L			05/06/21 08:58	1
tert-Butylbenzene	<1.00		1.00		ug/L			05/06/21 08:58	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 08:58	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 08:58	1
Tetrachloroethene	<1.00		1.00		ug/L			05/06/21 08:58	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW04-GW-0421

Lab Sample ID: 310-205747-6

Date Collected: 04/30/21 11:55

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			05/06/21 08:58	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 08:58	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 08:58	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 08:58	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 08:58	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/06/21 08:58	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/06/21 08:58	1
Trichloroethene	<1.00		1.00		ug/L			05/06/21 08:58	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/06/21 08:58	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/06/21 08:58	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 08:58	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 08:58	1
Vinyl chloride	<1.00		1.00		ug/L			05/06/21 08:58	1
Xylenes, Total	<3.00		3.00		ug/L			05/06/21 08:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120					05/06/21 08:58	1
Dibromofluoromethane (Surr)	104		79 - 120					05/06/21 08:58	1
Toluene-d8 (Surr)	96		79 - 120					05/06/21 08:58	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 19:16	1
Acenaphthylene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 19:16	1
Anthracene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 19:16	1
Benzo(a)anthracene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 19:16	1
Benzo(a)pyrene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 19:16	1
Benzo(b)fluoranthene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 19:16	1
Benzo(g,h,i)perylene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 19:16	1
Benzo(k)fluoranthene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 19:16	1
Chrysene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 19:16	1
Dibenz(a,h)anthracene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 19:16	1
Fluoranthene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 19:16	1
Fluorene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 19:16	1
Indeno(1,2,3-cd)pyrene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 19:16	1
2-Methylnaphthalene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 19:16	1
Naphthalene	<0.521		0.521		ug/L		05/06/21 08:57	05/10/21 19:16	1
Phenanthrene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 19:16	1
Pyrene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 19:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	61		21 - 110				05/06/21 08:57	05/10/21 19:16	1
Nitrobenzene-d5 (Surr)	57		15 - 110				05/06/21 08:57	05/10/21 19:16	1
Terphenyl-d14 (Surr)	65		13 - 110				05/06/21 08:57	05/10/21 19:16	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00409		0.00200		mg/L		05/06/21 09:00	05/08/21 19:12	1
Lead	<0.000500		0.000500		mg/L		05/06/21 09:00	05/08/21 19:12	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW06-GW-0421

Lab Sample ID: 310-205747-7

Date Collected: 04/30/21 12:55

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			05/06/21 12:48	1
Benzene	41.7		0.500		ug/L			05/06/21 12:48	1
Bromobenzene	<1.00		1.00		ug/L			05/06/21 12:48	1
Bromochloromethane	<5.00		5.00		ug/L			05/06/21 12:48	1
Bromodichloromethane	<1.00		1.00		ug/L			05/06/21 12:48	1
Bromoform	<5.00		5.00		ug/L			05/06/21 12:48	1
Bromomethane	<4.00		4.00		ug/L			05/06/21 12:48	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/06/21 12:48	1
Carbon disulfide	<1.00		1.00		ug/L			05/06/21 12:48	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/06/21 12:48	1
Chlorobenzene	<1.00		1.00		ug/L			05/06/21 12:48	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/06/21 12:48	1
Chloroethane	<4.00		4.00		ug/L			05/06/21 12:48	1
Chloroform	<3.00		3.00		ug/L			05/06/21 12:48	1
Chloromethane	<3.00		3.00		ug/L			05/06/21 12:48	1
2-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 12:48	1
4-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 12:48	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 12:48	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 12:48	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			05/06/21 12:48	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/06/21 12:48	1
Dibromomethane	<1.00		1.00		ug/L			05/06/21 12:48	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 12:48	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 12:48	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 12:48	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			05/06/21 12:48	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/06/21 12:48	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/06/21 12:48	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/06/21 12:48	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/06/21 12:48	1
1,3-Dichloropropane	<1.00		1.00		ug/L			05/06/21 12:48	1
2,2-Dichloropropane	<4.00		4.00		ug/L			05/06/21 12:48	1
1,1-Dichloropropene	<1.00		1.00		ug/L			05/06/21 12:48	1
Ethylbenzene	6.05		1.00		ug/L			05/06/21 12:48	1
Hexachlorobutadiene	<5.00		5.00		ug/L			05/06/21 12:48	1
Hexane	<1.00		1.00		ug/L			05/06/21 12:48	1
Isopropylbenzene	<1.00		1.00		ug/L			05/06/21 12:48	1
Methylene chloride	<5.00		5.00		ug/L			05/06/21 12:48	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			05/06/21 12:48	1
Naphthalene	51.1		5.00		ug/L			05/11/21 10:15	1
n-Butylbenzene	<1.00		1.00		ug/L			05/06/21 12:48	1
n-Propylbenzene	<1.00		1.00		ug/L			05/06/21 12:48	1
p-Isopropyltoluene	<1.00		1.00		ug/L			05/06/21 12:48	1
sec-Butylbenzene	<1.00		1.00		ug/L			05/06/21 12:48	1
Styrene	<1.00		1.00		ug/L			05/06/21 12:48	1
tert-Butylbenzene	<1.00		1.00		ug/L			05/06/21 12:48	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 12:48	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 12:48	1
Tetrachloroethene	<1.00		1.00		ug/L			05/06/21 12:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW06-GW-0421

Lab Sample ID: 310-205747-7

Date Collected: 04/30/21 12:55

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	4.32		1.00		ug/L			05/06/21 12:48	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 12:48	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 12:48	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 12:48	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 12:48	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/06/21 12:48	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/06/21 12:48	1
Trichloroethene	<1.00		1.00		ug/L			05/06/21 12:48	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/06/21 12:48	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/06/21 12:48	1
1,2,4-Trimethylbenzene	17.4		1.00		ug/L			05/06/21 12:48	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 12:48	1
Vinyl chloride	<1.00		1.00		ug/L			05/06/21 12:48	1
Xylenes, Total	44.7		3.00		ug/L			05/06/21 12:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120		05/06/21 12:48	1
4-Bromofluorobenzene (Surr)	100		80 - 120		05/11/21 10:15	1
Dibromofluoromethane (Surr)	97		79 - 120		05/06/21 12:48	1
Dibromofluoromethane (Surr)	100		79 - 120		05/11/21 10:15	1
Toluene-d8 (Surr)	95		79 - 120		05/06/21 12:48	1
Toluene-d8 (Surr)	96		79 - 120		05/11/21 10:15	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	1.53		0.200		ug/L		05/06/21 08:57	05/10/21 19:36	1
Acenaphthylene	3.77		0.200		ug/L		05/06/21 08:57	05/10/21 19:36	1
Anthracene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:36	1
Benzo(a)anthracene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:36	1
Benzo(a)pyrene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:36	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:36	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:36	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:36	1
Chrysene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:36	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:36	1
Fluoranthene	0.654		0.200		ug/L		05/06/21 08:57	05/10/21 19:36	1
Fluorene	0.744		0.200		ug/L		05/06/21 08:57	05/10/21 19:36	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:36	1
2-Methylnaphthalene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:36	1
Naphthalene	0.733		0.500		ug/L		05/06/21 08:57	05/10/21 19:36	1
Phenanthrene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:36	1
Pyrene	0.914		0.200		ug/L		05/06/21 08:57	05/10/21 19:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	76		21 - 110	05/06/21 08:57	05/10/21 19:36	1
Nitrobenzene-d5 (Surr)	65		15 - 110	05/06/21 08:57	05/10/21 19:36	1
Terphenyl-d14 (Surr)	74		13 - 110	05/06/21 08:57	05/10/21 19:36	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW06-GW-0421

Lab Sample ID: 310-205747-7

Date Collected: 04/30/21 12:55

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0422		0.00200		mg/L		05/06/21 09:00	05/08/21 19:15	1
Lead	0.000534		0.000500		mg/L		05/06/21 09:00	05/08/21 19:15	1

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW02-GW-0421

Lab Sample ID: 310-205747-8

Date Collected: 04/30/21 13:25

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			05/06/21 12:25	1
Benzene	279		0.500		ug/L			05/06/21 12:25	1
Bromobenzene	<1.00		1.00		ug/L			05/06/21 12:25	1
Bromochloromethane	<5.00		5.00		ug/L			05/06/21 12:25	1
Bromodichloromethane	<1.00		1.00		ug/L			05/06/21 12:25	1
Bromoform	<5.00		5.00		ug/L			05/06/21 12:25	1
Bromomethane	<4.00		4.00		ug/L			05/06/21 12:25	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/06/21 12:25	1
Carbon disulfide	<1.00		1.00		ug/L			05/06/21 12:25	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/06/21 12:25	1
Chlorobenzene	<1.00		1.00		ug/L			05/06/21 12:25	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/06/21 12:25	1
Chloroethane	<4.00		4.00		ug/L			05/06/21 12:25	1
Chloroform	<3.00		3.00		ug/L			05/06/21 12:25	1
Chloromethane	<3.00		3.00		ug/L			05/06/21 12:25	1
2-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 12:25	1
4-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 12:25	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 12:25	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 12:25	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			05/06/21 12:25	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/06/21 12:25	1
Dibromomethane	<1.00		1.00		ug/L			05/06/21 12:25	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 12:25	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 12:25	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 12:25	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			05/06/21 12:25	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/06/21 12:25	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/06/21 12:25	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/06/21 12:25	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/06/21 12:25	1
1,3-Dichloropropane	<1.00		1.00		ug/L			05/06/21 12:25	1
2,2-Dichloropropane	<4.00		4.00		ug/L			05/06/21 12:25	1
1,1-Dichloropropene	<1.00		1.00		ug/L			05/06/21 12:25	1
Ethylbenzene	89.5		1.00		ug/L			05/06/21 12:25	1
Hexachlorobutadiene	<5.00		5.00		ug/L			05/06/21 12:25	1
Hexane	<1.00		1.00		ug/L			05/06/21 12:25	1
Isopropylbenzene	2.78		1.00		ug/L			05/06/21 12:25	1
Methylene chloride	<5.00		5.00		ug/L			05/06/21 12:25	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			05/06/21 12:25	1
Naphthalene	179		5.00		ug/L			05/06/21 12:25	1
n-Butylbenzene	1.14		1.00		ug/L			05/06/21 12:25	1
n-Propylbenzene	2.31		1.00		ug/L			05/06/21 12:25	1
p-Isopropyltoluene	<1.00		1.00		ug/L			05/06/21 12:25	1
sec-Butylbenzene	<1.00		1.00		ug/L			05/06/21 12:25	1
Styrene	<1.00		1.00		ug/L			05/06/21 12:25	1
tert-Butylbenzene	<1.00		1.00		ug/L			05/06/21 12:25	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 12:25	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 12:25	1
Tetrachloroethene	<1.00		1.00		ug/L			05/06/21 12:25	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW02-GW-0421

Lab Sample ID: 310-205747-8

Date Collected: 04/30/21 13:25

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	6.48		1.00		ug/L			05/06/21 12:25	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 12:25	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 12:25	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 12:25	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 12:25	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/06/21 12:25	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/06/21 12:25	1
Trichloroethene	<1.00		1.00		ug/L			05/06/21 12:25	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/06/21 12:25	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/06/21 12:25	1
1,2,4-Trimethylbenzene	45.9		1.00		ug/L			05/06/21 12:25	1
1,3,5-Trimethylbenzene	4.32		1.00		ug/L			05/06/21 12:25	1
Vinyl chloride	<1.00		1.00		ug/L			05/06/21 12:25	1
Xylenes, Total	58.1		3.00		ug/L			05/06/21 12:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120		05/06/21 12:25	1
Dibromofluoromethane (Surr)	99		79 - 120		05/06/21 12:25	1
Toluene-d8 (Surr)	97		79 - 120		05/06/21 12:25	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	22.5		0.200		ug/L		05/06/21 08:57	05/10/21 19:57	1
Acenaphthylene	24.8		0.200		ug/L		05/06/21 08:57	05/10/21 19:57	1
Anthracene	1.57		0.200		ug/L		05/06/21 08:57	05/10/21 19:57	1
Benzo(a)anthracene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:57	1
Benzo(a)pyrene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:57	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:57	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:57	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:57	1
Chrysene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:57	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:57	1
Fluoranthene	0.896		0.200		ug/L		05/06/21 08:57	05/10/21 19:57	1
Fluorene	16.8		0.200		ug/L		05/06/21 08:57	05/10/21 19:57	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 19:57	1
2-Methylnaphthalene	1.74		0.200		ug/L		05/06/21 08:57	05/10/21 19:57	1
Naphthalene	39.4		0.500		ug/L		05/06/21 08:57	05/10/21 19:57	1
Phenanthrene	8.82		0.200		ug/L		05/06/21 08:57	05/10/21 19:57	1
Pyrene	0.831		0.200		ug/L		05/06/21 08:57	05/10/21 19:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		21 - 110	05/06/21 08:57	05/10/21 19:57	1
Nitrobenzene-d5 (Surr)	81		15 - 110	05/06/21 08:57	05/10/21 19:57	1
Terphenyl-d14 (Surr)	78		13 - 110	05/06/21 08:57	05/10/21 19:57	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0147		0.00200		mg/L		05/06/21 09:00	05/08/21 19:18	1
Lead	<0.000500		0.000500		mg/L		05/06/21 09:00	05/08/21 19:18	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: DP01-GW-0421

Lab Sample ID: 310-205747-9

Date Collected: 04/30/21 00:00

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			05/06/21 09:21	1
Benzene	<0.500		0.500		ug/L			05/06/21 09:21	1
Bromobenzene	<1.00		1.00		ug/L			05/06/21 09:21	1
Bromochloromethane	<5.00		5.00		ug/L			05/06/21 09:21	1
Bromodichloromethane	<1.00		1.00		ug/L			05/06/21 09:21	1
Bromoform	<5.00		5.00		ug/L			05/06/21 09:21	1
Bromomethane	<4.00		4.00		ug/L			05/06/21 09:21	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/06/21 09:21	1
Carbon disulfide	<1.00		1.00		ug/L			05/06/21 09:21	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/06/21 09:21	1
Chlorobenzene	<1.00		1.00		ug/L			05/06/21 09:21	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/06/21 09:21	1
Chloroethane	<4.00		4.00		ug/L			05/06/21 09:21	1
Chloroform	<3.00		3.00		ug/L			05/06/21 09:21	1
Chloromethane	<3.00		3.00		ug/L			05/06/21 09:21	1
2-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 09:21	1
4-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 09:21	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 09:21	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 09:21	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			05/06/21 09:21	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/06/21 09:21	1
Dibromomethane	<1.00		1.00		ug/L			05/06/21 09:21	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 09:21	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 09:21	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 09:21	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			05/06/21 09:21	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/06/21 09:21	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/06/21 09:21	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/06/21 09:21	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/06/21 09:21	1
1,3-Dichloropropane	<1.00		1.00		ug/L			05/06/21 09:21	1
2,2-Dichloropropane	<4.00		4.00		ug/L			05/06/21 09:21	1
1,1-Dichloropropene	<1.00		1.00		ug/L			05/06/21 09:21	1
Ethylbenzene	<1.00		1.00		ug/L			05/06/21 09:21	1
Hexachlorobutadiene	<5.00		5.00		ug/L			05/06/21 09:21	1
Hexane	<1.00		1.00		ug/L			05/06/21 09:21	1
Isopropylbenzene	<1.00		1.00		ug/L			05/06/21 09:21	1
Methylene chloride	<5.00		5.00		ug/L			05/06/21 09:21	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			05/06/21 09:21	1
Naphthalene	<5.00		5.00		ug/L			05/06/21 09:21	1
n-Butylbenzene	<1.00		1.00		ug/L			05/06/21 09:21	1
n-Propylbenzene	<1.00		1.00		ug/L			05/06/21 09:21	1
p-Isopropyltoluene	<1.00		1.00		ug/L			05/06/21 09:21	1
sec-Butylbenzene	<1.00		1.00		ug/L			05/06/21 09:21	1
Styrene	<1.00		1.00		ug/L			05/06/21 09:21	1
tert-Butylbenzene	<1.00		1.00		ug/L			05/06/21 09:21	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 09:21	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 09:21	1
Tetrachloroethene	<1.00		1.00		ug/L			05/06/21 09:21	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: DP01-GW-0421

Lab Sample ID: 310-205747-9

Date Collected: 04/30/21 00:00

Matrix: Ground Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			05/06/21 09:21	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 09:21	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 09:21	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 09:21	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 09:21	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/06/21 09:21	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/06/21 09:21	1
Trichloroethene	<1.00		1.00		ug/L			05/06/21 09:21	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/06/21 09:21	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/06/21 09:21	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 09:21	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 09:21	1
Vinyl chloride	<1.00		1.00		ug/L			05/06/21 09:21	1
Xylenes, Total	<3.00		3.00		ug/L			05/06/21 09:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120		05/06/21 09:21	1
Dibromofluoromethane (Surr)	101		79 - 120		05/06/21 09:21	1
Toluene-d8 (Surr)	96		79 - 120		05/06/21 09:21	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 20:18	1
Acenaphthylene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 20:18	1
Anthracene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 20:18	1
Benzo(a)anthracene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 20:18	1
Benzo(a)pyrene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 20:18	1
Benzo(b)fluoranthene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 20:18	1
Benzo(g,h,i)perylene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 20:18	1
Benzo(k)fluoranthene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 20:18	1
Chrysene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 20:18	1
Dibenz(a,h)anthracene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 20:18	1
Fluoranthene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 20:18	1
Fluorene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 20:18	1
Indeno(1,2,3-cd)pyrene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 20:18	1
2-Methylnaphthalene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 20:18	1
Naphthalene	<0.521		0.521		ug/L		05/06/21 08:57	05/10/21 20:18	1
Phenanthrene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 20:18	1
Pyrene	<0.208		0.208		ug/L		05/06/21 08:57	05/10/21 20:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	92		21 - 110	05/06/21 08:57	05/10/21 20:18	1
Nitrobenzene-d5 (Surr)	85		15 - 110	05/06/21 08:57	05/10/21 20:18	1
Terphenyl-d14 (Surr)	95		13 - 110	05/06/21 08:57	05/10/21 20:18	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00448		0.00200		mg/L		05/06/21 09:00	05/08/21 19:20	1
Lead	<0.000500		0.000500		mg/L		05/06/21 09:00	05/08/21 19:20	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: Trip Blank

Lab Sample ID: 310-205747-10

Date Collected: 04/30/21 00:00

Matrix: Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			05/06/21 07:26	1
Benzene	<0.500		0.500		ug/L			05/06/21 07:26	1
Bromobenzene	<1.00		1.00		ug/L			05/06/21 07:26	1
Bromochloromethane	<5.00		5.00		ug/L			05/06/21 07:26	1
Bromodichloromethane	<1.00		1.00		ug/L			05/06/21 07:26	1
Bromoform	<5.00		5.00		ug/L			05/06/21 07:26	1
Bromomethane	<4.00		4.00		ug/L			05/06/21 07:26	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/06/21 07:26	1
Carbon disulfide	<1.00		1.00		ug/L			05/06/21 07:26	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/06/21 07:26	1
Chlorobenzene	<1.00		1.00		ug/L			05/06/21 07:26	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/06/21 07:26	1
Chloroethane	<4.00		4.00		ug/L			05/06/21 07:26	1
Chloroform	<3.00		3.00		ug/L			05/06/21 07:26	1
Chloromethane	<3.00		3.00		ug/L			05/06/21 07:26	1
2-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 07:26	1
4-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 07:26	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 07:26	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 07:26	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			05/06/21 07:26	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/06/21 07:26	1
Dibromomethane	<1.00		1.00		ug/L			05/06/21 07:26	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 07:26	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 07:26	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 07:26	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			05/06/21 07:26	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/06/21 07:26	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/06/21 07:26	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/06/21 07:26	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/06/21 07:26	1
1,3-Dichloropropane	<1.00		1.00		ug/L			05/06/21 07:26	1
2,2-Dichloropropane	<4.00		4.00		ug/L			05/06/21 07:26	1
1,1-Dichloropropene	<1.00		1.00		ug/L			05/06/21 07:26	1
Ethylbenzene	<1.00		1.00		ug/L			05/06/21 07:26	1
Hexachlorobutadiene	<5.00		5.00		ug/L			05/06/21 07:26	1
Hexane	<1.00		1.00		ug/L			05/06/21 07:26	1
Isopropylbenzene	<1.00		1.00		ug/L			05/06/21 07:26	1
Methylene chloride	<5.00		5.00		ug/L			05/06/21 07:26	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			05/06/21 07:26	1
Naphthalene	<5.00		5.00		ug/L			05/06/21 07:26	1
n-Butylbenzene	<1.00		1.00		ug/L			05/06/21 07:26	1
n-Propylbenzene	<1.00		1.00		ug/L			05/06/21 07:26	1
p-Isopropyltoluene	<1.00		1.00		ug/L			05/06/21 07:26	1
sec-Butylbenzene	<1.00		1.00		ug/L			05/06/21 07:26	1
Styrene	<1.00		1.00		ug/L			05/06/21 07:26	1
tert-Butylbenzene	<1.00		1.00		ug/L			05/06/21 07:26	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 07:26	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 07:26	1
Tetrachloroethene	<1.00		1.00		ug/L			05/06/21 07:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: Trip Blank

Lab Sample ID: 310-205747-10

Date Collected: 04/30/21 00:00

Matrix: Water

Date Received: 05/04/21 17:20

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			05/06/21 07:26	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 07:26	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 07:26	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 07:26	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 07:26	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/06/21 07:26	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/06/21 07:26	1
Trichloroethene	<1.00		1.00		ug/L			05/06/21 07:26	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/06/21 07:26	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/06/21 07:26	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 07:26	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 07:26	1
Vinyl chloride	<1.00		1.00		ug/L			05/06/21 07:26	1
Xylenes, Total	<3.00		3.00		ug/L			05/06/21 07:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		80 - 120					05/06/21 07:26	1
Dibromofluoromethane (Surr)	102		79 - 120					05/06/21 07:26	1
Toluene-d8 (Surr)	96		79 - 120					05/06/21 07:26	1

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Ground Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	TOL
		(80-120)	(79-120)	(79-120)
310-205747-1	MW09-GW-0421	104	97	89
310-205747-2	MW05-GW-0421	106	98	92
310-205747-3	MW01-GW-0421	100	95	98
310-205747-3 MS	MW01-GW-0421	101	91	96
310-205747-3 MSD	MW01-GW-0421	101	100	99
310-205747-4	EB01-GW-0421	108	88	84
310-205747-5	MW8R-GW-0421	101	102	97
310-205747-6	MW04-GW-0421	101	104	96
310-205747-7	MW06-GW-0421	99	97	95
310-205747-7	MW06-GW-0421	100	100	96
310-205747-8	MW02-GW-0421	100	99	97
310-205747-9	DP01-GW-0421	100	101	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	TOL
		(80-120)	(79-120)	(79-120)
310-205747-10	Trip Blank	97	102	96
LCS 310-314909/5	Lab Control Sample	100	99	91
LCS 310-314909/6	Lab Control Sample	103	103	96
LCS 310-315398/5	Lab Control Sample	101	95	101
MB 310-314909/8	Method Blank	102	84	99
MB 310-315398/8	Method Blank	102	104	99

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Ground Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP	NBZ	TPHL
		(21-110)	(15-110)	(13-110)
310-205747-1	MW09-GW-0421	66	63	71
310-205747-2	MW05-GW-0421	56	55	66
310-205747-3	MW01-GW-0421	60	59	78
310-205747-3 MS	MW01-GW-0421	72	71	74
310-205747-3 MSD	MW01-GW-0421	51	53	57
310-205747-4	EB01-GW-0421	54	51	78
310-205747-5	MW8R-GW-0421	66	73	71
310-205747-6	MW04-GW-0421	61	57	65
310-205747-7	MW06-GW-0421	76	65	74

Surrogate Summary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Matrix: Ground Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (21-110)	NBZ (15-110)	TPHL (13-110)
310-205747-8	MW02-GW-0421	74	81	78
310-205747-9	DP01-GW-0421	92	85	95

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (21-110)	NBZ (15-110)	TPHL (13-110)
LCS 310-315087/2-A	Lab Control Sample	72	68	91
MB 310-315087/1-A	Method Blank	60	57	83

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-314909/8
Matrix: Water
Analysis Batch: 314909

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<10.0		10.0		ug/L			05/06/21 06:40	1
Benzene	<0.500		0.500		ug/L			05/06/21 06:40	1
Bromobenzene	<1.00		1.00		ug/L			05/06/21 06:40	1
Bromochloromethane	<5.00		5.00		ug/L			05/06/21 06:40	1
Bromodichloromethane	<1.00		1.00		ug/L			05/06/21 06:40	1
Bromoform	<5.00		5.00		ug/L			05/06/21 06:40	1
Bromomethane	<4.00		4.00		ug/L			05/06/21 06:40	1
2-Butanone (MEK)	<10.0		10.0		ug/L			05/06/21 06:40	1
Carbon disulfide	<1.00		1.00		ug/L			05/06/21 06:40	1
Carbon tetrachloride	<2.00		2.00		ug/L			05/06/21 06:40	1
Chlorobenzene	<1.00		1.00		ug/L			05/06/21 06:40	1
Chlorodibromomethane	<5.00		5.00		ug/L			05/06/21 06:40	1
Chloroethane	<4.00		4.00		ug/L			05/06/21 06:40	1
Chloroform	<3.00		3.00		ug/L			05/06/21 06:40	1
Chloromethane	<3.00		3.00		ug/L			05/06/21 06:40	1
2-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 06:40	1
4-Chlorotoluene	<1.00		1.00		ug/L			05/06/21 06:40	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 06:40	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 06:40	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			05/06/21 06:40	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			05/06/21 06:40	1
Dibromomethane	<1.00		1.00		ug/L			05/06/21 06:40	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 06:40	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 06:40	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			05/06/21 06:40	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			05/06/21 06:40	1
1,1-Dichloroethane	<1.00		1.00		ug/L			05/06/21 06:40	1
1,2-Dichloroethane	<1.00		1.00		ug/L			05/06/21 06:40	1
1,1-Dichloroethene	<2.00		2.00		ug/L			05/06/21 06:40	1
1,2-Dichloropropane	<1.00		1.00		ug/L			05/06/21 06:40	1
1,3-Dichloropropane	<1.00		1.00		ug/L			05/06/21 06:40	1
2,2-Dichloropropane	<4.00		4.00		ug/L			05/06/21 06:40	1
1,1-Dichloropropene	<1.00		1.00		ug/L			05/06/21 06:40	1
Ethylbenzene	<1.00		1.00		ug/L			05/06/21 06:40	1
Hexachlorobutadiene	<5.00		5.00		ug/L			05/06/21 06:40	1
Hexane	<1.00		1.00		ug/L			05/06/21 06:40	1
Isopropylbenzene	<1.00		1.00		ug/L			05/06/21 06:40	1
Methylene chloride	<5.00		5.00		ug/L			05/06/21 06:40	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			05/06/21 06:40	1
Naphthalene	<5.00		5.00		ug/L			05/06/21 06:40	1
n-Butylbenzene	<1.00		1.00		ug/L			05/06/21 06:40	1
n-Propylbenzene	<1.00		1.00		ug/L			05/06/21 06:40	1
p-Isopropyltoluene	<1.00		1.00		ug/L			05/06/21 06:40	1
sec-Butylbenzene	<1.00		1.00		ug/L			05/06/21 06:40	1
Styrene	<1.00		1.00		ug/L			05/06/21 06:40	1
tert-Butylbenzene	<1.00		1.00		ug/L			05/06/21 06:40	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 06:40	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			05/06/21 06:40	1

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-314909/8
Matrix: Water
Analysis Batch: 314909

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<1.00		1.00		ug/L			05/06/21 06:40	1
Toluene	<1.00		1.00		ug/L			05/06/21 06:40	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			05/06/21 06:40	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			05/06/21 06:40	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 06:40	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			05/06/21 06:40	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			05/06/21 06:40	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			05/06/21 06:40	1
Trichloroethene	<1.00		1.00		ug/L			05/06/21 06:40	1
Trichlorofluoromethane	<4.00		4.00		ug/L			05/06/21 06:40	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			05/06/21 06:40	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 06:40	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			05/06/21 06:40	1
Vinyl chloride	<1.00		1.00		ug/L			05/06/21 06:40	1
Xylenes, Total	<3.00		3.00		ug/L			05/06/21 06:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120		05/06/21 06:40	1
Dibromofluoromethane (Surr)	84		79 - 120		05/06/21 06:40	1
Toluene-d8 (Surr)	99		79 - 120		05/06/21 06:40	1

Lab Sample ID: LCS 310-314909/5
Matrix: Water
Analysis Batch: 314909

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	34.10		ug/L		85	50 - 150
Benzene	20.0	19.55		ug/L		98	73 - 127
Bromobenzene	20.0	19.16		ug/L		96	68 - 128
Bromochloromethane	20.0	19.10		ug/L		96	77 - 140
Bromodichloromethane	20.0	18.55		ug/L		93	70 - 122
Bromoform	20.0	17.94		ug/L		90	58 - 125
2-Butanone (MEK)	40.0	30.42		ug/L		76	49 - 150
Carbon disulfide	20.0	18.84		ug/L		94	58 - 140
Carbon tetrachloride	20.0	19.80		ug/L		99	66 - 136
Chlorobenzene	20.0	19.47		ug/L		97	72 - 124
Chlorodibromomethane	20.0	20.31		ug/L		102	66 - 126
Chloroform	20.0	17.10		ug/L		86	72 - 125
2-Chlorotoluene	20.0	19.36		ug/L		97	68 - 129
4-Chlorotoluene	20.0	19.40		ug/L		97	67 - 128
cis-1,2-Dichloroethene	20.0	18.23		ug/L		91	71 - 130
cis-1,3-Dichloropropene	20.0	19.53		ug/L		98	69 - 122
1,2-Dibromo-3-chloropropane	20.0	16.68		ug/L		83	42 - 150
1,2-Dibromoethane (EDB)	20.0	22.80		ug/L		114	70 - 129
Dibromomethane	20.0	20.17		ug/L		101	71 - 133
1,2-Dichlorobenzene	20.0	18.60		ug/L		93	67 - 125
1,3-Dichlorobenzene	20.0	20.48		ug/L		102	65 - 128
1,4-Dichlorobenzene	20.0	18.80		ug/L		94	66 - 126

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-314909/5
Matrix: Water
Analysis Batch: 314909

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	20.0	19.19		ug/L		96	71 - 131
1,2-Dichloroethane	20.0	19.02		ug/L		95	72 - 128
1,1-Dichloroethene	20.0	19.39		ug/L		97	64 - 137
1,2-Dichloropropane	20.0	19.90		ug/L		100	71 - 130
1,3-Dichloropropane	20.0	22.64		ug/L		113	72 - 130
2,2-Dichloropropane	20.0	19.63		ug/L		98	33 - 150
1,1-Dichloropropene	20.0	19.42		ug/L		97	72 - 130
Ethylbenzene	20.0	19.31		ug/L		97	73 - 127
Hexachlorobutadiene	20.0	18.18		ug/L		91	48 - 150
Hexane	20.0	20.02		ug/L		100	50 - 150
Isopropylbenzene	20.0	17.51		ug/L		88	71 - 127
Methylene chloride	20.0	19.21		ug/L		96	48 - 150
Methyl tert-butyl ether	20.0	20.53		ug/L		103	68 - 127
m,p-Xylene	20.0	19.34		ug/L		97	72 - 128
Naphthalene	20.0	16.82		ug/L		84	43 - 150
n-Butylbenzene	20.0	16.40		ug/L		82	64 - 129
n-Propylbenzene	20.0	18.39		ug/L		92	68 - 129
o-Xylene	20.0	18.62		ug/L		93	70 - 128
p-Isopropyltoluene	20.0	17.67		ug/L		88	66 - 128
sec-Butylbenzene	20.0	17.90		ug/L		90	64 - 134
Styrene	20.0	18.97		ug/L		95	69 - 127
tert-Butylbenzene	20.0	17.24		ug/L		86	66 - 132
1,1,1,2-Tetrachloroethane	20.0	18.99		ug/L		95	69 - 124
1,1,2,2-Tetrachloroethane	20.0	17.66		ug/L		88	66 - 129
Tetrachloroethene	20.0	24.28		ug/L		121	68 - 135
Toluene	20.0	19.66		ug/L		98	71 - 126
trans-1,2-Dichloroethene	20.0	20.13		ug/L		101	69 - 132
trans-1,3-Dichloropropene	20.0	20.20		ug/L		101	65 - 123
1,2,3-Trichlorobenzene	20.0	18.85		ug/L		94	45 - 150
1,2,4-Trichlorobenzene	20.0	15.94		ug/L		80	57 - 133
1,1,1-Trichloroethane	20.0	19.51		ug/L		98	70 - 129
1,1,2-Trichloroethane	20.0	20.75		ug/L		104	68 - 128
Trichloroethene	20.0	21.40		ug/L		107	71 - 130
1,2,3-Trichloropropane	20.0	19.89		ug/L		99	61 - 137
1,2,4-Trimethylbenzene	20.0	17.49		ug/L		87	64 - 133
1,3,5-Trimethylbenzene	20.0	18.52		ug/L		93	66 - 134
Xylenes, Total	40.0	37.96		ug/L		95	70 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	99		79 - 120
Toluene-d8 (Surr)	91		79 - 120

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-314909/6
Matrix: Water
Analysis Batch: 314909

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	20.0	14.18		ug/L		71	22 - 150
Chloroethane	20.0	16.35		ug/L		82	61 - 139
Chloromethane	20.0	16.32		ug/L		82	48 - 150
Dichlorodifluoromethane	20.0	21.87		ug/L		109	50 - 150
Trichlorofluoromethane	20.0	20.01		ug/L		100	59 - 150
Vinyl chloride	20.0	18.05		ug/L		90	65 - 141

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	103		79 - 120
Toluene-d8 (Surr)	96		79 - 120

Lab Sample ID: 310-205747-3 MS
Matrix: Ground Water
Analysis Batch: 314909

Client Sample ID: MW01-GW-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	<10.0	F1	40.0	<10.0	F1	ug/L		0	37 - 150
Benzene	390		20.0	386.9	4	ug/L		-17	54 - 128
Bromobenzene	<1.00		20.0	22.22		ug/L		111	47 - 139
Bromochloromethane	<5.00		20.0	21.31		ug/L		107	63 - 143
Bromodichloromethane	<1.00		20.0	21.45		ug/L		107	50 - 135
Bromoform	<5.00		20.0	21.97		ug/L		110	40 - 139
2-Butanone (MEK)	<10.0		40.0	35.93		ug/L		90	47 - 150
Carbon disulfide	<1.00		20.0	21.71		ug/L		109	40 - 140
Carbon tetrachloride	<2.00		20.0	19.73		ug/L		99	47 - 136
Chlorobenzene	<1.00		20.0	21.20		ug/L		106	49 - 135
Chlorodibromomethane	<5.00		20.0	21.31		ug/L		107	45 - 141
Chloroform	<3.00		20.0	19.49		ug/L		97	55 - 131
2-Chlorotoluene	<1.00		20.0	20.76		ug/L		104	46 - 134
4-Chlorotoluene	<1.00		20.0	20.98		ug/L		105	44 - 136
cis-1,2-Dichloroethene	<1.00		20.0	21.08		ug/L		105	55 - 131
cis-1,3-Dichloropropene	<5.00		20.0	22.80		ug/L		114	45 - 131
1,2-Dibromo-3-chloropropane	<5.00		20.0	22.33		ug/L		112	41 - 150
1,2-Dibromoethane (EDB)	<1.00		20.0	23.06		ug/L		115	53 - 137
Dibromomethane	<1.00		20.0	23.22		ug/L		116	57 - 140
1,2-Dichlorobenzene	<1.00		20.0	22.36		ug/L		112	46 - 136
1,3-Dichlorobenzene	<1.00		20.0	22.31		ug/L		112	43 - 136
1,4-Dichlorobenzene	<1.00		20.0	20.96		ug/L		105	44 - 134
1,1-Dichloroethane	<1.00		20.0	22.48		ug/L		112	58 - 131
1,2-Dichloroethane	<1.00		20.0	24.38		ug/L		122	51 - 138
1,1-Dichloroethene	<2.00		20.0	21.57		ug/L		108	52 - 137
1,2-Dichloropropane	<1.00		20.0	23.45		ug/L		117	58 - 134
1,3-Dichloropropane	<1.00		20.0	24.07		ug/L		120	53 - 145
2,2-Dichloropropane	<4.00		20.0	19.18		ug/L		96	20 - 150
1,1-Dichloropropene	<1.00		20.0	20.75		ug/L		104	51 - 130
Ethylbenzene	407		20.0	413.5	4	ug/L		35	40 - 138
Hexachlorobutadiene	<5.00		20.0	16.42		ug/L		82	19 - 150

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-205747-3 MS
Matrix: Ground Water
Analysis Batch: 314909

Client Sample ID: MW01-GW-0421
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Hexane	<1.00		20.0	14.40		ug/L		72	16 - 150	
Isopropylbenzene	4.30		20.0	21.13		ug/L		84	42 - 132	
Methylene chloride	<5.00		20.0	23.56		ug/L		118	43 - 150	
Methyl tert-butyl ether	<1.00		20.0	23.93		ug/L		120	56 - 132	
m,p-Xylene	10.3		20.0	32.75		ug/L		112	40 - 140	
Naphthalene	241		20.0	274.6	4	ug/L		170	37 - 150	
n-Butylbenzene	<1.00		20.0	17.63		ug/L		88	30 - 133	
n-Propylbenzene	6.43		20.0	23.50		ug/L		85	37 - 135	
o-Xylene	39.2		20.0	59.41		ug/L		101	42 - 140	
p-Isopropyltoluene	<1.00		20.0	18.10		ug/L		87	35 - 134	
sec-Butylbenzene	<1.00		20.0	17.02		ug/L		81	34 - 136	
Styrene	<1.00		20.0	22.70		ug/L		113	44 - 138	
tert-Butylbenzene	<1.00		20.0	17.33		ug/L		87	39 - 137	
1,1,1,2-Tetrachloroethane	<1.00		20.0	20.30		ug/L		101	45 - 140	
1,1,2,2-Tetrachloroethane	<1.00		20.0	23.59		ug/L		118	51 - 140	
Tetrachloroethene	<1.00		20.0	20.66		ug/L		103	43 - 135	
Toluene	4.60		20.0	26.17		ug/L		108	44 - 136	
trans-1,2-Dichloroethene	<1.00		20.0	23.07		ug/L		115	52 - 132	
trans-1,3-Dichloropropene	<5.00		20.0	22.19		ug/L		111	43 - 133	
1,2,3-Trichlorobenzene	<5.00		20.0	25.08		ug/L		125	37 - 150	
1,2,4-Trichlorobenzene	<5.00		20.0	20.78		ug/L		104	38 - 135	
1,1,1-Trichloroethane	<1.00		20.0	18.99		ug/L		95	52 - 129	
1,1,2-Trichloroethane	<1.00		20.0	23.95		ug/L		120	50 - 142	
Trichloroethene	<1.00		20.0	22.24		ug/L		111	49 - 130	
1,2,3-Trichloropropane	<1.00		20.0	24.91		ug/L		125	49 - 146	
1,2,4-Trimethylbenzene	85.2		20.0	102.8	4	ug/L		88	37 - 142	
1,3,5-Trimethylbenzene	<1.00		20.0	19.37		ug/L		97	39 - 142	
Xylenes, Total	49.5		40.0	92.16		ug/L		107	40 - 140	

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	91		79 - 120
Toluene-d8 (Surr)	96		79 - 120

Lab Sample ID: 310-205747-3 MSD
Matrix: Ground Water
Analysis Batch: 314909

Client Sample ID: MW01-GW-0421
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Acetone	<10.0	F1	40.0	32.67		ug/L		82	37 - 150	NC	29	
Benzene	390		20.0	369.7	4	ug/L		-103	54 - 128	5	21	
Bromobenzene	<1.00		20.0	21.59		ug/L		108	47 - 139	3	23	
Bromochloromethane	<5.00		20.0	23.59		ug/L		118	63 - 143	10	24	
Bromodichloromethane	<1.00		20.0	20.53		ug/L		103	50 - 135	4	24	
Bromoform	<5.00		20.0	20.99		ug/L		105	40 - 139	5	22	
2-Butanone (MEK)	<10.0		40.0	42.05		ug/L		105	47 - 150	16	24	
Carbon disulfide	<1.00		20.0	17.99		ug/L		90	40 - 140	19	35	
Carbon tetrachloride	<2.00		20.0	18.15		ug/L		91	47 - 136	8	23	

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-205747-3 MSD

Client Sample ID: MW01-GW-0421

Matrix: Ground Water

Prep Type: Total/NA

Analysis Batch: 314909

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorobenzene	<1.00		20.0	21.77		ug/L		109	49 - 135	3	21
Chlorodibromomethane	<5.00		20.0	21.04		ug/L		105	45 - 141	1	26
Chloroform	<3.00		20.0	19.40		ug/L		97	55 - 131	0	23
2-Chlorotoluene	<1.00		20.0	21.46		ug/L		107	46 - 134	3	22
4-Chlorotoluene	<1.00		20.0	21.08		ug/L		105	44 - 136	0	22
cis-1,2-Dichloroethene	<1.00		20.0	22.49		ug/L		112	55 - 131	6	23
cis-1,3-Dichloropropene	<5.00		20.0	20.51		ug/L		103	45 - 131	11	21
1,2-Dibromo-3-chloropropane	<5.00		20.0	19.90		ug/L		99	41 - 150	12	31
1,2-Dibromoethane (EDB)	<1.00		20.0	22.98		ug/L		115	53 - 137	0	23
Dibromomethane	<1.00		20.0	23.06		ug/L		115	57 - 140	1	24
1,2-Dichlorobenzene	<1.00		20.0	22.42		ug/L		112	46 - 136	0	22
1,3-Dichlorobenzene	<1.00		20.0	22.13		ug/L		111	43 - 136	1	22
1,4-Dichlorobenzene	<1.00		20.0	21.20		ug/L		106	44 - 134	1	20
1,1-Dichloroethane	<1.00		20.0	21.76		ug/L		109	58 - 131	3	24
1,2-Dichloroethane	<1.00		20.0	27.03		ug/L		135	51 - 138	10	20
1,1-Dichloroethene	<2.00		20.0	17.70		ug/L		88	52 - 137	20	23
1,2-Dichloropropane	<1.00		20.0	22.39		ug/L		112	58 - 134	5	26
1,3-Dichloropropane	<1.00		20.0	22.09		ug/L		110	53 - 145	9	25
2,2-Dichloropropane	<4.00		20.0	16.45		ug/L		82	20 - 150	15	32
1,1-Dichloropropene	<1.00		20.0	18.86		ug/L		94	51 - 130	10	23
Ethylbenzene	407		20.0	371.1	4	ug/L		-177	40 - 138	11	21
Hexachlorobutadiene	<5.00		20.0	17.94		ug/L		90	19 - 150	9	35
Hexane	<1.00		20.0	13.64		ug/L		68	16 - 150	5	35
Isopropylbenzene	4.30		20.0	22.27		ug/L		90	42 - 132	5	21
Methylene chloride	<5.00		20.0	23.18		ug/L		116	43 - 150	2	25
Methyl tert-butyl ether	<1.00		20.0	22.97		ug/L		115	56 - 132	4	25
m,p-Xylene	10.3		20.0	31.83		ug/L		108	40 - 140	3	23
Naphthalene	241		20.0	251.2	4	ug/L		54	37 - 150	9	29
n-Butylbenzene	<1.00		20.0	18.35		ug/L		92	30 - 133	4	20
n-Propylbenzene	6.43		20.0	24.32		ug/L		89	37 - 135	3	21
o-Xylene	39.2		20.0	58.25		ug/L		95	42 - 140	2	22
p-Isopropyltoluene	<1.00		20.0	19.18		ug/L		92	35 - 134	6	20
sec-Butylbenzene	<1.00		20.0	18.05		ug/L		87	34 - 136	6	20
Styrene	<1.00		20.0	21.44		ug/L		107	44 - 138	6	22
tert-Butylbenzene	<1.00		20.0	18.56		ug/L		93	39 - 137	7	20
1,1,1,2-Tetrachloroethane	<1.00		20.0	20.71		ug/L		104	45 - 140	2	23
1,1,1,2,2-Tetrachloroethane	<1.00		20.0	23.74		ug/L		119	51 - 140	1	22
Tetrachloroethene	<1.00		20.0	20.14		ug/L		101	43 - 135	3	23
Toluene	4.60		20.0	25.45		ug/L		104	44 - 136	3	22
trans-1,2-Dichloroethene	<1.00		20.0	21.78		ug/L		109	52 - 132	6	25
trans-1,3-Dichloropropene	<5.00		20.0	20.72		ug/L		104	43 - 133	7	23
1,2,3-Trichlorobenzene	<5.00		20.0	25.90		ug/L		130	37 - 150	3	24
1,2,4-Trichlorobenzene	<5.00		20.0	22.35		ug/L		112	38 - 135	7	21
1,1,1-Trichloroethane	<1.00		20.0	18.24		ug/L		91	52 - 129	4	22
1,1,2-Trichloroethane	<1.00		20.0	22.65		ug/L		113	50 - 142	6	24
Trichloroethene	<1.00		20.0	20.40		ug/L		102	49 - 130	9	21
1,2,3-Trichloropropane	<1.00		20.0	21.98		ug/L		110	49 - 146	12	32
1,2,4-Trimethylbenzene	85.2		20.0	98.04	4	ug/L		64	37 - 142	5	25
1,3,5-Trimethylbenzene	<1.00		20.0	20.18		ug/L		101	39 - 142	4	20

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-205747-3 MSD
Matrix: Ground Water
Analysis Batch: 314909

Client Sample ID: MW01-GW-0421
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	49.5		40.0	90.08		ug/L		101	40 - 140	2	23
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	101		80 - 120								
Dibromofluoromethane (Surr)	100		79 - 120								
Toluene-d8 (Surr)	99		79 - 120								

Lab Sample ID: MB 310-315398/8
Matrix: Water
Analysis Batch: 315398

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<5.00		5.00		ug/L			05/11/21 09:27	1
MB MB									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120					05/11/21 09:27	1
Dibromofluoromethane (Surr)	104		79 - 120					05/11/21 09:27	1
Toluene-d8 (Surr)	99		79 - 120					05/11/21 09:27	1

Lab Sample ID: LCS 310-315398/5
Matrix: Water
Analysis Batch: 315398

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	20.0	23.50		ug/L		117	43 - 150
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
4-Bromofluorobenzene (Surr)	101		80 - 120				
Dibromofluoromethane (Surr)	95		79 - 120				
Toluene-d8 (Surr)	101		79 - 120				

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 310-315087/1-A
Matrix: Water
Analysis Batch: 315428

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 315087

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 16:09	1
Acenaphthylene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 16:09	1
Anthracene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 16:09	1
Benzo(a)anthracene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 16:09	1
Benzo(a)pyrene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 16:09	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 16:09	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 16:09	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 16:09	1
Chrysene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 16:09	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 16:09	1

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 310-315087/1-A
Matrix: Water
Analysis Batch: 315428

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 315087

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Fluoranthene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 16:09	1
Fluorene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 16:09	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 16:09	1
2-Methylnaphthalene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 16:09	1
Naphthalene	<0.500		0.500		ug/L		05/06/21 08:57	05/10/21 16:09	1
Phenanthrene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 16:09	1
Pyrene	<0.200		0.200		ug/L		05/06/21 08:57	05/10/21 16:09	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	60		21 - 110	05/06/21 08:57	05/10/21 16:09	1
Nitrobenzene-d5 (Surr)	57		15 - 110	05/06/21 08:57	05/10/21 16:09	1
Terphenyl-d14 (Surr)	83		13 - 110	05/06/21 08:57	05/10/21 16:09	1

Lab Sample ID: LCS 310-315087/2-A
Matrix: Water
Analysis Batch: 315428

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 315087

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Acenaphthene	2.00	1.509		ug/L		75	25 - 110
Acenaphthylene	2.00	1.496		ug/L		75	25 - 110
Anthracene	2.00	1.402		ug/L		70	26 - 110
Benzo(a)anthracene	2.00	1.670		ug/L		84	26 - 110
Benzo(a)pyrene	2.00	1.326		ug/L		66	20 - 110
Benzo(b)fluoranthene	2.00	1.713		ug/L		86	24 - 110
Benzo(g,h,i)perylene	2.00	1.924		ug/L		96	17 - 110
Benzo(k)fluoranthene	2.00	1.781		ug/L		89	26 - 110
Chrysene	2.00	1.879		ug/L		94	23 - 110
Dibenz(a,h)anthracene	2.00	1.814		ug/L		91	14 - 110
Fluoranthene	2.00	1.707		ug/L		85	24 - 110
Fluorene	2.00	1.594		ug/L		80	27 - 110
Indeno(1,2,3-cd)pyrene	2.00	1.800		ug/L		90	15 - 110
2-Methylnaphthalene	2.00	1.411		ug/L		71	19 - 110
Naphthalene	2.00	1.510		ug/L		75	24 - 110
Phenanthrene	2.00	1.639		ug/L		82	28 - 110
Pyrene	2.00	1.677		ug/L		84	26 - 110

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	72		21 - 110
Nitrobenzene-d5 (Surr)	68		15 - 110
Terphenyl-d14 (Surr)	91		13 - 110

Lab Sample ID: 310-205747-3 MS
Matrix: Ground Water
Analysis Batch: 315428

Client Sample ID: MW01-GW-0421
Prep Type: Total/NA
Prep Batch: 315087

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
Acenaphthene	11.9		2.17	13.80	4	ug/L		85	22 - 110
Acenaphthylene	2.63	F1	2.17	5.365	F1	ug/L		126	22 - 110

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 310-205747-3 MS
Matrix: Ground Water
Analysis Batch: 315428

Client Sample ID: MW01-GW-0421
Prep Type: Total/NA
Prep Batch: 315087

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Anthracene	0.844		2.17	2.213		ug/L		63	24 - 110
Benzo(a)anthracene	<0.200		2.17	1.422		ug/L		65	10 - 110
Benzo(a)pyrene	<0.200		2.17	1.066		ug/L		49	10 - 110
Benzo(b)fluoranthene	<0.200		2.17	1.080		ug/L		50	10 - 110
Benzo(g,h,i)perylene	<0.200		2.17	0.7184		ug/L		33	10 - 110
Benzo(k)fluoranthene	<0.200		2.17	1.146		ug/L		53	10 - 110
Chrysene	<0.200		2.17	1.468		ug/L		68	10 - 110
Dibenz(a,h)anthracene	<0.200		2.17	0.6577		ug/L		30	10 - 110
Fluoranthene	0.579		2.17	1.977		ug/L		64	13 - 110
Fluorene	9.01		2.17	11.37	4	ug/L		109	25 - 110
Indeno(1,2,3-cd)pyrene	<0.200		2.17	0.7096		ug/L		33	10 - 110
2-Methylnaphthalene	<0.200		2.17	1.599		ug/L		68	19 - 110
Naphthalene	13.6	F2	2.17	34.53	4	ug/L		963	17 - 110
Phenanthrene	4.32		2.17	5.930		ug/L		74	24 - 110
Pyrene	0.473		2.17	1.820		ug/L		62	13 - 110

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	72		21 - 110
Nitrobenzene-d5 (Surr)	71		15 - 110
Terphenyl-d14 (Surr)	74		13 - 110

Lab Sample ID: 310-205747-3 MSD
Matrix: Ground Water
Analysis Batch: 315428

Client Sample ID: MW01-GW-0421
Prep Type: Total/NA
Prep Batch: 315087

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	11.9		2.08	14.57	4	ug/L		126	22 - 110	5	35
Acenaphthylene	2.63	F1	2.08	4.149		ug/L		73	22 - 110	26	35
Anthracene	0.844		2.08	2.120		ug/L		61	24 - 110	4	35
Benzo(a)anthracene	<0.200		2.08	1.291		ug/L		62	10 - 110	10	35
Benzo(a)pyrene	<0.200		2.08	1.001		ug/L		48	10 - 110	6	35
Benzo(b)fluoranthene	<0.200		2.08	1.036		ug/L		50	10 - 110	4	35
Benzo(g,h,i)perylene	<0.200		2.08	0.6757		ug/L		32	10 - 110	6	35
Benzo(k)fluoranthene	<0.200		2.08	1.033		ug/L		50	10 - 110	10	35
Chrysene	<0.200		2.08	1.309		ug/L		63	10 - 110	11	35
Dibenz(a,h)anthracene	<0.200		2.08	0.6255		ug/L		30	10 - 110	5	35
Fluoranthene	0.579		2.08	1.954		ug/L		66	13 - 110	1	35
Fluorene	9.01		2.08	10.77	4	ug/L		84	25 - 110	5	35
Indeno(1,2,3-cd)pyrene	<0.200		2.08	0.6841		ug/L		33	10 - 110	4	35
2-Methylnaphthalene	<0.200		2.08	1.432		ug/L		63	19 - 110	11	35
Naphthalene	13.6	F2	2.08	17.29	4 F2	ug/L		178	17 - 110	67	35
Phenanthrene	4.32		2.08	5.256		ug/L		45	24 - 110	12	35
Pyrene	0.473		2.08	1.810		ug/L		64	13 - 110	1	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	51		21 - 110
Nitrobenzene-d5 (Surr)	53		15 - 110
Terphenyl-d14 (Surr)	57		13 - 110

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-315062/1-A
Matrix: Water
Analysis Batch: 315434

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 315062

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		05/06/21 09:00	05/08/21 18:02	1
Lead	<0.000500		0.000500		mg/L		05/06/21 09:00	05/08/21 18:02	1

Lab Sample ID: LCS 310-315062/2-A
Matrix: Water
Analysis Batch: 315434

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 315062

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.200	0.2032		mg/L		102	80 - 120
Lead	0.200	0.1977		mg/L		99	80 - 120

Lab Sample ID: 310-205747-3 MS
Matrix: Ground Water
Analysis Batch: 315434

Client Sample ID: MW01-GW-0421
Prep Type: Total/NA
Prep Batch: 315062

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0134		0.200	0.2263		mg/L		106	75 - 125
Lead	<0.000500		0.200	0.2106		mg/L		105	75 - 125

Lab Sample ID: 310-205747-3 MSD
Matrix: Ground Water
Analysis Batch: 315434

Client Sample ID: MW01-GW-0421
Prep Type: Total/NA
Prep Batch: 315062

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0134		0.200	0.2206		mg/L		104	75 - 125	3	20
Lead	<0.000500		0.200	0.2034		mg/L		102	75 - 125	3	20

Lab Sample ID: 310-205747-4 DU
Matrix: Ground Water
Analysis Batch: 315434

Client Sample ID: EB01-GW-0421
Prep Type: Total/NA
Prep Batch: 315062

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	<0.00200		<0.00200		mg/L		NC	20
Lead	0.00107		<0.000500		mg/L		NC	20

QC Association Summary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

GC/MS VOA

Analysis Batch: 314909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-205747-1	MW09-GW-0421	Total/NA	Ground Water	8260D	
310-205747-2	MW05-GW-0421	Total/NA	Ground Water	8260D	
310-205747-3	MW01-GW-0421	Total/NA	Ground Water	8260D	
310-205747-4	EB01-GW-0421	Total/NA	Ground Water	8260D	
310-205747-5	MW8R-GW-0421	Total/NA	Ground Water	8260D	
310-205747-6	MW04-GW-0421	Total/NA	Ground Water	8260D	
310-205747-7	MW06-GW-0421	Total/NA	Ground Water	8260D	
310-205747-8	MW02-GW-0421	Total/NA	Ground Water	8260D	
310-205747-9	DP01-GW-0421	Total/NA	Ground Water	8260D	
310-205747-10	Trip Blank	Total/NA	Water	8260D	
MB 310-314909/8	Method Blank	Total/NA	Water	8260D	
LCS 310-314909/5	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-314909/6	Lab Control Sample	Total/NA	Water	8260D	
310-205747-3 MS	MW01-GW-0421	Total/NA	Ground Water	8260D	
310-205747-3 MSD	MW01-GW-0421	Total/NA	Ground Water	8260D	

Analysis Batch: 315398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-205747-7	MW06-GW-0421	Total/NA	Ground Water	8260D	
MB 310-315398/8	Method Blank	Total/NA	Water	8260D	
LCS 310-315398/5	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 315087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-205747-1	MW09-GW-0421	Total/NA	Ground Water	3510C	
310-205747-2	MW05-GW-0421	Total/NA	Ground Water	3510C	
310-205747-3	MW01-GW-0421	Total/NA	Ground Water	3510C	
310-205747-4	EB01-GW-0421	Total/NA	Ground Water	3510C	
310-205747-5	MW8R-GW-0421	Total/NA	Ground Water	3510C	
310-205747-6	MW04-GW-0421	Total/NA	Ground Water	3510C	
310-205747-7	MW06-GW-0421	Total/NA	Ground Water	3510C	
310-205747-8	MW02-GW-0421	Total/NA	Ground Water	3510C	
310-205747-9	DP01-GW-0421	Total/NA	Ground Water	3510C	
MB 310-315087/1-A	Method Blank	Total/NA	Water	3510C	
LCS 310-315087/2-A	Lab Control Sample	Total/NA	Water	3510C	
310-205747-3 MS	MW01-GW-0421	Total/NA	Ground Water	3510C	
310-205747-3 MSD	MW01-GW-0421	Total/NA	Ground Water	3510C	

Analysis Batch: 315428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-205747-1	MW09-GW-0421	Total/NA	Ground Water	8270E SIM	315087
310-205747-2	MW05-GW-0421	Total/NA	Ground Water	8270E SIM	315087
310-205747-3	MW01-GW-0421	Total/NA	Ground Water	8270E SIM	315087
310-205747-4	EB01-GW-0421	Total/NA	Ground Water	8270E SIM	315087
310-205747-5	MW8R-GW-0421	Total/NA	Ground Water	8270E SIM	315087
310-205747-6	MW04-GW-0421	Total/NA	Ground Water	8270E SIM	315087
310-205747-7	MW06-GW-0421	Total/NA	Ground Water	8270E SIM	315087
310-205747-8	MW02-GW-0421	Total/NA	Ground Water	8270E SIM	315087
310-205747-9	DP01-GW-0421	Total/NA	Ground Water	8270E SIM	315087

QC Association Summary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

GC/MS Semi VOA (Continued)

Analysis Batch: 315428 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-315087/1-A	Method Blank	Total/NA	Water	8270E SIM	315087
LCS 310-315087/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	315087
310-205747-3 MS	MW01-GW-0421	Total/NA	Ground Water	8270E SIM	315087
310-205747-3 MSD	MW01-GW-0421	Total/NA	Ground Water	8270E SIM	315087

Metals

Prep Batch: 315062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-205747-1	MW09-GW-0421	Total/NA	Ground Water	3010A	
310-205747-2	MW05-GW-0421	Total/NA	Ground Water	3010A	
310-205747-3	MW01-GW-0421	Total/NA	Ground Water	3010A	
310-205747-4	EB01-GW-0421	Total/NA	Ground Water	3010A	
310-205747-5	MW8R-GW-0421	Total/NA	Ground Water	3010A	
310-205747-6	MW04-GW-0421	Total/NA	Ground Water	3010A	
310-205747-7	MW06-GW-0421	Total/NA	Ground Water	3010A	
310-205747-8	MW02-GW-0421	Total/NA	Ground Water	3010A	
310-205747-9	DP01-GW-0421	Total/NA	Ground Water	3010A	
MB 310-315062/1-A	Method Blank	Total/NA	Water	3010A	
LCS 310-315062/2-A	Lab Control Sample	Total/NA	Water	3010A	
310-205747-3 MS	MW01-GW-0421	Total/NA	Ground Water	3010A	
310-205747-3 MSD	MW01-GW-0421	Total/NA	Ground Water	3010A	
310-205747-4 DU	EB01-GW-0421	Total/NA	Ground Water	3010A	

Analysis Batch: 315434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-205747-1	MW09-GW-0421	Total/NA	Ground Water	6020A	315062
310-205747-2	MW05-GW-0421	Total/NA	Ground Water	6020A	315062
310-205747-3	MW01-GW-0421	Total/NA	Ground Water	6020A	315062
310-205747-4	EB01-GW-0421	Total/NA	Ground Water	6020A	315062
310-205747-5	MW8R-GW-0421	Total/NA	Ground Water	6020A	315062
310-205747-6	MW04-GW-0421	Total/NA	Ground Water	6020A	315062
310-205747-7	MW06-GW-0421	Total/NA	Ground Water	6020A	315062
310-205747-8	MW02-GW-0421	Total/NA	Ground Water	6020A	315062
310-205747-9	DP01-GW-0421	Total/NA	Ground Water	6020A	315062
MB 310-315062/1-A	Method Blank	Total/NA	Water	6020A	315062
LCS 310-315062/2-A	Lab Control Sample	Total/NA	Water	6020A	315062
310-205747-3 MS	MW01-GW-0421	Total/NA	Ground Water	6020A	315062
310-205747-3 MSD	MW01-GW-0421	Total/NA	Ground Water	6020A	315062
310-205747-4 DU	EB01-GW-0421	Total/NA	Ground Water	6020A	315062

Lab Chronicle

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW09-GW-0421

Lab Sample ID: 310-205747-1

Date Collected: 04/29/21 14:35

Matrix: Ground Water

Date Received: 05/04/21 17:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	314909	05/06/21 07:49	SJN	TAL CF
Total/NA	Prep	3510C			315087	05/06/21 08:57	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	315428	05/10/21 17:32	BKT	TAL CF
Total/NA	Prep	3010A			315062	05/06/21 09:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	315434	05/08/21 18:39	SAD	TAL CF

Client Sample ID: MW05-GW-0421

Lab Sample ID: 310-205747-2

Date Collected: 04/29/21 15:25

Matrix: Ground Water

Date Received: 05/04/21 17:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	314909	05/06/21 08:12	SJN	TAL CF
Total/NA	Prep	3510C			315087	05/06/21 08:57	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	315428	05/10/21 17:53	BKT	TAL CF
Total/NA	Prep	3010A			315062	05/06/21 09:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	315434	05/08/21 18:41	SAD	TAL CF

Client Sample ID: MW01-GW-0421

Lab Sample ID: 310-205747-3

Date Collected: 04/29/21 16:15

Matrix: Ground Water

Date Received: 05/04/21 17:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	314909	05/06/21 13:11	SJN	TAL CF
Total/NA	Prep	3510C			315087	05/06/21 08:57	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	315428	05/10/21 18:13	BKT	TAL CF
Total/NA	Prep	3010A			315062	05/06/21 09:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	315434	05/08/21 18:44	SAD	TAL CF

Client Sample ID: EB01-GW-0421

Lab Sample ID: 310-205747-4

Date Collected: 04/29/21 17:00

Matrix: Ground Water

Date Received: 05/04/21 17:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	314909	05/06/21 08:35	SJN	TAL CF
Total/NA	Prep	3510C			315087	05/06/21 08:57	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	315428	05/10/21 18:34	BKT	TAL CF
Total/NA	Prep	3010A			315062	05/06/21 09:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	315434	05/08/21 18:54	SAD	TAL CF

Client Sample ID: MW8R-GW-0421

Lab Sample ID: 310-205747-5

Date Collected: 04/30/21 10:55

Matrix: Ground Water

Date Received: 05/04/21 17:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	314909	05/06/21 12:02	SJN	TAL CF

Lab Chronicle

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: MW8R-GW-0421

Lab Sample ID: 310-205747-5

Date Collected: 04/30/21 10:55

Matrix: Ground Water

Date Received: 05/04/21 17:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			315087	05/06/21 08:57	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	315428	05/10/21 18:55	BKT	TAL CF
Total/NA	Prep	3010A			315062	05/06/21 09:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	315434	05/08/21 19:10	SAD	TAL CF

Client Sample ID: MW04-GW-0421

Lab Sample ID: 310-205747-6

Date Collected: 04/30/21 11:55

Matrix: Ground Water

Date Received: 05/04/21 17:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	314909	05/06/21 08:58	SJN	TAL CF
Total/NA	Prep	3510C			315087	05/06/21 08:57	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	315428	05/10/21 19:16	BKT	TAL CF
Total/NA	Prep	3010A			315062	05/06/21 09:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	315434	05/08/21 19:12	SAD	TAL CF

Client Sample ID: MW06-GW-0421

Lab Sample ID: 310-205747-7

Date Collected: 04/30/21 12:55

Matrix: Ground Water

Date Received: 05/04/21 17:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	315398	05/11/21 10:15	SJN	TAL CF
Total/NA	Analysis	8260D		1	314909	05/06/21 12:48	SJN	TAL CF
Total/NA	Prep	3510C			315087	05/06/21 08:57	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	315428	05/10/21 19:36	BKT	TAL CF
Total/NA	Prep	3010A			315062	05/06/21 09:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	315434	05/08/21 19:15	SAD	TAL CF

Client Sample ID: MW02-GW-0421

Lab Sample ID: 310-205747-8

Date Collected: 04/30/21 13:25

Matrix: Ground Water

Date Received: 05/04/21 17:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	314909	05/06/21 12:25	SJN	TAL CF
Total/NA	Prep	3510C			315087	05/06/21 08:57	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	315428	05/10/21 19:57	BKT	TAL CF
Total/NA	Prep	3010A			315062	05/06/21 09:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	315434	05/08/21 19:18	SAD	TAL CF

Client Sample ID: DP01-GW-0421

Lab Sample ID: 310-205747-9

Date Collected: 04/30/21 00:00

Matrix: Ground Water

Date Received: 05/04/21 17:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	314909	05/06/21 09:21	SJN	TAL CF

Eurofins TestAmerica, Cedar Falls

Lab Chronicle

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Client Sample ID: DP01-GW-0421

Lab Sample ID: 310-205747-9

Date Collected: 04/30/21 00:00

Matrix: Ground Water

Date Received: 05/04/21 17:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			315087	05/06/21 08:57	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	315428	05/10/21 20:18	BKT	TAL CF
Total/NA	Prep	3010A			315062	05/06/21 09:00	CJT	TAL CF
Total/NA	Analysis	6020A		1	315434	05/08/21 19:20	SAD	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: 310-205747-10

Date Collected: 04/30/21 00:00

Matrix: Water

Date Received: 05/04/21 17:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	314909	05/06/21 07:26	SJN	TAL CF

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401



Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Laboratory: Eurofins TestAmerica, Cedar Falls

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Colorado	Petroleum Storage Tank Program	IA100001 (OR)	09-29-21
Georgia	State	IA100001 (OR)	09-29-21
Illinois	NELAP	200024	11-29-21
Iowa	State	007	12-01-21
Kansas	NELAP	E-10341	01-31-22
Minnesota	NELAP	019-999-319	12-31-21
Minnesota (Petrofund)	State	3349	08-22-21
North Dakota	State	R-186	09-29-21
Oregon	NELAP	IA100001	09-29-21
USDA	US Federal Programs	P330-19-00003	01-02-22

Method Summary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-205747-1
SDG: 11156780

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL CF
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL CF
6020A	Metals (ICP/MS)	SW846	TAL CF
3010A	Preparation, Total Metals	SW846	TAL CF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CF
5030B	Purge and Trap	SW846	TAL CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401



Environment Testing
TestAmerica



310-205747 Chain of Custody

Cooler/Sample Receipt and Temperature Log

Client Information		
Client: <u>GHD</u>		
City/State: <u>Urbancare</u>	CITY <u>IA</u>	STATE <u>IA</u> Project: <u>IPL Albion FMGP</u>
Receipt Information		
Date/Time Received: <u>5/04/2021</u>	DATE <u>1720</u>	TIME Received By: <u>AW</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # _____ of _____
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
<u>All vials</u>		
Temperature Record		
Coolant: <input checked="" type="checkbox"/> Wet ice <input checked="" type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>N</u>	Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>2.0</u>	Corrected Temp (°C): <u>2.0</u>	
• Sample Container Temperature		
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>
Uncorrected Temp (°C):		
Corrected Temp (°C):		
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No		
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No		
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 310-205747-1

SDG Number: 11156780

Login Number: 205747

List Number: 1

Creator: Ramos, Eric F

List Source: Eurofins TestAmerica, Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-207665-1
Laboratory Sample Delivery Group: 11156780
Client Project/Site: IPL Albia FMGP

For:
GHD Services Inc.
11228 Aurora Avenue
Des Moines, Iowa 50322-7905

Attn: Kevin Armstrong



Authorized for release by:
6/8/2021 1:04:04 PM

Shawn Hayes, Senior Project Manager
(319)229-8211
Shawn.Hayes@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	4
Detection Summary	5
Client Sample Results	6
Definitions	13
Surrogate Summary	14
QC Sample Results	16
QC Association	22
Chronicle	23
Certification Summary	24
Method Summary	25
Chain of Custody	26
Receipt Checklists	28



Case Narrative

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Job ID: 310-207665-1

Laboratory: Eurofins TestAmerica, Cedar Falls

Narrative

Job Narrative 310-207665-1

Comments

No additional comments.

Receipt

The samples were received on 5/28/2021 5:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-318324 recovered above the upper control limit for Bromochloromethane (20.8 %D). The LCS associated with this CCV passes using CCV criteria for the affected analyte; therefore, the data have been reported. The associated sample is impacted: (CCV 310-318324/4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method 8270E SIM: The laboratory control sample (LCS) for preparation batch 310-317874 and analytical batch 310-318046 recovered outside control limits for the following analyte: Naphthalene. This analyte was biased high in the LCS. Insufficient sample volume to re-extract and re-analyze so the data is qualified and reported.

Method 8270E SIM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 310-317874 and analytical batch 310-318046 recovered outside control limits for the following analytes: 2-Methylnaphthalene, Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Chrysene, Dibenz(a,h)anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-cd)pyrene, Naphthalene and Pyrene.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Methods 3510C, 8270E SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 310-317874. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
310-207665-1	MW3-GW-0521	Ground Water	05/28/21 11:20	05/28/21 17:00	
310-207665-2	MW7-GW-0521	Ground Water	05/28/21 12:55	05/28/21 17:00	
310-207665-3	Trip Blank	Water	05/28/21 00:00	05/28/21 17:00	

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Detection Summary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Client Sample ID: MW3-GW-0521

Lab Sample ID: 310-207665-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	507		5.00		ug/L	10		8260D	Total/NA
Ethylbenzene	154		1.00		ug/L	1		8260D	Total/NA
Isopropylbenzene	12.9		1.00		ug/L	1		8260D	Total/NA
Naphthalene	587		50.0		ug/L	10		8260D	Total/NA
n-Butylbenzene	2.12		1.00		ug/L	1		8260D	Total/NA
n-Propylbenzene	4.68		1.00		ug/L	1		8260D	Total/NA
p-Isopropyltoluene	1.02		1.00		ug/L	1		8260D	Total/NA
sec-Butylbenzene	1.01		1.00		ug/L	1		8260D	Total/NA
Toluene	19.0		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	69.7		1.00		ug/L	1		8260D	Total/NA
1,3,5-Trimethylbenzene	7.97		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	130		3.00		ug/L	1		8260D	Total/NA
Acenaphthene	27.0	*1	0.200		ug/L	1		8270E SIM	Total/NA
Acenaphthylene	159	*1	2.00		ug/L	10		8270E SIM	Total/NA
Anthracene	6.09	*1	0.200		ug/L	1		8270E SIM	Total/NA
Fluoranthene	5.37	*1	0.200		ug/L	1		8270E SIM	Total/NA
Fluorene	17.2	*1	0.200		ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	3.62	*1	0.200		ug/L	1		8270E SIM	Total/NA
Naphthalene	593	*1 *+	50.0		ug/L	100		8270E SIM	Total/NA
Phenanthrene	66.4		2.00		ug/L	10		8270E SIM	Total/NA
Pyrene	5.55	*1	0.200		ug/L	1		8270E SIM	Total/NA
Arsenic	0.00353		0.00200		mg/L	1		6020A	Total/NA

Client Sample ID: MW7-GW-0521

Lab Sample ID: 310-207665-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.453	*1	0.227		ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	1.02	*1	0.227		ug/L	1		8270E SIM	Total/NA
Naphthalene	2.91	*1 *+	0.568		ug/L	1		8270E SIM	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 310-207665-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Client Sample ID: MW3-GW-0521

Lab Sample ID: 310-207665-1

Date Collected: 05/28/21 11:20

Matrix: Ground Water

Date Received: 05/28/21 17:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			06/05/21 14:32	1
Benzene	507		5.00		ug/L			06/06/21 09:39	10
Bromobenzene	<1.00		1.00		ug/L			06/05/21 14:32	1
Bromochloromethane	<5.00		5.00		ug/L			06/05/21 14:32	1
Bromodichloromethane	<1.00		1.00		ug/L			06/05/21 14:32	1
Bromoform	<5.00		5.00		ug/L			06/05/21 14:32	1
Bromomethane	<4.00		4.00		ug/L			06/05/21 14:32	1
2-Butanone (MEK)	<10.0		10.0		ug/L			06/05/21 14:32	1
Carbon disulfide	<1.00		1.00		ug/L			06/05/21 14:32	1
Carbon tetrachloride	<2.00		2.00		ug/L			06/05/21 14:32	1
Chlorobenzene	<1.00		1.00		ug/L			06/05/21 14:32	1
Chlorodibromomethane	<5.00		5.00		ug/L			06/05/21 14:32	1
Chloroethane	<4.00		4.00		ug/L			06/05/21 14:32	1
Chloroform	<3.00		3.00		ug/L			06/05/21 14:32	1
Chloromethane	<3.00		3.00		ug/L			06/05/21 14:32	1
2-Chlorotoluene	<1.00		1.00		ug/L			06/05/21 14:32	1
4-Chlorotoluene	<1.00		1.00		ug/L			06/05/21 14:32	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			06/05/21 14:32	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			06/05/21 14:32	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			06/05/21 14:32	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			06/05/21 14:32	1
Dibromomethane	<1.00		1.00		ug/L			06/05/21 14:32	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			06/05/21 14:32	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			06/05/21 14:32	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			06/05/21 14:32	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			06/05/21 14:32	1
1,1-Dichloroethane	<1.00		1.00		ug/L			06/05/21 14:32	1
1,2-Dichloroethane	<1.00		1.00		ug/L			06/05/21 14:32	1
1,1-Dichloroethene	<2.00		2.00		ug/L			06/05/21 14:32	1
1,2-Dichloropropane	<1.00		1.00		ug/L			06/05/21 14:32	1
1,3-Dichloropropane	<1.00		1.00		ug/L			06/05/21 14:32	1
2,2-Dichloropropane	<4.00		4.00		ug/L			06/05/21 14:32	1
1,1-Dichloropropene	<1.00		1.00		ug/L			06/05/21 14:32	1
Ethylbenzene	154		1.00		ug/L			06/05/21 14:32	1
Hexachlorobutadiene	<5.00		5.00		ug/L			06/05/21 14:32	1
Hexane	<1.00		1.00		ug/L			06/05/21 14:32	1
Isopropylbenzene	12.9		1.00		ug/L			06/05/21 14:32	1
Methylene chloride	<5.00		5.00		ug/L			06/05/21 14:32	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			06/05/21 14:32	1
Naphthalene	587		50.0		ug/L			06/06/21 09:39	10
n-Butylbenzene	2.12		1.00		ug/L			06/05/21 14:32	1
n-Propylbenzene	4.68		1.00		ug/L			06/05/21 14:32	1
p-Isopropyltoluene	1.02		1.00		ug/L			06/05/21 14:32	1
sec-Butylbenzene	1.01		1.00		ug/L			06/05/21 14:32	1
Styrene	<1.00		1.00		ug/L			06/05/21 14:32	1
tert-Butylbenzene	<1.00		1.00		ug/L			06/05/21 14:32	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			06/05/21 14:32	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			06/05/21 14:32	1
Tetrachloroethene	<1.00		1.00		ug/L			06/05/21 14:32	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Client Sample ID: MW3-GW-0521

Lab Sample ID: 310-207665-1

Date Collected: 05/28/21 11:20

Matrix: Ground Water

Date Received: 05/28/21 17:00

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	19.0		1.00		ug/L			06/05/21 14:32	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			06/05/21 14:32	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			06/05/21 14:32	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			06/05/21 14:32	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			06/05/21 14:32	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			06/05/21 14:32	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			06/05/21 14:32	1
Trichloroethene	<1.00		1.00		ug/L			06/05/21 14:32	1
Trichlorofluoromethane	<4.00		4.00		ug/L			06/05/21 14:32	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			06/05/21 14:32	1
1,2,4-Trimethylbenzene	69.7		1.00		ug/L			06/05/21 14:32	1
1,3,5-Trimethylbenzene	7.97		1.00		ug/L			06/05/21 14:32	1
Vinyl chloride	<1.00		1.00		ug/L			06/05/21 14:32	1
Xylenes, Total	130		3.00		ug/L			06/05/21 14:32	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120					06/05/21 14:32	1
4-Bromofluorobenzene (Surr)	100		80 - 120					06/06/21 09:39	10
Dibromofluoromethane (Surr)	96		79 - 120					06/05/21 14:32	1
Dibromofluoromethane (Surr)	97		79 - 120					06/06/21 09:39	10
Toluene-d8 (Surr)	98		79 - 120					06/05/21 14:32	1
Toluene-d8 (Surr)	100		79 - 120					06/06/21 09:39	10

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	27.0	*1	0.200		ug/L		06/01/21 08:34	06/02/21 13:26	1
Acenaphthylene	159	*1	2.00		ug/L		06/01/21 08:34	06/02/21 16:52	10
Anthracene	6.09	*1	0.200		ug/L		06/01/21 08:34	06/02/21 13:26	1
Benzo(a)anthracene	<0.200	*1	0.200		ug/L		06/01/21 08:34	06/02/21 13:26	1
Benzo(a)pyrene	<0.200	*1	0.200		ug/L		06/01/21 08:34	06/02/21 13:26	1
Benzo(b)fluoranthene	<0.200	*1	0.200		ug/L		06/01/21 08:34	06/02/21 13:26	1
Benzo(g,h,i)perylene	<0.200	*1	0.200		ug/L		06/01/21 08:34	06/02/21 13:26	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 13:26	1
Chrysene	<0.200	*1	0.200		ug/L		06/01/21 08:34	06/02/21 13:26	1
Dibenz(a,h)anthracene	<0.200	*1	0.200		ug/L		06/01/21 08:34	06/02/21 13:26	1
Fluoranthene	5.37	*1	0.200		ug/L		06/01/21 08:34	06/02/21 13:26	1
Fluorene	17.2	*1	0.200		ug/L		06/01/21 08:34	06/02/21 13:26	1
Indeno(1,2,3-cd)pyrene	<0.200	*1	0.200		ug/L		06/01/21 08:34	06/02/21 13:26	1
2-Methylnaphthalene	3.62	*1	0.200		ug/L		06/01/21 08:34	06/02/21 13:26	1
Naphthalene	593	*1 *+	50.0		ug/L		06/01/21 08:34	06/02/21 17:13	100
Phenanthrene	66.4		2.00		ug/L		06/01/21 08:34	06/02/21 16:52	10
Pyrene	5.55	*1	0.200		ug/L		06/01/21 08:34	06/02/21 13:26	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	85		21 - 110				06/01/21 08:34	06/02/21 13:26	1
Nitrobenzene-d5 (Surr)	91		15 - 110				06/01/21 08:34	06/02/21 13:26	1
Terphenyl-d14 (Surr)	83		13 - 110				06/01/21 08:34	06/02/21 13:26	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Client Sample ID: MW3-GW-0521

Lab Sample ID: 310-207665-1

Date Collected: 05/28/21 11:20

Matrix: Ground Water

Date Received: 05/28/21 17:00

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00353		0.00200		mg/L		06/01/21 09:00	06/02/21 19:55	1
Lead	<0.000500		0.000500		mg/L		06/01/21 09:00	06/02/21 19:55	1

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Client Sample ID: MW7-GW-0521

Lab Sample ID: 310-207665-2

Date Collected: 05/28/21 12:55

Matrix: Ground Water

Date Received: 05/28/21 17:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			06/05/21 14:08	1
Benzene	<0.500		0.500		ug/L			06/05/21 14:08	1
Bromobenzene	<1.00		1.00		ug/L			06/05/21 14:08	1
Bromochloromethane	<5.00		5.00		ug/L			06/05/21 14:08	1
Bromodichloromethane	<1.00		1.00		ug/L			06/05/21 14:08	1
Bromoform	<5.00		5.00		ug/L			06/05/21 14:08	1
Bromomethane	<4.00		4.00		ug/L			06/05/21 14:08	1
2-Butanone (MEK)	<10.0		10.0		ug/L			06/05/21 14:08	1
Carbon disulfide	<1.00		1.00		ug/L			06/05/21 14:08	1
Carbon tetrachloride	<2.00		2.00		ug/L			06/05/21 14:08	1
Chlorobenzene	<1.00		1.00		ug/L			06/05/21 14:08	1
Chlorodibromomethane	<5.00		5.00		ug/L			06/05/21 14:08	1
Chloroethane	<4.00		4.00		ug/L			06/05/21 14:08	1
Chloroform	<3.00		3.00		ug/L			06/05/21 14:08	1
Chloromethane	<3.00		3.00		ug/L			06/05/21 14:08	1
2-Chlorotoluene	<1.00		1.00		ug/L			06/05/21 14:08	1
4-Chlorotoluene	<1.00		1.00		ug/L			06/05/21 14:08	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			06/05/21 14:08	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			06/05/21 14:08	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			06/05/21 14:08	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			06/05/21 14:08	1
Dibromomethane	<1.00		1.00		ug/L			06/05/21 14:08	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			06/05/21 14:08	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			06/05/21 14:08	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			06/05/21 14:08	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			06/05/21 14:08	1
1,1-Dichloroethane	<1.00		1.00		ug/L			06/05/21 14:08	1
1,2-Dichloroethane	<1.00		1.00		ug/L			06/05/21 14:08	1
1,1-Dichloroethene	<2.00		2.00		ug/L			06/05/21 14:08	1
1,2-Dichloropropane	<1.00		1.00		ug/L			06/05/21 14:08	1
1,3-Dichloropropane	<1.00		1.00		ug/L			06/05/21 14:08	1
2,2-Dichloropropane	<4.00		4.00		ug/L			06/05/21 14:08	1
1,1-Dichloropropene	<1.00		1.00		ug/L			06/05/21 14:08	1
Ethylbenzene	<1.00		1.00		ug/L			06/05/21 14:08	1
Hexachlorobutadiene	<5.00		5.00		ug/L			06/05/21 14:08	1
Hexane	<1.00		1.00		ug/L			06/05/21 14:08	1
Isopropylbenzene	<1.00		1.00		ug/L			06/05/21 14:08	1
Methylene chloride	<5.00		5.00		ug/L			06/05/21 14:08	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			06/05/21 14:08	1
Naphthalene	<5.00		5.00		ug/L			06/05/21 14:08	1
n-Butylbenzene	<1.00		1.00		ug/L			06/05/21 14:08	1
n-Propylbenzene	<1.00		1.00		ug/L			06/05/21 14:08	1
p-Isopropyltoluene	<1.00		1.00		ug/L			06/05/21 14:08	1
sec-Butylbenzene	<1.00		1.00		ug/L			06/05/21 14:08	1
Styrene	<1.00		1.00		ug/L			06/05/21 14:08	1
tert-Butylbenzene	<1.00		1.00		ug/L			06/05/21 14:08	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			06/05/21 14:08	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			06/05/21 14:08	1
Tetrachloroethene	<1.00		1.00		ug/L			06/05/21 14:08	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Client Sample ID: MW7-GW-0521

Lab Sample ID: 310-207665-2

Date Collected: 05/28/21 12:55

Matrix: Ground Water

Date Received: 05/28/21 17:00

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			06/05/21 14:08	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			06/05/21 14:08	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			06/05/21 14:08	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			06/05/21 14:08	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			06/05/21 14:08	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			06/05/21 14:08	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			06/05/21 14:08	1
Trichloroethene	<1.00		1.00		ug/L			06/05/21 14:08	1
Trichlorofluoromethane	<4.00		4.00		ug/L			06/05/21 14:08	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			06/05/21 14:08	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			06/05/21 14:08	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			06/05/21 14:08	1
Vinyl chloride	<1.00		1.00		ug/L			06/05/21 14:08	1
Xylenes, Total	<3.00		3.00		ug/L			06/05/21 14:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		80 - 120		06/05/21 14:08	1
Dibromofluoromethane (Surr)	100		79 - 120		06/05/21 14:08	1
Toluene-d8 (Surr)	100		79 - 120		06/05/21 14:08	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.227	*1	0.227		ug/L		06/01/21 08:34	06/02/21 13:47	1
Acenaphthylene	0.453	*1	0.227		ug/L		06/01/21 08:34	06/02/21 13:47	1
Anthracene	<0.227	*1	0.227		ug/L		06/01/21 08:34	06/02/21 13:47	1
Benzo(a)anthracene	<0.227	*1	0.227		ug/L		06/01/21 08:34	06/02/21 13:47	1
Benzo(a)pyrene	<0.227	*1	0.227		ug/L		06/01/21 08:34	06/02/21 13:47	1
Benzo(b)fluoranthene	<0.227	*1	0.227		ug/L		06/01/21 08:34	06/02/21 13:47	1
Benzo(g,h,i)perylene	<0.227	*1	0.227		ug/L		06/01/21 08:34	06/02/21 13:47	1
Benzo(k)fluoranthene	<0.227		0.227		ug/L		06/01/21 08:34	06/02/21 13:47	1
Chrysene	<0.227	*1	0.227		ug/L		06/01/21 08:34	06/02/21 13:47	1
Dibenz(a,h)anthracene	<0.227	*1	0.227		ug/L		06/01/21 08:34	06/02/21 13:47	1
Fluoranthene	<0.227	*1	0.227		ug/L		06/01/21 08:34	06/02/21 13:47	1
Fluorene	<0.227	*1	0.227		ug/L		06/01/21 08:34	06/02/21 13:47	1
Indeno(1,2,3-cd)pyrene	<0.227	*1	0.227		ug/L		06/01/21 08:34	06/02/21 13:47	1
2-Methylnaphthalene	1.02	*1	0.227		ug/L		06/01/21 08:34	06/02/21 13:47	1
Naphthalene	2.91	*1 *+	0.568		ug/L		06/01/21 08:34	06/02/21 13:47	1
Phenanthrene	<0.227		0.227		ug/L		06/01/21 08:34	06/02/21 13:47	1
Pyrene	<0.227	*1	0.227		ug/L		06/01/21 08:34	06/02/21 13:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		21 - 110	06/01/21 08:34	06/02/21 13:47	1
Nitrobenzene-d5 (Surr)	69		15 - 110	06/01/21 08:34	06/02/21 13:47	1
Terphenyl-d14 (Surr)	77		13 - 110	06/01/21 08:34	06/02/21 13:47	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		06/01/21 09:00	06/02/21 19:57	1
Lead	<0.000500		0.000500		mg/L		06/01/21 09:00	06/02/21 19:57	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Client Sample ID: Trip Blank

Lab Sample ID: 310-207665-3

Date Collected: 05/28/21 00:00

Matrix: Water

Date Received: 05/28/21 17:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			06/05/21 07:06	1
Benzene	<0.500		0.500		ug/L			06/05/21 07:06	1
Bromobenzene	<1.00		1.00		ug/L			06/05/21 07:06	1
Bromochloromethane	<5.00		5.00		ug/L			06/05/21 07:06	1
Bromodichloromethane	<1.00		1.00		ug/L			06/05/21 07:06	1
Bromoform	<5.00		5.00		ug/L			06/05/21 07:06	1
Bromomethane	<4.00		4.00		ug/L			06/05/21 07:06	1
2-Butanone (MEK)	<10.0		10.0		ug/L			06/05/21 07:06	1
Carbon disulfide	<1.00		1.00		ug/L			06/05/21 07:06	1
Carbon tetrachloride	<2.00		2.00		ug/L			06/05/21 07:06	1
Chlorobenzene	<1.00		1.00		ug/L			06/05/21 07:06	1
Chlorodibromomethane	<5.00		5.00		ug/L			06/05/21 07:06	1
Chloroethane	<4.00		4.00		ug/L			06/05/21 07:06	1
Chloroform	<3.00		3.00		ug/L			06/05/21 07:06	1
Chloromethane	<3.00		3.00		ug/L			06/05/21 07:06	1
2-Chlorotoluene	<1.00		1.00		ug/L			06/05/21 07:06	1
4-Chlorotoluene	<1.00		1.00		ug/L			06/05/21 07:06	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			06/05/21 07:06	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			06/05/21 07:06	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			06/05/21 07:06	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			06/05/21 07:06	1
Dibromomethane	<1.00		1.00		ug/L			06/05/21 07:06	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			06/05/21 07:06	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			06/05/21 07:06	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			06/05/21 07:06	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			06/05/21 07:06	1
1,1-Dichloroethane	<1.00		1.00		ug/L			06/05/21 07:06	1
1,2-Dichloroethane	<1.00		1.00		ug/L			06/05/21 07:06	1
1,1-Dichloroethene	<2.00		2.00		ug/L			06/05/21 07:06	1
1,2-Dichloropropane	<1.00		1.00		ug/L			06/05/21 07:06	1
1,3-Dichloropropane	<1.00		1.00		ug/L			06/05/21 07:06	1
2,2-Dichloropropane	<4.00		4.00		ug/L			06/05/21 07:06	1
1,1-Dichloropropene	<1.00		1.00		ug/L			06/05/21 07:06	1
Ethylbenzene	<1.00		1.00		ug/L			06/05/21 07:06	1
Hexachlorobutadiene	<5.00		5.00		ug/L			06/05/21 07:06	1
Hexane	<1.00		1.00		ug/L			06/05/21 07:06	1
Isopropylbenzene	<1.00		1.00		ug/L			06/05/21 07:06	1
Methylene chloride	<5.00		5.00		ug/L			06/05/21 07:06	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			06/05/21 07:06	1
Naphthalene	<5.00		5.00		ug/L			06/05/21 07:06	1
n-Butylbenzene	<1.00		1.00		ug/L			06/05/21 07:06	1
n-Propylbenzene	<1.00		1.00		ug/L			06/05/21 07:06	1
p-Isopropyltoluene	<1.00		1.00		ug/L			06/05/21 07:06	1
sec-Butylbenzene	<1.00		1.00		ug/L			06/05/21 07:06	1
Styrene	<1.00		1.00		ug/L			06/05/21 07:06	1
tert-Butylbenzene	<1.00		1.00		ug/L			06/05/21 07:06	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			06/05/21 07:06	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			06/05/21 07:06	1
Tetrachloroethene	<1.00		1.00		ug/L			06/05/21 07:06	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Client Sample ID: Trip Blank

Lab Sample ID: 310-207665-3

Date Collected: 05/28/21 00:00

Matrix: Water

Date Received: 05/28/21 17:00

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			06/05/21 07:06	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			06/05/21 07:06	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			06/05/21 07:06	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			06/05/21 07:06	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			06/05/21 07:06	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			06/05/21 07:06	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			06/05/21 07:06	1
Trichloroethene	<1.00		1.00		ug/L			06/05/21 07:06	1
Trichlorofluoromethane	<4.00		4.00		ug/L			06/05/21 07:06	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			06/05/21 07:06	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			06/05/21 07:06	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			06/05/21 07:06	1
Vinyl chloride	<1.00		1.00		ug/L			06/05/21 07:06	1
Xylenes, Total	<3.00		3.00		ug/L			06/05/21 07:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120		06/05/21 07:06	1
Dibromofluoromethane (Surr)	100		79 - 120		06/05/21 07:06	1
Toluene-d8 (Surr)	100		79 - 120		06/05/21 07:06	1

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Ground Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (80-120)	DBFM (79-120)	TOL (79-120)
310-207665-1	MW3-GW-0521	98	96	98
310-207665-1	MW3-GW-0521	100	97	100
310-207665-2	MW7-GW-0521	104	100	100

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (80-120)	DBFM (79-120)	TOL (79-120)
310-207665-3	Trip Blank	101	100	100
LCS 310-318324/6	Lab Control Sample	100	97	103
LCS 310-318324/7	Lab Control Sample	103	96	100
LCS 310-318332/6	Lab Control Sample	100	96	105
MB 310-318324/8	Method Blank	99	97	99
MB 310-318332/8	Method Blank	97	99	100

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Ground Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (21-110)	NBZ (15-110)	TPHL (13-110)
310-207665-1	MW3-GW-0521	85	91	83
310-207665-2	MW7-GW-0521	74	69	77

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (21-110)	NBZ (15-110)	TPHL (13-110)
LCS 310-317874/2-A	Lab Control Sample	89	82	103
LCSD 310-317874/3-A	Lab Control Sample Dup	73	69	83
MB 310-317874/1-A	Method Blank	87	81	105

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

Surrogate Summary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP
NBZ = Nitrobenzene-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Job ID: 310-207665-1
SDG: 11156780

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-318324/8
Matrix: Water
Analysis Batch: 318324

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			06/05/21 06:42	1
Benzene	<0.500		0.500		ug/L			06/05/21 06:42	1
Bromobenzene	<1.00		1.00		ug/L			06/05/21 06:42	1
Bromochloromethane	<5.00		5.00		ug/L			06/05/21 06:42	1
Bromodichloromethane	<1.00		1.00		ug/L			06/05/21 06:42	1
Bromoform	<5.00		5.00		ug/L			06/05/21 06:42	1
Bromomethane	<4.00		4.00		ug/L			06/05/21 06:42	1
2-Butanone (MEK)	<10.0		10.0		ug/L			06/05/21 06:42	1
Carbon disulfide	<1.00		1.00		ug/L			06/05/21 06:42	1
Carbon tetrachloride	<2.00		2.00		ug/L			06/05/21 06:42	1
Chlorobenzene	<1.00		1.00		ug/L			06/05/21 06:42	1
Chlorodibromomethane	<5.00		5.00		ug/L			06/05/21 06:42	1
Chloroethane	<4.00		4.00		ug/L			06/05/21 06:42	1
Chloroform	<3.00		3.00		ug/L			06/05/21 06:42	1
Chloromethane	<3.00		3.00		ug/L			06/05/21 06:42	1
2-Chlorotoluene	<1.00		1.00		ug/L			06/05/21 06:42	1
4-Chlorotoluene	<1.00		1.00		ug/L			06/05/21 06:42	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			06/05/21 06:42	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			06/05/21 06:42	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			06/05/21 06:42	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			06/05/21 06:42	1
Dibromomethane	<1.00		1.00		ug/L			06/05/21 06:42	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			06/05/21 06:42	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			06/05/21 06:42	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			06/05/21 06:42	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			06/05/21 06:42	1
1,1-Dichloroethane	<1.00		1.00		ug/L			06/05/21 06:42	1
1,2-Dichloroethane	<1.00		1.00		ug/L			06/05/21 06:42	1
1,1-Dichloroethene	<2.00		2.00		ug/L			06/05/21 06:42	1
1,2-Dichloropropane	<1.00		1.00		ug/L			06/05/21 06:42	1
1,3-Dichloropropane	<1.00		1.00		ug/L			06/05/21 06:42	1
2,2-Dichloropropane	<4.00		4.00		ug/L			06/05/21 06:42	1
1,1-Dichloropropene	<1.00		1.00		ug/L			06/05/21 06:42	1
Ethylbenzene	<1.00		1.00		ug/L			06/05/21 06:42	1
Hexachlorobutadiene	<5.00		5.00		ug/L			06/05/21 06:42	1
Hexane	<1.00		1.00		ug/L			06/05/21 06:42	1
Isopropylbenzene	<1.00		1.00		ug/L			06/05/21 06:42	1
Methylene chloride	<5.00		5.00		ug/L			06/05/21 06:42	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			06/05/21 06:42	1
Naphthalene	<5.00		5.00		ug/L			06/05/21 06:42	1
n-Butylbenzene	<1.00		1.00		ug/L			06/05/21 06:42	1
n-Propylbenzene	<1.00		1.00		ug/L			06/05/21 06:42	1
p-Isopropyltoluene	<1.00		1.00		ug/L			06/05/21 06:42	1
sec-Butylbenzene	<1.00		1.00		ug/L			06/05/21 06:42	1
Styrene	<1.00		1.00		ug/L			06/05/21 06:42	1
tert-Butylbenzene	<1.00		1.00		ug/L			06/05/21 06:42	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			06/05/21 06:42	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			06/05/21 06:42	1

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-318324/8
Matrix: Water
Analysis Batch: 318324

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<1.00		1.00		ug/L			06/05/21 06:42	1
Toluene	<1.00		1.00		ug/L			06/05/21 06:42	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			06/05/21 06:42	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			06/05/21 06:42	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			06/05/21 06:42	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			06/05/21 06:42	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			06/05/21 06:42	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			06/05/21 06:42	1
Trichloroethene	<1.00		1.00		ug/L			06/05/21 06:42	1
Trichlorofluoromethane	<4.00		4.00		ug/L			06/05/21 06:42	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			06/05/21 06:42	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			06/05/21 06:42	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			06/05/21 06:42	1
Vinyl chloride	<1.00		1.00		ug/L			06/05/21 06:42	1
Xylenes, Total	<3.00		3.00		ug/L			06/05/21 06:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120		06/05/21 06:42	1
Dibromofluoromethane (Surr)	97		79 - 120		06/05/21 06:42	1
Toluene-d8 (Surr)	99		79 - 120		06/05/21 06:42	1

Lab Sample ID: LCS 310-318324/6
Matrix: Water
Analysis Batch: 318324

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	41.99		ug/L		105	50 - 150
Benzene	20.0	19.94		ug/L		100	73 - 127
Bromobenzene	20.0	19.47		ug/L		97	68 - 128
Bromochloromethane	20.0	22.24		ug/L		111	77 - 140
Bromodichloromethane	20.0	18.43		ug/L		92	70 - 122
Bromoform	20.0	18.62		ug/L		93	58 - 125
2-Butanone (MEK)	40.0	37.44		ug/L		94	49 - 150
Carbon disulfide	20.0	19.14		ug/L		96	58 - 140
Carbon tetrachloride	20.0	18.32		ug/L		92	66 - 136
Chlorobenzene	20.0	19.64		ug/L		98	72 - 124
Chlorodibromomethane	20.0	17.98		ug/L		90	66 - 126
Chloroform	20.0	18.21		ug/L		91	72 - 125
2-Chlorotoluene	20.0	18.74		ug/L		94	68 - 129
4-Chlorotoluene	20.0	18.13		ug/L		91	67 - 128
cis-1,2-Dichloroethene	20.0	19.07		ug/L		95	71 - 130
cis-1,3-Dichloropropene	20.0	19.44		ug/L		97	69 - 122
1,2-Dibromo-3-chloropropane	20.0	16.69		ug/L		83	42 - 150
1,2-Dibromoethane (EDB)	20.0	19.20		ug/L		96	70 - 129
Dibromomethane	20.0	18.37		ug/L		92	71 - 133
1,2-Dichlorobenzene	20.0	18.64		ug/L		93	67 - 125
1,3-Dichlorobenzene	20.0	19.43		ug/L		97	65 - 128
1,4-Dichlorobenzene	20.0	18.81		ug/L		94	66 - 126

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-318324/6
Matrix: Water
Analysis Batch: 318324

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	20.0	19.91		ug/L		100	71 - 131
1,2-Dichloroethane	20.0	18.63		ug/L		93	72 - 128
1,1-Dichloroethene	20.0	19.27		ug/L		96	64 - 137
1,2-Dichloropropane	20.0	19.29		ug/L		96	71 - 130
1,3-Dichloropropane	20.0	19.05		ug/L		95	72 - 130
2,2-Dichloropropane	20.0	20.12		ug/L		101	33 - 150
1,1-Dichloropropene	20.0	18.51		ug/L		93	72 - 130
Ethylbenzene	20.0	19.04		ug/L		95	73 - 127
Hexachlorobutadiene	20.0	18.27		ug/L		91	48 - 150
Hexane	20.0	21.98		ug/L		110	50 - 150
Isopropylbenzene	20.0	18.43		ug/L		92	71 - 127
Methylene chloride	20.0	18.72		ug/L		94	48 - 150
Methyl tert-butyl ether	20.0	18.33		ug/L		92	68 - 127
m,p-Xylene	20.0	18.44		ug/L		92	72 - 128
Naphthalene	20.0	14.69		ug/L		73	43 - 150
n-Butylbenzene	20.0	18.47		ug/L		92	64 - 129
n-Propylbenzene	20.0	18.56		ug/L		93	68 - 129
o-Xylene	20.0	18.25		ug/L		91	70 - 128
p-Isopropyltoluene	20.0	18.21		ug/L		91	66 - 128
sec-Butylbenzene	20.0	18.73		ug/L		94	64 - 134
Styrene	20.0	18.12		ug/L		91	69 - 127
tert-Butylbenzene	20.0	18.47		ug/L		92	66 - 132
1,1,1,2-Tetrachloroethane	20.0	18.72		ug/L		94	69 - 124
1,1,2,2-Tetrachloroethane	20.0	19.82		ug/L		99	66 - 129
Tetrachloroethene	20.0	18.52		ug/L		93	68 - 135
Toluene	20.0	18.45		ug/L		92	71 - 126
trans-1,2-Dichloroethene	20.0	19.36		ug/L		97	69 - 132
trans-1,3-Dichloropropene	20.0	19.27		ug/L		96	65 - 123
1,2,3-Trichlorobenzene	20.0	15.62		ug/L		78	45 - 150
1,2,4-Trichlorobenzene	20.0	18.61		ug/L		93	57 - 133
1,1,1-Trichloroethane	20.0	18.24		ug/L		91	70 - 129
1,1,2-Trichloroethane	20.0	19.09		ug/L		95	68 - 128
Trichloroethene	20.0	18.37		ug/L		92	71 - 130
1,2,3-Trichloropropane	20.0	19.75		ug/L		99	61 - 137
1,2,4-Trimethylbenzene	20.0	18.53		ug/L		93	64 - 133
1,3,5-Trimethylbenzene	20.0	17.86		ug/L		89	66 - 134
Xylenes, Total	40.0	36.69		ug/L		92	70 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	97		79 - 120
Toluene-d8 (Surr)	103		79 - 120

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-318324/7
Matrix: Water
Analysis Batch: 318324

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	20.0	12.64		ug/L		63	22 - 150
Chloroethane	20.0	17.22		ug/L		86	61 - 139
Chloromethane	20.0	16.47		ug/L		82	48 - 150
Dichlorodifluoromethane	20.0	15.68		ug/L		78	50 - 150
Trichlorofluoromethane	20.0	16.64		ug/L		83	59 - 150
Vinyl chloride	20.0	17.46		ug/L		87	65 - 141

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	96		79 - 120
Toluene-d8 (Surr)	100		79 - 120

Lab Sample ID: MB 310-318332/8
Matrix: Water
Analysis Batch: 318332

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			06/06/21 07:18	1
Naphthalene	<5.00		5.00		ug/L			06/06/21 07:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		80 - 120		06/06/21 07:18	1
Dibromofluoromethane (Surr)	99		79 - 120		06/06/21 07:18	1
Toluene-d8 (Surr)	100		79 - 120		06/06/21 07:18	1

Lab Sample ID: LCS 310-318332/6
Matrix: Water
Analysis Batch: 318332

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	22.62		ug/L		113	73 - 127
Naphthalene	20.0	17.25		ug/L		86	43 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	96		79 - 120
Toluene-d8 (Surr)	105		79 - 120

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 310-317874/1-A
Matrix: Water
Analysis Batch: 318046

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 317874

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 10:42	1
Acenaphthylene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 10:42	1
Anthracene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 10:42	1

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 310-317874/1-A
Matrix: Water
Analysis Batch: 318046

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 317874

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzo(a)anthracene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 10:42	1
Benzo(a)pyrene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 10:42	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 10:42	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 10:42	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 10:42	1
Chrysene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 10:42	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 10:42	1
Fluoranthene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 10:42	1
Fluorene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 10:42	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 10:42	1
2-Methylnaphthalene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 10:42	1
Naphthalene	<0.500		0.500		ug/L		06/01/21 08:34	06/02/21 10:42	1
Phenanthrene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 10:42	1
Pyrene	<0.200		0.200		ug/L		06/01/21 08:34	06/02/21 10:42	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	87		21 - 110	06/01/21 08:34	06/02/21 10:42	1
Nitrobenzene-d5 (Surr)	81		15 - 110	06/01/21 08:34	06/02/21 10:42	1
Terphenyl-d14 (Surr)	105		13 - 110	06/01/21 08:34	06/02/21 10:42	1

Lab Sample ID: LCS 310-317874/2-A
Matrix: Water
Analysis Batch: 318046

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 317874

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Acenaphthene	2.00	1.837		ug/L		92	25 - 110
Acenaphthylene	2.00	1.886		ug/L		94	25 - 110
Anthracene	2.00	1.916		ug/L		96	26 - 110
Benzo(a)anthracene	2.00	2.035		ug/L		102	26 - 110
Benzo(a)pyrene	2.00	1.741		ug/L		87	20 - 110
Benzo(b)fluoranthene	2.00	2.008		ug/L		100	24 - 110
Benzo(g,h,i)perylene	2.00	2.009		ug/L		100	17 - 110
Benzo(k)fluoranthene	2.00	2.006		ug/L		100	26 - 110
Chrysene	2.00	1.960		ug/L		98	23 - 110
Dibenz(a,h)anthracene	2.00	1.960		ug/L		98	14 - 110
Fluoranthene	2.00	2.076		ug/L		104	24 - 110
Fluorene	2.00	1.915		ug/L		96	27 - 110
Indeno(1,2,3-cd)pyrene	2.00	1.931		ug/L		97	15 - 110
2-Methylnaphthalene	2.00	1.840		ug/L		92	19 - 110
Naphthalene	2.00	2.482	*+	ug/L		124	24 - 110
Phenanthrene	2.00	1.850		ug/L		92	28 - 110
Pyrene	2.00	2.078		ug/L		104	26 - 110

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	89		21 - 110
Nitrobenzene-d5 (Surr)	82		15 - 110
Terphenyl-d14 (Surr)	103		13 - 110

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 310-317874/3-A
Matrix: Water
Analysis Batch: 318046

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 317874

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	2.00	1.245	*1	ug/L		62	25 - 110	38	35
Acenaphthylene	2.00	1.273	*1	ug/L		64	25 - 110	39	35
Anthracene	2.00	1.295	*1	ug/L		65	26 - 110	39	35
Benzo(a)anthracene	2.00	1.378	*1	ug/L		69	26 - 110	39	35
Benzo(a)pyrene	2.00	0.9884	*1	ug/L		49	20 - 110	55	35
Benzo(b)fluoranthene	2.00	1.392	*1	ug/L		70	24 - 110	36	35
Benzo(g,h,i)perylene	2.00	1.270	*1	ug/L		63	17 - 110	45	35
Benzo(k)fluoranthene	2.00	1.420		ug/L		71	26 - 110	34	35
Chrysene	2.00	1.341	*1	ug/L		67	23 - 110	38	35
Dibenz(a,h)anthracene	2.00	1.234	*1	ug/L		62	14 - 110	45	35
Fluoranthene	2.00	1.435	*1	ug/L		72	24 - 110	37	35
Fluorene	2.00	1.331	*1	ug/L		67	27 - 110	36	35
Indeno(1,2,3-cd)pyrene	2.00	1.209	*1	ug/L		60	15 - 110	46	35
2-Methylnaphthalene	2.00	1.162	*1	ug/L		58	19 - 110	45	35
Naphthalene	2.00	1.247	*1	ug/L		62	24 - 110	66	35
Phenanthrene	2.00	1.301		ug/L		65	28 - 110	35	35
Pyrene	2.00	1.420	*1	ug/L		71	26 - 110	38	35

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2-Fluorobiphenyl (Surr)	73		21 - 110
Nitrobenzene-d5 (Surr)	69		15 - 110
Terphenyl-d14 (Surr)	83		13 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-317870/1-A
Matrix: Water
Analysis Batch: 318210

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 317870

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		06/01/21 09:00	06/02/21 18:30	1
Lead	<0.000500		0.000500		mg/L		06/01/21 09:00	06/02/21 18:30	1

Lab Sample ID: LCS 310-317870/2-A
Matrix: Water
Analysis Batch: 318210

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 317870

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.200	0.2010		mg/L		100	80 - 120
Lead	0.200	0.2093		mg/L		105	80 - 120

Lab Sample ID: LCS 310-317870/2-A
Matrix: Water
Analysis Batch: 318293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 317870

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.200	0.1983		mg/L		99	80 - 120
Lead	0.200	0.2030		mg/L		102	80 - 120

Eurofins TestAmerica, Cedar Falls

QC Association Summary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

GC/MS VOA

Analysis Batch: 318324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-207665-1	MW3-GW-0521	Total/NA	Ground Water	8260D	
310-207665-2	MW7-GW-0521	Total/NA	Ground Water	8260D	
310-207665-3	Trip Blank	Total/NA	Water	8260D	
MB 310-318324/8	Method Blank	Total/NA	Water	8260D	
LCS 310-318324/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-318324/7	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 318332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-207665-1	MW3-GW-0521	Total/NA	Ground Water	8260D	
MB 310-318332/8	Method Blank	Total/NA	Water	8260D	
LCS 310-318332/6	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 317874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-207665-1	MW3-GW-0521	Total/NA	Ground Water	3510C	
310-207665-2	MW7-GW-0521	Total/NA	Ground Water	3510C	
MB 310-317874/1-A	Method Blank	Total/NA	Water	3510C	
LCS 310-317874/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 310-317874/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 318046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-207665-1	MW3-GW-0521	Total/NA	Ground Water	8270E SIM	317874
310-207665-1	MW3-GW-0521	Total/NA	Ground Water	8270E SIM	317874
310-207665-1	MW3-GW-0521	Total/NA	Ground Water	8270E SIM	317874
310-207665-2	MW7-GW-0521	Total/NA	Ground Water	8270E SIM	317874
MB 310-317874/1-A	Method Blank	Total/NA	Water	8270E SIM	317874
LCS 310-317874/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	317874
LCS 310-317874/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	317874

Metals

Prep Batch: 317870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-207665-1	MW3-GW-0521	Total/NA	Ground Water	3010A	
310-207665-2	MW7-GW-0521	Total/NA	Ground Water	3010A	
MB 310-317870/1-A	Method Blank	Total/NA	Water	3010A	
LCS 310-317870/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 318210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-207665-1	MW3-GW-0521	Total/NA	Ground Water	6020A	317870
310-207665-2	MW7-GW-0521	Total/NA	Ground Water	6020A	317870
MB 310-317870/1-A	Method Blank	Total/NA	Water	6020A	317870
LCS 310-317870/2-A	Lab Control Sample	Total/NA	Water	6020A	317870

Analysis Batch: 318293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-317870/2-A	Lab Control Sample	Total/NA	Water	6020A	317870

Eurofins TestAmerica, Cedar Falls

Lab Chronicle

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Client Sample ID: MW3-GW-0521

Lab Sample ID: 310-207665-1

Date Collected: 05/28/21 11:20

Matrix: Ground Water

Date Received: 05/28/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	318324	06/05/21 14:32	SJN	TAL CF
Total/NA	Analysis	8260D		10	318332	06/06/21 09:39	SJN	TAL CF
Total/NA	Prep	3510C			317874	06/01/21 08:34	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	318046	06/02/21 13:26	BKT	TAL CF
Total/NA	Prep	3510C			317874	06/01/21 08:34	JCM	TAL CF
Total/NA	Analysis	8270E SIM		10	318046	06/02/21 16:52	BKT	TAL CF
Total/NA	Prep	3510C			317874	06/01/21 08:34	JCM	TAL CF
Total/NA	Analysis	8270E SIM		100	318046	06/02/21 17:13	BKT	TAL CF
Total/NA	Prep	3010A			317870	06/01/21 09:00	JNR	TAL CF
Total/NA	Analysis	6020A		1	318210	06/02/21 19:55	CJT	TAL CF

Client Sample ID: MW7-GW-0521

Lab Sample ID: 310-207665-2

Date Collected: 05/28/21 12:55

Matrix: Ground Water

Date Received: 05/28/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	318324	06/05/21 14:08	SJN	TAL CF
Total/NA	Prep	3510C			317874	06/01/21 08:34	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	318046	06/02/21 13:47	BKT	TAL CF
Total/NA	Prep	3010A			317870	06/01/21 09:00	JNR	TAL CF
Total/NA	Analysis	6020A		1	318210	06/02/21 19:57	CJT	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: 310-207665-3

Date Collected: 05/28/21 00:00

Matrix: Water

Date Received: 05/28/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	318324	06/05/21 07:06	SJN	TAL CF

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Laboratory: Eurofins TestAmerica, Cedar Falls

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Colorado	Petroleum Storage Tank Program	IA100001 (OR)	09-29-21
Georgia	State	IA100001 (OR)	09-29-21
Illinois	NELAP	200024	11-29-21
Iowa	State	007	12-01-21
Kansas	NELAP	E-10341	01-31-22
Minnesota	NELAP	019-999-319	12-31-21
Minnesota (Petrofund)	State	3349	08-22-21
North Dakota	State	R-186	09-29-21
Oregon	NELAP	IA100001	09-29-21
USDA	US Federal Programs	P330-19-00003	01-02-22

Method Summary

Client: GHD Services Inc.
Project/Site: IPL Albia FMGP

Job ID: 310-207665-1
SDG: 11156780

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL CF
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL CF
6020A	Metals (ICP/MS)	SW846	TAL CF
3010A	Preparation, Total Metals	SW846	TAL CF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CF
5030B	Purge and Trap	SW846	TAL CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401



Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: GHD			
City/State:	CITY urbandale	STATE IA	Project: Albia FM GP
Receipt Information			
Date/Time Received:	DATE 5-20-21	TIME 1700	Received By: EW
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes: Cooler ID: _____			
Multiple Coolers? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Cooler # _____ of _____			
Cooler Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Trip Blank Present? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No ^{AW} _{5/28} If yes: Which VOA samples are in cooler? ↓ All			
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: 0		Correction Factor (°C):	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): 5.3		Corrected Temp (°C): 5.3	
• Sample Container Temperature			
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No			
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 310-207665-1

SDG Number: 11156780

Login Number: 207665

List Source: Eurofins TestAmerica, Cedar Falls

List Number: 1

Creator: Watkins, Allison R

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received Trip Blank(s) not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-210599-1
Laboratory Sample Delivery Group: 11156780
Client Project/Site: IPL- Albia FMGP

For:
GHD Services Inc.
11228 Aurora Avenue
Des Moines, Iowa 50322-7905

Attn: Kevin Armstrong



Authorized for release by:
7/21/2021 1:54:49 PM

Shawn Hayes, Senior Project Manager
(319)229-8211
Shawn.Hayes@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	4
Detection Summary	5
Client Sample Results	8
Definitions	35
Surrogate Summary	36
QC Sample Results	38
QC Association	48
Chronicle	51
Certification Summary	54
Method Summary	55
Chain of Custody	56
Receipt Checklists	59



Case Narrative

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Job ID: 310-210599-1

Laboratory: Eurofins TestAmerica, Cedar Falls

Narrative

Job Narrative 310-210599-1

Comments

No additional comments.

Receipt

The samples were received on 7/9/2021 5:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.9° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-210599-1	MW-1-GW-DP-0721	Ground Water	07/08/21 11:10	07/09/21 17:15
310-210599-2	MW-2-GW-DP-0721	Ground Water	07/08/21 13:10	07/09/21 17:15
310-210599-3	MW-3-GW-DP-0721	Ground Water	07/08/21 12:20	07/09/21 17:15
310-210599-4	MW-4-GW-DP-0721	Ground Water	07/07/21 13:35	07/09/21 17:15
310-210599-5	MW-5-GW-DP-0721	Ground Water	07/07/21 14:30	07/09/21 17:15
310-210599-5 MS	MW-5-GW-DP-0721	Ground Water	07/07/21 14:30	07/09/21 17:15
310-210599-5 MSD	MW-5-GW-DP-0721	Ground Water	07/07/21 14:30	07/09/21 17:15
310-210599-6	MW-6-GW-DP-0721	Ground Water	07/08/21 10:20	07/09/21 17:15
310-210599-7	MW-7-GW-DP-0721	Ground Water	07/07/21 12:35	07/09/21 17:15
310-210599-8	MW-8R-GW-DP-0721	Ground Water	07/07/21 11:45	07/09/21 17:15
310-210599-9	MW-9-GW-DP-0721	Ground Water	07/07/21 15:25	07/09/21 17:15
310-210599-10	DUP1-GW-DP-0721	Ground Water	07/08/21 00:00	07/09/21 17:15
310-210599-11	EB-GW-DP-0721	Water	07/08/21 11:40	07/09/21 17:15
310-210599-12	Trip Blank	Water	07/08/21 00:00	07/09/21 17:15



Detection Summary

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-1-GW-DP-0721

Lab Sample ID: 310-210599-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	494		0.500		ug/L	1		8260D	Total/NA
Ethylbenzene	565		10.0		ug/L	10		8260D	Total/NA
Isopropylbenzene	6.17		1.00		ug/L	1		8260D	Total/NA
Naphthalene	297		5.00		ug/L	1		8260D	Total/NA
n-Propylbenzene	11.0		1.00		ug/L	1		8260D	Total/NA
Toluene	6.58		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	111		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	57.5		3.00		ug/L	1		8260D	Total/NA
Acenaphthene	19.3		0.227		ug/L	1		8270E SIM	Total/NA
Acenaphthylene	4.71		0.227		ug/L	1		8270E SIM	Total/NA
Anthracene	1.83		0.227		ug/L	1		8270E SIM	Total/NA
Fluoranthene	1.65		0.227		ug/L	1		8270E SIM	Total/NA
Fluorene	15.4		0.227		ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	0.280		0.227		ug/L	1		8270E SIM	Total/NA
Naphthalene	66.9		5.68		ug/L	10		8270E SIM	Total/NA
Phenanthrene	12.0		0.227		ug/L	1		8270E SIM	Total/NA
Pyrene	1.55		0.227		ug/L	1		8270E SIM	Total/NA
Arsenic	0.00610		0.00200		mg/L	1		6020A	Total/NA
Lead	0.000664		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW-2-GW-DP-0721

Lab Sample ID: 310-210599-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	231		0.500		ug/L	1		8260D	Total/NA
Carbon disulfide	1.15		1.00		ug/L	1		8260D	Total/NA
Ethylbenzene	81.5		1.00		ug/L	1		8260D	Total/NA
Isopropylbenzene	2.45		1.00		ug/L	1		8260D	Total/NA
Naphthalene	59.9		5.00		ug/L	1		8260D	Total/NA
n-Propylbenzene	1.96		1.00		ug/L	1		8260D	Total/NA
Toluene	5.80		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	41.5		1.00		ug/L	1		8260D	Total/NA
1,3,5-Trimethylbenzene	3.54		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	51.7		3.00		ug/L	1		8260D	Total/NA
Acenaphthene	20.7		0.208		ug/L	1		8270E SIM	Total/NA
Acenaphthylene	25.8		0.208		ug/L	1		8270E SIM	Total/NA
Anthracene	1.33		0.208		ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.799		0.208		ug/L	1		8270E SIM	Total/NA
Fluorene	16.7		0.208		ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	1.03		0.208		ug/L	1		8270E SIM	Total/NA
Naphthalene	22.6		0.521		ug/L	1		8270E SIM	Total/NA
Phenanthrene	8.59		0.208		ug/L	1		8270E SIM	Total/NA
Pyrene	0.760		0.208		ug/L	1		8270E SIM	Total/NA
Arsenic	0.0153		0.00200		mg/L	1		6020A	Total/NA

Client Sample ID: MW-3-GW-DP-0721

Lab Sample ID: 310-210599-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	449		0.500		ug/L	1		8260D	Total/NA
Chloroethane	21.9		4.00		ug/L	1		8260D	Total/NA
Ethylbenzene	133		10.0		ug/L	10		8260D	Total/NA
Isopropylbenzene	13.8		1.00		ug/L	1		8260D	Total/NA
Naphthalene	527		50.0		ug/L	10		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-3-GW-DP-0721 (Continued)

Lab Sample ID: 310-210599-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
n-Butylbenzene	1.75		1.00		ug/L	1		8260D	Total/NA
n-Propylbenzene	4.58		1.00		ug/L	1		8260D	Total/NA
Toluene	20.1		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	72.1		1.00		ug/L	1		8260D	Total/NA
1,3,5-Trimethylbenzene	7.16		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	121		3.00		ug/L	1		8260D	Total/NA
Acenaphthene	18.7		0.217		ug/L	1		8270E SIM	Total/NA
Acenaphthylene	129		2.17		ug/L	10		8270E SIM	Total/NA
Anthracene	4.22		0.217		ug/L	1		8270E SIM	Total/NA
Fluoranthene	4.66		0.217		ug/L	1		8270E SIM	Total/NA
Fluorene	12.2		0.217		ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	1.29		0.217		ug/L	1		8270E SIM	Total/NA
Naphthalene	266		5.43		ug/L	10		8270E SIM	Total/NA
Phenanthrene	54.3		2.17		ug/L	10		8270E SIM	Total/NA
Pyrene	5.07		0.217		ug/L	1		8270E SIM	Total/NA
Arsenic	0.00416		0.00200		mg/L	1		6020A	Total/NA
Lead	0.000999		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW-4-GW-DP-0721

Lab Sample ID: 310-210599-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo(b)fluoranthene	0.219		0.200		ug/L	1		8270E SIM	Total/NA
Arsenic	0.00598		0.00200		mg/L	1		6020A	Total/NA

Client Sample ID: MW-5-GW-DP-0721

Lab Sample ID: 310-210599-5

No Detections.

Client Sample ID: MW-6-GW-DP-0721

Lab Sample ID: 310-210599-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	22.7		0.500		ug/L	1		8260D	Total/NA
Ethylbenzene	4.63		1.00		ug/L	1		8260D	Total/NA
Naphthalene	26.8		5.00		ug/L	1		8260D	Total/NA
Toluene	3.28		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	14.6		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	29.7		3.00		ug/L	1		8260D	Total/NA
Acenaphthene	2.06		0.227		ug/L	1		8270E SIM	Total/NA
Acenaphthylene	5.72		0.227		ug/L	1		8270E SIM	Total/NA
Anthracene	0.544		0.227		ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.804		0.227		ug/L	1		8270E SIM	Total/NA
Fluorene	1.63		0.227		ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	0.319		0.227		ug/L	1		8270E SIM	Total/NA
Naphthalene	6.83		0.568		ug/L	1		8270E SIM	Total/NA
Phenanthrene	4.07		0.227		ug/L	1		8270E SIM	Total/NA
Pyrene	0.927		0.227		ug/L	1		8270E SIM	Total/NA
Arsenic	0.0257		0.00200		mg/L	1		6020A	Total/NA

Client Sample ID: MW-7-GW-DP-0721

Lab Sample ID: 310-210599-7

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-8R-GW-DP-0721

Lab Sample ID: 310-210599-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0112		0.00200		mg/L	1		6020A	Total/NA
Lead	0.000536		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW-9-GW-DP-0721

Lab Sample ID: 310-210599-9

No Detections.

Client Sample ID: DUP1-GW-DP-0721

Lab Sample ID: 310-210599-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	459		0.500		ug/L	1		8260D	Total/NA
Ethylbenzene	562		10.0		ug/L	10		8260D	Total/NA
Isopropylbenzene	6.17		1.00		ug/L	1		8260D	Total/NA
Naphthalene	256		50.0		ug/L	10		8260D	Total/NA
n-Propylbenzene	10.8		1.00		ug/L	1		8260D	Total/NA
Toluene	6.51		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	104		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	55.2		3.00		ug/L	1		8260D	Total/NA
Acenaphthene	20.1		0.238		ug/L	1		8270E SIM	Total/NA
Acenaphthylene	5.05		0.238		ug/L	1		8270E SIM	Total/NA
Anthracene	1.98		0.238		ug/L	1		8270E SIM	Total/NA
Fluoranthene	1.68		0.238		ug/L	1		8270E SIM	Total/NA
Fluorene	17.2		0.238		ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	0.259		0.238		ug/L	1		8270E SIM	Total/NA
Naphthalene	80.9		5.95		ug/L	10		8270E SIM	Total/NA
Phenanthrene	13.3		0.238		ug/L	1		8270E SIM	Total/NA
Pyrene	1.56		0.238		ug/L	1		8270E SIM	Total/NA
Arsenic	0.00598		0.00200		mg/L	1		6020A	Total/NA
Lead	0.000583		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: EB-GW-DP-0721

Lab Sample ID: 310-210599-11

No Detections.

Client Sample ID: Trip Blank

Lab Sample ID: 310-210599-12

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-1-GW-DP-0721

Lab Sample ID: 310-210599-1

Date Collected: 07/08/21 11:10

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/13/21 13:18	1
Benzene	494		0.500		ug/L			07/13/21 13:18	1
Bromobenzene	<1.00		1.00		ug/L			07/13/21 13:18	1
Bromochloromethane	<5.00		5.00		ug/L			07/13/21 13:18	1
Bromodichloromethane	<1.00		1.00		ug/L			07/13/21 13:18	1
Bromoform	<5.00		5.00		ug/L			07/13/21 13:18	1
Bromomethane	<4.00		4.00		ug/L			07/13/21 13:18	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/13/21 13:18	1
Carbon disulfide	<1.00		1.00		ug/L			07/13/21 13:18	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/13/21 13:18	1
Chlorobenzene	<1.00		1.00		ug/L			07/13/21 13:18	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/13/21 13:18	1
Chloroethane	<4.00		4.00		ug/L			07/13/21 13:18	1
Chloroform	<3.00		3.00		ug/L			07/13/21 13:18	1
Chloromethane	<3.00		3.00		ug/L			07/13/21 13:18	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 13:18	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 13:18	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 13:18	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 13:18	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			07/13/21 13:18	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/13/21 13:18	1
Dibromomethane	<1.00		1.00		ug/L			07/13/21 13:18	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 13:18	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 13:18	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 13:18	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/13/21 13:18	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/13/21 13:18	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/13/21 13:18	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/13/21 13:18	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/13/21 13:18	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/13/21 13:18	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/13/21 13:18	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/13/21 13:18	1
Ethylbenzene	565		10.0		ug/L			07/14/21 11:12	10
Hexachlorobutadiene	<5.00		5.00		ug/L			07/13/21 13:18	1
Hexane	<1.00		1.00		ug/L			07/13/21 13:18	1
Isopropylbenzene	6.17		1.00		ug/L			07/13/21 13:18	1
Methylene chloride	<5.00		5.00		ug/L			07/13/21 13:18	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/13/21 13:18	1
Naphthalene	297		5.00		ug/L			07/13/21 13:18	1
n-Butylbenzene	<1.00		1.00		ug/L			07/13/21 13:18	1
n-Propylbenzene	11.0		1.00		ug/L			07/13/21 13:18	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/13/21 13:18	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/13/21 13:18	1
Styrene	<1.00		1.00		ug/L			07/13/21 13:18	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/13/21 13:18	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 13:18	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 13:18	1
Tetrachloroethene	<1.00		1.00		ug/L			07/13/21 13:18	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-1-GW-DP-0721

Lab Sample ID: 310-210599-1

Date Collected: 07/08/21 11:10

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	6.58		1.00		ug/L			07/13/21 13:18	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 13:18	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 13:18	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 13:18	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 13:18	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/13/21 13:18	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/13/21 13:18	1
Trichloroethene	<1.00		1.00		ug/L			07/13/21 13:18	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/13/21 13:18	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/13/21 13:18	1
1,2,4-Trimethylbenzene	111		1.00		ug/L			07/13/21 13:18	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 13:18	1
Vinyl chloride	<1.00		1.00		ug/L			07/13/21 13:18	1
Xylenes, Total	57.5		3.00		ug/L			07/13/21 13:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		80 - 120		07/13/21 13:18	1
4-Bromofluorobenzene (Surr)	99		80 - 120		07/14/21 11:12	10
Dibromofluoromethane (Surr)	106		79 - 120		07/13/21 13:18	1
Dibromofluoromethane (Surr)	106		79 - 120		07/14/21 11:12	10
Toluene-d8 (Surr)	101		79 - 120		07/13/21 13:18	1
Toluene-d8 (Surr)	99		79 - 120		07/14/21 11:12	10

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	19.3		0.227		ug/L		07/14/21 07:38	07/19/21 18:14	1
Acenaphthylene	4.71		0.227		ug/L		07/14/21 07:38	07/19/21 18:14	1
Anthracene	1.83		0.227		ug/L		07/14/21 07:38	07/19/21 18:14	1
Benzo(a)anthracene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 18:14	1
Benzo(a)pyrene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 18:14	1
Benzo(b)fluoranthene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 18:14	1
Benzo(g,h,i)perylene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 18:14	1
Benzo(k)fluoranthene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 18:14	1
Chrysene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 18:14	1
Dibenz(a,h)anthracene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 18:14	1
Fluoranthene	1.65		0.227		ug/L		07/14/21 07:38	07/19/21 18:14	1
Fluorene	15.4		0.227		ug/L		07/14/21 07:38	07/19/21 18:14	1
Indeno(1,2,3-cd)pyrene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 18:14	1
2-Methylnaphthalene	0.280		0.227		ug/L		07/14/21 07:38	07/19/21 18:14	1
Naphthalene	66.9		5.68		ug/L		07/14/21 07:38	07/20/21 12:23	10
Phenanthrene	12.0		0.227		ug/L		07/14/21 07:38	07/19/21 18:14	1
Pyrene	1.55		0.227		ug/L		07/14/21 07:38	07/19/21 18:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	63		21 - 110	07/14/21 07:38	07/19/21 18:14	1
Nitrobenzene-d5 (Surr)	65		15 - 110	07/14/21 07:38	07/19/21 18:14	1
Terphenyl-d14 (Surr)	79		13 - 110	07/14/21 07:38	07/19/21 18:14	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-1-GW-DP-0721

Lab Sample ID: 310-210599-1

Date Collected: 07/08/21 11:10

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00610		0.00200		mg/L		07/13/21 09:00	07/14/21 20:21	1
Lead	0.000664		0.000500		mg/L		07/13/21 09:00	07/14/21 20:21	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-2-GW-DP-0721

Lab Sample ID: 310-210599-2

Date Collected: 07/08/21 13:10

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/13/21 09:27	1
Benzene	231		0.500		ug/L			07/13/21 09:27	1
Bromobenzene	<1.00		1.00		ug/L			07/13/21 09:27	1
Bromochloromethane	<5.00		5.00		ug/L			07/13/21 09:27	1
Bromodichloromethane	<1.00		1.00		ug/L			07/13/21 09:27	1
Bromoform	<5.00		5.00		ug/L			07/13/21 09:27	1
Bromomethane	<4.00		4.00		ug/L			07/13/21 09:27	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/13/21 09:27	1
Carbon disulfide	1.15		1.00		ug/L			07/13/21 09:27	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/13/21 09:27	1
Chlorobenzene	<1.00		1.00		ug/L			07/13/21 09:27	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/13/21 09:27	1
Chloroethane	<4.00		4.00		ug/L			07/13/21 09:27	1
Chloroform	<3.00		3.00		ug/L			07/13/21 09:27	1
Chloromethane	<3.00		3.00		ug/L			07/13/21 09:27	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 09:27	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 09:27	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 09:27	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 09:27	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			07/13/21 09:27	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/13/21 09:27	1
Dibromomethane	<1.00		1.00		ug/L			07/13/21 09:27	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 09:27	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 09:27	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 09:27	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/13/21 09:27	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/13/21 09:27	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/13/21 09:27	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/13/21 09:27	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/13/21 09:27	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/13/21 09:27	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/13/21 09:27	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/13/21 09:27	1
Ethylbenzene	81.5		1.00		ug/L			07/13/21 09:27	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/13/21 09:27	1
Hexane	<1.00		1.00		ug/L			07/13/21 09:27	1
Isopropylbenzene	2.45		1.00		ug/L			07/13/21 09:27	1
Methylene chloride	<5.00		5.00		ug/L			07/13/21 09:27	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/13/21 09:27	1
Naphthalene	59.9		5.00		ug/L			07/13/21 09:27	1
n-Butylbenzene	<1.00		1.00		ug/L			07/13/21 09:27	1
n-Propylbenzene	1.96		1.00		ug/L			07/13/21 09:27	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/13/21 09:27	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/13/21 09:27	1
Styrene	<1.00		1.00		ug/L			07/13/21 09:27	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/13/21 09:27	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 09:27	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 09:27	1
Tetrachloroethene	<1.00		1.00		ug/L			07/13/21 09:27	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-2-GW-DP-0721

Lab Sample ID: 310-210599-2

Date Collected: 07/08/21 13:10

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	5.80		1.00		ug/L			07/13/21 09:27	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 09:27	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 09:27	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 09:27	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 09:27	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/13/21 09:27	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/13/21 09:27	1
Trichloroethene	<1.00		1.00		ug/L			07/13/21 09:27	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/13/21 09:27	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/13/21 09:27	1
1,2,4-Trimethylbenzene	41.5		1.00		ug/L			07/13/21 09:27	1
1,3,5-Trimethylbenzene	3.54		1.00		ug/L			07/13/21 09:27	1
Vinyl chloride	<1.00		1.00		ug/L			07/13/21 09:27	1
Xylenes, Total	51.7		3.00		ug/L			07/13/21 09:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		80 - 120		07/13/21 09:27	1
Dibromofluoromethane (Surr)	89		79 - 120		07/13/21 09:27	1
Toluene-d8 (Surr)	106		79 - 120		07/13/21 09:27	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	20.7		0.208		ug/L		07/14/21 07:38	07/19/21 18:35	1
Acenaphthylene	25.8		0.208		ug/L		07/14/21 07:38	07/19/21 18:35	1
Anthracene	1.33		0.208		ug/L		07/14/21 07:38	07/19/21 18:35	1
Benzo(a)anthracene	<0.208		0.208		ug/L		07/14/21 07:38	07/19/21 18:35	1
Benzo(a)pyrene	<0.208		0.208		ug/L		07/14/21 07:38	07/19/21 18:35	1
Benzo(b)fluoranthene	<0.208		0.208		ug/L		07/14/21 07:38	07/19/21 18:35	1
Benzo(g,h,i)perylene	<0.208		0.208		ug/L		07/14/21 07:38	07/19/21 18:35	1
Benzo(k)fluoranthene	<0.208		0.208		ug/L		07/14/21 07:38	07/19/21 18:35	1
Chrysene	<0.208		0.208		ug/L		07/14/21 07:38	07/19/21 18:35	1
Dibenz(a,h)anthracene	<0.208		0.208		ug/L		07/14/21 07:38	07/19/21 18:35	1
Fluoranthene	0.799		0.208		ug/L		07/14/21 07:38	07/19/21 18:35	1
Fluorene	16.7		0.208		ug/L		07/14/21 07:38	07/19/21 18:35	1
Indeno(1,2,3-cd)pyrene	<0.208		0.208		ug/L		07/14/21 07:38	07/19/21 18:35	1
2-Methylnaphthalene	1.03		0.208		ug/L		07/14/21 07:38	07/19/21 18:35	1
Naphthalene	22.6		0.521		ug/L		07/14/21 07:38	07/19/21 18:35	1
Phenanthrene	8.59		0.208		ug/L		07/14/21 07:38	07/19/21 18:35	1
Pyrene	0.760		0.208		ug/L		07/14/21 07:38	07/19/21 18:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		21 - 110	07/14/21 07:38	07/19/21 18:35	1
Nitrobenzene-d5 (Surr)	72		15 - 110	07/14/21 07:38	07/19/21 18:35	1
Terphenyl-d14 (Surr)	80		13 - 110	07/14/21 07:38	07/19/21 18:35	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0153		0.00200		mg/L		07/13/21 09:00	07/14/21 20:24	1
Lead	<0.000500		0.000500		mg/L		07/13/21 09:00	07/14/21 20:24	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-3-GW-DP-0721

Lab Sample ID: 310-210599-3

Date Collected: 07/08/21 12:20

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/13/21 13:41	1
Benzene	449		0.500		ug/L			07/13/21 13:41	1
Bromobenzene	<1.00		1.00		ug/L			07/13/21 13:41	1
Bromochloromethane	<5.00		5.00		ug/L			07/13/21 13:41	1
Bromodichloromethane	<1.00		1.00		ug/L			07/13/21 13:41	1
Bromoform	<5.00		5.00		ug/L			07/13/21 13:41	1
Bromomethane	<4.00		4.00		ug/L			07/13/21 13:41	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/13/21 13:41	1
Carbon disulfide	<1.00		1.00		ug/L			07/13/21 13:41	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/13/21 13:41	1
Chlorobenzene	<1.00		1.00		ug/L			07/13/21 13:41	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/13/21 13:41	1
Chloroethane	21.9		4.00		ug/L			07/13/21 13:41	1
Chloroform	<3.00		3.00		ug/L			07/13/21 13:41	1
Chloromethane	<3.00		3.00		ug/L			07/13/21 13:41	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 13:41	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 13:41	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 13:41	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 13:41	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			07/13/21 13:41	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/13/21 13:41	1
Dibromomethane	<1.00		1.00		ug/L			07/13/21 13:41	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 13:41	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 13:41	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 13:41	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/13/21 13:41	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/13/21 13:41	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/13/21 13:41	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/13/21 13:41	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/13/21 13:41	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/13/21 13:41	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/13/21 13:41	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/13/21 13:41	1
Ethylbenzene	133		10.0		ug/L			07/14/21 11:34	10
Hexachlorobutadiene	<5.00		5.00		ug/L			07/13/21 13:41	1
Hexane	<1.00		1.00		ug/L			07/13/21 13:41	1
Isopropylbenzene	13.8		1.00		ug/L			07/13/21 13:41	1
Methylene chloride	<5.00		5.00		ug/L			07/13/21 13:41	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/13/21 13:41	1
Naphthalene	527		50.0		ug/L			07/14/21 11:34	10
n-Butylbenzene	1.75		1.00		ug/L			07/13/21 13:41	1
n-Propylbenzene	4.58		1.00		ug/L			07/13/21 13:41	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/13/21 13:41	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/13/21 13:41	1
Styrene	<1.00		1.00		ug/L			07/13/21 13:41	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/13/21 13:41	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 13:41	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 13:41	1
Tetrachloroethene	<1.00		1.00		ug/L			07/13/21 13:41	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-3-GW-DP-0721

Lab Sample ID: 310-210599-3

Date Collected: 07/08/21 12:20

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	20.1		1.00		ug/L			07/13/21 13:41	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 13:41	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 13:41	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 13:41	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 13:41	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/13/21 13:41	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/13/21 13:41	1
Trichloroethene	<1.00		1.00		ug/L			07/13/21 13:41	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/13/21 13:41	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/13/21 13:41	1
1,2,4-Trimethylbenzene	72.1		1.00		ug/L			07/13/21 13:41	1
1,3,5-Trimethylbenzene	7.16		1.00		ug/L			07/13/21 13:41	1
Vinyl chloride	<1.00		1.00		ug/L			07/13/21 13:41	1
Xylenes, Total	121		3.00		ug/L			07/13/21 13:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120		07/13/21 13:41	1
4-Bromofluorobenzene (Surr)	96		80 - 120		07/14/21 11:34	10
Dibromofluoromethane (Surr)	91		79 - 120		07/13/21 13:41	1
Dibromofluoromethane (Surr)	103		79 - 120		07/14/21 11:34	10
Toluene-d8 (Surr)	103		79 - 120		07/13/21 13:41	1
Toluene-d8 (Surr)	98		79 - 120		07/14/21 11:34	10

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	18.7		0.217		ug/L		07/14/21 07:38	07/19/21 18:55	1
Acenaphthylene	129		2.17		ug/L		07/14/21 07:38	07/20/21 12:44	10
Anthracene	4.22		0.217		ug/L		07/14/21 07:38	07/19/21 18:55	1
Benzo(a)anthracene	<0.217		0.217		ug/L		07/14/21 07:38	07/19/21 18:55	1
Benzo(a)pyrene	<0.217		0.217		ug/L		07/14/21 07:38	07/19/21 18:55	1
Benzo(b)fluoranthene	<0.217		0.217		ug/L		07/14/21 07:38	07/19/21 18:55	1
Benzo(g,h,i)perylene	<0.217		0.217		ug/L		07/14/21 07:38	07/19/21 18:55	1
Benzo(k)fluoranthene	<0.217		0.217		ug/L		07/14/21 07:38	07/19/21 18:55	1
Chrysene	<0.217		0.217		ug/L		07/14/21 07:38	07/19/21 18:55	1
Dibenz(a,h)anthracene	<0.217		0.217		ug/L		07/14/21 07:38	07/19/21 18:55	1
Fluoranthene	4.66		0.217		ug/L		07/14/21 07:38	07/19/21 18:55	1
Fluorene	12.2		0.217		ug/L		07/14/21 07:38	07/19/21 18:55	1
Indeno(1,2,3-cd)pyrene	<0.217		0.217		ug/L		07/14/21 07:38	07/19/21 18:55	1
2-Methylnaphthalene	1.29		0.217		ug/L		07/14/21 07:38	07/19/21 18:55	1
Naphthalene	266		5.43		ug/L		07/14/21 07:38	07/20/21 12:44	10
Phenanthrene	54.3		2.17		ug/L		07/14/21 07:38	07/20/21 12:44	10
Pyrene	5.07		0.217		ug/L		07/14/21 07:38	07/19/21 18:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	59		21 - 110	07/14/21 07:38	07/19/21 18:55	1
Nitrobenzene-d5 (Surr)	62		15 - 110	07/14/21 07:38	07/19/21 18:55	1
Terphenyl-d14 (Surr)	72		13 - 110	07/14/21 07:38	07/19/21 18:55	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-3-GW-DP-0721

Lab Sample ID: 310-210599-3

Date Collected: 07/08/21 12:20

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00416		0.00200		mg/L		07/13/21 09:00	07/14/21 20:27	1
Lead	0.000999		0.000500		mg/L		07/13/21 09:00	07/14/21 20:27	1

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-4-GW-DP-0721

Lab Sample ID: 310-210599-4

Date Collected: 07/07/21 13:35

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/13/21 09:50	1
Benzene	<0.500		0.500		ug/L			07/13/21 09:50	1
Bromobenzene	<1.00		1.00		ug/L			07/13/21 09:50	1
Bromochloromethane	<5.00		5.00		ug/L			07/13/21 09:50	1
Bromodichloromethane	<1.00		1.00		ug/L			07/13/21 09:50	1
Bromoform	<5.00		5.00		ug/L			07/13/21 09:50	1
Bromomethane	<4.00		4.00		ug/L			07/13/21 09:50	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/13/21 09:50	1
Carbon disulfide	<1.00		1.00		ug/L			07/13/21 09:50	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/13/21 09:50	1
Chlorobenzene	<1.00		1.00		ug/L			07/13/21 09:50	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/13/21 09:50	1
Chloroethane	<4.00		4.00		ug/L			07/13/21 09:50	1
Chloroform	<3.00		3.00		ug/L			07/13/21 09:50	1
Chloromethane	<3.00		3.00		ug/L			07/13/21 09:50	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 09:50	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 09:50	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 09:50	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 09:50	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			07/13/21 09:50	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/13/21 09:50	1
Dibromomethane	<1.00		1.00		ug/L			07/13/21 09:50	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 09:50	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 09:50	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 09:50	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/13/21 09:50	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/13/21 09:50	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/13/21 09:50	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/13/21 09:50	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/13/21 09:50	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/13/21 09:50	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/13/21 09:50	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/13/21 09:50	1
Ethylbenzene	<1.00		1.00		ug/L			07/13/21 09:50	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/13/21 09:50	1
Hexane	<1.00		1.00		ug/L			07/13/21 09:50	1
Isopropylbenzene	<1.00		1.00		ug/L			07/13/21 09:50	1
Methylene chloride	<5.00		5.00		ug/L			07/13/21 09:50	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/13/21 09:50	1
Naphthalene	<5.00		5.00		ug/L			07/13/21 09:50	1
n-Butylbenzene	<1.00		1.00		ug/L			07/13/21 09:50	1
n-Propylbenzene	<1.00		1.00		ug/L			07/13/21 09:50	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/13/21 09:50	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/13/21 09:50	1
Styrene	<1.00		1.00		ug/L			07/13/21 09:50	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/13/21 09:50	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 09:50	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 09:50	1
Tetrachloroethene	<1.00		1.00		ug/L			07/13/21 09:50	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-4-GW-DP-0721

Lab Sample ID: 310-210599-4

Date Collected: 07/07/21 13:35

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			07/13/21 09:50	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 09:50	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 09:50	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 09:50	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 09:50	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/13/21 09:50	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/13/21 09:50	1
Trichloroethene	<1.00		1.00		ug/L			07/13/21 09:50	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/13/21 09:50	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/13/21 09:50	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 09:50	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 09:50	1
Vinyl chloride	<1.00		1.00		ug/L			07/13/21 09:50	1
Xylenes, Total	<3.00		3.00		ug/L			07/13/21 09:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120		07/13/21 09:50	1
Dibromofluoromethane (Surr)	111		79 - 120		07/13/21 09:50	1
Toluene-d8 (Surr)	100		79 - 120		07/13/21 09:50	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:15	1
Acenaphthylene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:15	1
Anthracene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:15	1
Benzo(a)anthracene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:15	1
Benzo(a)pyrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:15	1
Benzo(b)fluoranthene	0.219		0.200		ug/L		07/14/21 07:38	07/19/21 19:15	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:15	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:15	1
Chrysene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:15	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:15	1
Fluoranthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:15	1
Fluorene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:15	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:15	1
2-Methylnaphthalene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:15	1
Naphthalene	<0.500		0.500		ug/L		07/14/21 07:38	07/19/21 19:15	1
Phenanthrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:15	1
Pyrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	56		21 - 110	07/14/21 07:38	07/19/21 19:15	1
Nitrobenzene-d5 (Surr)	59		15 - 110	07/14/21 07:38	07/19/21 19:15	1
Terphenyl-d14 (Surr)	84		13 - 110	07/14/21 07:38	07/19/21 19:15	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00598		0.00200		mg/L		07/13/21 09:00	07/14/21 20:31	1
Lead	<0.000500		0.000500		mg/L		07/13/21 09:00	07/14/21 20:31	1

Eurofins TestAmerica, Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-5-GW-DP-0721

Lab Sample ID: 310-210599-5

Date Collected: 07/07/21 14:30

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/13/21 09:04	1
Benzene	<0.500		0.500		ug/L			07/13/21 09:04	1
Bromobenzene	<1.00		1.00		ug/L			07/13/21 09:04	1
Bromochloromethane	<5.00		5.00		ug/L			07/13/21 09:04	1
Bromodichloromethane	<1.00		1.00		ug/L			07/13/21 09:04	1
Bromoform	<5.00		5.00		ug/L			07/13/21 09:04	1
Bromomethane	<4.00		4.00		ug/L			07/13/21 09:04	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/13/21 09:04	1
Carbon disulfide	<1.00		1.00		ug/L			07/13/21 09:04	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/13/21 09:04	1
Chlorobenzene	<1.00		1.00		ug/L			07/13/21 09:04	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/13/21 09:04	1
Chloroethane	<4.00		4.00		ug/L			07/13/21 09:04	1
Chloroform	<3.00		3.00		ug/L			07/13/21 09:04	1
Chloromethane	<3.00		3.00		ug/L			07/13/21 09:04	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 09:04	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 09:04	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 09:04	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 09:04	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			07/13/21 09:04	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/13/21 09:04	1
Dibromomethane	<1.00		1.00		ug/L			07/13/21 09:04	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 09:04	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 09:04	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 09:04	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/13/21 09:04	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/13/21 09:04	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/13/21 09:04	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/13/21 09:04	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/13/21 09:04	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/13/21 09:04	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/13/21 09:04	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/13/21 09:04	1
Ethylbenzene	<1.00		1.00		ug/L			07/13/21 09:04	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/13/21 09:04	1
Hexane	<1.00		1.00		ug/L			07/13/21 09:04	1
Isopropylbenzene	<1.00		1.00		ug/L			07/13/21 09:04	1
Methylene chloride	<5.00		5.00		ug/L			07/13/21 09:04	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/13/21 09:04	1
Naphthalene	<5.00		5.00		ug/L			07/13/21 09:04	1
n-Butylbenzene	<1.00		1.00		ug/L			07/13/21 09:04	1
n-Propylbenzene	<1.00		1.00		ug/L			07/13/21 09:04	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/13/21 09:04	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/13/21 09:04	1
Styrene	<1.00		1.00		ug/L			07/13/21 09:04	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/13/21 09:04	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 09:04	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 09:04	1
Tetrachloroethene	<1.00		1.00		ug/L			07/13/21 09:04	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-5-GW-DP-0721

Lab Sample ID: 310-210599-5

Date Collected: 07/07/21 14:30

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			07/13/21 09:04	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 09:04	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 09:04	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 09:04	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 09:04	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/13/21 09:04	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/13/21 09:04	1
Trichloroethene	<1.00		1.00		ug/L			07/13/21 09:04	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/13/21 09:04	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/13/21 09:04	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 09:04	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 09:04	1
Vinyl chloride	<1.00		1.00		ug/L			07/13/21 09:04	1
Xylenes, Total	<3.00		3.00		ug/L			07/13/21 09:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120					07/13/21 09:04	1
Dibromofluoromethane (Surr)	106		79 - 120					07/13/21 09:04	1
Toluene-d8 (Surr)	99		79 - 120					07/13/21 09:04	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:36	1
Acenaphthylene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:36	1
Anthracene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:36	1
Benzo(a)anthracene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:36	1
Benzo(a)pyrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:36	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:36	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:36	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:36	1
Chrysene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:36	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:36	1
Fluoranthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:36	1
Fluorene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:36	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:36	1
2-Methylnaphthalene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:36	1
Naphthalene	<0.500		0.500		ug/L		07/14/21 07:38	07/19/21 19:36	1
Phenanthrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:36	1
Pyrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 19:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	53		21 - 110				07/14/21 07:38	07/19/21 19:36	1
Nitrobenzene-d5 (Surr)	52		15 - 110				07/14/21 07:38	07/19/21 19:36	1
Terphenyl-d14 (Surr)	67		13 - 110				07/14/21 07:38	07/19/21 19:36	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		07/13/21 09:00	07/14/21 20:34	1
Lead	<0.000500		0.000500		mg/L		07/13/21 09:00	07/14/21 20:34	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-6-GW-DP-0721

Lab Sample ID: 310-210599-6

Date Collected: 07/08/21 10:20

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/13/21 10:13	1
Benzene	22.7		0.500		ug/L			07/13/21 10:13	1
Bromobenzene	<1.00		1.00		ug/L			07/13/21 10:13	1
Bromochloromethane	<5.00		5.00		ug/L			07/13/21 10:13	1
Bromodichloromethane	<1.00		1.00		ug/L			07/13/21 10:13	1
Bromoform	<5.00		5.00		ug/L			07/13/21 10:13	1
Bromomethane	<4.00		4.00		ug/L			07/13/21 10:13	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/13/21 10:13	1
Carbon disulfide	<1.00		1.00		ug/L			07/13/21 10:13	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/13/21 10:13	1
Chlorobenzene	<1.00		1.00		ug/L			07/13/21 10:13	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/13/21 10:13	1
Chloroethane	<4.00		4.00		ug/L			07/13/21 10:13	1
Chloroform	<3.00		3.00		ug/L			07/13/21 10:13	1
Chloromethane	<3.00		3.00		ug/L			07/13/21 10:13	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 10:13	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 10:13	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 10:13	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 10:13	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			07/13/21 10:13	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/13/21 10:13	1
Dibromomethane	<1.00		1.00		ug/L			07/13/21 10:13	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 10:13	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 10:13	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 10:13	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/13/21 10:13	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/13/21 10:13	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/13/21 10:13	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/13/21 10:13	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/13/21 10:13	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/13/21 10:13	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/13/21 10:13	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/13/21 10:13	1
Ethylbenzene	4.63		1.00		ug/L			07/13/21 10:13	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/13/21 10:13	1
Hexane	<1.00		1.00		ug/L			07/13/21 10:13	1
Isopropylbenzene	<1.00		1.00		ug/L			07/13/21 10:13	1
Methylene chloride	<5.00		5.00		ug/L			07/13/21 10:13	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/13/21 10:13	1
Naphthalene	26.8		5.00		ug/L			07/13/21 10:13	1
n-Butylbenzene	<1.00		1.00		ug/L			07/13/21 10:13	1
n-Propylbenzene	<1.00		1.00		ug/L			07/13/21 10:13	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/13/21 10:13	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/13/21 10:13	1
Styrene	<1.00		1.00		ug/L			07/13/21 10:13	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/13/21 10:13	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 10:13	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 10:13	1
Tetrachloroethene	<1.00		1.00		ug/L			07/13/21 10:13	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-6-GW-DP-0721

Lab Sample ID: 310-210599-6

Date Collected: 07/08/21 10:20

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	3.28		1.00		ug/L			07/13/21 10:13	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 10:13	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 10:13	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 10:13	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 10:13	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/13/21 10:13	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/13/21 10:13	1
Trichloroethene	<1.00		1.00		ug/L			07/13/21 10:13	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/13/21 10:13	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/13/21 10:13	1
1,2,4-Trimethylbenzene	14.6		1.00		ug/L			07/13/21 10:13	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 10:13	1
Vinyl chloride	<1.00		1.00		ug/L			07/13/21 10:13	1
Xylenes, Total	29.7		3.00		ug/L			07/13/21 10:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120		07/13/21 10:13	1
Dibromofluoromethane (Surr)	91		79 - 120		07/13/21 10:13	1
Toluene-d8 (Surr)	98		79 - 120		07/13/21 10:13	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	2.06		0.227		ug/L		07/14/21 07:38	07/19/21 19:56	1
Acenaphthylene	5.72		0.227		ug/L		07/14/21 07:38	07/19/21 19:56	1
Anthracene	0.544		0.227		ug/L		07/14/21 07:38	07/19/21 19:56	1
Benzo(a)anthracene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 19:56	1
Benzo(a)pyrene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 19:56	1
Benzo(b)fluoranthene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 19:56	1
Benzo(g,h,i)perylene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 19:56	1
Benzo(k)fluoranthene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 19:56	1
Chrysene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 19:56	1
Dibenz(a,h)anthracene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 19:56	1
Fluoranthene	0.804		0.227		ug/L		07/14/21 07:38	07/19/21 19:56	1
Fluorene	1.63		0.227		ug/L		07/14/21 07:38	07/19/21 19:56	1
Indeno(1,2,3-cd)pyrene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 19:56	1
2-Methylnaphthalene	0.319		0.227		ug/L		07/14/21 07:38	07/19/21 19:56	1
Naphthalene	6.83		0.568		ug/L		07/14/21 07:38	07/19/21 19:56	1
Phenanthrene	4.07		0.227		ug/L		07/14/21 07:38	07/19/21 19:56	1
Pyrene	0.927		0.227		ug/L		07/14/21 07:38	07/19/21 19:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	55		21 - 110	07/14/21 07:38	07/19/21 19:56	1
Nitrobenzene-d5 (Surr)	54		15 - 110	07/14/21 07:38	07/19/21 19:56	1
Terphenyl-d14 (Surr)	66		13 - 110	07/14/21 07:38	07/19/21 19:56	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0257		0.00200		mg/L		07/13/21 09:00	07/14/21 21:04	1
Lead	<0.000500		0.000500		mg/L		07/13/21 09:00	07/14/21 21:04	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-7-GW-DP-0721

Lab Sample ID: 310-210599-7

Date Collected: 07/07/21 12:35

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/13/21 10:36	1
Benzene	<0.500		0.500		ug/L			07/13/21 10:36	1
Bromobenzene	<1.00		1.00		ug/L			07/13/21 10:36	1
Bromochloromethane	<5.00		5.00		ug/L			07/13/21 10:36	1
Bromodichloromethane	<1.00		1.00		ug/L			07/13/21 10:36	1
Bromoform	<5.00		5.00		ug/L			07/13/21 10:36	1
Bromomethane	<4.00		4.00		ug/L			07/13/21 10:36	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/13/21 10:36	1
Carbon disulfide	<1.00		1.00		ug/L			07/13/21 10:36	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/13/21 10:36	1
Chlorobenzene	<1.00		1.00		ug/L			07/13/21 10:36	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/13/21 10:36	1
Chloroethane	<4.00		4.00		ug/L			07/13/21 10:36	1
Chloroform	<3.00		3.00		ug/L			07/13/21 10:36	1
Chloromethane	<3.00		3.00		ug/L			07/13/21 10:36	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 10:36	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 10:36	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 10:36	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 10:36	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			07/13/21 10:36	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/13/21 10:36	1
Dibromomethane	<1.00		1.00		ug/L			07/13/21 10:36	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 10:36	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 10:36	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 10:36	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/13/21 10:36	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/13/21 10:36	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/13/21 10:36	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/13/21 10:36	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/13/21 10:36	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/13/21 10:36	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/13/21 10:36	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/13/21 10:36	1
Ethylbenzene	<1.00		1.00		ug/L			07/13/21 10:36	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/13/21 10:36	1
Hexane	<1.00		1.00		ug/L			07/13/21 10:36	1
Isopropylbenzene	<1.00		1.00		ug/L			07/13/21 10:36	1
Methylene chloride	<5.00		5.00		ug/L			07/13/21 10:36	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/13/21 10:36	1
Naphthalene	<5.00		5.00		ug/L			07/13/21 10:36	1
n-Butylbenzene	<1.00		1.00		ug/L			07/13/21 10:36	1
n-Propylbenzene	<1.00		1.00		ug/L			07/13/21 10:36	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/13/21 10:36	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/13/21 10:36	1
Styrene	<1.00		1.00		ug/L			07/13/21 10:36	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/13/21 10:36	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 10:36	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 10:36	1
Tetrachloroethene	<1.00		1.00		ug/L			07/13/21 10:36	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-7-GW-DP-0721

Lab Sample ID: 310-210599-7

Date Collected: 07/07/21 12:35

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			07/13/21 10:36	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 10:36	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 10:36	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 10:36	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 10:36	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/13/21 10:36	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/13/21 10:36	1
Trichloroethene	<1.00		1.00		ug/L			07/13/21 10:36	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/13/21 10:36	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/13/21 10:36	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 10:36	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 10:36	1
Vinyl chloride	<1.00		1.00		ug/L			07/13/21 10:36	1
Xylenes, Total	<3.00		3.00		ug/L			07/13/21 10:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120		07/13/21 10:36	1
Dibromofluoromethane (Surr)	110		79 - 120		07/13/21 10:36	1
Toluene-d8 (Surr)	98		79 - 120		07/13/21 10:36	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 20:17	1
Acenaphthylene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 20:17	1
Anthracene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 20:17	1
Benzo(a)anthracene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 20:17	1
Benzo(a)pyrene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 20:17	1
Benzo(b)fluoranthene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 20:17	1
Benzo(g,h,i)perylene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 20:17	1
Benzo(k)fluoranthene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 20:17	1
Chrysene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 20:17	1
Dibenz(a,h)anthracene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 20:17	1
Fluoranthene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 20:17	1
Fluorene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 20:17	1
Indeno(1,2,3-cd)pyrene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 20:17	1
2-Methylnaphthalene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 20:17	1
Naphthalene	<0.568		0.568		ug/L		07/14/21 07:38	07/19/21 20:17	1
Phenanthrene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 20:17	1
Pyrene	<0.227		0.227		ug/L		07/14/21 07:38	07/19/21 20:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	52		21 - 110	07/14/21 07:38	07/19/21 20:17	1
Nitrobenzene-d5 (Surr)	46		15 - 110	07/14/21 07:38	07/19/21 20:17	1
Terphenyl-d14 (Surr)	65		13 - 110	07/14/21 07:38	07/19/21 20:17	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		07/13/21 09:00	07/14/21 21:07	1
Lead	<0.000500		0.000500		mg/L		07/13/21 09:00	07/14/21 21:07	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-8R-GW-DP-0721

Lab Sample ID: 310-210599-8

Date Collected: 07/07/21 11:45

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/13/21 10:59	1
Benzene	<0.500		0.500		ug/L			07/13/21 10:59	1
Bromobenzene	<1.00		1.00		ug/L			07/13/21 10:59	1
Bromochloromethane	<5.00		5.00		ug/L			07/13/21 10:59	1
Bromodichloromethane	<1.00		1.00		ug/L			07/13/21 10:59	1
Bromoform	<5.00		5.00		ug/L			07/13/21 10:59	1
Bromomethane	<4.00		4.00		ug/L			07/13/21 10:59	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/13/21 10:59	1
Carbon disulfide	<1.00		1.00		ug/L			07/13/21 10:59	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/13/21 10:59	1
Chlorobenzene	<1.00		1.00		ug/L			07/13/21 10:59	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/13/21 10:59	1
Chloroethane	<4.00		4.00		ug/L			07/13/21 10:59	1
Chloroform	<3.00		3.00		ug/L			07/13/21 10:59	1
Chloromethane	<3.00		3.00		ug/L			07/13/21 10:59	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 10:59	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 10:59	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 10:59	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 10:59	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			07/13/21 10:59	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/13/21 10:59	1
Dibromomethane	<1.00		1.00		ug/L			07/13/21 10:59	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 10:59	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 10:59	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 10:59	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/13/21 10:59	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/13/21 10:59	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/13/21 10:59	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/13/21 10:59	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/13/21 10:59	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/13/21 10:59	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/13/21 10:59	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/13/21 10:59	1
Ethylbenzene	<1.00		1.00		ug/L			07/13/21 10:59	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/13/21 10:59	1
Hexane	<1.00		1.00		ug/L			07/13/21 10:59	1
Isopropylbenzene	<1.00		1.00		ug/L			07/13/21 10:59	1
Methylene chloride	<5.00		5.00		ug/L			07/13/21 10:59	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/13/21 10:59	1
Naphthalene	<5.00		5.00		ug/L			07/13/21 10:59	1
n-Butylbenzene	<1.00		1.00		ug/L			07/13/21 10:59	1
n-Propylbenzene	<1.00		1.00		ug/L			07/13/21 10:59	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/13/21 10:59	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/13/21 10:59	1
Styrene	<1.00		1.00		ug/L			07/13/21 10:59	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/13/21 10:59	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 10:59	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 10:59	1
Tetrachloroethene	<1.00		1.00		ug/L			07/13/21 10:59	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-8R-GW-DP-0721

Lab Sample ID: 310-210599-8

Date Collected: 07/07/21 11:45

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			07/13/21 10:59	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 10:59	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 10:59	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 10:59	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 10:59	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/13/21 10:59	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/13/21 10:59	1
Trichloroethene	<1.00		1.00		ug/L			07/13/21 10:59	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/13/21 10:59	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/13/21 10:59	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 10:59	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 10:59	1
Vinyl chloride	<1.00		1.00		ug/L			07/13/21 10:59	1
Xylenes, Total	<3.00		3.00		ug/L			07/13/21 10:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120		07/13/21 10:59	1
Dibromofluoromethane (Surr)	107		79 - 120		07/13/21 10:59	1
Toluene-d8 (Surr)	98		79 - 120		07/13/21 10:59	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:37	1
Acenaphthylene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:37	1
Anthracene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:37	1
Benzo(a)anthracene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:37	1
Benzo(a)pyrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:37	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:37	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:37	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:37	1
Chrysene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:37	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:37	1
Fluoranthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:37	1
Fluorene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:37	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:37	1
2-Methylnaphthalene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:37	1
Naphthalene	<0.500		0.500		ug/L		07/14/21 07:38	07/19/21 20:37	1
Phenanthrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:37	1
Pyrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	66		21 - 110	07/14/21 07:38	07/19/21 20:37	1
Nitrobenzene-d5 (Surr)	69		15 - 110	07/14/21 07:38	07/19/21 20:37	1
Terphenyl-d14 (Surr)	87		13 - 110	07/14/21 07:38	07/19/21 20:37	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0112		0.00200		mg/L		07/13/21 09:00	07/14/21 21:10	1
Lead	0.000536		0.000500		mg/L		07/13/21 09:00	07/14/21 21:10	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-9-GW-DP-0721

Lab Sample ID: 310-210599-9

Date Collected: 07/07/21 15:25

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/13/21 11:22	1
Benzene	<0.500		0.500		ug/L			07/13/21 11:22	1
Bromobenzene	<1.00		1.00		ug/L			07/13/21 11:22	1
Bromochloromethane	<5.00		5.00		ug/L			07/13/21 11:22	1
Bromodichloromethane	<1.00		1.00		ug/L			07/13/21 11:22	1
Bromoform	<5.00		5.00		ug/L			07/13/21 11:22	1
Bromomethane	<4.00		4.00		ug/L			07/13/21 11:22	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/13/21 11:22	1
Carbon disulfide	<1.00		1.00		ug/L			07/13/21 11:22	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/13/21 11:22	1
Chlorobenzene	<1.00		1.00		ug/L			07/13/21 11:22	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/13/21 11:22	1
Chloroethane	<4.00		4.00		ug/L			07/13/21 11:22	1
Chloroform	<3.00		3.00		ug/L			07/13/21 11:22	1
Chloromethane	<3.00		3.00		ug/L			07/13/21 11:22	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 11:22	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 11:22	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 11:22	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 11:22	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			07/13/21 11:22	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/13/21 11:22	1
Dibromomethane	<1.00		1.00		ug/L			07/13/21 11:22	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 11:22	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 11:22	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 11:22	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/13/21 11:22	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/13/21 11:22	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/13/21 11:22	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/13/21 11:22	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/13/21 11:22	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/13/21 11:22	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/13/21 11:22	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/13/21 11:22	1
Ethylbenzene	<1.00		1.00		ug/L			07/13/21 11:22	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/13/21 11:22	1
Hexane	<1.00		1.00		ug/L			07/13/21 11:22	1
Isopropylbenzene	<1.00		1.00		ug/L			07/13/21 11:22	1
Methylene chloride	<5.00		5.00		ug/L			07/13/21 11:22	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/13/21 11:22	1
Naphthalene	<5.00		5.00		ug/L			07/13/21 11:22	1
n-Butylbenzene	<1.00		1.00		ug/L			07/13/21 11:22	1
n-Propylbenzene	<1.00		1.00		ug/L			07/13/21 11:22	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/13/21 11:22	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/13/21 11:22	1
Styrene	<1.00		1.00		ug/L			07/13/21 11:22	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/13/21 11:22	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 11:22	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 11:22	1
Tetrachloroethene	<1.00		1.00		ug/L			07/13/21 11:22	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-9-GW-DP-0721

Lab Sample ID: 310-210599-9

Date Collected: 07/07/21 15:25

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			07/13/21 11:22	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 11:22	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 11:22	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 11:22	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 11:22	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/13/21 11:22	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/13/21 11:22	1
Trichloroethene	<1.00		1.00		ug/L			07/13/21 11:22	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/13/21 11:22	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/13/21 11:22	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 11:22	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 11:22	1
Vinyl chloride	<1.00		1.00		ug/L			07/13/21 11:22	1
Xylenes, Total	<3.00		3.00		ug/L			07/13/21 11:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120		07/13/21 11:22	1
Dibromofluoromethane (Surr)	102		79 - 120		07/13/21 11:22	1
Toluene-d8 (Surr)	99		79 - 120		07/13/21 11:22	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:58	1
Acenaphthylene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:58	1
Anthracene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:58	1
Benzo(a)anthracene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:58	1
Benzo(a)pyrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:58	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:58	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:58	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:58	1
Chrysene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:58	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:58	1
Fluoranthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:58	1
Fluorene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:58	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:58	1
2-Methylnaphthalene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:58	1
Naphthalene	<0.500		0.500		ug/L		07/14/21 07:38	07/19/21 20:58	1
Phenanthrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:58	1
Pyrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 20:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	53		21 - 110	07/14/21 07:38	07/19/21 20:58	1
Nitrobenzene-d5 (Surr)	52		15 - 110	07/14/21 07:38	07/19/21 20:58	1
Terphenyl-d14 (Surr)	77		13 - 110	07/14/21 07:38	07/19/21 20:58	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		07/13/21 09:00	07/14/21 21:14	1
Lead	<0.000500		0.000500		mg/L		07/13/21 09:00	07/14/21 21:14	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: DUP1-GW-DP-0721

Lab Sample ID: 310-210599-10

Date Collected: 07/08/21 00:00

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/13/21 14:04	1
Benzene	459		0.500		ug/L			07/13/21 14:04	1
Bromobenzene	<1.00		1.00		ug/L			07/13/21 14:04	1
Bromochloromethane	<5.00		5.00		ug/L			07/13/21 14:04	1
Bromodichloromethane	<1.00		1.00		ug/L			07/13/21 14:04	1
Bromoform	<5.00		5.00		ug/L			07/13/21 14:04	1
Bromomethane	<4.00		4.00		ug/L			07/13/21 14:04	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/13/21 14:04	1
Carbon disulfide	<1.00		1.00		ug/L			07/13/21 14:04	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/13/21 14:04	1
Chlorobenzene	<1.00		1.00		ug/L			07/13/21 14:04	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/13/21 14:04	1
Chloroethane	<4.00		4.00		ug/L			07/13/21 14:04	1
Chloroform	<3.00		3.00		ug/L			07/13/21 14:04	1
Chloromethane	<3.00		3.00		ug/L			07/13/21 14:04	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 14:04	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 14:04	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 14:04	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 14:04	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			07/13/21 14:04	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/13/21 14:04	1
Dibromomethane	<1.00		1.00		ug/L			07/13/21 14:04	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 14:04	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 14:04	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 14:04	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/13/21 14:04	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/13/21 14:04	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/13/21 14:04	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/13/21 14:04	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/13/21 14:04	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/13/21 14:04	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/13/21 14:04	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/13/21 14:04	1
Ethylbenzene	562		10.0		ug/L			07/14/21 11:57	10
Hexachlorobutadiene	<5.00		5.00		ug/L			07/13/21 14:04	1
Hexane	<1.00		1.00		ug/L			07/13/21 14:04	1
Isopropylbenzene	6.17		1.00		ug/L			07/13/21 14:04	1
Methylene chloride	<5.00		5.00		ug/L			07/13/21 14:04	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/13/21 14:04	1
Naphthalene	256		50.0		ug/L			07/14/21 11:57	10
n-Butylbenzene	<1.00		1.00		ug/L			07/13/21 14:04	1
n-Propylbenzene	10.8		1.00		ug/L			07/13/21 14:04	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/13/21 14:04	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/13/21 14:04	1
Styrene	<1.00		1.00		ug/L			07/13/21 14:04	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/13/21 14:04	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 14:04	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 14:04	1
Tetrachloroethene	<1.00		1.00		ug/L			07/13/21 14:04	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: DUP1-GW-DP-0721

Lab Sample ID: 310-210599-10

Date Collected: 07/08/21 00:00

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	6.51		1.00		ug/L			07/13/21 14:04	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 14:04	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 14:04	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 14:04	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 14:04	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/13/21 14:04	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/13/21 14:04	1
Trichloroethene	<1.00		1.00		ug/L			07/13/21 14:04	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/13/21 14:04	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/13/21 14:04	1
1,2,4-Trimethylbenzene	104		1.00		ug/L			07/13/21 14:04	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 14:04	1
Vinyl chloride	<1.00		1.00		ug/L			07/13/21 14:04	1
Xylenes, Total	55.2		3.00		ug/L			07/13/21 14:04	1

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		80 - 120				07/13/21 14:04	1
4-Bromofluorobenzene (Surr)	93		80 - 120				07/14/21 11:57	10
Dibromofluoromethane (Surr)	99		79 - 120				07/13/21 14:04	1
Dibromofluoromethane (Surr)	99		79 - 120				07/14/21 11:57	10
Toluene-d8 (Surr)	100		79 - 120				07/13/21 14:04	1
Toluene-d8 (Surr)	98		79 - 120				07/14/21 11:57	10

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	20.1		0.238		ug/L		07/14/21 07:38	07/19/21 21:18	1
Acenaphthylene	5.05		0.238		ug/L		07/14/21 07:38	07/19/21 21:18	1
Anthracene	1.98		0.238		ug/L		07/14/21 07:38	07/19/21 21:18	1
Benzo(a)anthracene	<0.238		0.238		ug/L		07/14/21 07:38	07/19/21 21:18	1
Benzo(a)pyrene	<0.238		0.238		ug/L		07/14/21 07:38	07/19/21 21:18	1
Benzo(b)fluoranthene	<0.238		0.238		ug/L		07/14/21 07:38	07/19/21 21:18	1
Benzo(g,h,i)perylene	<0.238		0.238		ug/L		07/14/21 07:38	07/19/21 21:18	1
Benzo(k)fluoranthene	<0.238		0.238		ug/L		07/14/21 07:38	07/19/21 21:18	1
Chrysene	<0.238		0.238		ug/L		07/14/21 07:38	07/19/21 21:18	1
Dibenz(a,h)anthracene	<0.238		0.238		ug/L		07/14/21 07:38	07/19/21 21:18	1
Fluoranthene	1.68		0.238		ug/L		07/14/21 07:38	07/19/21 21:18	1
Fluorene	17.2		0.238		ug/L		07/14/21 07:38	07/19/21 21:18	1
Indeno(1,2,3-cd)pyrene	<0.238		0.238		ug/L		07/14/21 07:38	07/19/21 21:18	1
2-Methylnaphthalene	0.259		0.238		ug/L		07/14/21 07:38	07/19/21 21:18	1
Naphthalene	80.9		5.95		ug/L		07/14/21 07:38	07/20/21 13:04	10
Phenanthrene	13.3		0.238		ug/L		07/14/21 07:38	07/19/21 21:18	1
Pyrene	1.56		0.238		ug/L		07/14/21 07:38	07/19/21 21:18	1

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	59		21 - 110			07/14/21 07:38	07/19/21 21:18	1
Nitrobenzene-d5 (Surr)	58		15 - 110			07/14/21 07:38	07/19/21 21:18	1
Terphenyl-d14 (Surr)	74		13 - 110			07/14/21 07:38	07/19/21 21:18	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: DUP1-GW-DP-0721

Lab Sample ID: 310-210599-10

Date Collected: 07/08/21 00:00

Matrix: Ground Water

Date Received: 07/09/21 17:15

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00598		0.00200		mg/L		07/13/21 09:00	07/14/21 21:17	1
Lead	0.000583		0.000500		mg/L		07/13/21 09:00	07/14/21 21:17	1

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: EB-GW-DP-0721

Lab Sample ID: 310-210599-11

Date Collected: 07/08/21 11:40

Matrix: Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/13/21 11:45	1
Benzene	<0.500		0.500		ug/L			07/13/21 11:45	1
Bromobenzene	<1.00		1.00		ug/L			07/13/21 11:45	1
Bromochloromethane	<5.00		5.00		ug/L			07/13/21 11:45	1
Bromodichloromethane	<1.00		1.00		ug/L			07/13/21 11:45	1
Bromoform	<5.00		5.00		ug/L			07/13/21 11:45	1
Bromomethane	<4.00		4.00		ug/L			07/13/21 11:45	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/13/21 11:45	1
Carbon disulfide	<1.00		1.00		ug/L			07/13/21 11:45	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/13/21 11:45	1
Chlorobenzene	<1.00		1.00		ug/L			07/13/21 11:45	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/13/21 11:45	1
Chloroethane	<4.00		4.00		ug/L			07/13/21 11:45	1
Chloroform	<3.00		3.00		ug/L			07/13/21 11:45	1
Chloromethane	<3.00		3.00		ug/L			07/13/21 11:45	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 11:45	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 11:45	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 11:45	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 11:45	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			07/13/21 11:45	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/13/21 11:45	1
Dibromomethane	<1.00		1.00		ug/L			07/13/21 11:45	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 11:45	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 11:45	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 11:45	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/13/21 11:45	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/13/21 11:45	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/13/21 11:45	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/13/21 11:45	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/13/21 11:45	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/13/21 11:45	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/13/21 11:45	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/13/21 11:45	1
Ethylbenzene	<1.00		1.00		ug/L			07/13/21 11:45	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/13/21 11:45	1
Hexane	<1.00		1.00		ug/L			07/13/21 11:45	1
Isopropylbenzene	<1.00		1.00		ug/L			07/13/21 11:45	1
Methylene chloride	<5.00		5.00		ug/L			07/13/21 11:45	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/13/21 11:45	1
Naphthalene	<5.00		5.00		ug/L			07/13/21 11:45	1
n-Butylbenzene	<1.00		1.00		ug/L			07/13/21 11:45	1
n-Propylbenzene	<1.00		1.00		ug/L			07/13/21 11:45	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/13/21 11:45	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/13/21 11:45	1
Styrene	<1.00		1.00		ug/L			07/13/21 11:45	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/13/21 11:45	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 11:45	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 11:45	1
Tetrachloroethene	<1.00		1.00		ug/L			07/13/21 11:45	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: EB-GW-DP-0721

Lab Sample ID: 310-210599-11

Date Collected: 07/08/21 11:40

Matrix: Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			07/13/21 11:45	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 11:45	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 11:45	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 11:45	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 11:45	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/13/21 11:45	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/13/21 11:45	1
Trichloroethene	<1.00		1.00		ug/L			07/13/21 11:45	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/13/21 11:45	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/13/21 11:45	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 11:45	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 11:45	1
Vinyl chloride	<1.00		1.00		ug/L			07/13/21 11:45	1
Xylenes, Total	<3.00		3.00		ug/L			07/13/21 11:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		80 - 120		07/13/21 11:45	1
Dibromofluoromethane (Surr)	107		79 - 120		07/13/21 11:45	1
Toluene-d8 (Surr)	96		79 - 120		07/13/21 11:45	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.192		0.192		ug/L		07/14/21 07:38	07/19/21 21:39	1
Acenaphthylene	<0.192		0.192		ug/L		07/14/21 07:38	07/19/21 21:39	1
Anthracene	<0.192		0.192		ug/L		07/14/21 07:38	07/19/21 21:39	1
Benzo(a)anthracene	<0.192		0.192		ug/L		07/14/21 07:38	07/19/21 21:39	1
Benzo(a)pyrene	<0.192		0.192		ug/L		07/14/21 07:38	07/19/21 21:39	1
Benzo(b)fluoranthene	<0.192		0.192		ug/L		07/14/21 07:38	07/19/21 21:39	1
Benzo(g,h,i)perylene	<0.192		0.192		ug/L		07/14/21 07:38	07/19/21 21:39	1
Benzo(k)fluoranthene	<0.192		0.192		ug/L		07/14/21 07:38	07/19/21 21:39	1
Chrysene	<0.192		0.192		ug/L		07/14/21 07:38	07/19/21 21:39	1
Dibenz(a,h)anthracene	<0.192		0.192		ug/L		07/14/21 07:38	07/19/21 21:39	1
Fluoranthene	<0.192		0.192		ug/L		07/14/21 07:38	07/19/21 21:39	1
Fluorene	<0.192		0.192		ug/L		07/14/21 07:38	07/19/21 21:39	1
Indeno(1,2,3-cd)pyrene	<0.192		0.192		ug/L		07/14/21 07:38	07/19/21 21:39	1
2-Methylnaphthalene	<0.192		0.192		ug/L		07/14/21 07:38	07/19/21 21:39	1
Naphthalene	<0.481		0.481		ug/L		07/14/21 07:38	07/19/21 21:39	1
Phenanthrene	<0.192		0.192		ug/L		07/14/21 07:38	07/19/21 21:39	1
Pyrene	<0.192		0.192		ug/L		07/14/21 07:38	07/19/21 21:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	46		21 - 110	07/14/21 07:38	07/19/21 21:39	1
Nitrobenzene-d5 (Surr)	40		15 - 110	07/14/21 07:38	07/19/21 21:39	1
Terphenyl-d14 (Surr)	74		13 - 110	07/14/21 07:38	07/19/21 21:39	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		07/13/21 09:00	07/14/21 21:20	1
Lead	<0.000500		0.000500		mg/L		07/13/21 09:00	07/14/21 21:20	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: Trip Blank

Lab Sample ID: 310-210599-12

Date Collected: 07/08/21 00:00

Matrix: Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			07/13/21 07:09	1
Benzene	<0.500		0.500		ug/L			07/13/21 07:09	1
Bromobenzene	<1.00		1.00		ug/L			07/13/21 07:09	1
Bromochloromethane	<5.00		5.00		ug/L			07/13/21 07:09	1
Bromodichloromethane	<1.00		1.00		ug/L			07/13/21 07:09	1
Bromoform	<5.00		5.00		ug/L			07/13/21 07:09	1
Bromomethane	<4.00		4.00		ug/L			07/13/21 07:09	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/13/21 07:09	1
Carbon disulfide	<1.00		1.00		ug/L			07/13/21 07:09	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/13/21 07:09	1
Chlorobenzene	<1.00		1.00		ug/L			07/13/21 07:09	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/13/21 07:09	1
Chloroethane	<4.00		4.00		ug/L			07/13/21 07:09	1
Chloroform	<3.00		3.00		ug/L			07/13/21 07:09	1
Chloromethane	<3.00		3.00		ug/L			07/13/21 07:09	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 07:09	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 07:09	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 07:09	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 07:09	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			07/13/21 07:09	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/13/21 07:09	1
Dibromomethane	<1.00		1.00		ug/L			07/13/21 07:09	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 07:09	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 07:09	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 07:09	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/13/21 07:09	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/13/21 07:09	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/13/21 07:09	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/13/21 07:09	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/13/21 07:09	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/13/21 07:09	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/13/21 07:09	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/13/21 07:09	1
Ethylbenzene	<1.00		1.00		ug/L			07/13/21 07:09	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/13/21 07:09	1
Hexane	<1.00		1.00		ug/L			07/13/21 07:09	1
Isopropylbenzene	<1.00		1.00		ug/L			07/13/21 07:09	1
Methylene chloride	<5.00		5.00		ug/L			07/13/21 07:09	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/13/21 07:09	1
Naphthalene	<5.00		5.00		ug/L			07/13/21 07:09	1
n-Butylbenzene	<1.00		1.00		ug/L			07/13/21 07:09	1
n-Propylbenzene	<1.00		1.00		ug/L			07/13/21 07:09	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/13/21 07:09	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/13/21 07:09	1
Styrene	<1.00		1.00		ug/L			07/13/21 07:09	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/13/21 07:09	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 07:09	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 07:09	1
Tetrachloroethene	<1.00		1.00		ug/L			07/13/21 07:09	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: Trip Blank

Lab Sample ID: 310-210599-12

Date Collected: 07/08/21 00:00

Matrix: Water

Date Received: 07/09/21 17:15

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			07/13/21 07:09	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 07:09	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 07:09	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 07:09	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 07:09	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/13/21 07:09	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/13/21 07:09	1
Trichloroethene	<1.00		1.00		ug/L			07/13/21 07:09	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/13/21 07:09	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/13/21 07:09	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 07:09	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 07:09	1
Vinyl chloride	<1.00		1.00		ug/L			07/13/21 07:09	1
Xylenes, Total	<3.00		3.00		ug/L			07/13/21 07:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		80 - 120		07/13/21 07:09	1
Dibromofluoromethane (Surr)	100		79 - 120		07/13/21 07:09	1
Toluene-d8 (Surr)	99		79 - 120		07/13/21 07:09	1

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Ground Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (80-120)	DBFM (79-120)	TOL (79-120)
310-210599-1	MW-1-GW-DP-0721	96	106	101
310-210599-1	MW-1-GW-DP-0721	99	106	99
310-210599-2	MW-2-GW-DP-0721	94	89	106
310-210599-3	MW-3-GW-DP-0721	98	91	103
310-210599-3	MW-3-GW-DP-0721	96	103	98
310-210599-4	MW-4-GW-DP-0721	100	111	100
310-210599-5	MW-5-GW-DP-0721	102	106	99
310-210599-5 MS	MW-5-GW-DP-0721	99	103	104
310-210599-5 MSD	MW-5-GW-DP-0721	100	102	99
310-210599-6	MW-6-GW-DP-0721	98	91	98
310-210599-7	MW-7-GW-DP-0721	102	110	98
310-210599-8	MW-8R-GW-DP-0721	99	107	98
310-210599-9	MW-9-GW-DP-0721	100	102	99
310-210599-10	DUP1-GW-DP-0721	96	99	100
310-210599-10	DUP1-GW-DP-0721	93	99	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (80-120)	DBFM (79-120)	TOL (79-120)
310-210599-11	EB-GW-DP-0721	103	107	96
310-210599-12	Trip Blank	97	100	99
LCS 310-322155/5	Lab Control Sample	97	102	103
LCS 310-322155/6	Lab Control Sample	97	101	101
LCS 310-322159/5	Lab Control Sample	101	106	101
MB 310-322155/7	Method Blank	99	104	100
MB 310-322159/7	Method Blank	98	100	99

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Ground Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (21-110)	NBZ (15-110)	TPHL (13-110)
310-210599-1	MW-1-GW-DP-0721	63	65	79
310-210599-2	MW-2-GW-DP-0721	68	72	80
310-210599-3	MW-3-GW-DP-0721	59	62	72
310-210599-4	MW-4-GW-DP-0721	56	59	84
310-210599-5	MW-5-GW-DP-0721	53	52	67

Surrogate Summary

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Matrix: Ground Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (21-110)	NBZ (15-110)	TPHL (13-110)
310-210599-5 MS	MW-5-GW-DP-0721	55	54	67
310-210599-5 MSD	MW-5-GW-DP-0721	49	49	60
310-210599-6	MW-6-GW-DP-0721	55	54	66
310-210599-7	MW-7-GW-DP-0721	52	46	65
310-210599-8	MW-8R-GW-DP-0721	66	69	87
310-210599-9	MW-9-GW-DP-0721	53	52	77
310-210599-10	DUP1-GW-DP-0721	59	58	74

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (21-110)	NBZ (15-110)	TPHL (13-110)
310-210599-11	EB-GW-DP-0721	46	40	74
LCS 310-322305/2-A	Lab Control Sample	66	66	84
MB 310-322305/1-A	Method Blank	53	55	74

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-322155/7
Matrix: Water
Analysis Batch: 322155

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<10.0		10.0		ug/L			07/13/21 06:23	1
Benzene	<0.500		0.500		ug/L			07/13/21 06:23	1
Bromobenzene	<1.00		1.00		ug/L			07/13/21 06:23	1
Bromochloromethane	<5.00		5.00		ug/L			07/13/21 06:23	1
Bromodichloromethane	<1.00		1.00		ug/L			07/13/21 06:23	1
Bromoform	<5.00		5.00		ug/L			07/13/21 06:23	1
Bromomethane	<4.00		4.00		ug/L			07/13/21 06:23	1
2-Butanone (MEK)	<10.0		10.0		ug/L			07/13/21 06:23	1
Carbon disulfide	<1.00		1.00		ug/L			07/13/21 06:23	1
Carbon tetrachloride	<2.00		2.00		ug/L			07/13/21 06:23	1
Chlorobenzene	<1.00		1.00		ug/L			07/13/21 06:23	1
Chlorodibromomethane	<5.00		5.00		ug/L			07/13/21 06:23	1
Chloroethane	<4.00		4.00		ug/L			07/13/21 06:23	1
Chloroform	<3.00		3.00		ug/L			07/13/21 06:23	1
Chloromethane	<3.00		3.00		ug/L			07/13/21 06:23	1
2-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 06:23	1
4-Chlorotoluene	<1.00		1.00		ug/L			07/13/21 06:23	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 06:23	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 06:23	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			07/13/21 06:23	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			07/13/21 06:23	1
Dibromomethane	<1.00		1.00		ug/L			07/13/21 06:23	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 06:23	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 06:23	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			07/13/21 06:23	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			07/13/21 06:23	1
1,1-Dichloroethane	<1.00		1.00		ug/L			07/13/21 06:23	1
1,2-Dichloroethane	<1.00		1.00		ug/L			07/13/21 06:23	1
1,1-Dichloroethene	<2.00		2.00		ug/L			07/13/21 06:23	1
1,2-Dichloropropane	<1.00		1.00		ug/L			07/13/21 06:23	1
1,3-Dichloropropane	<1.00		1.00		ug/L			07/13/21 06:23	1
2,2-Dichloropropane	<4.00		4.00		ug/L			07/13/21 06:23	1
1,1-Dichloropropene	<1.00		1.00		ug/L			07/13/21 06:23	1
Ethylbenzene	<1.00		1.00		ug/L			07/13/21 06:23	1
Hexachlorobutadiene	<5.00		5.00		ug/L			07/13/21 06:23	1
Hexane	<1.00		1.00		ug/L			07/13/21 06:23	1
Isopropylbenzene	<1.00		1.00		ug/L			07/13/21 06:23	1
Methylene chloride	<5.00		5.00		ug/L			07/13/21 06:23	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			07/13/21 06:23	1
Naphthalene	<5.00		5.00		ug/L			07/13/21 06:23	1
n-Butylbenzene	<1.00		1.00		ug/L			07/13/21 06:23	1
n-Propylbenzene	<1.00		1.00		ug/L			07/13/21 06:23	1
p-Isopropyltoluene	<1.00		1.00		ug/L			07/13/21 06:23	1
sec-Butylbenzene	<1.00		1.00		ug/L			07/13/21 06:23	1
Styrene	<1.00		1.00		ug/L			07/13/21 06:23	1
tert-Butylbenzene	<1.00		1.00		ug/L			07/13/21 06:23	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 06:23	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			07/13/21 06:23	1

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-322155/7
Matrix: Water
Analysis Batch: 322155

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<1.00		1.00		ug/L			07/13/21 06:23	1
Toluene	<1.00		1.00		ug/L			07/13/21 06:23	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			07/13/21 06:23	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			07/13/21 06:23	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 06:23	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			07/13/21 06:23	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			07/13/21 06:23	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			07/13/21 06:23	1
Trichloroethene	<1.00		1.00		ug/L			07/13/21 06:23	1
Trichlorofluoromethane	<4.00		4.00		ug/L			07/13/21 06:23	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			07/13/21 06:23	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 06:23	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			07/13/21 06:23	1
Vinyl chloride	<1.00		1.00		ug/L			07/13/21 06:23	1
Xylenes, Total	<3.00		3.00		ug/L			07/13/21 06:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120		07/13/21 06:23	1
Dibromofluoromethane (Surr)	104		79 - 120		07/13/21 06:23	1
Toluene-d8 (Surr)	100		79 - 120		07/13/21 06:23	1

Lab Sample ID: LCS 310-322155/5
Matrix: Water
Analysis Batch: 322155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	39.28		ug/L		98	50 - 150
Benzene	20.0	18.57		ug/L		93	73 - 127
Bromobenzene	20.0	18.99		ug/L		95	68 - 128
Bromochloromethane	20.0	19.92		ug/L		100	77 - 140
Bromodichloromethane	20.0	18.65		ug/L		93	70 - 122
Bromoform	20.0	17.59		ug/L		88	58 - 125
2-Butanone (MEK)	40.0	38.74		ug/L		97	49 - 150
Carbon disulfide	20.0	18.56		ug/L		93	58 - 140
Carbon tetrachloride	20.0	18.81		ug/L		94	66 - 136
Chlorobenzene	20.0	18.97		ug/L		95	72 - 124
Chlorodibromomethane	20.0	17.23		ug/L		86	66 - 126
Chloroform	20.0	19.08		ug/L		95	72 - 125
2-Chlorotoluene	20.0	19.39		ug/L		97	68 - 129
4-Chlorotoluene	20.0	19.45		ug/L		97	67 - 128
cis-1,2-Dichloroethene	20.0	18.77		ug/L		94	71 - 130
cis-1,3-Dichloropropene	20.0	17.27		ug/L		86	69 - 122
1,2-Dibromo-3-chloropropane	20.0	18.25		ug/L		91	42 - 150
1,2-Dibromoethane (EDB)	20.0	18.76		ug/L		94	70 - 129
Dibromomethane	20.0	19.26		ug/L		96	71 - 133
1,2-Dichlorobenzene	20.0	17.82		ug/L		89	67 - 125
1,3-Dichlorobenzene	20.0	18.67		ug/L		93	65 - 128
1,4-Dichlorobenzene	20.0	18.53		ug/L		93	66 - 126

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-322155/5
Matrix: Water
Analysis Batch: 322155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	20.0	18.74		ug/L		94	71 - 131
1,2-Dichloroethane	20.0	19.49		ug/L		97	72 - 128
1,1-Dichloroethene	20.0	18.72		ug/L		94	64 - 137
1,2-Dichloropropane	20.0	18.19		ug/L		91	71 - 130
1,3-Dichloropropane	20.0	18.64		ug/L		93	72 - 130
2,2-Dichloropropane	20.0	18.83		ug/L		94	33 - 150
1,1-Dichloropropene	20.0	18.09		ug/L		90	72 - 130
Ethylbenzene	20.0	19.27		ug/L		96	73 - 127
Hexachlorobutadiene	20.0	18.37		ug/L		92	48 - 150
Hexane	20.0	18.94		ug/L		95	50 - 150
Isopropylbenzene	20.0	19.24		ug/L		96	71 - 127
Methylene chloride	20.0	18.63		ug/L		93	48 - 150
Methyl tert-butyl ether	20.0	18.56		ug/L		93	68 - 127
m,p-Xylene	20.0	20.50		ug/L		102	72 - 128
Naphthalene	20.0	17.38		ug/L		87	43 - 150
n-Butylbenzene	20.0	18.98		ug/L		95	64 - 129
n-Propylbenzene	20.0	19.49		ug/L		97	68 - 129
o-Xylene	20.0	19.09		ug/L		95	70 - 128
p-Isopropyltoluene	20.0	18.74		ug/L		94	66 - 128
sec-Butylbenzene	20.0	19.36		ug/L		97	64 - 134
Styrene	20.0	19.12		ug/L		96	69 - 127
tert-Butylbenzene	20.0	19.05		ug/L		95	66 - 132
1,1,1,2-Tetrachloroethane	20.0	19.34		ug/L		97	69 - 124
1,1,2,2-Tetrachloroethane	20.0	19.03		ug/L		95	66 - 129
Tetrachloroethene	20.0	18.58		ug/L		93	68 - 135
Toluene	20.0	19.26		ug/L		96	71 - 126
trans-1,2-Dichloroethene	20.0	18.80		ug/L		94	69 - 132
trans-1,3-Dichloropropene	20.0	17.27		ug/L		86	65 - 123
1,2,3-Trichlorobenzene	20.0	17.67		ug/L		88	45 - 150
1,2,4-Trichlorobenzene	20.0	18.69		ug/L		93	57 - 133
1,1,1-Trichloroethane	20.0	18.31		ug/L		92	70 - 129
1,1,2-Trichloroethane	20.0	17.92		ug/L		90	68 - 128
Trichloroethene	20.0	18.17		ug/L		91	71 - 130
1,2,3-Trichloropropane	20.0	18.89		ug/L		94	61 - 137
1,2,4-Trimethylbenzene	20.0	19.77		ug/L		99	64 - 133
1,3,5-Trimethylbenzene	20.0	19.55		ug/L		98	66 - 134
Xylenes, Total	40.0	39.59		ug/L		99	70 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	102		79 - 120
Toluene-d8 (Surr)	103		79 - 120

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-322155/6
Matrix: Water
Analysis Batch: 322155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	20.0	22.71		ug/L		114	22 - 150
Chloroethane	20.0	18.19		ug/L		91	61 - 139
Chloromethane	20.0	17.81		ug/L		89	48 - 150
Dichlorodifluoromethane	20.0	18.83		ug/L		94	50 - 150
Trichlorofluoromethane	20.0	19.53		ug/L		98	59 - 150
Vinyl chloride	20.0	18.80		ug/L		94	65 - 141

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	101		79 - 120
Toluene-d8 (Surr)	101		79 - 120

Lab Sample ID: 310-210599-5 MS
Matrix: Ground Water
Analysis Batch: 322155

Client Sample ID: MW-5-GW-DP-0721
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	<10.0		40.0	35.75		ug/L		89	37 - 150
Benzene	<0.500		20.0	18.10		ug/L		91	54 - 128
Bromobenzene	<1.00		20.0	18.06		ug/L		90	47 - 139
Bromochloromethane	<5.00		20.0	20.08		ug/L		100	63 - 143
Bromodichloromethane	<1.00		20.0	18.78		ug/L		94	50 - 135
Bromoform	<5.00		20.0	17.40		ug/L		87	40 - 139
2-Butanone (MEK)	<10.0		40.0	40.54		ug/L		101	47 - 150
Carbon disulfide	<1.00		20.0	16.48		ug/L		82	40 - 140
Carbon tetrachloride	<2.00		20.0	14.83		ug/L		74	47 - 136
Chlorobenzene	<1.00		20.0	17.92		ug/L		90	49 - 135
Chlorodibromomethane	<5.00		20.0	17.65		ug/L		88	45 - 141
Chloroform	<3.00		20.0	18.11		ug/L		91	55 - 131
2-Chlorotoluene	<1.00		20.0	17.13		ug/L		86	46 - 134
4-Chlorotoluene	<1.00		20.0	17.23		ug/L		86	44 - 136
cis-1,2-Dichloroethene	<1.00		20.0	18.80		ug/L		94	55 - 131
cis-1,3-Dichloropropene	<5.00		20.0	16.93		ug/L		85	45 - 131
1,2-Dibromo-3-chloropropane	<5.00		20.0	17.91		ug/L		90	41 - 150
1,2-Dibromoethane (EDB)	<1.00		20.0	18.39		ug/L		92	53 - 137
Dibromomethane	<1.00		20.0	19.23		ug/L		96	57 - 140
1,2-Dichlorobenzene	<1.00		20.0	17.64		ug/L		88	46 - 136
1,3-Dichlorobenzene	<1.00		20.0	17.16		ug/L		86	43 - 136
1,4-Dichlorobenzene	<1.00		20.0	17.73		ug/L		89	44 - 134
1,1-Dichloroethane	<1.00		20.0	18.39		ug/L		92	58 - 131
1,2-Dichloroethane	<1.00		20.0	19.71		ug/L		99	51 - 138
1,1-Dichloroethene	<2.00		20.0	16.44		ug/L		82	52 - 137
1,2-Dichloropropane	<1.00		20.0	17.78		ug/L		89	58 - 134
1,3-Dichloropropane	<1.00		20.0	18.67		ug/L		93	53 - 145
2,2-Dichloropropane	<4.00		20.0	14.33		ug/L		72	20 - 150
1,1-Dichloropropene	<1.00		20.0	15.26		ug/L		76	51 - 130
Ethylbenzene	<1.00		20.0	17.59		ug/L		88	40 - 138
Hexachlorobutadiene	<5.00		20.0	12.44		ug/L		62	19 - 150

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-210599-5 MS
Matrix: Ground Water
Analysis Batch: 322155

Client Sample ID: MW-5-GW-DP-0721
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexane	<1.00		20.0	10.81		ug/L		54	16 - 150
Isopropylbenzene	<1.00		20.0	15.49		ug/L		77	42 - 132
Methylene chloride	<5.00		20.0	18.47		ug/L		92	43 - 150
Methyl tert-butyl ether	<1.00		20.0	18.89		ug/L		94	56 - 132
m,p-Xylene	<2.00		20.0	17.38		ug/L		87	40 - 140
Naphthalene	<5.00		20.0	24.43		ug/L		122	37 - 150
n-Butylbenzene	<1.00		20.0	14.29		ug/L		71	30 - 133
n-Propylbenzene	<1.00		20.0	15.47		ug/L		77	37 - 135
o-Xylene	<1.00		20.0	17.61		ug/L		88	42 - 140
p-Isopropyltoluene	<1.00		20.0	14.79		ug/L		74	35 - 134
sec-Butylbenzene	<1.00		20.0	14.26		ug/L		71	34 - 136
Styrene	<1.00		20.0	17.10		ug/L		85	44 - 138
tert-Butylbenzene	<1.00		20.0	14.82		ug/L		74	39 - 137
1,1,1,2-Tetrachloroethane	<1.00		20.0	18.13		ug/L		91	45 - 140
1,1,2,2-Tetrachloroethane	<1.00		20.0	19.36		ug/L		97	51 - 140
Tetrachloroethene	<1.00		20.0	14.75		ug/L		74	43 - 135
Toluene	<1.00		20.0	17.49		ug/L		87	44 - 136
trans-1,2-Dichloroethene	<1.00		20.0	17.87		ug/L		89	52 - 132
trans-1,3-Dichloropropene	<5.00		20.0	16.86		ug/L		84	43 - 133
1,2,3-Trichlorobenzene	<5.00		20.0	17.51		ug/L		88	37 - 150
1,2,4-Trichlorobenzene	<5.00		20.0	16.82		ug/L		84	38 - 135
1,1,1-Trichloroethane	<1.00		20.0	15.84		ug/L		79	52 - 129
1,1,2-Trichloroethane	<1.00		20.0	18.95		ug/L		95	50 - 142
Trichloroethene	<1.00		20.0	16.06		ug/L		80	49 - 130
1,2,3-Trichloropropane	<1.00		20.0	18.53		ug/L		93	49 - 146
1,2,4-Trimethylbenzene	<1.00		20.0	17.49		ug/L		87	37 - 142
1,3,5-Trimethylbenzene	<1.00		20.0	16.37		ug/L		82	39 - 142
Xylenes, Total	<3.00		40.0	34.99		ug/L		87	40 - 140

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	103		79 - 120
Toluene-d8 (Surr)	104		79 - 120

Lab Sample ID: 310-210599-5 MSD
Matrix: Ground Water
Analysis Batch: 322155

Client Sample ID: MW-5-GW-DP-0721
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	<10.0		40.0	36.64		ug/L		92	37 - 150	2	29
Benzene	<0.500		20.0	16.71		ug/L		84	54 - 128	8	21
Bromobenzene	<1.00		20.0	16.62		ug/L		83	47 - 139	8	23
Bromochloromethane	<5.00		20.0	18.95		ug/L		95	63 - 143	6	24
Bromodichloromethane	<1.00		20.0	17.95		ug/L		90	50 - 135	5	24
Bromoform	<5.00		20.0	15.77		ug/L		79	40 - 139	10	22
2-Butanone (MEK)	<10.0		40.0	38.67		ug/L		97	47 - 150	5	24
Carbon disulfide	<1.00		20.0	14.96		ug/L		75	40 - 140	10	35
Carbon tetrachloride	<2.00		20.0	13.52		ug/L		68	47 - 136	9	23

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-210599-5 MSD

Client Sample ID: MW-5-GW-DP-0721

Matrix: Ground Water

Prep Type: Total/NA

Analysis Batch: 322155

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD
	Result			Result					Limits		Limit
Chlorobenzene	<1.00		20.0	16.80		ug/L		84	49 - 135	6	21
Chlorodibromomethane	<5.00		20.0	16.78		ug/L		84	45 - 141	5	26
Chloroform	<3.00		20.0	17.81		ug/L		89	55 - 131	2	23
2-Chlorotoluene	<1.00		20.0	15.66		ug/L		78	46 - 134	9	22
4-Chlorotoluene	<1.00		20.0	15.99		ug/L		80	44 - 136	7	22
cis-1,2-Dichloroethene	<1.00		20.0	18.08		ug/L		90	55 - 131	4	23
cis-1,3-Dichloropropene	<5.00		20.0	15.97		ug/L		80	45 - 131	6	21
1,2-Dibromo-3-chloropropane	<5.00		20.0	17.45		ug/L		87	41 - 150	3	31
1,2-Dibromoethane (EDB)	<1.00		20.0	18.13		ug/L		91	53 - 137	1	23
Dibromomethane	<1.00		20.0	18.45		ug/L		92	57 - 140	4	24
1,2-Dichlorobenzene	<1.00		20.0	16.39		ug/L		82	46 - 136	7	22
1,3-Dichlorobenzene	<1.00		20.0	16.40		ug/L		82	43 - 136	5	22
1,4-Dichlorobenzene	<1.00		20.0	16.88		ug/L		84	44 - 134	5	20
1,1-Dichloroethane	<1.00		20.0	17.20		ug/L		86	58 - 131	7	24
1,2-Dichloroethane	<1.00		20.0	18.73		ug/L		94	51 - 138	5	20
1,1-Dichloroethene	<2.00		20.0	15.27		ug/L		76	52 - 137	7	23
1,2-Dichloropropane	<1.00		20.0	17.32		ug/L		87	58 - 134	3	26
1,3-Dichloropropane	<1.00		20.0	17.85		ug/L		89	53 - 145	4	25
2,2-Dichloropropane	<4.00		20.0	13.68		ug/L		68	20 - 150	5	32
1,1-Dichloropropene	<1.00		20.0	13.88		ug/L		69	51 - 130	9	23
Ethylbenzene	<1.00		20.0	16.03		ug/L		80	40 - 138	9	21
Hexachlorobutadiene	<5.00		20.0	11.86		ug/L		59	19 - 150	5	35
Hexane	<1.00		20.0	8.232		ug/L		41	16 - 150	27	35
Isopropylbenzene	<1.00		20.0	14.00		ug/L		70	42 - 132	10	21
Methylene chloride	<5.00		20.0	17.79		ug/L		89	43 - 150	4	25
Methyl tert-butyl ether	<1.00		20.0	18.38		ug/L		92	56 - 132	3	25
m,p-Xylene	<2.00		20.0	16.16		ug/L		81	40 - 140	7	23
Naphthalene	<5.00		20.0	18.61		ug/L		93	37 - 150	27	29
n-Butylbenzene	<1.00		20.0	13.11		ug/L		66	30 - 133	9	20
n-Propylbenzene	<1.00		20.0	14.36		ug/L		72	37 - 135	7	21
o-Xylene	<1.00		20.0	16.42		ug/L		82	42 - 140	7	22
p-Isopropyltoluene	<1.00		20.0	13.85		ug/L		69	35 - 134	7	20
sec-Butylbenzene	<1.00		20.0	12.93		ug/L		65	34 - 136	10	20
Styrene	<1.00		20.0	16.15		ug/L		81	44 - 138	6	22
tert-Butylbenzene	<1.00		20.0	13.76		ug/L		69	39 - 137	7	20
1,1,1,2-Tetrachloroethane	<1.00		20.0	17.38		ug/L		87	45 - 140	4	23
1,1,1,2,2-Tetrachloroethane	<1.00		20.0	18.16		ug/L		91	51 - 140	6	22
Tetrachloroethene	<1.00		20.0	13.64		ug/L		68	43 - 135	8	23
Toluene	<1.00		20.0	16.72		ug/L		84	44 - 136	4	22
trans-1,2-Dichloroethene	<1.00		20.0	17.00		ug/L		85	52 - 132	5	25
trans-1,3-Dichloropropene	<5.00		20.0	15.95		ug/L		80	43 - 133	6	23
1,2,3-Trichlorobenzene	<5.00		20.0	16.42		ug/L		82	37 - 150	6	24
1,2,4-Trichlorobenzene	<5.00		20.0	15.68		ug/L		78	38 - 135	7	21
1,1,1-Trichloroethane	<1.00		20.0	14.85		ug/L		74	52 - 129	6	22
1,1,2-Trichloroethane	<1.00		20.0	17.26		ug/L		86	50 - 142	9	24
Trichloroethene	<1.00		20.0	15.41		ug/L		77	49 - 130	4	21
1,2,3-Trichloropropane	<1.00		20.0	17.64		ug/L		88	49 - 146	5	32
1,2,4-Trimethylbenzene	<1.00		20.0	16.47		ug/L		82	37 - 142	6	25
1,3,5-Trimethylbenzene	<1.00		20.0	15.08		ug/L		75	39 - 142	8	20

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-210599-5 MSD
Matrix: Ground Water
Analysis Batch: 322155

Client Sample ID: MW-5-GW-DP-0721
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	<3.00		40.0	32.58		ug/L		81	40 - 140	7	23
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	100		80 - 120								
Dibromofluoromethane (Surr)	102		79 - 120								
Toluene-d8 (Surr)	99		79 - 120								

Lab Sample ID: MB 310-322159/7
Matrix: Water
Analysis Batch: 322159

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<1.00		1.00		ug/L			07/14/21 05:27	1
Naphthalene	<5.00		5.00		ug/L			07/14/21 05:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120					07/14/21 05:27	1
Dibromofluoromethane (Surr)	100		79 - 120					07/14/21 05:27	1
Toluene-d8 (Surr)	99		79 - 120					07/14/21 05:27	1

Lab Sample ID: LCS 310-322159/5
Matrix: Water
Analysis Batch: 322159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	20.0	18.19		ug/L		91	73 - 127
Naphthalene	20.0	17.66		ug/L		88	43 - 150
Surrogate	%Recovery	Qualifier	Limits				
4-Bromofluorobenzene (Surr)	101		80 - 120				
Dibromofluoromethane (Surr)	106		79 - 120				
Toluene-d8 (Surr)	101		79 - 120				

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 310-322305/1-A
Matrix: Water
Analysis Batch: 322779

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322305

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 16:52	1
Acenaphthylene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 16:52	1
Anthracene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 16:52	1
Benzo(a)anthracene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 16:52	1
Benzo(a)pyrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 16:52	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 16:52	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 16:52	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 16:52	1

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 310-322305/1-A
Matrix: Water
Analysis Batch: 322779

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322305

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chrysene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 16:52	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 16:52	1
Fluoranthene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 16:52	1
Fluorene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 16:52	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 16:52	1
2-Methylnaphthalene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 16:52	1
Naphthalene	<0.500		0.500		ug/L		07/14/21 07:38	07/19/21 16:52	1
Phenanthrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 16:52	1
Pyrene	<0.200		0.200		ug/L		07/14/21 07:38	07/19/21 16:52	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	53		21 - 110	07/14/21 07:38	07/19/21 16:52	1
Nitrobenzene-d5 (Surr)	55		15 - 110	07/14/21 07:38	07/19/21 16:52	1
Terphenyl-d14 (Surr)	74		13 - 110	07/14/21 07:38	07/19/21 16:52	1

Lab Sample ID: LCS 310-322305/2-A
Matrix: Water
Analysis Batch: 322779

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322305

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
Acenaphthene	2.00	1.169		ug/L		58	25 - 110
Acenaphthylene	2.00	1.220		ug/L		61	25 - 110
Anthracene	2.00	1.211		ug/L		61	26 - 110
Benzo(a)anthracene	2.00	1.235		ug/L		62	26 - 110
Benzo(a)pyrene	2.00	1.246		ug/L		62	20 - 110
Benzo(b)fluoranthene	2.00	1.316		ug/L		66	24 - 110
Benzo(g,h,i)perylene	2.00	1.115		ug/L		56	17 - 110
Benzo(k)fluoranthene	2.00	1.303		ug/L		65	26 - 110
Chrysene	2.00	1.277		ug/L		64	23 - 110
Dibenz(a,h)anthracene	2.00	1.177		ug/L		59	14 - 110
Fluoranthene	2.00	1.520		ug/L		76	24 - 110
Fluorene	2.00	1.249		ug/L		62	27 - 110
Indeno(1,2,3-cd)pyrene	2.00	1.198		ug/L		60	15 - 110
2-Methylnaphthalene	2.00	1.101		ug/L		55	19 - 110
Naphthalene	2.00	1.088		ug/L		54	24 - 110
Phenanthrene	2.00	1.215		ug/L		61	28 - 110
Pyrene	2.00	1.555		ug/L		78	26 - 110

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	66		21 - 110
Nitrobenzene-d5 (Surr)	66		15 - 110
Terphenyl-d14 (Surr)	84		13 - 110

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 310-210599-5 MS
Matrix: Ground Water
Analysis Batch: 322779

Client Sample ID: MW-5-GW-DP-0721
Prep Type: Total/NA
Prep Batch: 322305

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	<0.200		2.00	1.210		ug/L		52	22 - 110
Acenaphthylene	<0.200		2.00	1.083		ug/L		54	22 - 110
Anthracene	<0.200		2.00	1.128		ug/L		56	24 - 110
Benzo(a)anthracene	<0.200		2.00	1.056		ug/L		53	10 - 110
Benzo(a)pyrene	<0.200		2.00	0.9189		ug/L		46	10 - 110
Benzo(b)fluoranthene	<0.200		2.00	0.9135		ug/L		46	10 - 110
Benzo(g,h,i)perylene	<0.200		2.00	0.5313		ug/L		27	10 - 110
Benzo(k)fluoranthene	<0.200		2.00	0.9115		ug/L		46	10 - 110
Chrysene	<0.200		2.00	1.074		ug/L		54	10 - 110
Dibenz(a,h)anthracene	<0.200		2.00	0.5522		ug/L		28	10 - 110
Fluoranthene	<0.200		2.00	1.315		ug/L		66	13 - 110
Fluorene	<0.200		2.00	1.091		ug/L		55	25 - 110
Indeno(1,2,3-cd)pyrene	<0.200		2.00	0.5848		ug/L		29	10 - 110
2-Methylnaphthalene	<0.200		2.00	0.9484		ug/L		47	19 - 110
Naphthalene	<0.500		2.00	0.9477		ug/L		47	17 - 110
Phenanthrene	<0.200		2.00	1.077		ug/L		54	24 - 110
Pyrene	<0.200		2.00	1.369		ug/L		68	13 - 110

Surrogate	MS %Recovery	MS Qualifier	MS Limits
2-Fluorobiphenyl (Surr)	55		21 - 110
Nitrobenzene-d5 (Surr)	54		15 - 110
Terphenyl-d14 (Surr)	67		13 - 110

Lab Sample ID: 310-210599-5 MSD
Matrix: Ground Water
Analysis Batch: 322779

Client Sample ID: MW-5-GW-DP-0721
Prep Type: Total/NA
Prep Batch: 322305

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	<0.200		2.00	1.157		ug/L		49	22 - 110	4	35
Acenaphthylene	<0.200		2.00	1.035		ug/L		52	22 - 110	5	35
Anthracene	<0.200		2.00	1.070		ug/L		54	24 - 110	5	35
Benzo(a)anthracene	<0.200		2.00	0.9325		ug/L		47	10 - 110	12	35
Benzo(a)pyrene	<0.200		2.00	0.7862		ug/L		39	10 - 110	16	35
Benzo(b)fluoranthene	<0.200		2.00	0.7725		ug/L		39	10 - 110	17	35
Benzo(g,h,i)perylene	<0.200		2.00	0.3980		ug/L		20	10 - 110	29	35
Benzo(k)fluoranthene	<0.200		2.00	0.7790		ug/L		39	10 - 110	16	35
Chrysene	<0.200		2.00	0.9641		ug/L		48	10 - 110	11	35
Dibenz(a,h)anthracene	<0.200		2.00	0.4118		ug/L		21	10 - 110	29	35
Fluoranthene	<0.200		2.00	1.236		ug/L		62	13 - 110	6	35
Fluorene	<0.200		2.00	1.129		ug/L		56	25 - 110	3	35
Indeno(1,2,3-cd)pyrene	<0.200		2.00	0.4483		ug/L		22	10 - 110	26	35
2-Methylnaphthalene	<0.200		2.00	0.9328		ug/L		47	19 - 110	2	35
Naphthalene	<0.500		2.00	0.9308		ug/L		47	17 - 110	2	35
Phenanthrene	<0.200		2.00	1.058		ug/L		53	24 - 110	2	35
Pyrene	<0.200		2.00	1.268		ug/L		63	13 - 110	8	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
2-Fluorobiphenyl (Surr)	49		21 - 110

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 310-210599-5 MSD
Matrix: Ground Water
Analysis Batch: 322779

Client Sample ID: MW-5-GW-DP-0721
Prep Type: Total/NA
Prep Batch: 322305

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	49		15 - 110
Terphenyl-d14 (Surr)	60		13 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-322136/1-A
Matrix: Water
Analysis Batch: 322457

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 322136

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		07/13/21 09:00	07/14/21 20:01	1
Lead	<0.000500		0.000500		mg/L		07/13/21 09:00	07/14/21 20:01	1

Lab Sample ID: LCS 310-322136/2-A
Matrix: Water
Analysis Batch: 322457

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 322136

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.200	0.1997		mg/L		100	80 - 120
Lead	0.200	0.2139		mg/L		107	80 - 120

Lab Sample ID: 310-210599-5 MS
Matrix: Ground Water
Analysis Batch: 322457

Client Sample ID: MW-5-GW-DP-0721
Prep Type: Total/NA
Prep Batch: 322136

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	<0.00200		0.200	0.2041		mg/L		101	75 - 125
Lead	<0.000500		0.200	0.2023		mg/L		101	75 - 125

Lab Sample ID: 310-210599-5 MSD
Matrix: Ground Water
Analysis Batch: 322457

Client Sample ID: MW-5-GW-DP-0721
Prep Type: Total/NA
Prep Batch: 322136

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	<0.00200		0.200	0.2124		mg/L		106	75 - 125	4	20
Lead	<0.000500		0.200	0.2067		mg/L		103	75 - 125	2	20

Lab Sample ID: 310-210599-11 DU
Matrix: Water
Analysis Batch: 322457

Client Sample ID: EB-GW-DP-0721
Prep Type: Total/NA
Prep Batch: 322136

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	<0.00200		<0.00200		mg/L		NC	20
Lead	<0.000500		<0.000500		mg/L		NC	20

QC Association Summary

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

GC/MS VOA

Analysis Batch: 322155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-210599-1	MW-1-GW-DP-0721	Total/NA	Ground Water	8260D	
310-210599-2	MW-2-GW-DP-0721	Total/NA	Ground Water	8260D	
310-210599-3	MW-3-GW-DP-0721	Total/NA	Ground Water	8260D	
310-210599-4	MW-4-GW-DP-0721	Total/NA	Ground Water	8260D	
310-210599-5	MW-5-GW-DP-0721	Total/NA	Ground Water	8260D	
310-210599-6	MW-6-GW-DP-0721	Total/NA	Ground Water	8260D	
310-210599-7	MW-7-GW-DP-0721	Total/NA	Ground Water	8260D	
310-210599-8	MW-8R-GW-DP-0721	Total/NA	Ground Water	8260D	
310-210599-9	MW-9-GW-DP-0721	Total/NA	Ground Water	8260D	
310-210599-10	DUP1-GW-DP-0721	Total/NA	Ground Water	8260D	
310-210599-11	EB-GW-DP-0721	Total/NA	Water	8260D	
310-210599-12	Trip Blank	Total/NA	Water	8260D	
MB 310-322155/7	Method Blank	Total/NA	Water	8260D	
LCS 310-322155/5	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-322155/6	Lab Control Sample	Total/NA	Water	8260D	
310-210599-5 MS	MW-5-GW-DP-0721	Total/NA	Ground Water	8260D	
310-210599-5 MSD	MW-5-GW-DP-0721	Total/NA	Ground Water	8260D	

Analysis Batch: 322159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-210599-1	MW-1-GW-DP-0721	Total/NA	Ground Water	8260D	
310-210599-3	MW-3-GW-DP-0721	Total/NA	Ground Water	8260D	
310-210599-10	DUP1-GW-DP-0721	Total/NA	Ground Water	8260D	
MB 310-322159/7	Method Blank	Total/NA	Water	8260D	
LCS 310-322159/5	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 322305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-210599-1	MW-1-GW-DP-0721	Total/NA	Ground Water	3510C	
310-210599-2	MW-2-GW-DP-0721	Total/NA	Ground Water	3510C	
310-210599-3	MW-3-GW-DP-0721	Total/NA	Ground Water	3510C	
310-210599-4	MW-4-GW-DP-0721	Total/NA	Ground Water	3510C	
310-210599-5	MW-5-GW-DP-0721	Total/NA	Ground Water	3510C	
310-210599-6	MW-6-GW-DP-0721	Total/NA	Ground Water	3510C	
310-210599-7	MW-7-GW-DP-0721	Total/NA	Ground Water	3510C	
310-210599-8	MW-8R-GW-DP-0721	Total/NA	Ground Water	3510C	
310-210599-9	MW-9-GW-DP-0721	Total/NA	Ground Water	3510C	
310-210599-10	DUP1-GW-DP-0721	Total/NA	Ground Water	3510C	
310-210599-11	EB-GW-DP-0721	Total/NA	Water	3510C	
MB 310-322305/1-A	Method Blank	Total/NA	Water	3510C	
LCS 310-322305/2-A	Lab Control Sample	Total/NA	Water	3510C	
310-210599-5 MS	MW-5-GW-DP-0721	Total/NA	Ground Water	3510C	
310-210599-5 MSD	MW-5-GW-DP-0721	Total/NA	Ground Water	3510C	

Analysis Batch: 322779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-210599-1	MW-1-GW-DP-0721	Total/NA	Ground Water	8270E SIM	322305
310-210599-2	MW-2-GW-DP-0721	Total/NA	Ground Water	8270E SIM	322305
310-210599-3	MW-3-GW-DP-0721	Total/NA	Ground Water	8270E SIM	322305

QC Association Summary

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

GC/MS Semi VOA (Continued)

Analysis Batch: 322779 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-210599-4	MW-4-GW-DP-0721	Total/NA	Ground Water	8270E SIM	322305
310-210599-5	MW-5-GW-DP-0721	Total/NA	Ground Water	8270E SIM	322305
310-210599-6	MW-6-GW-DP-0721	Total/NA	Ground Water	8270E SIM	322305
310-210599-7	MW-7-GW-DP-0721	Total/NA	Ground Water	8270E SIM	322305
310-210599-8	MW-8R-GW-DP-0721	Total/NA	Ground Water	8270E SIM	322305
310-210599-9	MW-9-GW-DP-0721	Total/NA	Ground Water	8270E SIM	322305
310-210599-10	DUP1-GW-DP-0721	Total/NA	Ground Water	8270E SIM	322305
310-210599-11	EB-GW-DP-0721	Total/NA	Water	8270E SIM	322305
MB 310-322305/1-A	Method Blank	Total/NA	Water	8270E SIM	322305
LCS 310-322305/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	322305
310-210599-5 MS	MW-5-GW-DP-0721	Total/NA	Ground Water	8270E SIM	322305
310-210599-5 MSD	MW-5-GW-DP-0721	Total/NA	Ground Water	8270E SIM	322305

Analysis Batch: 322888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-210599-1	MW-1-GW-DP-0721	Total/NA	Ground Water	8270E SIM	322305
310-210599-3	MW-3-GW-DP-0721	Total/NA	Ground Water	8270E SIM	322305
310-210599-10	DUP1-GW-DP-0721	Total/NA	Ground Water	8270E SIM	322305

Metals

Prep Batch: 322136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-210599-1	MW-1-GW-DP-0721	Total/NA	Ground Water	3010A	
310-210599-2	MW-2-GW-DP-0721	Total/NA	Ground Water	3010A	
310-210599-3	MW-3-GW-DP-0721	Total/NA	Ground Water	3010A	
310-210599-4	MW-4-GW-DP-0721	Total/NA	Ground Water	3010A	
310-210599-5	MW-5-GW-DP-0721	Total/NA	Ground Water	3010A	
310-210599-6	MW-6-GW-DP-0721	Total/NA	Ground Water	3010A	
310-210599-7	MW-7-GW-DP-0721	Total/NA	Ground Water	3010A	
310-210599-8	MW-8R-GW-DP-0721	Total/NA	Ground Water	3010A	
310-210599-9	MW-9-GW-DP-0721	Total/NA	Ground Water	3010A	
310-210599-10	DUP1-GW-DP-0721	Total/NA	Ground Water	3010A	
310-210599-11	EB-GW-DP-0721	Total/NA	Water	3010A	
MB 310-322136/1-A	Method Blank	Total/NA	Water	3010A	
LCS 310-322136/2-A	Lab Control Sample	Total/NA	Water	3010A	
310-210599-5 MS	MW-5-GW-DP-0721	Total/NA	Ground Water	3010A	
310-210599-5 MSD	MW-5-GW-DP-0721	Total/NA	Ground Water	3010A	
310-210599-11 DU	EB-GW-DP-0721	Total/NA	Water	3010A	

Analysis Batch: 322457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-210599-1	MW-1-GW-DP-0721	Total/NA	Ground Water	6020A	322136
310-210599-2	MW-2-GW-DP-0721	Total/NA	Ground Water	6020A	322136
310-210599-3	MW-3-GW-DP-0721	Total/NA	Ground Water	6020A	322136
310-210599-4	MW-4-GW-DP-0721	Total/NA	Ground Water	6020A	322136
310-210599-5	MW-5-GW-DP-0721	Total/NA	Ground Water	6020A	322136
310-210599-6	MW-6-GW-DP-0721	Total/NA	Ground Water	6020A	322136
310-210599-7	MW-7-GW-DP-0721	Total/NA	Ground Water	6020A	322136
310-210599-8	MW-8R-GW-DP-0721	Total/NA	Ground Water	6020A	322136
310-210599-9	MW-9-GW-DP-0721	Total/NA	Ground Water	6020A	322136

Eurofins TestAmerica, Cedar Falls

QC Association Summary

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Metals (Continued)

Analysis Batch: 322457 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-210599-10	DUP1-GW-DP-0721	Total/NA	Ground Water	6020A	322136
310-210599-11	EB-GW-DP-0721	Total/NA	Water	6020A	322136
MB 310-322136/1-A	Method Blank	Total/NA	Water	6020A	322136
LCS 310-322136/2-A	Lab Control Sample	Total/NA	Water	6020A	322136
310-210599-5 MS	MW-5-GW-DP-0721	Total/NA	Ground Water	6020A	322136
310-210599-5 MSD	MW-5-GW-DP-0721	Total/NA	Ground Water	6020A	322136
310-210599-11 DU	EB-GW-DP-0721	Total/NA	Water	6020A	322136

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Lab Chronicle

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-1-GW-DP-0721

Lab Sample ID: 310-210599-1

Date Collected: 07/08/21 11:10

Matrix: Ground Water

Date Received: 07/09/21 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	322155	07/13/21 13:18	SJN	TAL CF
Total/NA	Analysis	8260D		10	322159	07/14/21 11:12	SJN	TAL CF
Total/NA	Prep	3510C			322305	07/14/21 07:38	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	322779	07/19/21 18:14	BKT	TAL CF
Total/NA	Prep	3510C			322305	07/14/21 07:38	JCM	TAL CF
Total/NA	Analysis	8270E SIM		10	322888	07/20/21 12:23	BKT	TAL CF
Total/NA	Prep	3010A			322136	07/13/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	322457	07/14/21 20:21	SAP	TAL CF

Client Sample ID: MW-2-GW-DP-0721

Lab Sample ID: 310-210599-2

Date Collected: 07/08/21 13:10

Matrix: Ground Water

Date Received: 07/09/21 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	322155	07/13/21 09:27	SJN	TAL CF
Total/NA	Prep	3510C			322305	07/14/21 07:38	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	322779	07/19/21 18:35	BKT	TAL CF
Total/NA	Prep	3010A			322136	07/13/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	322457	07/14/21 20:24	SAP	TAL CF

Client Sample ID: MW-3-GW-DP-0721

Lab Sample ID: 310-210599-3

Date Collected: 07/08/21 12:20

Matrix: Ground Water

Date Received: 07/09/21 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	322155	07/13/21 13:41	SJN	TAL CF
Total/NA	Analysis	8260D		10	322159	07/14/21 11:34	SJN	TAL CF
Total/NA	Prep	3510C			322305	07/14/21 07:38	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	322779	07/19/21 18:55	BKT	TAL CF
Total/NA	Prep	3510C			322305	07/14/21 07:38	JCM	TAL CF
Total/NA	Analysis	8270E SIM		10	322888	07/20/21 12:44	BKT	TAL CF
Total/NA	Prep	3010A			322136	07/13/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	322457	07/14/21 20:27	SAP	TAL CF

Client Sample ID: MW-4-GW-DP-0721

Lab Sample ID: 310-210599-4

Date Collected: 07/07/21 13:35

Matrix: Ground Water

Date Received: 07/09/21 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	322155	07/13/21 09:50	SJN	TAL CF
Total/NA	Prep	3510C			322305	07/14/21 07:38	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	322779	07/19/21 19:15	BKT	TAL CF
Total/NA	Prep	3010A			322136	07/13/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	322457	07/14/21 20:31	SAP	TAL CF

Lab Chronicle

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-5-GW-DP-0721

Lab Sample ID: 310-210599-5

Date Collected: 07/07/21 14:30

Matrix: Ground Water

Date Received: 07/09/21 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	322155	07/13/21 09:04	SJN	TAL CF
Total/NA	Prep	3510C			322305	07/14/21 07:38	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	322779	07/19/21 19:36	BKT	TAL CF
Total/NA	Prep	3010A			322136	07/13/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	322457	07/14/21 20:34	SAP	TAL CF

Client Sample ID: MW-6-GW-DP-0721

Lab Sample ID: 310-210599-6

Date Collected: 07/08/21 10:20

Matrix: Ground Water

Date Received: 07/09/21 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	322155	07/13/21 10:13	SJN	TAL CF
Total/NA	Prep	3510C			322305	07/14/21 07:38	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	322779	07/19/21 19:56	BKT	TAL CF
Total/NA	Prep	3010A			322136	07/13/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	322457	07/14/21 21:04	SAP	TAL CF

Client Sample ID: MW-7-GW-DP-0721

Lab Sample ID: 310-210599-7

Date Collected: 07/07/21 12:35

Matrix: Ground Water

Date Received: 07/09/21 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	322155	07/13/21 10:36	SJN	TAL CF
Total/NA	Prep	3510C			322305	07/14/21 07:38	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	322779	07/19/21 20:17	BKT	TAL CF
Total/NA	Prep	3010A			322136	07/13/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	322457	07/14/21 21:07	SAP	TAL CF

Client Sample ID: MW-8R-GW-DP-0721

Lab Sample ID: 310-210599-8

Date Collected: 07/07/21 11:45

Matrix: Ground Water

Date Received: 07/09/21 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	322155	07/13/21 10:59	SJN	TAL CF
Total/NA	Prep	3510C			322305	07/14/21 07:38	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	322779	07/19/21 20:37	BKT	TAL CF
Total/NA	Prep	3010A			322136	07/13/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	322457	07/14/21 21:10	SAP	TAL CF

Client Sample ID: MW-9-GW-DP-0721

Lab Sample ID: 310-210599-9

Date Collected: 07/07/21 15:25

Matrix: Ground Water

Date Received: 07/09/21 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	322155	07/13/21 11:22	SJN	TAL CF

Eurofins TestAmerica, Cedar Falls

Lab Chronicle

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Client Sample ID: MW-9-GW-DP-0721

Lab Sample ID: 310-210599-9

Date Collected: 07/07/21 15:25

Matrix: Ground Water

Date Received: 07/09/21 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			322305	07/14/21 07:38	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	322779	07/19/21 20:58	BKT	TAL CF
Total/NA	Prep	3010A			322136	07/13/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	322457	07/14/21 21:14	SAP	TAL CF

Client Sample ID: DUP1-GW-DP-0721

Lab Sample ID: 310-210599-10

Date Collected: 07/08/21 00:00

Matrix: Ground Water

Date Received: 07/09/21 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	322155	07/13/21 14:04	SJN	TAL CF
Total/NA	Analysis	8260D		10	322159	07/14/21 11:57	SJN	TAL CF
Total/NA	Prep	3510C			322305	07/14/21 07:38	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	322779	07/19/21 21:18	BKT	TAL CF
Total/NA	Prep	3510C			322305	07/14/21 07:38	JCM	TAL CF
Total/NA	Analysis	8270E SIM		10	322888	07/20/21 13:04	BKT	TAL CF
Total/NA	Prep	3010A			322136	07/13/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	322457	07/14/21 21:17	SAP	TAL CF

Client Sample ID: EB-GW-DP-0721

Lab Sample ID: 310-210599-11

Date Collected: 07/08/21 11:40

Matrix: Water

Date Received: 07/09/21 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	322155	07/13/21 11:45	SJN	TAL CF
Total/NA	Prep	3510C			322305	07/14/21 07:38	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	322779	07/19/21 21:39	BKT	TAL CF
Total/NA	Prep	3010A			322136	07/13/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	322457	07/14/21 21:20	SAP	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: 310-210599-12

Date Collected: 07/08/21 00:00

Matrix: Water

Date Received: 07/09/21 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	322155	07/13/21 07:09	SJN	TAL CF

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Laboratory: Eurofins TestAmerica, Cedar Falls

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Colorado	Petroleum Storage Tank Program	IA100001 (OR)	09-29-21
Georgia	State	IA100001 (OR)	09-29-21
Illinois	NELAP	200024	11-29-21
Iowa	State	007	12-01-21
Kansas	NELAP	E-10341	01-31-22
Minnesota	NELAP	019-999-319	12-31-21
Minnesota (Petrofund)	State	3349	08-22-21
North Dakota	State	R-186	09-29-21
Oregon	NELAP	IA100001	09-29-21
USDA	US Federal Programs	P330-19-00003	01-02-22

Method Summary

Client: GHD Services Inc.
Project/Site: IPL- Albia FMGP

Job ID: 310-210599-1
SDG: 11156780

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL CF
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL CF
6020A	Metals (ICP/MS)	SW846	TAL CF
3010A	Preparation, Total Metals	SW846	TAL CF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CF
5030B	Purge and Trap	SW846	TAL CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

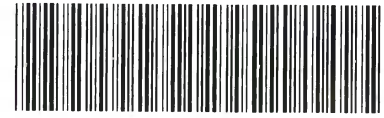
Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401





Environment Testing
TestAmerica



310-210599 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client: <u>CHD</u>		
City/State: <u>Urbana IL</u>	STATE: <u>IA</u>	Project: <u>IPL-Albia FMCIP</u>
Receipt Information		
Date/Time Received: <u>7/09/2021 1715</u>	DATE: <u>7/09/2021</u>	TIME: <u>1715</u> Received By: <u>AW</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # _____ of _____
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record		
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>0</u>	Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>4.9</u>	Corrected Temp (°C): <u>4.9</u>	
• Sample Container Temperature		
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>
Uncorrected Temp (°C):		
Corrected Temp (°C):		
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No		
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No		
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		
<u>Received 2 empty containers - 1 PI 250 Nitric and 1 PI 250 Amber and 3 empty VOA vials</u>		



Environment Testing
TestAmerica

Cedar Falls Division
3019 Venture Way
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
TestAmerica Des Moines SC 214
Fax: 319 - 277 - 2425

Company: **GHD**

Send Report To: **Kevin Armstrong**

Address: **11228 Aurora Ave**

City/State/Zip Code: **Windsor IA 50322**

Telephone Number: **5154143933**

Sampled by: (Print Name) **Diane Gab**
(Signature) *Diane Gab*

Your PO #:

Invoice To: **Kevin Armstrong**

Project Name: **IPL - Albion FMGP**

Project Number: **11156780**

Email Address: **Kevin.armstrong@ghd.com**

CC:

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Ice	Preservative							Matrix						Other (Specify)	Other Specify: Stormwater	Analyze For:													
								HNO ₃ (Red & White Label)	HCl (Blue & White Label)	H ₂ SO ₄ Plastic (Yellow & White Label)	H ₂ SO ₄ Glass (Yellow & White Label)	None (Black & White Label)	Groundwater	Wastewater	Drinking Water	Sludge	Soil	PAHs	As, Pb	VOCs			RUSH TAT (Must call ahead)	Standard TAT	E-mail results	Fax Results	Send QC with report									
MW-1-GW-DP-0721	7/8/21	1110	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MW-2-GW-DP-0721	7/9/21	1310	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MW-3-GW-DP-0721	7/8/21	1220	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MW-4-GW-DP-0721	7/7/21	1335	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-5-GW-DP-0721	7/7/21	1430	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-6-GW-DP-0721	7/8/21	1020	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-7-GW-DP-0721	7/7/21	1235	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MW-8-GW-DP-0721	7/7/21	1145	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MW-9-GW-DP-0721	7/7/21	1525	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dupl-GW-DP-0721	7/8/21	---	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

NOTES: Please fill in shaded areas

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.

NOTE: Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments: additional charges may be assessed.

NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time	Relinquished by:	Date	Time
<i>Diane Gab</i>	7/9/21	1400	<i>Jana Van</i>	7/9/21	1357						

Shipped Via:	Laboratory Comments:
	Temperature Upon Receipt: MTS
Received for TestAmerica by: AGV	7/10/21 8:21 AM



Company: **GHP**

Send Report To: **Kevin Armstrong**

Address: **11228 Amora Ave**

City/State/Zip Code: **Urbandale IA 50322**

Telephone Number: **515 814 3933**

Sampled by: (Print Name) **Diane Pals**

(Signature) *Diane Pals*

Your PO #:

Invoice To:

Project Name:

Project Number:

Email Address:

CC:

Kevin Armstrong

IP1-Albia IMG

1156780

Kevin.armstrong@ghd.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Ice	Preservative					Matrix					Analyze For:	RUSH TAT (Must call ahead)	Standard TAT	E-mail results	Fax Results	Send QC with report								
								HNO ₃ (Red & White Label)	HCl (Blue & White Label)	H ₂ SO ₄ Plastic (Yellow & White Label)	H ₂ SO ₄ Glass (Yellow & White Label)	None (Black & White Label)	Other (Specify)	Groundwater	Wastewater	Drinking Water	Sludge							Soil	Other (Specify Stormwater)	PAHs	As, Pb	Volcs			
EB-GW-DP-0721	7/8/21	1140	5	G			X	1	3																						
Trip Blank	7/8/21		2	X			X	2																							
MW-S-GW-DP-0721 (MS)	7/7/21	1430	5	X			X	1	3																						
MW-S-GW-DP-0721 (MSD)	7/7/21	1430	5	X			X	1	3																						

NOTES: Please fill in shaded areas

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.

NOTICE: Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments; additional charges may be assessed.

NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

3x Volume @ MW-S for MS/MSD

Relinquished by: *Diane Pals*

Received by: *Vanessa Vayx*

Date: 7/9/21

Date: 7/9/21

Time: 1400

Time: 1357

Shipped Via:

Comments:

Shipped Via:

Received for TestAmerica by: **AW**

Date: 7/10/21

Temperature Upon Receipt:

Laboratory Comments:

Relinquished by:

Date:

Time:



Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 310-210599-1

SDG Number: 11156780

Login Number: 210599

List Source: Eurofins TestAmerica, Cedar Falls

List Number: 1

Creator: Kizer, Preston V

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-218392-1
Laboratory Sample Delivery Group: 11156780
Client Project/Site: Albia IPL FMGP

For:
GHD Services Inc.
11228 Aurora Avenue
Des Moines, Iowa 50322-7905

Attn: Kevin Armstrong



Authorized for release by:
11/11/2021 4:10:40 PM

Shawn Hayes, Senior Project Manager
(319)229-8211
Shawn.Hayes@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	4
Detection Summary	5
Client Sample Results	8
Definitions	33
Surrogate Summary	34
QC Sample Results	36
QC Association	47
Chronicle	50
Certification Summary	53
Method Summary	54
Chain of Custody	55
Receipt Checklists	59

Case Narrative

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Job ID: 310-218392-1

Laboratory: Eurofins TestAmerica, Cedar Falls

Narrative

Job Narrative 310-218392-1

Comments

No additional comments.

Receipt

The samples were received on 10/27/2021 4:50 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 4.6° C and 6.8° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Sample Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-218392-1	MW-1-GW-1021	Water	10/26/21 15:25	10/27/21 16:50
310-218392-2	MW-2-GW-1021	Water	10/27/21 11:40	10/27/21 16:50
310-218392-3	MW-3-GW-1021	Water	10/26/21 16:30	10/27/21 16:50
310-218392-4	MW-4-GW-1021	Water	10/26/21 13:35	10/27/21 16:50
310-218392-5	MW-5-GW-1021	Water	10/26/21 14:40	10/27/21 16:50
310-218392-6	MW-6-GW-1021	Water	10/27/21 10:50	10/27/21 16:50
310-218392-7	MW-8R-GW-1021	Water	10/26/21 12:15	10/27/21 16:50
310-218392-8	MW-9-GW-1021	Water	10/27/21 10:05	10/27/21 16:50
310-218392-9	DUP1-GW-1021	Water	10/26/21 00:00	10/27/21 16:50
310-218392-10	EB1-GW-1021	Water	10/26/21 17:00	10/27/21 16:50
310-218392-11	Trip Blank	Water	10/27/21 00:00	10/27/21 16:50

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Detection Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-1-GW-1021

Lab Sample ID: 310-218392-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	395		0.500		ug/L	1		8260D	Total/NA
Ethylbenzene	531		10.0		ug/L	10		8260D	Total/NA
Isopropylbenzene	4.78		1.00		ug/L	1		8260D	Total/NA
Naphthalene	89.3		5.00		ug/L	1		8260D	Total/NA
n-Propylbenzene	7.84		1.00		ug/L	1		8260D	Total/NA
Toluene	4.78		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	78.2		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	41.9		3.00		ug/L	1		8260D	Total/NA
Acenaphthene	11.6		0.227		ug/L	1		8270E SIM	Total/NA
Acenaphthylene	1.43		0.227		ug/L	1		8270E SIM	Total/NA
Anthracene	1.04		0.227		ug/L	1		8270E SIM	Total/NA
Fluoranthene	1.05		0.227		ug/L	1		8270E SIM	Total/NA
Fluorene	10.0		0.227		ug/L	1		8270E SIM	Total/NA
Naphthalene	0.848	F1 F2	0.568		ug/L	1		8270E SIM	Total/NA
Phenanthrene	3.08	F1 F2	0.227		ug/L	1		8270E SIM	Total/NA
Pyrene	1.02		0.227		ug/L	1		8270E SIM	Total/NA
Arsenic	0.0124		0.00200		mg/L	1		6020A	Total/NA
Lead	0.000590		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW-2-GW-1021

Lab Sample ID: 310-218392-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	38.6		0.500		ug/L	1		8260D	Total/NA
Ethylbenzene	12.4		1.00		ug/L	1		8260D	Total/NA
Naphthalene	7.51		5.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	10.3		1.00		ug/L	1		8260D	Total/NA
1,3,5-Trimethylbenzene	1.17		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	10.1		3.00		ug/L	1		8260D	Total/NA
Pyrene	0.234		0.217		ug/L	1		8270E SIM	Total/NA
Arsenic	0.0228		0.00200		mg/L	1		6020A	Total/NA
Lead	0.000533		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW-3-GW-1021

Lab Sample ID: 310-218392-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	468		5.00		ug/L	10		8260D	Total/NA
Ethylbenzene	188		1.00		ug/L	1		8260D	Total/NA
Isopropylbenzene	16.4		1.00		ug/L	1		8260D	Total/NA
Naphthalene	144		5.00		ug/L	1		8260D	Total/NA
n-Butylbenzene	1.62		1.00		ug/L	1		8260D	Total/NA
n-Propylbenzene	5.21		1.00		ug/L	1		8260D	Total/NA
Toluene	7.86		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	69.5		1.00		ug/L	1		8260D	Total/NA
1,3,5-Trimethylbenzene	4.10		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	95.6		3.00		ug/L	1		8260D	Total/NA
Acenaphthene	21.6		0.208		ug/L	1		8270E SIM	Total/NA
Acenaphthylene	130		2.08		ug/L	10		8270E SIM	Total/NA
Anthracene	2.50		0.208		ug/L	1		8270E SIM	Total/NA
Fluoranthene	3.99		0.208		ug/L	1		8270E SIM	Total/NA
Fluorene	11.5		0.208		ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	0.295		0.208		ug/L	1		8270E SIM	Total/NA
Naphthalene	39.9		0.521		ug/L	1		8270E SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-3-GW-1021 (Continued)

Lab Sample ID: 310-218392-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	27.8		0.208		ug/L	1		8270E SIM	Total/NA
Pyrene	4.09		0.208		ug/L	1		8270E SIM	Total/NA
Arsenic	0.00637		0.00200		mg/L	1		6020A	Total/NA
Lead	0.000571		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW-4-GW-1021

Lab Sample ID: 310-218392-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00394		0.00200		mg/L	1		6020A	Total/NA
Lead	0.000704		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW-5-GW-1021

Lab Sample ID: 310-218392-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.000737		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW-6-GW-1021

Lab Sample ID: 310-218392-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	9.16		0.500		ug/L	1		8260D	Total/NA
Ethylbenzene	2.04		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	2.71		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	4.23		3.00		ug/L	1		8260D	Total/NA
Arsenic	0.0193		0.00200		mg/L	1		6020A	Total/NA
Lead	0.00127		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW-8R-GW-1021

Lab Sample ID: 310-218392-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0110		0.00200		mg/L	1		6020A	Total/NA
Lead	0.00577		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW-9-GW-1021

Lab Sample ID: 310-218392-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.000509		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: DUP1-GW-1021

Lab Sample ID: 310-218392-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	473		5.00		ug/L	10		8260D	Total/NA
Ethylbenzene	194		1.00		ug/L	1		8260D	Total/NA
Isopropylbenzene	17.3		1.00		ug/L	1		8260D	Total/NA
Naphthalene	146		5.00		ug/L	1		8260D	Total/NA
n-Butylbenzene	1.69		1.00		ug/L	1		8260D	Total/NA
n-Propylbenzene	5.47		1.00		ug/L	1		8260D	Total/NA
Toluene	7.91		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	71.5		1.00		ug/L	1		8260D	Total/NA
1,3,5-Trimethylbenzene	4.25		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	96.9		3.00		ug/L	1		8260D	Total/NA
Acenaphthene	21.1		0.227		ug/L	1		8270E SIM	Total/NA
Acenaphthylene	114		2.27		ug/L	10		8270E SIM	Total/NA
Anthracene	3.26		0.227		ug/L	1		8270E SIM	Total/NA
Fluoranthene	4.36		0.227		ug/L	1		8270E SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Detection Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: DUP1-GW-1021 (Continued)

Lab Sample ID: 310-218392-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	11.1		0.227		ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	0.238		0.227		ug/L	1		8270E SIM	Total/NA
Naphthalene	32.7		0.568		ug/L	1		8270E SIM	Total/NA
Phenanthrene	22.3		0.227		ug/L	1		8270E SIM	Total/NA
Pyrene	4.48		0.227		ug/L	1		8270E SIM	Total/NA
Arsenic	0.00673		0.00200		mg/L	1		6020A	Total/NA
Lead	0.000933		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: EB1-GW-1021

Lab Sample ID: 310-218392-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	1.90		1.00		ug/L	1		8260D	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 310-218392-11

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-1-GW-1021

Lab Sample ID: 310-218392-1

Date Collected: 10/26/21 15:25

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/02/21 10:42	1
Benzene	395		0.500		ug/L			11/02/21 10:42	1
Bromobenzene	<1.00		1.00		ug/L			11/02/21 10:42	1
Bromochloromethane	<5.00		5.00		ug/L			11/02/21 10:42	1
Bromodichloromethane	<1.00		1.00		ug/L			11/02/21 10:42	1
Bromoform	<5.00		5.00		ug/L			11/02/21 10:42	1
Bromomethane	<4.00		4.00		ug/L			11/02/21 10:42	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/02/21 10:42	1
Carbon disulfide	<1.00		1.00		ug/L			11/02/21 10:42	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/02/21 10:42	1
Chlorobenzene	<1.00		1.00		ug/L			11/02/21 10:42	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/02/21 10:42	1
Chloroethane	<4.00		4.00		ug/L			11/02/21 10:42	1
Chloroform	<3.00		3.00		ug/L			11/02/21 10:42	1
Chloromethane	<3.00		3.00		ug/L			11/02/21 10:42	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 10:42	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 10:42	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 10:42	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 10:42	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			11/02/21 10:42	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/02/21 10:42	1
Dibromomethane	<1.00		1.00		ug/L			11/02/21 10:42	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 10:42	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 10:42	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 10:42	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/02/21 10:42	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/02/21 10:42	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/02/21 10:42	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/02/21 10:42	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/02/21 10:42	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/02/21 10:42	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/02/21 10:42	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/02/21 10:42	1
Ethylbenzene	531		10.0		ug/L			11/03/21 06:54	10
Hexachlorobutadiene	<5.00		5.00		ug/L			11/02/21 10:42	1
Hexane	<1.00		1.00		ug/L			11/02/21 10:42	1
Isopropylbenzene	4.78		1.00		ug/L			11/02/21 10:42	1
Methylene chloride	<5.00		5.00		ug/L			11/02/21 10:42	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/02/21 10:42	1
Naphthalene	89.3		5.00		ug/L			11/02/21 10:42	1
n-Butylbenzene	<1.00		1.00		ug/L			11/02/21 10:42	1
n-Propylbenzene	7.84		1.00		ug/L			11/02/21 10:42	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/02/21 10:42	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/02/21 10:42	1
Styrene	<1.00		1.00		ug/L			11/02/21 10:42	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/02/21 10:42	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 10:42	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 10:42	1
Tetrachloroethene	<1.00		1.00		ug/L			11/02/21 10:42	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-1-GW-1021

Lab Sample ID: 310-218392-1

Date Collected: 10/26/21 15:25

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	4.78		1.00		ug/L			11/02/21 10:42	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 10:42	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 10:42	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 10:42	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 10:42	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/02/21 10:42	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/02/21 10:42	1
Trichloroethene	<1.00		1.00		ug/L			11/02/21 10:42	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/02/21 10:42	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/02/21 10:42	1
1,2,4-Trimethylbenzene	78.2		1.00		ug/L			11/02/21 10:42	1
1,3,5-Trimethylbenzene	<1.00	F1 F2	1.00		ug/L			11/02/21 10:42	1
Vinyl chloride	<1.00		1.00		ug/L			11/02/21 10:42	1
Xylenes, Total	41.9		3.00		ug/L			11/02/21 10:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120		11/02/21 10:42	1
4-Bromofluorobenzene (Surr)	96		80 - 120		11/03/21 06:54	10
Dibromofluoromethane (Surr)	100		79 - 120		11/02/21 10:42	1
Dibromofluoromethane (Surr)	103		79 - 120		11/03/21 06:54	10
Toluene-d8 (Surr)	99		79 - 120		11/02/21 10:42	1
Toluene-d8 (Surr)	100		79 - 120		11/03/21 06:54	10

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	11.6		0.227		ug/L		11/02/21 08:49	11/10/21 02:33	1
Acenaphthylene	1.43		0.227		ug/L		11/02/21 08:49	11/10/21 02:33	1
Anthracene	1.04		0.227		ug/L		11/02/21 08:49	11/10/21 02:33	1
Benzo(a)anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 02:33	1
Benzo(a)pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 02:33	1
Benzo(b)fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 02:33	1
Benzo(g,h,i)perylene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 02:33	1
Benzo(k)fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 02:33	1
Chrysene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 02:33	1
Dibenz(a,h)anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 02:33	1
Fluoranthene	1.05		0.227		ug/L		11/02/21 08:49	11/10/21 02:33	1
Fluorene	10.0		0.227		ug/L		11/02/21 08:49	11/10/21 02:33	1
Indeno(1,2,3-cd)pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 02:33	1
2-Methylnaphthalene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 02:33	1
Naphthalene	0.848	F1 F2	0.568		ug/L		11/02/21 08:49	11/10/21 02:33	1
Phenanthrene	3.08	F1 F2	0.227		ug/L		11/02/21 08:49	11/10/21 02:33	1
Pyrene	1.02		0.227		ug/L		11/02/21 08:49	11/10/21 02:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	73		21 - 110	11/02/21 08:49	11/10/21 02:33	1
Nitrobenzene-d5 (Surr)	68		15 - 110	11/02/21 08:49	11/10/21 02:33	1
Terphenyl-d14 (Surr)	84		13 - 110	11/02/21 08:49	11/10/21 02:33	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-1-GW-1021

Lab Sample ID: 310-218392-1

Date Collected: 10/26/21 15:25

Matrix: Water

Date Received: 10/27/21 16:50

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0124		0.00200		mg/L		11/01/21 09:00	11/10/21 21:44	1
Lead	0.000590		0.000500		mg/L		11/01/21 09:00	11/10/21 21:44	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-2-GW-1021

Lab Sample ID: 310-218392-2

Date Collected: 10/27/21 11:40

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/02/21 07:16	1
Benzene	38.6		0.500		ug/L			11/02/21 07:16	1
Bromobenzene	<1.00		1.00		ug/L			11/02/21 07:16	1
Bromochloromethane	<5.00		5.00		ug/L			11/02/21 07:16	1
Bromodichloromethane	<1.00		1.00		ug/L			11/02/21 07:16	1
Bromoform	<5.00		5.00		ug/L			11/02/21 07:16	1
Bromomethane	<4.00		4.00		ug/L			11/02/21 07:16	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/02/21 07:16	1
Carbon disulfide	<1.00		1.00		ug/L			11/02/21 07:16	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/02/21 07:16	1
Chlorobenzene	<1.00		1.00		ug/L			11/02/21 07:16	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/02/21 07:16	1
Chloroethane	<4.00		4.00		ug/L			11/02/21 07:16	1
Chloroform	<3.00		3.00		ug/L			11/02/21 07:16	1
Chloromethane	<3.00		3.00		ug/L			11/02/21 07:16	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 07:16	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 07:16	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 07:16	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 07:16	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			11/02/21 07:16	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/02/21 07:16	1
Dibromomethane	<1.00		1.00		ug/L			11/02/21 07:16	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 07:16	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 07:16	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 07:16	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/02/21 07:16	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/02/21 07:16	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/02/21 07:16	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/02/21 07:16	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/02/21 07:16	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/02/21 07:16	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/02/21 07:16	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/02/21 07:16	1
Ethylbenzene	12.4		1.00		ug/L			11/02/21 07:16	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/02/21 07:16	1
Hexane	<1.00		1.00		ug/L			11/02/21 07:16	1
Isopropylbenzene	<1.00		1.00		ug/L			11/02/21 07:16	1
Methylene chloride	<5.00		5.00		ug/L			11/02/21 07:16	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/02/21 07:16	1
Naphthalene	7.51		5.00		ug/L			11/02/21 07:16	1
n-Butylbenzene	<1.00		1.00		ug/L			11/02/21 07:16	1
n-Propylbenzene	<1.00		1.00		ug/L			11/02/21 07:16	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/02/21 07:16	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/02/21 07:16	1
Styrene	<1.00		1.00		ug/L			11/02/21 07:16	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/02/21 07:16	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 07:16	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 07:16	1
Tetrachloroethene	<1.00		1.00		ug/L			11/02/21 07:16	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-2-GW-1021

Lab Sample ID: 310-218392-2

Date Collected: 10/27/21 11:40

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			11/02/21 07:16	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 07:16	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 07:16	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 07:16	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 07:16	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/02/21 07:16	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/02/21 07:16	1
Trichloroethene	<1.00		1.00		ug/L			11/02/21 07:16	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/02/21 07:16	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/02/21 07:16	1
1,2,4-Trimethylbenzene	10.3		1.00		ug/L			11/02/21 07:16	1
1,3,5-Trimethylbenzene	1.17		1.00		ug/L			11/02/21 07:16	1
Vinyl chloride	<1.00		1.00		ug/L			11/02/21 07:16	1
Xylenes, Total	10.1		3.00		ug/L			11/02/21 07:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		80 - 120		11/02/21 07:16	1
Dibromofluoromethane (Surr)	102		79 - 120		11/02/21 07:16	1
Toluene-d8 (Surr)	98		79 - 120		11/02/21 07:16	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 02:53	1
Acenaphthylene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 02:53	1
Anthracene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 02:53	1
Benzo(a)anthracene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 02:53	1
Benzo(a)pyrene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 02:53	1
Benzo(b)fluoranthene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 02:53	1
Benzo(g,h,i)perylene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 02:53	1
Benzo(k)fluoranthene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 02:53	1
Chrysene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 02:53	1
Dibenz(a,h)anthracene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 02:53	1
Fluoranthene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 02:53	1
Fluorene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 02:53	1
Indeno(1,2,3-cd)pyrene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 02:53	1
2-Methylnaphthalene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 02:53	1
Naphthalene	<0.543		0.543		ug/L		11/02/21 08:49	11/10/21 02:53	1
Phenanthrene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 02:53	1
Pyrene	0.234		0.217		ug/L		11/02/21 08:49	11/10/21 02:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		21 - 110	11/02/21 08:49	11/10/21 02:53	1
Nitrobenzene-d5 (Surr)	56		15 - 110	11/02/21 08:49	11/10/21 02:53	1
Terphenyl-d14 (Surr)	82		13 - 110	11/02/21 08:49	11/10/21 02:53	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0228		0.00200		mg/L		11/01/21 09:00	11/10/21 22:05	1
Lead	0.000533		0.000500		mg/L		11/01/21 09:00	11/10/21 22:05	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-3-GW-1021

Lab Sample ID: 310-218392-3

Date Collected: 10/26/21 16:30

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/02/21 11:05	1
Benzene	468		5.00		ug/L			11/03/21 07:17	10
Bromobenzene	<1.00		1.00		ug/L			11/02/21 11:05	1
Bromochloromethane	<5.00		5.00		ug/L			11/02/21 11:05	1
Bromodichloromethane	<1.00		1.00		ug/L			11/02/21 11:05	1
Bromoform	<5.00		5.00		ug/L			11/02/21 11:05	1
Bromomethane	<4.00		4.00		ug/L			11/02/21 11:05	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/02/21 11:05	1
Carbon disulfide	<1.00		1.00		ug/L			11/02/21 11:05	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/02/21 11:05	1
Chlorobenzene	<1.00		1.00		ug/L			11/02/21 11:05	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/02/21 11:05	1
Chloroethane	<4.00		4.00		ug/L			11/02/21 11:05	1
Chloroform	<3.00		3.00		ug/L			11/02/21 11:05	1
Chloromethane	<3.00		3.00		ug/L			11/02/21 11:05	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 11:05	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 11:05	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 11:05	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 11:05	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			11/02/21 11:05	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/02/21 11:05	1
Dibromomethane	<1.00		1.00		ug/L			11/02/21 11:05	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 11:05	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 11:05	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 11:05	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/02/21 11:05	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/02/21 11:05	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/02/21 11:05	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/02/21 11:05	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/02/21 11:05	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/02/21 11:05	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/02/21 11:05	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/02/21 11:05	1
Ethylbenzene	188		1.00		ug/L			11/02/21 11:05	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/02/21 11:05	1
Hexane	<1.00		1.00		ug/L			11/02/21 11:05	1
Isopropylbenzene	16.4		1.00		ug/L			11/02/21 11:05	1
Methylene chloride	<5.00		5.00		ug/L			11/02/21 11:05	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/02/21 11:05	1
Naphthalene	144		5.00		ug/L			11/02/21 11:05	1
n-Butylbenzene	1.62		1.00		ug/L			11/02/21 11:05	1
n-Propylbenzene	5.21		1.00		ug/L			11/02/21 11:05	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/02/21 11:05	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/02/21 11:05	1
Styrene	<1.00		1.00		ug/L			11/02/21 11:05	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/02/21 11:05	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 11:05	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 11:05	1
Tetrachloroethene	<1.00		1.00		ug/L			11/02/21 11:05	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-3-GW-1021

Lab Sample ID: 310-218392-3

Date Collected: 10/26/21 16:30

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	7.86		1.00		ug/L			11/02/21 11:05	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 11:05	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 11:05	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 11:05	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 11:05	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/02/21 11:05	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/02/21 11:05	1
Trichloroethene	<1.00		1.00		ug/L			11/02/21 11:05	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/02/21 11:05	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/02/21 11:05	1
1,2,4-Trimethylbenzene	69.5		1.00		ug/L			11/02/21 11:05	1
1,3,5-Trimethylbenzene	4.10		1.00		ug/L			11/02/21 11:05	1
Vinyl chloride	<1.00		1.00		ug/L			11/02/21 11:05	1
Xylenes, Total	95.6		3.00		ug/L			11/02/21 11:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		80 - 120		11/02/21 11:05	1
4-Bromofluorobenzene (Surr)	96		80 - 120		11/03/21 07:17	10
Dibromofluoromethane (Surr)	102		79 - 120		11/02/21 11:05	1
Dibromofluoromethane (Surr)	101		79 - 120		11/03/21 07:17	10
Toluene-d8 (Surr)	98		79 - 120		11/02/21 11:05	1
Toluene-d8 (Surr)	100		79 - 120		11/03/21 07:17	10

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	21.6		0.208		ug/L		11/02/21 08:49	11/10/21 03:14	1
Acenaphthylene	130		2.08		ug/L		11/02/21 08:49	11/10/21 17:04	10
Anthracene	2.50		0.208		ug/L		11/02/21 08:49	11/10/21 03:14	1
Benzo(a)anthracene	<0.208		0.208		ug/L		11/02/21 08:49	11/10/21 03:14	1
Benzo(a)pyrene	<0.208		0.208		ug/L		11/02/21 08:49	11/10/21 03:14	1
Benzo(b)fluoranthene	<0.208		0.208		ug/L		11/02/21 08:49	11/10/21 03:14	1
Benzo(g,h,i)perylene	<0.208		0.208		ug/L		11/02/21 08:49	11/10/21 03:14	1
Benzo(k)fluoranthene	<0.208		0.208		ug/L		11/02/21 08:49	11/10/21 03:14	1
Chrysene	<0.208		0.208		ug/L		11/02/21 08:49	11/10/21 03:14	1
Dibenz(a,h)anthracene	<0.208		0.208		ug/L		11/02/21 08:49	11/10/21 03:14	1
Fluoranthene	3.99		0.208		ug/L		11/02/21 08:49	11/10/21 03:14	1
Fluorene	11.5		0.208		ug/L		11/02/21 08:49	11/10/21 03:14	1
Indeno(1,2,3-cd)pyrene	<0.208		0.208		ug/L		11/02/21 08:49	11/10/21 03:14	1
2-Methylnaphthalene	0.295		0.208		ug/L		11/02/21 08:49	11/10/21 03:14	1
Naphthalene	39.9		0.521		ug/L		11/02/21 08:49	11/10/21 03:14	1
Phenanthrene	27.8		0.208		ug/L		11/02/21 08:49	11/10/21 03:14	1
Pyrene	4.09		0.208		ug/L		11/02/21 08:49	11/10/21 03:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	59		21 - 110	11/02/21 08:49	11/10/21 03:14	1
Nitrobenzene-d5 (Surr)	54		15 - 110	11/02/21 08:49	11/10/21 03:14	1
Terphenyl-d14 (Surr)	68		13 - 110	11/02/21 08:49	11/10/21 03:14	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-3-GW-1021

Lab Sample ID: 310-218392-3

Date Collected: 10/26/21 16:30

Matrix: Water

Date Received: 10/27/21 16:50

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00637		0.00200		mg/L		11/01/21 09:00	11/10/21 22:08	1
Lead	0.000571		0.000500		mg/L		11/01/21 09:00	11/10/21 22:08	1

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-4-GW-1021

Lab Sample ID: 310-218392-4

Date Collected: 10/26/21 13:35

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/02/21 07:39	1
Benzene	<0.500		0.500		ug/L			11/02/21 07:39	1
Bromobenzene	<1.00		1.00		ug/L			11/02/21 07:39	1
Bromochloromethane	<5.00		5.00		ug/L			11/02/21 07:39	1
Bromodichloromethane	<1.00		1.00		ug/L			11/02/21 07:39	1
Bromoform	<5.00		5.00		ug/L			11/02/21 07:39	1
Bromomethane	<4.00		4.00		ug/L			11/02/21 07:39	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/02/21 07:39	1
Carbon disulfide	<1.00		1.00		ug/L			11/02/21 07:39	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/02/21 07:39	1
Chlorobenzene	<1.00		1.00		ug/L			11/02/21 07:39	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/02/21 07:39	1
Chloroethane	<4.00		4.00		ug/L			11/02/21 07:39	1
Chloroform	<3.00		3.00		ug/L			11/02/21 07:39	1
Chloromethane	<3.00		3.00		ug/L			11/02/21 07:39	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 07:39	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 07:39	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 07:39	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 07:39	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			11/02/21 07:39	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/02/21 07:39	1
Dibromomethane	<1.00		1.00		ug/L			11/02/21 07:39	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 07:39	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 07:39	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 07:39	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/02/21 07:39	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/02/21 07:39	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/02/21 07:39	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/02/21 07:39	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/02/21 07:39	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/02/21 07:39	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/02/21 07:39	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/02/21 07:39	1
Ethylbenzene	<1.00		1.00		ug/L			11/02/21 07:39	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/02/21 07:39	1
Hexane	<1.00		1.00		ug/L			11/02/21 07:39	1
Isopropylbenzene	<1.00		1.00		ug/L			11/02/21 07:39	1
Methylene chloride	<5.00		5.00		ug/L			11/02/21 07:39	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/02/21 07:39	1
Naphthalene	<5.00		5.00		ug/L			11/02/21 07:39	1
n-Butylbenzene	<1.00		1.00		ug/L			11/02/21 07:39	1
n-Propylbenzene	<1.00		1.00		ug/L			11/02/21 07:39	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/02/21 07:39	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/02/21 07:39	1
Styrene	<1.00		1.00		ug/L			11/02/21 07:39	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/02/21 07:39	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 07:39	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 07:39	1
Tetrachloroethene	<1.00		1.00		ug/L			11/02/21 07:39	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-4-GW-1021

Lab Sample ID: 310-218392-4

Date Collected: 10/26/21 13:35

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			11/02/21 07:39	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 07:39	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 07:39	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 07:39	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 07:39	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/02/21 07:39	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/02/21 07:39	1
Trichloroethene	<1.00		1.00		ug/L			11/02/21 07:39	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/02/21 07:39	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/02/21 07:39	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/02/21 07:39	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/02/21 07:39	1
Vinyl chloride	<1.00		1.00		ug/L			11/02/21 07:39	1
Xylenes, Total	<3.00		3.00		ug/L			11/02/21 07:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120					11/02/21 07:39	1
Dibromofluoromethane (Surr)	103		79 - 120					11/02/21 07:39	1
Toluene-d8 (Surr)	99		79 - 120					11/02/21 07:39	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:35	1
Acenaphthylene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:35	1
Anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:35	1
Benzo(a)anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:35	1
Benzo(a)pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:35	1
Benzo(b)fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:35	1
Benzo(g,h,i)perylene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:35	1
Benzo(k)fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:35	1
Chrysene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:35	1
Dibenz(a,h)anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:35	1
Fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:35	1
Fluorene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:35	1
Indeno(1,2,3-cd)pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:35	1
2-Methylnaphthalene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:35	1
Naphthalene	<0.568		0.568		ug/L		11/02/21 08:49	11/10/21 03:35	1
Phenanthrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:35	1
Pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	71		21 - 110				11/02/21 08:49	11/10/21 03:35	1
Nitrobenzene-d5 (Surr)	61		15 - 110				11/02/21 08:49	11/10/21 03:35	1
Terphenyl-d14 (Surr)	86		13 - 110				11/02/21 08:49	11/10/21 03:35	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00394		0.00200		mg/L		11/01/21 09:00	11/10/21 22:11	1
Lead	0.000704		0.000500		mg/L		11/01/21 09:00	11/10/21 22:11	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-5-GW-1021

Lab Sample ID: 310-218392-5

Date Collected: 10/26/21 14:40

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/02/21 08:02	1
Benzene	<0.500		0.500		ug/L			11/02/21 08:02	1
Bromobenzene	<1.00		1.00		ug/L			11/02/21 08:02	1
Bromochloromethane	<5.00		5.00		ug/L			11/02/21 08:02	1
Bromodichloromethane	<1.00		1.00		ug/L			11/02/21 08:02	1
Bromoform	<5.00		5.00		ug/L			11/02/21 08:02	1
Bromomethane	<4.00		4.00		ug/L			11/02/21 08:02	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/02/21 08:02	1
Carbon disulfide	<1.00		1.00		ug/L			11/02/21 08:02	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/02/21 08:02	1
Chlorobenzene	<1.00		1.00		ug/L			11/02/21 08:02	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/02/21 08:02	1
Chloroethane	<4.00		4.00		ug/L			11/02/21 08:02	1
Chloroform	<3.00		3.00		ug/L			11/02/21 08:02	1
Chloromethane	<3.00		3.00		ug/L			11/02/21 08:02	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 08:02	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 08:02	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 08:02	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 08:02	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			11/02/21 08:02	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/02/21 08:02	1
Dibromomethane	<1.00		1.00		ug/L			11/02/21 08:02	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 08:02	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 08:02	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 08:02	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/02/21 08:02	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/02/21 08:02	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/02/21 08:02	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/02/21 08:02	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/02/21 08:02	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/02/21 08:02	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/02/21 08:02	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/02/21 08:02	1
Ethylbenzene	<1.00		1.00		ug/L			11/02/21 08:02	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/02/21 08:02	1
Hexane	<1.00		1.00		ug/L			11/02/21 08:02	1
Isopropylbenzene	<1.00		1.00		ug/L			11/02/21 08:02	1
Methylene chloride	<5.00		5.00		ug/L			11/02/21 08:02	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/02/21 08:02	1
Naphthalene	<5.00		5.00		ug/L			11/02/21 08:02	1
n-Butylbenzene	<1.00		1.00		ug/L			11/02/21 08:02	1
n-Propylbenzene	<1.00		1.00		ug/L			11/02/21 08:02	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/02/21 08:02	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/02/21 08:02	1
Styrene	<1.00		1.00		ug/L			11/02/21 08:02	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/02/21 08:02	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 08:02	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 08:02	1
Tetrachloroethene	<1.00		1.00		ug/L			11/02/21 08:02	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-5-GW-1021

Lab Sample ID: 310-218392-5

Date Collected: 10/26/21 14:40

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			11/02/21 08:02	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 08:02	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 08:02	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 08:02	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 08:02	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/02/21 08:02	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/02/21 08:02	1
Trichloroethene	<1.00		1.00		ug/L			11/02/21 08:02	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/02/21 08:02	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/02/21 08:02	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/02/21 08:02	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/02/21 08:02	1
Vinyl chloride	<1.00		1.00		ug/L			11/02/21 08:02	1
Xylenes, Total	<3.00		3.00		ug/L			11/02/21 08:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120					11/02/21 08:02	1
Dibromofluoromethane (Surr)	103		79 - 120					11/02/21 08:02	1
Toluene-d8 (Surr)	97		79 - 120					11/02/21 08:02	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:56	1
Acenaphthylene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:56	1
Anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:56	1
Benzo(a)anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:56	1
Benzo(a)pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:56	1
Benzo(b)fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:56	1
Benzo(g,h,i)perylene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:56	1
Benzo(k)fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:56	1
Chrysene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:56	1
Dibenz(a,h)anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:56	1
Fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:56	1
Fluorene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:56	1
Indeno(1,2,3-cd)pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:56	1
2-Methylnaphthalene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:56	1
Naphthalene	<0.568		0.568		ug/L		11/02/21 08:49	11/10/21 03:56	1
Phenanthrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:56	1
Pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 03:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	55		21 - 110				11/02/21 08:49	11/10/21 03:56	1
Nitrobenzene-d5 (Surr)	45		15 - 110				11/02/21 08:49	11/10/21 03:56	1
Terphenyl-d14 (Surr)	82		13 - 110				11/02/21 08:49	11/10/21 03:56	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		11/01/21 09:00	11/10/21 22:13	1
Lead	0.000737		0.000500		mg/L		11/01/21 09:00	11/10/21 22:13	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-6-GW-1021

Lab Sample ID: 310-218392-6

Date Collected: 10/27/21 10:50

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/02/21 08:25	1
Benzene	9.16		0.500		ug/L			11/02/21 08:25	1
Bromobenzene	<1.00		1.00		ug/L			11/02/21 08:25	1
Bromochloromethane	<5.00		5.00		ug/L			11/02/21 08:25	1
Bromodichloromethane	<1.00		1.00		ug/L			11/02/21 08:25	1
Bromoform	<5.00		5.00		ug/L			11/02/21 08:25	1
Bromomethane	<4.00		4.00		ug/L			11/02/21 08:25	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/02/21 08:25	1
Carbon disulfide	<1.00		1.00		ug/L			11/02/21 08:25	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/02/21 08:25	1
Chlorobenzene	<1.00		1.00		ug/L			11/02/21 08:25	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/02/21 08:25	1
Chloroethane	<4.00		4.00		ug/L			11/02/21 08:25	1
Chloroform	<3.00		3.00		ug/L			11/02/21 08:25	1
Chloromethane	<3.00		3.00		ug/L			11/02/21 08:25	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 08:25	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 08:25	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 08:25	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 08:25	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			11/02/21 08:25	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/02/21 08:25	1
Dibromomethane	<1.00		1.00		ug/L			11/02/21 08:25	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 08:25	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 08:25	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 08:25	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/02/21 08:25	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/02/21 08:25	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/02/21 08:25	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/02/21 08:25	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/02/21 08:25	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/02/21 08:25	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/02/21 08:25	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/02/21 08:25	1
Ethylbenzene	2.04		1.00		ug/L			11/02/21 08:25	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/02/21 08:25	1
Hexane	<1.00		1.00		ug/L			11/02/21 08:25	1
Isopropylbenzene	<1.00		1.00		ug/L			11/02/21 08:25	1
Methylene chloride	<5.00		5.00		ug/L			11/02/21 08:25	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/02/21 08:25	1
Naphthalene	<5.00		5.00		ug/L			11/02/21 08:25	1
n-Butylbenzene	<1.00		1.00		ug/L			11/02/21 08:25	1
n-Propylbenzene	<1.00		1.00		ug/L			11/02/21 08:25	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/02/21 08:25	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/02/21 08:25	1
Styrene	<1.00		1.00		ug/L			11/02/21 08:25	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/02/21 08:25	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 08:25	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 08:25	1
Tetrachloroethene	<1.00		1.00		ug/L			11/02/21 08:25	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-6-GW-1021

Lab Sample ID: 310-218392-6

Date Collected: 10/27/21 10:50

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			11/02/21 08:25	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 08:25	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 08:25	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 08:25	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 08:25	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/02/21 08:25	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/02/21 08:25	1
Trichloroethene	<1.00		1.00		ug/L			11/02/21 08:25	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/02/21 08:25	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/02/21 08:25	1
1,2,4-Trimethylbenzene	2.71		1.00		ug/L			11/02/21 08:25	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/02/21 08:25	1
Vinyl chloride	<1.00		1.00		ug/L			11/02/21 08:25	1
Xylenes, Total	4.23		3.00		ug/L			11/02/21 08:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120		11/02/21 08:25	1
Dibromofluoromethane (Surr)	101		79 - 120		11/02/21 08:25	1
Toluene-d8 (Surr)	99		79 - 120		11/02/21 08:25	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 04:16	1
Acenaphthylene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 04:16	1
Anthracene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 04:16	1
Benzo(a)anthracene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 04:16	1
Benzo(a)pyrene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 04:16	1
Benzo(b)fluoranthene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 04:16	1
Benzo(g,h,i)perylene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 04:16	1
Benzo(k)fluoranthene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 04:16	1
Chrysene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 04:16	1
Dibenz(a,h)anthracene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 04:16	1
Fluoranthene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 04:16	1
Fluorene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 04:16	1
Indeno(1,2,3-cd)pyrene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 04:16	1
2-Methylnaphthalene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 04:16	1
Naphthalene	<0.543		0.543		ug/L		11/02/21 08:49	11/10/21 04:16	1
Phenanthrene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 04:16	1
Pyrene	<0.217		0.217		ug/L		11/02/21 08:49	11/10/21 04:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	53		21 - 110	11/02/21 08:49	11/10/21 04:16	1
Nitrobenzene-d5 (Surr)	42		15 - 110	11/02/21 08:49	11/10/21 04:16	1
Terphenyl-d14 (Surr)	70		13 - 110	11/02/21 08:49	11/10/21 04:16	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0193		0.00200		mg/L		11/02/21 09:30	11/05/21 14:56	1
Lead	0.00127		0.000500		mg/L		11/02/21 09:30	11/04/21 18:33	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-8R-GW-1021

Lab Sample ID: 310-218392-7

Date Collected: 10/26/21 12:15

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/02/21 08:48	1
Benzene	<0.500		0.500		ug/L			11/02/21 08:48	1
Bromobenzene	<1.00		1.00		ug/L			11/02/21 08:48	1
Bromochloromethane	<5.00		5.00		ug/L			11/02/21 08:48	1
Bromodichloromethane	<1.00		1.00		ug/L			11/02/21 08:48	1
Bromoform	<5.00		5.00		ug/L			11/02/21 08:48	1
Bromomethane	<4.00		4.00		ug/L			11/02/21 08:48	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/02/21 08:48	1
Carbon disulfide	<1.00		1.00		ug/L			11/02/21 08:48	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/02/21 08:48	1
Chlorobenzene	<1.00		1.00		ug/L			11/02/21 08:48	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/02/21 08:48	1
Chloroethane	<4.00		4.00		ug/L			11/02/21 08:48	1
Chloroform	<3.00		3.00		ug/L			11/02/21 08:48	1
Chloromethane	<3.00		3.00		ug/L			11/02/21 08:48	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 08:48	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 08:48	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 08:48	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 08:48	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			11/02/21 08:48	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/02/21 08:48	1
Dibromomethane	<1.00		1.00		ug/L			11/02/21 08:48	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 08:48	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 08:48	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 08:48	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/02/21 08:48	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/02/21 08:48	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/02/21 08:48	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/02/21 08:48	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/02/21 08:48	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/02/21 08:48	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/02/21 08:48	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/02/21 08:48	1
Ethylbenzene	<1.00		1.00		ug/L			11/02/21 08:48	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/02/21 08:48	1
Hexane	<1.00		1.00		ug/L			11/02/21 08:48	1
Isopropylbenzene	<1.00		1.00		ug/L			11/02/21 08:48	1
Methylene chloride	<5.00		5.00		ug/L			11/02/21 08:48	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/02/21 08:48	1
Naphthalene	<5.00		5.00		ug/L			11/02/21 08:48	1
n-Butylbenzene	<1.00		1.00		ug/L			11/02/21 08:48	1
n-Propylbenzene	<1.00		1.00		ug/L			11/02/21 08:48	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/02/21 08:48	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/02/21 08:48	1
Styrene	<1.00		1.00		ug/L			11/02/21 08:48	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/02/21 08:48	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 08:48	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 08:48	1
Tetrachloroethene	<1.00		1.00		ug/L			11/02/21 08:48	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-8R-GW-1021

Lab Sample ID: 310-218392-7

Date Collected: 10/26/21 12:15

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			11/02/21 08:48	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 08:48	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 08:48	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 08:48	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 08:48	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/02/21 08:48	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/02/21 08:48	1
Trichloroethene	<1.00		1.00		ug/L			11/02/21 08:48	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/02/21 08:48	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/02/21 08:48	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/02/21 08:48	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/02/21 08:48	1
Vinyl chloride	<1.00		1.00		ug/L			11/02/21 08:48	1
Xylenes, Total	<3.00		3.00		ug/L			11/02/21 08:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120		11/02/21 08:48	1
Dibromofluoromethane (Surr)	103		79 - 120		11/02/21 08:48	1
Toluene-d8 (Surr)	98		79 - 120		11/02/21 08:48	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:37	1
Acenaphthylene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:37	1
Anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:37	1
Benzo(a)anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:37	1
Benzo(a)pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:37	1
Benzo(b)fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:37	1
Benzo(g,h,i)perylene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:37	1
Benzo(k)fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:37	1
Chrysene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:37	1
Dibenz(a,h)anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:37	1
Fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:37	1
Fluorene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:37	1
Indeno(1,2,3-cd)pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:37	1
2-Methylnaphthalene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:37	1
Naphthalene	<0.568		0.568		ug/L		11/02/21 08:49	11/10/21 04:37	1
Phenanthrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:37	1
Pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	56		21 - 110	11/02/21 08:49	11/10/21 04:37	1
Nitrobenzene-d5 (Surr)	49		15 - 110	11/02/21 08:49	11/10/21 04:37	1
Terphenyl-d14 (Surr)	70		13 - 110	11/02/21 08:49	11/10/21 04:37	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0110		0.00200		mg/L		11/02/21 09:30	11/05/21 14:59	1
Lead	0.00577		0.000500		mg/L		11/02/21 09:30	11/04/21 18:36	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-9-GW-1021

Lab Sample ID: 310-218392-8

Date Collected: 10/27/21 10:05

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/02/21 09:11	1
Benzene	<0.500		0.500		ug/L			11/02/21 09:11	1
Bromobenzene	<1.00		1.00		ug/L			11/02/21 09:11	1
Bromochloromethane	<5.00		5.00		ug/L			11/02/21 09:11	1
Bromodichloromethane	<1.00		1.00		ug/L			11/02/21 09:11	1
Bromoform	<5.00		5.00		ug/L			11/02/21 09:11	1
Bromomethane	<4.00		4.00		ug/L			11/02/21 09:11	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/02/21 09:11	1
Carbon disulfide	<1.00		1.00		ug/L			11/02/21 09:11	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/02/21 09:11	1
Chlorobenzene	<1.00		1.00		ug/L			11/02/21 09:11	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/02/21 09:11	1
Chloroethane	<4.00		4.00		ug/L			11/02/21 09:11	1
Chloroform	<3.00		3.00		ug/L			11/02/21 09:11	1
Chloromethane	<3.00		3.00		ug/L			11/02/21 09:11	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 09:11	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 09:11	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 09:11	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 09:11	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			11/02/21 09:11	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/02/21 09:11	1
Dibromomethane	<1.00		1.00		ug/L			11/02/21 09:11	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 09:11	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 09:11	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 09:11	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/02/21 09:11	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/02/21 09:11	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/02/21 09:11	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/02/21 09:11	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/02/21 09:11	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/02/21 09:11	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/02/21 09:11	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/02/21 09:11	1
Ethylbenzene	<1.00		1.00		ug/L			11/02/21 09:11	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/02/21 09:11	1
Hexane	<1.00		1.00		ug/L			11/02/21 09:11	1
Isopropylbenzene	<1.00		1.00		ug/L			11/02/21 09:11	1
Methylene chloride	<5.00		5.00		ug/L			11/02/21 09:11	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/02/21 09:11	1
Naphthalene	<5.00		5.00		ug/L			11/02/21 09:11	1
n-Butylbenzene	<1.00		1.00		ug/L			11/02/21 09:11	1
n-Propylbenzene	<1.00		1.00		ug/L			11/02/21 09:11	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/02/21 09:11	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/02/21 09:11	1
Styrene	<1.00		1.00		ug/L			11/02/21 09:11	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/02/21 09:11	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 09:11	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 09:11	1
Tetrachloroethene	<1.00		1.00		ug/L			11/02/21 09:11	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-9-GW-1021

Lab Sample ID: 310-218392-8

Date Collected: 10/27/21 10:05

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			11/02/21 09:11	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 09:11	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 09:11	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 09:11	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 09:11	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/02/21 09:11	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/02/21 09:11	1
Trichloroethene	<1.00		1.00		ug/L			11/02/21 09:11	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/02/21 09:11	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/02/21 09:11	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/02/21 09:11	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/02/21 09:11	1
Vinyl chloride	<1.00		1.00		ug/L			11/02/21 09:11	1
Xylenes, Total	<3.00		3.00		ug/L			11/02/21 09:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120					11/02/21 09:11	1
Dibromofluoromethane (Surr)	103		79 - 120					11/02/21 09:11	1
Toluene-d8 (Surr)	98		79 - 120					11/02/21 09:11	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:58	1
Acenaphthylene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:58	1
Anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:58	1
Benzo(a)anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:58	1
Benzo(a)pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:58	1
Benzo(b)fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:58	1
Benzo(g,h,i)perylene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:58	1
Benzo(k)fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:58	1
Chrysene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:58	1
Dibenz(a,h)anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:58	1
Fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:58	1
Fluorene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:58	1
Indeno(1,2,3-cd)pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:58	1
2-Methylnaphthalene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:58	1
Naphthalene	<0.568		0.568		ug/L		11/02/21 08:49	11/10/21 04:58	1
Phenanthrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:58	1
Pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 04:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	53		21 - 110				11/02/21 08:49	11/10/21 04:58	1
Nitrobenzene-d5 (Surr)	44		15 - 110				11/02/21 08:49	11/10/21 04:58	1
Terphenyl-d14 (Surr)	73		13 - 110				11/02/21 08:49	11/10/21 04:58	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		11/02/21 09:30	11/05/21 15:01	1
Lead	0.000509		0.000500		mg/L		11/02/21 09:30	11/04/21 18:39	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: DUP1-GW-1021

Lab Sample ID: 310-218392-9

Date Collected: 10/26/21 00:00

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/02/21 11:29	1
Benzene	473		5.00		ug/L			11/03/21 07:40	10
Bromobenzene	<1.00		1.00		ug/L			11/02/21 11:29	1
Bromochloromethane	<5.00		5.00		ug/L			11/02/21 11:29	1
Bromodichloromethane	<1.00		1.00		ug/L			11/02/21 11:29	1
Bromoform	<5.00		5.00		ug/L			11/02/21 11:29	1
Bromomethane	<4.00		4.00		ug/L			11/02/21 11:29	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/02/21 11:29	1
Carbon disulfide	<1.00		1.00		ug/L			11/02/21 11:29	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/02/21 11:29	1
Chlorobenzene	<1.00		1.00		ug/L			11/02/21 11:29	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/02/21 11:29	1
Chloroethane	<4.00		4.00		ug/L			11/02/21 11:29	1
Chloroform	<3.00		3.00		ug/L			11/02/21 11:29	1
Chloromethane	<3.00		3.00		ug/L			11/02/21 11:29	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 11:29	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 11:29	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 11:29	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 11:29	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			11/02/21 11:29	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/02/21 11:29	1
Dibromomethane	<1.00		1.00		ug/L			11/02/21 11:29	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 11:29	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 11:29	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 11:29	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/02/21 11:29	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/02/21 11:29	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/02/21 11:29	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/02/21 11:29	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/02/21 11:29	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/02/21 11:29	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/02/21 11:29	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/02/21 11:29	1
Ethylbenzene	194		1.00		ug/L			11/02/21 11:29	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/02/21 11:29	1
Hexane	<1.00		1.00		ug/L			11/02/21 11:29	1
Isopropylbenzene	17.3		1.00		ug/L			11/02/21 11:29	1
Methylene chloride	<5.00		5.00		ug/L			11/02/21 11:29	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/02/21 11:29	1
Naphthalene	146		5.00		ug/L			11/02/21 11:29	1
n-Butylbenzene	1.69		1.00		ug/L			11/02/21 11:29	1
n-Propylbenzene	5.47		1.00		ug/L			11/02/21 11:29	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/02/21 11:29	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/02/21 11:29	1
Styrene	<1.00		1.00		ug/L			11/02/21 11:29	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/02/21 11:29	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 11:29	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 11:29	1
Tetrachloroethene	<1.00		1.00		ug/L			11/02/21 11:29	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: DUP1-GW-1021

Lab Sample ID: 310-218392-9

Date Collected: 10/26/21 00:00

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	7.91		1.00		ug/L			11/02/21 11:29	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 11:29	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 11:29	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 11:29	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 11:29	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/02/21 11:29	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/02/21 11:29	1
Trichloroethene	<1.00		1.00		ug/L			11/02/21 11:29	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/02/21 11:29	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/02/21 11:29	1
1,2,4-Trimethylbenzene	71.5		1.00		ug/L			11/02/21 11:29	1
1,3,5-Trimethylbenzene	4.25		1.00		ug/L			11/02/21 11:29	1
Vinyl chloride	<1.00		1.00		ug/L			11/02/21 11:29	1
Xylenes, Total	96.9		3.00		ug/L			11/02/21 11:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		80 - 120		11/02/21 11:29	1
4-Bromofluorobenzene (Surr)	99		80 - 120		11/03/21 07:40	10
Dibromofluoromethane (Surr)	102		79 - 120		11/02/21 11:29	1
Dibromofluoromethane (Surr)	103		79 - 120		11/03/21 07:40	10
Toluene-d8 (Surr)	100		79 - 120		11/02/21 11:29	1
Toluene-d8 (Surr)	98		79 - 120		11/03/21 07:40	10

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	21.1		0.227		ug/L		11/02/21 08:49	11/10/21 05:19	1
Acenaphthylene	114		2.27		ug/L		11/02/21 08:49	11/10/21 17:25	10
Anthracene	3.26		0.227		ug/L		11/02/21 08:49	11/10/21 05:19	1
Benzo(a)anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 05:19	1
Benzo(a)pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 05:19	1
Benzo(b)fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 05:19	1
Benzo(g,h,i)perylene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 05:19	1
Benzo(k)fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 05:19	1
Chrysene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 05:19	1
Dibenz(a,h)anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 05:19	1
Fluoranthene	4.36		0.227		ug/L		11/02/21 08:49	11/10/21 05:19	1
Fluorene	11.1		0.227		ug/L		11/02/21 08:49	11/10/21 05:19	1
Indeno(1,2,3-cd)pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 05:19	1
2-Methylnaphthalene	0.238		0.227		ug/L		11/02/21 08:49	11/10/21 05:19	1
Naphthalene	32.7		0.568		ug/L		11/02/21 08:49	11/10/21 05:19	1
Phenanthrene	22.3		0.227		ug/L		11/02/21 08:49	11/10/21 05:19	1
Pyrene	4.48		0.227		ug/L		11/02/21 08:49	11/10/21 05:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	56		21 - 110	11/02/21 08:49	11/10/21 05:19	1
Nitrobenzene-d5 (Surr)	50		15 - 110	11/02/21 08:49	11/10/21 05:19	1
Terphenyl-d14 (Surr)	71		13 - 110	11/02/21 08:49	11/10/21 05:19	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: DUP1-GW-1021

Lab Sample ID: 310-218392-9

Date Collected: 10/26/21 00:00

Matrix: Water

Date Received: 10/27/21 16:50

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00673		0.00200		mg/L		11/02/21 09:30	11/05/21 15:04	1
Lead	0.000933		0.000500		mg/L		11/02/21 09:30	11/04/21 18:43	1

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: EB1-GW-1021

Lab Sample ID: 310-218392-10

Date Collected: 10/26/21 17:00

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/02/21 09:33	1
Benzene	<0.500		0.500		ug/L			11/02/21 09:33	1
Bromobenzene	<1.00		1.00		ug/L			11/02/21 09:33	1
Bromochloromethane	<5.00		5.00		ug/L			11/02/21 09:33	1
Bromodichloromethane	<1.00		1.00		ug/L			11/02/21 09:33	1
Bromoform	<5.00		5.00		ug/L			11/02/21 09:33	1
Bromomethane	<4.00		4.00		ug/L			11/02/21 09:33	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/02/21 09:33	1
Carbon disulfide	1.90		1.00		ug/L			11/02/21 09:33	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/02/21 09:33	1
Chlorobenzene	<1.00		1.00		ug/L			11/02/21 09:33	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/02/21 09:33	1
Chloroethane	<4.00		4.00		ug/L			11/02/21 09:33	1
Chloroform	<3.00		3.00		ug/L			11/02/21 09:33	1
Chloromethane	<3.00		3.00		ug/L			11/02/21 09:33	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 09:33	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 09:33	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 09:33	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 09:33	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			11/02/21 09:33	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/02/21 09:33	1
Dibromomethane	<1.00		1.00		ug/L			11/02/21 09:33	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 09:33	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 09:33	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 09:33	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/02/21 09:33	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/02/21 09:33	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/02/21 09:33	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/02/21 09:33	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/02/21 09:33	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/02/21 09:33	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/02/21 09:33	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/02/21 09:33	1
Ethylbenzene	<1.00		1.00		ug/L			11/02/21 09:33	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/02/21 09:33	1
Hexane	<1.00		1.00		ug/L			11/02/21 09:33	1
Isopropylbenzene	<1.00		1.00		ug/L			11/02/21 09:33	1
Methylene chloride	<5.00		5.00		ug/L			11/02/21 09:33	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/02/21 09:33	1
Naphthalene	<5.00		5.00		ug/L			11/02/21 09:33	1
n-Butylbenzene	<1.00		1.00		ug/L			11/02/21 09:33	1
n-Propylbenzene	<1.00		1.00		ug/L			11/02/21 09:33	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/02/21 09:33	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/02/21 09:33	1
Styrene	<1.00		1.00		ug/L			11/02/21 09:33	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/02/21 09:33	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 09:33	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 09:33	1
Tetrachloroethene	<1.00		1.00		ug/L			11/02/21 09:33	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: EB1-GW-1021

Lab Sample ID: 310-218392-10

Date Collected: 10/26/21 17:00

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			11/02/21 09:33	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 09:33	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 09:33	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 09:33	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 09:33	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/02/21 09:33	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/02/21 09:33	1
Trichloroethene	<1.00		1.00		ug/L			11/02/21 09:33	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/02/21 09:33	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/02/21 09:33	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/02/21 09:33	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/02/21 09:33	1
Vinyl chloride	<1.00		1.00		ug/L			11/02/21 09:33	1
Xylenes, Total	<3.00		3.00		ug/L			11/02/21 09:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120					11/02/21 09:33	1
Dibromofluoromethane (Surr)	104		79 - 120					11/02/21 09:33	1
Toluene-d8 (Surr)	99		79 - 120					11/02/21 09:33	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 16:43	1
Acenaphthylene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 16:43	1
Anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 16:43	1
Benzo(a)anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 16:43	1
Benzo(a)pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 16:43	1
Benzo(b)fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 16:43	1
Benzo(g,h,i)perylene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 16:43	1
Benzo(k)fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 16:43	1
Chrysene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 16:43	1
Dibenz(a,h)anthracene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 16:43	1
Fluoranthene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 16:43	1
Fluorene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 16:43	1
Indeno(1,2,3-cd)pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 16:43	1
2-Methylnaphthalene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 16:43	1
Naphthalene	<0.568		0.568		ug/L		11/02/21 08:49	11/10/21 16:43	1
Phenanthrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 16:43	1
Pyrene	<0.227		0.227		ug/L		11/02/21 08:49	11/10/21 16:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	49		21 - 110				11/02/21 08:49	11/10/21 16:43	1
Nitrobenzene-d5 (Surr)	37		15 - 110				11/02/21 08:49	11/10/21 16:43	1
Terphenyl-d14 (Surr)	63		13 - 110				11/02/21 08:49	11/10/21 16:43	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		11/02/21 09:30	11/05/21 15:07	1
Lead	<0.000500		0.000500		mg/L		11/02/21 09:30	11/04/21 18:46	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: Trip Blank

Lab Sample ID: 310-218392-11

Date Collected: 10/27/21 00:00

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/02/21 04:14	1
Benzene	<0.500		0.500		ug/L			11/02/21 04:14	1
Bromobenzene	<1.00		1.00		ug/L			11/02/21 04:14	1
Bromochloromethane	<5.00		5.00		ug/L			11/02/21 04:14	1
Bromodichloromethane	<1.00		1.00		ug/L			11/02/21 04:14	1
Bromoform	<5.00		5.00		ug/L			11/02/21 04:14	1
Bromomethane	<4.00		4.00		ug/L			11/02/21 04:14	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/02/21 04:14	1
Carbon disulfide	<1.00		1.00		ug/L			11/02/21 04:14	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/02/21 04:14	1
Chlorobenzene	<1.00		1.00		ug/L			11/02/21 04:14	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/02/21 04:14	1
Chloroethane	<4.00		4.00		ug/L			11/02/21 04:14	1
Chloroform	<3.00		3.00		ug/L			11/02/21 04:14	1
Chloromethane	<3.00		3.00		ug/L			11/02/21 04:14	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 04:14	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 04:14	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 04:14	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 04:14	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			11/02/21 04:14	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/02/21 04:14	1
Dibromomethane	<1.00		1.00		ug/L			11/02/21 04:14	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 04:14	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 04:14	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 04:14	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/02/21 04:14	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/02/21 04:14	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/02/21 04:14	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/02/21 04:14	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/02/21 04:14	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/02/21 04:14	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/02/21 04:14	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/02/21 04:14	1
Ethylbenzene	<1.00		1.00		ug/L			11/02/21 04:14	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/02/21 04:14	1
Hexane	<1.00		1.00		ug/L			11/02/21 04:14	1
Isopropylbenzene	<1.00		1.00		ug/L			11/02/21 04:14	1
Methylene chloride	<5.00		5.00		ug/L			11/02/21 04:14	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/02/21 04:14	1
Naphthalene	<5.00		5.00		ug/L			11/02/21 04:14	1
n-Butylbenzene	<1.00		1.00		ug/L			11/02/21 04:14	1
n-Propylbenzene	<1.00		1.00		ug/L			11/02/21 04:14	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/02/21 04:14	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/02/21 04:14	1
Styrene	<1.00		1.00		ug/L			11/02/21 04:14	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/02/21 04:14	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 04:14	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 04:14	1
Tetrachloroethene	<1.00		1.00		ug/L			11/02/21 04:14	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: Trip Blank

Lab Sample ID: 310-218392-11

Date Collected: 10/27/21 00:00

Matrix: Water

Date Received: 10/27/21 16:50

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			11/02/21 04:14	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 04:14	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 04:14	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 04:14	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 04:14	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/02/21 04:14	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/02/21 04:14	1
Trichloroethene	<1.00		1.00		ug/L			11/02/21 04:14	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/02/21 04:14	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/02/21 04:14	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/02/21 04:14	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/02/21 04:14	1
Vinyl chloride	<1.00		1.00		ug/L			11/02/21 04:14	1
Xylenes, Total	<3.00		3.00		ug/L			11/02/21 04:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120		11/02/21 04:14	1
Dibromofluoromethane (Surr)	102		79 - 120		11/02/21 04:14	1
Toluene-d8 (Surr)	99		79 - 120		11/02/21 04:14	1

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (80-120)	DBFM (79-120)	TOL (79-120)
310-218392-1	MW-1-GW-1021	98	100	99
310-218392-1	MW-1-GW-1021	96	103	100
310-218392-1 MS	MW-1-GW-1021	98	104	102
310-218392-1 MS	MW-1-GW-1021	96	115	103
310-218392-1 MSD	MW-1-GW-1021	96	104	100
310-218392-1 MSD	MW-1-GW-1021	97	105	102
310-218392-2	MW-2-GW-1021	96	102	98
310-218392-3	MW-3-GW-1021	96	102	98
310-218392-3	MW-3-GW-1021	96	101	100
310-218392-4	MW-4-GW-1021	100	103	99
310-218392-5	MW-5-GW-1021	99	103	97
310-218392-6	MW-6-GW-1021	98	101	99
310-218392-7	MW-8R-GW-1021	100	103	98
310-218392-8	MW-9-GW-1021	100	103	98
310-218392-9	DUP1-GW-1021	97	102	100
310-218392-9	DUP1-GW-1021	99	103	98
310-218392-10	EB1-GW-1021	100	104	99
310-218392-11	Trip Blank	98	102	99
LCS 310-333707/5	Lab Control Sample	97	106	100
LCS 310-333707/6	Lab Control Sample	100	101	99
LCS 310-334229/6	Lab Control Sample	97	103	102
MB 310-333707/7	Method Blank	100	100	99
MB 310-334229/8	Method Blank	98	101	99

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (21-110)	NBZ (15-110)	TPHL (13-110)
310-218392-1	MW-1-GW-1021	73	68	84
310-218392-1 MS	MW-1-GW-1021	82	77	98
310-218392-1 MSD	MW-1-GW-1021	80	70	82
310-218392-2	MW-2-GW-1021	68	56	82
310-218392-3	MW-3-GW-1021	59	54	68
310-218392-4	MW-4-GW-1021	71	61	86
310-218392-5	MW-5-GW-1021	55	45	82
310-218392-6	MW-6-GW-1021	53	42	70
310-218392-7	MW-8R-GW-1021	56	49	70
310-218392-8	MW-9-GW-1021	53	44	73
310-218392-9	DUP1-GW-1021	56	50	71
310-218392-10	EB1-GW-1021	49	37	63
LCS 310-333929/2-A	Lab Control Sample	73	67	93
MB 310-333929/1-A	Method Blank	72	67	101

Surrogate Legend

Eurofins TestAmerica, Cedar Falls

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP
FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Job ID: 310-218392-1
SDG: 11156780

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-333707/7
Matrix: Water
Analysis Batch: 333707

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<10.0		10.0		ug/L			11/02/21 03:51	1
Benzene	<0.500		0.500		ug/L			11/02/21 03:51	1
Bromobenzene	<1.00		1.00		ug/L			11/02/21 03:51	1
Bromochloromethane	<5.00		5.00		ug/L			11/02/21 03:51	1
Bromodichloromethane	<1.00		1.00		ug/L			11/02/21 03:51	1
Bromoform	<5.00		5.00		ug/L			11/02/21 03:51	1
Bromomethane	<4.00		4.00		ug/L			11/02/21 03:51	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/02/21 03:51	1
Carbon disulfide	<1.00		1.00		ug/L			11/02/21 03:51	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/02/21 03:51	1
Chlorobenzene	<1.00		1.00		ug/L			11/02/21 03:51	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/02/21 03:51	1
Chloroethane	<4.00		4.00		ug/L			11/02/21 03:51	1
Chloroform	<3.00		3.00		ug/L			11/02/21 03:51	1
Chloromethane	<3.00		3.00		ug/L			11/02/21 03:51	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 03:51	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/02/21 03:51	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 03:51	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 03:51	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			11/02/21 03:51	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/02/21 03:51	1
Dibromomethane	<1.00		1.00		ug/L			11/02/21 03:51	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 03:51	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 03:51	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/02/21 03:51	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/02/21 03:51	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/02/21 03:51	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/02/21 03:51	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/02/21 03:51	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/02/21 03:51	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/02/21 03:51	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/02/21 03:51	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/02/21 03:51	1
Ethylbenzene	<1.00		1.00		ug/L			11/02/21 03:51	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/02/21 03:51	1
Hexane	<1.00		1.00		ug/L			11/02/21 03:51	1
Isopropylbenzene	<1.00		1.00		ug/L			11/02/21 03:51	1
Methylene chloride	<5.00		5.00		ug/L			11/02/21 03:51	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/02/21 03:51	1
Naphthalene	<5.00		5.00		ug/L			11/02/21 03:51	1
n-Butylbenzene	<1.00		1.00		ug/L			11/02/21 03:51	1
n-Propylbenzene	<1.00		1.00		ug/L			11/02/21 03:51	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/02/21 03:51	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/02/21 03:51	1
Styrene	<1.00		1.00		ug/L			11/02/21 03:51	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/02/21 03:51	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 03:51	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/02/21 03:51	1

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-333707/7
Matrix: Water
Analysis Batch: 333707

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<1.00		1.00		ug/L			11/02/21 03:51	1
Toluene	<1.00		1.00		ug/L			11/02/21 03:51	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/02/21 03:51	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/02/21 03:51	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 03:51	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/02/21 03:51	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/02/21 03:51	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/02/21 03:51	1
Trichloroethene	<1.00		1.00		ug/L			11/02/21 03:51	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/02/21 03:51	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/02/21 03:51	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/02/21 03:51	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/02/21 03:51	1
Vinyl chloride	<1.00		1.00		ug/L			11/02/21 03:51	1
Xylenes, Total	<3.00		3.00		ug/L			11/02/21 03:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120		11/02/21 03:51	1
Dibromofluoromethane (Surr)	100		79 - 120		11/02/21 03:51	1
Toluene-d8 (Surr)	99		79 - 120		11/02/21 03:51	1

Lab Sample ID: LCS 310-333707/5
Matrix: Water
Analysis Batch: 333707

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	32.28		ug/L		81	50 - 150
Benzene	20.0	18.66		ug/L		93	73 - 127
Bromobenzene	20.0	18.64		ug/L		93	68 - 128
Bromochloromethane	20.0	20.33		ug/L		102	77 - 140
Bromodichloromethane	20.0	17.62		ug/L		88	70 - 122
Bromoform	20.0	15.06		ug/L		75	58 - 125
2-Butanone (MEK)	40.0	23.22		ug/L		58	49 - 150
Carbon disulfide	20.0	18.42		ug/L		92	58 - 140
Carbon tetrachloride	20.0	19.59		ug/L		98	66 - 136
Chlorobenzene	20.0	19.05		ug/L		95	72 - 124
Chlorodibromomethane	20.0	16.98		ug/L		85	66 - 126
Chloroform	20.0	18.52		ug/L		93	72 - 125
2-Chlorotoluene	20.0	18.42		ug/L		92	68 - 129
4-Chlorotoluene	20.0	18.36		ug/L		92	67 - 128
cis-1,2-Dichloroethene	20.0	19.05		ug/L		95	71 - 130
cis-1,3-Dichloropropene	20.0	17.43		ug/L		87	69 - 122
1,2-Dibromo-3-chloropropane	20.0	13.29		ug/L		66	42 - 150
1,2-Dibromoethane (EDB)	20.0	18.34		ug/L		92	70 - 129
Dibromomethane	20.0	18.46		ug/L		92	71 - 133
1,2-Dichlorobenzene	20.0	18.20		ug/L		91	67 - 125
1,3-Dichlorobenzene	20.0	18.43		ug/L		92	65 - 128
1,4-Dichlorobenzene	20.0	18.39		ug/L		92	66 - 126

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-333707/5
Matrix: Water
Analysis Batch: 333707

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	20.0	18.34		ug/L		92	71 - 131
1,2-Dichloroethane	20.0	18.63		ug/L		93	72 - 128
1,1-Dichloroethene	20.0	19.79		ug/L		99	64 - 137
1,2-Dichloropropane	20.0	18.15		ug/L		91	71 - 130
1,3-Dichloropropane	20.0	17.65		ug/L		88	72 - 130
2,2-Dichloropropane	20.0	18.23		ug/L		91	33 - 150
1,1-Dichloropropene	20.0	19.19		ug/L		96	72 - 130
Ethylbenzene	20.0	19.13		ug/L		96	73 - 127
Hexachlorobutadiene	20.0	18.26		ug/L		91	48 - 150
Hexane	20.0	17.97		ug/L		90	50 - 150
Isopropylbenzene	20.0	18.74		ug/L		94	71 - 127
Methylene chloride	20.0	18.13		ug/L		91	48 - 150
Methyl tert-butyl ether	20.0	16.86		ug/L		84	68 - 127
m,p-Xylene	20.0	19.42		ug/L		97	72 - 128
Naphthalene	20.0	15.08		ug/L		75	43 - 150
n-Butylbenzene	20.0	18.59		ug/L		93	64 - 129
n-Propylbenzene	20.0	19.05		ug/L		95	68 - 129
o-Xylene	20.0	18.60		ug/L		93	70 - 128
p-Isopropyltoluene	20.0	18.95		ug/L		95	66 - 128
sec-Butylbenzene	20.0	18.78		ug/L		94	64 - 134
Styrene	20.0	18.05		ug/L		90	69 - 127
tert-Butylbenzene	20.0	18.13		ug/L		91	66 - 132
1,1,1,2-Tetrachloroethane	20.0	18.18		ug/L		91	69 - 124
1,1,2,2-Tetrachloroethane	20.0	16.58		ug/L		83	66 - 129
Tetrachloroethene	20.0	19.76		ug/L		99	68 - 135
Toluene	20.0	18.75		ug/L		94	71 - 126
trans-1,2-Dichloroethene	20.0	19.32		ug/L		97	69 - 132
trans-1,3-Dichloropropene	20.0	16.72		ug/L		84	65 - 123
1,2,3-Trichlorobenzene	20.0	17.00		ug/L		85	45 - 150
1,2,4-Trichlorobenzene	20.0	17.36		ug/L		87	57 - 133
1,1,1-Trichloroethane	20.0	19.37		ug/L		97	70 - 129
1,1,2-Trichloroethane	20.0	17.76		ug/L		89	68 - 128
Trichloroethene	20.0	19.25		ug/L		96	71 - 130
1,2,3-Trichloropropane	20.0	16.63		ug/L		83	61 - 137
1,2,4-Trimethylbenzene	20.0	18.20		ug/L		91	64 - 133
1,3,5-Trimethylbenzene	20.0	18.55		ug/L		93	66 - 134
Xylenes, Total	40.0	38.02		ug/L		95	70 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	106		79 - 120
Toluene-d8 (Surr)	100		79 - 120

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-333707/6
Matrix: Water
Analysis Batch: 333707

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	20.0	14.39		ug/L		72	22 - 150
Chloroethane	20.0	19.18		ug/L		96	61 - 139
Chloromethane	20.0	18.28		ug/L		91	48 - 150
Dichlorodifluoromethane	20.0	20.12		ug/L		101	50 - 150
Trichlorofluoromethane	20.0	20.19		ug/L		101	59 - 150
Vinyl chloride	20.0	19.08		ug/L		95	65 - 141

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	101		79 - 120
Toluene-d8 (Surr)	99		79 - 120

Lab Sample ID: 310-218392-1 MS
Matrix: Water
Analysis Batch: 333707

Client Sample ID: MW-1-GW-1021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	<10.0		40.0	37.95		ug/L		95	37 - 150
Benzene	395		20.0	366.2	4	ug/L		-145	54 - 128
Bromobenzene	<1.00		20.0	18.25		ug/L		91	47 - 139
Bromochloromethane	<5.00		20.0	19.51		ug/L		98	63 - 143
Bromodichloromethane	<1.00		20.0	17.06		ug/L		85	50 - 135
Bromoform	<5.00		20.0	15.49		ug/L		77	40 - 139
2-Butanone (MEK)	<10.0		40.0	28.53		ug/L		71	47 - 150
Carbon disulfide	<1.00		20.0	19.46		ug/L		94	40 - 140
Carbon tetrachloride	<2.00		20.0	18.64		ug/L		93	47 - 136
Chlorobenzene	<1.00		20.0	18.68		ug/L		93	49 - 135
Chlorodibromomethane	<5.00		20.0	16.41		ug/L		82	45 - 141
Chloroform	<3.00		20.0	18.10		ug/L		91	55 - 131
2-Chlorotoluene	<1.00		20.0	17.95		ug/L		90	46 - 134
4-Chlorotoluene	<1.00		20.0	17.94		ug/L		90	44 - 136
cis-1,2-Dichloroethene	<1.00		20.0	18.50		ug/L		93	55 - 131
cis-1,3-Dichloropropene	<5.00		20.0	16.72		ug/L		84	45 - 131
1,2-Dibromo-3-chloropropane	<5.00		20.0	15.99		ug/L		80	41 - 150
1,2-Dibromoethane (EDB)	<1.00		20.0	18.20		ug/L		91	53 - 137
Dibromomethane	<1.00		20.0	18.59		ug/L		93	57 - 140
1,2-Dichlorobenzene	<1.00		20.0	18.74		ug/L		94	46 - 136
1,3-Dichlorobenzene	<1.00		20.0	18.41		ug/L		92	43 - 136
1,4-Dichlorobenzene	<1.00		20.0	17.75		ug/L		89	44 - 134
1,1-Dichloroethane	<1.00		20.0	18.11		ug/L		91	58 - 131
1,2-Dichloroethane	<1.00		20.0	27.30		ug/L		85	51 - 138
1,1-Dichloroethene	<2.00		20.0	19.29		ug/L		96	52 - 137
1,2-Dichloropropane	<1.00		20.0	17.93		ug/L		90	58 - 134
1,3-Dichloropropane	<1.00		20.0	17.52		ug/L		88	53 - 145
2,2-Dichloropropane	<4.00		20.0	16.21		ug/L		81	20 - 150
1,1-Dichloropropene	<1.00		20.0	18.40		ug/L		92	51 - 130
Hexachlorobutadiene	<5.00		20.0	18.10		ug/L		90	19 - 150
Hexane	<1.00		20.0	15.36		ug/L		77	16 - 150

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-218392-1 MS

Matrix: Water

Analysis Batch: 333707

Client Sample ID: MW-1-GW-1021

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Isopropylbenzene	4.78		20.0	23.86		ug/L		95	42 - 132	
Methylene chloride	<5.00		20.0	17.77		ug/L		89	43 - 150	
Methyl tert-butyl ether	<1.00		20.0	16.68		ug/L		83	56 - 132	
m,p-Xylene	3.88		20.0	23.42		ug/L		98	40 - 140	
Naphthalene	89.3		20.0	104.2	4	ug/L		74	37 - 150	
n-Butylbenzene	<1.00		20.0	18.93		ug/L		95	30 - 133	
n-Propylbenzene	7.84		20.0	26.48		ug/L		93	37 - 135	
o-Xylene	38.0		20.0	53.40		ug/L		77	42 - 140	
p-Isopropyltoluene	<1.00		20.0	18.80		ug/L		91	35 - 134	
sec-Butylbenzene	<1.00		20.0	18.72		ug/L		94	34 - 136	
Styrene	<1.00		20.0	18.90		ug/L		95	44 - 138	
tert-Butylbenzene	<1.00		20.0	18.34		ug/L		92	39 - 137	
1,1,1,2-Tetrachloroethane	<1.00		20.0	16.90		ug/L		85	45 - 140	
1,1,2,2-Tetrachloroethane	<1.00		20.0	18.53		ug/L		93	51 - 140	
Tetrachloroethene	<1.00		20.0	18.88		ug/L		94	43 - 135	
Toluene	4.78		20.0	22.56		ug/L		89	44 - 136	
trans-1,2-Dichloroethene	<1.00		20.0	19.12		ug/L		96	52 - 132	
trans-1,3-Dichloropropene	<5.00		20.0	15.92		ug/L		80	43 - 133	
1,2,3-Trichlorobenzene	<5.00		20.0	18.17		ug/L		91	37 - 150	
1,2,4-Trichlorobenzene	<5.00		20.0	18.96		ug/L		95	38 - 135	
1,1,1-Trichloroethane	<1.00		20.0	18.58		ug/L		93	52 - 129	
1,1,2-Trichloroethane	<1.00		20.0	17.19		ug/L		86	50 - 142	
Trichloroethene	<1.00		20.0	18.44		ug/L		92	49 - 130	
1,2,3-Trichloropropane	<1.00		20.0	17.39		ug/L		87	49 - 146	
1,2,4-Trimethylbenzene	78.2		20.0	91.19		ug/L		65	37 - 142	
1,3,5-Trimethylbenzene	<1.00	F1 F2	20.0	1.911	F1	ug/L		10	39 - 142	
Xylenes, Total	41.9		40.0	76.82		ug/L		87	40 - 140	

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	104		79 - 120
Toluene-d8 (Surr)	102		79 - 120

Lab Sample ID: 310-218392-1 MSD

Matrix: Water

Analysis Batch: 333707

Client Sample ID: MW-1-GW-1021

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Acetone	<10.0		40.0	42.07		ug/L		105	37 - 150	10	29	
Benzene	395		20.0	357.1	4	ug/L		-190	54 - 128	3	21	
Bromobenzene	<1.00		20.0	18.51		ug/L		93	47 - 139	1	23	
Bromochloromethane	<5.00		20.0	19.61		ug/L		98	63 - 143	1	24	
Bromodichloromethane	<1.00		20.0	16.80		ug/L		84	50 - 135	2	24	
Bromoform	<5.00		20.0	15.66		ug/L		78	40 - 139	1	22	
2-Butanone (MEK)	<10.0		40.0	32.17		ug/L		80	47 - 150	12	24	
Carbon disulfide	<1.00		20.0	18.89		ug/L		91	40 - 140	3	35	
Carbon tetrachloride	<2.00		20.0	17.48		ug/L		87	47 - 136	6	23	
Chlorobenzene	<1.00		20.0	18.18		ug/L		91	49 - 135	3	21	

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-218392-1 MSD

Matrix: Water

Analysis Batch: 333707

Client Sample ID: MW-1-GW-1021

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorodibromomethane	<5.00		20.0	16.39		ug/L		82	45 - 141	0	26
Chloroform	<3.00		20.0	17.77		ug/L		89	55 - 131	2	23
2-Chlorotoluene	<1.00		20.0	17.21		ug/L		86	46 - 134	4	22
4-Chlorotoluene	<1.00		20.0	17.82		ug/L		89	44 - 136	1	22
cis-1,2-Dichloroethene	<1.00		20.0	19.69		ug/L		98	55 - 131	6	23
cis-1,3-Dichloropropene	<5.00		20.0	16.89		ug/L		84	45 - 131	1	21
1,2-Dibromo-3-chloropropane	<5.00		20.0	16.04		ug/L		80	41 - 150	0	31
1,2-Dibromoethane (EDB)	<1.00		20.0	18.22		ug/L		91	53 - 137	0	23
Dibromomethane	<1.00		20.0	18.51		ug/L		93	57 - 140	0	24
1,2-Dichlorobenzene	<1.00		20.0	19.18		ug/L		96	46 - 136	2	22
1,3-Dichlorobenzene	<1.00		20.0	18.70		ug/L		93	43 - 136	2	22
1,4-Dichlorobenzene	<1.00		20.0	18.23		ug/L		91	44 - 134	3	20
1,1-Dichloroethane	<1.00		20.0	19.45		ug/L		97	58 - 131	7	24
1,2-Dichloroethane	<1.00		20.0	26.91		ug/L		83	51 - 138	1	20
1,1-Dichloroethene	<2.00		20.0	18.34		ug/L		92	52 - 137	5	23
1,2-Dichloropropane	<1.00		20.0	17.97		ug/L		90	58 - 134	0	26
1,3-Dichloropropane	<1.00		20.0	18.04		ug/L		90	53 - 145	3	25
2,2-Dichloropropane	<4.00		20.0	17.79		ug/L		89	20 - 150	9	32
1,1-Dichloropropene	<1.00		20.0	17.24		ug/L		86	51 - 130	7	23
Hexachlorobutadiene	<5.00		20.0	18.29		ug/L		91	19 - 150	1	35
Hexane	<1.00		20.0	17.99		ug/L		90	16 - 150	16	35
Isopropylbenzene	4.78		20.0	22.85		ug/L		90	42 - 132	4	21
Methylene chloride	<5.00		20.0	17.95		ug/L		90	43 - 150	1	25
Methyl tert-butyl ether	<1.00		20.0	18.79		ug/L		94	56 - 132	12	25
m,p-Xylene	3.88		20.0	22.91		ug/L		95	40 - 140	2	23
Naphthalene	89.3		20.0	106.2	4	ug/L		84	37 - 150	2	29
n-Butylbenzene	<1.00		20.0	18.83		ug/L		94	30 - 133	1	20
n-Propylbenzene	7.84		20.0	25.94		ug/L		90	37 - 135	2	21
o-Xylene	38.0		20.0	52.81		ug/L		74	42 - 140	1	22
p-Isopropyltoluene	<1.00		20.0	18.73		ug/L		90	35 - 134	0	20
sec-Butylbenzene	<1.00		20.0	18.25		ug/L		91	34 - 136	3	20
Styrene	<1.00		20.0	19.09		ug/L		95	44 - 138	1	22
tert-Butylbenzene	<1.00		20.0	17.95		ug/L		90	39 - 137	2	20
1,1,1,2-Tetrachloroethane	<1.00		20.0	17.25		ug/L		86	45 - 140	2	23
1,1,2,2-Tetrachloroethane	<1.00		20.0	18.84		ug/L		94	51 - 140	2	22
Tetrachloroethene	<1.00		20.0	18.06		ug/L		90	43 - 135	4	23
Toluene	4.78		20.0	22.51		ug/L		89	44 - 136	0	22
trans-1,2-Dichloroethene	<1.00		20.0	18.34		ug/L		92	52 - 132	4	25
trans-1,3-Dichloropropene	<5.00		20.0	16.26		ug/L		81	43 - 133	2	23
1,2,3-Trichlorobenzene	<5.00		20.0	18.72		ug/L		94	37 - 150	3	24
1,2,4-Trichlorobenzene	<5.00		20.0	19.18		ug/L		96	38 - 135	1	21
1,1,1-Trichloroethane	<1.00		20.0	17.57		ug/L		88	52 - 129	6	22
1,1,2-Trichloroethane	<1.00		20.0	18.27		ug/L		91	50 - 142	6	24
Trichloroethene	<1.00		20.0	17.97		ug/L		90	49 - 130	3	21
1,2,3-Trichloropropane	<1.00		20.0	17.96		ug/L		90	49 - 146	3	32
1,2,4-Trimethylbenzene	78.2		20.0	90.25		ug/L		60	37 - 142	1	25
1,3,5-Trimethylbenzene	<1.00	F1 F2	20.0	17.95	F2	ug/L		90	39 - 142	162	20
Xylenes, Total	41.9		40.0	75.72		ug/L		85	40 - 140	1	23

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-218392-1 MSD
Matrix: Water
Analysis Batch: 333707

Client Sample ID: MW-1-GW-1021
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		80 - 120
Dibromofluoromethane (Surr)	104		79 - 120
Toluene-d8 (Surr)	100		79 - 120

Lab Sample ID: MB 310-334229/8
Matrix: Water
Analysis Batch: 334229

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.500		0.500		ug/L			11/03/21 04:09	1
Ethylbenzene	<1.00		1.00		ug/L			11/03/21 04:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120		11/03/21 04:09	1
Dibromofluoromethane (Surr)	101		79 - 120		11/03/21 04:09	1
Toluene-d8 (Surr)	99		79 - 120		11/03/21 04:09	1

Lab Sample ID: LCS 310-334229/6
Matrix: Water
Analysis Batch: 334229

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	18.68		ug/L		93	73 - 127
Ethylbenzene	20.0	18.78		ug/L		94	73 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	103		79 - 120
Toluene-d8 (Surr)	102		79 - 120

Lab Sample ID: 310-218392-1 MS
Matrix: Water
Analysis Batch: 334229

Client Sample ID: MW-1-GW-1021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	531		200	762.2		ug/L		116	40 - 138

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		80 - 120
Dibromofluoromethane (Surr)	115		79 - 120
Toluene-d8 (Surr)	103		79 - 120

Lab Sample ID: 310-218392-1 MSD
Matrix: Water
Analysis Batch: 334229

Client Sample ID: MW-1-GW-1021
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Ethylbenzene	531		200	736.6		ug/L		103	40 - 138	3	21

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	105		79 - 120
Toluene-d8 (Surr)	102		79 - 120

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 310-333929/1-A
Matrix: Water
Analysis Batch: 334799

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 333929

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	<0.200		0.200		ug/L		11/02/21 08:49	11/09/21 11:10	1
Acenaphthylene	<0.200		0.200		ug/L		11/02/21 08:49	11/09/21 11:10	1
Anthracene	<0.200		0.200		ug/L		11/02/21 08:49	11/09/21 11:10	1
Benzo(a)anthracene	<0.200		0.200		ug/L		11/02/21 08:49	11/09/21 11:10	1
Benzo(a)pyrene	<0.200		0.200		ug/L		11/02/21 08:49	11/09/21 11:10	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		11/02/21 08:49	11/09/21 11:10	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		11/02/21 08:49	11/09/21 11:10	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		11/02/21 08:49	11/09/21 11:10	1
Chrysene	<0.200		0.200		ug/L		11/02/21 08:49	11/09/21 11:10	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		11/02/21 08:49	11/09/21 11:10	1
Fluoranthene	<0.200		0.200		ug/L		11/02/21 08:49	11/09/21 11:10	1
Fluorene	<0.200		0.200		ug/L		11/02/21 08:49	11/09/21 11:10	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		11/02/21 08:49	11/09/21 11:10	1
2-Methylnaphthalene	<0.200		0.200		ug/L		11/02/21 08:49	11/09/21 11:10	1
Naphthalene	<0.500		0.500		ug/L		11/02/21 08:49	11/09/21 11:10	1
Phenanthrene	<0.200		0.200		ug/L		11/02/21 08:49	11/09/21 11:10	1
Pyrene	<0.200		0.200		ug/L		11/02/21 08:49	11/09/21 11:10	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	72		21 - 110	11/02/21 08:49	11/09/21 11:10	1
Nitrobenzene-d5 (Surr)	67		15 - 110	11/02/21 08:49	11/09/21 11:10	1
Terphenyl-d14 (Surr)	101		13 - 110	11/02/21 08:49	11/09/21 11:10	1

Lab Sample ID: LCS 310-333929/2-A
Matrix: Water
Analysis Batch: 334799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 333929

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Acenaphthene	2.00	1.541		ug/L		77	25 - 110
Acenaphthylene	2.00	1.531		ug/L		77	25 - 110
Anthracene	2.00	1.628		ug/L		81	26 - 110
Benzo(a)anthracene	2.00	1.697		ug/L		85	26 - 110
Benzo(a)pyrene	2.00	1.503		ug/L		75	20 - 110
Benzo(b)fluoranthene	2.00	1.639		ug/L		82	24 - 110
Benzo(g,h,i)perylene	2.00	1.836		ug/L		92	17 - 110
Benzo(k)fluoranthene	2.00	1.558		ug/L		78	26 - 110
Chrysene	2.00	1.672		ug/L		84	23 - 110
Dibenz(a,h)anthracene	2.00	1.752		ug/L		88	14 - 110
Fluoranthene	2.00	1.842		ug/L		92	24 - 110
Fluorene	2.00	1.618		ug/L		81	27 - 110

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 310-333929/2-A
Matrix: Water
Analysis Batch: 334799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 333929

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Indeno(1,2,3-cd)pyrene	2.00	1.867		ug/L		93	15 - 110
2-Methylnaphthalene	2.00	1.496		ug/L		75	19 - 110
Naphthalene	2.00	1.435		ug/L		72	24 - 110
Phenanthrene	2.00	1.673		ug/L		84	28 - 110
Pyrene	2.00	1.796		ug/L		90	26 - 110

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	73		21 - 110
Nitrobenzene-d5 (Surr)	67		15 - 110
Terphenyl-d14 (Surr)	93		13 - 110

Lab Sample ID: 310-218392-1 MS
Matrix: Water
Analysis Batch: 334813

Client Sample ID: MW-1-GW-1021
Prep Type: Total/NA
Prep Batch: 333929

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	11.6		2.27	13.38	4	ug/L		78	22 - 110
Acenaphthylene	1.43		2.27	2.877		ug/L		64	22 - 110
Anthracene	1.04		2.27	2.707		ug/L		73	24 - 110
Benzo(a)anthracene	<0.227		2.27	1.665		ug/L		73	10 - 110
Benzo(a)pyrene	<0.227		2.27	1.388		ug/L		61	10 - 110
Benzo(b)fluoranthene	<0.227		2.27	1.403		ug/L		62	10 - 110
Benzo(g,h,i)perylene	<0.227		2.27	1.244		ug/L		55	10 - 110
Benzo(k)fluoranthene	<0.227		2.27	1.272		ug/L		56	10 - 110
Chrysene	<0.227		2.27	1.548		ug/L		68	10 - 110
Dibenz(a,h)anthracene	<0.227		2.27	1.299		ug/L		57	10 - 110
Fluoranthene	1.05		2.27	2.982		ug/L		85	13 - 110
Fluorene	10.0		2.27	12.01	4	ug/L		88	25 - 110
Indeno(1,2,3-cd)pyrene	<0.227		2.27	1.325		ug/L		58	10 - 110
2-Methylnaphthalene	<0.227		2.27	1.625		ug/L		72	19 - 110
Naphthalene	0.848	F1 F2	2.27	2.184		ug/L		59	17 - 110
Phenanthrene	3.08	F1 F2	2.27	4.551		ug/L		65	24 - 110
Pyrene	1.02		2.27	2.963		ug/L		85	13 - 110

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl (Surr)	82		21 - 110
Nitrobenzene-d5 (Surr)	77		15 - 110
Terphenyl-d14 (Surr)	98		13 - 110

Lab Sample ID: 310-218392-1 MSD
Matrix: Water
Analysis Batch: 335004

Client Sample ID: MW-1-GW-1021
Prep Type: Total/NA
Prep Batch: 333929

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	11.6		2.38	16.31	4	ug/L		197	22 - 110	20	35
Acenaphthylene	1.43		2.38	3.652		ug/L		93	22 - 110	24	35
Anthracene	1.04		2.38	3.138		ug/L		88	24 - 110	15	35
Benzo(a)anthracene	<0.227		2.38	1.896		ug/L		80	10 - 110	13	35

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 310-218392-1 MSD
Matrix: Water
Analysis Batch: 335004

Client Sample ID: MW-1-GW-1021
Prep Type: Total/NA
Prep Batch: 333929

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzo(a)pyrene	<0.227		2.38	1.619		ug/L		68	10 - 110	15	35
Benzo(b)fluoranthene	<0.227		2.38	1.718		ug/L		72	10 - 110	20	35
Benzo(g,h,i)perylene	<0.227		2.38	1.391		ug/L		58	10 - 110	11	35
Benzo(k)fluoranthene	<0.227		2.38	1.650		ug/L		69	10 - 110	26	35
Chrysene	<0.227		2.38	1.813		ug/L		76	10 - 110	16	35
Dibenz(a,h)anthracene	<0.227		2.38	1.227		ug/L		52	10 - 110	6	35
Fluoranthene	1.05		2.38	3.272		ug/L		93	13 - 110	9	35
Fluorene	10.0		2.38	14.28	4	ug/L		179	25 - 110	17	35
Indeno(1,2,3-cd)pyrene	<0.227		2.38	1.351		ug/L		57	10 - 110	2	35
2-Methylnaphthalene	<0.227		2.38	2.058		ug/L		86	19 - 110	24	35
Naphthalene	0.848	F1 F2	2.38	3.618	F1 F2	ug/L		116	17 - 110	49	35
Phenanthrene	3.08	F1 F2	2.38	6.522	F1 F2	ug/L		144	24 - 110	36	35
Pyrene	1.02		2.38	3.276		ug/L		95	13 - 110	10	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	80		21 - 110
Nitrobenzene-d5 (Surr)	70		15 - 110
Terphenyl-d14 (Surr)	82		13 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-333485/1-A
Matrix: Water
Analysis Batch: 335099

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 333485

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.00200		0.00200		mg/L		11/01/21 09:00	11/10/21 20:48	1

Lab Sample ID: MB 310-333485/1-A
Matrix: Water
Analysis Batch: 335188

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 333485

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lead	<0.000500		0.000500		mg/L		11/01/21 09:00	11/11/21 14:14	1

Lab Sample ID: LCS 310-333485/2-A
Matrix: Water
Analysis Batch: 335099

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 333485

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				
Arsenic	0.200	0.1876		mg/L		94	80 - 120
Lead	0.200	0.1873		mg/L		94	80 - 120

Lab Sample ID: 310-218392-1 MS
Matrix: Water
Analysis Batch: 335099

Client Sample ID: MW-1-GW-1021
Prep Type: Total/NA
Prep Batch: 333485

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				
Arsenic	0.0124		0.200	0.2084		mg/L		98	75 - 125

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-218392-1 MS
Matrix: Water
Analysis Batch: 335099

Client Sample ID: MW-1-GW-1021
Prep Type: Total/NA
Prep Batch: 333485

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.000590		0.200	0.1960		mg/L		98	75 - 125

Lab Sample ID: 310-218392-1 MSD
Matrix: Water
Analysis Batch: 335099

Client Sample ID: MW-1-GW-1021
Prep Type: Total/NA
Prep Batch: 333485

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	0.0124		0.200	0.2106		mg/L		99	75 - 125	1	20
Lead	0.000590		0.200	0.1993		mg/L		99	75 - 125	2	20

Lab Sample ID: MB 310-333487/1-A
Matrix: Water
Analysis Batch: 334553

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 333487

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		11/02/21 09:30	11/05/21 14:51	1
Lead	<0.000500		0.000500		mg/L		11/02/21 09:30	11/05/21 14:51	1

Lab Sample ID: LCS 310-333487/2-A
Matrix: Water
Analysis Batch: 334553

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 333487

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.200	0.2002		mg/L		100	80 - 120
Lead	0.200	0.2008		mg/L		100	80 - 120

QC Association Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

GC/MS VOA

Analysis Batch: 333707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-218392-1	MW-1-GW-1021	Total/NA	Water	8260D	
310-218392-2	MW-2-GW-1021	Total/NA	Water	8260D	
310-218392-3	MW-3-GW-1021	Total/NA	Water	8260D	
310-218392-4	MW-4-GW-1021	Total/NA	Water	8260D	
310-218392-5	MW-5-GW-1021	Total/NA	Water	8260D	
310-218392-6	MW-6-GW-1021	Total/NA	Water	8260D	
310-218392-7	MW-8R-GW-1021	Total/NA	Water	8260D	
310-218392-8	MW-9-GW-1021	Total/NA	Water	8260D	
310-218392-9	DUP1-GW-1021	Total/NA	Water	8260D	
310-218392-10	EB1-GW-1021	Total/NA	Water	8260D	
310-218392-11	Trip Blank	Total/NA	Water	8260D	
MB 310-333707/7	Method Blank	Total/NA	Water	8260D	
LCS 310-333707/5	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-333707/6	Lab Control Sample	Total/NA	Water	8260D	
310-218392-1 MS	MW-1-GW-1021	Total/NA	Water	8260D	
310-218392-1 MSD	MW-1-GW-1021	Total/NA	Water	8260D	

Analysis Batch: 334229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-218392-1	MW-1-GW-1021	Total/NA	Water	8260D	
310-218392-3	MW-3-GW-1021	Total/NA	Water	8260D	
310-218392-9	DUP1-GW-1021	Total/NA	Water	8260D	
MB 310-334229/8	Method Blank	Total/NA	Water	8260D	
LCS 310-334229/6	Lab Control Sample	Total/NA	Water	8260D	
310-218392-1 MS	MW-1-GW-1021	Total/NA	Water	8260D	
310-218392-1 MSD	MW-1-GW-1021	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 333929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-218392-1	MW-1-GW-1021	Total/NA	Water	3510C	
310-218392-2	MW-2-GW-1021	Total/NA	Water	3510C	
310-218392-3	MW-3-GW-1021	Total/NA	Water	3510C	
310-218392-4	MW-4-GW-1021	Total/NA	Water	3510C	
310-218392-5	MW-5-GW-1021	Total/NA	Water	3510C	
310-218392-6	MW-6-GW-1021	Total/NA	Water	3510C	
310-218392-7	MW-8R-GW-1021	Total/NA	Water	3510C	
310-218392-8	MW-9-GW-1021	Total/NA	Water	3510C	
310-218392-9	DUP1-GW-1021	Total/NA	Water	3510C	
310-218392-10	EB1-GW-1021	Total/NA	Water	3510C	
MB 310-333929/1-A	Method Blank	Total/NA	Water	3510C	
LCS 310-333929/2-A	Lab Control Sample	Total/NA	Water	3510C	
310-218392-1 MS	MW-1-GW-1021	Total/NA	Water	3510C	
310-218392-1 MSD	MW-1-GW-1021	Total/NA	Water	3510C	

Analysis Batch: 334799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-333929/1-A	Method Blank	Total/NA	Water	8270E SIM	333929
LCS 310-333929/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	333929

QC Association Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

GC/MS Semi VOA

Analysis Batch: 334813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-218392-1	MW-1-GW-1021	Total/NA	Water	8270E SIM	333929
310-218392-2	MW-2-GW-1021	Total/NA	Water	8270E SIM	333929
310-218392-3	MW-3-GW-1021	Total/NA	Water	8270E SIM	333929
310-218392-4	MW-4-GW-1021	Total/NA	Water	8270E SIM	333929
310-218392-5	MW-5-GW-1021	Total/NA	Water	8270E SIM	333929
310-218392-6	MW-6-GW-1021	Total/NA	Water	8270E SIM	333929
310-218392-7	MW-8R-GW-1021	Total/NA	Water	8270E SIM	333929
310-218392-8	MW-9-GW-1021	Total/NA	Water	8270E SIM	333929
310-218392-9	DUP1-GW-1021	Total/NA	Water	8270E SIM	333929
310-218392-1 MS	MW-1-GW-1021	Total/NA	Water	8270E SIM	333929

Analysis Batch: 335004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-218392-3	MW-3-GW-1021	Total/NA	Water	8270E SIM	333929
310-218392-9	DUP1-GW-1021	Total/NA	Water	8270E SIM	333929
310-218392-10	EB1-GW-1021	Total/NA	Water	8270E SIM	333929
310-218392-1 MSD	MW-1-GW-1021	Total/NA	Water	8270E SIM	333929

Metals

Prep Batch: 333485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-218392-1	MW-1-GW-1021	Total/NA	Water	3005A	
310-218392-2	MW-2-GW-1021	Total/NA	Water	3005A	
310-218392-3	MW-3-GW-1021	Total/NA	Water	3005A	
310-218392-4	MW-4-GW-1021	Total/NA	Water	3005A	
310-218392-5	MW-5-GW-1021	Total/NA	Water	3005A	
MB 310-333485/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-333485/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-218392-1 MS	MW-1-GW-1021	Total/NA	Water	3005A	
310-218392-1 MSD	MW-1-GW-1021	Total/NA	Water	3005A	

Prep Batch: 333487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-218392-6	MW-6-GW-1021	Total/NA	Water	3005A	
310-218392-7	MW-8R-GW-1021	Total/NA	Water	3005A	
310-218392-8	MW-9-GW-1021	Total/NA	Water	3005A	
310-218392-9	DUP1-GW-1021	Total/NA	Water	3005A	
310-218392-10	EB1-GW-1021	Total/NA	Water	3005A	
MB 310-333487/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-333487/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 334434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-218392-6	MW-6-GW-1021	Total/NA	Water	6020A	333487
310-218392-7	MW-8R-GW-1021	Total/NA	Water	6020A	333487
310-218392-8	MW-9-GW-1021	Total/NA	Water	6020A	333487
310-218392-9	DUP1-GW-1021	Total/NA	Water	6020A	333487
310-218392-10	EB1-GW-1021	Total/NA	Water	6020A	333487

QC Association Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Metals

Analysis Batch: 334553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-218392-6	MW-6-GW-1021	Total/NA	Water	6020A	333487
310-218392-7	MW-8R-GW-1021	Total/NA	Water	6020A	333487
310-218392-8	MW-9-GW-1021	Total/NA	Water	6020A	333487
310-218392-9	DUP1-GW-1021	Total/NA	Water	6020A	333487
310-218392-10	EB1-GW-1021	Total/NA	Water	6020A	333487
MB 310-333487/1-A	Method Blank	Total/NA	Water	6020A	333487
LCS 310-333487/2-A	Lab Control Sample	Total/NA	Water	6020A	333487

Analysis Batch: 335099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-218392-1	MW-1-GW-1021	Total/NA	Water	6020A	333485
310-218392-2	MW-2-GW-1021	Total/NA	Water	6020A	333485
310-218392-3	MW-3-GW-1021	Total/NA	Water	6020A	333485
310-218392-4	MW-4-GW-1021	Total/NA	Water	6020A	333485
310-218392-5	MW-5-GW-1021	Total/NA	Water	6020A	333485
MB 310-333485/1-A	Method Blank	Total/NA	Water	6020A	333485
LCS 310-333485/2-A	Lab Control Sample	Total/NA	Water	6020A	333485
310-218392-1 MS	MW-1-GW-1021	Total/NA	Water	6020A	333485
310-218392-1 MSD	MW-1-GW-1021	Total/NA	Water	6020A	333485

Analysis Batch: 335188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-333485/1-A	Method Blank	Total/NA	Water	6020A	333485

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-1-GW-1021

Lab Sample ID: 310-218392-1

Date Collected: 10/26/21 15:25

Matrix: Water

Date Received: 10/27/21 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	333707	11/02/21 10:42	SJN	TAL CF
Total/NA	Analysis	8260D		10	334229	11/03/21 06:54	SJN	TAL CF
Total/NA	Prep	3510C			333929	11/02/21 08:49	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	334813	11/10/21 02:33	BKT	TAL CF
Total/NA	Prep	3005A			333485	11/01/21 09:00	JNR	TAL CF
Total/NA	Analysis	6020A		1	335099	11/10/21 21:44	SAP	TAL CF

Client Sample ID: MW-2-GW-1021

Lab Sample ID: 310-218392-2

Date Collected: 10/27/21 11:40

Matrix: Water

Date Received: 10/27/21 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	333707	11/02/21 07:16	SJN	TAL CF
Total/NA	Prep	3510C			333929	11/02/21 08:49	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	334813	11/10/21 02:53	BKT	TAL CF
Total/NA	Prep	3005A			333485	11/01/21 09:00	JNR	TAL CF
Total/NA	Analysis	6020A		1	335099	11/10/21 22:05	SAP	TAL CF

Client Sample ID: MW-3-GW-1021

Lab Sample ID: 310-218392-3

Date Collected: 10/26/21 16:30

Matrix: Water

Date Received: 10/27/21 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	333707	11/02/21 11:05	SJN	TAL CF
Total/NA	Analysis	8260D		10	334229	11/03/21 07:17	SJN	TAL CF
Total/NA	Prep	3510C			333929	11/02/21 08:49	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	334813	11/10/21 03:14	BKT	TAL CF
Total/NA	Prep	3510C			333929	11/02/21 08:49	JCM	TAL CF
Total/NA	Analysis	8270E SIM		10	335004	11/10/21 17:04	BKT	TAL CF
Total/NA	Prep	3005A			333485	11/01/21 09:00	JNR	TAL CF
Total/NA	Analysis	6020A		1	335099	11/10/21 22:08	SAP	TAL CF

Client Sample ID: MW-4-GW-1021

Lab Sample ID: 310-218392-4

Date Collected: 10/26/21 13:35

Matrix: Water

Date Received: 10/27/21 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	333707	11/02/21 07:39	SJN	TAL CF
Total/NA	Prep	3510C			333929	11/02/21 08:49	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	334813	11/10/21 03:35	BKT	TAL CF
Total/NA	Prep	3005A			333485	11/01/21 09:00	JNR	TAL CF
Total/NA	Analysis	6020A		1	335099	11/10/21 22:11	SAP	TAL CF

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: MW-5-GW-1021
Date Collected: 10/26/21 14:40
Date Received: 10/27/21 16:50

Lab Sample ID: 310-218392-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	333707	11/02/21 08:02	SJN	TAL CF
Total/NA	Prep	3510C			333929	11/02/21 08:49	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	334813	11/10/21 03:56	BKT	TAL CF
Total/NA	Prep	3005A			333485	11/01/21 09:00	JNR	TAL CF
Total/NA	Analysis	6020A		1	335099	11/10/21 22:13	SAP	TAL CF

Client Sample ID: MW-6-GW-1021
Date Collected: 10/27/21 10:50
Date Received: 10/27/21 16:50

Lab Sample ID: 310-218392-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	333707	11/02/21 08:25	SJN	TAL CF
Total/NA	Prep	3510C			333929	11/02/21 08:49	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	334813	11/10/21 04:16	BKT	TAL CF
Total/NA	Prep	3005A			333487	11/02/21 09:30	JNR	TAL CF
Total/NA	Analysis	6020A		1	334434	11/04/21 18:33	SAP	TAL CF
Total/NA	Prep	3005A			333487	11/02/21 09:30	JNR	TAL CF
Total/NA	Analysis	6020A		1	334553	11/05/21 14:56	SAP	TAL CF

Client Sample ID: MW-8R-GW-1021
Date Collected: 10/26/21 12:15
Date Received: 10/27/21 16:50

Lab Sample ID: 310-218392-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	333707	11/02/21 08:48	SJN	TAL CF
Total/NA	Prep	3510C			333929	11/02/21 08:49	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	334813	11/10/21 04:37	BKT	TAL CF
Total/NA	Prep	3005A			333487	11/02/21 09:30	JNR	TAL CF
Total/NA	Analysis	6020A		1	334434	11/04/21 18:36	SAP	TAL CF
Total/NA	Prep	3005A			333487	11/02/21 09:30	JNR	TAL CF
Total/NA	Analysis	6020A		1	334553	11/05/21 14:59	SAP	TAL CF

Client Sample ID: MW-9-GW-1021
Date Collected: 10/27/21 10:05
Date Received: 10/27/21 16:50

Lab Sample ID: 310-218392-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	333707	11/02/21 09:11	SJN	TAL CF
Total/NA	Prep	3510C			333929	11/02/21 08:49	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	334813	11/10/21 04:58	BKT	TAL CF
Total/NA	Prep	3005A			333487	11/02/21 09:30	JNR	TAL CF
Total/NA	Analysis	6020A		1	334434	11/04/21 18:39	SAP	TAL CF
Total/NA	Prep	3005A			333487	11/02/21 09:30	JNR	TAL CF
Total/NA	Analysis	6020A		1	334553	11/05/21 15:01	SAP	TAL CF

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Client Sample ID: DUP1-GW-1021

Lab Sample ID: 310-218392-9

Date Collected: 10/26/21 00:00

Matrix: Water

Date Received: 10/27/21 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	333707	11/02/21 11:29	SJN	TAL CF
Total/NA	Analysis	8260D		10	334229	11/03/21 07:40	SJN	TAL CF
Total/NA	Prep	3510C			333929	11/02/21 08:49	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	334813	11/10/21 05:19	BKT	TAL CF
Total/NA	Prep	3510C			333929	11/02/21 08:49	JCM	TAL CF
Total/NA	Analysis	8270E SIM		10	335004	11/10/21 17:25	BKT	TAL CF
Total/NA	Prep	3005A			333487	11/02/21 09:30	JNR	TAL CF
Total/NA	Analysis	6020A		1	334434	11/04/21 18:43	SAP	TAL CF
Total/NA	Prep	3005A			333487	11/02/21 09:30	JNR	TAL CF
Total/NA	Analysis	6020A		1	334553	11/05/21 15:04	SAP	TAL CF

Client Sample ID: EB1-GW-1021

Lab Sample ID: 310-218392-10

Date Collected: 10/26/21 17:00

Matrix: Water

Date Received: 10/27/21 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	333707	11/02/21 09:33	SJN	TAL CF
Total/NA	Prep	3510C			333929	11/02/21 08:49	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	335004	11/10/21 16:43	BKT	TAL CF
Total/NA	Prep	3005A			333487	11/02/21 09:30	JNR	TAL CF
Total/NA	Analysis	6020A		1	334434	11/04/21 18:46	SAP	TAL CF
Total/NA	Prep	3005A			333487	11/02/21 09:30	JNR	TAL CF
Total/NA	Analysis	6020A		1	334553	11/05/21 15:07	SAP	TAL CF

Client Sample ID: Trip Blank

Lab Sample ID: 310-218392-11

Date Collected: 10/27/21 00:00

Matrix: Water

Date Received: 10/27/21 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	333707	11/02/21 04:14	SJN	TAL CF

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: GHD Services Inc.
 Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
 SDG: 11156780

Laboratory: Eurofins TestAmerica, Cedar Falls

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Colorado	Petroleum Storage Tank Program	IA100001 (OR)	09-29-22
Georgia	State	IA100001 (OR)	09-29-22
Illinois	NELAP	200024	11-29-21
Iowa	State	007	12-01-21
Kansas	NELAP	E-10341	01-31-22
Minnesota	NELAP	019-999-319	12-31-21
Minnesota (Petrofund)	State	3349	04-06-23
North Dakota	State	R-186	09-29-21 *
Oregon	NELAP	IA100001	09-29-22
USDA	US Federal Programs	P330-19-00003	01-02-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Method Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218392-1
SDG: 11156780

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL CF
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL CF
6020A	Metals (ICP/MS)	SW846	TAL CF
3005A	Preparation, Total Metals	SW846	TAL CF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CF
5030B	Purge and Trap	SW846	TAL CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401





Environment Testing
TestAmerica



310-218392 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client: <u>GHD</u>		
City/State: <small>CITY</small>	<small>STATE</small>	Project:
Receipt Information		
Date/Time Received: <small>DATE</small> <u>10/17/2011</u> <small>TIME</small> <u>1650</u>	Received By: <u>TB</u>	
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID:
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>1</u> of <u>2</u>
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
<u>All vials</u>		
Temperature Record		
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>N</u>	Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>4.6</u>	Corrected Temp (°C): <u>4.6</u>	
• Sample Container Temperature		
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>
Uncorrected Temp (°C):		
Corrected Temp (°C):		
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No		
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No		
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		

Document: CF-LG-WI-002

Revision: 25

Date: 06/17/2019

Eurofins TestAmerica, Cedar Falls

General temperature criteria is 0 to 6°C

Bacteria temperature criteria is 0 to 10°C



Environment Testing
TestAmerica

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client: <u>GHD</u>		
City/State: <small>CITY</small>	<small>STATE</small>	Project:
Receipt Information		
Date/Time Received: <u>06/17/2021</u> <u>1650</u>	Received By: <u>TB</u>	
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler # <u>2</u> of <u>2</u>
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record		
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>N</u>	Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature: If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>8.3</u>	Corrected Temp (°C): <u>8.3</u>	
Sample Container Temperature		
Container(s) used:	<u>CONTAINER 1</u> <u>250ml Plastic</u>	<u>CONTAINER 2</u>
Uncorrected Temp (°C):	<u>6.8</u>	
Corrected Temp (°C):	<u>6.8</u>	
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
a) If yes: Is there evidence that the chilling process began? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		

Document: CF-LG-WI-002
Revision: 25
Date: 06/17/2019

Eurofins TestAmerica, Cedar Falls

General temperature criteria is 0 to 6°C
Bacteria temperature criteria is 0 to 10°C

Company: **GH/D** Your PO #:

Send Report To: **Kevin Armstrong** Invoice To:

Address: **11228 Amara Ave**

City/State/Zip Code: **50322**

Project Name: **Albia IPL FMBP**

Telephone Number: **515 415 3933** Fax:

Project Number: **1156780**

Sampled by (Print Name): **Diane Pals**

Email Address: **kwm.armstrong@ghd.com**
 CC: **diane.pals@ghd.com**

(Signature): **Diane Pals**

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filled	Preservative					Matrix					Analyze For																						
							HNO ₃ (Ren & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H ₂ SO ₄ Plastic (Yellow & White Label)	H ₂ SO ₄ Glass (Yellow & White Label)	None (Black & White Label)	Other (Specify)	Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (Specify: Stormwater)	RUSH TAT (Must call ahead)	Standard TAT	E-mail results	Fax Results	Send QC with report															
MW-1 - GW-1021 (MS/MSO)	10/26/21	1525	15	X			39										X																						
MW-2 - GW-1021	10/27/21	1140	5	X			13										X																						
MW-3 - GW-1021	10/26/21	1630	5	X			13										X																						
MW-4 - GW-1021	10/26/21	1335	5	X			13										X																						
MW-5 - GW-1021	10/26/21	1440	5	X			13										X																						
MW-6 - GW-1021	10/27/21	1050	5	X			13										X																						
MW-8 - GW-1021	10/26/21	1215	5	X			13										X																						
MW-9 - GW-1021	10/27/21	1005	5	X			13										X																						
Dupl - GW-1021	10/26/21	—	5	X			13										X																						
GB1 - GW-1021	10/26/21	1700	5	X			13										X																						

NOTES: Please fill in shaded areas

NOTE: All turn around times are calculated from the time of receipt at TestAmerica
 NOTE: Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments; additional charges may be assessed.
 NOTE: There may be a charge assessed for TestAmerica disposing of sample containers

Relinquished by: Diane Pals	Date: 10/27/21	Time: 1443	Relinquished by: [Signature]	Date: 10/27/21	Time: 1445
Relinquished by:	Date:	Time:	Relinquished by:	Date:	Time:
Shipped Via: PK	Date: 10-27-21	Time: 1650	Shipped Via:	Date:	Time:
Received for TestAmerica by:	Date:	Time:	Received for TestAmerica by:	Date:	Time:
Laboratory Comments:			Temperature Upon Receipt:		
Snipped Via:			Shipped Via:		



Company: **GHDD**

Your PO#:

Send Report To:

Invoice To:

Address:

City/State/Zip Code:

Project Name:

Telephone Number:

Project Number: **Albida**

Sampled by: (Print Name)

Email Address:

(Signature)

CC

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filled	Preservative							Matrix							Analyze For:	RUSH TAT (Must call ahead)	Standard TAT	E-mail results	Fax Results	Send QC with report											
							HNO ₃ (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H ₂ SO ₄ Plastic (Yellow & White Label)	H ₂ SO ₄ Glass (Yellow & White Label)	None (Black & White Label)	Other (Specify)	Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify: Stormwater																		
Trip Blank	10/27/14	—	2																																		
<p>NOTE: All turn around times are calculated from the time of receipt at TestAmerica. NOTICE: Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments; additional charges may be assessed. NOTE: There may be a charge assessed for TestAmerica disposing of sample retaindats.</p>																																					
Relinquished by: Gene Cook							Relinquished by: Mark Turner							Relinquished by:																							
Date: 10/27/14							Date: 10/27/14							Date: 10/27/14							Date: 10/27/14																
Time: 1443							Time: 1445							Time: 1445							Time: 1445																
Shipped Via: AK							Shipped Via: 1650							Shipped Via:							Shipped Via:																
Received for TestAmerica by: AK							Received for TestAmerica by: 10-27-21							Received for TestAmerica by:							Received for TestAmerica by:																



Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 310-218392-1
SDG Number: 11156780

Login Number: 218392

List Number: 1

Creator: Homolar, Dana J

List Source: Eurofins TestAmerica, Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-218647-1
Laboratory Sample Delivery Group: 11156780
Client Project/Site: Albia IPL FMGP

For:
GHD Services Inc.
11228 Aurora Avenue
Des Moines, Iowa 50322-7905

Attn: Kevin Armstrong



Authorized for release by:
11/11/2021 3:32:56 PM

Shawn Hayes, Senior Project Manager
(319)229-8211
Shawn.Hayes@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	4
Detection Summary	5
Client Sample Results	6
Definitions	8
Surrogate Summary	9
QC Sample Results	10
QC Association	16
Chronicle	17
Certification Summary	18
Method Summary	19
Chain of Custody	20
Receipt Checklists	22



Case Narrative

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

Job ID: 310-218647-1

Laboratory: Eurofins TestAmerica, Cedar Falls

Narrative

Job Narrative 310-218647-1

Comments

No additional comments.

Receipt

The sample was received on 10/29/2021 5:30 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.8° C.

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-334268 recovered above the upper control limit for Total Xylenes(23.8%D), cis-1,3-Dichloropropene(21.1%D), sec-Butylbenzene(24.9%D), m&p-Xylenes(23.4%D), Styrene(30.2%D), Benzene(20.8%D), trans-1,3-Dichloropropene(20.5%D), N-Propylbenzene(26.0%D), o-Xylene(24.3%D), 4-Isopropyltoluene(26.9%D), n-Butylbenzene(22.3%D), 1,1-Dichloropropene(22.8%D), cis-1,2-Dichloroethene(21.7%D), 1,2,4-Trimethylbenzene(26.7%D), 1,3,5-Trimethylbenzene(26.4%D), tert-Butylbenzene(23.9%D), Isopropylbenzene(27.3%D), 4-Methyl-2-Pentanone(26.1%D), 1,4-Dichlorobenzene(20.2%D), Ethylbenzene(25.3%D), and 1,1-Dichloroethane(20.2%D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 310-334268/3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 310-334157. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-218647-1	MW-7-GW-1021	Water	10/29/21 11:15	10/30/21 17:38

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Detection Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

Client Sample ID: MW-7-GW-1021

Lab Sample ID: 310-218647-1

No Detections.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

Client Sample ID: MW-7-GW-1021

Lab Sample ID: 310-218647-1

Date Collected: 10/29/21 11:15

Matrix: Water

Date Received: 10/30/21 17:38

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/05/21 01:52	1
Benzene	<0.500		0.500		ug/L			11/05/21 01:52	1
Bromobenzene	<1.00		1.00		ug/L			11/05/21 01:52	1
Bromochloromethane	<5.00		5.00		ug/L			11/05/21 01:52	1
Bromodichloromethane	<1.00		1.00		ug/L			11/05/21 01:52	1
Bromoform	<5.00		5.00		ug/L			11/05/21 01:52	1
Bromomethane	<4.00		4.00		ug/L			11/05/21 01:52	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/05/21 01:52	1
Carbon disulfide	<1.00		1.00		ug/L			11/05/21 01:52	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/05/21 01:52	1
Chlorobenzene	<1.00		1.00		ug/L			11/05/21 01:52	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/05/21 01:52	1
Chloroethane	<4.00		4.00		ug/L			11/05/21 01:52	1
Chloroform	<3.00		3.00		ug/L			11/05/21 01:52	1
Chloromethane	<3.00		3.00		ug/L			11/05/21 01:52	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/05/21 01:52	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/05/21 01:52	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/05/21 01:52	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/05/21 01:52	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			11/05/21 01:52	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/05/21 01:52	1
Dibromomethane	<1.00		1.00		ug/L			11/05/21 01:52	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/05/21 01:52	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/05/21 01:52	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/05/21 01:52	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/05/21 01:52	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/05/21 01:52	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/05/21 01:52	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/05/21 01:52	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/05/21 01:52	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/05/21 01:52	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/05/21 01:52	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/05/21 01:52	1
Ethylbenzene	<1.00		1.00		ug/L			11/05/21 01:52	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/05/21 01:52	1
Hexane	<1.00		1.00		ug/L			11/05/21 01:52	1
Isopropylbenzene	<1.00		1.00		ug/L			11/05/21 01:52	1
Methylene chloride	<5.00		5.00		ug/L			11/05/21 01:52	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/05/21 01:52	1
Naphthalene	<5.00		5.00		ug/L			11/05/21 01:52	1
n-Butylbenzene	<1.00		1.00		ug/L			11/05/21 01:52	1
n-Propylbenzene	<1.00		1.00		ug/L			11/05/21 01:52	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/05/21 01:52	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/05/21 01:52	1
Styrene	<1.00		1.00		ug/L			11/05/21 01:52	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/05/21 01:52	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/05/21 01:52	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/05/21 01:52	1
Tetrachloroethene	<1.00		1.00		ug/L			11/05/21 01:52	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

Client Sample ID: MW-7-GW-1021

Lab Sample ID: 310-218647-1

Date Collected: 10/29/21 11:15

Matrix: Water

Date Received: 10/30/21 17:38

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			11/05/21 01:52	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/05/21 01:52	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/05/21 01:52	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/05/21 01:52	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/05/21 01:52	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/05/21 01:52	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/05/21 01:52	1
Trichloroethene	<1.00		1.00		ug/L			11/05/21 01:52	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/05/21 01:52	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/05/21 01:52	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/05/21 01:52	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/05/21 01:52	1
Vinyl chloride	<1.00		1.00		ug/L			11/05/21 01:52	1
Xylenes, Total	<3.00		3.00		ug/L			11/05/21 01:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		80 - 120					11/05/21 01:52	1
Dibromofluoromethane (Surr)	112		79 - 120					11/05/21 01:52	1
Toluene-d8 (Surr)	96		79 - 120					11/05/21 01:52	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.217		0.217		ug/L		11/03/21 13:39	11/11/21 00:27	1
Acenaphthylene	<0.217		0.217		ug/L		11/03/21 13:39	11/11/21 00:27	1
Anthracene	<0.217		0.217		ug/L		11/03/21 13:39	11/11/21 00:27	1
Benzo(a)anthracene	<0.217		0.217		ug/L		11/03/21 13:39	11/11/21 00:27	1
Benzo(a)pyrene	<0.217		0.217		ug/L		11/03/21 13:39	11/11/21 00:27	1
Benzo(b)fluoranthene	<0.217		0.217		ug/L		11/03/21 13:39	11/11/21 00:27	1
Benzo(g,h,i)perylene	<0.217		0.217		ug/L		11/03/21 13:39	11/11/21 00:27	1
Benzo(k)fluoranthene	<0.217		0.217		ug/L		11/03/21 13:39	11/11/21 00:27	1
Chrysene	<0.217		0.217		ug/L		11/03/21 13:39	11/11/21 00:27	1
Dibenz(a,h)anthracene	<0.217		0.217		ug/L		11/03/21 13:39	11/11/21 00:27	1
Fluoranthene	<0.217		0.217		ug/L		11/03/21 13:39	11/11/21 00:27	1
Fluorene	<0.217		0.217		ug/L		11/03/21 13:39	11/11/21 00:27	1
Indeno(1,2,3-cd)pyrene	<0.217		0.217		ug/L		11/03/21 13:39	11/11/21 00:27	1
2-Methylnaphthalene	<0.217		0.217		ug/L		11/03/21 13:39	11/11/21 00:27	1
Naphthalene	<0.543		0.543		ug/L		11/03/21 13:39	11/11/21 00:27	1
Phenanthrene	<0.217		0.217		ug/L		11/03/21 13:39	11/11/21 00:27	1
Pyrene	<0.217		0.217		ug/L		11/03/21 13:39	11/11/21 00:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	93		21 - 110				11/03/21 13:39	11/11/21 00:27	1
Nitrobenzene-d5 (Surr)	69		15 - 110				11/03/21 13:39	11/11/21 00:27	1
Terphenyl-d14 (Surr)	94		13 - 110				11/03/21 13:39	11/11/21 00:27	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		11/04/21 09:00	11/08/21 21:47	1
Lead	<0.000500		0.000500		mg/L		11/04/21 09:00	11/08/21 21:47	1

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (80-120)	DBFM (79-120)	TOL (79-120)
310-218647-1	MW-7-GW-1021	87	112	96
LCS 310-334268/6	Lab Control Sample	98	101	100
LCS 310-334268/7	Lab Control Sample	92	106	98
MB 310-334268/5	Method Blank	91	109	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (21-110)	NBZ (15-110)	TPHL (13-110)
310-218647-1	MW-7-GW-1021	93	69	94
LCS 310-334157/2-A	Lab Control Sample	82	75	102
LCSD 310-334157/3-A	Lab Control Sample Dup	70	62	95
MB 310-334157/1-A	Method Blank	70	61	93

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-334268/5
Matrix: Water
Analysis Batch: 334268

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<10.0		10.0		ug/L			11/04/21 20:45	1
Benzene	<0.500		0.500		ug/L			11/04/21 20:45	1
Bromobenzene	<1.00		1.00		ug/L			11/04/21 20:45	1
Bromochloromethane	<5.00		5.00		ug/L			11/04/21 20:45	1
Bromodichloromethane	<1.00		1.00		ug/L			11/04/21 20:45	1
Bromoform	<5.00		5.00		ug/L			11/04/21 20:45	1
Bromomethane	<4.00		4.00		ug/L			11/04/21 20:45	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/04/21 20:45	1
Carbon disulfide	<1.00		1.00		ug/L			11/04/21 20:45	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/04/21 20:45	1
Chlorobenzene	<1.00		1.00		ug/L			11/04/21 20:45	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/04/21 20:45	1
Chloroethane	<4.00		4.00		ug/L			11/04/21 20:45	1
Chloroform	<3.00		3.00		ug/L			11/04/21 20:45	1
Chloromethane	<3.00		3.00		ug/L			11/04/21 20:45	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/04/21 20:45	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/04/21 20:45	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/04/21 20:45	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/04/21 20:45	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			11/04/21 20:45	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			11/04/21 20:45	1
Dibromomethane	<1.00		1.00		ug/L			11/04/21 20:45	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/04/21 20:45	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/04/21 20:45	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/04/21 20:45	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/04/21 20:45	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/04/21 20:45	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/04/21 20:45	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/04/21 20:45	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/04/21 20:45	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/04/21 20:45	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/04/21 20:45	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/04/21 20:45	1
Ethylbenzene	<1.00		1.00		ug/L			11/04/21 20:45	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/04/21 20:45	1
Hexane	<1.00		1.00		ug/L			11/04/21 20:45	1
Isopropylbenzene	<1.00		1.00		ug/L			11/04/21 20:45	1
Methylene chloride	<5.00		5.00		ug/L			11/04/21 20:45	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/04/21 20:45	1
Naphthalene	<5.00		5.00		ug/L			11/04/21 20:45	1
n-Butylbenzene	<1.00		1.00		ug/L			11/04/21 20:45	1
n-Propylbenzene	<1.00		1.00		ug/L			11/04/21 20:45	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/04/21 20:45	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/04/21 20:45	1
Styrene	<1.00		1.00		ug/L			11/04/21 20:45	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/04/21 20:45	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/04/21 20:45	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/04/21 20:45	1

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-334268/5
Matrix: Water
Analysis Batch: 334268

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<1.00		1.00		ug/L			11/04/21 20:45	1
Toluene	<1.00		1.00		ug/L			11/04/21 20:45	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/04/21 20:45	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/04/21 20:45	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/04/21 20:45	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/04/21 20:45	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/04/21 20:45	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/04/21 20:45	1
Trichloroethene	<1.00		1.00		ug/L			11/04/21 20:45	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/04/21 20:45	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/04/21 20:45	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/04/21 20:45	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/04/21 20:45	1
Vinyl chloride	<1.00		1.00		ug/L			11/04/21 20:45	1
Xylenes, Total	<3.00		3.00		ug/L			11/04/21 20:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		80 - 120		11/04/21 20:45	1
Dibromofluoromethane (Surr)	109		79 - 120		11/04/21 20:45	1
Toluene-d8 (Surr)	98		79 - 120		11/04/21 20:45	1

Lab Sample ID: LCS 310-334268/6
Matrix: Water
Analysis Batch: 334268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	43.30		ug/L		108	50 - 150
Benzene	20.0	21.63		ug/L		108	73 - 127
Bromobenzene	20.0	21.28		ug/L		106	68 - 128
Bromochloromethane	20.0	20.76		ug/L		104	77 - 140
Bromodichloromethane	20.0	21.74		ug/L		109	70 - 122
Bromoform	20.0	21.81		ug/L		109	58 - 125
2-Butanone (MEK)	40.0	43.96		ug/L		110	49 - 150
Carbon disulfide	20.0	20.18		ug/L		101	58 - 140
Carbon tetrachloride	20.0	20.59		ug/L		103	66 - 136
Chlorobenzene	20.0	21.54		ug/L		108	72 - 124
Chlorodibromomethane	20.0	21.39		ug/L		107	66 - 126
Chloroform	20.0	20.50		ug/L		103	72 - 125
2-Chlorotoluene	20.0	22.70		ug/L		113	68 - 129
4-Chlorotoluene	20.0	22.71		ug/L		114	67 - 128
cis-1,2-Dichloroethene	20.0	21.06		ug/L		105	71 - 130
cis-1,3-Dichloropropene	20.0	21.69		ug/L		108	69 - 122
1,2-Dibromo-3-chloropropane	20.0	21.72		ug/L		109	42 - 150
1,2-Dibromoethane (EDB)	20.0	21.25		ug/L		106	70 - 129
Dibromomethane	20.0	21.40		ug/L		107	71 - 133
1,2-Dichlorobenzene	20.0	21.02		ug/L		105	67 - 125
1,3-Dichlorobenzene	20.0	21.30		ug/L		106	65 - 128
1,4-Dichlorobenzene	20.0	23.12		ug/L		116	66 - 126

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-334268/6
Matrix: Water
Analysis Batch: 334268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	20.0	20.93		ug/L		105	71 - 131
1,2-Dichloroethane	20.0	20.66		ug/L		103	72 - 128
1,1-Dichloroethene	20.0	20.20		ug/L		101	64 - 137
1,2-Dichloropropane	20.0	21.45		ug/L		107	71 - 130
1,3-Dichloropropane	20.0	21.56		ug/L		108	72 - 130
2,2-Dichloropropane	20.0	18.77		ug/L		94	33 - 150
1,1-Dichloropropene	20.0	21.47		ug/L		107	72 - 130
Ethylbenzene	20.0	23.29		ug/L		116	73 - 127
Hexachlorobutadiene	20.0	18.91		ug/L		95	48 - 150
Hexane	20.0	19.04		ug/L		95	50 - 150
Isopropylbenzene	20.0	23.23		ug/L		116	71 - 127
Methylene chloride	20.0	20.15		ug/L		101	48 - 150
Methyl tert-butyl ether	20.0	19.82		ug/L		99	68 - 127
m,p-Xylene	20.0	22.89		ug/L		114	72 - 128
Naphthalene	20.0	20.75		ug/L		104	43 - 150
n-Butylbenzene	20.0	22.45		ug/L		112	64 - 129
n-Propylbenzene	20.0	23.14		ug/L		116	68 - 129
o-Xylene	20.0	23.13		ug/L		116	70 - 128
p-Isopropyltoluene	20.0	23.48		ug/L		117	66 - 128
sec-Butylbenzene	20.0	23.10		ug/L		115	64 - 134
Styrene	20.0	24.31		ug/L		122	69 - 127
tert-Butylbenzene	20.0	22.94		ug/L		115	66 - 132
1,1,1,2-Tetrachloroethane	20.0	21.07		ug/L		105	69 - 124
1,1,2,2-Tetrachloroethane	20.0	22.45		ug/L		112	66 - 129
Tetrachloroethene	20.0	20.45		ug/L		102	68 - 135
Toluene	20.0	21.66		ug/L		108	71 - 126
trans-1,2-Dichloroethene	20.0	20.14		ug/L		101	69 - 132
trans-1,3-Dichloropropene	20.0	22.28		ug/L		111	65 - 123
1,2,3-Trichlorobenzene	20.0	20.00		ug/L		100	45 - 150
1,2,4-Trichlorobenzene	20.0	19.24		ug/L		96	57 - 133
1,1,1-Trichloroethane	20.0	20.66		ug/L		103	70 - 129
1,1,2-Trichloroethane	20.0	21.54		ug/L		108	68 - 128
Trichloroethene	20.0	21.40		ug/L		107	71 - 130
1,2,3-Trichloropropane	20.0	22.31		ug/L		112	61 - 137
1,2,4-Trimethylbenzene	20.0	23.84		ug/L		119	64 - 133
1,3,5-Trimethylbenzene	20.0	23.68		ug/L		118	66 - 134
Xylenes, Total	40.0	46.02		ug/L		115	70 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	101		79 - 120
Toluene-d8 (Surr)	100		79 - 120

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-334268/7
Matrix: Water
Analysis Batch: 334268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	20.0	18.92		ug/L		95	22 - 150
Chloroethane	20.0	20.77		ug/L		104	61 - 139
Chloromethane	20.0	21.38		ug/L		107	48 - 150
Dichlorodifluoromethane	20.0	19.76		ug/L		99	50 - 150
Trichlorofluoromethane	20.0	20.44		ug/L		102	59 - 150
Vinyl chloride	20.0	21.35		ug/L		107	65 - 141

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		80 - 120
Dibromofluoromethane (Surr)	106		79 - 120
Toluene-d8 (Surr)	98		79 - 120

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 310-334157/1-A
Matrix: Water
Analysis Batch: 334292

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 334157

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.200		0.200		ug/L		11/03/21 13:39	11/04/21 11:32	1
Acenaphthylene	<0.200		0.200		ug/L		11/03/21 13:39	11/04/21 11:32	1
Anthracene	<0.200		0.200		ug/L		11/03/21 13:39	11/04/21 11:32	1
Benzo(a)anthracene	<0.200		0.200		ug/L		11/03/21 13:39	11/04/21 11:32	1
Benzo(a)pyrene	<0.200		0.200		ug/L		11/03/21 13:39	11/04/21 11:32	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		11/03/21 13:39	11/04/21 11:32	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		11/03/21 13:39	11/04/21 11:32	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		11/03/21 13:39	11/04/21 11:32	1
Chrysene	<0.200		0.200		ug/L		11/03/21 13:39	11/04/21 11:32	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		11/03/21 13:39	11/04/21 11:32	1
Fluoranthene	<0.200		0.200		ug/L		11/03/21 13:39	11/04/21 11:32	1
Fluorene	<0.200		0.200		ug/L		11/03/21 13:39	11/04/21 11:32	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		11/03/21 13:39	11/04/21 11:32	1
2-Methylnaphthalene	<0.200		0.200		ug/L		11/03/21 13:39	11/04/21 11:32	1
Naphthalene	<0.500		0.500		ug/L		11/03/21 13:39	11/04/21 11:32	1
Phenanthrene	<0.200		0.200		ug/L		11/03/21 13:39	11/04/21 11:32	1
Pyrene	<0.200		0.200		ug/L		11/03/21 13:39	11/04/21 11:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	70		21 - 110	11/03/21 13:39	11/04/21 11:32	1
Nitrobenzene-d5 (Surr)	61		15 - 110	11/03/21 13:39	11/04/21 11:32	1
Terphenyl-d14 (Surr)	93		13 - 110	11/03/21 13:39	11/04/21 11:32	1

Lab Sample ID: LCS 310-334157/2-A
Matrix: Water
Analysis Batch: 334292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 334157

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	2.00	1.613		ug/L		81	25 - 110

Eurofins TestAmerica, Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 310-334157/2-A
Matrix: Water
Analysis Batch: 334292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 334157

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	2.00	1.573		ug/L		79	25 - 110
Anthracene	2.00	1.762		ug/L		88	26 - 110
Benzo(a)anthracene	2.00	1.725		ug/L		86	26 - 110
Benzo(a)pyrene	2.00	1.560		ug/L		78	20 - 110
Benzo(b)fluoranthene	2.00	1.715		ug/L		86	24 - 110
Benzo(g,h,i)perylene	2.00	1.933		ug/L		97	17 - 110
Benzo(k)fluoranthene	2.00	1.674		ug/L		84	26 - 110
Chrysene	2.00	1.780		ug/L		89	23 - 110
Dibenz(a,h)anthracene	2.00	1.799		ug/L		90	14 - 110
Fluoranthene	2.00	1.897		ug/L		95	24 - 110
Fluorene	2.00	1.635		ug/L		82	27 - 110
Indeno(1,2,3-cd)pyrene	2.00	1.835		ug/L		92	15 - 110
2-Methylnaphthalene	2.00	1.505		ug/L		75	19 - 110
Naphthalene	2.00	1.494		ug/L		75	24 - 110
Phenanthrene	2.00	1.698		ug/L		85	28 - 110
Pyrene	2.00	1.866		ug/L		93	26 - 110

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	82		21 - 110
Nitrobenzene-d5 (Surr)	75		15 - 110
Terphenyl-d14 (Surr)	102		13 - 110

Lab Sample ID: LCSD 310-334157/3-A
Matrix: Water
Analysis Batch: 334292

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 334157

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	2.00	1.317		ug/L		66	25 - 110	20	35
Acenaphthylene	2.00	1.290		ug/L		65	25 - 110	20	35
Anthracene	2.00	1.480		ug/L		74	26 - 110	17	35
Benzo(a)anthracene	2.00	1.540		ug/L		77	26 - 110	11	35
Benzo(a)pyrene	2.00	1.325		ug/L		66	20 - 110	16	35
Benzo(b)fluoranthene	2.00	1.556		ug/L		78	24 - 110	10	35
Benzo(g,h,i)perylene	2.00	1.706		ug/L		85	17 - 110	12	35
Benzo(k)fluoranthene	2.00	1.494		ug/L		75	26 - 110	11	35
Chrysene	2.00	1.611		ug/L		81	23 - 110	10	35
Dibenz(a,h)anthracene	2.00	1.568		ug/L		78	14 - 110	14	35
Fluoranthene	2.00	1.639		ug/L		82	24 - 110	15	35
Fluorene	2.00	1.404		ug/L		70	27 - 110	15	35
Indeno(1,2,3-cd)pyrene	2.00	1.623		ug/L		81	15 - 110	12	35
2-Methylnaphthalene	2.00	1.235		ug/L		62	19 - 110	20	35
Naphthalene	2.00	1.225		ug/L		61	24 - 110	20	35
Phenanthrene	2.00	1.450		ug/L		73	28 - 110	16	35
Pyrene	2.00	1.623		ug/L		81	26 - 110	14	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	70		21 - 110
Nitrobenzene-d5 (Surr)	62		15 - 110

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 310-334157/3-A
Matrix: Water
Analysis Batch: 334292

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 334157

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Terphenyl-d14 (Surr)	95		13 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-334151/1-A
Matrix: Water
Analysis Batch: 334739

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 334151

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.00200		0.00200		mg/L		11/04/21 09:00	11/08/21 13:29	1
Lead	<0.000500		0.000500		mg/L		11/04/21 09:00	11/08/21 13:29	1

Lab Sample ID: LCS 310-334151/2-A
Matrix: Water
Analysis Batch: 334739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 334151

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.200	0.2015		mg/L		101	80 - 120

QC Association Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

GC/MS VOA

Analysis Batch: 334268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-218647-1	MW-7-GW-1021	Total/NA	Water	8260D	
MB 310-334268/5	Method Blank	Total/NA	Water	8260D	
LCS 310-334268/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-334268/7	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 334157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-218647-1	MW-7-GW-1021	Total/NA	Water	3510C	
MB 310-334157/1-A	Method Blank	Total/NA	Water	3510C	
LCS 310-334157/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 310-334157/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 334292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-334157/1-A	Method Blank	Total/NA	Water	8270E SIM	334157
LCS 310-334157/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	334157
LCSD 310-334157/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	334157

Analysis Batch: 335004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-218647-1	MW-7-GW-1021	Total/NA	Water	8270E SIM	334157

Metals

Prep Batch: 334151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-218647-1	MW-7-GW-1021	Total/NA	Water	3005A	
MB 310-334151/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-334151/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 334739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-334151/1-A	Method Blank	Total/NA	Water	6020A	334151
LCS 310-334151/2-A	Lab Control Sample	Total/NA	Water	6020A	334151

Analysis Batch: 334795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-218647-1	MW-7-GW-1021	Total/NA	Water	6020A	334151

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

Client Sample ID: MW-7-GW-1021

Lab Sample ID: 310-218647-1

Date Collected: 10/29/21 11:15

Matrix: Water

Date Received: 10/30/21 17:38

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Analysis	8260D		1	334268	11/05/21 01:52	TCH	TAL CF
Total/NA	Prep	3510C			334157	11/03/21 13:39	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	335004	11/11/21 00:27	BKT	TAL CF
Total/NA	Prep	3005A			334151	11/04/21 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	334795	11/08/21 21:47	SAP	TAL CF

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

Laboratory: Eurofins TestAmerica, Cedar Falls

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Colorado	Petroleum Storage Tank Program	IA100001 (OR)	09-29-22
Georgia	State	IA100001 (OR)	09-29-22
Illinois	NELAP	200024	11-29-21
Iowa	State	007	12-01-21
Kansas	NELAP	E-10341	01-31-22
Minnesota	NELAP	019-999-319	12-31-21
Minnesota (Petrofund)	State	3349	04-06-23
North Dakota	State	R-186	09-29-21 *
Oregon	NELAP	IA100001	09-29-22
USDA	US Federal Programs	P330-19-00003	01-02-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-218647-1
SDG: 11156780

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL CF
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL CF
6020A	Metals (ICP/MS)	SW846	TAL CF
3005A	Preparation, Total Metals	SW846	TAL CF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CF
5030B	Purge and Trap	SW846	TAL CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401





Environment Testing
TestAmerica



310-218647 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client: <u>GHD</u>		
City/State: <u>Des Moines IA</u>	STATE: <u>IA</u>	Project:
Receipt Information		
Date/Time Received: DATE <u>10/29/2024</u> TIME <u>1738</u>	Received By: <u>TB</u>	
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # _____ of _____
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record		
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>R</u>	Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>4.8</u>	Corrected Temp (°C): <u>4.8</u>	
• Sample Container Temperature		
Container(s) used:	CONTAINER 1	CONTAINER 2
Uncorrected Temp (°C):		
Corrected Temp (°C):		
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No		
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No		
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		



Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 310-218647-1

SDG Number: 11156780

Login Number: 218647

List Source: Eurofins TestAmerica, Cedar Falls

List Number: 1

Creator: Kizer, Preston V

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Tel: (319)277-2401

Laboratory Job ID: 310-223515-1
Laboratory Sample Delivery Group: 11156780
Client Project/Site: Albia IPL FMGP

For:
GHD Services Inc.
11228 Aurora Avenue
Des Moines, Iowa 50322-7905

Attn: Kevin Armstrong



Authorized for release by:
1/25/2022 5:26:09 PM

Shawn Hayes, Senior Project Manager
(319)229-8211
Shawn.Hayes@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	4
Detection Summary	5
Client Sample Results	8
Definitions	33
Surrogate Summary	34
QC Sample Results	36
QC Association	52
Chronicle	55
Certification Summary	59
Method Summary	60
Chain of Custody	61
Receipt Checklists	65



Case Narrative

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Job ID: 310-223515-1

Laboratory: Eurofins Cedar Falls

Narrative

**Job Narrative
310-223515-1**

Comments

No additional comments.

Receipt

The samples were received on 1/14/2022 1:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.1° C and 4.0° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Sample Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-223515-1	MW-1-GW-0122	Ground Water	01/13/22 17:30	01/14/22 13:30
310-223515-2	MW-2-GW-0122	Ground Water	01/13/22 16:20	01/14/22 13:30
310-223515-3	MW-3-GW-0122	Ground Water	01/13/22 18:10	01/14/22 13:30
310-223515-4	MW-4-GW-0122	Ground Water	01/13/22 12:50	01/14/22 13:30
310-223515-5	MW-5-GW-0122	Ground Water	01/13/22 13:40	01/14/22 13:30
310-223515-6	MW-6-GW-0122	Ground Water	01/13/22 15:25	01/14/22 13:30
310-223515-7	MW-7-GW-0122	Ground Water	01/13/22 11:45	01/14/22 13:30
310-223515-8	MW-8R-GW-0122	Ground Water	01/13/22 10:30	01/14/22 13:30
310-223515-9	MW-9-GW-0122	Ground Water	01/13/22 14:40	01/14/22 13:30
310-223515-10	DUP1-GW-0122	Ground Water	01/13/22 00:00	01/14/22 13:30
310-223515-11	EB1-GW-0122	Ground Water	01/13/22 16:45	01/14/22 13:30
310-223515-12	Trip Blank	Water	01/13/22 00:00	01/14/22 13:30



Detection Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-1-GW-0122

Lab Sample ID: 310-223515-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	283		0.500		ug/L	1		8260D	Total/NA
Ethylbenzene	384		10.0		ug/L	10		8260D	Total/NA
Isopropylbenzene	4.62		1.00		ug/L	1		8260D	Total/NA
Naphthalene	38.3		5.00		ug/L	1		8260D	Total/NA
n-Propylbenzene	7.91		1.00		ug/L	1		8260D	Total/NA
Toluene	2.87		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	69.6		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	29.6		3.00		ug/L	1		8260D	Total/NA
Acenaphthene	17.6		0.200		ug/L	1		8270E SIM	Total/NA
Acenaphthylene	3.33		0.200		ug/L	1		8270E SIM	Total/NA
Anthracene	1.43		0.200		ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.924		0.200		ug/L	1		8270E SIM	Total/NA
Fluorene	13.9		0.200		ug/L	1		8270E SIM	Total/NA
Naphthalene	4.39		0.500		ug/L	1		8270E SIM	Total/NA
Phenanthrene	6.75		0.200		ug/L	1		8270E SIM	Total/NA
Pyrene	0.909		0.200		ug/L	1		8270E SIM	Total/NA
Arsenic	0.0166		0.00200		mg/L	1		6020A	Total/NA
Lead	0.000715		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW-2-GW-0122

Lab Sample ID: 310-223515-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	146		0.500		ug/L	1		8260D	Total/NA
1,2-Dichloroethane	3.61		1.00		ug/L	1		8260D	Total/NA
Ethylbenzene	27.6		1.00		ug/L	1		8260D	Total/NA
Isopropylbenzene	1.18		1.00		ug/L	1		8260D	Total/NA
Naphthalene	11.3		5.00		ug/L	1		8260D	Total/NA
Toluene	1.31		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	21.0		1.00		ug/L	1		8260D	Total/NA
1,3,5-Trimethylbenzene	1.62		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	24.8		3.00		ug/L	1		8260D	Total/NA
Acenaphthene	13.9		0.238		ug/L	1		8270E SIM	Total/NA
Acenaphthylene	9.58		0.238		ug/L	1		8270E SIM	Total/NA
Anthracene	0.808		0.238		ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.972		0.238		ug/L	1		8270E SIM	Total/NA
Fluorene	8.83		0.238		ug/L	1		8270E SIM	Total/NA
Naphthalene	0.909		0.595		ug/L	1		8270E SIM	Total/NA
Phenanthrene	2.90		0.238		ug/L	1		8270E SIM	Total/NA
Pyrene	1.05		0.238		ug/L	1		8270E SIM	Total/NA
Arsenic	0.0149		0.00200		mg/L	1		6020A	Total/NA

Client Sample ID: MW-3-GW-0122

Lab Sample ID: 310-223515-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	172		0.500		ug/L	1		8260D	Total/NA
Ethylbenzene	49.8		1.00		ug/L	1		8260D	Total/NA
Isopropylbenzene	4.76		1.00		ug/L	1		8260D	Total/NA
Naphthalene	74.3		5.00		ug/L	1		8260D	Total/NA
n-Butylbenzene	1.04		1.00		ug/L	1		8260D	Total/NA
n-Propylbenzene	1.23		1.00		ug/L	1		8260D	Total/NA
Toluene	2.50		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	42.7		1.00		ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-3-GW-0122 (Continued)

Lab Sample ID: 310-223515-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	2.95		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	48.8		3.00		ug/L	1		8260D	Total/NA
Acenaphthene	18.3		0.200		ug/L	1		8270E SIM	Total/NA
Acenaphthylene	70.4		2.00		ug/L	10		8270E SIM	Total/NA
Anthracene	1.56		0.200		ug/L	1		8270E SIM	Total/NA
Fluoranthene	1.03		0.200		ug/L	1		8270E SIM	Total/NA
Fluorene	8.64		0.200		ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	0.273		0.200		ug/L	1		8270E SIM	Total/NA
Naphthalene	14.0		0.500		ug/L	1		8270E SIM	Total/NA
Phenanthrene	15.0		0.200		ug/L	1		8270E SIM	Total/NA
Pyrene	0.959		0.200		ug/L	1		8270E SIM	Total/NA
Arsenic	0.0111		0.00200		mg/L	1		6020A	Total/NA
Lead	0.000558		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW-4-GW-0122

Lab Sample ID: 310-223515-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00537		0.00200		mg/L	1		6020A	Total/NA
Lead	0.000799		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW-5-GW-0122

Lab Sample ID: 310-223515-5

No Detections.

Client Sample ID: MW-6-GW-0122

Lab Sample ID: 310-223515-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	20.9		0.500		ug/L	1		8260D	Total/NA
Ethylbenzene	6.54		1.00		ug/L	1		8260D	Total/NA
Naphthalene	27.6		5.00		ug/L	1		8260D	Total/NA
Toluene	1.25		1.00		ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	15.2		1.00		ug/L	1		8260D	Total/NA
1,3,5-Trimethylbenzene	1.15		1.00		ug/L	1		8260D	Total/NA
Xylenes, Total	19.3		3.00		ug/L	1		8260D	Total/NA
Acenaphthene	3.02		0.208		ug/L	1		8270E SIM	Total/NA
Acenaphthylene	4.90		0.208		ug/L	1		8270E SIM	Total/NA
Anthracene	0.740		0.208		ug/L	1		8270E SIM	Total/NA
Fluoranthene	1.28		0.208		ug/L	1		8270E SIM	Total/NA
Fluorene	2.82		0.208		ug/L	1		8270E SIM	Total/NA
Naphthalene	0.933		0.521		ug/L	1		8270E SIM	Total/NA
Phenanthrene	5.40		0.208		ug/L	1		8270E SIM	Total/NA
Pyrene	1.34		0.208		ug/L	1		8270E SIM	Total/NA
Arsenic	0.0266		0.00200		mg/L	1		6020A	Total/NA
Lead	0.000650		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW-7-GW-0122

Lab Sample ID: 310-223515-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.000819		0.000500		mg/L	1		6020A	Total/NA

Client Sample ID: MW-8R-GW-0122

Lab Sample ID: 310-223515-8

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-9-GW-0122

Lab Sample ID: 310-223515-9

No Detections.

Client Sample ID: DUP1-GW-0122

Lab Sample ID: 310-223515-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzene	173		0.500		ug/L		1		8260D	Total/NA
Ethylbenzene	49.8		1.00		ug/L		1		8260D	Total/NA
Isopropylbenzene	4.74		1.00		ug/L		1		8260D	Total/NA
Naphthalene	70.1		5.00		ug/L		1		8260D	Total/NA
n-Propylbenzene	1.27		1.00		ug/L		1		8260D	Total/NA
Toluene	2.39		1.00		ug/L		1		8260D	Total/NA
1,2,4-Trimethylbenzene	41.3		1.00		ug/L		1		8260D	Total/NA
1,3,5-Trimethylbenzene	2.81		1.00		ug/L		1		8260D	Total/NA
Xylenes, Total	47.4		3.00		ug/L		1		8260D	Total/NA
Acenaphthene	20.9		0.200		ug/L		1		8270E SIM	Total/NA
Acenaphthylene	96.1		2.00		ug/L		10		8270E SIM	Total/NA
Anthracene	1.49		0.200		ug/L		1		8270E SIM	Total/NA
Fluoranthene	1.05		0.200		ug/L		1		8270E SIM	Total/NA
Fluorene	9.23		0.200		ug/L		1		8270E SIM	Total/NA
2-Methylnaphthalene	0.266		0.200		ug/L		1		8270E SIM	Total/NA
Naphthalene	15.7		0.500		ug/L		1		8270E SIM	Total/NA
Phenanthrene	16.3		0.200		ug/L		1		8270E SIM	Total/NA
Pyrene	1.03		0.200		ug/L		1		8270E SIM	Total/NA
Arsenic	0.00690		0.00200		mg/L		1		6020A	Total/NA
Lead	0.000592		0.000500		mg/L		1		6020A	Total/NA

Client Sample ID: EB1-GW-0122

Lab Sample ID: 310-223515-11

No Detections.

Client Sample ID: Trip Blank

Lab Sample ID: 310-223515-12

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-1-GW-0122

Lab Sample ID: 310-223515-1

Date Collected: 01/13/22 17:30

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			01/18/22 17:11	1
Benzene	283		0.500		ug/L			01/18/22 17:11	1
Bromobenzene	<1.00		1.00		ug/L			01/18/22 17:11	1
Bromochloromethane	<5.00		5.00		ug/L			01/18/22 17:11	1
Bromodichloromethane	<1.00		1.00		ug/L			01/18/22 17:11	1
Bromoform	<5.00		5.00		ug/L			01/18/22 17:11	1
Bromomethane	<4.00		4.00		ug/L			01/18/22 17:11	1
2-Butanone (MEK)	<10.0		10.0		ug/L			01/18/22 17:11	1
Carbon disulfide	<1.00		1.00		ug/L			01/18/22 17:11	1
Carbon tetrachloride	<2.00		2.00		ug/L			01/18/22 17:11	1
Chlorobenzene	<1.00		1.00		ug/L			01/18/22 17:11	1
Chlorodibromomethane	<5.00		5.00		ug/L			01/18/22 17:11	1
Chloroethane	<4.00		4.00		ug/L			01/18/22 17:11	1
Chloroform	<3.00		3.00		ug/L			01/18/22 17:11	1
Chloromethane	<3.00		3.00		ug/L			01/18/22 17:11	1
2-Chlorotoluene	<1.00		1.00		ug/L			01/18/22 17:11	1
4-Chlorotoluene	<1.00		1.00		ug/L			01/18/22 17:11	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			01/18/22 17:11	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			01/18/22 17:11	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			01/18/22 17:11	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			01/18/22 17:11	1
Dibromomethane	<1.00		1.00		ug/L			01/18/22 17:11	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			01/18/22 17:11	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			01/18/22 17:11	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			01/18/22 17:11	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			01/18/22 17:11	1
1,1-Dichloroethane	<1.00		1.00		ug/L			01/18/22 17:11	1
1,2-Dichloroethane	<1.00		1.00		ug/L			01/18/22 17:11	1
1,1-Dichloroethene	<2.00		2.00		ug/L			01/18/22 17:11	1
1,2-Dichloropropane	<1.00		1.00		ug/L			01/18/22 17:11	1
1,3-Dichloropropane	<1.00		1.00		ug/L			01/18/22 17:11	1
2,2-Dichloropropane	<4.00		4.00		ug/L			01/18/22 17:11	1
1,1-Dichloropropene	<1.00		1.00		ug/L			01/18/22 17:11	1
Ethylbenzene	384		10.0		ug/L			01/20/22 20:31	10
Hexachlorobutadiene	<5.00		5.00		ug/L			01/18/22 17:11	1
Hexane	<1.00		1.00		ug/L			01/18/22 17:11	1
Isopropylbenzene	4.62		1.00		ug/L			01/18/22 17:11	1
Methylene chloride	<5.00		5.00		ug/L			01/18/22 17:11	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			01/18/22 17:11	1
Naphthalene	38.3		5.00		ug/L			01/18/22 17:11	1
n-Butylbenzene	<1.00		1.00		ug/L			01/18/22 17:11	1
n-Propylbenzene	7.91		1.00		ug/L			01/18/22 17:11	1
p-Isopropyltoluene	<1.00		1.00		ug/L			01/18/22 17:11	1
sec-Butylbenzene	<1.00		1.00		ug/L			01/18/22 17:11	1
Styrene	<1.00		1.00		ug/L			01/18/22 17:11	1
tert-Butylbenzene	<1.00		1.00		ug/L			01/18/22 17:11	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			01/18/22 17:11	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			01/18/22 17:11	1
Tetrachloroethene	<1.00		1.00		ug/L			01/18/22 17:11	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-1-GW-0122

Lab Sample ID: 310-223515-1

Date Collected: 01/13/22 17:30

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	2.87		1.00		ug/L			01/18/22 17:11	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			01/18/22 17:11	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			01/18/22 17:11	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			01/18/22 17:11	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			01/18/22 17:11	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			01/18/22 17:11	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			01/18/22 17:11	1
Trichloroethene	<1.00		1.00		ug/L			01/18/22 17:11	1
Trichlorofluoromethane	<4.00		4.00		ug/L			01/18/22 17:11	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			01/18/22 17:11	1
1,2,4-Trimethylbenzene	69.6		1.00		ug/L			01/18/22 17:11	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			01/18/22 17:11	1
Vinyl chloride	<1.00		1.00		ug/L			01/18/22 17:11	1
Xylenes, Total	29.6		3.00		ug/L			01/18/22 17:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120		01/18/22 17:11	1
4-Bromofluorobenzene (Surr)	94		80 - 120		01/20/22 20:31	10
Dibromofluoromethane (Surr)	93		79 - 120		01/18/22 17:11	1
Dibromofluoromethane (Surr)	94		79 - 120		01/20/22 20:31	10
Toluene-d8 (Surr)	101		79 - 120		01/18/22 17:11	1
Toluene-d8 (Surr)	100		79 - 120		01/20/22 20:31	10

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	17.6		0.200		ug/L		01/19/22 11:41	01/20/22 19:22	1
Acenaphthylene	3.33		0.200		ug/L		01/19/22 11:41	01/20/22 19:22	1
Anthracene	1.43		0.200		ug/L		01/19/22 11:41	01/20/22 19:22	1
Benzo(a)anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 19:22	1
Benzo(a)pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 19:22	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 19:22	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 19:22	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 19:22	1
Chrysene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 19:22	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 19:22	1
Fluoranthene	0.924		0.200		ug/L		01/19/22 11:41	01/20/22 19:22	1
Fluorene	13.9		0.200		ug/L		01/19/22 11:41	01/20/22 19:22	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 19:22	1
2-Methylnaphthalene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 19:22	1
Naphthalene	4.39		0.500		ug/L		01/19/22 11:41	01/20/22 19:22	1
Phenanthrene	6.75		0.200		ug/L		01/19/22 11:41	01/20/22 19:22	1
Pyrene	0.909		0.200		ug/L		01/19/22 11:41	01/20/22 19:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		21 - 110	01/19/22 11:41	01/20/22 19:22	1
Nitrobenzene-d5 (Surr)	73		15 - 110	01/19/22 11:41	01/20/22 19:22	1
Terphenyl-d14 (Surr)	97		13 - 110	01/19/22 11:41	01/20/22 19:22	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
 Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
 SDG: 11156780

Client Sample ID: MW-1-GW-0122

Lab Sample ID: 310-223515-1

Date Collected: 01/13/22 17:30

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0166		0.00200		mg/L		01/18/22 09:00	01/20/22 00:04	1
Lead	0.000715		0.000500		mg/L		01/18/22 09:00	01/21/22 17:44	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-2-GW-0122

Lab Sample ID: 310-223515-2

Date Collected: 01/13/22 16:20

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			01/18/22 16:48	1
Benzene	146		0.500		ug/L			01/18/22 16:48	1
Bromobenzene	<1.00		1.00		ug/L			01/18/22 16:48	1
Bromochloromethane	<5.00		5.00		ug/L			01/18/22 16:48	1
Bromodichloromethane	<1.00		1.00		ug/L			01/18/22 16:48	1
Bromoform	<5.00		5.00		ug/L			01/18/22 16:48	1
Bromomethane	<4.00		4.00		ug/L			01/18/22 16:48	1
2-Butanone (MEK)	<10.0		10.0		ug/L			01/18/22 16:48	1
Carbon disulfide	<1.00		1.00		ug/L			01/18/22 16:48	1
Carbon tetrachloride	<2.00		2.00		ug/L			01/18/22 16:48	1
Chlorobenzene	<1.00		1.00		ug/L			01/18/22 16:48	1
Chlorodibromomethane	<5.00		5.00		ug/L			01/18/22 16:48	1
Chloroethane	<4.00		4.00		ug/L			01/18/22 16:48	1
Chloroform	<3.00		3.00		ug/L			01/18/22 16:48	1
Chloromethane	<3.00		3.00		ug/L			01/18/22 16:48	1
2-Chlorotoluene	<1.00		1.00		ug/L			01/18/22 16:48	1
4-Chlorotoluene	<1.00		1.00		ug/L			01/18/22 16:48	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			01/18/22 16:48	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			01/18/22 16:48	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			01/18/22 16:48	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			01/18/22 16:48	1
Dibromomethane	<1.00		1.00		ug/L			01/18/22 16:48	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			01/18/22 16:48	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			01/18/22 16:48	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			01/18/22 16:48	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			01/18/22 16:48	1
1,1-Dichloroethane	<1.00		1.00		ug/L			01/18/22 16:48	1
1,2-Dichloroethane	3.61		1.00		ug/L			01/18/22 16:48	1
1,1-Dichloroethene	<2.00		2.00		ug/L			01/18/22 16:48	1
1,2-Dichloropropane	<1.00		1.00		ug/L			01/18/22 16:48	1
1,3-Dichloropropane	<1.00		1.00		ug/L			01/18/22 16:48	1
2,2-Dichloropropane	<4.00		4.00		ug/L			01/18/22 16:48	1
1,1-Dichloropropene	<1.00		1.00		ug/L			01/18/22 16:48	1
Ethylbenzene	27.6		1.00		ug/L			01/18/22 16:48	1
Hexachlorobutadiene	<5.00		5.00		ug/L			01/18/22 16:48	1
Hexane	<1.00		1.00		ug/L			01/18/22 16:48	1
Isopropylbenzene	1.18		1.00		ug/L			01/18/22 16:48	1
Methylene chloride	<5.00		5.00		ug/L			01/18/22 16:48	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			01/18/22 16:48	1
Naphthalene	11.3		5.00		ug/L			01/18/22 16:48	1
n-Butylbenzene	<1.00		1.00		ug/L			01/18/22 16:48	1
n-Propylbenzene	<1.00		1.00		ug/L			01/18/22 16:48	1
p-Isopropyltoluene	<1.00		1.00		ug/L			01/18/22 16:48	1
sec-Butylbenzene	<1.00		1.00		ug/L			01/18/22 16:48	1
Styrene	<1.00		1.00		ug/L			01/18/22 16:48	1
tert-Butylbenzene	<1.00		1.00		ug/L			01/18/22 16:48	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			01/18/22 16:48	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			01/18/22 16:48	1
Tetrachloroethene	<1.00		1.00		ug/L			01/18/22 16:48	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-2-GW-0122

Lab Sample ID: 310-223515-2

Date Collected: 01/13/22 16:20

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	1.31		1.00		ug/L			01/18/22 16:48	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			01/18/22 16:48	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			01/18/22 16:48	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			01/18/22 16:48	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			01/18/22 16:48	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			01/18/22 16:48	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			01/18/22 16:48	1
Trichloroethene	<1.00		1.00		ug/L			01/18/22 16:48	1
Trichlorofluoromethane	<4.00		4.00		ug/L			01/18/22 16:48	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			01/18/22 16:48	1
1,2,4-Trimethylbenzene	21.0		1.00		ug/L			01/18/22 16:48	1
1,3,5-Trimethylbenzene	1.62		1.00		ug/L			01/18/22 16:48	1
Vinyl chloride	<1.00		1.00		ug/L			01/18/22 16:48	1
Xylenes, Total	24.8		3.00		ug/L			01/18/22 16:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		80 - 120					01/18/22 16:48	1
Dibromofluoromethane (Surr)	96		79 - 120					01/18/22 16:48	1
Toluene-d8 (Surr)	98		79 - 120					01/18/22 16:48	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	13.9		0.238		ug/L		01/19/22 11:41	01/20/22 19:41	1
Acenaphthylene	9.58		0.238		ug/L		01/19/22 11:41	01/20/22 19:41	1
Anthracene	0.808		0.238		ug/L		01/19/22 11:41	01/20/22 19:41	1
Benzo(a)anthracene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 19:41	1
Benzo(a)pyrene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 19:41	1
Benzo(b)fluoranthene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 19:41	1
Benzo(g,h,i)perylene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 19:41	1
Benzo(k)fluoranthene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 19:41	1
Chrysene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 19:41	1
Dibenz(a,h)anthracene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 19:41	1
Fluoranthene	0.972		0.238		ug/L		01/19/22 11:41	01/20/22 19:41	1
Fluorene	8.83		0.238		ug/L		01/19/22 11:41	01/20/22 19:41	1
Indeno(1,2,3-cd)pyrene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 19:41	1
2-Methylnaphthalene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 19:41	1
Naphthalene	0.909		0.595		ug/L		01/19/22 11:41	01/20/22 19:41	1
Phenanthrene	2.90		0.238		ug/L		01/19/22 11:41	01/20/22 19:41	1
Pyrene	1.05		0.238		ug/L		01/19/22 11:41	01/20/22 19:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		21 - 110				01/19/22 11:41	01/20/22 19:41	1
Nitrobenzene-d5 (Surr)	75		15 - 110				01/19/22 11:41	01/20/22 19:41	1
Terphenyl-d14 (Surr)	93		13 - 110				01/19/22 11:41	01/20/22 19:41	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0149		0.00200		mg/L		01/18/22 09:00	01/20/22 00:07	1
Lead	<0.000500		0.000500		mg/L		01/18/22 09:00	01/20/22 00:07	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-3-GW-0122

Lab Sample ID: 310-223515-3

Date Collected: 01/13/22 18:10

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			01/19/22 00:48	1
Benzene	172		0.500		ug/L			01/19/22 00:48	1
Bromobenzene	<1.00		1.00		ug/L			01/19/22 00:48	1
Bromochloromethane	<5.00		5.00		ug/L			01/19/22 00:48	1
Bromodichloromethane	<1.00		1.00		ug/L			01/19/22 00:48	1
Bromoform	<5.00		5.00		ug/L			01/19/22 00:48	1
Bromomethane	<4.00		4.00		ug/L			01/19/22 00:48	1
2-Butanone (MEK)	<10.0		10.0		ug/L			01/19/22 00:48	1
Carbon disulfide	<1.00		1.00		ug/L			01/19/22 00:48	1
Carbon tetrachloride	<2.00		2.00		ug/L			01/19/22 00:48	1
Chlorobenzene	<1.00		1.00		ug/L			01/19/22 00:48	1
Chlorodibromomethane	<5.00		5.00		ug/L			01/19/22 00:48	1
Chloroethane	<4.00		4.00		ug/L			01/19/22 00:48	1
Chloroform	<3.00		3.00		ug/L			01/19/22 00:48	1
Chloromethane	<3.00		3.00		ug/L			01/19/22 00:48	1
2-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 00:48	1
4-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 00:48	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 00:48	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 00:48	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			01/19/22 00:48	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			01/19/22 00:48	1
Dibromomethane	<1.00		1.00		ug/L			01/19/22 00:48	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 00:48	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 00:48	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 00:48	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			01/19/22 00:48	1
1,1-Dichloroethane	<1.00		1.00		ug/L			01/19/22 00:48	1
1,2-Dichloroethane	<1.00		1.00		ug/L			01/19/22 00:48	1
1,1-Dichloroethene	<2.00		2.00		ug/L			01/19/22 00:48	1
1,2-Dichloropropane	<1.00		1.00		ug/L			01/19/22 00:48	1
1,3-Dichloropropane	<1.00		1.00		ug/L			01/19/22 00:48	1
2,2-Dichloropropane	<4.00		4.00		ug/L			01/19/22 00:48	1
1,1-Dichloropropene	<1.00		1.00		ug/L			01/19/22 00:48	1
Ethylbenzene	49.8		1.00		ug/L			01/19/22 00:48	1
Hexachlorobutadiene	<5.00		5.00		ug/L			01/19/22 00:48	1
Hexane	<1.00		1.00		ug/L			01/19/22 00:48	1
Isopropylbenzene	4.76		1.00		ug/L			01/19/22 00:48	1
Methylene chloride	<5.00		5.00		ug/L			01/19/22 00:48	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			01/19/22 00:48	1
Naphthalene	74.3		5.00		ug/L			01/19/22 00:48	1
n-Butylbenzene	1.04		1.00		ug/L			01/19/22 00:48	1
n-Propylbenzene	1.23		1.00		ug/L			01/19/22 00:48	1
p-Isopropyltoluene	<1.00		1.00		ug/L			01/19/22 00:48	1
sec-Butylbenzene	<1.00		1.00		ug/L			01/19/22 00:48	1
Styrene	<1.00		1.00		ug/L			01/19/22 00:48	1
tert-Butylbenzene	<1.00		1.00		ug/L			01/19/22 00:48	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 00:48	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 00:48	1
Tetrachloroethene	<1.00		1.00		ug/L			01/19/22 00:48	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-3-GW-0122

Lab Sample ID: 310-223515-3

Date Collected: 01/13/22 18:10

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	2.50		1.00		ug/L			01/19/22 00:48	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 00:48	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 00:48	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 00:48	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 00:48	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			01/19/22 00:48	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			01/19/22 00:48	1
Trichloroethene	<1.00		1.00		ug/L			01/19/22 00:48	1
Trichlorofluoromethane	<4.00		4.00		ug/L			01/19/22 00:48	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			01/19/22 00:48	1
1,2,4-Trimethylbenzene	42.7		1.00		ug/L			01/19/22 00:48	1
1,3,5-Trimethylbenzene	2.95		1.00		ug/L			01/19/22 00:48	1
Vinyl chloride	<1.00		1.00		ug/L			01/19/22 00:48	1
Xylenes, Total	48.8		3.00		ug/L			01/19/22 00:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120					01/19/22 00:48	1
Dibromofluoromethane (Surr)	94		79 - 120					01/19/22 00:48	1
Toluene-d8 (Surr)	101		79 - 120					01/19/22 00:48	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	18.3		0.200		ug/L		01/19/22 11:41	01/20/22 20:00	1
Acenaphthylene	70.4		2.00		ug/L		01/19/22 11:41	01/21/22 17:31	10
Anthracene	1.56		0.200		ug/L		01/19/22 11:41	01/20/22 20:00	1
Benzo(a)anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:00	1
Benzo(a)pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:00	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:00	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:00	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:00	1
Chrysene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:00	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:00	1
Fluoranthene	1.03		0.200		ug/L		01/19/22 11:41	01/20/22 20:00	1
Fluorene	8.64		0.200		ug/L		01/19/22 11:41	01/20/22 20:00	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:00	1
2-Methylnaphthalene	0.273		0.200		ug/L		01/19/22 11:41	01/20/22 20:00	1
Naphthalene	14.0		0.500		ug/L		01/19/22 11:41	01/20/22 20:00	1
Phenanthrene	15.0		0.200		ug/L		01/19/22 11:41	01/20/22 20:00	1
Pyrene	0.959		0.200		ug/L		01/19/22 11:41	01/20/22 20:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	64		21 - 110				01/19/22 11:41	01/20/22 20:00	1
Nitrobenzene-d5 (Surr)	73		15 - 110				01/19/22 11:41	01/20/22 20:00	1
Terphenyl-d14 (Surr)	88		13 - 110				01/19/22 11:41	01/20/22 20:00	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0111		0.00200		mg/L		01/18/22 09:00	01/20/22 00:35	1
Lead	0.000558		0.000500		mg/L		01/18/22 09:00	01/21/22 17:47	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-4-GW-0122

Lab Sample ID: 310-223515-4

Date Collected: 01/13/22 12:50

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			01/19/22 01:11	1
Benzene	<0.500		0.500		ug/L			01/19/22 01:11	1
Bromobenzene	<1.00		1.00		ug/L			01/19/22 01:11	1
Bromochloromethane	<5.00		5.00		ug/L			01/19/22 01:11	1
Bromodichloromethane	<1.00		1.00		ug/L			01/19/22 01:11	1
Bromoform	<5.00		5.00		ug/L			01/19/22 01:11	1
Bromomethane	<4.00		4.00		ug/L			01/19/22 01:11	1
2-Butanone (MEK)	<10.0		10.0		ug/L			01/19/22 01:11	1
Carbon disulfide	<1.00		1.00		ug/L			01/19/22 01:11	1
Carbon tetrachloride	<2.00		2.00		ug/L			01/19/22 01:11	1
Chlorobenzene	<1.00		1.00		ug/L			01/19/22 01:11	1
Chlorodibromomethane	<5.00		5.00		ug/L			01/19/22 01:11	1
Chloroethane	<4.00		4.00		ug/L			01/19/22 01:11	1
Chloroform	<3.00		3.00		ug/L			01/19/22 01:11	1
Chloromethane	<3.00		3.00		ug/L			01/19/22 01:11	1
2-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 01:11	1
4-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 01:11	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 01:11	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 01:11	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			01/19/22 01:11	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			01/19/22 01:11	1
Dibromomethane	<1.00		1.00		ug/L			01/19/22 01:11	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 01:11	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 01:11	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 01:11	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			01/19/22 01:11	1
1,1-Dichloroethane	<1.00		1.00		ug/L			01/19/22 01:11	1
1,2-Dichloroethane	<1.00		1.00		ug/L			01/19/22 01:11	1
1,1-Dichloroethene	<2.00		2.00		ug/L			01/19/22 01:11	1
1,2-Dichloropropane	<1.00		1.00		ug/L			01/19/22 01:11	1
1,3-Dichloropropane	<1.00		1.00		ug/L			01/19/22 01:11	1
2,2-Dichloropropane	<4.00		4.00		ug/L			01/19/22 01:11	1
1,1-Dichloropropene	<1.00		1.00		ug/L			01/19/22 01:11	1
Ethylbenzene	<1.00		1.00		ug/L			01/19/22 01:11	1
Hexachlorobutadiene	<5.00		5.00		ug/L			01/19/22 01:11	1
Hexane	<1.00		1.00		ug/L			01/19/22 01:11	1
Isopropylbenzene	<1.00		1.00		ug/L			01/19/22 01:11	1
Methylene chloride	<5.00		5.00		ug/L			01/19/22 01:11	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			01/19/22 01:11	1
Naphthalene	<5.00		5.00		ug/L			01/19/22 01:11	1
n-Butylbenzene	<1.00		1.00		ug/L			01/19/22 01:11	1
n-Propylbenzene	<1.00		1.00		ug/L			01/19/22 01:11	1
p-Isopropyltoluene	<1.00		1.00		ug/L			01/19/22 01:11	1
sec-Butylbenzene	<1.00		1.00		ug/L			01/19/22 01:11	1
Styrene	<1.00		1.00		ug/L			01/19/22 01:11	1
tert-Butylbenzene	<1.00		1.00		ug/L			01/19/22 01:11	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 01:11	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 01:11	1
Tetrachloroethene	<1.00		1.00		ug/L			01/19/22 01:11	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-4-GW-0122

Lab Sample ID: 310-223515-4

Date Collected: 01/13/22 12:50

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			01/19/22 01:11	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 01:11	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 01:11	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 01:11	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 01:11	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			01/19/22 01:11	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			01/19/22 01:11	1
Trichloroethene	<1.00		1.00		ug/L			01/19/22 01:11	1
Trichlorofluoromethane	<4.00		4.00		ug/L			01/19/22 01:11	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			01/19/22 01:11	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			01/19/22 01:11	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			01/19/22 01:11	1
Vinyl chloride	<1.00		1.00		ug/L			01/19/22 01:11	1
Xylenes, Total	<3.00		3.00		ug/L			01/19/22 01:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120					01/19/22 01:11	1
Dibromofluoromethane (Surr)	96		79 - 120					01/19/22 01:11	1
Toluene-d8 (Surr)	101		79 - 120					01/19/22 01:11	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:19	1
Acenaphthylene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:19	1
Anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:19	1
Benzo(a)anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:19	1
Benzo(a)pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:19	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:19	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:19	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:19	1
Chrysene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:19	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:19	1
Fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:19	1
Fluorene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:19	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:19	1
2-Methylnaphthalene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:19	1
Naphthalene	<0.500		0.500		ug/L		01/19/22 11:41	01/20/22 20:19	1
Phenanthrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:19	1
Pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 20:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	60		21 - 110				01/19/22 11:41	01/20/22 20:19	1
Nitrobenzene-d5 (Surr)	70		15 - 110				01/19/22 11:41	01/20/22 20:19	1
Terphenyl-d14 (Surr)	82		13 - 110				01/19/22 11:41	01/20/22 20:19	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00537		0.00200		mg/L		01/18/22 09:00	01/20/22 00:38	1
Lead	0.000799		0.000500		mg/L		01/18/22 09:00	01/21/22 17:50	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-5-GW-0122

Lab Sample ID: 310-223515-5

Date Collected: 01/13/22 13:40

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			01/19/22 01:34	1
Benzene	<0.500		0.500		ug/L			01/19/22 01:34	1
Bromobenzene	<1.00		1.00		ug/L			01/19/22 01:34	1
Bromochloromethane	<5.00		5.00		ug/L			01/19/22 01:34	1
Bromodichloromethane	<1.00		1.00		ug/L			01/19/22 01:34	1
Bromoform	<5.00		5.00		ug/L			01/19/22 01:34	1
Bromomethane	<4.00		4.00		ug/L			01/19/22 01:34	1
2-Butanone (MEK)	<10.0		10.0		ug/L			01/19/22 01:34	1
Carbon disulfide	<1.00		1.00		ug/L			01/19/22 01:34	1
Carbon tetrachloride	<2.00		2.00		ug/L			01/19/22 01:34	1
Chlorobenzene	<1.00		1.00		ug/L			01/19/22 01:34	1
Chlorodibromomethane	<5.00		5.00		ug/L			01/19/22 01:34	1
Chloroethane	<4.00		4.00		ug/L			01/19/22 01:34	1
Chloroform	<3.00		3.00		ug/L			01/19/22 01:34	1
Chloromethane	<3.00		3.00		ug/L			01/19/22 01:34	1
2-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 01:34	1
4-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 01:34	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 01:34	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 01:34	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			01/19/22 01:34	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			01/19/22 01:34	1
Dibromomethane	<1.00		1.00		ug/L			01/19/22 01:34	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 01:34	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 01:34	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 01:34	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			01/19/22 01:34	1
1,1-Dichloroethane	<1.00		1.00		ug/L			01/19/22 01:34	1
1,2-Dichloroethane	<1.00		1.00		ug/L			01/19/22 01:34	1
1,1-Dichloroethene	<2.00		2.00		ug/L			01/19/22 01:34	1
1,2-Dichloropropane	<1.00		1.00		ug/L			01/19/22 01:34	1
1,3-Dichloropropane	<1.00		1.00		ug/L			01/19/22 01:34	1
2,2-Dichloropropane	<4.00		4.00		ug/L			01/19/22 01:34	1
1,1-Dichloropropene	<1.00		1.00		ug/L			01/19/22 01:34	1
Ethylbenzene	<1.00		1.00		ug/L			01/19/22 01:34	1
Hexachlorobutadiene	<5.00		5.00		ug/L			01/19/22 01:34	1
Hexane	<1.00		1.00		ug/L			01/19/22 01:34	1
Isopropylbenzene	<1.00		1.00		ug/L			01/19/22 01:34	1
Methylene chloride	<5.00		5.00		ug/L			01/19/22 01:34	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			01/19/22 01:34	1
Naphthalene	<5.00		5.00		ug/L			01/19/22 01:34	1
n-Butylbenzene	<1.00		1.00		ug/L			01/19/22 01:34	1
n-Propylbenzene	<1.00		1.00		ug/L			01/19/22 01:34	1
p-Isopropyltoluene	<1.00		1.00		ug/L			01/19/22 01:34	1
sec-Butylbenzene	<1.00		1.00		ug/L			01/19/22 01:34	1
Styrene	<1.00		1.00		ug/L			01/19/22 01:34	1
tert-Butylbenzene	<1.00		1.00		ug/L			01/19/22 01:34	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 01:34	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 01:34	1
Tetrachloroethene	<1.00		1.00		ug/L			01/19/22 01:34	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-5-GW-0122

Lab Sample ID: 310-223515-5

Date Collected: 01/13/22 13:40

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			01/19/22 01:34	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 01:34	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 01:34	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 01:34	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 01:34	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			01/19/22 01:34	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			01/19/22 01:34	1
Trichloroethene	<1.00		1.00		ug/L			01/19/22 01:34	1
Trichlorofluoromethane	<4.00		4.00		ug/L			01/19/22 01:34	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			01/19/22 01:34	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			01/19/22 01:34	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			01/19/22 01:34	1
Vinyl chloride	<1.00		1.00		ug/L			01/19/22 01:34	1
Xylenes, Total	<3.00		3.00		ug/L			01/19/22 01:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120					01/19/22 01:34	1
Dibromofluoromethane (Surr)	96		79 - 120					01/19/22 01:34	1
Toluene-d8 (Surr)	99		79 - 120					01/19/22 01:34	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.227		0.227		ug/L		01/19/22 11:41	01/20/22 20:38	1
Acenaphthylene	<0.227		0.227		ug/L		01/19/22 11:41	01/20/22 20:38	1
Anthracene	<0.227		0.227		ug/L		01/19/22 11:41	01/20/22 20:38	1
Benzo(a)anthracene	<0.227		0.227		ug/L		01/19/22 11:41	01/20/22 20:38	1
Benzo(a)pyrene	<0.227		0.227		ug/L		01/19/22 11:41	01/20/22 20:38	1
Benzo(b)fluoranthene	<0.227		0.227		ug/L		01/19/22 11:41	01/20/22 20:38	1
Benzo(g,h,i)perylene	<0.227		0.227		ug/L		01/19/22 11:41	01/20/22 20:38	1
Benzo(k)fluoranthene	<0.227		0.227		ug/L		01/19/22 11:41	01/20/22 20:38	1
Chrysene	<0.227		0.227		ug/L		01/19/22 11:41	01/20/22 20:38	1
Dibenz(a,h)anthracene	<0.227		0.227		ug/L		01/19/22 11:41	01/20/22 20:38	1
Fluoranthene	<0.227		0.227		ug/L		01/19/22 11:41	01/20/22 20:38	1
Fluorene	<0.227		0.227		ug/L		01/19/22 11:41	01/20/22 20:38	1
Indeno(1,2,3-cd)pyrene	<0.227		0.227		ug/L		01/19/22 11:41	01/20/22 20:38	1
2-Methylnaphthalene	<0.227		0.227		ug/L		01/19/22 11:41	01/20/22 20:38	1
Naphthalene	<0.568		0.568		ug/L		01/19/22 11:41	01/20/22 20:38	1
Phenanthrene	<0.227		0.227		ug/L		01/19/22 11:41	01/20/22 20:38	1
Pyrene	<0.227		0.227		ug/L		01/19/22 11:41	01/20/22 20:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		21 - 110				01/19/22 11:41	01/20/22 20:38	1
Nitrobenzene-d5 (Surr)	73		15 - 110				01/19/22 11:41	01/20/22 20:38	1
Terphenyl-d14 (Surr)	86		13 - 110				01/19/22 11:41	01/20/22 20:38	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		01/18/22 09:00	01/20/22 00:41	1
Lead	<0.000500		0.000500		mg/L		01/18/22 09:00	01/20/22 00:41	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-6-GW-0122

Lab Sample ID: 310-223515-6

Date Collected: 01/13/22 15:25

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			01/19/22 01:57	1
Benzene	20.9		0.500		ug/L			01/19/22 01:57	1
Bromobenzene	<1.00		1.00		ug/L			01/19/22 01:57	1
Bromochloromethane	<5.00		5.00		ug/L			01/19/22 01:57	1
Bromodichloromethane	<1.00		1.00		ug/L			01/19/22 01:57	1
Bromoform	<5.00		5.00		ug/L			01/19/22 01:57	1
Bromomethane	<4.00		4.00		ug/L			01/19/22 01:57	1
2-Butanone (MEK)	<10.0		10.0		ug/L			01/19/22 01:57	1
Carbon disulfide	<1.00		1.00		ug/L			01/19/22 01:57	1
Carbon tetrachloride	<2.00		2.00		ug/L			01/19/22 01:57	1
Chlorobenzene	<1.00		1.00		ug/L			01/19/22 01:57	1
Chlorodibromomethane	<5.00		5.00		ug/L			01/19/22 01:57	1
Chloroethane	<4.00		4.00		ug/L			01/19/22 01:57	1
Chloroform	<3.00		3.00		ug/L			01/19/22 01:57	1
Chloromethane	<3.00		3.00		ug/L			01/19/22 01:57	1
2-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 01:57	1
4-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 01:57	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 01:57	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 01:57	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			01/19/22 01:57	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			01/19/22 01:57	1
Dibromomethane	<1.00		1.00		ug/L			01/19/22 01:57	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 01:57	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 01:57	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 01:57	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			01/19/22 01:57	1
1,1-Dichloroethane	<1.00		1.00		ug/L			01/19/22 01:57	1
1,2-Dichloroethane	<1.00		1.00		ug/L			01/19/22 01:57	1
1,1-Dichloroethene	<2.00		2.00		ug/L			01/19/22 01:57	1
1,2-Dichloropropane	<1.00		1.00		ug/L			01/19/22 01:57	1
1,3-Dichloropropane	<1.00		1.00		ug/L			01/19/22 01:57	1
2,2-Dichloropropane	<4.00		4.00		ug/L			01/19/22 01:57	1
1,1-Dichloropropene	<1.00		1.00		ug/L			01/19/22 01:57	1
Ethylbenzene	6.54		1.00		ug/L			01/19/22 01:57	1
Hexachlorobutadiene	<5.00		5.00		ug/L			01/19/22 01:57	1
Hexane	<1.00		1.00		ug/L			01/19/22 01:57	1
Isopropylbenzene	<1.00		1.00		ug/L			01/19/22 01:57	1
Methylene chloride	<5.00		5.00		ug/L			01/19/22 01:57	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			01/19/22 01:57	1
Naphthalene	27.6		5.00		ug/L			01/19/22 01:57	1
n-Butylbenzene	<1.00		1.00		ug/L			01/19/22 01:57	1
n-Propylbenzene	<1.00		1.00		ug/L			01/19/22 01:57	1
p-Isopropyltoluene	<1.00		1.00		ug/L			01/19/22 01:57	1
sec-Butylbenzene	<1.00		1.00		ug/L			01/19/22 01:57	1
Styrene	<1.00		1.00		ug/L			01/19/22 01:57	1
tert-Butylbenzene	<1.00		1.00		ug/L			01/19/22 01:57	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 01:57	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 01:57	1
Tetrachloroethene	<1.00		1.00		ug/L			01/19/22 01:57	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-6-GW-0122

Lab Sample ID: 310-223515-6

Date Collected: 01/13/22 15:25

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	1.25		1.00		ug/L			01/19/22 01:57	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 01:57	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 01:57	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 01:57	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 01:57	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			01/19/22 01:57	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			01/19/22 01:57	1
Trichloroethene	<1.00		1.00		ug/L			01/19/22 01:57	1
Trichlorofluoromethane	<4.00		4.00		ug/L			01/19/22 01:57	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			01/19/22 01:57	1
1,2,4-Trimethylbenzene	15.2		1.00		ug/L			01/19/22 01:57	1
1,3,5-Trimethylbenzene	1.15		1.00		ug/L			01/19/22 01:57	1
Vinyl chloride	<1.00		1.00		ug/L			01/19/22 01:57	1
Xylenes, Total	19.3		3.00		ug/L			01/19/22 01:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		80 - 120					01/19/22 01:57	1
Dibromofluoromethane (Surr)	96		79 - 120					01/19/22 01:57	1
Toluene-d8 (Surr)	102		79 - 120					01/19/22 01:57	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	3.02		0.208		ug/L		01/19/22 11:41	01/20/22 20:58	1
Acenaphthylene	4.90		0.208		ug/L		01/19/22 11:41	01/20/22 20:58	1
Anthracene	0.740		0.208		ug/L		01/19/22 11:41	01/20/22 20:58	1
Benzo(a)anthracene	<0.208		0.208		ug/L		01/19/22 11:41	01/20/22 20:58	1
Benzo(a)pyrene	<0.208		0.208		ug/L		01/19/22 11:41	01/20/22 20:58	1
Benzo(b)fluoranthene	<0.208		0.208		ug/L		01/19/22 11:41	01/20/22 20:58	1
Benzo(g,h,i)perylene	<0.208		0.208		ug/L		01/19/22 11:41	01/20/22 20:58	1
Benzo(k)fluoranthene	<0.208		0.208		ug/L		01/19/22 11:41	01/20/22 20:58	1
Chrysene	<0.208		0.208		ug/L		01/19/22 11:41	01/20/22 20:58	1
Dibenz(a,h)anthracene	<0.208		0.208		ug/L		01/19/22 11:41	01/20/22 20:58	1
Fluoranthene	1.28		0.208		ug/L		01/19/22 11:41	01/20/22 20:58	1
Fluorene	2.82		0.208		ug/L		01/19/22 11:41	01/20/22 20:58	1
Indeno(1,2,3-cd)pyrene	<0.208		0.208		ug/L		01/19/22 11:41	01/20/22 20:58	1
2-Methylnaphthalene	<0.208		0.208		ug/L		01/19/22 11:41	01/20/22 20:58	1
Naphthalene	0.933		0.521		ug/L		01/19/22 11:41	01/20/22 20:58	1
Phenanthrene	5.40		0.208		ug/L		01/19/22 11:41	01/20/22 20:58	1
Pyrene	1.34		0.208		ug/L		01/19/22 11:41	01/20/22 20:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		21 - 110				01/19/22 11:41	01/20/22 20:58	1
Nitrobenzene-d5 (Surr)	85		15 - 110				01/19/22 11:41	01/20/22 20:58	1
Terphenyl-d14 (Surr)	95		13 - 110				01/19/22 11:41	01/20/22 20:58	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0266		0.00200		mg/L		01/18/22 09:00	01/20/22 00:44	1
Lead	0.000650		0.000500		mg/L		01/18/22 09:00	01/21/22 17:53	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-7-GW-0122

Lab Sample ID: 310-223515-7

Date Collected: 01/13/22 11:45

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			01/19/22 02:19	1
Benzene	<0.500		0.500		ug/L			01/19/22 02:19	1
Bromobenzene	<1.00		1.00		ug/L			01/19/22 02:19	1
Bromochloromethane	<5.00		5.00		ug/L			01/19/22 02:19	1
Bromodichloromethane	<1.00		1.00		ug/L			01/19/22 02:19	1
Bromoform	<5.00		5.00		ug/L			01/19/22 02:19	1
Bromomethane	<4.00		4.00		ug/L			01/19/22 02:19	1
2-Butanone (MEK)	<10.0		10.0		ug/L			01/19/22 02:19	1
Carbon disulfide	<1.00		1.00		ug/L			01/19/22 02:19	1
Carbon tetrachloride	<2.00		2.00		ug/L			01/19/22 02:19	1
Chlorobenzene	<1.00		1.00		ug/L			01/19/22 02:19	1
Chlorodibromomethane	<5.00		5.00		ug/L			01/19/22 02:19	1
Chloroethane	<4.00		4.00		ug/L			01/19/22 02:19	1
Chloroform	<3.00		3.00		ug/L			01/19/22 02:19	1
Chloromethane	<3.00		3.00		ug/L			01/19/22 02:19	1
2-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 02:19	1
4-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 02:19	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 02:19	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 02:19	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			01/19/22 02:19	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			01/19/22 02:19	1
Dibromomethane	<1.00		1.00		ug/L			01/19/22 02:19	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 02:19	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 02:19	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 02:19	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			01/19/22 02:19	1
1,1-Dichloroethane	<1.00		1.00		ug/L			01/19/22 02:19	1
1,2-Dichloroethane	<1.00		1.00		ug/L			01/19/22 02:19	1
1,1-Dichloroethene	<2.00		2.00		ug/L			01/19/22 02:19	1
1,2-Dichloropropane	<1.00		1.00		ug/L			01/19/22 02:19	1
1,3-Dichloropropane	<1.00		1.00		ug/L			01/19/22 02:19	1
2,2-Dichloropropane	<4.00		4.00		ug/L			01/19/22 02:19	1
1,1-Dichloropropene	<1.00		1.00		ug/L			01/19/22 02:19	1
Ethylbenzene	<1.00		1.00		ug/L			01/19/22 02:19	1
Hexachlorobutadiene	<5.00		5.00		ug/L			01/19/22 02:19	1
Hexane	<1.00		1.00		ug/L			01/19/22 02:19	1
Isopropylbenzene	<1.00		1.00		ug/L			01/19/22 02:19	1
Methylene chloride	<5.00		5.00		ug/L			01/19/22 02:19	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			01/19/22 02:19	1
Naphthalene	<5.00		5.00		ug/L			01/19/22 02:19	1
n-Butylbenzene	<1.00		1.00		ug/L			01/19/22 02:19	1
n-Propylbenzene	<1.00		1.00		ug/L			01/19/22 02:19	1
p-Isopropyltoluene	<1.00		1.00		ug/L			01/19/22 02:19	1
sec-Butylbenzene	<1.00		1.00		ug/L			01/19/22 02:19	1
Styrene	<1.00		1.00		ug/L			01/19/22 02:19	1
tert-Butylbenzene	<1.00		1.00		ug/L			01/19/22 02:19	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 02:19	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 02:19	1
Tetrachloroethene	<1.00		1.00		ug/L			01/19/22 02:19	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-7-GW-0122

Lab Sample ID: 310-223515-7

Date Collected: 01/13/22 11:45

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			01/19/22 02:19	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 02:19	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 02:19	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 02:19	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 02:19	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			01/19/22 02:19	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			01/19/22 02:19	1
Trichloroethene	<1.00		1.00		ug/L			01/19/22 02:19	1
Trichlorofluoromethane	<4.00		4.00		ug/L			01/19/22 02:19	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			01/19/22 02:19	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			01/19/22 02:19	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			01/19/22 02:19	1
Vinyl chloride	<1.00		1.00		ug/L			01/19/22 02:19	1
Xylenes, Total	<3.00		3.00		ug/L			01/19/22 02:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120					01/19/22 02:19	1
Dibromofluoromethane (Surr)	96		79 - 120					01/19/22 02:19	1
Toluene-d8 (Surr)	101		79 - 120					01/19/22 02:19	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:17	1
Acenaphthylene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:17	1
Anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:17	1
Benzo(a)anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:17	1
Benzo(a)pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:17	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:17	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:17	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:17	1
Chrysene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:17	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:17	1
Fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:17	1
Fluorene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:17	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:17	1
2-Methylnaphthalene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:17	1
Naphthalene	<0.500		0.500		ug/L		01/19/22 11:41	01/20/22 21:17	1
Phenanthrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:17	1
Pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	66		21 - 110				01/19/22 11:41	01/20/22 21:17	1
Nitrobenzene-d5 (Surr)	70		15 - 110				01/19/22 11:41	01/20/22 21:17	1
Terphenyl-d14 (Surr)	100		13 - 110				01/19/22 11:41	01/20/22 21:17	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		01/18/22 09:00	01/20/22 00:48	1
Lead	0.000819		0.000500		mg/L		01/18/22 09:00	01/21/22 17:57	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-8R-GW-0122

Lab Sample ID: 310-223515-8

Date Collected: 01/13/22 10:30

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			01/19/22 02:42	1
Benzene	<0.500		0.500		ug/L			01/19/22 02:42	1
Bromobenzene	<1.00		1.00		ug/L			01/19/22 02:42	1
Bromochloromethane	<5.00		5.00		ug/L			01/19/22 02:42	1
Bromodichloromethane	<1.00		1.00		ug/L			01/19/22 02:42	1
Bromoform	<5.00		5.00		ug/L			01/19/22 02:42	1
Bromomethane	<4.00		4.00		ug/L			01/19/22 02:42	1
2-Butanone (MEK)	<10.0		10.0		ug/L			01/19/22 02:42	1
Carbon disulfide	<1.00		1.00		ug/L			01/19/22 02:42	1
Carbon tetrachloride	<2.00		2.00		ug/L			01/19/22 02:42	1
Chlorobenzene	<1.00		1.00		ug/L			01/19/22 02:42	1
Chlorodibromomethane	<5.00		5.00		ug/L			01/19/22 02:42	1
Chloroethane	<4.00		4.00		ug/L			01/19/22 02:42	1
Chloroform	<3.00		3.00		ug/L			01/19/22 02:42	1
Chloromethane	<3.00		3.00		ug/L			01/19/22 02:42	1
2-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 02:42	1
4-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 02:42	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 02:42	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 02:42	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			01/19/22 02:42	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			01/19/22 02:42	1
Dibromomethane	<1.00		1.00		ug/L			01/19/22 02:42	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 02:42	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 02:42	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 02:42	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			01/19/22 02:42	1
1,1-Dichloroethane	<1.00		1.00		ug/L			01/19/22 02:42	1
1,2-Dichloroethane	<1.00		1.00		ug/L			01/19/22 02:42	1
1,1-Dichloroethene	<2.00		2.00		ug/L			01/19/22 02:42	1
1,2-Dichloropropane	<1.00		1.00		ug/L			01/19/22 02:42	1
1,3-Dichloropropane	<1.00		1.00		ug/L			01/19/22 02:42	1
2,2-Dichloropropane	<4.00		4.00		ug/L			01/19/22 02:42	1
1,1-Dichloropropene	<1.00		1.00		ug/L			01/19/22 02:42	1
Ethylbenzene	<1.00		1.00		ug/L			01/19/22 02:42	1
Hexachlorobutadiene	<5.00		5.00		ug/L			01/19/22 02:42	1
Hexane	<1.00		1.00		ug/L			01/19/22 02:42	1
Isopropylbenzene	<1.00		1.00		ug/L			01/19/22 02:42	1
Methylene chloride	<5.00		5.00		ug/L			01/19/22 02:42	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			01/19/22 02:42	1
Naphthalene	<5.00		5.00		ug/L			01/19/22 02:42	1
n-Butylbenzene	<1.00		1.00		ug/L			01/19/22 02:42	1
n-Propylbenzene	<1.00		1.00		ug/L			01/19/22 02:42	1
p-Isopropyltoluene	<1.00		1.00		ug/L			01/19/22 02:42	1
sec-Butylbenzene	<1.00		1.00		ug/L			01/19/22 02:42	1
Styrene	<1.00		1.00		ug/L			01/19/22 02:42	1
tert-Butylbenzene	<1.00		1.00		ug/L			01/19/22 02:42	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 02:42	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 02:42	1
Tetrachloroethene	<1.00		1.00		ug/L			01/19/22 02:42	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-8R-GW-0122

Lab Sample ID: 310-223515-8

Date Collected: 01/13/22 10:30

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			01/19/22 02:42	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 02:42	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 02:42	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 02:42	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 02:42	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			01/19/22 02:42	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			01/19/22 02:42	1
Trichloroethene	<1.00		1.00		ug/L			01/19/22 02:42	1
Trichlorofluoromethane	<4.00		4.00		ug/L			01/19/22 02:42	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			01/19/22 02:42	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			01/19/22 02:42	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			01/19/22 02:42	1
Vinyl chloride	<1.00		1.00		ug/L			01/19/22 02:42	1
Xylenes, Total	<3.00		3.00		ug/L			01/19/22 02:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120					01/19/22 02:42	1
Dibromofluoromethane (Surr)	93		79 - 120					01/19/22 02:42	1
Toluene-d8 (Surr)	100		79 - 120					01/19/22 02:42	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 21:36	1
Acenaphthylene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 21:36	1
Anthracene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 21:36	1
Benzo(a)anthracene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 21:36	1
Benzo(a)pyrene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 21:36	1
Benzo(b)fluoranthene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 21:36	1
Benzo(g,h,i)perylene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 21:36	1
Benzo(k)fluoranthene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 21:36	1
Chrysene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 21:36	1
Dibenz(a,h)anthracene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 21:36	1
Fluoranthene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 21:36	1
Fluorene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 21:36	1
Indeno(1,2,3-cd)pyrene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 21:36	1
2-Methylnaphthalene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 21:36	1
Naphthalene	<0.595		0.595		ug/L		01/19/22 11:41	01/20/22 21:36	1
Phenanthrene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 21:36	1
Pyrene	<0.238		0.238		ug/L		01/19/22 11:41	01/20/22 21:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	58		21 - 110				01/19/22 11:41	01/20/22 21:36	1
Nitrobenzene-d5 (Surr)	65		15 - 110				01/19/22 11:41	01/20/22 21:36	1
Terphenyl-d14 (Surr)	82		13 - 110				01/19/22 11:41	01/20/22 21:36	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		01/18/22 09:00	01/20/22 00:51	1
Lead	<0.000500		0.000500		mg/L		01/18/22 09:00	01/20/22 00:51	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-9-GW-0122

Lab Sample ID: 310-223515-9

Date Collected: 01/13/22 14:40

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			01/19/22 03:05	1
Benzene	<0.500		0.500		ug/L			01/19/22 03:05	1
Bromobenzene	<1.00		1.00		ug/L			01/19/22 03:05	1
Bromochloromethane	<5.00		5.00		ug/L			01/19/22 03:05	1
Bromodichloromethane	<1.00		1.00		ug/L			01/19/22 03:05	1
Bromoform	<5.00		5.00		ug/L			01/19/22 03:05	1
Bromomethane	<4.00		4.00		ug/L			01/19/22 03:05	1
2-Butanone (MEK)	<10.0		10.0		ug/L			01/19/22 03:05	1
Carbon disulfide	<1.00		1.00		ug/L			01/19/22 03:05	1
Carbon tetrachloride	<2.00		2.00		ug/L			01/19/22 03:05	1
Chlorobenzene	<1.00		1.00		ug/L			01/19/22 03:05	1
Chlorodibromomethane	<5.00		5.00		ug/L			01/19/22 03:05	1
Chloroethane	<4.00		4.00		ug/L			01/19/22 03:05	1
Chloroform	<3.00		3.00		ug/L			01/19/22 03:05	1
Chloromethane	<3.00		3.00		ug/L			01/19/22 03:05	1
2-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 03:05	1
4-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 03:05	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 03:05	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 03:05	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			01/19/22 03:05	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			01/19/22 03:05	1
Dibromomethane	<1.00		1.00		ug/L			01/19/22 03:05	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 03:05	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 03:05	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 03:05	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			01/19/22 03:05	1
1,1-Dichloroethane	<1.00		1.00		ug/L			01/19/22 03:05	1
1,2-Dichloroethane	<1.00		1.00		ug/L			01/19/22 03:05	1
1,1-Dichloroethene	<2.00		2.00		ug/L			01/19/22 03:05	1
1,2-Dichloropropane	<1.00		1.00		ug/L			01/19/22 03:05	1
1,3-Dichloropropane	<1.00		1.00		ug/L			01/19/22 03:05	1
2,2-Dichloropropane	<4.00		4.00		ug/L			01/19/22 03:05	1
1,1-Dichloropropene	<1.00		1.00		ug/L			01/19/22 03:05	1
Ethylbenzene	<1.00		1.00		ug/L			01/19/22 03:05	1
Hexachlorobutadiene	<5.00		5.00		ug/L			01/19/22 03:05	1
Hexane	<1.00		1.00		ug/L			01/19/22 03:05	1
Isopropylbenzene	<1.00		1.00		ug/L			01/19/22 03:05	1
Methylene chloride	<5.00		5.00		ug/L			01/19/22 03:05	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			01/19/22 03:05	1
Naphthalene	<5.00		5.00		ug/L			01/19/22 03:05	1
n-Butylbenzene	<1.00		1.00		ug/L			01/19/22 03:05	1
n-Propylbenzene	<1.00		1.00		ug/L			01/19/22 03:05	1
p-Isopropyltoluene	<1.00		1.00		ug/L			01/19/22 03:05	1
sec-Butylbenzene	<1.00		1.00		ug/L			01/19/22 03:05	1
Styrene	<1.00		1.00		ug/L			01/19/22 03:05	1
tert-Butylbenzene	<1.00		1.00		ug/L			01/19/22 03:05	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 03:05	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 03:05	1
Tetrachloroethene	<1.00		1.00		ug/L			01/19/22 03:05	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-9-GW-0122

Lab Sample ID: 310-223515-9

Date Collected: 01/13/22 14:40

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			01/19/22 03:05	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 03:05	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 03:05	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 03:05	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 03:05	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			01/19/22 03:05	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			01/19/22 03:05	1
Trichloroethene	<1.00		1.00		ug/L			01/19/22 03:05	1
Trichlorofluoromethane	<4.00		4.00		ug/L			01/19/22 03:05	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			01/19/22 03:05	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			01/19/22 03:05	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			01/19/22 03:05	1
Vinyl chloride	<1.00		1.00		ug/L			01/19/22 03:05	1
Xylenes, Total	<3.00		3.00		ug/L			01/19/22 03:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120					01/19/22 03:05	1
Dibromofluoromethane (Surr)	97		79 - 120					01/19/22 03:05	1
Toluene-d8 (Surr)	100		79 - 120					01/19/22 03:05	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:55	1
Acenaphthylene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:55	1
Anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:55	1
Benzo(a)anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:55	1
Benzo(a)pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:55	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:55	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:55	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:55	1
Chrysene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:55	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:55	1
Fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:55	1
Fluorene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:55	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:55	1
2-Methylnaphthalene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:55	1
Naphthalene	<0.500		0.500		ug/L		01/19/22 11:41	01/20/22 21:55	1
Phenanthrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:55	1
Pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 21:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	62		21 - 110				01/19/22 11:41	01/20/22 21:55	1
Nitrobenzene-d5 (Surr)	75		15 - 110				01/19/22 11:41	01/20/22 21:55	1
Terphenyl-d14 (Surr)	86		13 - 110				01/19/22 11:41	01/20/22 21:55	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		01/18/22 09:00	01/20/22 00:54	1
Lead	<0.000500		0.000500		mg/L		01/18/22 09:00	01/20/22 00:54	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: DUP1-GW-0122

Lab Sample ID: 310-223515-10

Date Collected: 01/13/22 00:00

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			01/19/22 03:28	1
Benzene	173		0.500		ug/L			01/19/22 03:28	1
Bromobenzene	<1.00		1.00		ug/L			01/19/22 03:28	1
Bromochloromethane	<5.00		5.00		ug/L			01/19/22 03:28	1
Bromodichloromethane	<1.00		1.00		ug/L			01/19/22 03:28	1
Bromoform	<5.00		5.00		ug/L			01/19/22 03:28	1
Bromomethane	<4.00		4.00		ug/L			01/19/22 03:28	1
2-Butanone (MEK)	<10.0		10.0		ug/L			01/19/22 03:28	1
Carbon disulfide	<1.00		1.00		ug/L			01/19/22 03:28	1
Carbon tetrachloride	<2.00		2.00		ug/L			01/19/22 03:28	1
Chlorobenzene	<1.00		1.00		ug/L			01/19/22 03:28	1
Chlorodibromomethane	<5.00		5.00		ug/L			01/19/22 03:28	1
Chloroethane	<4.00		4.00		ug/L			01/19/22 03:28	1
Chloroform	<3.00		3.00		ug/L			01/19/22 03:28	1
Chloromethane	<3.00		3.00		ug/L			01/19/22 03:28	1
2-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 03:28	1
4-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 03:28	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 03:28	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 03:28	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			01/19/22 03:28	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			01/19/22 03:28	1
Dibromomethane	<1.00		1.00		ug/L			01/19/22 03:28	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 03:28	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 03:28	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 03:28	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			01/19/22 03:28	1
1,1-Dichloroethane	<1.00		1.00		ug/L			01/19/22 03:28	1
1,2-Dichloroethane	<1.00		1.00		ug/L			01/19/22 03:28	1
1,1-Dichloroethene	<2.00		2.00		ug/L			01/19/22 03:28	1
1,2-Dichloropropane	<1.00		1.00		ug/L			01/19/22 03:28	1
1,3-Dichloropropane	<1.00		1.00		ug/L			01/19/22 03:28	1
2,2-Dichloropropane	<4.00		4.00		ug/L			01/19/22 03:28	1
1,1-Dichloropropene	<1.00		1.00		ug/L			01/19/22 03:28	1
Ethylbenzene	49.8		1.00		ug/L			01/19/22 03:28	1
Hexachlorobutadiene	<5.00		5.00		ug/L			01/19/22 03:28	1
Hexane	<1.00		1.00		ug/L			01/19/22 03:28	1
Isopropylbenzene	4.74		1.00		ug/L			01/19/22 03:28	1
Methylene chloride	<5.00		5.00		ug/L			01/19/22 03:28	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			01/19/22 03:28	1
Naphthalene	70.1		5.00		ug/L			01/19/22 03:28	1
n-Butylbenzene	<1.00		1.00		ug/L			01/19/22 03:28	1
n-Propylbenzene	1.27		1.00		ug/L			01/19/22 03:28	1
p-Isopropyltoluene	<1.00		1.00		ug/L			01/19/22 03:28	1
sec-Butylbenzene	<1.00		1.00		ug/L			01/19/22 03:28	1
Styrene	<1.00		1.00		ug/L			01/19/22 03:28	1
tert-Butylbenzene	<1.00		1.00		ug/L			01/19/22 03:28	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 03:28	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 03:28	1
Tetrachloroethene	<1.00		1.00		ug/L			01/19/22 03:28	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: DUP1-GW-0122

Lab Sample ID: 310-223515-10

Date Collected: 01/13/22 00:00

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	2.39		1.00		ug/L			01/19/22 03:28	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 03:28	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 03:28	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 03:28	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 03:28	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			01/19/22 03:28	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			01/19/22 03:28	1
Trichloroethene	<1.00		1.00		ug/L			01/19/22 03:28	1
Trichlorofluoromethane	<4.00		4.00		ug/L			01/19/22 03:28	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			01/19/22 03:28	1
1,2,4-Trimethylbenzene	41.3		1.00		ug/L			01/19/22 03:28	1
1,3,5-Trimethylbenzene	2.81		1.00		ug/L			01/19/22 03:28	1
Vinyl chloride	<1.00		1.00		ug/L			01/19/22 03:28	1
Xylenes, Total	47.4		3.00		ug/L			01/19/22 03:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		80 - 120					01/19/22 03:28	1
Dibromofluoromethane (Surr)	96		79 - 120					01/19/22 03:28	1
Toluene-d8 (Surr)	99		79 - 120					01/19/22 03:28	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	20.9		0.200		ug/L		01/19/22 11:41	01/20/22 22:15	1
Acenaphthylene	96.1		2.00		ug/L		01/19/22 11:41	01/21/22 17:51	10
Anthracene	1.49		0.200		ug/L		01/19/22 11:41	01/20/22 22:15	1
Benzo(a)anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:15	1
Benzo(a)pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:15	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:15	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:15	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:15	1
Chrysene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:15	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:15	1
Fluoranthene	1.05		0.200		ug/L		01/19/22 11:41	01/20/22 22:15	1
Fluorene	9.23		0.200		ug/L		01/19/22 11:41	01/20/22 22:15	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:15	1
2-Methylnaphthalene	0.266		0.200		ug/L		01/19/22 11:41	01/20/22 22:15	1
Naphthalene	15.7		0.500		ug/L		01/19/22 11:41	01/20/22 22:15	1
Phenanthrene	16.3		0.200		ug/L		01/19/22 11:41	01/20/22 22:15	1
Pyrene	1.03		0.200		ug/L		01/19/22 11:41	01/20/22 22:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		21 - 110				01/19/22 11:41	01/20/22 22:15	1
Nitrobenzene-d5 (Surr)	75		15 - 110				01/19/22 11:41	01/20/22 22:15	1
Terphenyl-d14 (Surr)	90		13 - 110				01/19/22 11:41	01/20/22 22:15	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00690		0.00200		mg/L		01/18/22 09:00	01/20/22 00:57	1
Lead	0.000592		0.000500		mg/L		01/18/22 09:00	01/21/22 18:00	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: EB1-GW-0122

Lab Sample ID: 310-223515-11

Date Collected: 01/13/22 16:45

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			01/19/22 03:51	1
Benzene	<0.500		0.500		ug/L			01/19/22 03:51	1
Bromobenzene	<1.00		1.00		ug/L			01/19/22 03:51	1
Bromochloromethane	<5.00		5.00		ug/L			01/19/22 03:51	1
Bromodichloromethane	<1.00		1.00		ug/L			01/19/22 03:51	1
Bromoform	<5.00		5.00		ug/L			01/19/22 03:51	1
Bromomethane	<4.00		4.00		ug/L			01/19/22 03:51	1
2-Butanone (MEK)	<10.0		10.0		ug/L			01/19/22 03:51	1
Carbon disulfide	<1.00		1.00		ug/L			01/19/22 03:51	1
Carbon tetrachloride	<2.00		2.00		ug/L			01/19/22 03:51	1
Chlorobenzene	<1.00		1.00		ug/L			01/19/22 03:51	1
Chlorodibromomethane	<5.00		5.00		ug/L			01/19/22 03:51	1
Chloroethane	<4.00		4.00		ug/L			01/19/22 03:51	1
Chloroform	<3.00		3.00		ug/L			01/19/22 03:51	1
Chloromethane	<3.00		3.00		ug/L			01/19/22 03:51	1
2-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 03:51	1
4-Chlorotoluene	<1.00		1.00		ug/L			01/19/22 03:51	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 03:51	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 03:51	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			01/19/22 03:51	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			01/19/22 03:51	1
Dibromomethane	<1.00		1.00		ug/L			01/19/22 03:51	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 03:51	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 03:51	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			01/19/22 03:51	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			01/19/22 03:51	1
1,1-Dichloroethane	<1.00		1.00		ug/L			01/19/22 03:51	1
1,2-Dichloroethane	<1.00		1.00		ug/L			01/19/22 03:51	1
1,1-Dichloroethene	<2.00		2.00		ug/L			01/19/22 03:51	1
1,2-Dichloropropane	<1.00		1.00		ug/L			01/19/22 03:51	1
1,3-Dichloropropane	<1.00		1.00		ug/L			01/19/22 03:51	1
2,2-Dichloropropane	<4.00		4.00		ug/L			01/19/22 03:51	1
1,1-Dichloropropene	<1.00		1.00		ug/L			01/19/22 03:51	1
Ethylbenzene	<1.00		1.00		ug/L			01/19/22 03:51	1
Hexachlorobutadiene	<5.00		5.00		ug/L			01/19/22 03:51	1
Hexane	<1.00		1.00		ug/L			01/19/22 03:51	1
Isopropylbenzene	<1.00		1.00		ug/L			01/19/22 03:51	1
Methylene chloride	<5.00		5.00		ug/L			01/19/22 03:51	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			01/19/22 03:51	1
Naphthalene	<5.00		5.00		ug/L			01/19/22 03:51	1
n-Butylbenzene	<1.00		1.00		ug/L			01/19/22 03:51	1
n-Propylbenzene	<1.00		1.00		ug/L			01/19/22 03:51	1
p-Isopropyltoluene	<1.00		1.00		ug/L			01/19/22 03:51	1
sec-Butylbenzene	<1.00		1.00		ug/L			01/19/22 03:51	1
Styrene	<1.00		1.00		ug/L			01/19/22 03:51	1
tert-Butylbenzene	<1.00		1.00		ug/L			01/19/22 03:51	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 03:51	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			01/19/22 03:51	1
Tetrachloroethene	<1.00		1.00		ug/L			01/19/22 03:51	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: EB1-GW-0122

Lab Sample ID: 310-223515-11

Date Collected: 01/13/22 16:45

Matrix: Ground Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			01/19/22 03:51	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			01/19/22 03:51	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			01/19/22 03:51	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 03:51	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			01/19/22 03:51	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			01/19/22 03:51	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			01/19/22 03:51	1
Trichloroethene	<1.00		1.00		ug/L			01/19/22 03:51	1
Trichlorofluoromethane	<4.00		4.00		ug/L			01/19/22 03:51	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			01/19/22 03:51	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			01/19/22 03:51	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			01/19/22 03:51	1
Vinyl chloride	<1.00		1.00		ug/L			01/19/22 03:51	1
Xylenes, Total	<3.00		3.00		ug/L			01/19/22 03:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120					01/19/22 03:51	1
Dibromofluoromethane (Surr)	93		79 - 120					01/19/22 03:51	1
Toluene-d8 (Surr)	102		79 - 120					01/19/22 03:51	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:34	1
Acenaphthylene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:34	1
Anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:34	1
Benzo(a)anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:34	1
Benzo(a)pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:34	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:34	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:34	1
Benzo(k)fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:34	1
Chrysene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:34	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:34	1
Fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:34	1
Fluorene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:34	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:34	1
2-Methylnaphthalene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:34	1
Naphthalene	<0.500		0.500		ug/L		01/19/22 11:41	01/20/22 22:34	1
Phenanthrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:34	1
Pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 22:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	66		21 - 110				01/19/22 11:41	01/20/22 22:34	1
Nitrobenzene-d5 (Surr)	79		15 - 110				01/19/22 11:41	01/20/22 22:34	1
Terphenyl-d14 (Surr)	91		13 - 110				01/19/22 11:41	01/20/22 22:34	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		01/18/22 09:00	01/20/22 01:00	1
Lead	<0.000500		0.000500		mg/L		01/18/22 09:00	01/20/22 01:00	1

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: Trip Blank

Lab Sample ID: 310-223515-12

Date Collected: 01/13/22 00:00

Matrix: Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			01/18/22 23:39	1
Benzene	<0.500		0.500		ug/L			01/18/22 23:39	1
Bromobenzene	<1.00		1.00		ug/L			01/18/22 23:39	1
Bromochloromethane	<5.00		5.00		ug/L			01/18/22 23:39	1
Bromodichloromethane	<1.00		1.00		ug/L			01/18/22 23:39	1
Bromoform	<5.00		5.00		ug/L			01/18/22 23:39	1
Bromomethane	<4.00		4.00		ug/L			01/18/22 23:39	1
2-Butanone (MEK)	<10.0		10.0		ug/L			01/18/22 23:39	1
Carbon disulfide	<1.00		1.00		ug/L			01/18/22 23:39	1
Carbon tetrachloride	<2.00		2.00		ug/L			01/18/22 23:39	1
Chlorobenzene	<1.00		1.00		ug/L			01/18/22 23:39	1
Chlorodibromomethane	<5.00		5.00		ug/L			01/18/22 23:39	1
Chloroethane	<4.00		4.00		ug/L			01/18/22 23:39	1
Chloroform	<3.00		3.00		ug/L			01/18/22 23:39	1
Chloromethane	<3.00		3.00		ug/L			01/18/22 23:39	1
2-Chlorotoluene	<1.00		1.00		ug/L			01/18/22 23:39	1
4-Chlorotoluene	<1.00		1.00		ug/L			01/18/22 23:39	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			01/18/22 23:39	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			01/18/22 23:39	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			01/18/22 23:39	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			01/18/22 23:39	1
Dibromomethane	<1.00		1.00		ug/L			01/18/22 23:39	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			01/18/22 23:39	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			01/18/22 23:39	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			01/18/22 23:39	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			01/18/22 23:39	1
1,1-Dichloroethane	<1.00		1.00		ug/L			01/18/22 23:39	1
1,2-Dichloroethane	<1.00		1.00		ug/L			01/18/22 23:39	1
1,1-Dichloroethene	<2.00		2.00		ug/L			01/18/22 23:39	1
1,2-Dichloropropane	<1.00		1.00		ug/L			01/18/22 23:39	1
1,3-Dichloropropane	<1.00		1.00		ug/L			01/18/22 23:39	1
2,2-Dichloropropane	<4.00		4.00		ug/L			01/18/22 23:39	1
1,1-Dichloropropene	<1.00		1.00		ug/L			01/18/22 23:39	1
Ethylbenzene	<1.00		1.00		ug/L			01/18/22 23:39	1
Hexachlorobutadiene	<5.00		5.00		ug/L			01/18/22 23:39	1
Hexane	<1.00		1.00		ug/L			01/18/22 23:39	1
Isopropylbenzene	<1.00		1.00		ug/L			01/18/22 23:39	1
Methylene chloride	<5.00		5.00		ug/L			01/18/22 23:39	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			01/18/22 23:39	1
Naphthalene	<5.00		5.00		ug/L			01/18/22 23:39	1
n-Butylbenzene	<1.00		1.00		ug/L			01/18/22 23:39	1
n-Propylbenzene	<1.00		1.00		ug/L			01/18/22 23:39	1
p-Isopropyltoluene	<1.00		1.00		ug/L			01/18/22 23:39	1
sec-Butylbenzene	<1.00		1.00		ug/L			01/18/22 23:39	1
Styrene	<1.00		1.00		ug/L			01/18/22 23:39	1
tert-Butylbenzene	<1.00		1.00		ug/L			01/18/22 23:39	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			01/18/22 23:39	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			01/18/22 23:39	1
Tetrachloroethene	<1.00		1.00		ug/L			01/18/22 23:39	1

Eurofins Cedar Falls

Client Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: Trip Blank

Lab Sample ID: 310-223515-12

Date Collected: 01/13/22 00:00

Matrix: Water

Date Received: 01/14/22 13:30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<1.00		1.00		ug/L			01/18/22 23:39	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			01/18/22 23:39	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			01/18/22 23:39	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			01/18/22 23:39	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			01/18/22 23:39	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			01/18/22 23:39	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			01/18/22 23:39	1
Trichloroethene	<1.00		1.00		ug/L			01/18/22 23:39	1
Trichlorofluoromethane	<4.00		4.00		ug/L			01/18/22 23:39	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			01/18/22 23:39	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			01/18/22 23:39	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			01/18/22 23:39	1
Vinyl chloride	<1.00		1.00		ug/L			01/18/22 23:39	1
Xylenes, Total	<3.00		3.00		ug/L			01/18/22 23:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120		01/18/22 23:39	1
Dibromofluoromethane (Surr)	95		79 - 120		01/18/22 23:39	1
Toluene-d8 (Surr)	100		79 - 120		01/18/22 23:39	1

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

GC/MS Semi VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Ground Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	TOL
		(80-120)	(79-120)	(79-120)
310-223515-1	MW-1-GW-0122	100	93	101
310-223515-1	MW-1-GW-0122	94	94	100
310-223515-2	MW-2-GW-0122	97	96	98
310-223515-2 MS	MW-2-GW-0122	97	100	103
310-223515-2 MSD	MW-2-GW-0122	99	97	103
310-223515-3	MW-3-GW-0122	98	94	101
310-223515-4	MW-4-GW-0122	99	96	101
310-223515-5	MW-5-GW-0122	98	96	99
310-223515-6	MW-6-GW-0122	97	96	102
310-223515-7	MW-7-GW-0122	98	96	101
310-223515-8	MW-8R-GW-0122	101	93	100
310-223515-9	MW-9-GW-0122	101	97	100
310-223515-10	DUP1-GW-0122	97	96	99
310-223515-11	EB1-GW-0122	100	93	102

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	TOL
		(80-120)	(79-120)	(79-120)
310-223515-12	Trip Blank	101	95	100
LCS 310-341599/6	Lab Control Sample	97	102	103
LCS 310-341599/7	Lab Control Sample	99	96	102
LCS 310-341603/6	Lab Control Sample	96	94	101
LCS 310-341603/7	Lab Control Sample	101	94	101
LCS 310-341871/6	Lab Control Sample	97	99	104
LCS 310-341871/7	Lab Control Sample	98	99	99
MB 310-341599/5	Method Blank	100	94	100
MB 310-341603/5	Method Blank	97	96	99
MB 310-341871/5	Method Blank	100	96	101

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Ground Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP	NBZ	TPHL
		(21-110)	(15-110)	(13-110)
310-223515-1	MW-1-GW-0122	68	73	97
310-223515-2	MW-2-GW-0122	68	75	93
310-223515-2 MS	MW-2-GW-0122	63	66	83

Eurofins Cedar Falls

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Matrix: Ground Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (21-110)	NBZ (15-110)	TPHL (13-110)
310-223515-2 MSD	MW-2-GW-0122	56	60	74
310-223515-3	MW-3-GW-0122	64	73	88
310-223515-4	MW-4-GW-0122	60	70	82
310-223515-5	MW-5-GW-0122	67	73	86
310-223515-6	MW-6-GW-0122	74	85	95
310-223515-7	MW-7-GW-0122	66	70	100
310-223515-8	MW-8R-GW-0122	58	65	82
310-223515-9	MW-9-GW-0122	62	75	86
310-223515-10	DUP1-GW-0122	67	75	90
310-223515-11	EB1-GW-0122	66	79	91

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (21-110)	NBZ (15-110)	TPHL (13-110)
LCS 310-341748/2-A	Lab Control Sample	70	79	86
MB 310-341748/1-A	Method Blank	77	87	94

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-341599/5
Matrix: Water
Analysis Batch: 341599

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<10.0		10.0		ug/L			01/18/22 11:26	1
Benzene	<0.500		0.500		ug/L			01/18/22 11:26	1
Bromobenzene	<1.00		1.00		ug/L			01/18/22 11:26	1
Bromochloromethane	<5.00		5.00		ug/L			01/18/22 11:26	1
Bromodichloromethane	<1.00		1.00		ug/L			01/18/22 11:26	1
Bromoform	<5.00		5.00		ug/L			01/18/22 11:26	1
Bromomethane	<4.00		4.00		ug/L			01/18/22 11:26	1
2-Butanone (MEK)	<10.0		10.0		ug/L			01/18/22 11:26	1
Carbon disulfide	<1.00		1.00		ug/L			01/18/22 11:26	1
Carbon tetrachloride	<2.00		2.00		ug/L			01/18/22 11:26	1
Chlorobenzene	<1.00		1.00		ug/L			01/18/22 11:26	1
Chlorodibromomethane	<5.00		5.00		ug/L			01/18/22 11:26	1
Chloroethane	<4.00		4.00		ug/L			01/18/22 11:26	1
Chloroform	<3.00		3.00		ug/L			01/18/22 11:26	1
Chloromethane	<3.00		3.00		ug/L			01/18/22 11:26	1
2-Chlorotoluene	<1.00		1.00		ug/L			01/18/22 11:26	1
4-Chlorotoluene	<1.00		1.00		ug/L			01/18/22 11:26	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			01/18/22 11:26	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			01/18/22 11:26	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			01/18/22 11:26	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			01/18/22 11:26	1
Dibromomethane	<1.00		1.00		ug/L			01/18/22 11:26	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			01/18/22 11:26	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			01/18/22 11:26	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			01/18/22 11:26	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			01/18/22 11:26	1
1,1-Dichloroethane	<1.00		1.00		ug/L			01/18/22 11:26	1
1,2-Dichloroethane	<1.00		1.00		ug/L			01/18/22 11:26	1
1,1-Dichloroethene	<2.00		2.00		ug/L			01/18/22 11:26	1
1,2-Dichloropropane	<1.00		1.00		ug/L			01/18/22 11:26	1
1,3-Dichloropropane	<1.00		1.00		ug/L			01/18/22 11:26	1
2,2-Dichloropropane	<4.00		4.00		ug/L			01/18/22 11:26	1
1,1-Dichloropropene	<1.00		1.00		ug/L			01/18/22 11:26	1
Ethylbenzene	<1.00		1.00		ug/L			01/18/22 11:26	1
Hexachlorobutadiene	<5.00		5.00		ug/L			01/18/22 11:26	1
Hexane	<1.00		1.00		ug/L			01/18/22 11:26	1
Isopropylbenzene	<1.00		1.00		ug/L			01/18/22 11:26	1
Methylene chloride	<5.00		5.00		ug/L			01/18/22 11:26	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			01/18/22 11:26	1
Naphthalene	<5.00		5.00		ug/L			01/18/22 11:26	1
n-Butylbenzene	<1.00		1.00		ug/L			01/18/22 11:26	1
n-Propylbenzene	<1.00		1.00		ug/L			01/18/22 11:26	1
p-Isopropyltoluene	<1.00		1.00		ug/L			01/18/22 11:26	1
sec-Butylbenzene	<1.00		1.00		ug/L			01/18/22 11:26	1
Styrene	<1.00		1.00		ug/L			01/18/22 11:26	1
tert-Butylbenzene	<1.00		1.00		ug/L			01/18/22 11:26	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			01/18/22 11:26	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			01/18/22 11:26	1

Eurofins Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-341599/5

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 341599

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Tetrachloroethene	<1.00		1.00		ug/L			01/18/22 11:26	1
Toluene	<1.00		1.00		ug/L			01/18/22 11:26	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			01/18/22 11:26	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			01/18/22 11:26	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			01/18/22 11:26	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			01/18/22 11:26	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			01/18/22 11:26	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			01/18/22 11:26	1
Trichloroethene	<1.00		1.00		ug/L			01/18/22 11:26	1
Trichlorofluoromethane	<4.00		4.00		ug/L			01/18/22 11:26	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			01/18/22 11:26	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			01/18/22 11:26	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			01/18/22 11:26	1
Vinyl chloride	<1.00		1.00		ug/L			01/18/22 11:26	1
Xylenes, Total	<3.00		3.00		ug/L			01/18/22 11:26	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	100		80 - 120		01/18/22 11:26	1
Dibromofluoromethane (Surr)	94		79 - 120		01/18/22 11:26	1
Toluene-d8 (Surr)	100		79 - 120		01/18/22 11:26	1

Lab Sample ID: LCS 310-341599/6

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 341599

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	20.54		ug/L		103	73 - 127
Bromobenzene	20.0	19.90		ug/L		100	68 - 128
Bromochloromethane	20.0	20.49		ug/L		102	77 - 140
Bromodichloromethane	20.0	19.02		ug/L		95	70 - 122
Bromoform	20.0	18.26		ug/L		91	58 - 125
2-Butanone (MEK)	40.0	46.39		ug/L		116	49 - 150
Carbon disulfide	20.0	19.87		ug/L		99	58 - 140
Carbon tetrachloride	20.0	19.49		ug/L		97	66 - 136
Chlorobenzene	20.0	20.41		ug/L		102	72 - 124
Chlorodibromomethane	20.0	18.49		ug/L		92	66 - 126
Chloroform	20.0	19.72		ug/L		99	72 - 125
2-Chlorotoluene	20.0	20.78		ug/L		104	68 - 129
4-Chlorotoluene	20.0	20.25		ug/L		101	67 - 128
cis-1,2-Dichloroethene	20.0	20.05		ug/L		100	71 - 130
cis-1,3-Dichloropropene	20.0	20.24		ug/L		101	69 - 122
1,2-Dibromo-3-chloropropane	20.0	20.52		ug/L		103	42 - 150
1,2-Dibromoethane (EDB)	20.0	20.44		ug/L		102	70 - 129
Dibromomethane	20.0	20.64		ug/L		103	71 - 133
1,2-Dichlorobenzene	20.0	20.24		ug/L		101	67 - 125
1,3-Dichlorobenzene	20.0	20.58		ug/L		103	65 - 128
1,4-Dichlorobenzene	20.0	19.69		ug/L		98	66 - 126

Eurofins Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-341599/6

Matrix: Water

Analysis Batch: 341599

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,1-Dichloroethane	20.0	20.79		ug/L		104	71 - 131
1,2-Dichloroethane	20.0	19.86		ug/L		99	72 - 128
1,1-Dichloroethene	20.0	21.75		ug/L		109	64 - 137
1,2-Dichloropropane	20.0	21.09		ug/L		105	71 - 130
1,3-Dichloropropane	20.0	20.37		ug/L		102	72 - 130
2,2-Dichloropropane	20.0	20.88		ug/L		104	33 - 150
1,1-Dichloropropene	20.0	21.36		ug/L		107	72 - 130
Ethylbenzene	20.0	20.78		ug/L		104	73 - 127
Hexachlorobutadiene	20.0	19.03		ug/L		95	48 - 150
Hexane	20.0	24.66		ug/L		123	50 - 150
Isopropylbenzene	20.0	20.61		ug/L		103	71 - 127
Methylene chloride	20.0	16.97		ug/L		85	48 - 150
Methyl tert-butyl ether	20.0	19.95		ug/L		100	68 - 127
m,p-Xylene	20.0	20.27		ug/L		101	72 - 128
Naphthalene	20.0	22.42		ug/L		112	43 - 150
n-Butylbenzene	20.0	21.97		ug/L		110	64 - 129
n-Propylbenzene	20.0	21.37		ug/L		107	68 - 129
o-Xylene	20.0	19.98		ug/L		100	70 - 128
p-Isopropyltoluene	20.0	20.50		ug/L		103	66 - 128
sec-Butylbenzene	20.0	21.21		ug/L		106	64 - 134
Styrene	20.0	20.17		ug/L		101	69 - 127
tert-Butylbenzene	20.0	20.01		ug/L		100	66 - 132
1,1,1,2-Tetrachloroethane	20.0	20.31		ug/L		102	69 - 124
1,1,2,2-Tetrachloroethane	20.0	21.54		ug/L		108	66 - 129
Tetrachloroethene	20.0	20.93		ug/L		105	68 - 135
Toluene	20.0	20.22		ug/L		101	71 - 126
trans-1,2-Dichloroethene	20.0	20.04		ug/L		100	69 - 132
trans-1,3-Dichloropropene	20.0	19.68		ug/L		98	65 - 123
1,2,3-Trichlorobenzene	20.0	20.54		ug/L		103	45 - 150
1,2,4-Trichlorobenzene	20.0	19.88		ug/L		99	57 - 133
1,1,1-Trichloroethane	20.0	19.63		ug/L		98	70 - 129
1,1,2-Trichloroethane	20.0	21.26		ug/L		106	68 - 128
Trichloroethene	20.0	19.79		ug/L		99	71 - 130
1,2,3-Trichloropropane	20.0	21.38		ug/L		107	61 - 137
1,2,4-Trimethylbenzene	20.0	20.31		ug/L		102	64 - 133
1,3,5-Trimethylbenzene	20.0	20.56		ug/L		103	66 - 134
Xylenes, Total	40.0	40.25		ug/L		101	70 - 128

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	102		79 - 120
Toluene-d8 (Surr)	103		79 - 120

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-341599/7

Matrix: Water

Analysis Batch: 341599

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	20.0	17.37		ug/L		87	22 - 150
Chloroethane	20.0	17.46		ug/L		87	61 - 139
Chloromethane	20.0	18.21		ug/L		91	48 - 150
Dichlorodifluoromethane	20.0	17.62		ug/L		88	50 - 150
Trichlorofluoromethane	20.0	21.15		ug/L		106	59 - 150
Vinyl chloride	20.0	16.41		ug/L		82	65 - 141

Surrogate	%Recovery	LCS Qualifier	LCS Limits
4-Bromofluorobenzene (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	96		79 - 120
Toluene-d8 (Surr)	102		79 - 120

Lab Sample ID: 310-223515-2 MS

Matrix: Ground Water

Analysis Batch: 341599

Client Sample ID: MW-2-GW-0122

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	<10.0		40.0	42.87		ug/L		107	37 - 150
Benzene	146		20.0	145.4	4	ug/L		-1	54 - 128
Bromobenzene	<1.00		20.0	17.07		ug/L		85	47 - 139
Bromochloromethane	<5.00		20.0	18.59		ug/L		93	63 - 143
Bromodichloromethane	<1.00		20.0	16.48		ug/L		82	50 - 135
Bromoform	<5.00		20.0	16.30		ug/L		81	40 - 139
2-Butanone (MEK)	<10.0		40.0	43.30		ug/L		108	47 - 150
Carbon disulfide	<1.00		20.0	17.12		ug/L		86	40 - 140
Carbon tetrachloride	<2.00		20.0	13.83		ug/L		69	47 - 136
Chlorobenzene	<1.00		20.0	17.63		ug/L		88	49 - 135
Chlorodibromomethane	<5.00		20.0	16.83		ug/L		84	45 - 141
Chloroform	<3.00		20.0	16.74		ug/L		84	55 - 131
2-Chlorotoluene	<1.00		20.0	17.15		ug/L		86	46 - 134
4-Chlorotoluene	<1.00		20.0	17.04		ug/L		85	44 - 136
cis-1,2-Dichloroethene	<1.00		20.0	17.15		ug/L		86	55 - 131
cis-1,3-Dichloropropene	<5.00		20.0	17.23		ug/L		86	45 - 131
1,2-Dibromo-3-chloropropane	<5.00		20.0	19.73		ug/L		99	41 - 150
1,2-Dibromoethane (EDB)	<1.00		20.0	18.79		ug/L		94	53 - 137
Dibromomethane	<1.00		20.0	18.20		ug/L		91	57 - 140
1,2-Dichlorobenzene	<1.00		20.0	18.38		ug/L		92	46 - 136
1,3-Dichlorobenzene	<1.00		20.0	17.04		ug/L		85	43 - 136
1,4-Dichlorobenzene	<1.00		20.0	17.03		ug/L		85	44 - 134
1,1-Dichloroethane	<1.00		20.0	17.80		ug/L		89	58 - 131
1,2-Dichloroethane	3.61		20.0	21.35		ug/L		89	51 - 138
1,1-Dichloroethene	<2.00		20.0	16.09		ug/L		80	52 - 137
1,2-Dichloropropane	<1.00		20.0	18.01		ug/L		90	58 - 134
1,3-Dichloropropane	<1.00		20.0	18.77		ug/L		94	53 - 145
2,2-Dichloropropane	<4.00		20.0	14.24		ug/L		71	20 - 150
1,1-Dichloropropene	<1.00		20.0	15.62		ug/L		78	51 - 130
Ethylbenzene	27.6		20.0	41.74		ug/L		70	40 - 138
Hexachlorobutadiene	<5.00		20.0	13.20		ug/L		66	19 - 150

Eurofins Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-223515-2 MS

Client Sample ID: MW-2-GW-0122

Matrix: Ground Water

Prep Type: Total/NA

Analysis Batch: 341599

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Hexane	<1.00		20.0	13.34		ug/L		67	16 - 150
Isopropylbenzene	1.18		20.0	16.24		ug/L		75	42 - 132
Methylene chloride	<5.00		20.0	17.02		ug/L		85	43 - 150
Methyl tert-butyl ether	<1.00		20.0	17.78		ug/L		89	56 - 132
m,p-Xylene	<2.00		20.0	17.97		ug/L		81	40 - 140
Naphthalene	11.3		20.0	31.76		ug/L		102	37 - 150
n-Butylbenzene	<1.00		20.0	16.54		ug/L		83	30 - 133
n-Propylbenzene	<1.00		20.0	16.81		ug/L		80	37 - 135
o-Xylene	24.8		20.0	40.49		ug/L		79	42 - 140
p-Isopropyltoluene	<1.00		20.0	15.26		ug/L		76	35 - 134
sec-Butylbenzene	<1.00		20.0	14.96		ug/L		75	34 - 136
Styrene	<1.00		20.0	17.91		ug/L		90	44 - 138
tert-Butylbenzene	<1.00		20.0	14.56		ug/L		73	39 - 137
1,1,1,2-Tetrachloroethane	<1.00		20.0	16.88		ug/L		84	45 - 140
1,1,2,2-Tetrachloroethane	<1.00		20.0	19.35		ug/L		97	51 - 140
Tetrachloroethene	<1.00		20.0	15.25		ug/L		76	43 - 135
Toluene	1.31		20.0	17.73		ug/L		82	44 - 136
trans-1,2-Dichloroethene	<1.00		20.0	17.16		ug/L		86	52 - 132
trans-1,3-Dichloropropene	<5.00		20.0	17.29		ug/L		86	43 - 133
1,2,3-Trichlorobenzene	<5.00		20.0	18.49		ug/L		92	37 - 150
1,2,4-Trichlorobenzene	<5.00		20.0	18.02		ug/L		90	38 - 135
1,1,1-Trichloroethane	<1.00		20.0	15.15		ug/L		76	52 - 129
1,1,2-Trichloroethane	<1.00		20.0	18.54		ug/L		93	50 - 142
Trichloroethene	<1.00		20.0	16.14		ug/L		81	49 - 130
1,2,3-Trichloropropane	<1.00		20.0	19.81		ug/L		99	49 - 146
1,2,4-Trimethylbenzene	21.0		20.0	36.22		ug/L		76	37 - 142
1,3,5-Trimethylbenzene	1.62		20.0	17.57		ug/L		80	39 - 142
Xylenes, Total	24.8		40.0	58.46		ug/L		84	40 - 140

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	100		79 - 120
Toluene-d8 (Surr)	103		79 - 120

Lab Sample ID: 310-223515-2 MSD

Client Sample ID: MW-2-GW-0122

Matrix: Ground Water

Prep Type: Total/NA

Analysis Batch: 341599

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Acetone	<10.0		40.0	43.89		ug/L		110	37 - 150	2	29
Benzene	146		20.0	144.9	4	ug/L		-4	54 - 128	0	21
Bromobenzene	<1.00		20.0	16.73		ug/L		84	47 - 139	2	23
Bromochloromethane	<5.00		20.0	18.42		ug/L		92	63 - 143	1	24
Bromodichloromethane	<1.00		20.0	17.04		ug/L		85	50 - 135	3	24
Bromoform	<5.00		20.0	16.40		ug/L		82	40 - 139	1	22
2-Butanone (MEK)	<10.0		40.0	45.74		ug/L		114	47 - 150	5	24
Carbon disulfide	<1.00		20.0	15.62		ug/L		78	40 - 140	9	35
Carbon tetrachloride	<2.00		20.0	13.56		ug/L		68	47 - 136	2	23

Eurofins Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-223515-2 MSD

Client Sample ID: MW-2-GW-0122

Matrix: Ground Water

Prep Type: Total/NA

Analysis Batch: 341599

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Chlorobenzene	<1.00		20.0	17.23		ug/L		86	49 - 135	2	21
Chlorodibromomethane	<5.00		20.0	16.55		ug/L		83	45 - 141	2	26
Chloroform	<3.00		20.0	16.92		ug/L		85	55 - 131	1	23
2-Chlorotoluene	<1.00		20.0	16.92		ug/L		85	46 - 134	1	22
4-Chlorotoluene	<1.00		20.0	16.67		ug/L		83	44 - 136	2	22
cis-1,2-Dichloroethene	<1.00		20.0	17.17		ug/L		86	55 - 131	0	23
cis-1,3-Dichloropropene	<5.00		20.0	17.59		ug/L		88	45 - 131	2	21
1,2-Dibromo-3-chloropropane	<5.00		20.0	20.06		ug/L		100	41 - 150	2	31
1,2-Dibromoethane (EDB)	<1.00		20.0	18.89		ug/L		94	53 - 137	1	23
Dibromomethane	<1.00		20.0	18.40		ug/L		92	57 - 140	1	24
1,2-Dichlorobenzene	<1.00		20.0	17.91		ug/L		90	46 - 136	3	22
1,3-Dichlorobenzene	<1.00		20.0	17.20		ug/L		86	43 - 136	1	22
1,4-Dichlorobenzene	<1.00		20.0	17.23		ug/L		86	44 - 134	1	20
1,1-Dichloroethane	<1.00		20.0	17.49		ug/L		87	58 - 131	2	24
1,2-Dichloroethane	3.61		20.0	21.39		ug/L		89	51 - 138	0	20
1,1-Dichloroethene	<2.00		20.0	15.63		ug/L		78	52 - 137	3	23
1,2-Dichloropropane	<1.00		20.0	18.36		ug/L		92	58 - 134	2	26
1,3-Dichloropropane	<1.00		20.0	19.49		ug/L		97	53 - 145	4	25
2,2-Dichloropropane	<4.00		20.0	14.06		ug/L		70	20 - 150	1	32
1,1-Dichloropropene	<1.00		20.0	15.25		ug/L		76	51 - 130	2	23
Ethylbenzene	27.6		20.0	41.20		ug/L		68	40 - 138	1	21
Hexachlorobutadiene	<5.00		20.0	13.32		ug/L		67	19 - 150	1	35
Hexane	<1.00		20.0	14.29		ug/L		71	16 - 150	7	35
Isopropylbenzene	1.18		20.0	16.12		ug/L		75	42 - 132	1	21
Methylene chloride	<5.00		20.0	15.94		ug/L		80	43 - 150	7	25
Methyl tert-butyl ether	<1.00		20.0	18.05		ug/L		90	56 - 132	2	25
m,p-Xylene	<2.00		20.0	17.97		ug/L		81	40 - 140	0	23
Naphthalene	11.3		20.0	34.51		ug/L		116	37 - 150	8	29
n-Butylbenzene	<1.00		20.0	17.68		ug/L		88	30 - 133	7	20
n-Propylbenzene	<1.00		20.0	16.78		ug/L		80	37 - 135	0	21
o-Xylene	24.8		20.0	39.79		ug/L		75	42 - 140	2	22
p-Isopropyltoluene	<1.00		20.0	16.18		ug/L		81	35 - 134	6	20
sec-Butylbenzene	<1.00		20.0	15.32		ug/L		77	34 - 136	2	20
Styrene	<1.00		20.0	17.75		ug/L		89	44 - 138	1	22
tert-Butylbenzene	<1.00		20.0	15.30		ug/L		77	39 - 137	5	20
1,1,1,2-Tetrachloroethane	<1.00		20.0	16.86		ug/L		84	45 - 140	0	23
1,1,1,2,2-Tetrachloroethane	<1.00		20.0	19.37		ug/L		97	51 - 140	0	22
Tetrachloroethene	<1.00		20.0	14.76		ug/L		74	43 - 135	3	23
Toluene	1.31		20.0	17.75		ug/L		82	44 - 136	0	22
trans-1,2-Dichloroethene	<1.00		20.0	16.02		ug/L		80	52 - 132	7	25
trans-1,3-Dichloropropene	<5.00		20.0	17.21		ug/L		86	43 - 133	1	23
1,2,3-Trichlorobenzene	<5.00		20.0	19.69		ug/L		98	37 - 150	6	24
1,2,4-Trichlorobenzene	<5.00		20.0	19.18		ug/L		96	38 - 135	6	21
1,1,1-Trichloroethane	<1.00		20.0	14.89		ug/L		74	52 - 129	2	22
1,1,2-Trichloroethane	<1.00		20.0	19.09		ug/L		95	50 - 142	3	24
Trichloroethene	<1.00		20.0	15.71		ug/L		79	49 - 130	3	21
1,2,3-Trichloropropane	<1.00		20.0	19.74		ug/L		99	49 - 146	0	32
1,2,4-Trimethylbenzene	21.0		20.0	36.67		ug/L		78	37 - 142	1	25
1,3,5-Trimethylbenzene	1.62		20.0	17.78		ug/L		81	39 - 142	1	20

Eurofins Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-223515-2 MSD

Client Sample ID: MW-2-GW-0122

Matrix: Ground Water

Prep Type: Total/NA

Analysis Batch: 341599

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	24.8		40.0	57.76		ug/L		82	40 - 140	1	23
Surrogate	%Recovery	MSD Qualifier	MSD Limits								
4-Bromofluorobenzene (Surr)	99		80 - 120								
Dibromofluoromethane (Surr)	97		79 - 120								
Toluene-d8 (Surr)	103		79 - 120								

Lab Sample ID: MB 310-341603/5

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 341603

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			01/18/22 22:30	1
Benzene	<0.500		0.500		ug/L			01/18/22 22:30	1
Bromobenzene	<1.00		1.00		ug/L			01/18/22 22:30	1
Bromochloromethane	<5.00		5.00		ug/L			01/18/22 22:30	1
Bromodichloromethane	<1.00		1.00		ug/L			01/18/22 22:30	1
Bromoform	<5.00		5.00		ug/L			01/18/22 22:30	1
Bromomethane	<4.00		4.00		ug/L			01/18/22 22:30	1
2-Butanone (MEK)	<10.0		10.0		ug/L			01/18/22 22:30	1
Carbon disulfide	<1.00		1.00		ug/L			01/18/22 22:30	1
Carbon tetrachloride	<2.00		2.00		ug/L			01/18/22 22:30	1
Chlorobenzene	<1.00		1.00		ug/L			01/18/22 22:30	1
Chlorodibromomethane	<5.00		5.00		ug/L			01/18/22 22:30	1
Chloroethane	<4.00		4.00		ug/L			01/18/22 22:30	1
Chloroform	<3.00		3.00		ug/L			01/18/22 22:30	1
Chloromethane	<3.00		3.00		ug/L			01/18/22 22:30	1
2-Chlorotoluene	<1.00		1.00		ug/L			01/18/22 22:30	1
4-Chlorotoluene	<1.00		1.00		ug/L			01/18/22 22:30	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			01/18/22 22:30	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			01/18/22 22:30	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			01/18/22 22:30	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			01/18/22 22:30	1
Dibromomethane	<1.00		1.00		ug/L			01/18/22 22:30	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			01/18/22 22:30	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			01/18/22 22:30	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			01/18/22 22:30	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			01/18/22 22:30	1
1,1-Dichloroethane	<1.00		1.00		ug/L			01/18/22 22:30	1
1,2-Dichloroethane	<1.00		1.00		ug/L			01/18/22 22:30	1
1,1-Dichloroethene	<2.00		2.00		ug/L			01/18/22 22:30	1
1,2-Dichloropropane	<1.00		1.00		ug/L			01/18/22 22:30	1
1,3-Dichloropropane	<1.00		1.00		ug/L			01/18/22 22:30	1
2,2-Dichloropropane	<4.00		4.00		ug/L			01/18/22 22:30	1
1,1-Dichloropropene	<1.00		1.00		ug/L			01/18/22 22:30	1
Ethylbenzene	<1.00		1.00		ug/L			01/18/22 22:30	1
Hexachlorobutadiene	<5.00		5.00		ug/L			01/18/22 22:30	1
Hexane	<1.00		1.00		ug/L			01/18/22 22:30	1

Eurofins Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-341603/5

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 341603

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Isopropylbenzene	<1.00		1.00		ug/L			01/18/22 22:30	1
Methylene chloride	<5.00		5.00		ug/L			01/18/22 22:30	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			01/18/22 22:30	1
Naphthalene	<5.00		5.00		ug/L			01/18/22 22:30	1
n-Butylbenzene	<1.00		1.00		ug/L			01/18/22 22:30	1
n-Propylbenzene	<1.00		1.00		ug/L			01/18/22 22:30	1
p-Isopropyltoluene	<1.00		1.00		ug/L			01/18/22 22:30	1
sec-Butylbenzene	<1.00		1.00		ug/L			01/18/22 22:30	1
Styrene	<1.00		1.00		ug/L			01/18/22 22:30	1
tert-Butylbenzene	<1.00		1.00		ug/L			01/18/22 22:30	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			01/18/22 22:30	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			01/18/22 22:30	1
Tetrachloroethene	<1.00		1.00		ug/L			01/18/22 22:30	1
Toluene	<1.00		1.00		ug/L			01/18/22 22:30	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			01/18/22 22:30	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			01/18/22 22:30	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			01/18/22 22:30	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			01/18/22 22:30	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			01/18/22 22:30	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			01/18/22 22:30	1
Trichloroethene	<1.00		1.00		ug/L			01/18/22 22:30	1
Trichlorofluoromethane	<4.00		4.00		ug/L			01/18/22 22:30	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			01/18/22 22:30	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			01/18/22 22:30	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			01/18/22 22:30	1
Vinyl chloride	<1.00		1.00		ug/L			01/18/22 22:30	1
Xylenes, Total	<3.00		3.00		ug/L			01/18/22 22:30	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	97		80 - 120		01/18/22 22:30	1
Dibromofluoromethane (Surr)	96		79 - 120		01/18/22 22:30	1
Toluene-d8 (Surr)	99		79 - 120		01/18/22 22:30	1

Lab Sample ID: LCS 310-341603/6

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 341603

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Acetone	40.0	42.57		ug/L		106	50 - 150
Benzene	20.0	19.36		ug/L		97	73 - 127
Bromobenzene	20.0	18.10		ug/L		91	68 - 128
Bromochloromethane	20.0	19.73		ug/L		99	77 - 140
Bromodichloromethane	20.0	17.97		ug/L		90	70 - 122
Bromoform	20.0	16.59		ug/L		83	58 - 125
2-Butanone (MEK)	40.0	46.38		ug/L		116	49 - 150
Carbon disulfide	20.0	18.51		ug/L		93	58 - 140
Carbon tetrachloride	20.0	18.06		ug/L		90	66 - 136
Chlorobenzene	20.0	18.62		ug/L		93	72 - 124

Eurofins Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-341603/6

Matrix: Water

Analysis Batch: 341603

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec. Limits
	Added	Result	Qualifier				
Chlorodibromomethane	20.0	17.56		ug/L		88	66 - 126
Chloroform	20.0	18.44		ug/L		92	72 - 125
2-Chlorotoluene	20.0	18.95		ug/L		95	68 - 129
4-Chlorotoluene	20.0	18.53		ug/L		93	67 - 128
cis-1,2-Dichloroethene	20.0	18.76		ug/L		94	71 - 130
cis-1,3-Dichloropropene	20.0	18.28		ug/L		91	69 - 122
1,2-Dibromo-3-chloropropane	20.0	18.10		ug/L		90	42 - 150
1,2-Dibromoethane (EDB)	20.0	19.39		ug/L		97	70 - 129
Dibromomethane	20.0	18.73		ug/L		94	71 - 133
1,2-Dichlorobenzene	20.0	18.72		ug/L		94	67 - 125
1,3-Dichlorobenzene	20.0	18.55		ug/L		93	65 - 128
1,4-Dichlorobenzene	20.0	18.37		ug/L		92	66 - 126
1,1-Dichloroethane	20.0	19.13		ug/L		96	71 - 131
1,2-Dichloroethane	20.0	19.28		ug/L		96	72 - 128
1,1-Dichloroethene	20.0	19.64		ug/L		98	64 - 137
1,2-Dichloropropane	20.0	19.31		ug/L		97	71 - 130
1,3-Dichloropropane	20.0	19.72		ug/L		99	72 - 130
2,2-Dichloropropane	20.0	16.21		ug/L		81	33 - 150
1,1-Dichloropropene	20.0	19.66		ug/L		98	72 - 130
Ethylbenzene	20.0	18.85		ug/L		94	73 - 127
Hexachlorobutadiene	20.0	16.89		ug/L		84	48 - 150
Hexane	20.0	21.29		ug/L		106	50 - 150
Isopropylbenzene	20.0	18.74		ug/L		94	71 - 127
Methylene chloride	20.0	18.69		ug/L		93	48 - 150
Methyl tert-butyl ether	20.0	18.95		ug/L		95	68 - 127
m,p-Xylene	20.0	18.88		ug/L		94	72 - 128
Naphthalene	20.0	19.36		ug/L		97	43 - 150
n-Butylbenzene	20.0	19.90		ug/L		99	64 - 129
n-Propylbenzene	20.0	19.36		ug/L		97	68 - 129
o-Xylene	20.0	18.49		ug/L		92	70 - 128
p-Isopropyltoluene	20.0	18.69		ug/L		93	66 - 128
sec-Butylbenzene	20.0	18.85		ug/L		94	64 - 134
Styrene	20.0	18.45		ug/L		92	69 - 127
tert-Butylbenzene	20.0	18.32		ug/L		92	66 - 132
1,1,1,2-Tetrachloroethane	20.0	17.87		ug/L		89	69 - 124
1,1,2,2-Tetrachloroethane	20.0	19.57		ug/L		98	66 - 129
Tetrachloroethene	20.0	18.60		ug/L		93	68 - 135
Toluene	20.0	18.81		ug/L		94	71 - 126
trans-1,2-Dichloroethene	20.0	18.56		ug/L		93	69 - 132
trans-1,3-Dichloropropene	20.0	17.70		ug/L		89	65 - 123
1,2,3-Trichlorobenzene	20.0	18.52		ug/L		93	45 - 150
1,2,4-Trichlorobenzene	20.0	18.64		ug/L		93	57 - 133
1,1,1-Trichloroethane	20.0	18.46		ug/L		92	70 - 129
1,1,2-Trichloroethane	20.0	19.59		ug/L		98	68 - 128
Trichloroethene	20.0	19.08		ug/L		95	71 - 130
1,2,3-Trichloropropane	20.0	20.06		ug/L		100	61 - 137
1,2,4-Trimethylbenzene	20.0	18.52		ug/L		93	64 - 133
1,3,5-Trimethylbenzene	20.0	18.57		ug/L		93	66 - 134
Xylenes, Total	40.0	37.37		ug/L		93	70 - 128

Eurofins Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	96		80 - 120
Dibromofluoromethane (Surr)	94		79 - 120
Toluene-d8 (Surr)	101		79 - 120

Lab Sample ID: LCS 310-341603/7

Matrix: Water

Analysis Batch: 341603

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Bromomethane	20.0	15.76		ug/L		79	22 - 150
Chloroethane	20.0	17.44		ug/L		87	61 - 139
Chloromethane	20.0	18.20		ug/L		91	48 - 150
Dichlorodifluoromethane	20.0	15.19		ug/L		76	50 - 150
Trichlorofluoromethane	20.0	18.70		ug/L		93	59 - 150
Vinyl chloride	20.0	19.42		ug/L		97	65 - 141

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	94		79 - 120
Toluene-d8 (Surr)	101		79 - 120

Lab Sample ID: MB 310-341871/5

Matrix: Water

Analysis Batch: 341871

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<10.0		10.0		ug/L			01/20/22 12:29	1
Benzene	<0.500		0.500		ug/L			01/20/22 12:29	1
Bromobenzene	<1.00		1.00		ug/L			01/20/22 12:29	1
Bromochloromethane	<5.00		5.00		ug/L			01/20/22 12:29	1
Bromodichloromethane	<1.00		1.00		ug/L			01/20/22 12:29	1
Bromoform	<5.00		5.00		ug/L			01/20/22 12:29	1
Bromomethane	<4.00		4.00		ug/L			01/20/22 12:29	1
2-Butanone (MEK)	<10.0		10.0		ug/L			01/20/22 12:29	1
Carbon disulfide	<1.00		1.00		ug/L			01/20/22 12:29	1
Carbon tetrachloride	<2.00		2.00		ug/L			01/20/22 12:29	1
Chlorobenzene	<1.00		1.00		ug/L			01/20/22 12:29	1
Chlorodibromomethane	<5.00		5.00		ug/L			01/20/22 12:29	1
Chloroethane	<4.00		4.00		ug/L			01/20/22 12:29	1
Chloroform	<3.00		3.00		ug/L			01/20/22 12:29	1
Chloromethane	<3.00		3.00		ug/L			01/20/22 12:29	1
2-Chlorotoluene	<1.00		1.00		ug/L			01/20/22 12:29	1
4-Chlorotoluene	<1.00		1.00		ug/L			01/20/22 12:29	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			01/20/22 12:29	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			01/20/22 12:29	1
1,2-Dibromo-3-chloropropane	<5.00		5.00		ug/L			01/20/22 12:29	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			01/20/22 12:29	1
Dibromomethane	<1.00		1.00		ug/L			01/20/22 12:29	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			01/20/22 12:29	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			01/20/22 12:29	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			01/20/22 12:29	1

Eurofins Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-341871/5

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 341871

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	<3.00		3.00		ug/L			01/20/22 12:29	1
1,1-Dichloroethane	<1.00		1.00		ug/L			01/20/22 12:29	1
1,2-Dichloroethane	<1.00		1.00		ug/L			01/20/22 12:29	1
1,1-Dichloroethene	<2.00		2.00		ug/L			01/20/22 12:29	1
1,2-Dichloropropane	<1.00		1.00		ug/L			01/20/22 12:29	1
1,3-Dichloropropane	<1.00		1.00		ug/L			01/20/22 12:29	1
2,2-Dichloropropane	<4.00		4.00		ug/L			01/20/22 12:29	1
1,1-Dichloropropene	<1.00		1.00		ug/L			01/20/22 12:29	1
Ethylbenzene	<1.00		1.00		ug/L			01/20/22 12:29	1
Hexachlorobutadiene	<5.00		5.00		ug/L			01/20/22 12:29	1
Hexane	<1.00		1.00		ug/L			01/20/22 12:29	1
Isopropylbenzene	<1.00		1.00		ug/L			01/20/22 12:29	1
Methylene chloride	<5.00		5.00		ug/L			01/20/22 12:29	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			01/20/22 12:29	1
Naphthalene	<5.00		5.00		ug/L			01/20/22 12:29	1
n-Butylbenzene	<1.00		1.00		ug/L			01/20/22 12:29	1
n-Propylbenzene	<1.00		1.00		ug/L			01/20/22 12:29	1
p-Isopropyltoluene	<1.00		1.00		ug/L			01/20/22 12:29	1
sec-Butylbenzene	<1.00		1.00		ug/L			01/20/22 12:29	1
Styrene	<1.00		1.00		ug/L			01/20/22 12:29	1
tert-Butylbenzene	<1.00		1.00		ug/L			01/20/22 12:29	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			01/20/22 12:29	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			01/20/22 12:29	1
Tetrachloroethene	<1.00		1.00		ug/L			01/20/22 12:29	1
Toluene	<1.00		1.00		ug/L			01/20/22 12:29	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			01/20/22 12:29	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			01/20/22 12:29	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			01/20/22 12:29	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			01/20/22 12:29	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			01/20/22 12:29	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			01/20/22 12:29	1
Trichloroethene	<1.00		1.00		ug/L			01/20/22 12:29	1
Trichlorofluoromethane	<4.00		4.00		ug/L			01/20/22 12:29	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			01/20/22 12:29	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			01/20/22 12:29	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			01/20/22 12:29	1
Vinyl chloride	<1.00		1.00		ug/L			01/20/22 12:29	1
Xylenes, Total	<3.00		3.00		ug/L			01/20/22 12:29	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	100		80 - 120		01/20/22 12:29	1
Dibromofluoromethane (Surr)	96		79 - 120		01/20/22 12:29	1
Toluene-d8 (Surr)	101		79 - 120		01/20/22 12:29	1

Eurofins Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-341871/6

Matrix: Water

Analysis Batch: 341871

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	40.0	45.97		ug/L		115	50 - 150
Benzene	20.0	20.08		ug/L		100	73 - 127
Bromobenzene	20.0	18.59		ug/L		93	68 - 128
Bromochloromethane	20.0	18.85		ug/L		94	77 - 140
Bromodichloromethane	20.0	17.98		ug/L		90	70 - 122
Bromoform	20.0	16.58		ug/L		83	58 - 125
2-Butanone (MEK)	40.0	49.05		ug/L		123	49 - 150
Carbon disulfide	20.0	18.73		ug/L		94	58 - 140
Carbon tetrachloride	20.0	18.88		ug/L		94	66 - 136
Chlorobenzene	20.0	19.91		ug/L		100	72 - 124
Chlorodibromomethane	20.0	17.66		ug/L		88	66 - 126
Chloroform	20.0	18.62		ug/L		93	72 - 125
2-Chlorotoluene	20.0	20.57		ug/L		103	68 - 129
4-Chlorotoluene	20.0	19.78		ug/L		99	67 - 128
cis-1,2-Dichloroethene	20.0	19.36		ug/L		97	71 - 130
cis-1,3-Dichloropropene	20.0	19.56		ug/L		98	69 - 122
1,2-Dibromo-3-chloropropane	20.0	20.21		ug/L		101	42 - 150
1,2-Dibromoethane (EDB)	20.0	19.41		ug/L		97	70 - 129
Dibromomethane	20.0	19.27		ug/L		96	71 - 133
1,2-Dichlorobenzene	20.0	19.07		ug/L		95	67 - 125
1,3-Dichlorobenzene	20.0	19.07		ug/L		95	65 - 128
1,4-Dichlorobenzene	20.0	19.22		ug/L		96	66 - 126
1,1-Dichloroethane	20.0	20.59		ug/L		103	71 - 131
1,2-Dichloroethane	20.0	19.55		ug/L		98	72 - 128
1,1-Dichloroethene	20.0	20.28		ug/L		101	64 - 137
1,2-Dichloropropane	20.0	21.40		ug/L		107	71 - 130
1,3-Dichloropropane	20.0	20.15		ug/L		101	72 - 130
2,2-Dichloropropane	20.0	19.05		ug/L		95	33 - 150
1,1-Dichloropropene	20.0	21.46		ug/L		107	72 - 130
Ethylbenzene	20.0	20.48		ug/L		102	73 - 127
Hexachlorobutadiene	20.0	18.12		ug/L		91	48 - 150
Hexane	20.0	24.19		ug/L		121	50 - 150
Isopropylbenzene	20.0	19.80		ug/L		99	71 - 127
Methylene chloride	20.0	17.99		ug/L		90	48 - 150
Methyl tert-butyl ether	20.0	18.86		ug/L		94	68 - 127
m,p-Xylene	20.0	19.76		ug/L		99	72 - 128
Naphthalene	20.0	20.53		ug/L		103	43 - 150
n-Butylbenzene	20.0	21.84		ug/L		109	64 - 129
n-Propylbenzene	20.0	21.02		ug/L		105	68 - 129
o-Xylene	20.0	18.77		ug/L		94	70 - 128
p-Isopropyltoluene	20.0	20.19		ug/L		101	66 - 128
sec-Butylbenzene	20.0	20.29		ug/L		101	64 - 134
Styrene	20.0	19.33		ug/L		97	69 - 127
tert-Butylbenzene	20.0	19.26		ug/L		96	66 - 132
1,1,1,2-Tetrachloroethane	20.0	18.91		ug/L		95	69 - 124
1,1,2,2-Tetrachloroethane	20.0	21.09		ug/L		105	66 - 129
Tetrachloroethene	20.0	19.83		ug/L		99	68 - 135
Toluene	20.0	19.74		ug/L		99	71 - 126

Eurofins Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-341871/6

Matrix: Water

Analysis Batch: 341871

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
trans-1,2-Dichloroethene	20.0	19.54		ug/L		98	69 - 132
trans-1,3-Dichloropropene	20.0	18.76		ug/L		94	65 - 123
1,2,3-Trichlorobenzene	20.0	19.21		ug/L		96	45 - 150
1,2,4-Trichlorobenzene	20.0	18.93		ug/L		95	57 - 133
1,1,1-Trichloroethane	20.0	18.98		ug/L		95	70 - 129
1,1,2-Trichloroethane	20.0	19.95		ug/L		100	68 - 128
Trichloroethene	20.0	18.79		ug/L		94	71 - 130
1,2,3-Trichloropropane	20.0	21.18		ug/L		106	61 - 137
1,2,4-Trimethylbenzene	20.0	19.60		ug/L		98	64 - 133
1,3,5-Trimethylbenzene	20.0	19.64		ug/L		98	66 - 134
Xylenes, Total	40.0	38.53		ug/L		96	70 - 128

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	99		79 - 120
Toluene-d8 (Surr)	104		79 - 120

Lab Sample ID: LCS 310-341871/7

Matrix: Water

Analysis Batch: 341871

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Bromomethane	20.0	17.71		ug/L		89	22 - 150
Chloroethane	20.0	18.88		ug/L		94	61 - 139
Chloromethane	20.0	20.63		ug/L		103	48 - 150
Dichlorodifluoromethane	20.0	19.73		ug/L		99	50 - 150
Trichlorofluoromethane	20.0	21.58		ug/L		108	59 - 150
Vinyl chloride	20.0	22.92		ug/L		115	65 - 141

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	99		79 - 120
Toluene-d8 (Surr)	99		79 - 120

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 310-341748/1-A

Matrix: Water

Analysis Batch: 341850

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 341748

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 11:59	1
Acenaphthylene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 11:59	1
Anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 11:59	1
Benzo(a)anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 11:59	1
Benzo(a)pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 11:59	1
Benzo(b)fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 11:59	1
Benzo(g,h,i)perylene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 11:59	1

Eurofins Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 310-341748/1-A

Matrix: Water

Analysis Batch: 341850

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 341748

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzo(k)fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 11:59	1
Chrysene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 11:59	1
Dibenz(a,h)anthracene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 11:59	1
Fluoranthene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 11:59	1
Fluorene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 11:59	1
Indeno(1,2,3-cd)pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 11:59	1
2-Methylnaphthalene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 11:59	1
Naphthalene	<0.500		0.500		ug/L		01/19/22 11:41	01/20/22 11:59	1
Phenanthrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 11:59	1
Pyrene	<0.200		0.200		ug/L		01/19/22 11:41	01/20/22 11:59	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	77		21 - 110	01/19/22 11:41	01/20/22 11:59	1
Nitrobenzene-d5 (Surr)	87		15 - 110	01/19/22 11:41	01/20/22 11:59	1
Terphenyl-d14 (Surr)	94		13 - 110	01/19/22 11:41	01/20/22 11:59	1

Lab Sample ID: LCS 310-341748/2-A

Matrix: Water

Analysis Batch: 341850

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 341748

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Acenaphthene	2.00	1.367		ug/L		68	25 - 110
Acenaphthylene	2.00	1.444		ug/L		72	25 - 110
Anthracene	2.00	1.631		ug/L		82	26 - 110
Benzo(a)anthracene	2.00	1.691		ug/L		85	26 - 110
Benzo(a)pyrene	2.00	1.582		ug/L		79	20 - 110
Benzo(b)fluoranthene	2.00	1.542		ug/L		77	24 - 110
Benzo(g,h,i)perylene	2.00	1.891		ug/L		95	17 - 110
Benzo(k)fluoranthene	2.00	1.538		ug/L		77	26 - 110
Chrysene	2.00	1.669		ug/L		83	23 - 110
Dibenz(a,h)anthracene	2.00	1.936		ug/L		97	14 - 110
Fluoranthene	2.00	1.611		ug/L		81	24 - 110
Fluorene	2.00	1.457		ug/L		73	27 - 110
Indeno(1,2,3-cd)pyrene	2.00	1.989		ug/L		99	15 - 110
2-Methylnaphthalene	2.00	1.231		ug/L		62	19 - 110
Naphthalene	2.00	1.252		ug/L		63	24 - 110
Phenanthrene	2.00	1.477		ug/L		74	28 - 110
Pyrene	2.00	1.702		ug/L		85	26 - 110

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	70		21 - 110
Nitrobenzene-d5 (Surr)	79		15 - 110
Terphenyl-d14 (Surr)	86		13 - 110

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 310-223515-2 MS
Matrix: Ground Water
Analysis Batch: 341850

Client Sample ID: MW-2-GW-0122
Prep Type: Total/NA
Prep Batch: 341748

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Acenaphthene	13.9		2.08	12.95	4	ug/L		-44	22 - 110	
Acenaphthylene	9.58		2.08	8.713	4	ug/L		-42	22 - 110	
Anthracene	0.808		2.08	2.092		ug/L		62	24 - 110	
Benzo(a)anthracene	<0.238		2.08	1.502		ug/L		72	10 - 110	
Benzo(a)pyrene	<0.238		2.08	0.9751		ug/L		47	10 - 110	
Benzo(b)fluoranthene	<0.238		2.08	0.8670		ug/L		42	10 - 110	
Benzo(g,h,i)perylene	<0.238		2.08	0.7266		ug/L		35	10 - 110	
Benzo(k)fluoranthene	<0.238		2.08	0.9561		ug/L		46	10 - 110	
Chrysene	<0.238		2.08	1.463		ug/L		70	10 - 110	
Dibenz(a,h)anthracene	<0.238		2.08	0.7001		ug/L		34	10 - 110	
Fluoranthene	0.972		2.08	2.470		ug/L		72	13 - 110	
Fluorene	8.83		2.08	8.502	4	ug/L		-16	25 - 110	
Indeno(1,2,3-cd)pyrene	<0.238		2.08	0.7338		ug/L		35	10 - 110	
2-Methylnaphthalene	<0.238		2.08	1.239		ug/L		59	19 - 110	
Naphthalene	0.909		2.08	1.840		ug/L		45	17 - 110	
Phenanthrene	2.90		2.08	3.548		ug/L		31	24 - 110	
Pyrene	1.05		2.08	2.609		ug/L		75	13 - 110	

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	63		21 - 110
Nitrobenzene-d5 (Surr)	66		15 - 110
Terphenyl-d14 (Surr)	83		13 - 110

Lab Sample ID: 310-223515-2 MSD
Matrix: Ground Water
Analysis Batch: 341850

Client Sample ID: MW-2-GW-0122
Prep Type: Total/NA
Prep Batch: 341748

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Acenaphthene	13.9		2.17	13.51	4	ug/L		-17	22 - 110	4	35	
Acenaphthylene	9.58		2.17	8.837	4	ug/L		-34	22 - 110	1	35	
Anthracene	0.808		2.17	1.985		ug/L		54	24 - 110	5	35	
Benzo(a)anthracene	<0.238		2.17	1.351		ug/L		62	10 - 110	11	35	
Benzo(a)pyrene	<0.238		2.17	1.079		ug/L		50	10 - 110	10	35	
Benzo(b)fluoranthene	<0.238		2.17	0.9472		ug/L		44	10 - 110	9	35	
Benzo(g,h,i)perylene	<0.238		2.17	0.9023		ug/L		42	10 - 110	22	35	
Benzo(k)fluoranthene	<0.238		2.17	1.026		ug/L		47	10 - 110	7	35	
Chrysene	<0.238		2.17	1.319		ug/L		61	10 - 110	10	35	
Dibenz(a,h)anthracene	<0.238		2.17	0.8582		ug/L		39	10 - 110	20	35	
Fluoranthene	0.972		2.17	2.349		ug/L		63	13 - 110	5	35	
Fluorene	8.83		2.17	8.479	4	ug/L		-16	25 - 110	0	35	
Indeno(1,2,3-cd)pyrene	<0.238		2.17	0.9058		ug/L		42	10 - 110	21	35	
2-Methylnaphthalene	<0.238		2.17	1.077		ug/L		50	19 - 110	14	35	
Naphthalene	0.909		2.17	1.785		ug/L		40	17 - 110	3	35	
Phenanthrene	2.90		2.17	3.620		ug/L		33	24 - 110	2	35	
Pyrene	1.05		2.17	2.394		ug/L		62	13 - 110	9	35	

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	56		21 - 110

Eurofins Cedar Falls

QC Sample Results

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 310-223515-2 MSD
Matrix: Ground Water
Analysis Batch: 341850

Client Sample ID: MW-2-GW-0122
Prep Type: Total/NA
Prep Batch: 341748

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5 (Surr)	60		15 - 110
Terphenyl-d14 (Surr)	74		13 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 310-341483/1-A
Matrix: Water
Analysis Batch: 341846

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 341483

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.00200		0.00200		mg/L		01/18/22 09:00	01/19/22 23:58	1
Lead	<0.000500		0.000500		mg/L		01/18/22 09:00	01/19/22 23:58	1

Lab Sample ID: LCS 310-341483/2-A
Matrix: Water
Analysis Batch: 341846

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 341483

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	
Arsenic	0.200	0.1832		mg/L		92	80 - 120	
Lead	0.200	0.1898		mg/L		95	80 - 120	

Lab Sample ID: 310-223515-2 MS
Matrix: Ground Water
Analysis Batch: 341846

Client Sample ID: MW-2-GW-0122
Prep Type: Total/NA
Prep Batch: 341483

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec.	
	Result	Qualifier		Result	Qualifier				Limits	
Arsenic	0.0149		0.200	0.2053		mg/L		95	75 - 125	
Lead	<0.000500		0.200	0.1936		mg/L		97	75 - 125	

Lab Sample ID: 310-223515-2 MSD
Matrix: Ground Water
Analysis Batch: 341846

Client Sample ID: MW-2-GW-0122
Prep Type: Total/NA
Prep Batch: 341483

Analyte	Sample Sample		Spike Added	MSD MSD		Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier		Result	Qualifier				Limits		RPD	Limit
Arsenic	0.0149		0.200	0.2078		mg/L		96	75 - 125	1	20	
Lead	<0.000500		0.200	0.1954		mg/L		98	75 - 125	1	20	

Lab Sample ID: 310-223515-11 DU
Matrix: Ground Water
Analysis Batch: 341846

Client Sample ID: EB1-GW-0122
Prep Type: Total/NA
Prep Batch: 341483

Analyte	Sample Sample		DU DU		Unit	D	RPD	RPD	
	Result	Qualifier	Result	Qualifier				RPD	Limit
Arsenic	<0.00200		<0.00200		mg/L			NC	20
Lead	<0.000500		0.0009840		mg/L			NC	20

QC Association Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

GC/MS VOA

Analysis Batch: 341599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-223515-1	MW-1-GW-0122	Total/NA	Ground Water	8260D	
310-223515-2	MW-2-GW-0122	Total/NA	Ground Water	8260D	
MB 310-341599/5	Method Blank	Total/NA	Water	8260D	
LCS 310-341599/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-341599/7	Lab Control Sample	Total/NA	Water	8260D	
310-223515-2 MS	MW-2-GW-0122	Total/NA	Ground Water	8260D	
310-223515-2 MSD	MW-2-GW-0122	Total/NA	Ground Water	8260D	

Analysis Batch: 341603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-223515-3	MW-3-GW-0122	Total/NA	Ground Water	8260D	
310-223515-4	MW-4-GW-0122	Total/NA	Ground Water	8260D	
310-223515-5	MW-5-GW-0122	Total/NA	Ground Water	8260D	
310-223515-6	MW-6-GW-0122	Total/NA	Ground Water	8260D	
310-223515-7	MW-7-GW-0122	Total/NA	Ground Water	8260D	
310-223515-8	MW-8R-GW-0122	Total/NA	Ground Water	8260D	
310-223515-9	MW-9-GW-0122	Total/NA	Ground Water	8260D	
310-223515-10	DUP1-GW-0122	Total/NA	Ground Water	8260D	
310-223515-11	EB1-GW-0122	Total/NA	Ground Water	8260D	
310-223515-12	Trip Blank	Total/NA	Water	8260D	
MB 310-341603/5	Method Blank	Total/NA	Water	8260D	
LCS 310-341603/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-341603/7	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 341871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-223515-1	MW-1-GW-0122	Total/NA	Ground Water	8260D	
MB 310-341871/5	Method Blank	Total/NA	Water	8260D	
LCS 310-341871/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-341871/7	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 341748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-223515-1	MW-1-GW-0122	Total/NA	Ground Water	3510C	
310-223515-2	MW-2-GW-0122	Total/NA	Ground Water	3510C	
310-223515-3	MW-3-GW-0122	Total/NA	Ground Water	3510C	
310-223515-4	MW-4-GW-0122	Total/NA	Ground Water	3510C	
310-223515-5	MW-5-GW-0122	Total/NA	Ground Water	3510C	
310-223515-6	MW-6-GW-0122	Total/NA	Ground Water	3510C	
310-223515-7	MW-7-GW-0122	Total/NA	Ground Water	3510C	
310-223515-8	MW-8R-GW-0122	Total/NA	Ground Water	3510C	
310-223515-9	MW-9-GW-0122	Total/NA	Ground Water	3510C	
310-223515-10	DUP1-GW-0122	Total/NA	Ground Water	3510C	
310-223515-11	EB1-GW-0122	Total/NA	Ground Water	3510C	
MB 310-341748/1-A	Method Blank	Total/NA	Water	3510C	
LCS 310-341748/2-A	Lab Control Sample	Total/NA	Water	3510C	
310-223515-2 MS	MW-2-GW-0122	Total/NA	Ground Water	3510C	
310-223515-2 MSD	MW-2-GW-0122	Total/NA	Ground Water	3510C	

QC Association Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

GC/MS Semi VOA

Analysis Batch: 341850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-223515-1	MW-1-GW-0122	Total/NA	Ground Water	8270E SIM	341748
310-223515-2	MW-2-GW-0122	Total/NA	Ground Water	8270E SIM	341748
310-223515-3	MW-3-GW-0122	Total/NA	Ground Water	8270E SIM	341748
310-223515-4	MW-4-GW-0122	Total/NA	Ground Water	8270E SIM	341748
310-223515-5	MW-5-GW-0122	Total/NA	Ground Water	8270E SIM	341748
310-223515-6	MW-6-GW-0122	Total/NA	Ground Water	8270E SIM	341748
310-223515-7	MW-7-GW-0122	Total/NA	Ground Water	8270E SIM	341748
310-223515-8	MW-8R-GW-0122	Total/NA	Ground Water	8270E SIM	341748
310-223515-9	MW-9-GW-0122	Total/NA	Ground Water	8270E SIM	341748
310-223515-10	DUP1-GW-0122	Total/NA	Ground Water	8270E SIM	341748
310-223515-11	EB1-GW-0122	Total/NA	Ground Water	8270E SIM	341748
MB 310-341748/1-A	Method Blank	Total/NA	Water	8270E SIM	341748
LCS 310-341748/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	341748
310-223515-2 MS	MW-2-GW-0122	Total/NA	Ground Water	8270E SIM	341748
310-223515-2 MSD	MW-2-GW-0122	Total/NA	Ground Water	8270E SIM	341748

Analysis Batch: 341987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-223515-3	MW-3-GW-0122	Total/NA	Ground Water	8270E SIM	341748
310-223515-10	DUP1-GW-0122	Total/NA	Ground Water	8270E SIM	341748

Metals

Prep Batch: 341483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-223515-1	MW-1-GW-0122	Total/NA	Ground Water	3005A	
310-223515-2	MW-2-GW-0122	Total/NA	Ground Water	3005A	
310-223515-3	MW-3-GW-0122	Total/NA	Ground Water	3005A	
310-223515-4	MW-4-GW-0122	Total/NA	Ground Water	3005A	
310-223515-5	MW-5-GW-0122	Total/NA	Ground Water	3005A	
310-223515-6	MW-6-GW-0122	Total/NA	Ground Water	3005A	
310-223515-7	MW-7-GW-0122	Total/NA	Ground Water	3005A	
310-223515-8	MW-8R-GW-0122	Total/NA	Ground Water	3005A	
310-223515-9	MW-9-GW-0122	Total/NA	Ground Water	3005A	
310-223515-10	DUP1-GW-0122	Total/NA	Ground Water	3005A	
310-223515-11	EB1-GW-0122	Total/NA	Ground Water	3005A	
MB 310-341483/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-341483/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-223515-2 MS	MW-2-GW-0122	Total/NA	Ground Water	3005A	
310-223515-2 MSD	MW-2-GW-0122	Total/NA	Ground Water	3005A	
310-223515-11 DU	EB1-GW-0122	Total/NA	Ground Water	3005A	

Analysis Batch: 341846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-223515-1	MW-1-GW-0122	Total/NA	Ground Water	6020A	341483
310-223515-2	MW-2-GW-0122	Total/NA	Ground Water	6020A	341483
310-223515-3	MW-3-GW-0122	Total/NA	Ground Water	6020A	341483
310-223515-4	MW-4-GW-0122	Total/NA	Ground Water	6020A	341483
310-223515-5	MW-5-GW-0122	Total/NA	Ground Water	6020A	341483
310-223515-6	MW-6-GW-0122	Total/NA	Ground Water	6020A	341483
310-223515-7	MW-7-GW-0122	Total/NA	Ground Water	6020A	341483

Eurofins Cedar Falls

QC Association Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Metals (Continued)

Analysis Batch: 341846 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-223515-8	MW-8R-GW-0122	Total/NA	Ground Water	6020A	341483
310-223515-9	MW-9-GW-0122	Total/NA	Ground Water	6020A	341483
310-223515-10	DUP1-GW-0122	Total/NA	Ground Water	6020A	341483
310-223515-11	EB1-GW-0122	Total/NA	Ground Water	6020A	341483
MB 310-341483/1-A	Method Blank	Total/NA	Water	6020A	341483
LCS 310-341483/2-A	Lab Control Sample	Total/NA	Water	6020A	341483
310-223515-2 MS	MW-2-GW-0122	Total/NA	Ground Water	6020A	341483
310-223515-2 MSD	MW-2-GW-0122	Total/NA	Ground Water	6020A	341483
310-223515-11 DU	EB1-GW-0122	Total/NA	Ground Water	6020A	341483

Analysis Batch: 342091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-223515-1	MW-1-GW-0122	Total/NA	Ground Water	6020A	341483
310-223515-3	MW-3-GW-0122	Total/NA	Ground Water	6020A	341483
310-223515-4	MW-4-GW-0122	Total/NA	Ground Water	6020A	341483
310-223515-6	MW-6-GW-0122	Total/NA	Ground Water	6020A	341483
310-223515-7	MW-7-GW-0122	Total/NA	Ground Water	6020A	341483
310-223515-10	DUP1-GW-0122	Total/NA	Ground Water	6020A	341483

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-1-GW-0122

Lab Sample ID: 310-223515-1

Date Collected: 01/13/22 17:30

Matrix: Ground Water

Date Received: 01/14/22 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	341599	01/18/22 17:11	TRZ	TAL CF
Total/NA	Analysis	8260D		10	341871	01/20/22 20:31	TRZ	TAL CF
Total/NA	Prep	3510C			341748	01/19/22 11:41	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	341850	01/20/22 19:22	BKT	TAL CF
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	341846	01/20/22 00:04	SAP	TAL CF
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	342091	01/21/22 17:44	SAP	TAL CF

Client Sample ID: MW-2-GW-0122

Lab Sample ID: 310-223515-2

Date Collected: 01/13/22 16:20

Matrix: Ground Water

Date Received: 01/14/22 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	341599	01/18/22 16:48	TRZ	TAL CF
Total/NA	Prep	3510C			341748	01/19/22 11:41	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	341850	01/20/22 19:41	BKT	TAL CF
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	341846	01/20/22 00:07	SAP	TAL CF

Client Sample ID: MW-3-GW-0122

Lab Sample ID: 310-223515-3

Date Collected: 01/13/22 18:10

Matrix: Ground Water

Date Received: 01/14/22 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	341603	01/19/22 00:48	TRZ	TAL CF
Total/NA	Prep	3510C			341748	01/19/22 11:41	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	341850	01/20/22 20:00	BKT	TAL CF
Total/NA	Prep	3510C			341748	01/19/22 11:41	JCM	TAL CF
Total/NA	Analysis	8270E SIM		10	341987	01/21/22 17:31	BKT	TAL CF
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	341846	01/20/22 00:35	SAP	TAL CF
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	342091	01/21/22 17:47	SAP	TAL CF

Client Sample ID: MW-4-GW-0122

Lab Sample ID: 310-223515-4

Date Collected: 01/13/22 12:50

Matrix: Ground Water

Date Received: 01/14/22 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	341603	01/19/22 01:11	TRZ	TAL CF
Total/NA	Prep	3510C			341748	01/19/22 11:41	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	341850	01/20/22 20:19	BKT	TAL CF
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	341846	01/20/22 00:38	SAP	TAL CF

Eurofins Cedar Falls

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-4-GW-0122

Lab Sample ID: 310-223515-4

Date Collected: 01/13/22 12:50

Matrix: Ground Water

Date Received: 01/14/22 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	342091	01/21/22 17:50	SAP	TAL CF

Client Sample ID: MW-5-GW-0122

Lab Sample ID: 310-223515-5

Date Collected: 01/13/22 13:40

Matrix: Ground Water

Date Received: 01/14/22 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	341603	01/19/22 01:34	TRZ	TAL CF
Total/NA	Prep	3510C			341748	01/19/22 11:41	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	341850	01/20/22 20:38	BKT	TAL CF
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	341846	01/20/22 00:41	SAP	TAL CF

Client Sample ID: MW-6-GW-0122

Lab Sample ID: 310-223515-6

Date Collected: 01/13/22 15:25

Matrix: Ground Water

Date Received: 01/14/22 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	341603	01/19/22 01:57	TRZ	TAL CF
Total/NA	Prep	3510C			341748	01/19/22 11:41	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	341850	01/20/22 20:58	BKT	TAL CF
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	341846	01/20/22 00:44	SAP	TAL CF
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	342091	01/21/22 17:53	SAP	TAL CF

Client Sample ID: MW-7-GW-0122

Lab Sample ID: 310-223515-7

Date Collected: 01/13/22 11:45

Matrix: Ground Water

Date Received: 01/14/22 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	341603	01/19/22 02:19	TRZ	TAL CF
Total/NA	Prep	3510C			341748	01/19/22 11:41	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	341850	01/20/22 21:17	BKT	TAL CF
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	341846	01/20/22 00:48	SAP	TAL CF
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	342091	01/21/22 17:57	SAP	TAL CF

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: MW-8R-GW-0122

Lab Sample ID: 310-223515-8

Date Collected: 01/13/22 10:30

Matrix: Ground Water

Date Received: 01/14/22 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	341603	01/19/22 02:42	TRZ	TAL CF
Total/NA	Prep	3510C			341748	01/19/22 11:41	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	341850	01/20/22 21:36	BKT	TAL CF
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	341846	01/20/22 00:51	SAP	TAL CF

Client Sample ID: MW-9-GW-0122

Lab Sample ID: 310-223515-9

Date Collected: 01/13/22 14:40

Matrix: Ground Water

Date Received: 01/14/22 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	341603	01/19/22 03:05	TRZ	TAL CF
Total/NA	Prep	3510C			341748	01/19/22 11:41	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	341850	01/20/22 21:55	BKT	TAL CF
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	341846	01/20/22 00:54	SAP	TAL CF

Client Sample ID: DUP1-GW-0122

Lab Sample ID: 310-223515-10

Date Collected: 01/13/22 00:00

Matrix: Ground Water

Date Received: 01/14/22 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	341603	01/19/22 03:28	TRZ	TAL CF
Total/NA	Prep	3510C			341748	01/19/22 11:41	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	341850	01/20/22 22:15	BKT	TAL CF
Total/NA	Prep	3510C			341748	01/19/22 11:41	JCM	TAL CF
Total/NA	Analysis	8270E SIM		10	341987	01/21/22 17:51	BKT	TAL CF
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	341846	01/20/22 00:57	SAP	TAL CF
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	342091	01/21/22 18:00	SAP	TAL CF

Client Sample ID: EB1-GW-0122

Lab Sample ID: 310-223515-11

Date Collected: 01/13/22 16:45

Matrix: Ground Water

Date Received: 01/14/22 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	341603	01/19/22 03:51	TRZ	TAL CF
Total/NA	Prep	3510C			341748	01/19/22 11:41	JCM	TAL CF
Total/NA	Analysis	8270E SIM		1	341850	01/20/22 22:34	BKT	TAL CF
Total/NA	Prep	3005A			341483	01/18/22 09:00	ACM2	TAL CF
Total/NA	Analysis	6020A		1	341846	01/20/22 01:00	SAP	TAL CF

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Client Sample ID: Trip Blank

Lab Sample ID: 310-223515-12

Date Collected: 01/13/22 00:00

Matrix: Water

Date Received: 01/14/22 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	341603	01/18/22 23:39	TRZ	TAL CF

Laboratory References:

TAL CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Laboratory: Eurofins Cedar Falls

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Colorado	Petroleum Storage Tank Program	IA100001 (OR)	09-29-22
Georgia	State	IA100001 (OR)	09-29-22
Illinois	NELAP	200024	11-29-22
Iowa	State	007	12-01-21 *
Kansas	NELAP	E-10341	01-31-22
Minnesota	NELAP	019-999-319	12-31-22
Minnesota (Petrofund)	State	3349	04-06-23
North Dakota	State	R-186	09-29-22
Oregon	NELAP	IA100001	09-29-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: GHD Services Inc.
Project/Site: Albia IPL FMGP

Job ID: 310-223515-1
SDG: 11156780

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL CF
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL CF
6020A	Metals (ICP/MS)	SW846	TAL CF
3005A	Preparation, Total Metals	SW846	TAL CF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CF
5030B	Purge and Trap	SW846	TAL CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

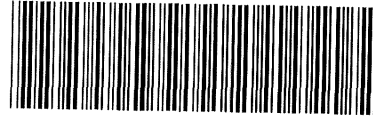
Laboratory References:

TAL CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401





Environment Testing
TestAmerica



310-223515 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information		
Client: <u>BHD</u>		
City/State: <u>Urbandale IA</u>	STATE: <u>IA</u>	Project:
Receipt Information		
Date/Time Received: <u>1/14/22 1330</u>	DATE	TIME
Received By: <u>[Signature]</u>		
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____		
Condition of Cooler/Containers		
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # <u>1</u> of <u>2</u>
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
<u>All nals</u>		
Temperature Record		
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE	
Thermometer ID: <u>N</u>	Correction Factor (°C): <u>AD</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature		
Uncorrected Temp (°C): <u>1.1</u>	Corrected Temp (°C): <u>1.1</u>	
• Sample Container Temperature		
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>
Uncorrected Temp (°C):		
Corrected Temp (°C):		
Exceptions Noted		
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No		
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No		
NOTE: If yes, contact PM before proceeding. If no, proceed with login		
Additional Comments		





Environment Testing
TestAmerica

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>GTD</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE	TIME	Received By:
	<u>1/14/22</u>	<u>1530</u>	<u>[Signature]</u>
Delivery Type:	<input type="checkbox"/> UPS	<input type="checkbox"/> FedEx	<input type="checkbox"/> FedEx Ground
	<input type="checkbox"/> Lab Courier	<input type="checkbox"/> Lab Field Services	<input type="checkbox"/> Client Drop-off
	<input type="checkbox"/> US Mail	<input type="checkbox"/> Spee-Dee	<input type="checkbox"/> Other: _____
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	If yes: Cooler ID: _____
Multiple Coolers?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	If yes: Cooler # <u>2</u> of <u>2</u>
Cooler Custody Seals Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
Temperature Record			
Coolant:	<input checked="" type="checkbox"/> Wet ice	<input type="checkbox"/> Blue ice	<input type="checkbox"/> Dry ice
	<input type="checkbox"/> Other: _____	<input type="checkbox"/> NONE	
Thermometer ID:	<u>N</u>	Correction Factor (°C):	<u>70.0</u>
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C):	<u>4.0</u>	Corrected Temp (°C):	<u>4.0</u>
• Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No			
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			





Cedar Falls Division
3019 Venture Way
Cedar Falls, IA 50613

TestAmerica Des Moines SC
214

Phone 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax 319 - 277 - 2425

Company: GHD Your PO# _____

Send Report To: Kevin Armstrong Invoice To _____

Address: 11228 Aurora Ave

City/State/Zip Code: Urbandale IA 50322

Telephone Number: 5154143933 Fax: _____

Sampled by (Print Name): Diane Pals

(Signature): Diane Pals

Project Name: Albra IPL FUGP

Project Number: 11156780

Email Address: Kevin.armstrong@ghd.com

cc: diane.pals@ghd.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filled	Preservative						Matrix						Analyze For																		
							HNO ₃ (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H ₂ SO ₄ Plastic (Yellow & White Label)	H ₂ SO ₄ Glass (Yellow & White Label)	None (Black & White Label)	Other (Specify)	Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify Stormwater	8200 VOCs	8270 PHS	6020 HSP6	RUSH TAT (Must call ahead)	Standard TAT	Mail results	Fax Results	Send QC with report										
MW-1-GW-0122	11/13/22	1730	5				1	3	1	3	1	3	X																								
MW-2-GW-0122	11/13/22	1620	15				3	9	3	3	3	3	X																								
MW-3-GW-0122	11/13/22	1810	5				1	3	1	3	1	3	X																								
MW-4-GW-0122	11/13/22	1250	5				1	3	1	3	1	3	X																								
MW-5-GW-0122	11/13/22	1340	5				1	3	1	3	1	3	X																								
MW-6-GW-0122	11/13/22	1525	5				1	3	1	3	1	3	X																								
MW-7-GW-0122	11/13/22	1145	5				1	3	1	3	1	3	X																								
MW-8R-GW-0122	11/13/22	1030	5				1	3	1	3	1	3	X																								
MW-9-GW-0122	11/13/22	1440	5				1	3	1	3	1	3	X																								
Dupl-GW-0122	11/13/22	---	5				1	3	1	3	1	3	X																								

NOTES: Please fill in shaded areas

NOTE: All turn around times are calculated from the time of receipt at TestAmerica
NOTE: Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments; additional charges may be assessed.
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders

Relinquished by: <u>Justin Simon</u>	Time: <u>1043</u>	Date: <u>1-14-2022</u>	Relinquished by: <u>Caithes</u>	Time: <u>1145</u>	Date: <u>10/18</u>
Relinquished by:	Time:	Date:	Relinquished by:	Time:	Date:
Shipped Via	Time: <u>1330</u>	Date: <u>1-14-22</u>	Shipped Via	Time:	Date:
Received for TestAmerica by: <u>JK</u>	Temperature Upon Receipt	Laboratory Comments	Received for TestAmerica by:	Temperature Upon Receipt	Laboratory Comments



Company: GHD

Send Report To: Kevin Armstrong

Address: 11228 Amora Ave

City/State/Zip Code: Urbandale IA 50322

Telephone Number: 515 414 3933

Sampled by (Print Name): Diane Pals

(Signature): Diane Pals

Your PO #

Invoice To

Project Name: Albia IPL FmGP

Project Number: 1156780

Email Address: Kevin.armstrong@ghd.com

CC: diane.pals@ghd.com

Sample ID	Date Sampled	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Ice	Preservative					Matrix					Other Specify Stormwater	Analyze For:																
								HNO ₃ (Red & White label)	HCl (Blue & White label)	NaOH (Orange & White label)	H ₂ SO ₄ Plastic (Yellow & White Label)	H ₂ SO ₄ Glass (Yellow & White Label)	None (Black & White Label)	Other (Specify)	Groundwater	Wastewater	Drinking Water		Sludge	Soil	RUSH TAT (Must call ahead)	Standard TAT	Email results	Fax Results	Send QC with report										
EBI-6W-0122	1/13/22	1645	5	X				1	3											X															
Trip Blank	1/13/22	-	2	X				2												X															
<p>NOTE: All turn around times are calculated from the time of receipt at TestAmerica</p> <p>NOTE: Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments; additional charges may be assessed.</p> <p>NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders</p> <p>Relinquished by: <u>Justin Simon</u> Date: <u>1-14-2022</u> Time: <u>1048</u></p> <p>Relinquished by: <u>Justin Simon</u> Date: <u>1-14-2022</u> Time: <u>1048</u></p> <p>Relinquished by: <u>Justin Simon</u> Date: <u>1-14-2022</u> Time: <u>1330</u></p> <p>Shipped Via: <u>PL</u></p> <p>Received for TestAmerica by: <u>PL</u></p>																																			



Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 310-223515-1

SDG Number: 11156780

Login Number: 223515

List Number: 1

Creator: Kizer, Preston V

List Source: Eurofins Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Appendix C

Groundwater Trend Analysis

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 1:27:11 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	2-Methylnaphthalene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.2								
17	Maximum			0.28								
18	Mean			0.22								
19	Geometric Mean			0.218								
20	Median			0.2								
21	Standard Deviation			0.04								
22	Coefficient of Variation			0.182								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-1								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.236								
28	Standardized Value of S			0								
29	Approximate p-value			0.5								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:45:59 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	1,2,4-Trimethylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			69.6								
17	Maximum			111								
18	Mean			86								
19	Geometric Mean			84.7								
20	Median			81.7								
21	Standard Deviation			17.85								
22	Coefficient of Variation			0.208								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 2:16:46 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Acenaphthene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			11.6								
17	Maximum			19.3								
18	Mean			15.1								
19	Geometric Mean			14.72								
20	Median			14.75								
21	Standard Deviation			3.932								
22	Coefficient of Variation			0.26								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			0								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			N/A								
29	Approximate p-value			N/A								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 2:39:07 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Acenaphthylene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			1.43								
17	Maximum			4.71								
18	Mean			3.025								
19	Geometric Mean			2.771								
20	Median			2.98								
21	Standard Deviation			1.37								
22	Coefficient of Variation			0.453								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			0								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			N/A								
29	Approximate p-value			N/A								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:14:57 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Anthracene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.844								
17	Maximum			1.83								
18	Mean			1.286								
19	Geometric Mean			1.231								
20	Median			1.235								
21	Standard Deviation			0.437								
22	Coefficient of Variation			0.34								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 1:24:42 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Arsenic											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.0061								
17	Maximum			0.0166								
18	Mean			0.0121								
19	Geometric Mean			0.0114								
20	Median			0.0129								
21	Standard Deviation			0.0044								
22	Coefficient of Variation			0.363								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:42:24 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Benzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			283								
17	Maximum			494								
18	Mean			390.5								
19	Geometric Mean			383.1								
20	Median			392.5								
21	Standard Deviation			86.2								
22	Coefficient of Variation			0.221								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:43:22 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Ethylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			384								
17	Maximum			565								
18	Mean			471.8								
19	Geometric Mean			465.3								
20	Median			469								
21	Standard Deviation			89.63								
22	Coefficient of Variation			0.19								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:26:32 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Fluoranthene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.579								
17	Maximum			1.65								
18	Mean			1.051								
19	Geometric Mean			0.981								
20	Median			0.987								
21	Standard Deviation			0.446								
22	Coefficient of Variation			0.425								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			0								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			N/A								
29	Approximate p-value			N/A								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:31:24 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Fluorene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			9.01								
17	Maximum			15.4								
18	Mean			12.08								
19	Geometric Mean			11.78								
20	Median			11.95								
21	Standard Deviation			3.06								
22	Coefficient of Variation			0.253								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:47:12 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Isopropylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			4.3								
17	Maximum			6.17								
18	Mean			4.968								
19	Geometric Mean			4.92								
20	Median			4.7								
21	Standard Deviation			0.826								
22	Coefficient of Variation			0.166								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			0								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			N/A								
29	Approximate p-value			N/A								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 1:26:07 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Lead											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			5.9000E-4								
17	Maximum			0.005								
18	Mean			0.00174								
19	Geometric Mean			0.00109								
20	Median			6.8950E-4								
21	Standard Deviation			0.00217								
22	Coefficient of Variation			1.247								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:32:09 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Naphthalene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.848								
17	Maximum			66.9								
18	Mean			21.43								
19	Geometric Mean			7.629								
20	Median			8.995								
21	Standard Deviation			30.78								
22	Coefficient of Variation			1.436								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:48:11 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	N-Propylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			6.43								
17	Maximum			11								
18	Mean			8.295								
19	Geometric Mean			8.138								
20	Median			7.875								
21	Standard Deviation			1.928								
22	Coefficient of Variation			0.232								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:33:03 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Phenanthrene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			3.08								
17	Maximum			12								
18	Mean			6.538								
19	Geometric Mean			5.73								
20	Median			5.535								
21	Standard Deviation			3.948								
22	Coefficient of Variation			0.604								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			0								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			N/A								
29	Approximate p-value			N/A								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:33:51 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Pyrene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.473								
17	Maximum			1.55								
18	Mean			0.988								
19	Geometric Mean			0.908								
20	Median			0.965								
21	Standard Deviation			0.443								
22	Coefficient of Variation			0.448								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			0								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			N/A								
29	Approximate p-value			N/A								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:44:05 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Toluene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			2.87								
17	Maximum			6.58								
18	Mean			4.708								
19	Geometric Mean			4.514								
20	Median			4.69								
21	Standard Deviation			1.517								
22	Coefficient of Variation			0.322								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:44:52 PM								
4	From File			MW01 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Xylenes, Total											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			29.6								
17	Maximum			57.5								
18	Mean			44.63								
19	Geometric Mean			43.35								
20	Median			45.7								
21	Standard Deviation			11.87								
22	Coefficient of Variation			0.266								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:52:16 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	2-Methylnaphthalene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.238								
17	Maximum			1.74								
18	Mean			0.812								
19	Geometric Mean			0.564								
20	Median			0.634								
21	Standard Deviation			0.723								
22	Coefficient of Variation			0.891								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-5								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.769								
28	Standardized Value of S			-1.445								
29	Approximate p-value			0.0743								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 4:05:31 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	1,2-Dichloroethane											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			1								
17	Maximum			3.61								
18	Mean			1.653								
19	Geometric Mean			1.378								
20	Median			1								
21	Standard Deviation			1.305								
22	Coefficient of Variation			0.79								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			3								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.236								
28	Standardized Value of S			0.894								
29	Approximate p-value			0.186								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 4:04:33 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	1,2,4-Trimethylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			10.3								
17	Maximum			45.9								
18	Mean			29.68								
19	Geometric Mean			25.34								
20	Median			31.25								
21	Standard Deviation			16.87								
22	Coefficient of Variation			0.568								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 4:06:40 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	1,3,5-Trimethylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			1.17								
17	Maximum			4.32								
18	Mean			2.663								
19	Geometric Mean			2.32								
20	Median			2.58								
21	Standard Deviation			1.509								
22	Coefficient of Variation			0.567								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:55:00 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Acenaphthene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.217								
17	Maximum			22.5								
18	Mean			14.33								
19	Geometric Mean			6.122								
20	Median			17.3								
21	Standard Deviation			10.11								
22	Coefficient of Variation			0.706								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:56:04 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Acenaphthylene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.217								
17	Maximum			25.8								
18	Mean			15.1								
19	Geometric Mean			6.039								
20	Median			17.19								
21	Standard Deviation			12.39								
22	Coefficient of Variation			0.821								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:56:46 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Anthracene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.217								
17	Maximum			1.57								
18	Mean			0.981								
19	Geometric Mean			0.778								
20	Median			1.069								
21	Standard Deviation			0.601								
22	Coefficient of Variation			0.612								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.14/14/2022 4:42:26 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Arsenic											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.0147								
17	Maximum			0.0228								
18	Mean			0.0169								
19	Geometric Mean			0.0166								
20	Median			0.0151								
21	Standard Deviation			0.00392								
22	Coefficient of Variation			0.232								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 4:01:15 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Benzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			38.6								
17	Maximum			279								
18	Mean			173.7								
19	Geometric Mean			138.1								
20	Median			188.5								
21	Standard Deviation			105.5								
22	Coefficient of Variation			0.608								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 4:40:21 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Carbon disulfide											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			1								
17	Maximum			1.15								
18	Mean			1.038								
19	Geometric Mean			1.036								
20	Median			1								
21	Standard Deviation			0.075								
22	Coefficient of Variation			0.0723								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-1								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.236								
28	Standardized Value of S			0								
29	Approximate p-value			0.5								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 4:02:02 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Ethylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			12.4								
17	Maximum			89.5								
18	Mean			52.75								
19	Geometric Mean			39.75								
20	Median			54.55								
21	Standard Deviation			38.46								
22	Coefficient of Variation			0.729								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:57:31 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Fluoranthene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.217								
17	Maximum			0.972								
18	Mean			0.721								
19	Geometric Mean			0.623								
20	Median			0.848								
21	Standard Deviation			0.343								
22	Coefficient of Variation			0.476								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			0								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			N/A								
29	Approximate p-value			N/A								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:58:11 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Fluorene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.217								
17	Maximum			16.8								
18	Mean			10.64								
19	Geometric Mean			4.815								
20	Median			12.77								
21	Standard Deviation			7.886								
22	Coefficient of Variation			0.741								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 4:41:25 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Isopropylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			1								
17	Maximum			2.78								
18	Mean			1.853								
19	Geometric Mean			1.684								
20	Median			1.815								
21	Standard Deviation			0.894								
22	Coefficient of Variation			0.482								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:51:37 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Lead											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			5.0000E-4								
17	Maximum			5.3300E-4								
18	Mean			5.0825E-4								
19	Geometric Mean			5.0805E-4								
20	Median			5.0000E-4								
21	Standard Deviation			1.6500E-5								
22	Coefficient of Variation			0.0325								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			1								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.236								
28	Standardized Value of S			0								
29	Approximate p-value			0.5								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:58:52 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Naphthalene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.543								
17	Maximum			39.4								
18	Mean			15.86								
19	Geometric Mean			4.579								
20	Median			11.75								
21	Standard Deviation			18.78								
22	Coefficient of Variation			1.184								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 4:42:12 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	n-Butylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			1								
17	Maximum			1.14								
18	Mean			1.035								
19	Geometric Mean			1.033								
20	Median			1								
21	Standard Deviation			0.07								
22	Coefficient of Variation			0.0676								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-3								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.236								
28	Standardized Value of S			-0.894								
29	Approximate p-value			0.186								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 4:44:20 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	N-Propylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			1								
17	Maximum			2.31								
18	Mean			1.568								
19	Geometric Mean			1.459								
20	Median			1.48								
21	Standard Deviation			0.671								
22	Coefficient of Variation			0.428								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-5								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.769								
28	Standardized Value of S			-1.445								
29	Approximate p-value			0.0743								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 3:59:36 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Phenanthrene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.217								
17	Maximum			8.82								
18	Mean			5.132								
19	Geometric Mean			2.628								
20	Median			5.745								
21	Standard Deviation			4.27								
22	Coefficient of Variation			0.832								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 4:00:26 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Pyrene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.234								
17	Maximum			1.05								
18	Mean			0.719								
19	Geometric Mean			0.628								
20	Median			0.796								
21	Standard Deviation			0.346								
22	Coefficient of Variation			0.481								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			0								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			N/A								
29	Approximate p-value			N/A								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 4:02:44 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Toluene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			1								
17	Maximum			6.48								
18	Mean			3.648								
19	Geometric Mean			2.649								
20	Median			3.555								
21	Standard Deviation			2.894								
22	Coefficient of Variation			0.793								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/16/2022 4:03:51 PM								
4	From File			MW02 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Xylenes, Total											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			10.1								
17	Maximum			58.1								
18	Mean			36.18								
19	Geometric Mean			29.45								
20	Median			38.25								
21	Standard Deviation			22.59								
22	Coefficient of Variation			0.624								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:44:32 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	2-Methylnaphthalene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.273								
17	Maximum			3.62								
18	Mean			1.37								
19	Geometric Mean			0.783								
20	Median			0.793								
21	Standard Deviation			1.574								
22	Coefficient of Variation			1.149								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-6								
26	Tabulated p-value			0.042								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.698								
29	Approximate p-value			0.0447								
30												
31	Statistically significant evidence of a decreasing											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:54:02 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	1,2,4-Trimethylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			42.7								
17	Maximum			72.1								
18	Mean			63.5								
19	Geometric Mean			62.14								
20	Median			69.6								
21	Standard Deviation			13.92								
22	Coefficient of Variation			0.219								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:54:47 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	1,3,5-Trimethylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			2.95								
17	Maximum			7.97								
18	Mean			5.545								
19	Geometric Mean			5.126								
20	Median			5.63								
21	Standard Deviation			2.402								
22	Coefficient of Variation			0.433								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-6								
26	Tabulated p-value			0.042								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.698								
29	Approximate p-value			0.0447								
30												
31	Statistically significant evidence of a decreasing											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:45:11 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Acenaphthene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			18.3								
17	Maximum			27								
18	Mean			21.4								
19	Geometric Mean			21.14								
20	Median			20.15								
21	Standard Deviation			4.012								
22	Coefficient of Variation			0.187								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:45:56 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Acenaphthylene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			70.4								
17	Maximum			159								
18	Mean			122.1								
19	Geometric Mean			117.1								
20	Median			129.5								
21	Standard Deviation			37.17								
22	Coefficient of Variation			0.304								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:46:37 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Anthracene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			1.56								
17	Maximum			6.09								
18	Mean			3.593								
19	Geometric Mean			3.164								
20	Median			3.36								
21	Standard Deviation			1.996								
22	Coefficient of Variation			0.556								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-6								
26	Tabulated p-value			0.042								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.698								
29	Approximate p-value			0.0447								
30												
31	Statistically significant evidence of a decreasing											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:04:15 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Arsenic											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.00353								
17	Maximum			0.0111								
18	Mean			0.00629								
19	Geometric Mean			0.00568								
20	Median			0.00527								
21	Standard Deviation			0.00343								
22	Coefficient of Variation			0.545								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			6								
26	Tabulated p-value			0.042								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			1.698								
29	Approximate p-value			0.0447								
30												
31	Statistically significant evidence of an increasing											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:50:57 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Benzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			172								
17	Maximum			507								
18	Mean			399								
19	Geometric Mean			367.9								
20	Median			458.5								
21	Standard Deviation			153.2								
22	Coefficient of Variation			0.384								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:55:38 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Chloroethane											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			4								
17	Maximum			21.9								
18	Mean			8.475								
19	Geometric Mean			6.119								
20	Median			4								
21	Standard Deviation			8.95								
22	Coefficient of Variation			1.056								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-1								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.236								
28	Standardized Value of S			0								
29	Approximate p-value			0.5								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:51:46 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Ethylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			49.8								
17	Maximum			188								
18	Mean			131.2								
19	Geometric Mean			117.7								
20	Median			143.5								
21	Standard Deviation			58.81								
22	Coefficient of Variation			0.448								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:47:22 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Fluoranthene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			1.03								
17	Maximum			5.37								
18	Mean			3.763								
19	Geometric Mean			3.185								
20	Median			4.325								
21	Standard Deviation			1.907								
22	Coefficient of Variation			0.507								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-6								
26	Tabulated p-value			0.042								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.698								
29	Approximate p-value			0.0447								
30												
31	Statistically significant evidence of a decreasing											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:48:05 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Fluorene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			8.64								
17	Maximum			17.2								
18	Mean			12.39								
19	Geometric Mean			12.02								
20	Median			11.85								
21	Standard Deviation			3.56								
22	Coefficient of Variation			0.287								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-6								
26	Tabulated p-value			0.042								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.698								
29	Approximate p-value			0.0447								
30												
31	Statistically significant evidence of a decreasing											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 2:24:55 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Isopropylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			4.76								
17	Maximum			16.4								
18	Mean			11.97								
19	Geometric Mean			10.86								
20	Median			13.35								
21	Standard Deviation			5.027								
22	Coefficient of Variation			0.42								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			0								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			N/A								
29	Approximate p-value			N/A								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:48:42 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Naphthalene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			14								
17	Maximum			593								
18	Mean			228.2								
19	Geometric Mean			96.89								
20	Median			153								
21	Standard Deviation			268.2								
22	Coefficient of Variation			1.175								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-6								
26	Tabulated p-value			0.042								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.698								
29	Approximate p-value			0.0447								
30												
31	Statistically significant evidence of a decreasing											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 2:25:37 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	n-Butylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			1.04								
17	Maximum			2.12								
18	Mean			1.633								
19	Geometric Mean			1.581								
20	Median			1.685								
21	Standard Deviation			0.448								
22	Coefficient of Variation			0.275								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-6								
26	Tabulated p-value			0.042								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.698								
29	Approximate p-value			0.0447								
30												
31	Statistically significant evidence of a decreasing											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 2:26:32 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	N-Propylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			1.23								
17	Maximum			5.21								
18	Mean			3.925								
19	Geometric Mean			3.423								
20	Median			4.63								
21	Standard Deviation			1.818								
22	Coefficient of Variation			0.463								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:49:31 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Phenanthrene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			15								
17	Maximum			66.4								
18	Mean			40.88								
19	Geometric Mean			35.02								
20	Median			41.05								
21	Standard Deviation			23.61								
22	Coefficient of Variation			0.578								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-6								
26	Tabulated p-value			0.042								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.698								
29	Approximate p-value			0.0447								
30												
31	Statistically significant evidence of a decreasing											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 2:46:25 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	p-Isopropyltoluene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			1								
17	Maximum			1.02								
18	Mean			1.005								
19	Geometric Mean			1.005								
20	Median			1								
21	Standard Deviation			0.01								
22	Coefficient of Variation			0.00995								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-3								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.236								
28	Standardized Value of S			-0.894								
29	Approximate p-value			0.186								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:50:14 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Pyrene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.959								
17	Maximum			5.55								
18	Mean			3.917								
19	Geometric Mean			3.241								
20	Median			4.58								
21	Standard Deviation			2.064								
22	Coefficient of Variation			0.527								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-6								
26	Tabulated p-value			0.042								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.698								
29	Approximate p-value			0.0447								
30												
31	Statistically significant evidence of a decreasing											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 2:47:51 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	sec-Butylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			1								
17	Maximum			1.01								
18	Mean			1.003								
19	Geometric Mean			1.002								
20	Median			1								
21	Standard Deviation			0.005								
22	Coefficient of Variation			0.00499								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-3								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.236								
28	Standardized Value of S			-0.894								
29	Approximate p-value			0.186								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:52:28 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Toluene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			2.5								
17	Maximum			20.1								
18	Mean			12.37								
19	Geometric Mean			9.307								
20	Median			13.43								
21	Standard Deviation			8.592								
22	Coefficient of Variation			0.695								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 1:53:12 PM								
4	From File			MW03 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Xylenes, Total											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			48.8								
17	Maximum			130								
18	Mean			98.85								
19	Geometric Mean			92.56								
20	Median			108.3								
21	Standard Deviation			36.41								
22	Coefficient of Variation			0.368								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-6								
26	Tabulated p-value			0.042								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.698								
29	Approximate p-value			0.0447								
30												
31	Statistically significant evidence of a decreasing											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 2:49:40 PM								
4	From File			MW04 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Arsenic											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.00394								
17	Maximum			0.00598								
18	Mean			0.00485								
19	Geometric Mean			0.00477								
20	Median			0.00473								
21	Standard Deviation			9.9212E-4								
22	Coefficient of Variation			0.205								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			0								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			N/A								
29	Approximate p-value			N/A								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 2:54:41 PM								
4	From File			MW04 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Benzo[b]fluoranthene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.208								
17	Maximum			0.219								
18	Mean			0.211								
19	Geometric Mean			0.211								
20	Median			0.208								
21	Standard Deviation			0.0055								
22	Coefficient of Variation			0.0261								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-1								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.236								
28	Standardized Value of S			0								
29	Approximate p-value			0.5								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 2:50:26 PM								
4	From File			MW04 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Lead											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			7.0400E-4								
17	Maximum			0.005								
18	Mean			0.00288								
19	Geometric Mean			0.00194								
20	Median			0.0029								
21	Standard Deviation			0.00245								
22	Coefficient of Variation			0.853								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-3								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.769								
28	Standardized Value of S			-0.722								
29	Approximate p-value			0.235								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 2:57:57 PM								
4	From File			MW05 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Arsenic											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.002								
17	Maximum			0.00342								
18	Mean			0.00236								
19	Geometric Mean			0.00229								
20	Median			0.002								
21	Standard Deviation			7.1000E-4								
22	Coefficient of Variation			0.301								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-3								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.236								
28	Standardized Value of S			-0.894								
29	Approximate p-value			0.186								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 2:59:51 PM								
4	From File			MW05 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Lead											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			5.0000E-4								
17	Maximum			7.3700E-4								
18	Mean			5.5925E-4								
19	Geometric Mean			5.5093E-4								
20	Median			5.0000E-4								
21	Standard Deviation			1.1850E-4								
22	Coefficient of Variation			0.212								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			1								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.236								
28	Standardized Value of S			0								
29	Approximate p-value			0.5								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:05:40 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	2-Methylnaphthalene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.2								
17	Maximum			0.319								
18	Mean			0.23								
19	Geometric Mean			0.225								
20	Median			0.2								
21	Standard Deviation			0.0595								
22	Coefficient of Variation			0.259								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-1								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.236								
28	Standardized Value of S			0								
29	Approximate p-value			0.5								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:18:53 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	1,2,4-Trimethylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			2.71								
17	Maximum			17.4								
18	Mean			12.48								
19	Geometric Mean			10.11								
20	Median			14.9								
21	Standard Deviation			6.622								
22	Coefficient of Variation			0.531								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:19:51 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	1,3,5-Trimethylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			1								
17	Maximum			1.15								
18	Mean			1.038								
19	Geometric Mean			1.036								
20	Median			1								
21	Standard Deviation			0.075								
22	Coefficient of Variation			0.0723								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			3								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.236								
28	Standardized Value of S			0.894								
29	Approximate p-value			0.186								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:06:28 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Acenaphthene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.217								
17	Maximum			3.02								
18	Mean			1.707								
19	Geometric Mean			1.199								
20	Median			1.795								
21	Standard Deviation			1.169								
22	Coefficient of Variation			0.685								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:07:17 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Acenaphthylene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.217								
17	Maximum			5.72								
18	Mean			3.652								
19	Geometric Mean			2.188								
20	Median			4.335								
21	Standard Deviation			2.425								
22	Coefficient of Variation			0.664								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			0								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			N/A								
29	Approximate p-value			N/A								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:08:01 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Anthracene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.2								
17	Maximum			0.74								
18	Mean			0.421								
19	Geometric Mean			0.356								
20	Median			0.372								
21	Standard Deviation			0.267								
22	Coefficient of Variation			0.635								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			3								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.769								
28	Standardized Value of S			0.722								
29	Approximate p-value			0.235								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:04:35 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Arsenic											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.0193								
17	Maximum			0.0422								
18	Mean			0.0285								
19	Geometric Mean			0.0273								
20	Median			0.0262								
21	Standard Deviation			0.00973								
22	Coefficient of Variation			0.342								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:14:47 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Benzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			9.16								
17	Maximum			41.7								
18	Mean			23.62								
19	Geometric Mean			20.63								
20	Median			21.8								
21	Standard Deviation			13.47								
22	Coefficient of Variation			0.57								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:16:02 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Ethylbenzene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			2.04								
17	Maximum			6.54								
18	Mean			4.815								
19	Geometric Mean			4.397								
20	Median			5.34								
21	Standard Deviation			2.02								
22	Coefficient of Variation			0.419								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			0								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			N/A								
29	Approximate p-value			N/A								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:08:48 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Fluoranthene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.217								
17	Maximum			1.28								
18	Mean			0.739								
19	Geometric Mean			0.618								
20	Median			0.729								
21	Standard Deviation			0.438								
22	Coefficient of Variation			0.593								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:10:13 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Fluorene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.217								
17	Maximum			2.82								
18	Mean			1.353								
19	Geometric Mean			0.928								
20	Median			1.187								
21	Standard Deviation			1.139								
22	Coefficient of Variation			0.842								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:03:45 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Lead											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			5.0000E-4								
17	Maximum			0.00127								
18	Mean			7.3850E-4								
19	Geometric Mean			6.8518E-4								
20	Median			5.9200E-4								
21	Standard Deviation			3.6011E-4								
22	Coefficient of Variation			0.488								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:11:00 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Naphthalene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.543								
17	Maximum			6.83								
18	Mean			2.26								
19	Geometric Mean			1.262								
20	Median			0.833								
21	Standard Deviation			3.051								
22	Coefficient of Variation			1.35								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			0								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			N/A								
29	Approximate p-value			N/A								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:11:49 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Phenanthrene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.2								
17	Maximum			5.4								
18	Mean			2.468								
19	Geometric Mean			0.968								
20	Median			2.135								
21	Standard Deviation			2.674								
22	Coefficient of Variation			1.084								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			3								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.769								
28	Standardized Value of S			0.722								
29	Approximate p-value			0.235								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:13:40 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Pyrene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.217								
17	Maximum			1.34								
18	Mean			0.85								
19	Geometric Mean			0.705								
20	Median			0.921								
21	Standard Deviation			0.466								
22	Coefficient of Variation			0.548								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:17:00 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Toluene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			1								
17	Maximum			4.32								
18	Mean			2.463								
19	Geometric Mean			2.051								
20	Median			2.265								
21	Standard Deviation			1.605								
22	Coefficient of Variation			0.652								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:18:05 PM								
4	From File			MW06 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Xylenes, Total											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			4.23								
17	Maximum			44.7								
18	Mean			24.48								
19	Geometric Mean			18.14								
20	Median			24.5								
21	Standard Deviation			17.06								
22	Coefficient of Variation			0.697								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-4								
26	Tabulated p-value			0.167								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.019								
29	Approximate p-value			0.154								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:28:39 PM								
4	From File			MW07 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	2-Methylnaphthalene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.2								
17	Maximum			1.02								
18	Mean			0.405								
19	Geometric Mean			0.301								
20	Median			0.2								
21	Standard Deviation			0.41								
22	Coefficient of Variation			1.012								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-3								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.236								
28	Standardized Value of S			-0.894								
29	Approximate p-value			0.186								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:29:32 PM								
4	From File			MW07 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Acenaphthylene											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.2								
17	Maximum			0.453								
18	Mean			0.263								
19	Geometric Mean			0.245								
20	Median			0.2								
21	Standard Deviation			0.127								
22	Coefficient of Variation			0.481								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-3								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.236								
28	Standardized Value of S			-0.894								
29	Approximate p-value			0.186								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:27:03 PM								
4	From File			MW08 MK Input_a.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Arsenic, Total											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			0.002								
17	Maximum			0.0133								
18	Mean			0.00938								
19	Geometric Mean			0.00757								
20	Median			0.0111								
21	Standard Deviation			0.00503								
22	Coefficient of Variation			0.536								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-6								
26	Tabulated p-value			0.042								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-1.698								
29	Approximate p-value			0.0447								
30												
31	Statistically significant evidence of a decreasing											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:36:35 PM								
4	From File			MW08 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Lead, Total											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			5.0000E-4								
17	Maximum			0.00577								
18	Mean			0.00186								
19	Geometric Mean			9.8712E-4								
20	Median			5.7500E-4								
21	Standard Deviation			0.00261								
22	Coefficient of Variation			1.407								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			-2								
26	Tabulated p-value			0.375								
27	Standard Deviation of S			2.944								
28	Standardized Value of S			-0.34								
29	Approximate p-value			0.367								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

	A	B	C	D	E	F	G	H	I	J	K	L
1				Mann-Kendall Trend Test Analysis								
2	User Selected Options											
3	Date/Time of Computation			ProUCL 5.12/17/2022 3:37:58 PM								
4	From File			MW09 MK Input.xls								
5	Full Precision			OFF								
6	Confidence Coefficient			0.9								
7	Level of Significance			0.1								
8												
9	Lead											
10												
11	General Statistics											
12	Number of Events Reported (m)			4								
13	Number of Missing Events			0								
14	Number of Reported Events Used			4								
15	Number Values Reported (n)			4								
16	Minimum			5.0000E-4								
17	Maximum			5.0900E-4								
18	Mean			5.0225E-4								
19	Geometric Mean			5.0223E-4								
20	Median			5.0000E-4								
21	Standard Deviation			4.5000E-6								
22	Coefficient of Variation			0.00896								
23												
24	Mann-Kendall Test											
25	M-K Test Value (S)			1								
26	Tabulated p-value			0.625								
27	Standard Deviation of S			2.236								
28	Standardized Value of S			0								
29	Approximate p-value			0.5								
30												
31	Insufficient evidence to identify a significant											
32	trend at the specified level of significance.											

Mann-Kendall Trend Test MW-1

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.2361
Standardized Value of S	0.0000
M-K Test Value (S)	-1
Tabulated p-value	0.6250
Approximate p-value	0.5000

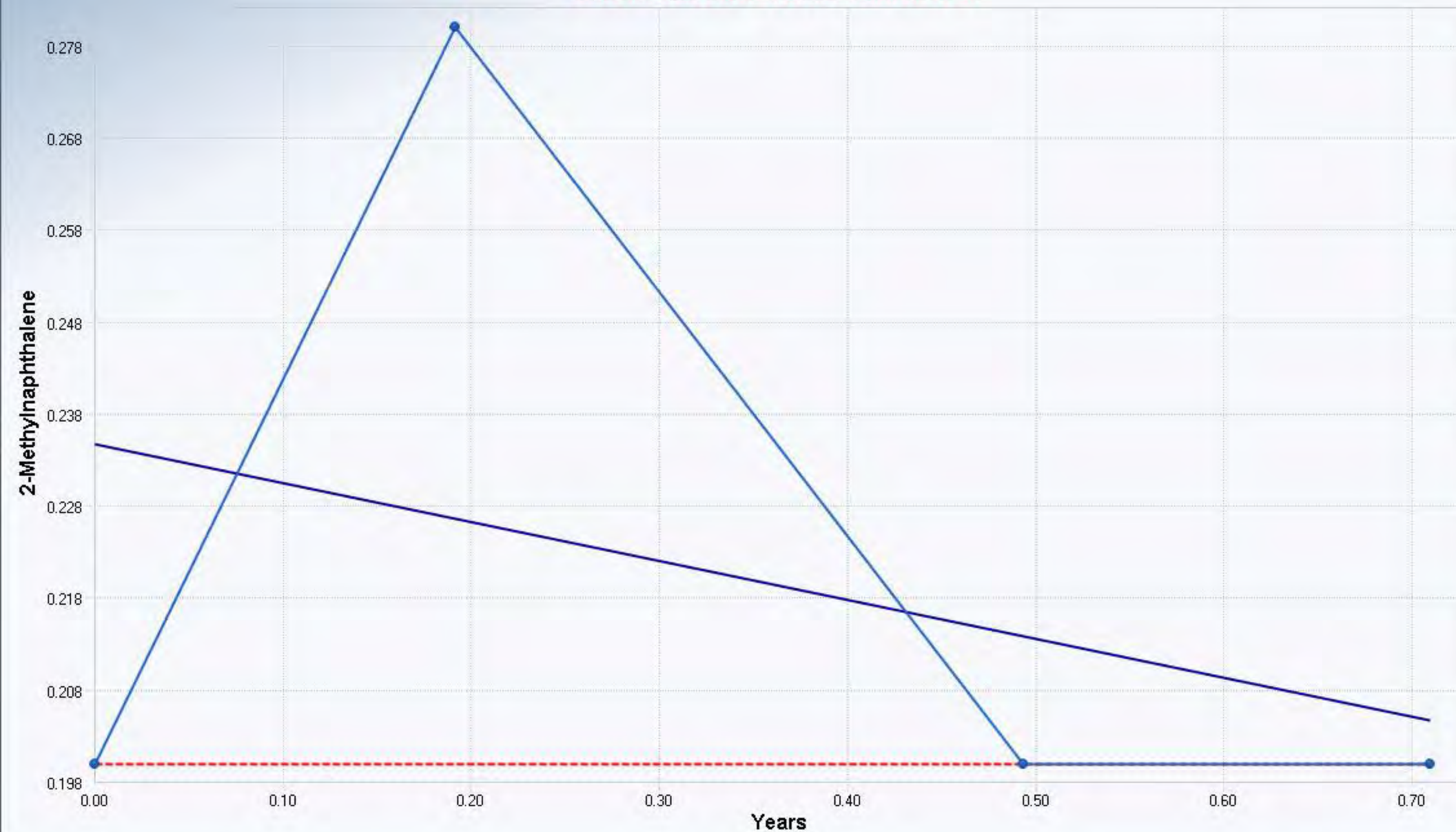
OLS Regression Line (Blue)

OLS Regression Slope	-0.0422
OLS Regression Intercept	0.2347

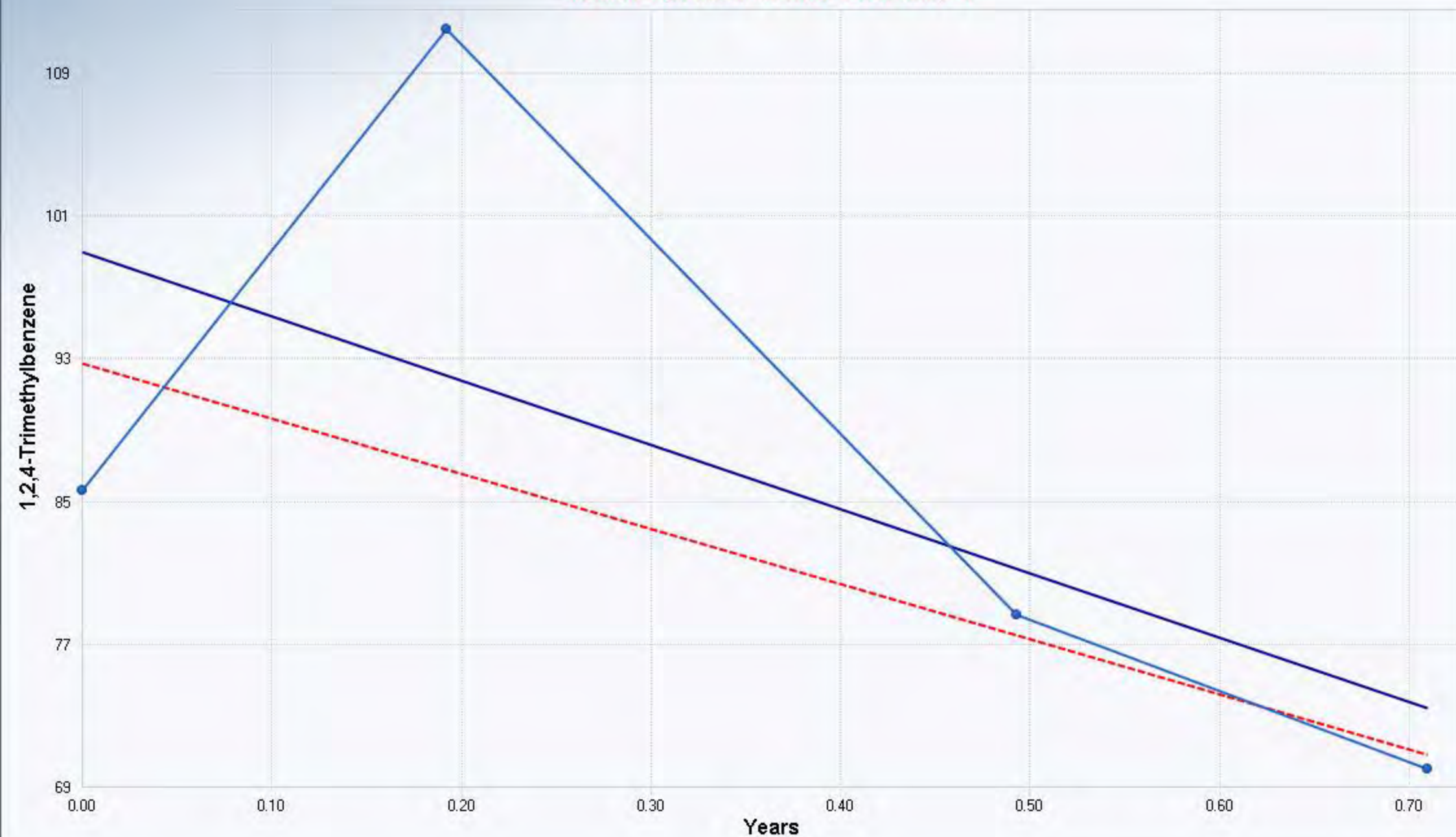
Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	0.2000

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



Mann-Kendall Trend Test MW-1



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

OLS Regression Line (Blue)

OLS Regression Slope	-35.9520
OLS Regression Intercept	98.5339

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-30.8594
Theil-Sen Intercept	92.2683

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

Mann-Kendall Trend Test MW-1

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	
M-K Test Value (S)	0
Tabulated p-value	0.6250
Approximate p-value	

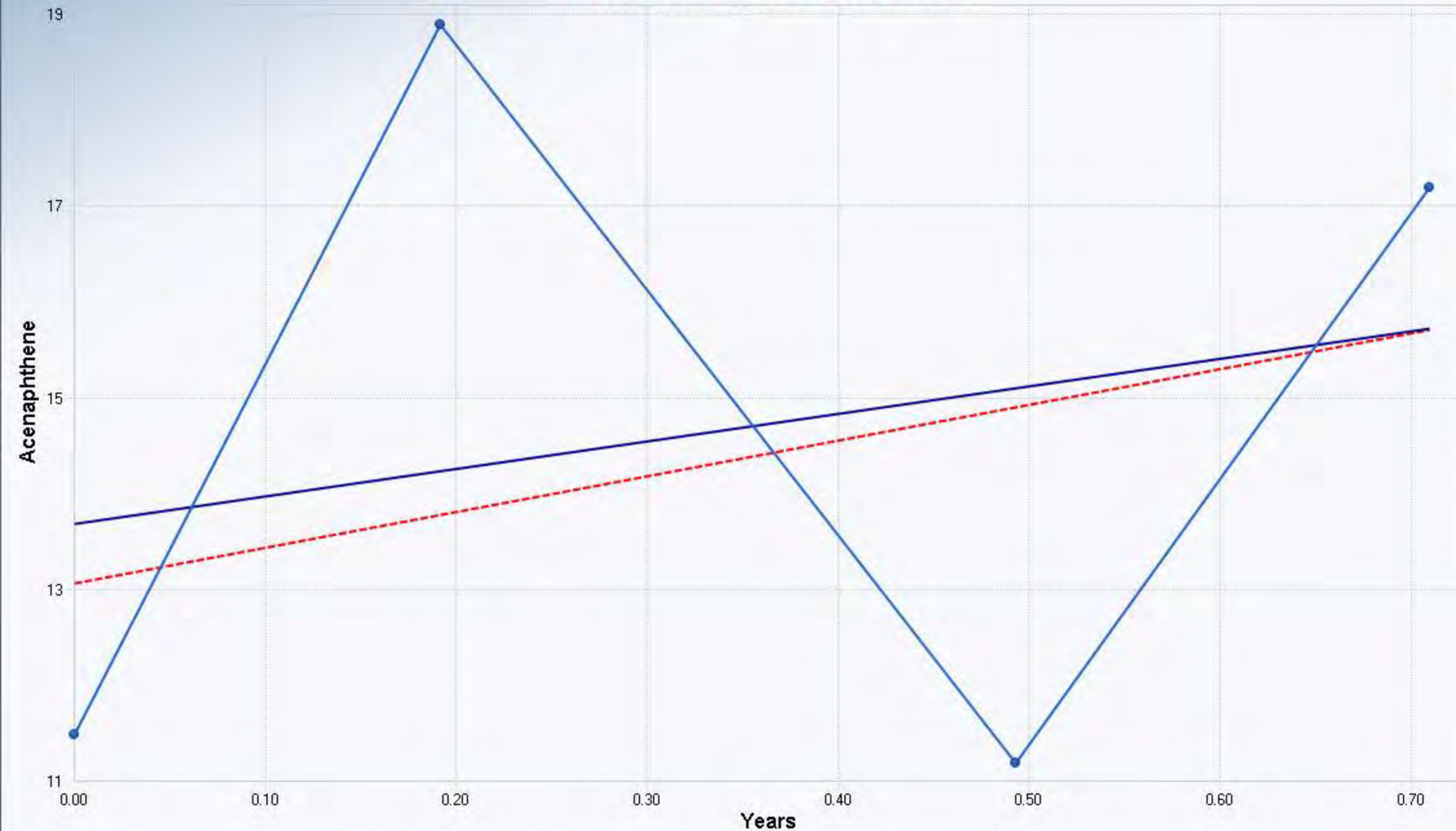
OLS Regression Line (Blue)

OLS Regression Slope	2.8704
OLS Regression Intercept	14.0993

Theil-Sen Trend Line (Red)

Theil-Sen Slope	3.7122
Theil-Sen Intercept	13.4787

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



Mann-Kendall Trend Test MW-1

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	
M-K Test Value (S)	0
Tabulated p-value	0.6250
Approximate p-value	

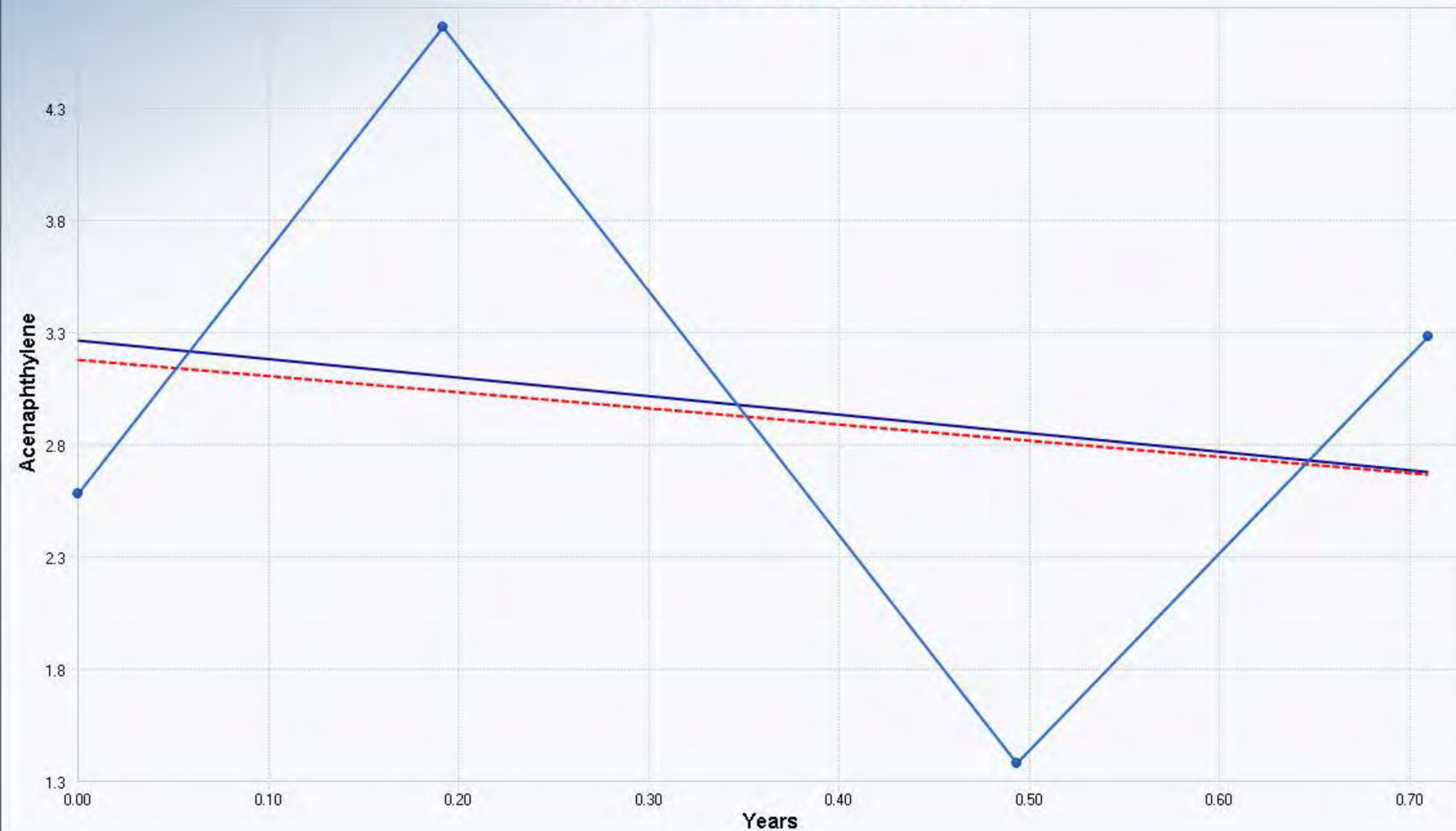
OLS Regression Line (Blue)

OLS Regression Slope	-0.8307
OLS Regression Intercept	3.3146

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.7234
Theil-Sen Intercept	3.2277

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



Mann-Kendall Trend Test MW-1

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	0.3397
M-K Test Value (S)	2
Tabulated p-value	0.3750
Approximate p-value	0.3670

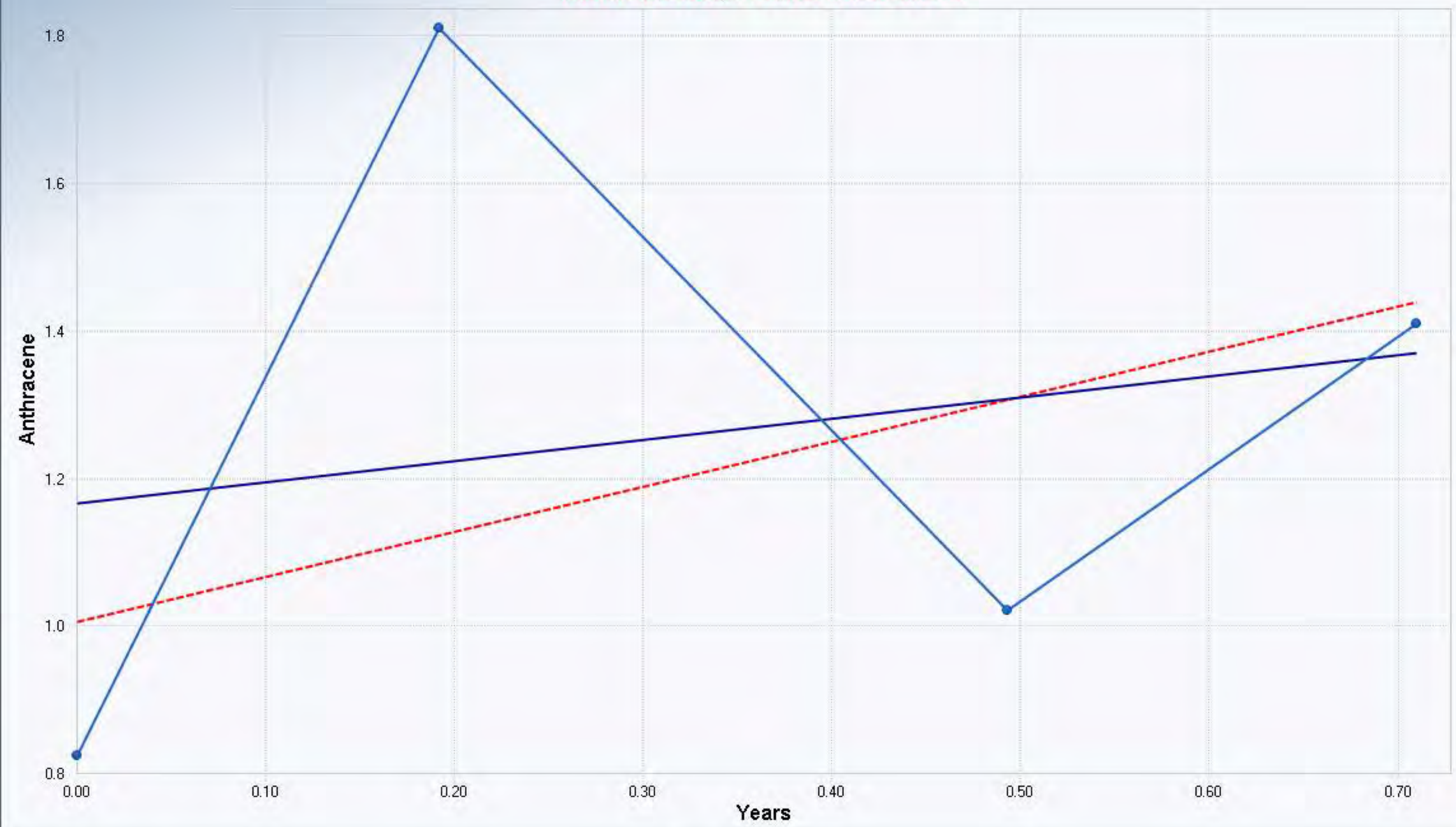
OLS Regression Line (Blue)

OLS Regression Slope	0.2865
OLS Regression Intercept	1.1861

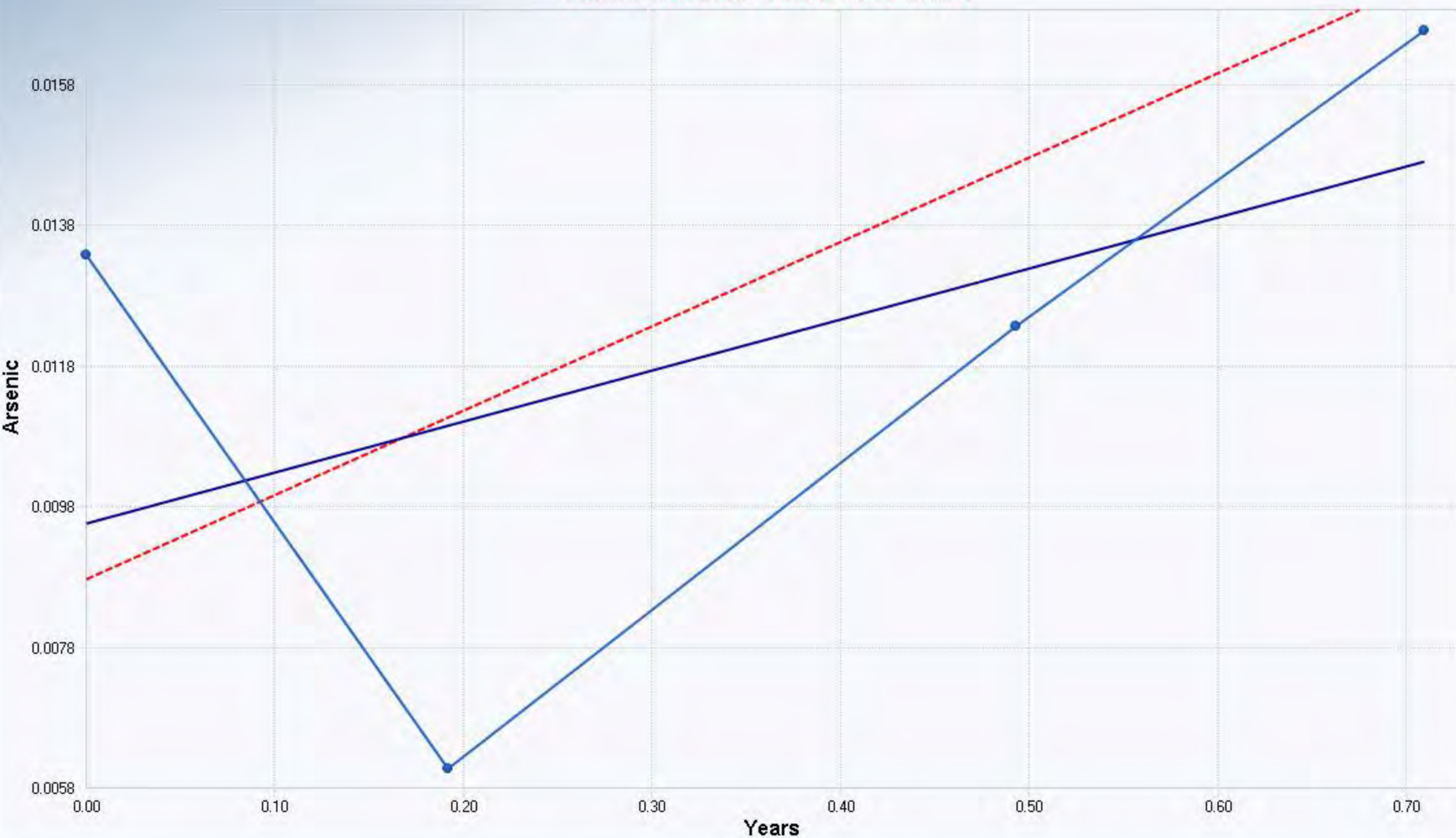
Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.6116
Theil-Sen Intercept	1.0255

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



Mann-Kendall Trend Test MW-1



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	0.3397
M-K Test Value (S)	2
Tabulated p-value	0.3750
Approximate p-value	0.3670

OLS Regression Line (Blue)

OLS Regression Slope	0.0072
OLS Regression Intercept	0.0096

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0120
Theil-Sen Intercept	0.0088

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

Mann-Kendall Trend Test MW-1

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-0.3397
M-K Test Value (S)	-2
Tabulated p-value	0.3750
Approximate p-value	0.3670

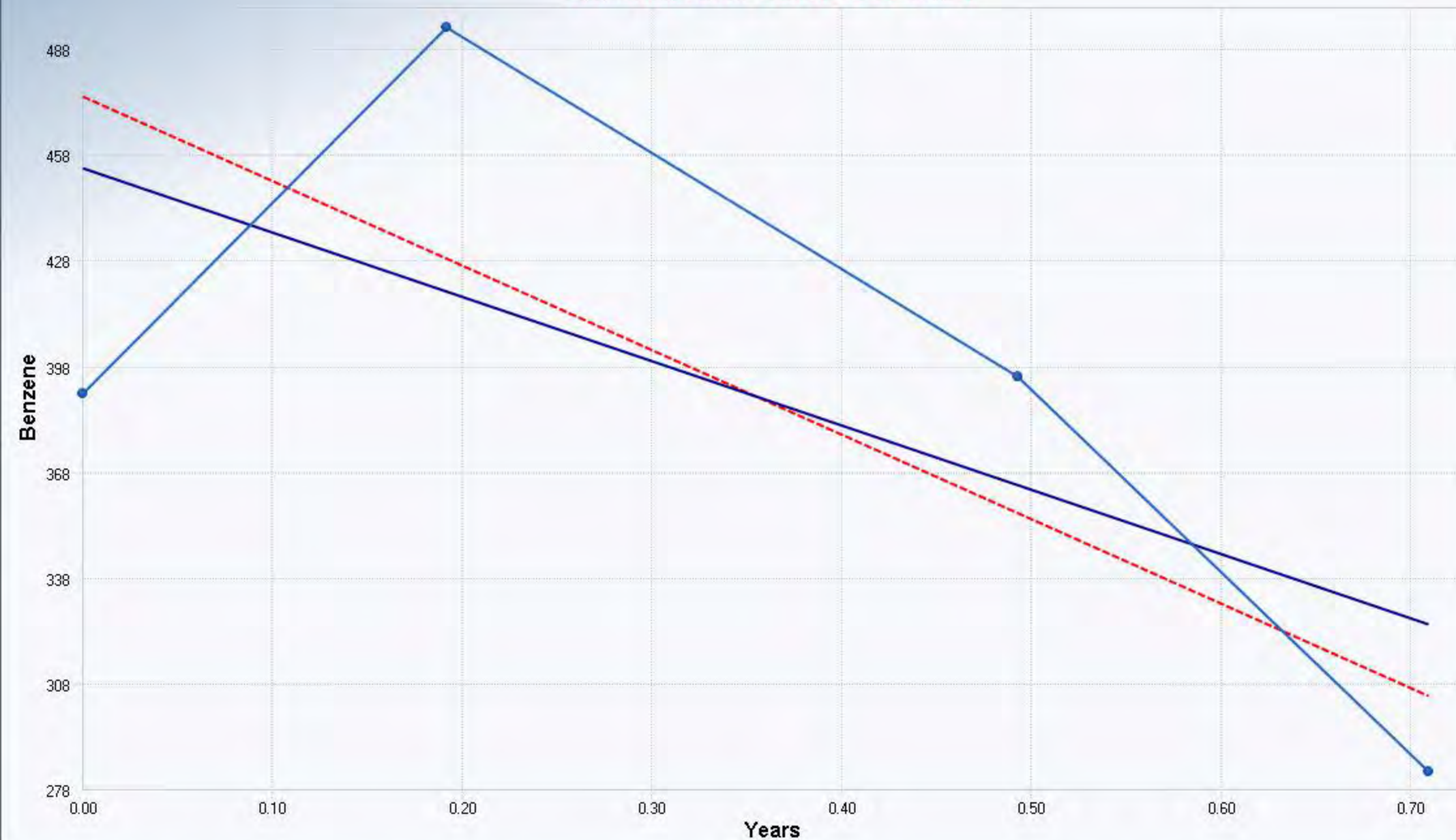
OLS Regression Line (Blue)

OLS Regression Slope	-182.3353
OLS Regression Intercept	454.0676

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-239.6458
Theil-Sen Intercept	474.5705

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



Mann-Kendall Trend Test MW-1

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-0.3397
M-K Test Value (S)	-2
Tabulated p-value	0.3750
Approximate p-value	0.3670

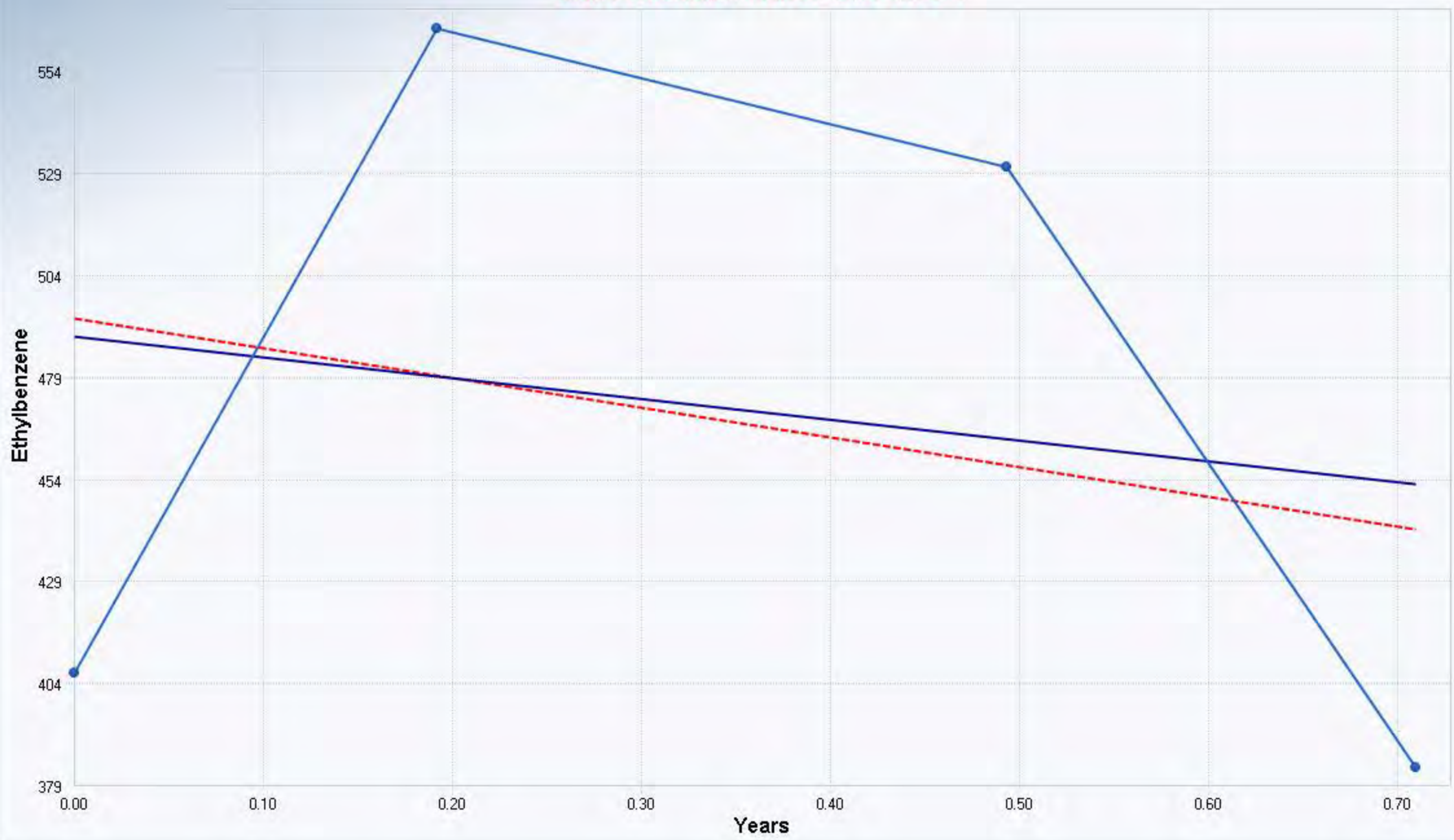
OLS Regression Line (Blue)

OLS Regression Slope	-51.0009
OLS Regression Intercept	489.5304

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-72.6157
Theil-Sen Intercept	493.8684

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



Mann-Kendall Trend Test MW-1

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	
M-K Test Value (S)	0
Tabulated p-value	0.6250
Approximate p-value	

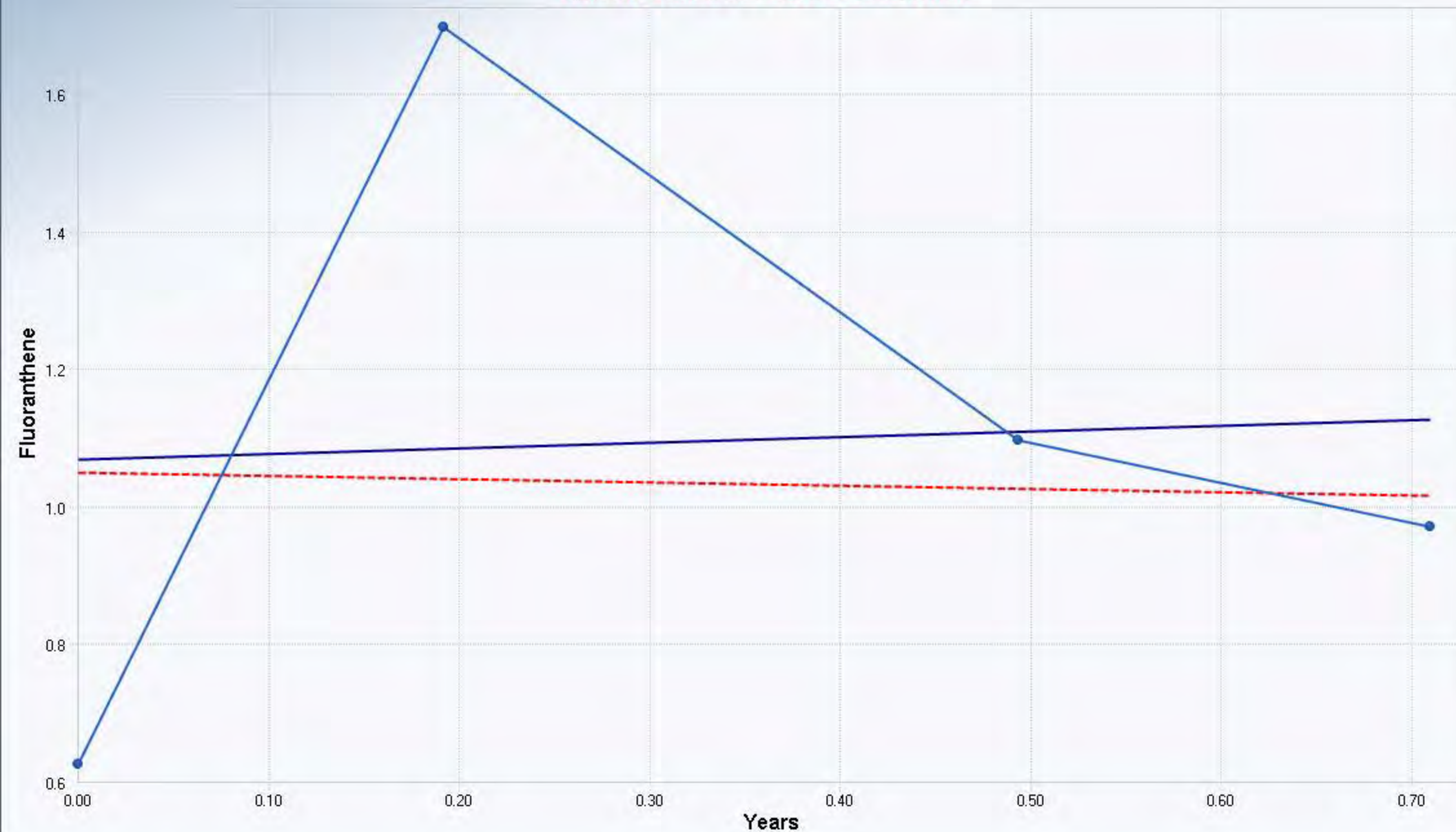
OLS Regression Line (Blue)

OLS Regression Slope	0.0828
OLS Regression Intercept	1.0219

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0480
Theil-Sen Intercept	1.0034

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



Mann-Kendall Trend Test MW-1

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	0.3397
M-K Test Value (S)	2
Tabulated p-value	0.3750
Approximate p-value	0.3670

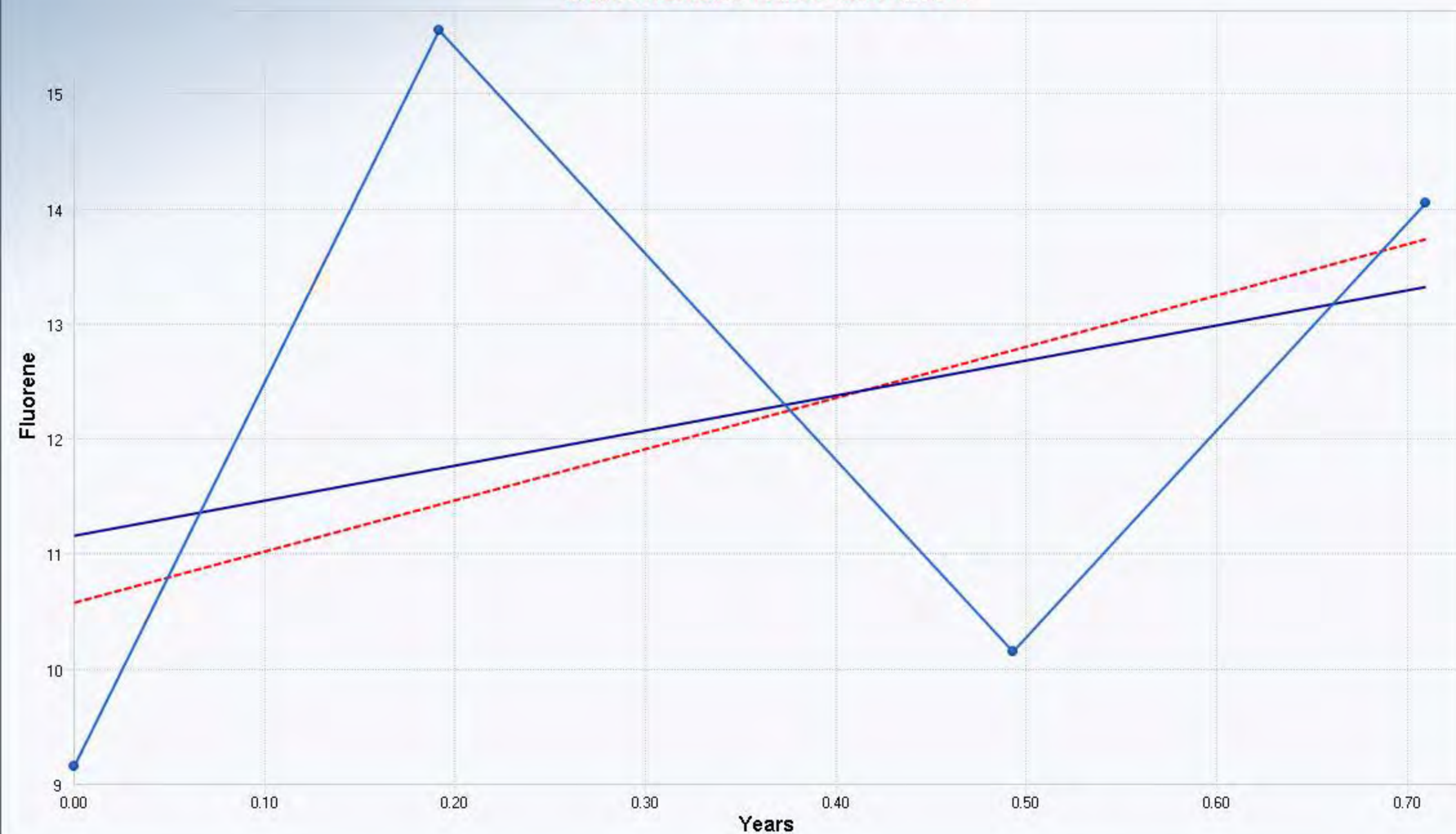
OLS Regression Line (Blue)

OLS Regression Slope	3.0469
OLS Regression Intercept	11.0153

Theil-Sen Trend Line (Red)

Theil-Sen Slope	4.4494
Theil-Sen Intercept	10.4262

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



Mann-Kendall Trend Test MW-1

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	
M-K Test Value (S)	0
Tabulated p-value	0.6250
Approximate p-value	

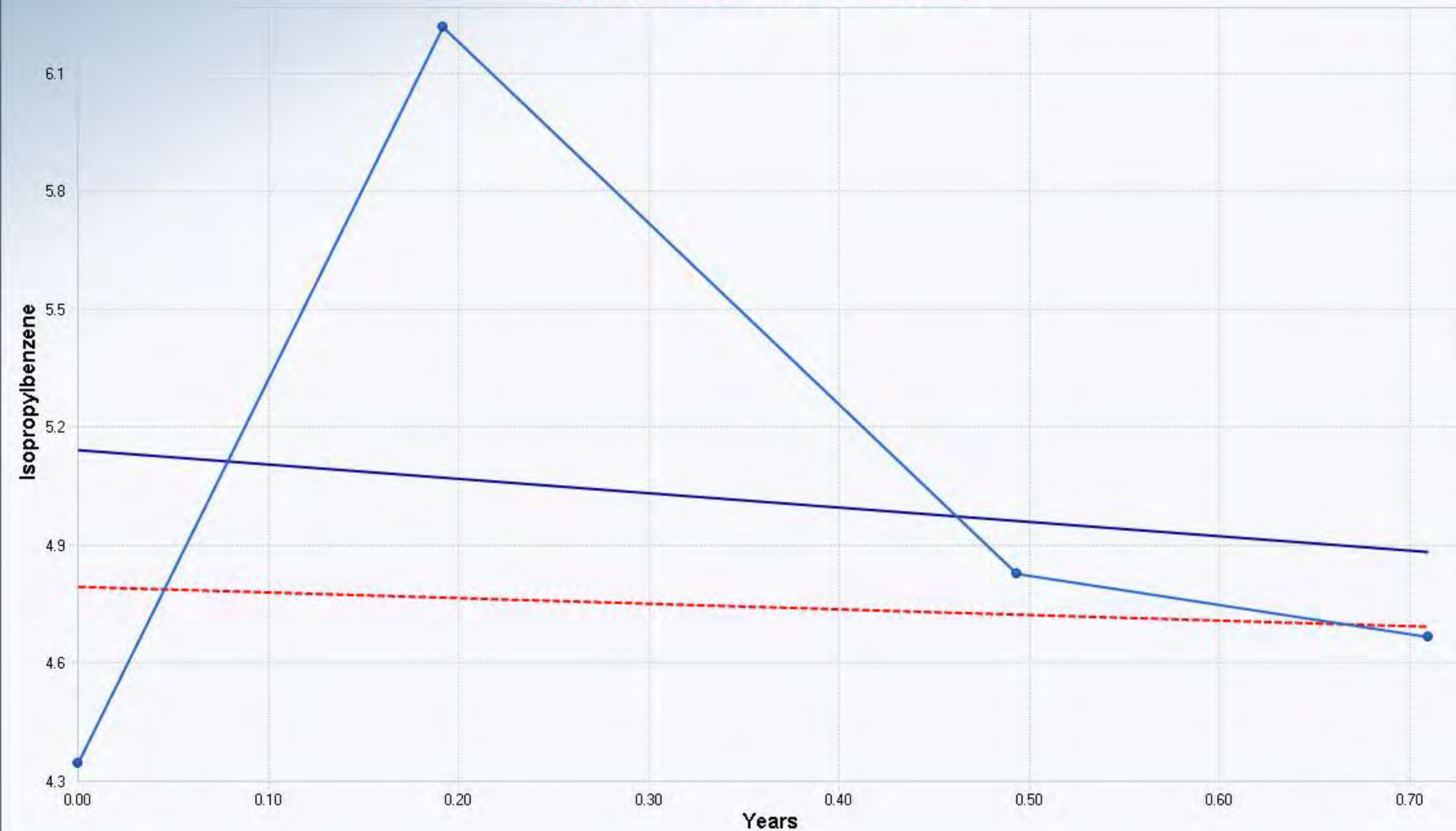
OLS Regression Line (Blue)

OLS Regression Slope	-0.3647
OLS Regression Intercept	5.0946

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.1441
Theil-Sen Intercept	4.7494

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



Mann-Kendall Trend Test MW-1

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-0.3397
M-K Test Value (S)	-2
Tabulated p-value	0.3750
Approximate p-value	0.3670

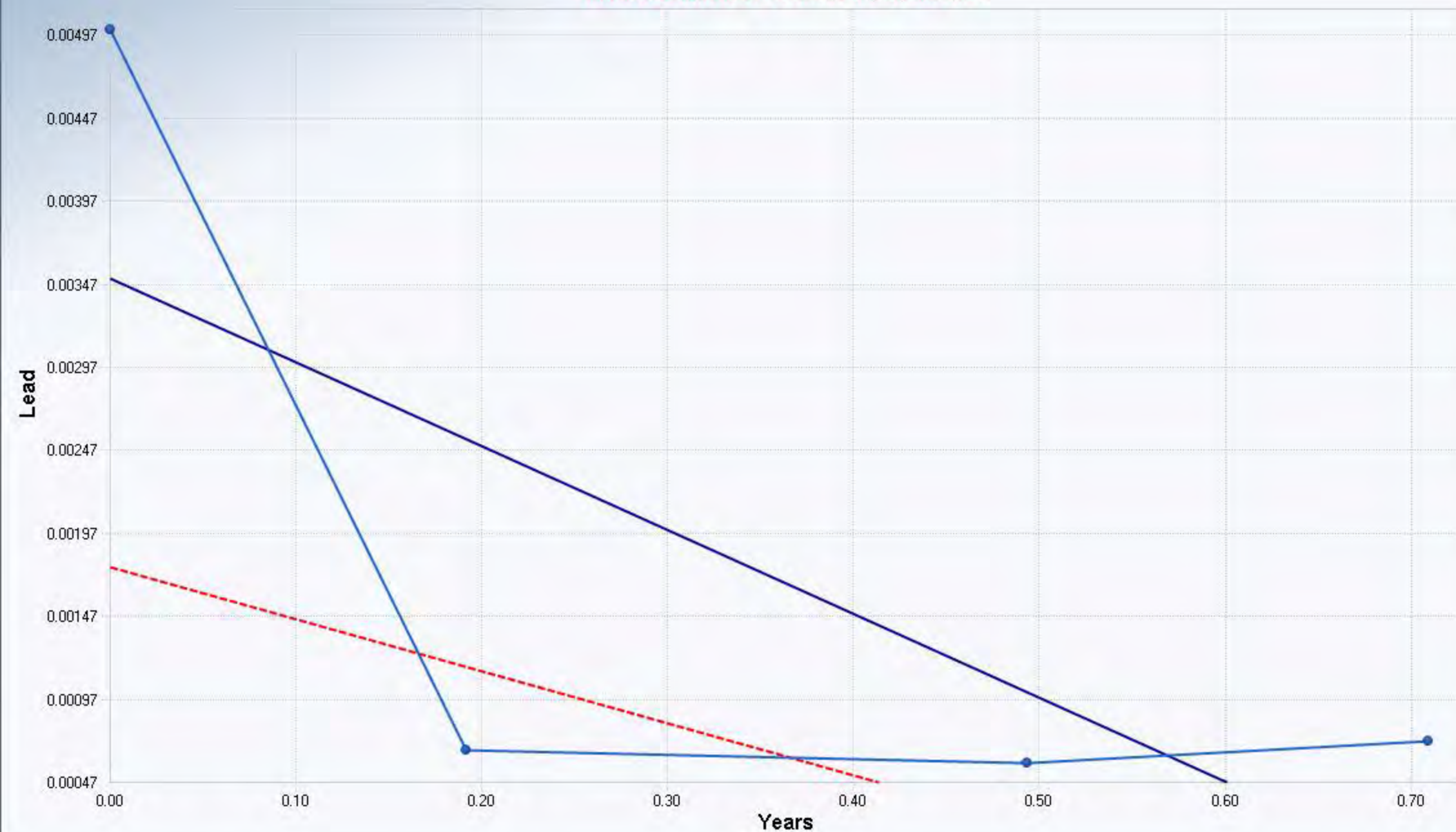
OLS Regression Line (Blue)

OLS Regression Slope	-0.0051
OLS Regression Intercept	0.0035

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0031
Theil-Sen Intercept	0.0018

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



Mann-Kendall Trend Test MW-1

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-0.3397
M-K Test Value (S)	-2
Tabulated p-value	0.3750
Approximate p-value	0.3670

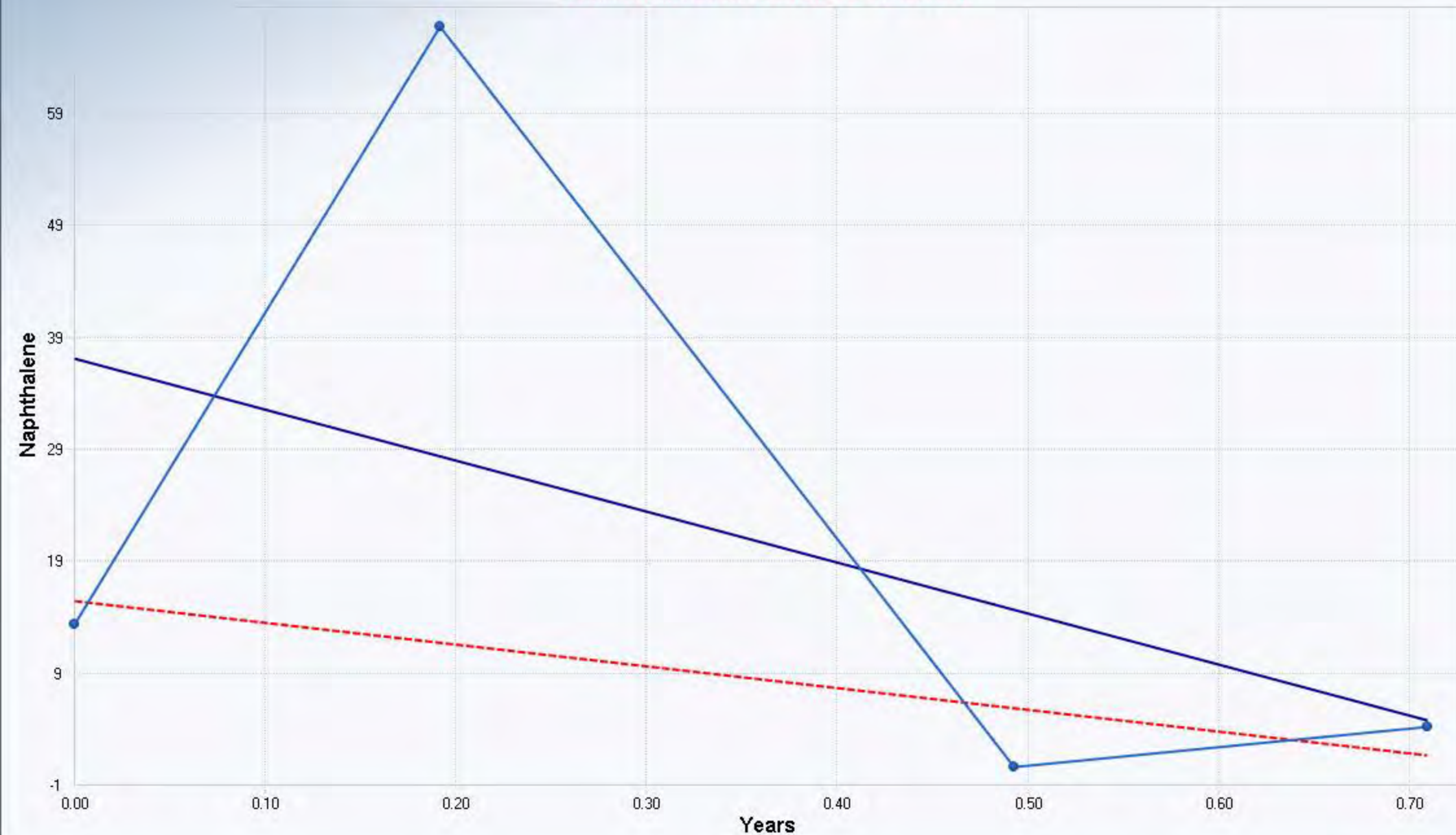
OLS Regression Line (Blue)

OLS Regression Slope	-45.4975
OLS Regression Intercept	37.2963

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-19.4188
Theil-Sen Intercept	15.6453

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



Mann-Kendall Trend Test MW-1

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	0.3397
M-K Test Value (S)	2
Tabulated p-value	0.3750
Approximate p-value	0.3670

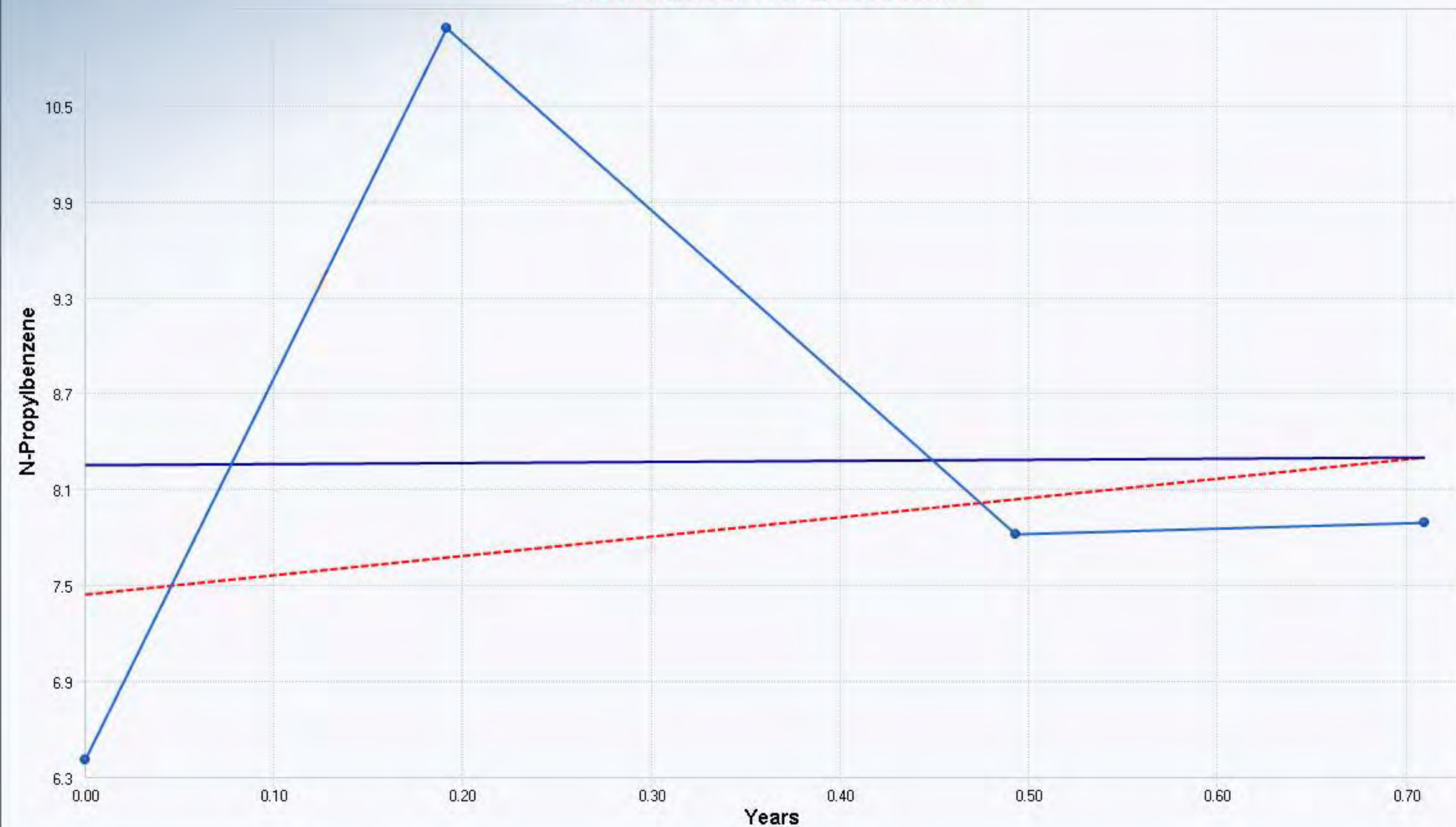
OLS Regression Line (Blue)

OLS Regression Slope	0.0713
OLS Regression Intercept	8.2702

Theil-Sen Trend Line (Red)

Theil-Sen Slope	1.2046
Theil-Sen Intercept	7.4625

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



Mann-Kendall Trend Test MW-1

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	
M-K Test Value (S)	0
Tabulated p-value	0.6250
Approximate p-value	

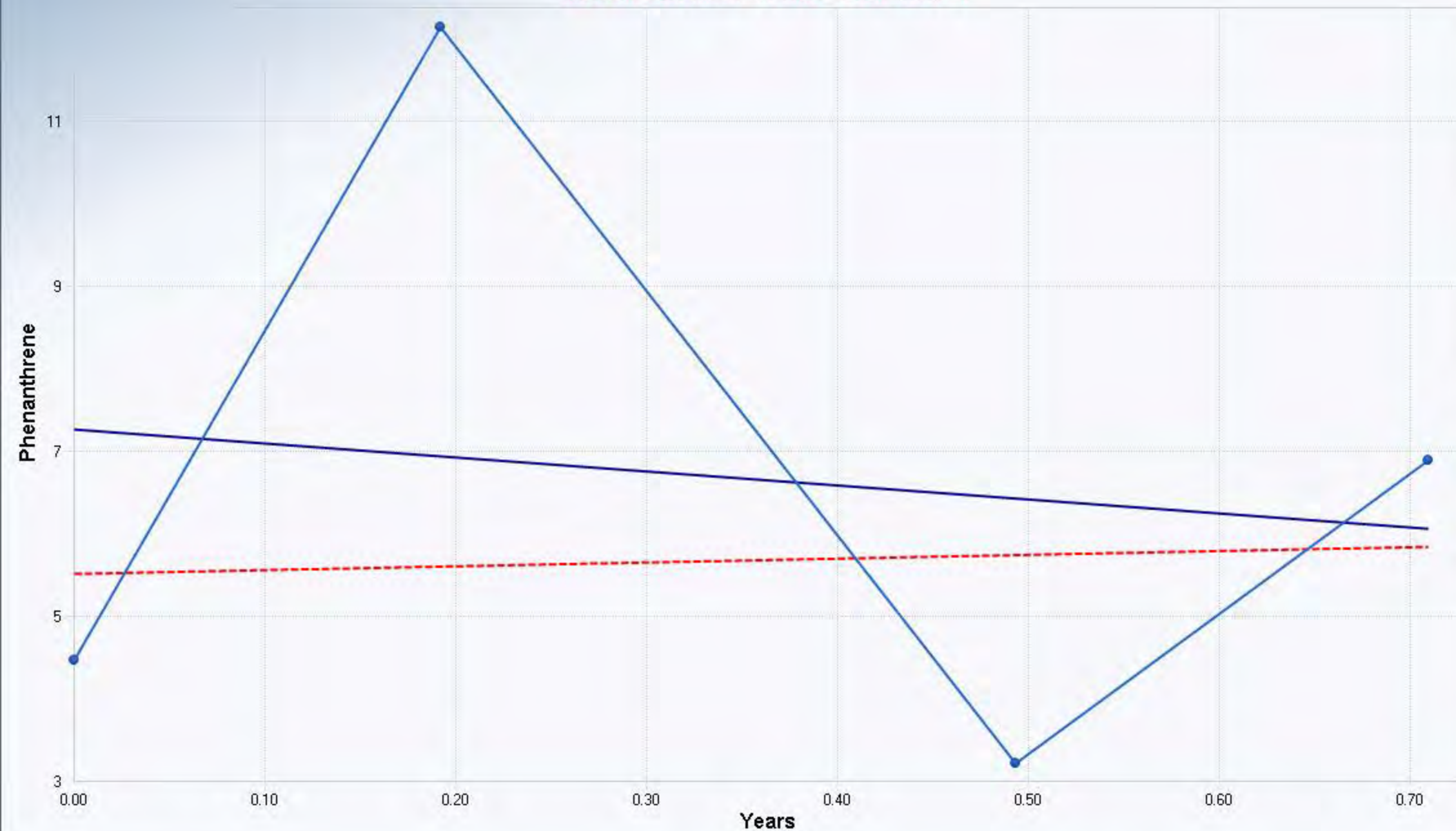
OLS Regression Line (Blue)

OLS Regression Slope	-1.7041
OLS Regression Intercept	7.1316

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.4550
Theil-Sen Intercept	5.3792

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



Mann-Kendall Trend Test MW-1

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	
M-K Test Value (S)	0
Tabulated p-value	0.6250
Approximate p-value	

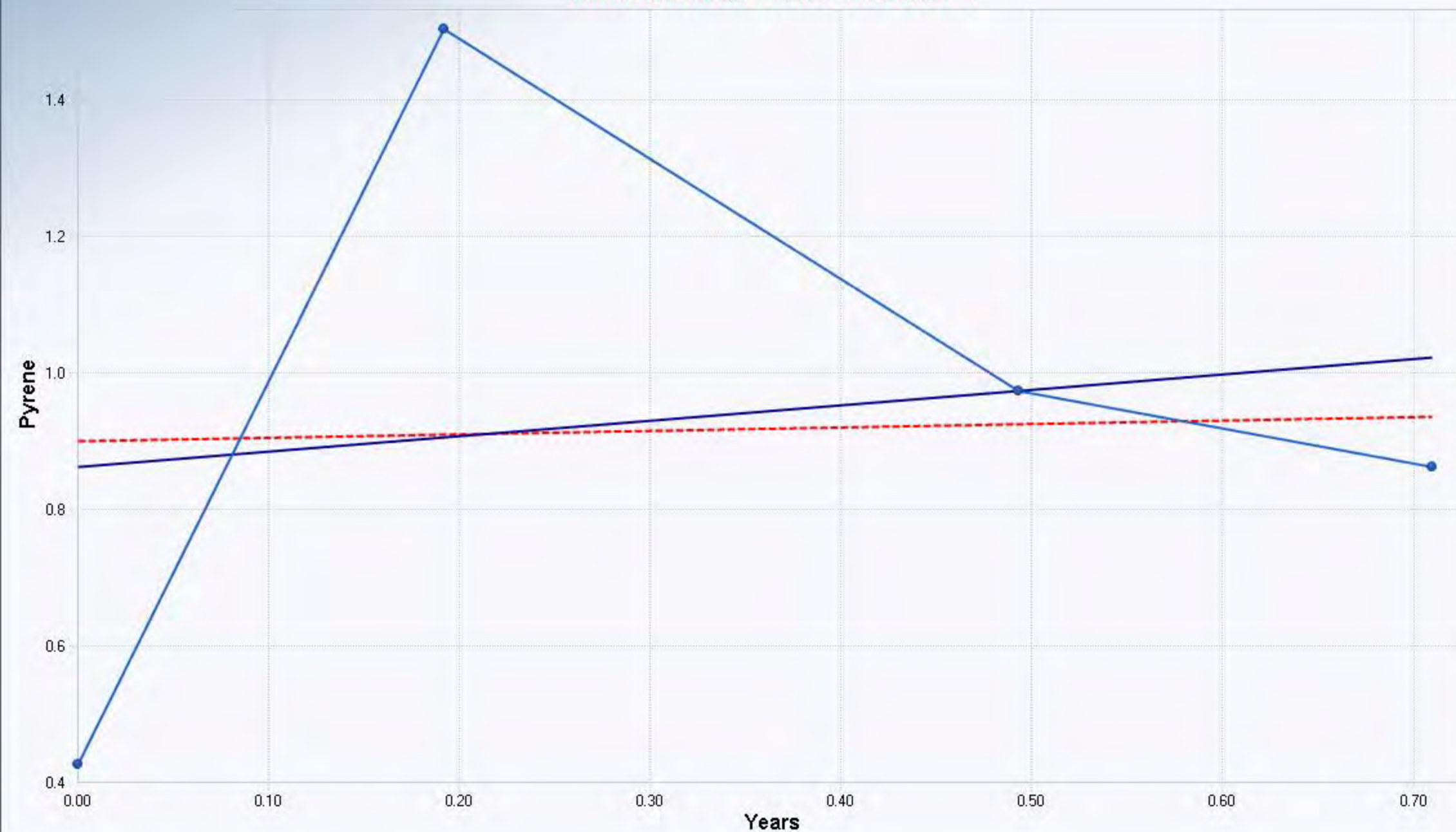
OLS Regression Line (Blue)

OLS Regression Slope	0.2270
OLS Regression Intercept	0.9088

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0508
Theil-Sen Intercept	0.9471

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



Mann-Kendall Trend Test MW-1

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-0.3397
M-K Test Value (S)	-2
Tabulated p-value	0.3750
Approximate p-value	0.3670

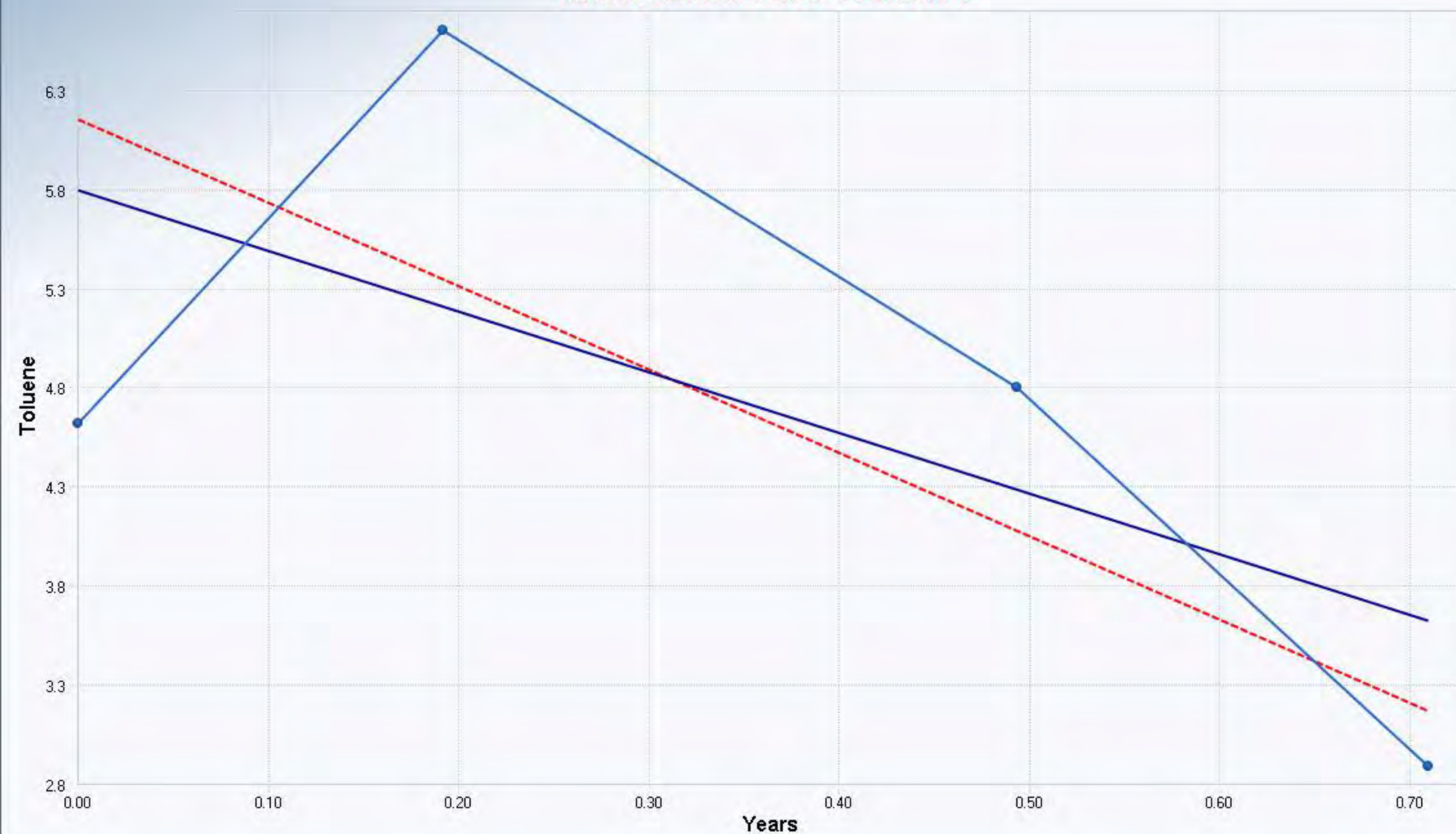
OLS Regression Line (Blue)

OLS Regression Slope	-3.0573
OLS Regression Intercept	5.7734

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-4.2054
Theil-Sen Intercept	6.1302

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



Mann-Kendall Trend Test MW-1

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

OLS Regression Line (Blue)

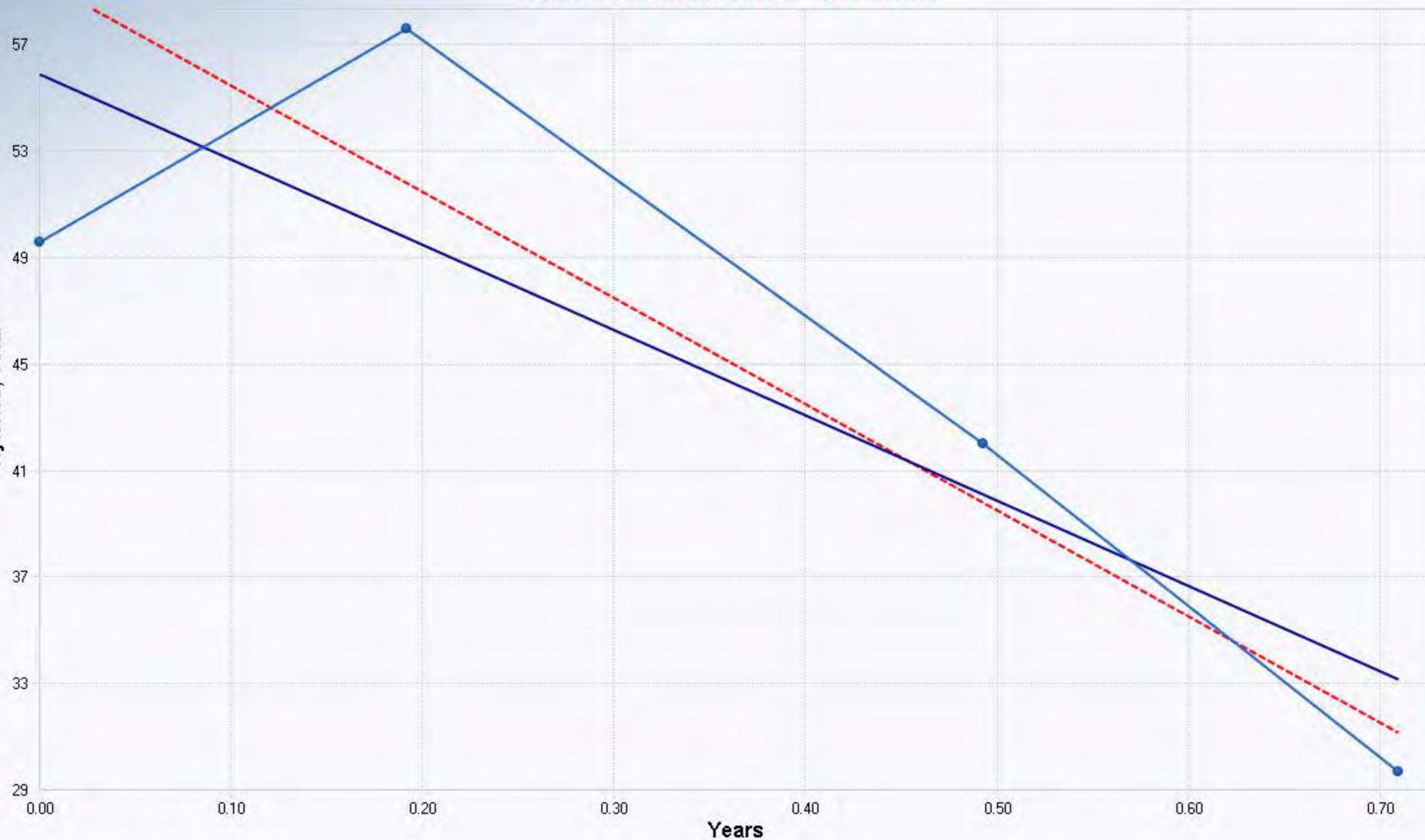
OLS Regression Slope	-32.0737
OLS Regression Intercept	55.8069

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-39.9040
Theil-Sen Intercept	59.3658

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

Xylenes, Total



Years

Mann-Kendall Trend Test MW-2

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.7689
Standardized Value of S	-1.4446
M-K Test Value (S)	-5
Tabulated p-value	0.1670
Approximate p-value	0.0743

OLS Regression Line (Blue)

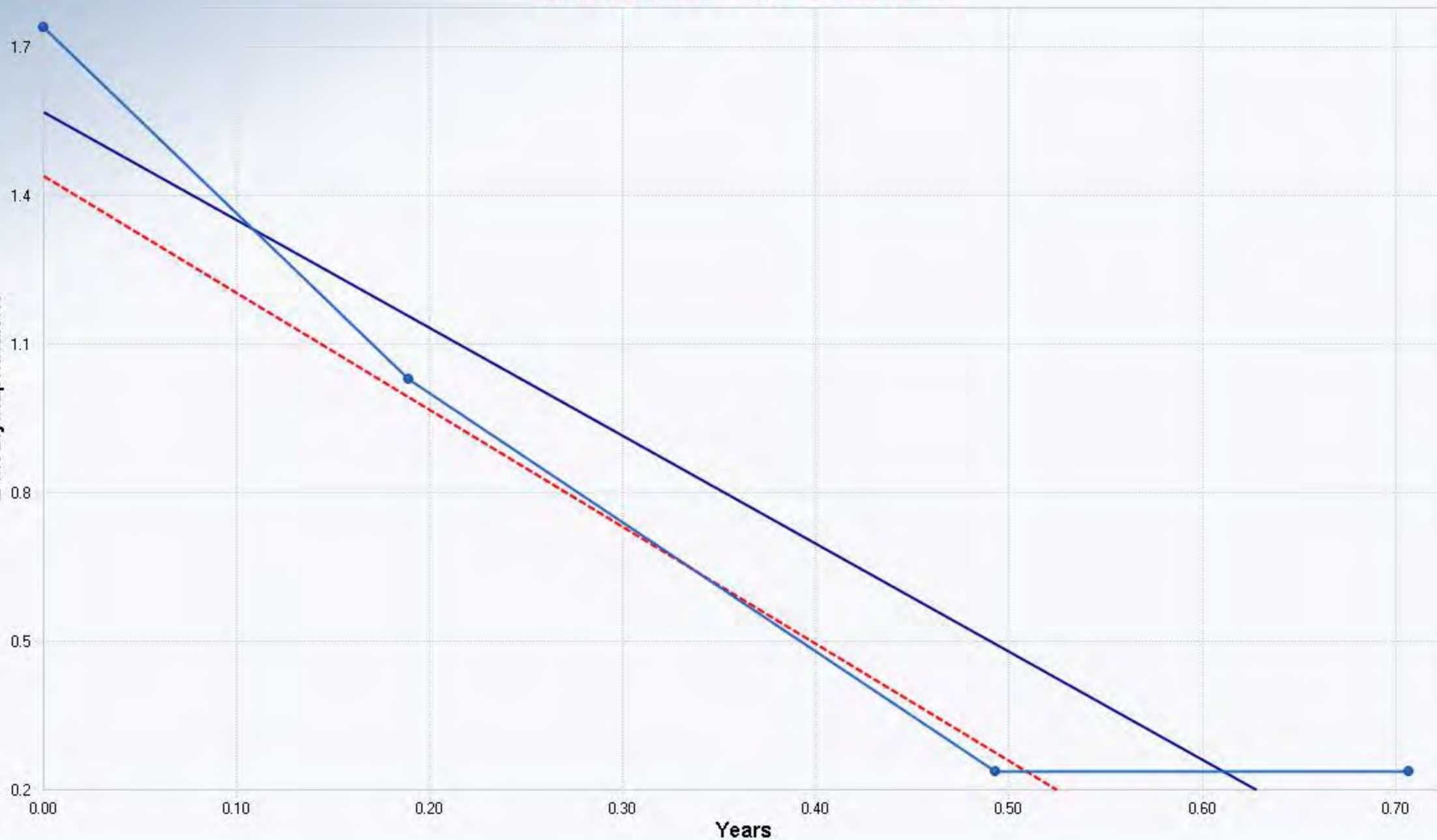
OLS Regression Slope	-2.1839
OLS Regression Intercept	1.5699

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-2.3646
Theil-Sen Intercept	1.4406

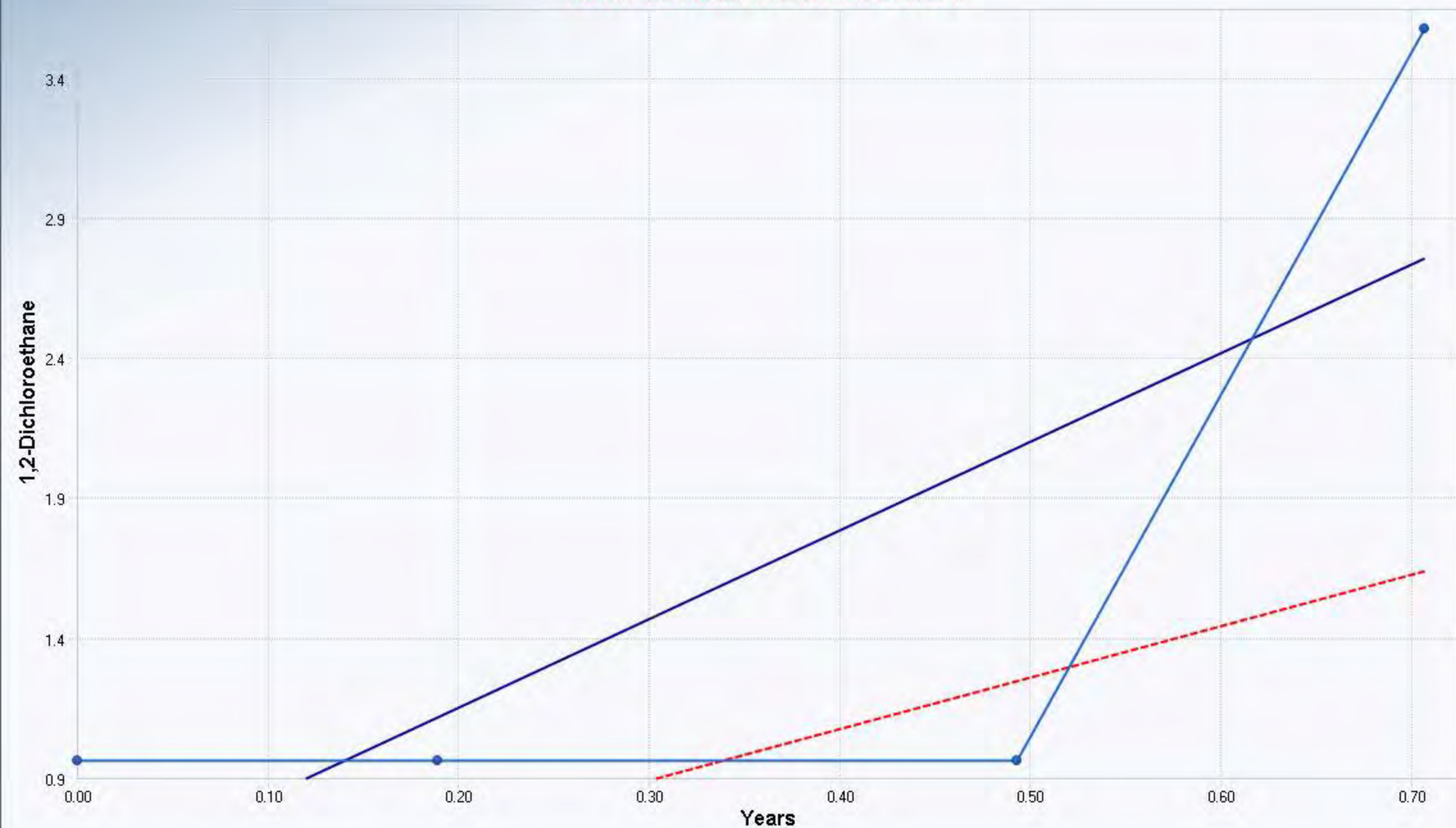
Insufficient statistical evidence
of a significant trend at the
specified level of significance.

2-Methylnaphthalene



Years

Mann-Kendall Trend Test MW-2



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.2361
Standardized Value of S	0.8944
M-K Test Value (S)	3
Tabulated p-value	0.3750
Approximate p-value	0.1855

OLS Regression Line (Blue)

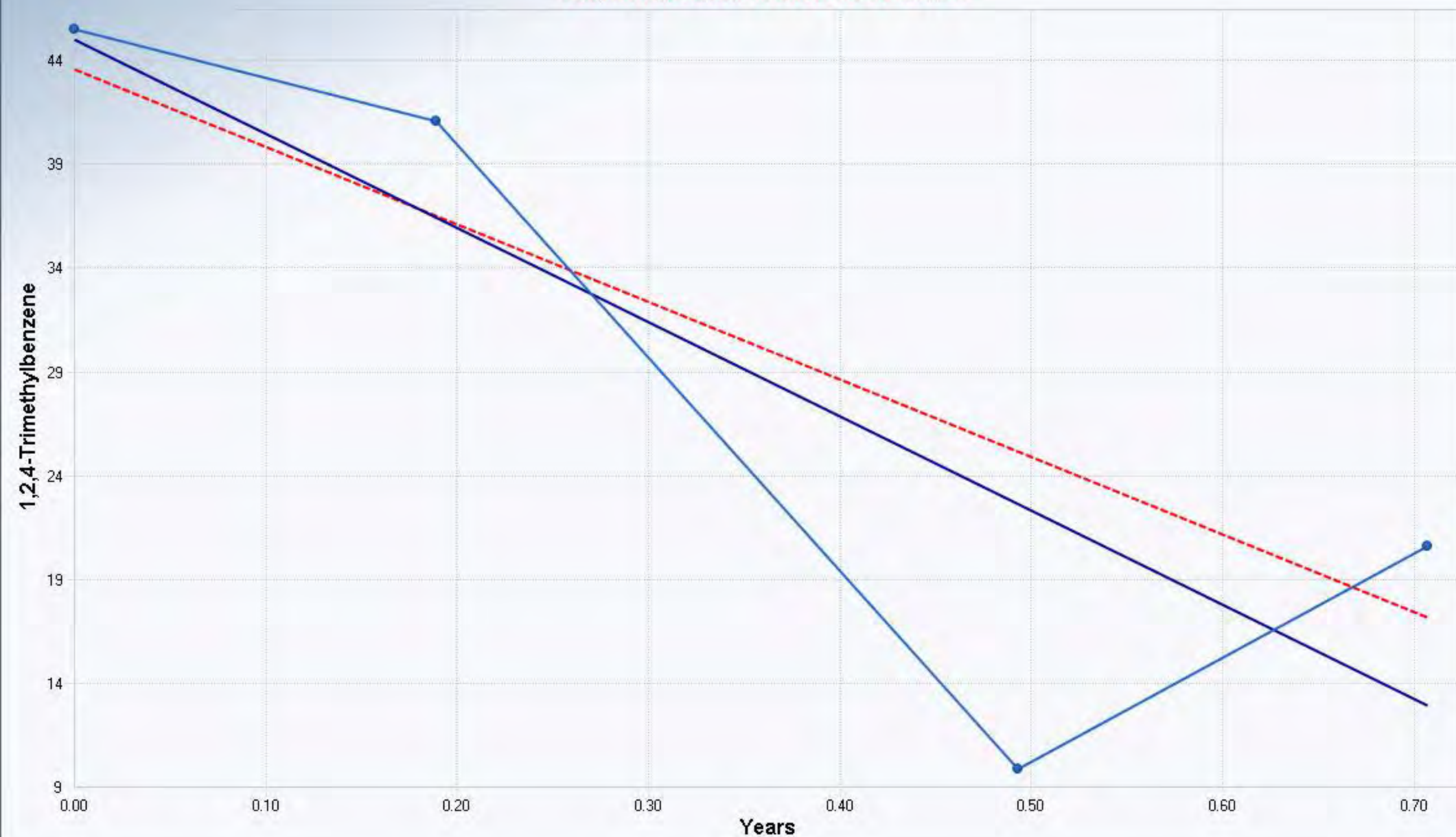
OLS Regression Slope	3.1684
OLS Regression Intercept	0.5522

Theil-Sen Trend Line (Red)

Theil-Sen Slope	1.8462
Theil-Sen Intercept	0.3703

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

Mann-Kendall Trend Test MW-2



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

OLS Regression Line (Blue)

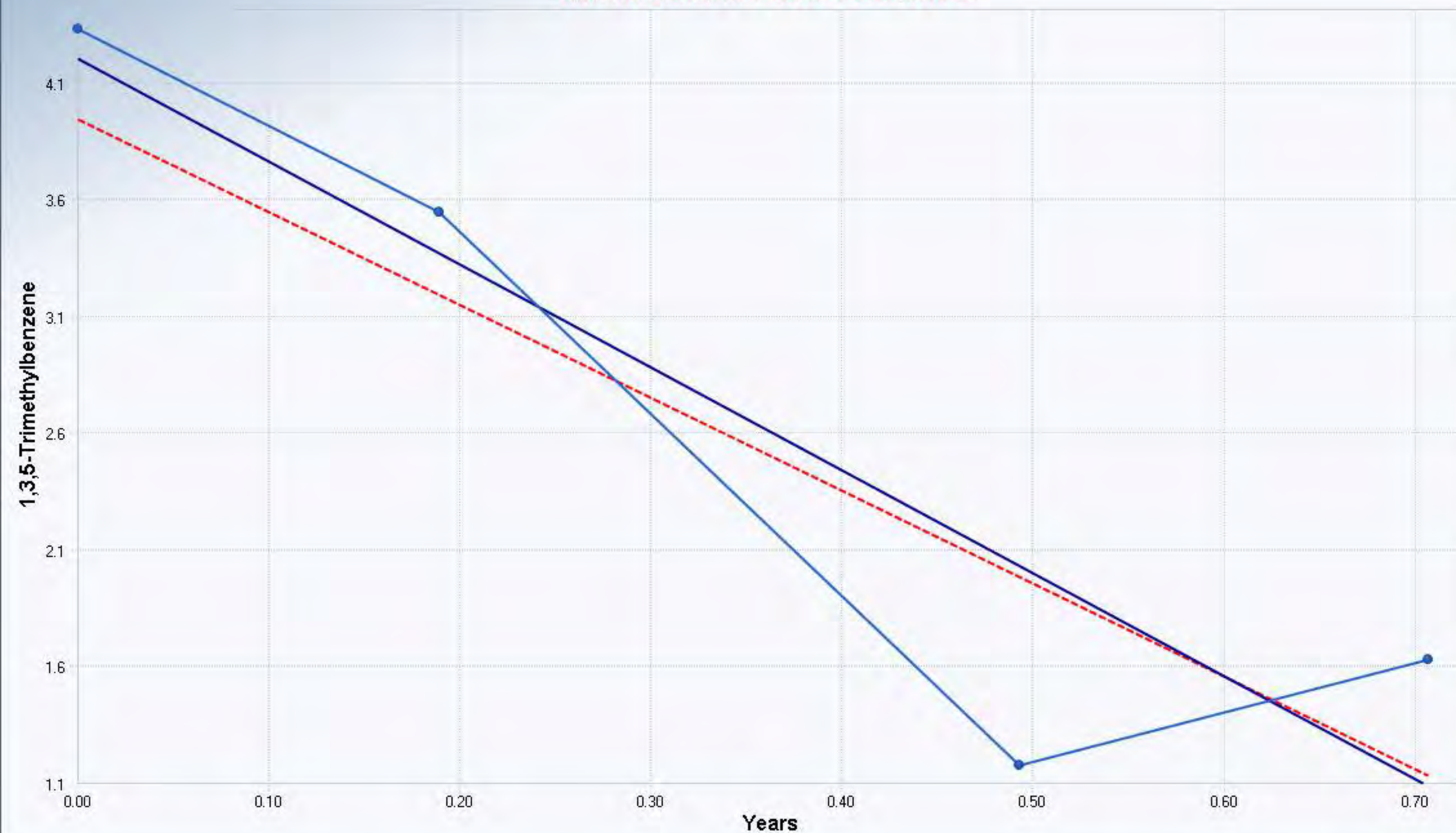
OLS Regression Slope	-45.4112
OLS Regression Intercept	45.4445

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-37.4083
Theil-Sen Intercept	44.0098

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

Mann-Kendall Trend Test MW-2



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

OLS Regression Line (Blue)

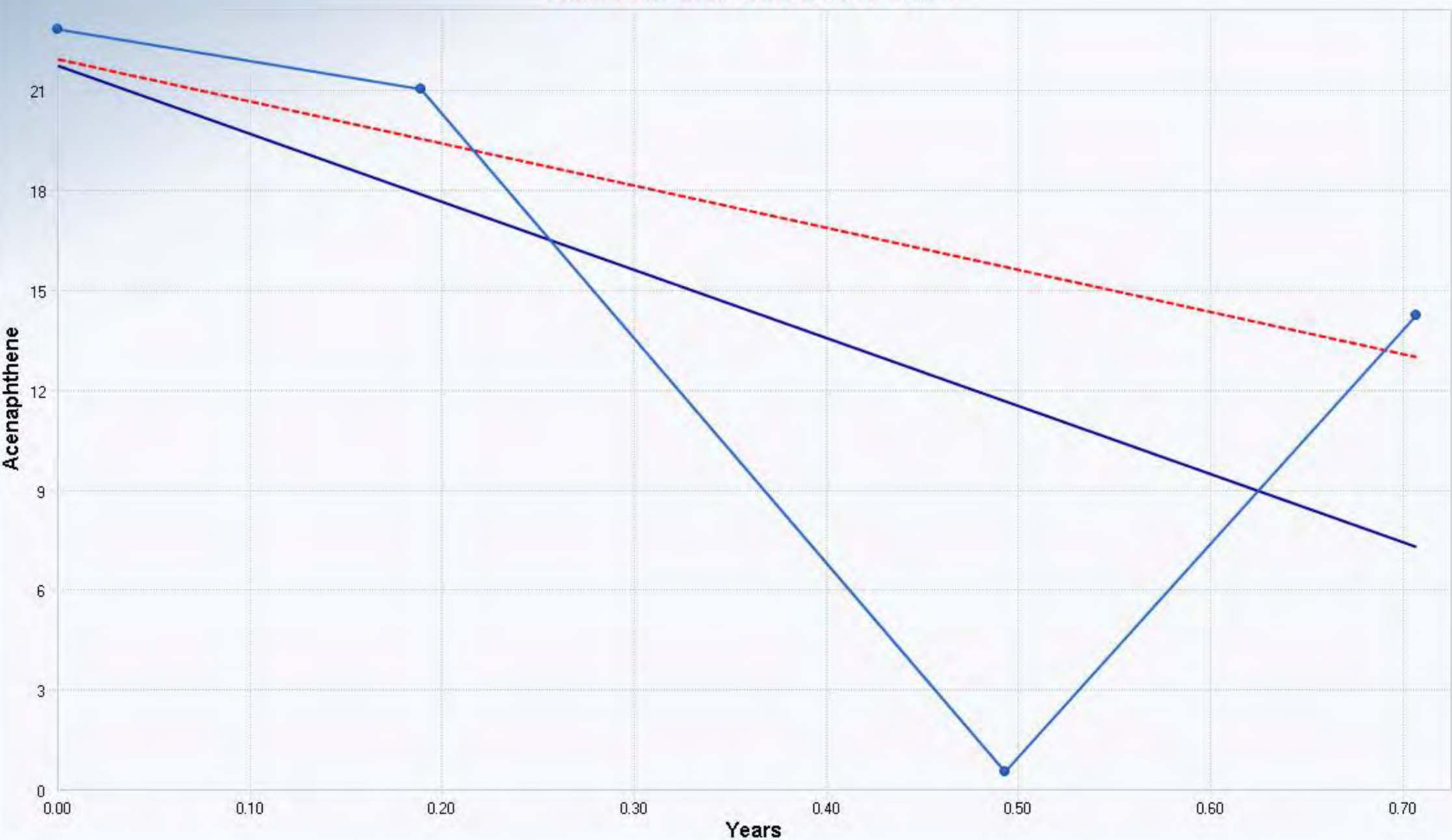
OLS Regression Slope	-4.4125
OLS Regression Intercept	4.1948

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-3.9729
Theil-Sen Intercept	3.9351

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

Mann-Kendall Trend Test MW-2



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

OLS Regression Line (Blue)

OLS Regression Slope	-20.4535
OLS Regression Intercept	21.4319

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-12.6495
Theil-Sen Intercept	21.6147

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

Mann-Kendall Trend Test MW-2

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-0.3397
M-K Test Value (S)	-2
Tabulated p-value	0.3750
Approximate p-value	0.3670

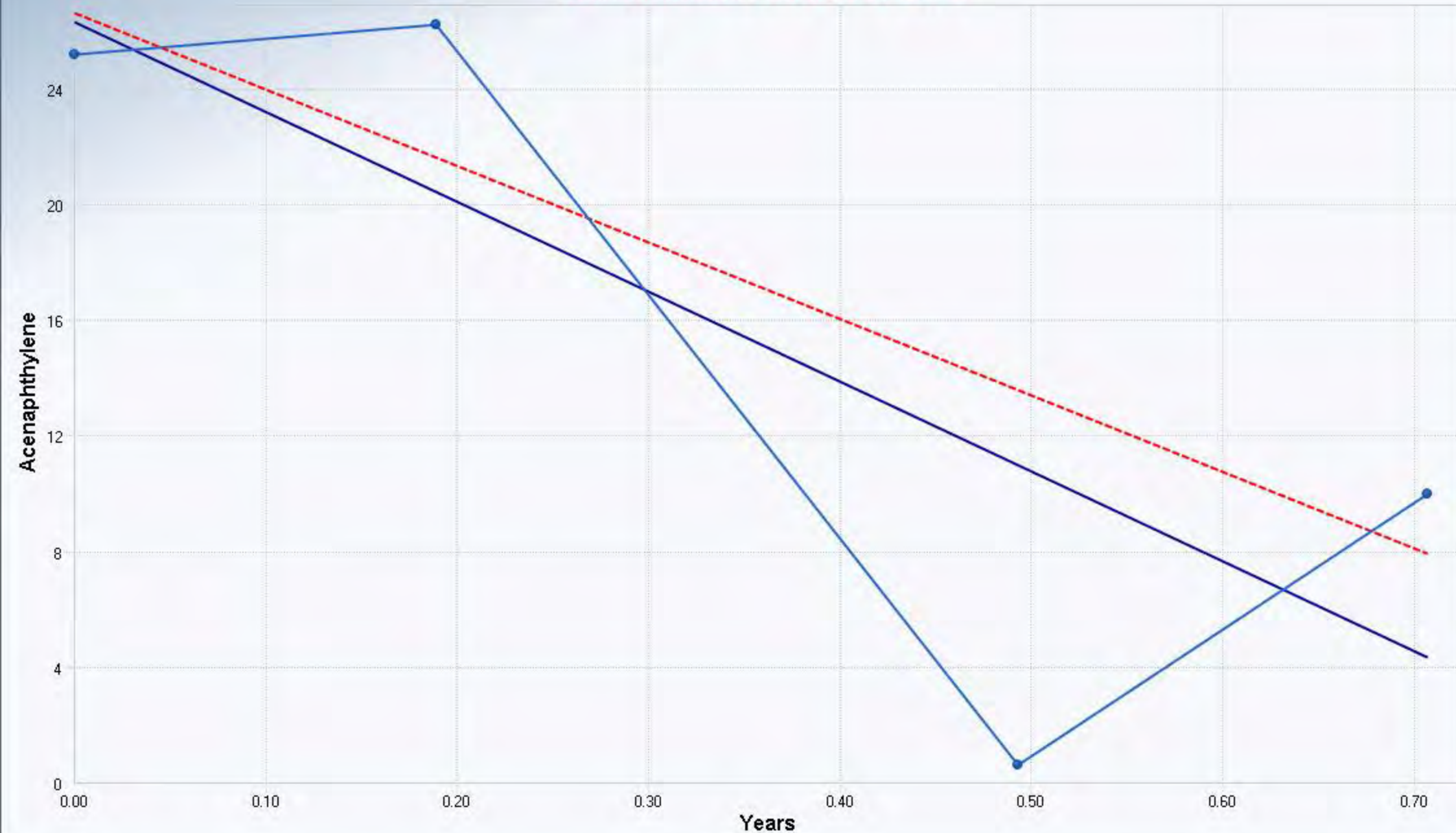
OLS Regression Line (Blue)

OLS Regression Slope	-31.1183
OLS Regression Intercept	25.9054

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-26.4283
Theil-Sen Intercept	26.2046

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



Mann-Kendall Trend Test MW-2

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

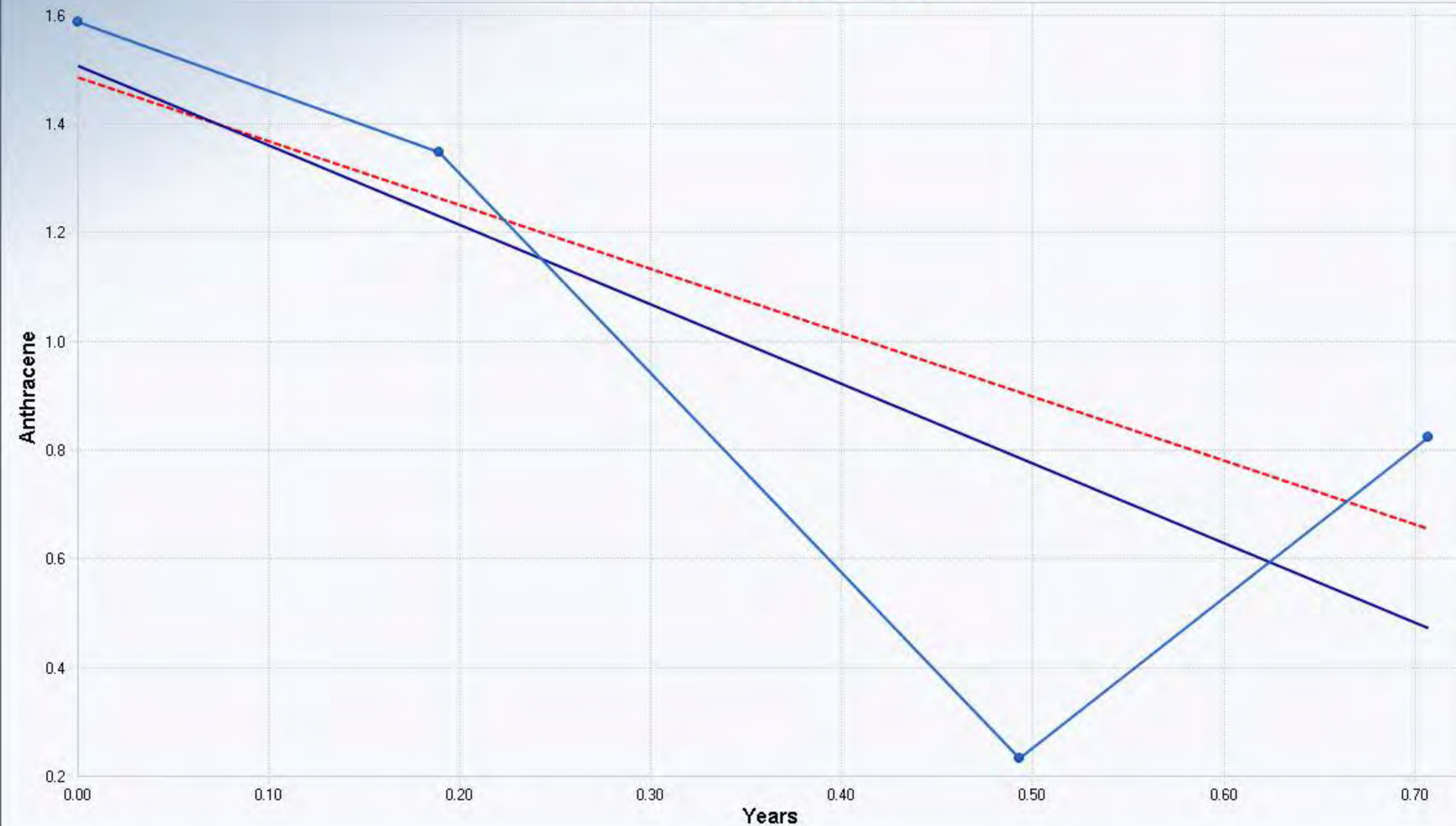
OLS Regression Line (Blue)

OLS Regression Slope	-1.4632
OLS Regression Intercept	1.4894

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-1.1738
Theil-Sen Intercept	1.4694

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



Mann-Kendall Trend Test MW-2

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	0.3397
M-K Test Value (S)	2
Tabulated p-value	0.3750
Approximate p-value	0.3670

OLS Regression Line (Blue)

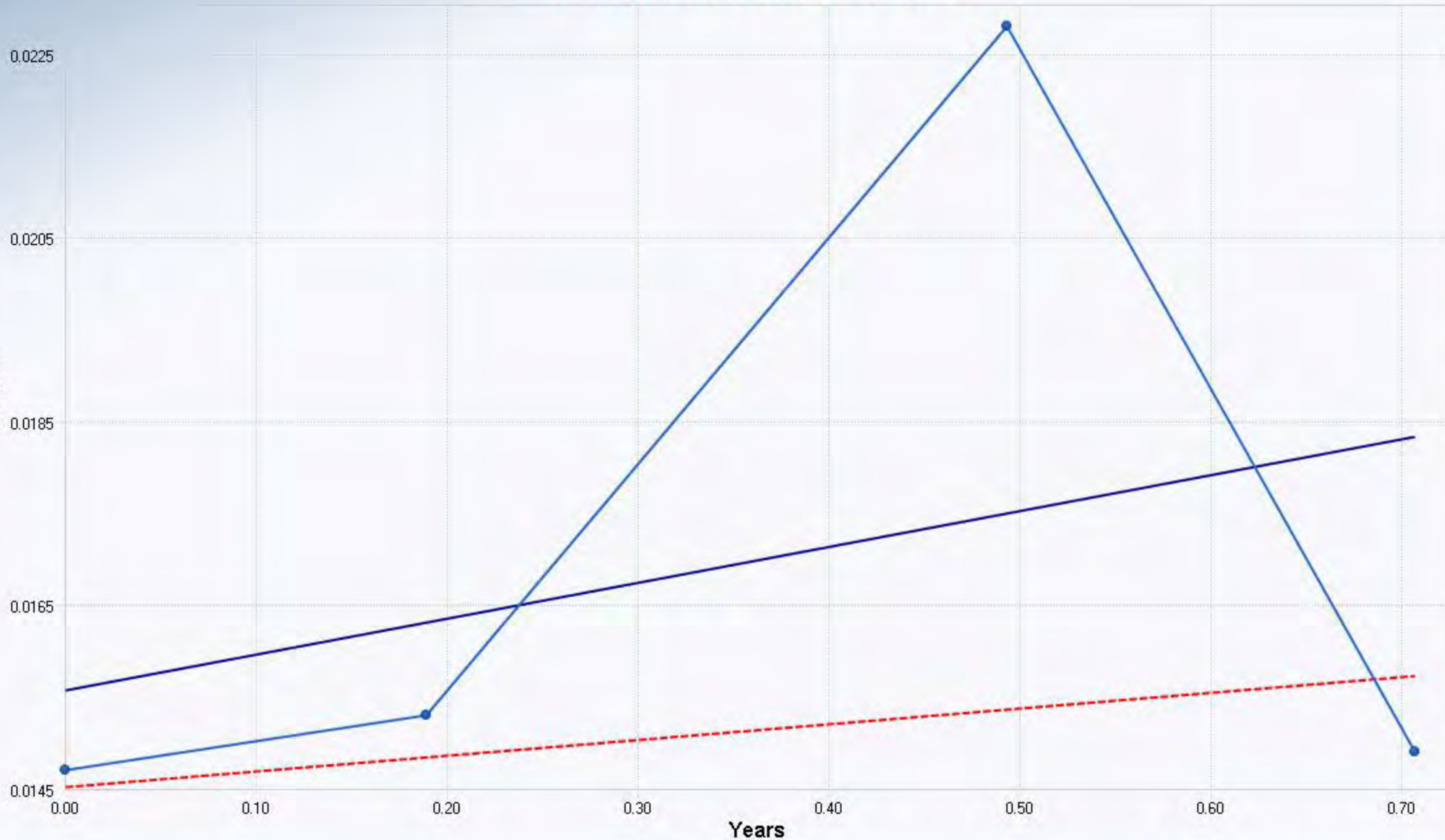
OLS Regression Slope	0.0039
OLS Regression Intercept	0.0156

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0017
Theil-Sen Intercept	0.0145

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

Arsenic



Mann-Kendall Trend Test MW-2

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

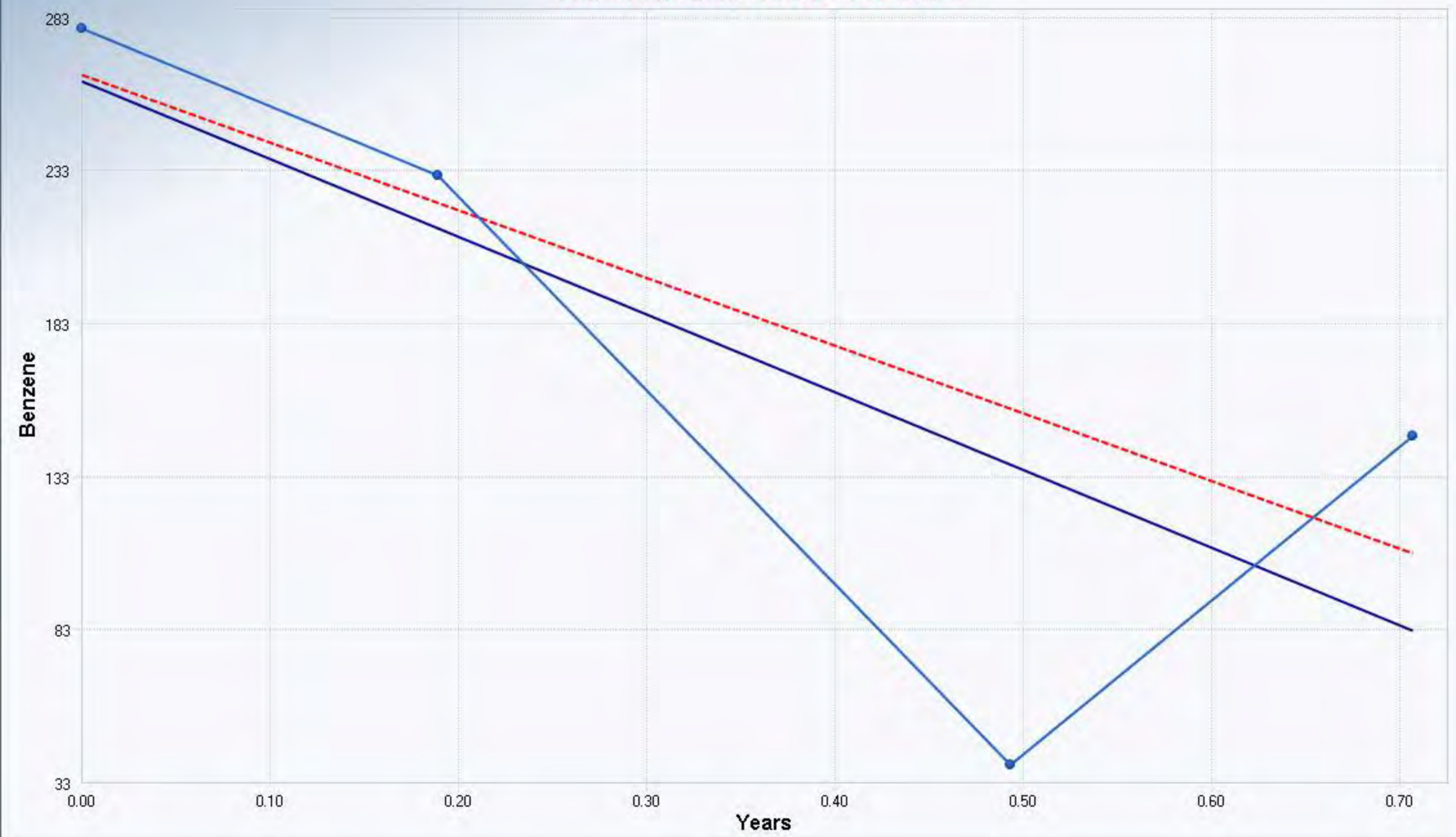
OLS Regression Line (Blue)

OLS Regression Slope	-254.2201
OLS Regression Intercept	261.9306

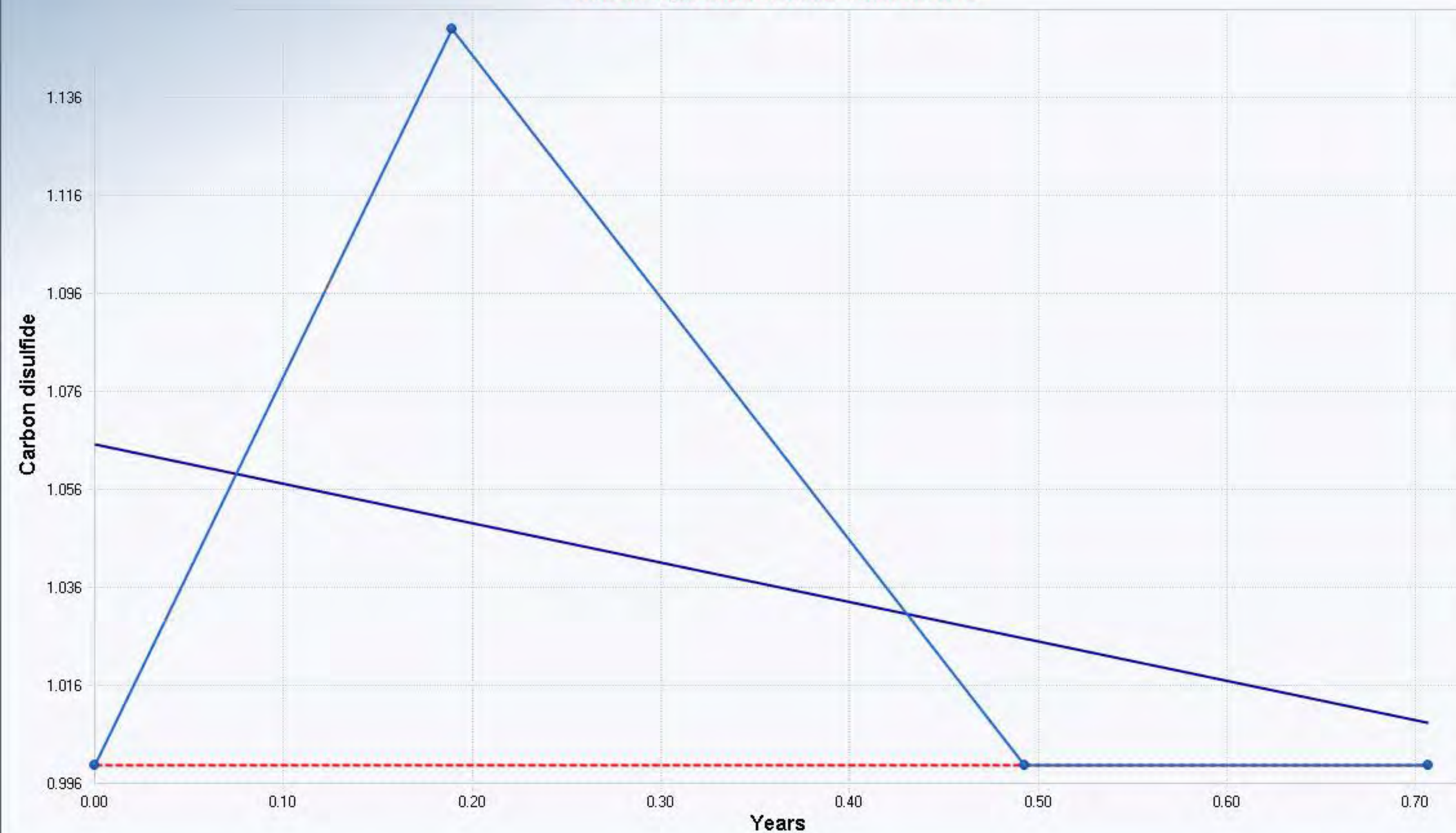
Theil-Sen Trend Line (Red)

Theil-Sen Slope	-221.0360
Theil-Sen Intercept	263.8945

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



Mann-Kendall Trend Test MW-2



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.2361
Standardized Value of S	0.0000
M-K Test Value (S)	-1
Tabulated p-value	0.6250
Approximate p-value	0.5000

OLS Regression Line (Blue)

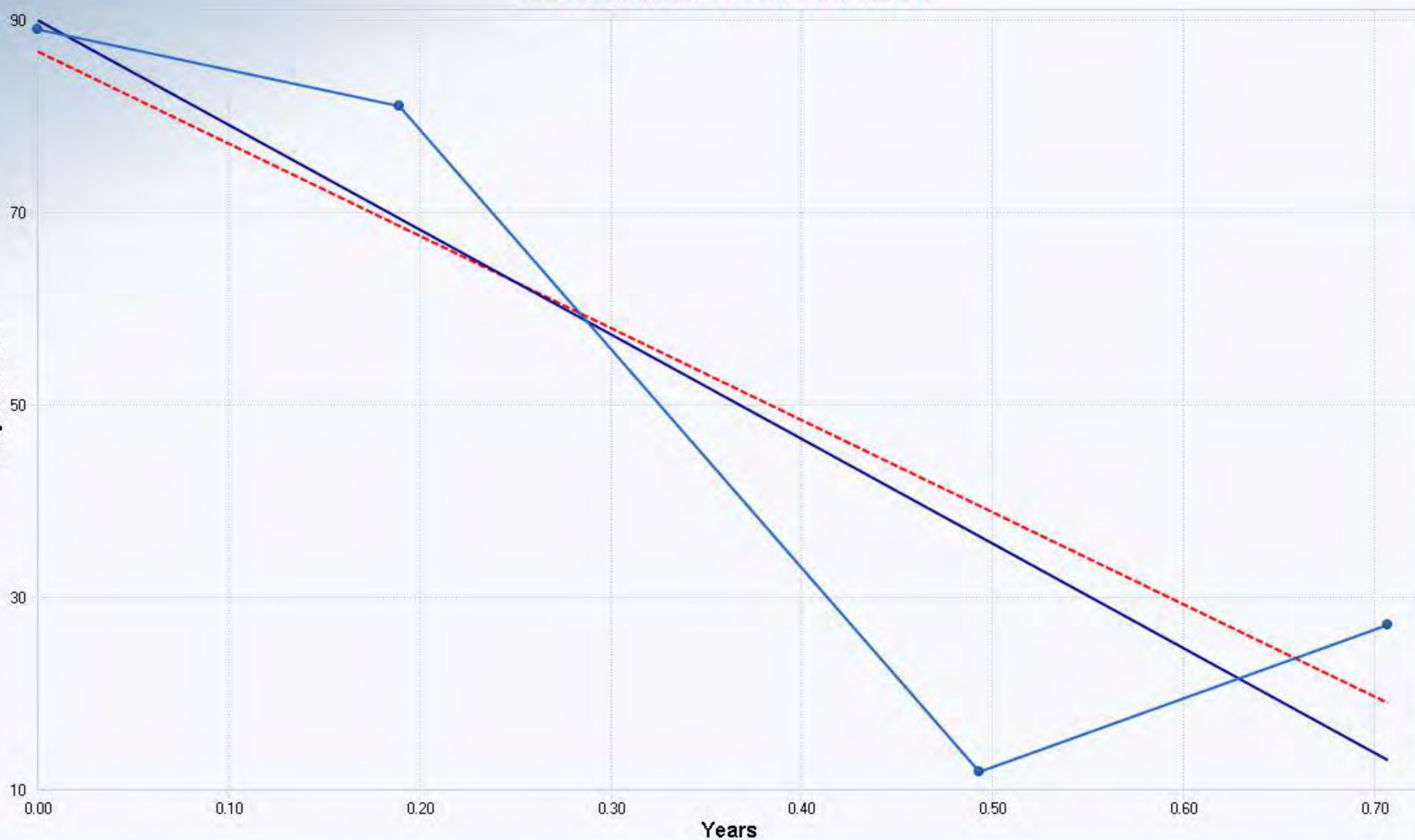
OLS Regression Slope	-0.0801
OLS Regression Intercept	1.0653

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	1.0000

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

Mann-Kendall Trend Test MW-2



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

OLS Regression Line (Blue)

OLS Regression Slope	-108.8445
OLS Regression Intercept	90.5474

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-95.8321
Theil-Sen Intercept	87.2380

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

Mann-Kendall Trend Test MW-2

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	
M-K Test Value (S)	0
Tabulated p-value	0.6250
Approximate p-value	

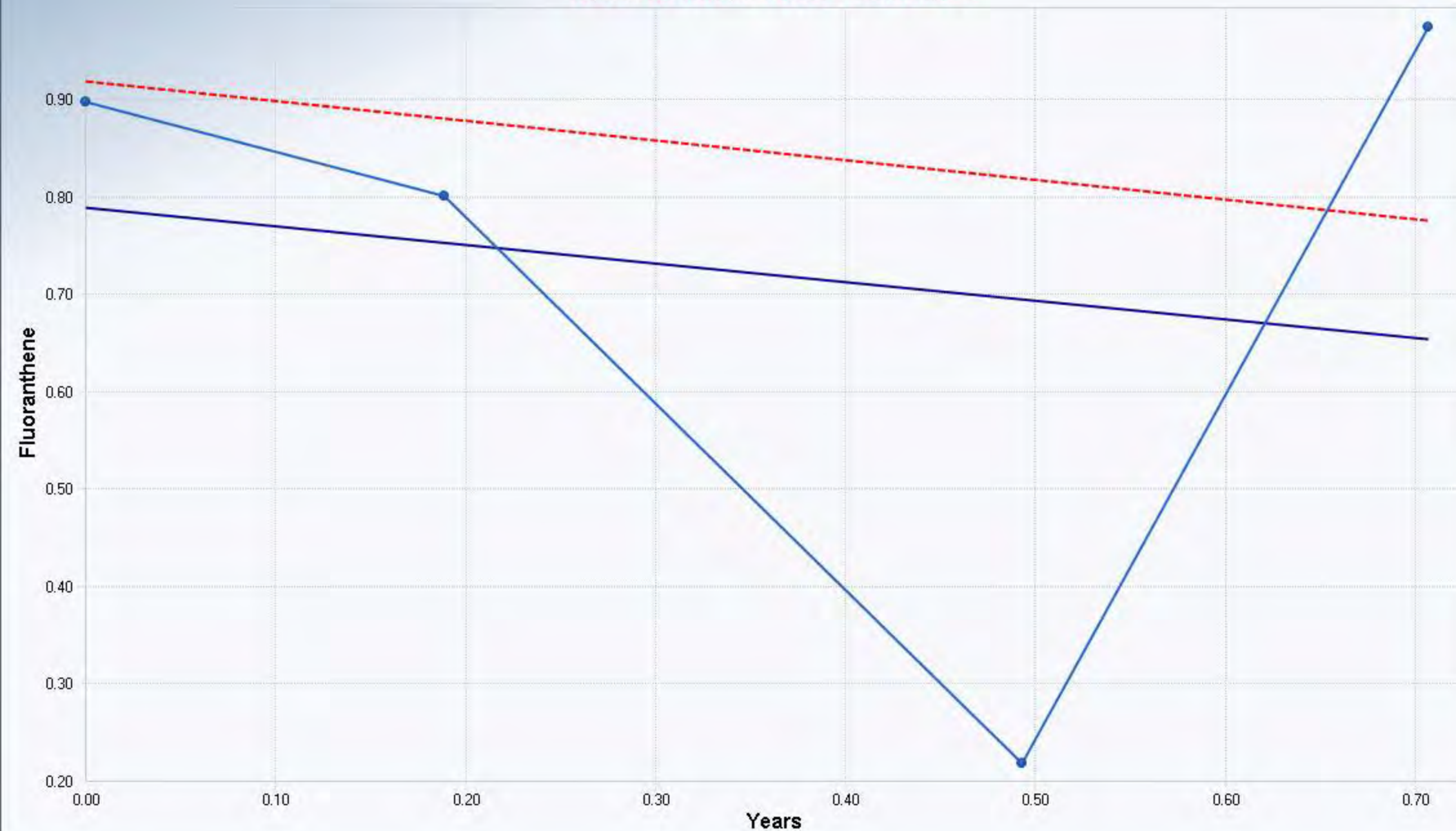
OLS Regression Line (Blue)

OLS Regression Slope	-0.1903
OLS Regression Intercept	0.7871

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.2028
Theil-Sen Intercept	0.9167

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



Mann-Kendall Trend Test MW-2

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

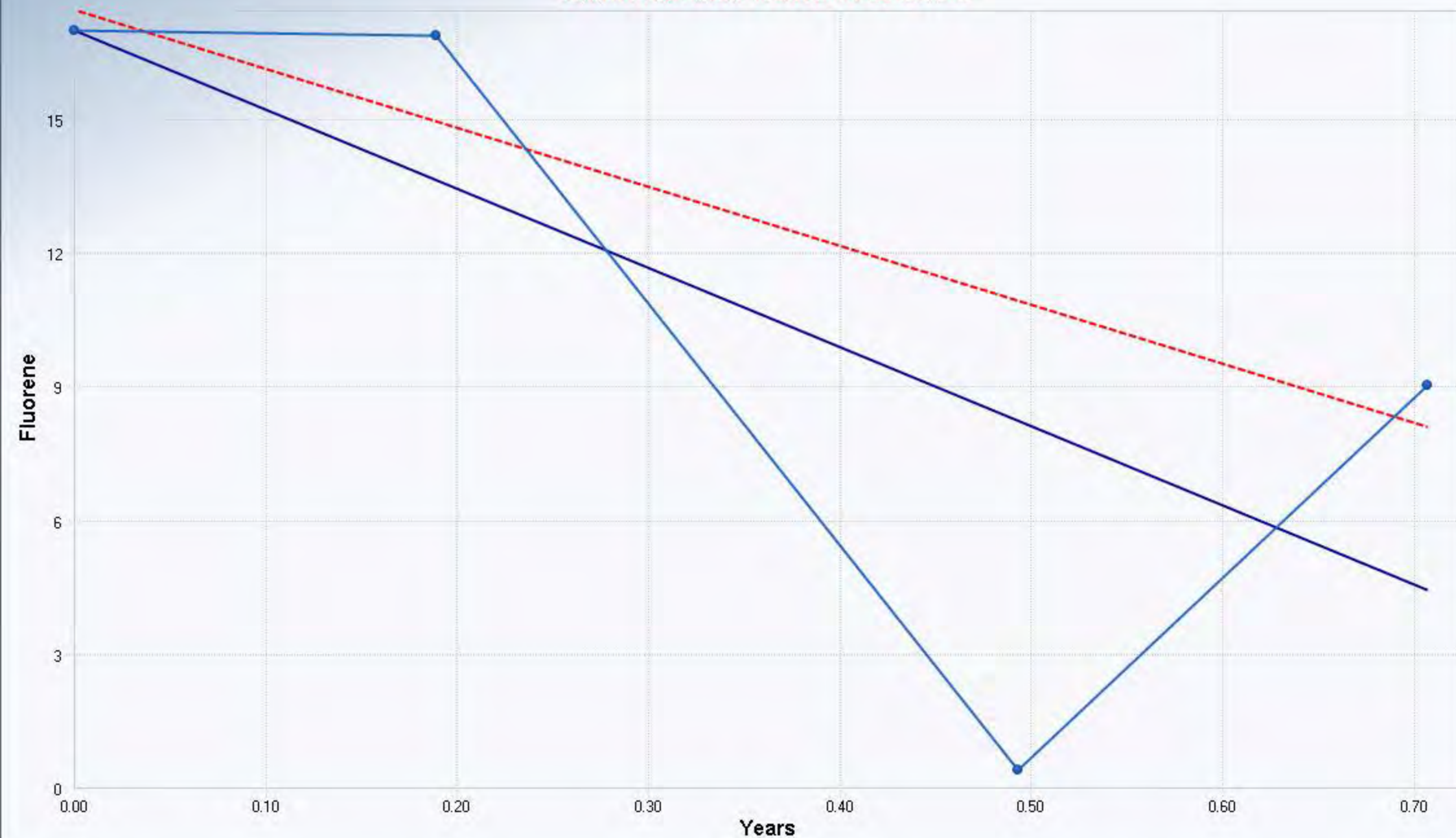
OLS Regression Line (Blue)

OLS Regression Slope	-17.7893
OLS Regression Intercept	16.8143

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-13.2370
Theil-Sen Intercept	17.2801

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



Mann-Kendall Trend Test MW-2

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

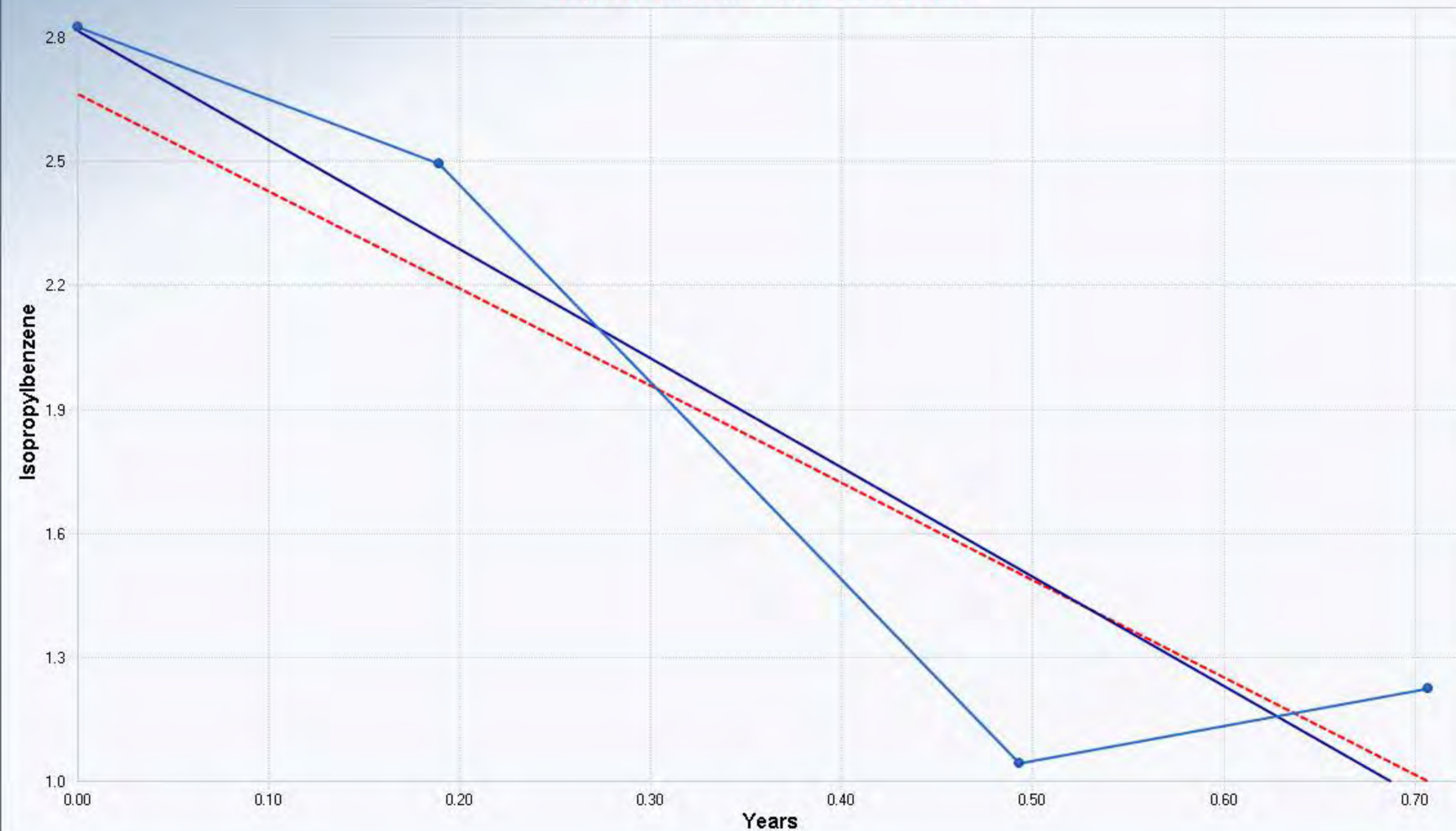
OLS Regression Line (Blue)

OLS Regression Slope	-2.6428
OLS Regression Intercept	2.7702

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-2.3581
Theil-Sen Intercept	2.6193

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



Mann-Kendall Trend Test MW-2

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.2361
Standardized Value of S	0.0000
M-K Test Value (S)	1
Tabulated p-value	0.6250
Approximate p-value	0.5000

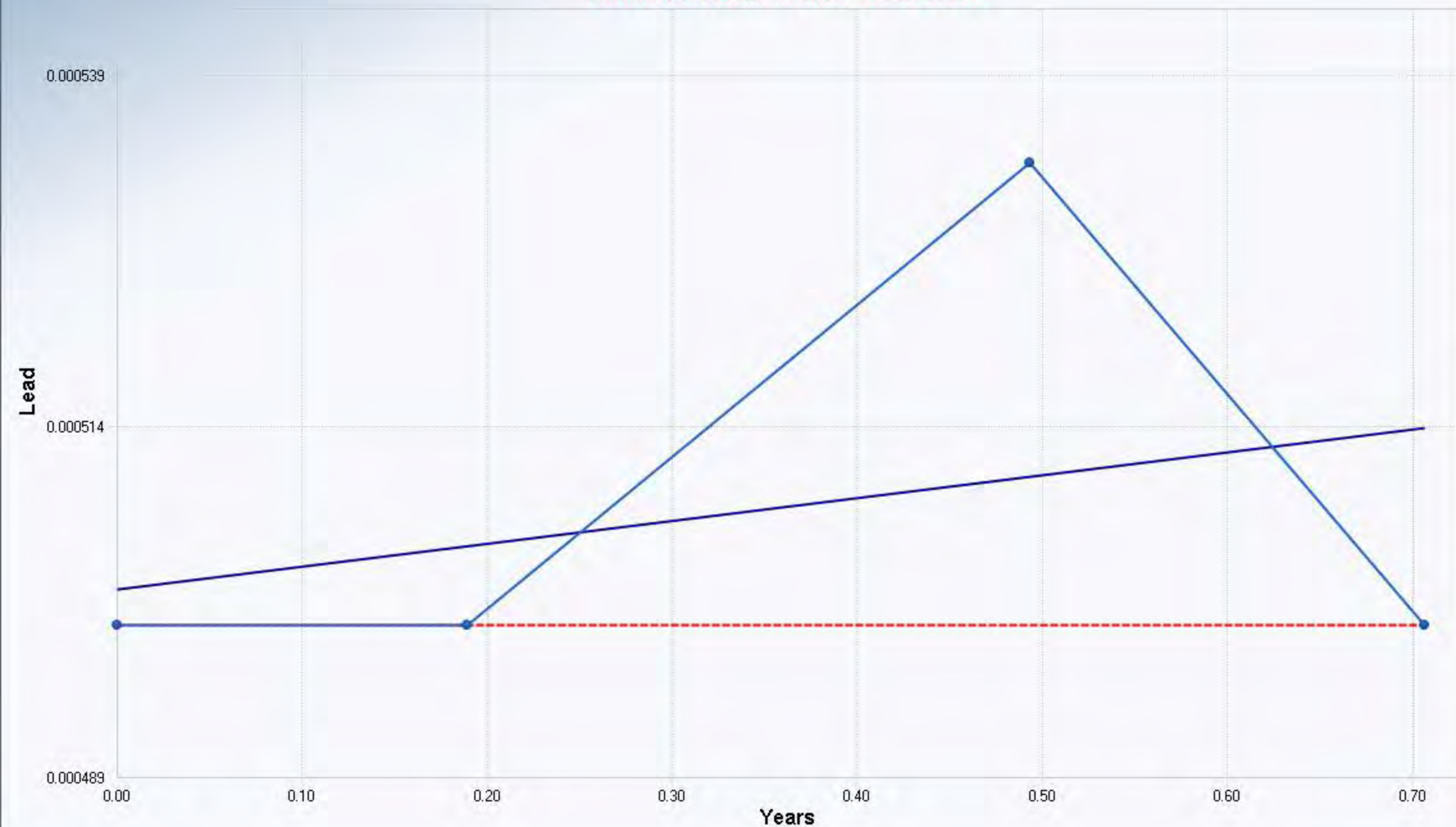
OLS Regression Line (Blue)

OLS Regression Slope	0.0000
OLS Regression Intercept	0.0005

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	0.0005

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



Mann-Kendall Trend Test MW-2

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

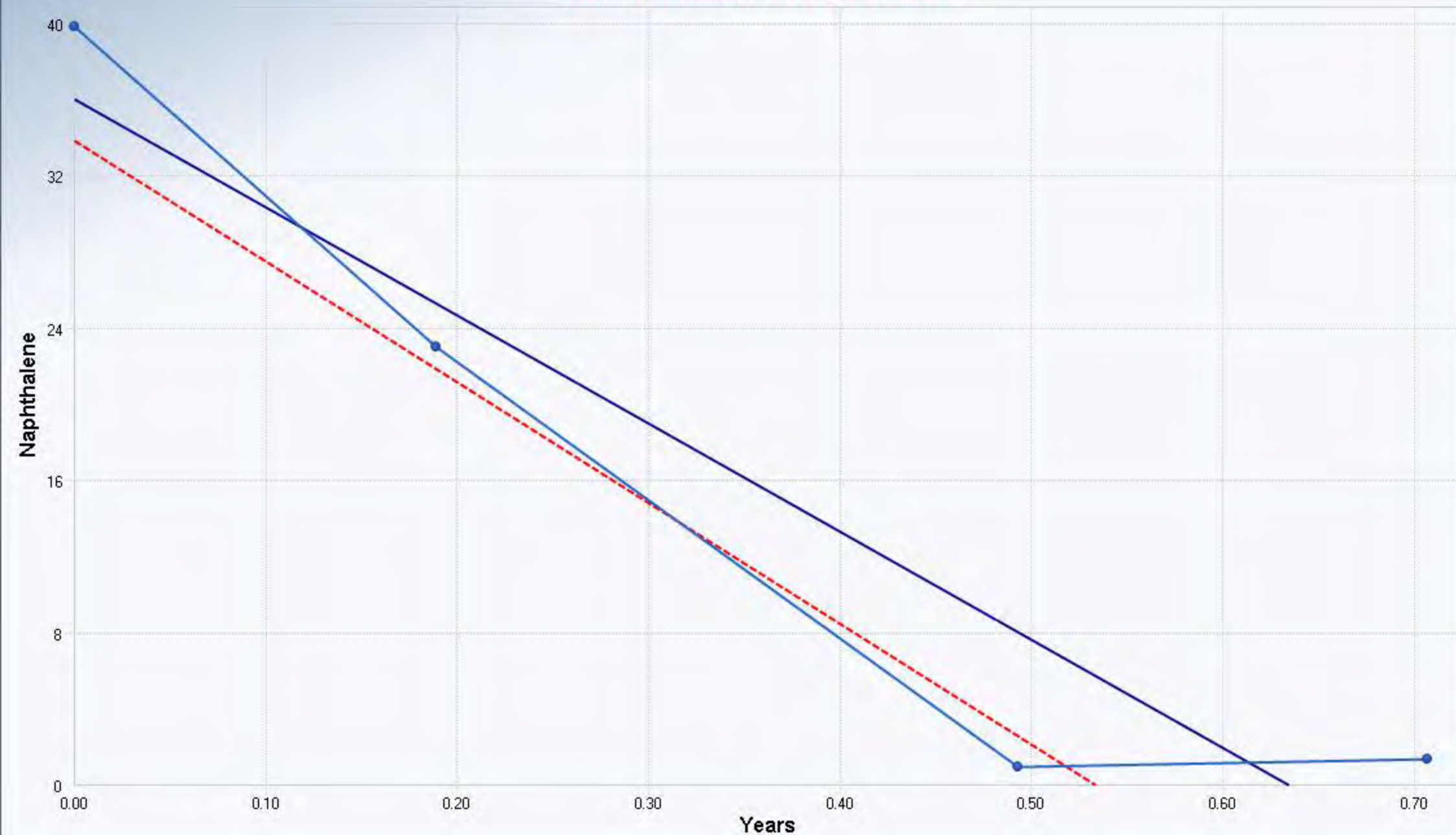
OLS Regression Line (Blue)

OLS Regression Slope	-56.8909
OLS Regression Intercept	35.6189

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-63.4920
Theil-Sen Intercept	33.4114

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



Mann-Kendall Trend Test MW-2

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.2361
Standardized Value of S	-0.8944
M-K Test Value (S)	-3
Tabulated p-value	0.3750
Approximate p-value	0.1855

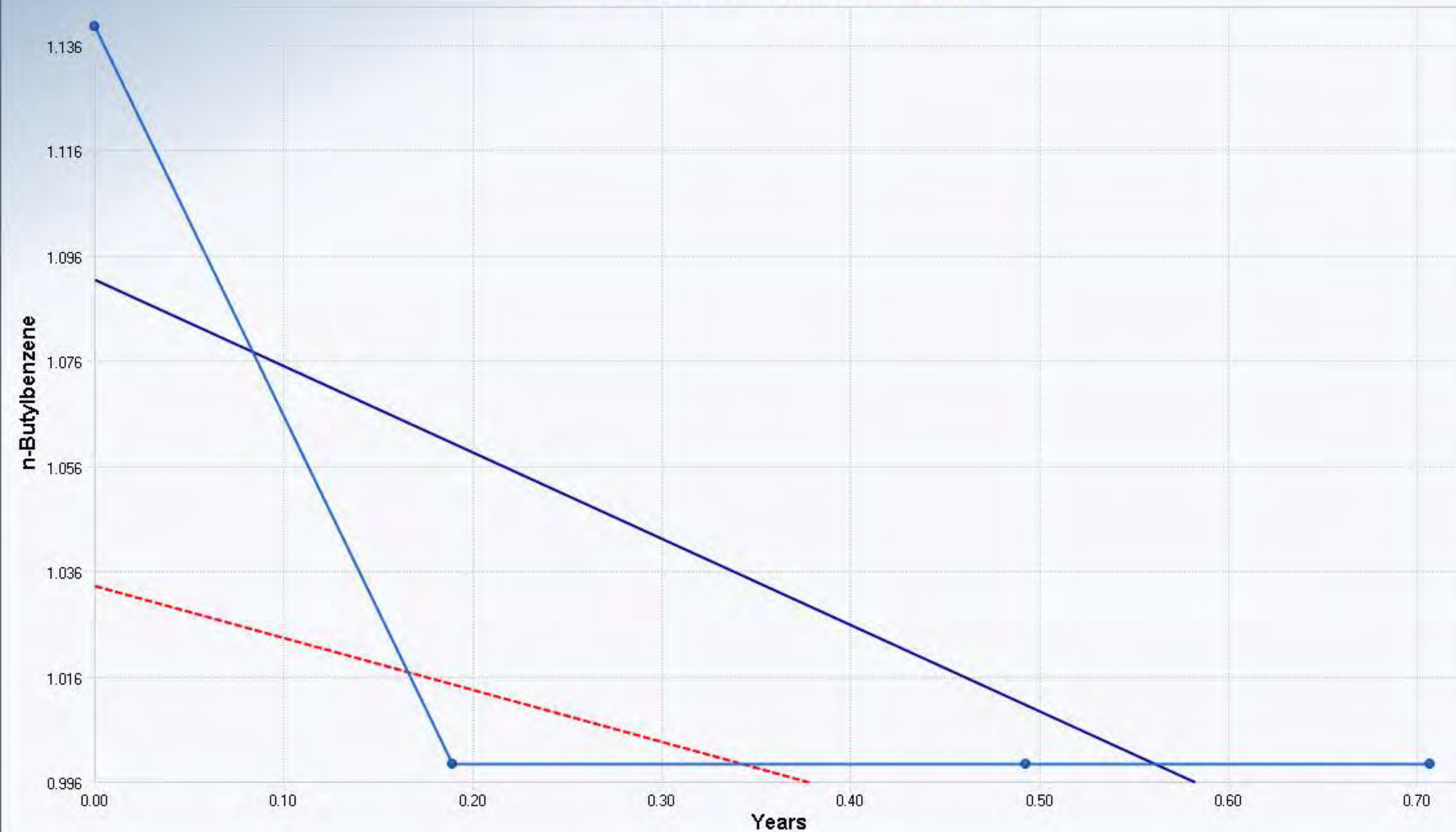
OLS Regression Line (Blue)

OLS Regression Slope	-0.1641
OLS Regression Intercept	1.0920

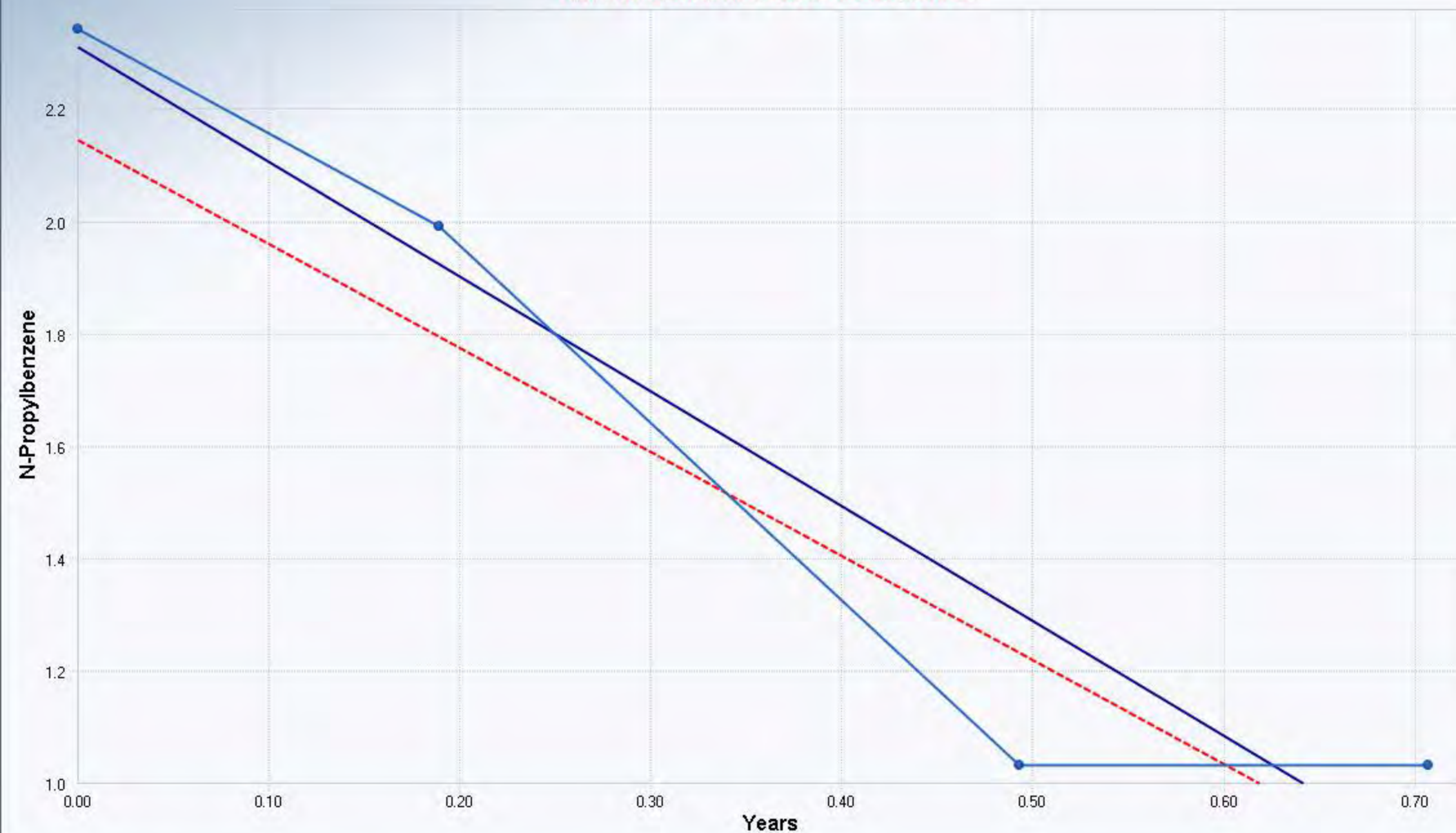
Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0990
Theil-Sen Intercept	1.0338

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



Mann-Kendall Trend Test MW-2



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.7689
Standardized Value of S	-1.4446
M-K Test Value (S)	-5
Tabulated p-value	0.1670
Approximate p-value	0.0743

OLS Regression Line (Blue)

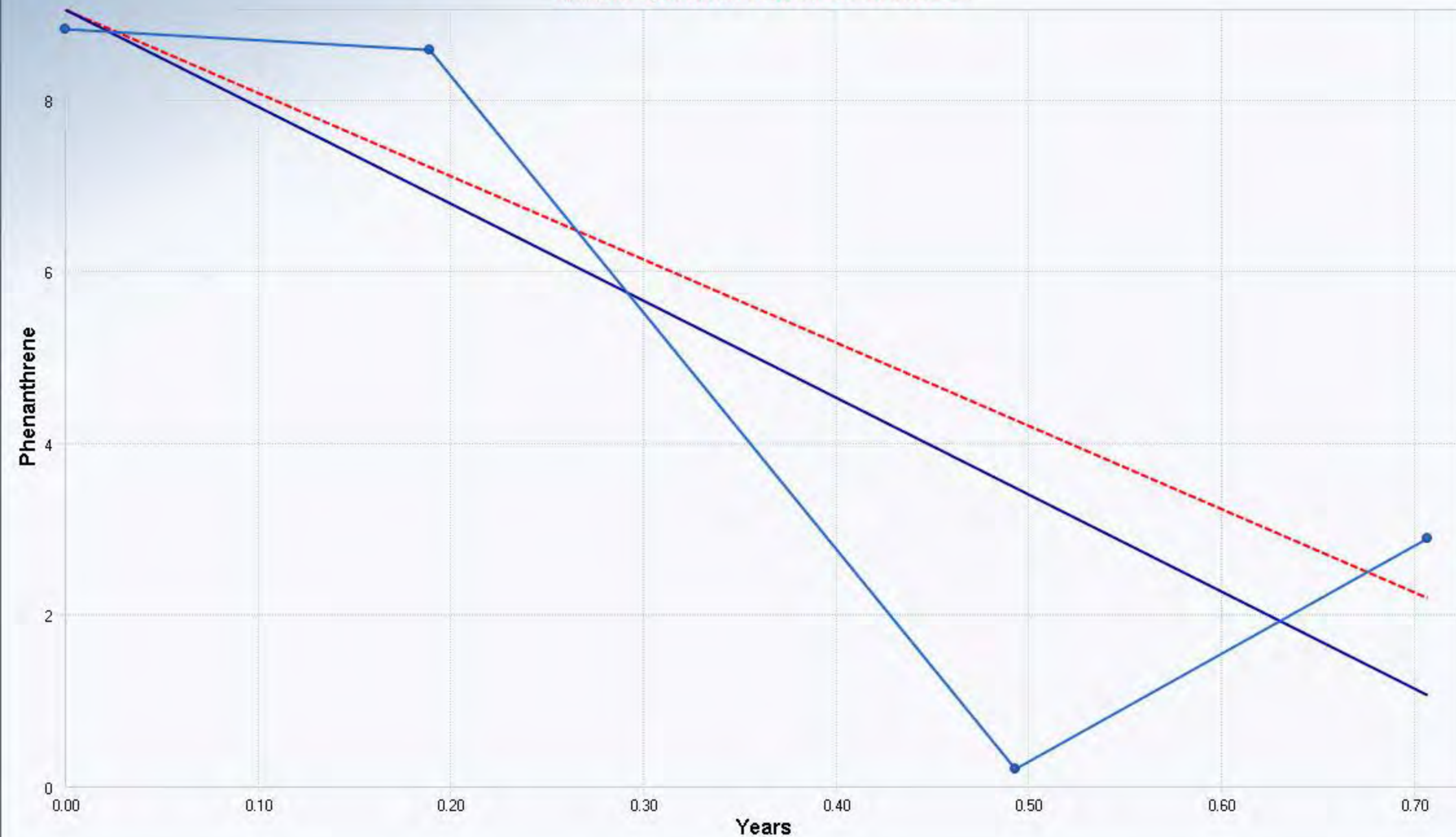
OLS Regression Slope	-2.0485
OLS Regression Intercept	2.2789

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-1.8536
Theil-Sen Intercept	2.1123

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

Mann-Kendall Trend Test MW-2



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

OLS Regression Line (Blue)

OLS Regression Slope	-11.3010
OLS Regression Intercept	9.0561

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-9.6819
Theil-Sen Intercept	9.0475

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

Mann-Kendall Trend Test MW-2

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	
M-K Test Value (S)	0
Tabulated p-value	0.6250
Approximate p-value	

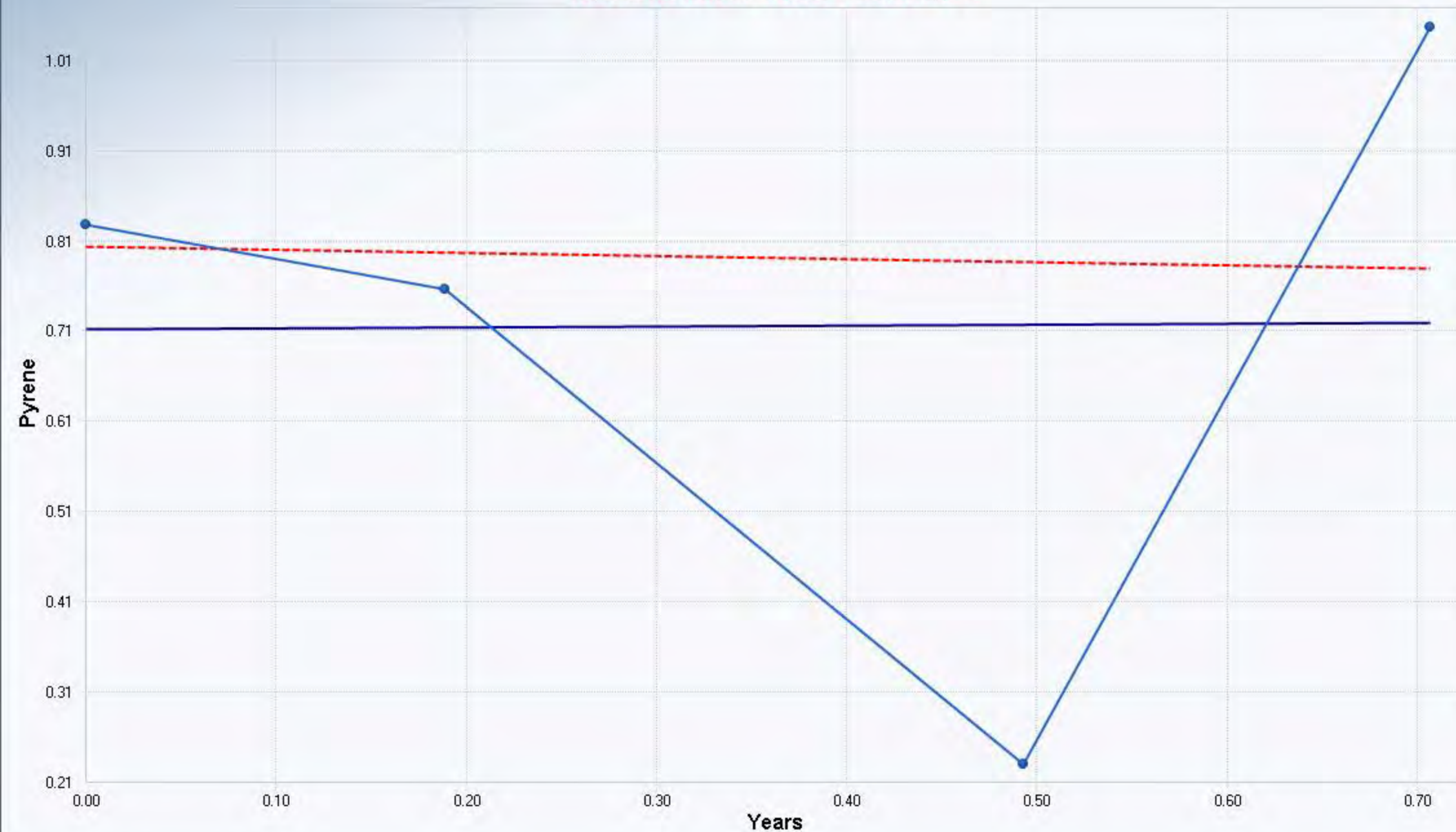
OLS Regression Line (Blue)

OLS Regression Slope	0.0097
OLS Regression Intercept	0.7154

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0329
Theil-Sen Intercept	0.8067

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



Mann-Kendall Trend Test MW-2

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

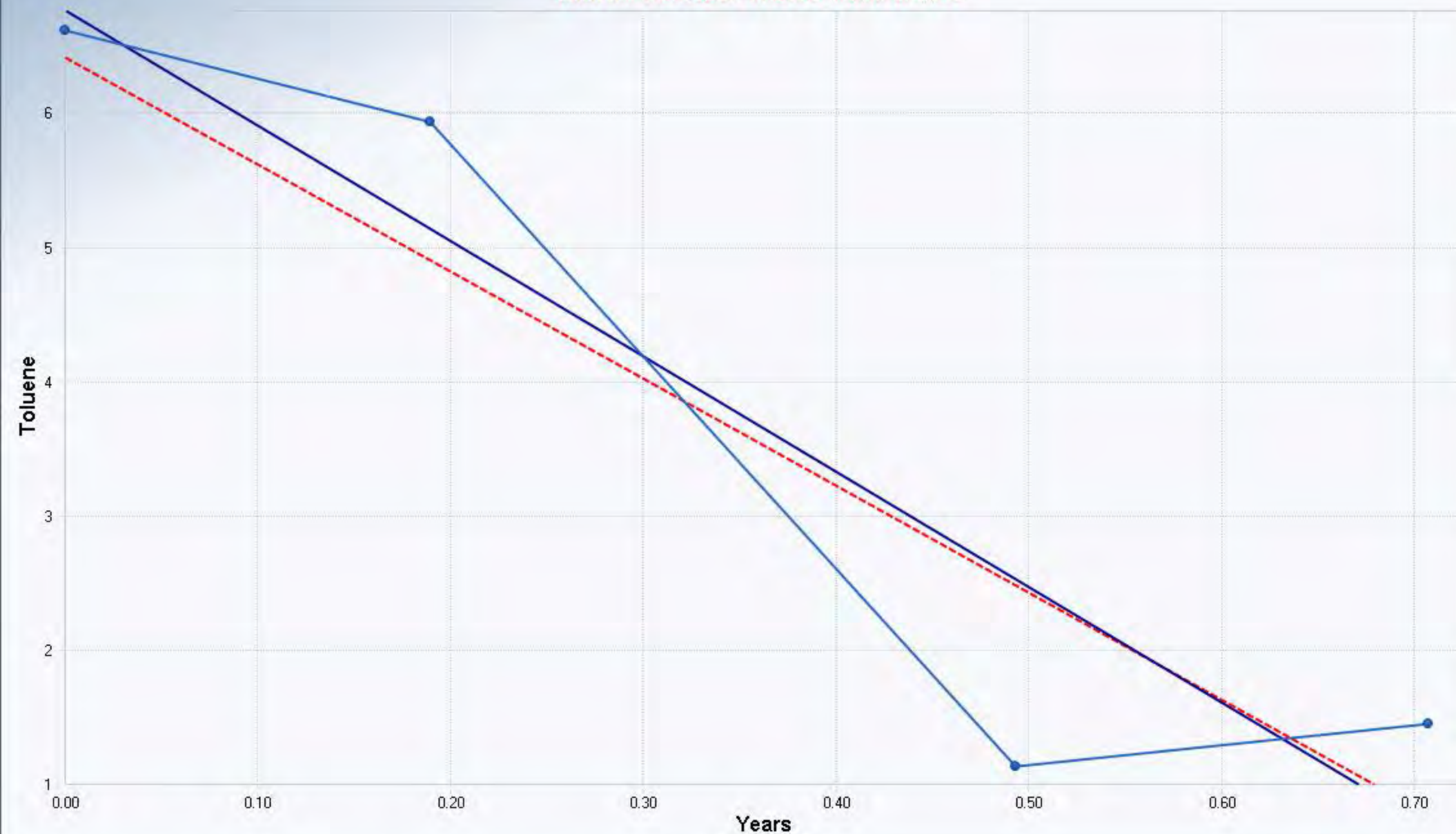
OLS Regression Line (Blue)

OLS Regression Slope	-8.6120
OLS Regression Intercept	6.6381

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-7.9927
Theil-Sen Intercept	6.2813

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



Mann-Kendall Trend Test MW-2

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

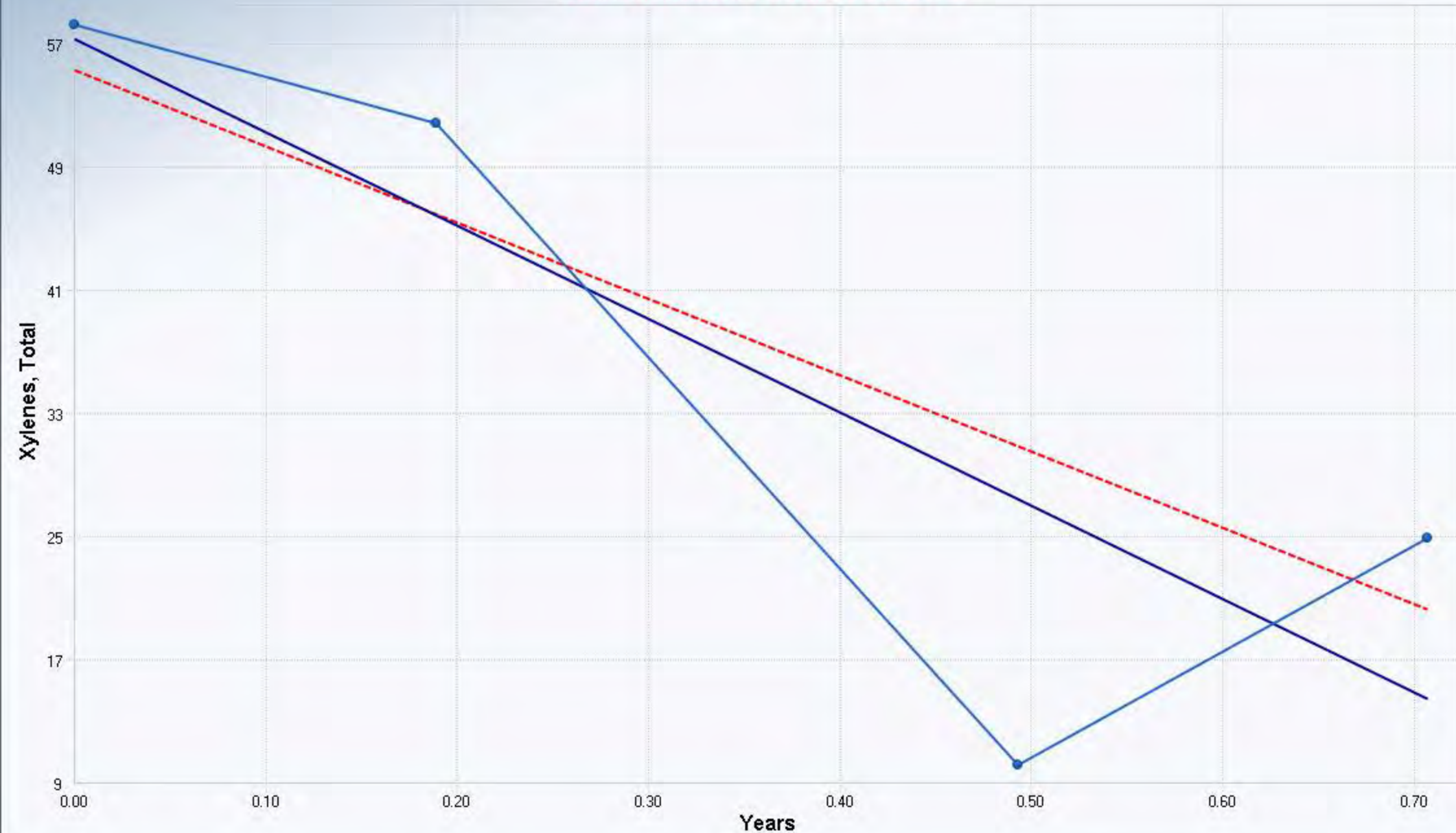
OLS Regression Line (Blue)

OLS Regression Slope	-60.6474
OLS Regression Intercept	57.2354

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-49.5301
Theil-Sen Intercept	55.1445

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



Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.6984
M-K Test Value (S)	-6
Tabulated p-value	0.0420
Approximate p-value	0.0447

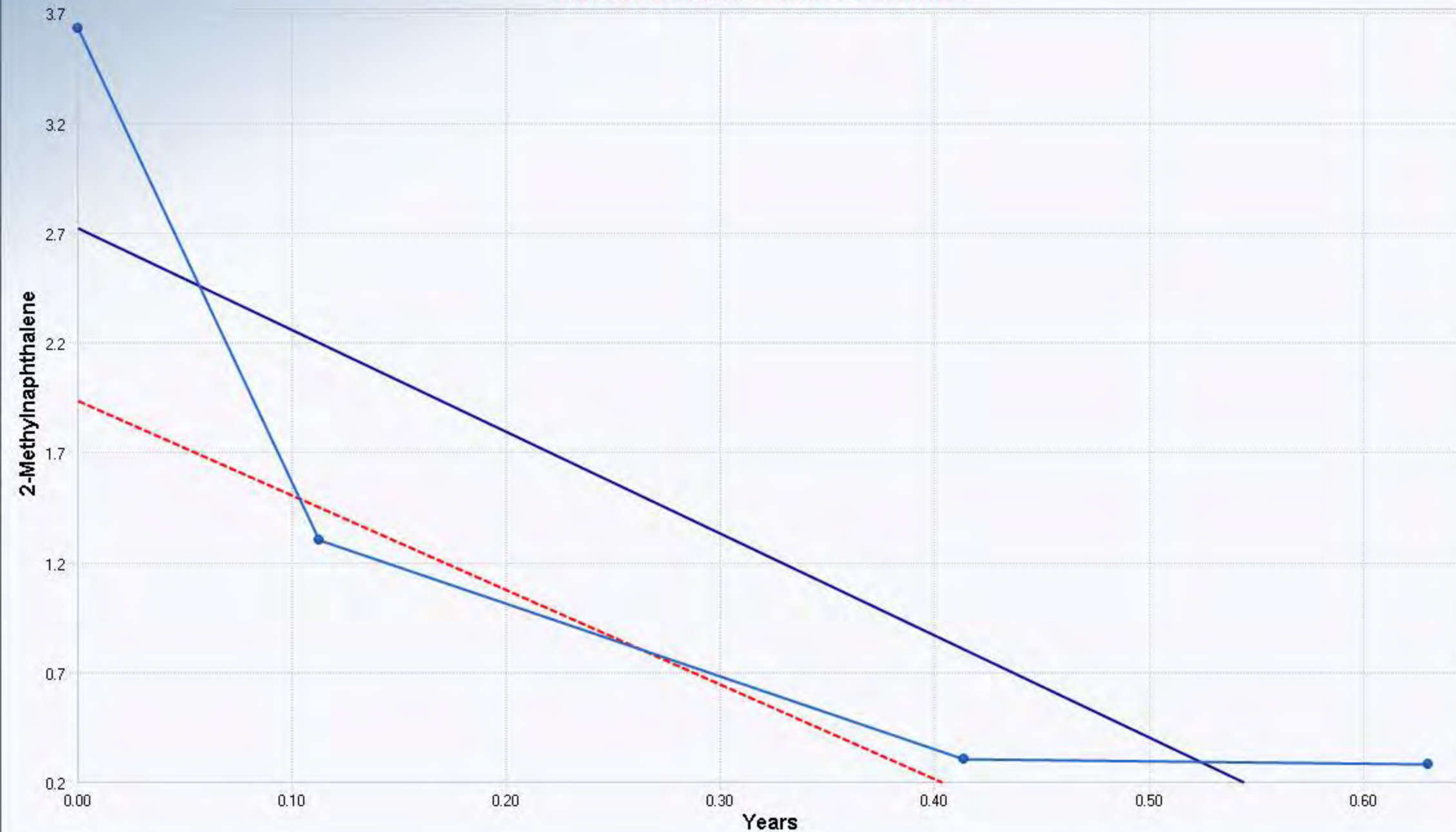
OLS Regression Line (Blue)

OLS Regression Slope	-4.6396
OLS Regression Intercept	2.7105

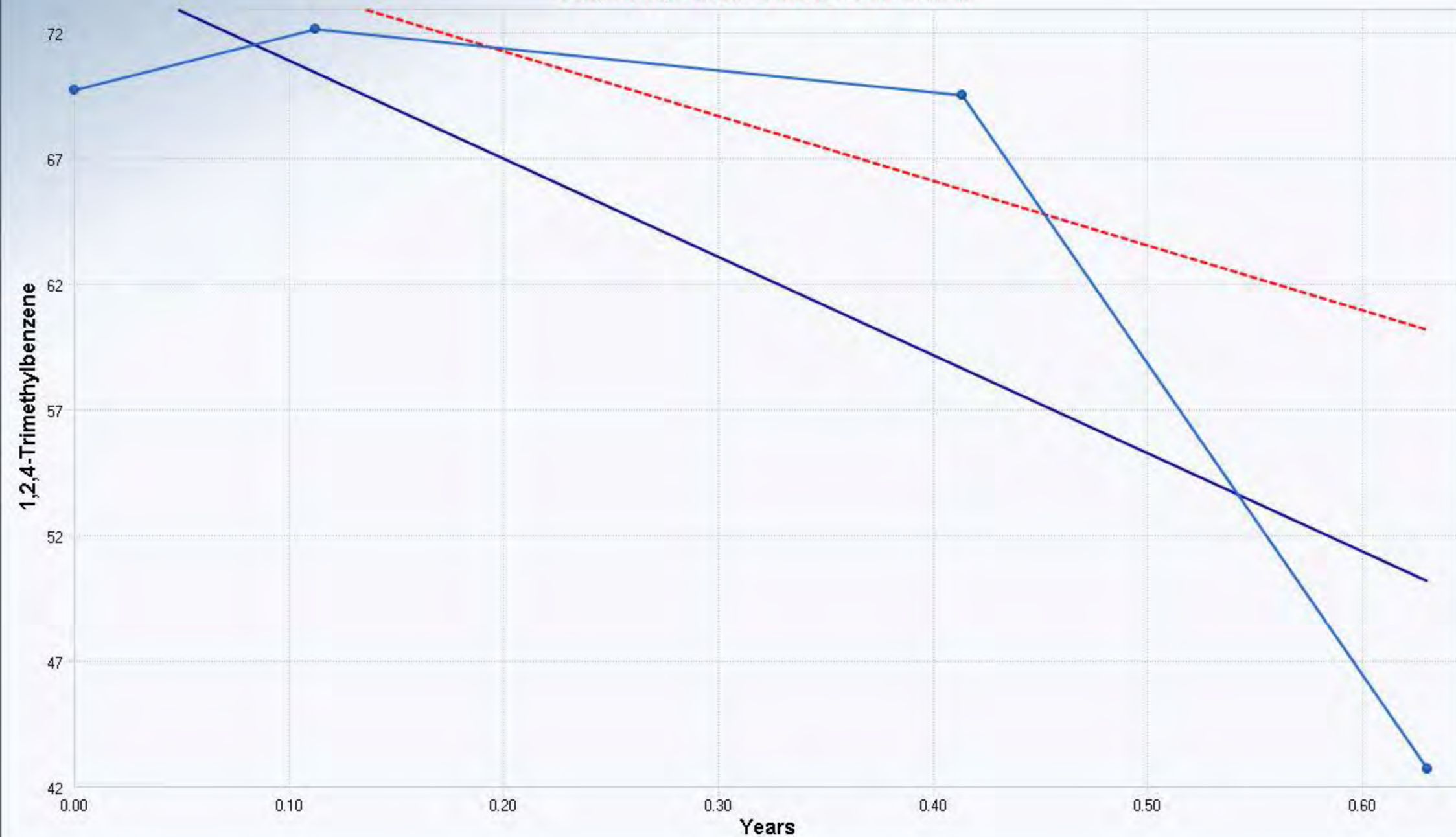
Theil-Sen Trend Line (Red)

Theil-Sen Slope	-4.3066
Theil-Sen Intercept	1.9252

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



Mann-Kendall Trend Test MW-3



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

OLS Regression Line (Blue)

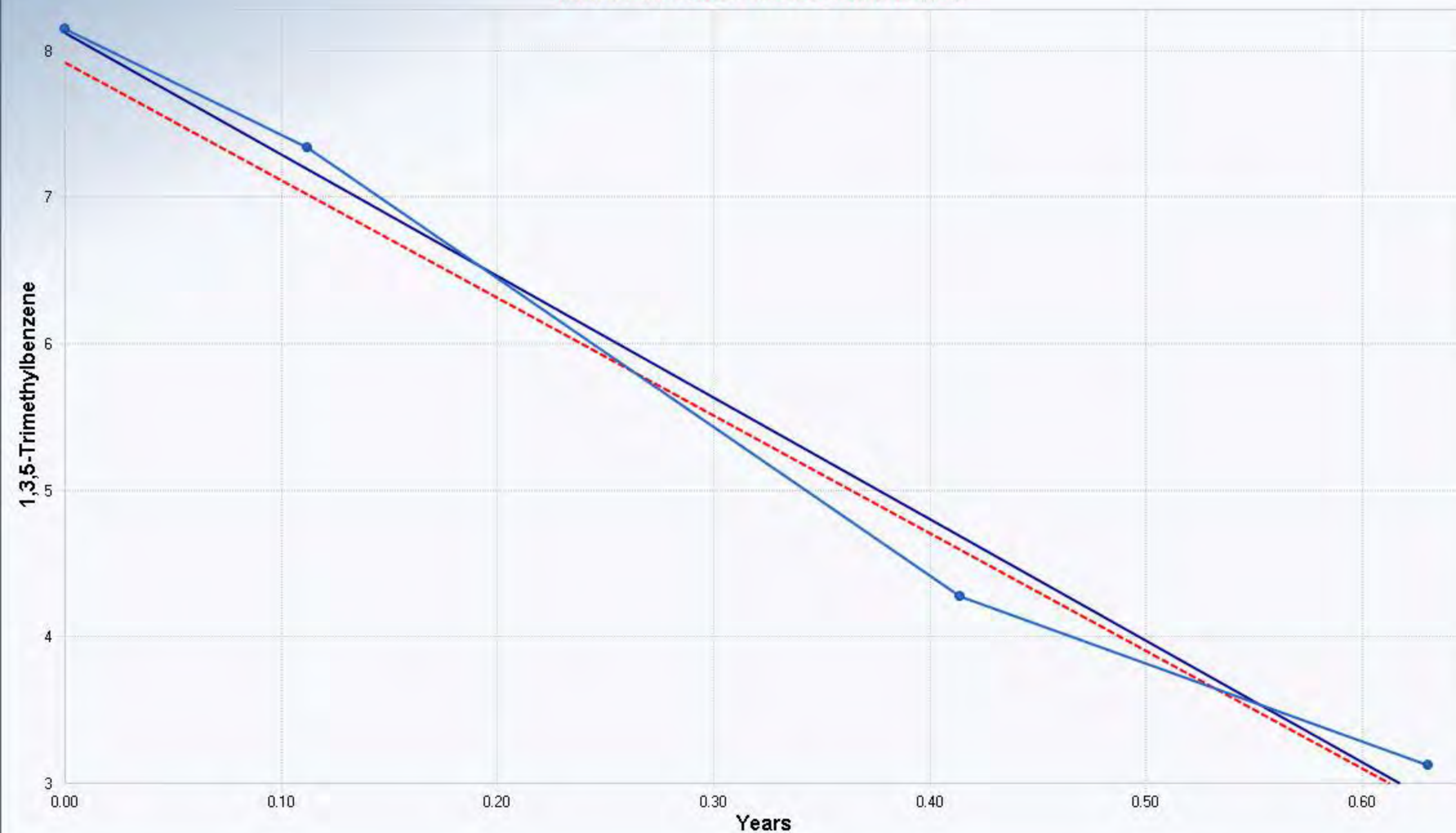
OLS Regression Slope	-39.1580
OLS Regression Intercept	74.8183

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-25.7375
Theil-Sen Intercept	76.3693

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

Mann-Kendall Trend Test MW-3



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.6984
M-K Test Value (S)	-6
Tabulated p-value	0.0420
Approximate p-value	0.0447

OLS Regression Line (Blue)

OLS Regression Slope	-8.3175
OLS Regression Intercept	7.9491

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-8.0485
Theil-Sen Intercept	7.7469

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

Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

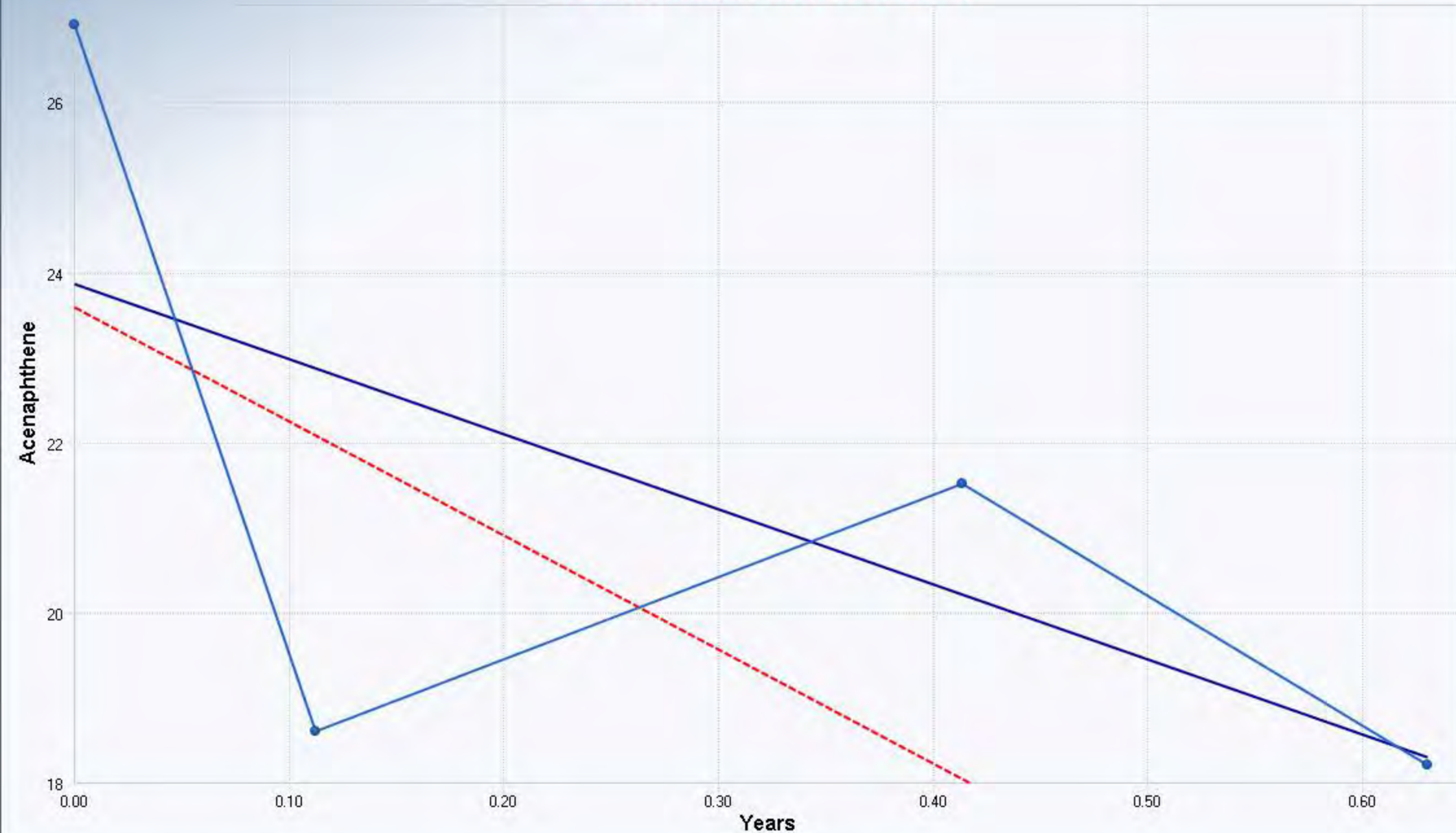
OLS Regression Line (Blue)

OLS Regression Slope	-8.8137
OLS Regression Intercept	23.9475

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-13.4298
Theil-Sen Intercept	23.6822

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



Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

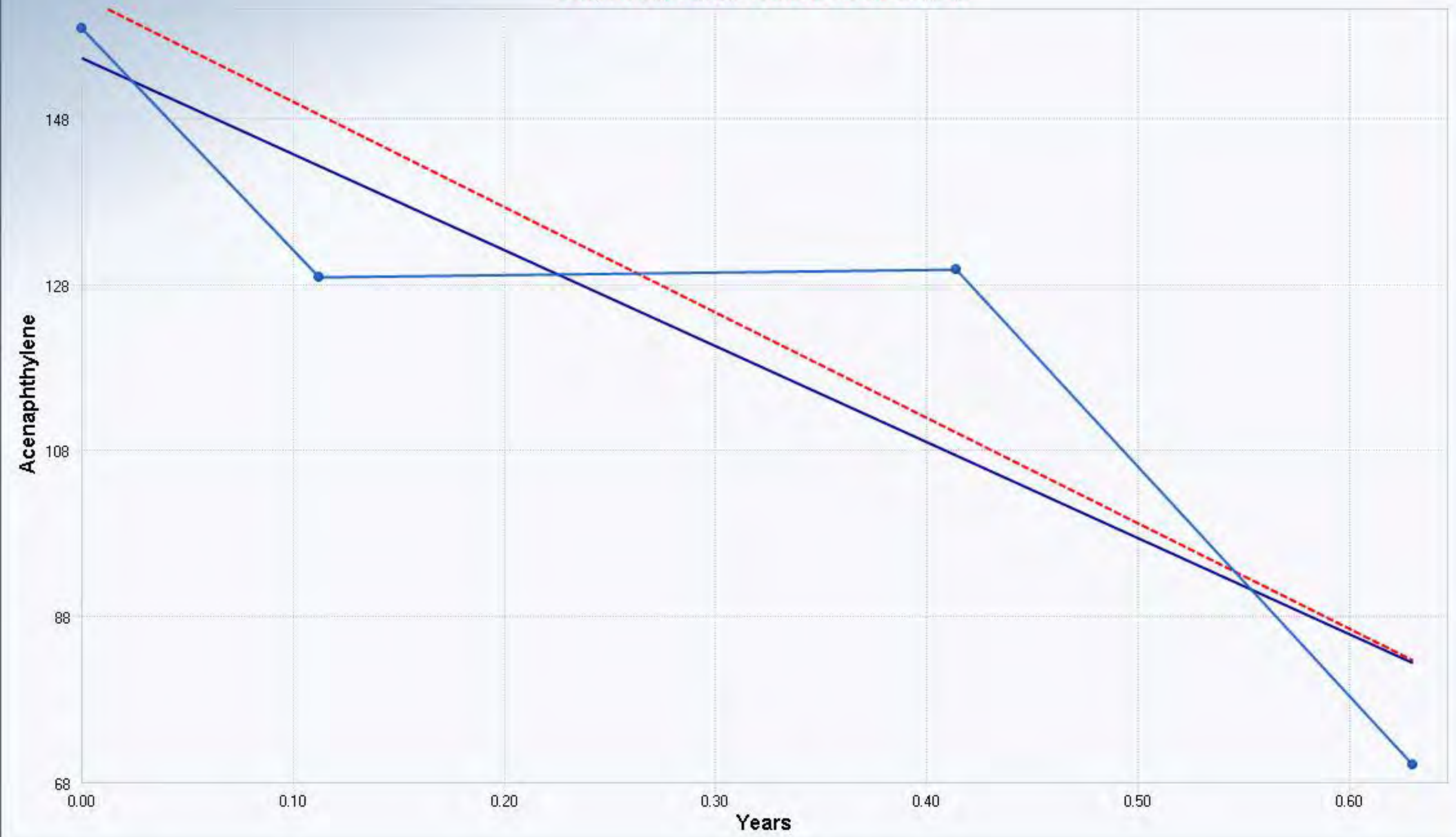
OLS Regression Line (Blue)

OLS Regression Slope	-115.6857
OLS Regression Intercept	155.5379

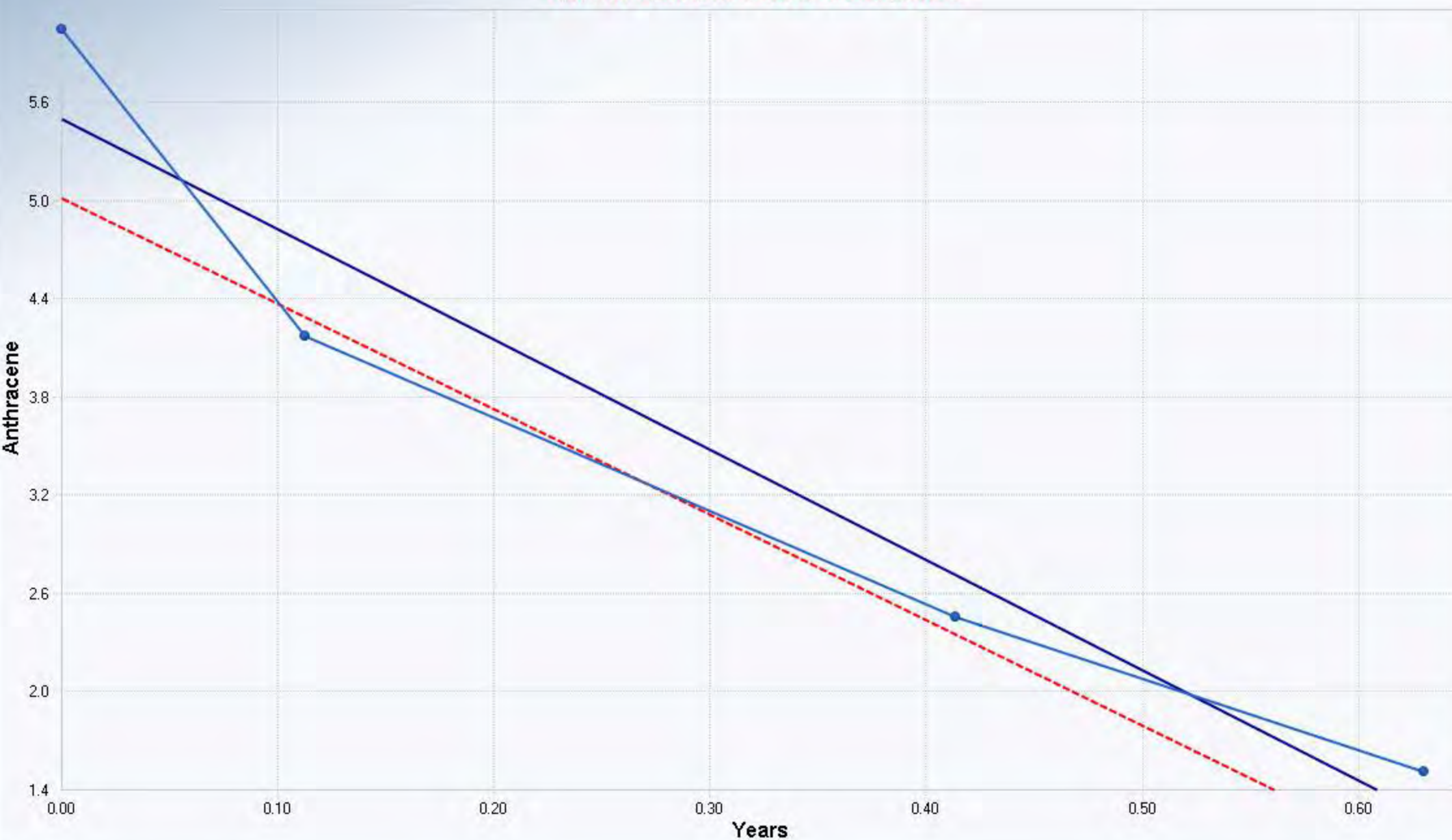
Theil-Sen Trend Line (Red)

Theil-Sen Slope	-126.8868
Theil-Sen Intercept	162.8730

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



Mann-Kendall Trend Test MW-3



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.6984
M-K Test Value (S)	-6
Tabulated p-value	0.0420
Approximate p-value	0.0447

OLS Regression Line (Blue)

OLS Regression Slope	-6.7390
OLS Regression Intercept	5.5404

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-6.4481
Theil-Sen Intercept	5.0559

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

Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	1.6984
M-K Test Value (S)	6
Tabulated p-value	0.0420
Approximate p-value	0.0447

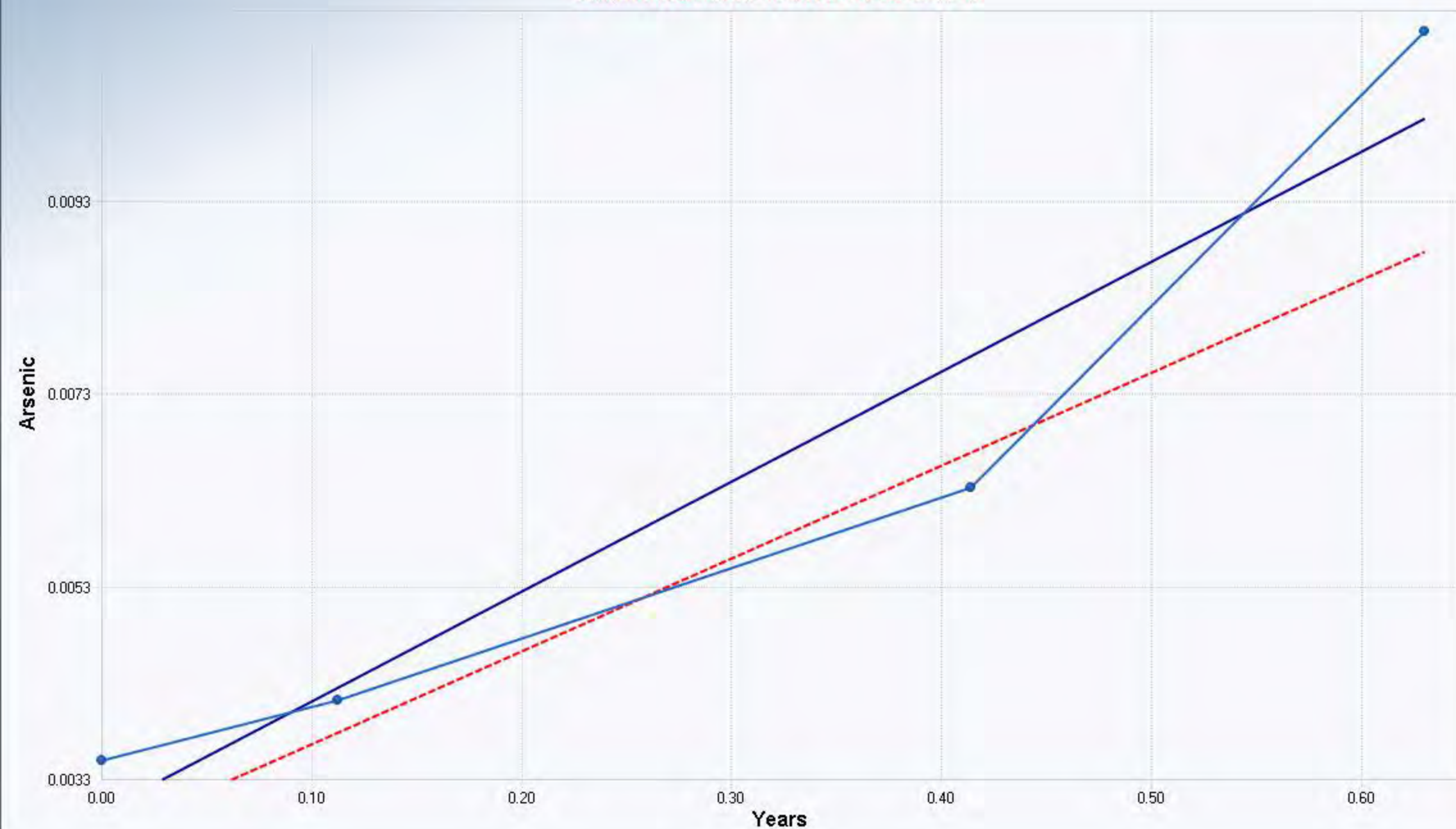
OLS Regression Line (Blue)

OLS Regression Slope	0.0115
OLS Regression Intercept	0.0030

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0097
Theil-Sen Intercept	0.0027

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



Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

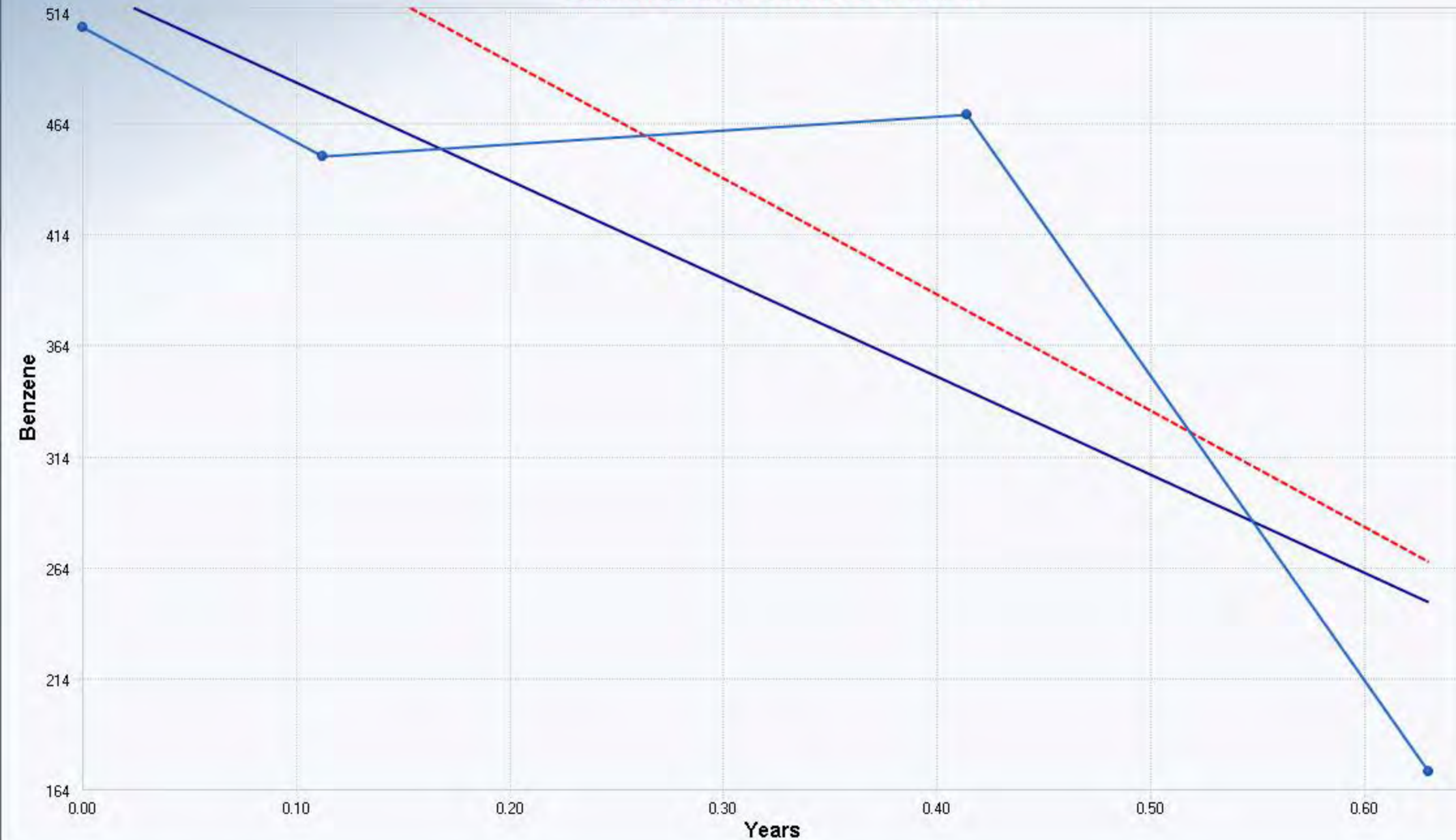
OLS Regression Line (Blue)

OLS Regression Slope	-441.4189
OLS Regression Intercept	526.5882

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-523.9859
Theil-Sen Intercept	596.3155

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



Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.2361
Standardized Value of S	0.0000
M-K Test Value (S)	-1
Tabulated p-value	0.6250
Approximate p-value	0.5000

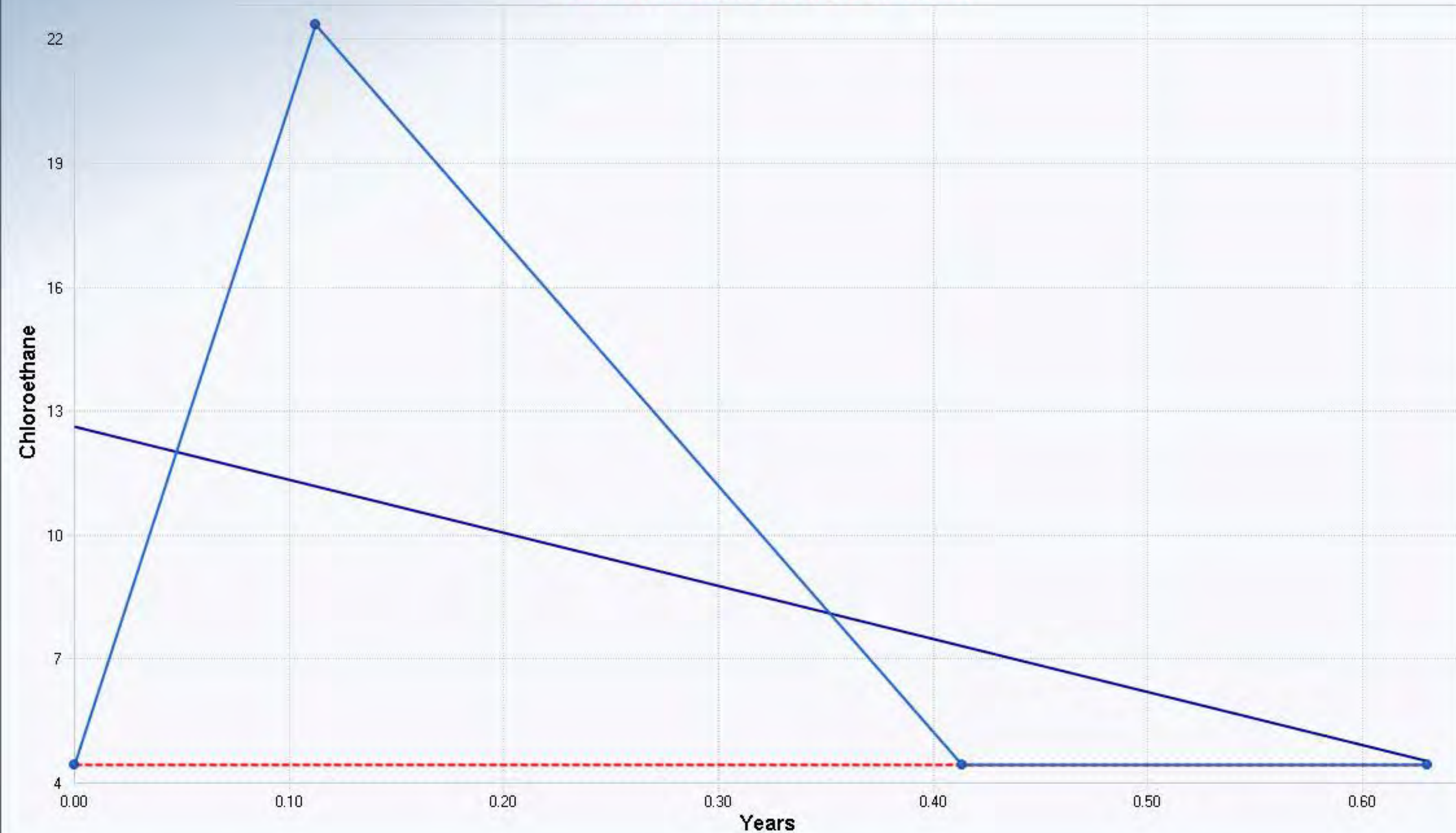
OLS Regression Line (Blue)

OLS Regression Slope	-12.8240
OLS Regression Intercept	12.1817

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	4.0000

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



Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-0.3397
M-K Test Value (S)	-2
Tabulated p-value	0.3750
Approximate p-value	0.3670

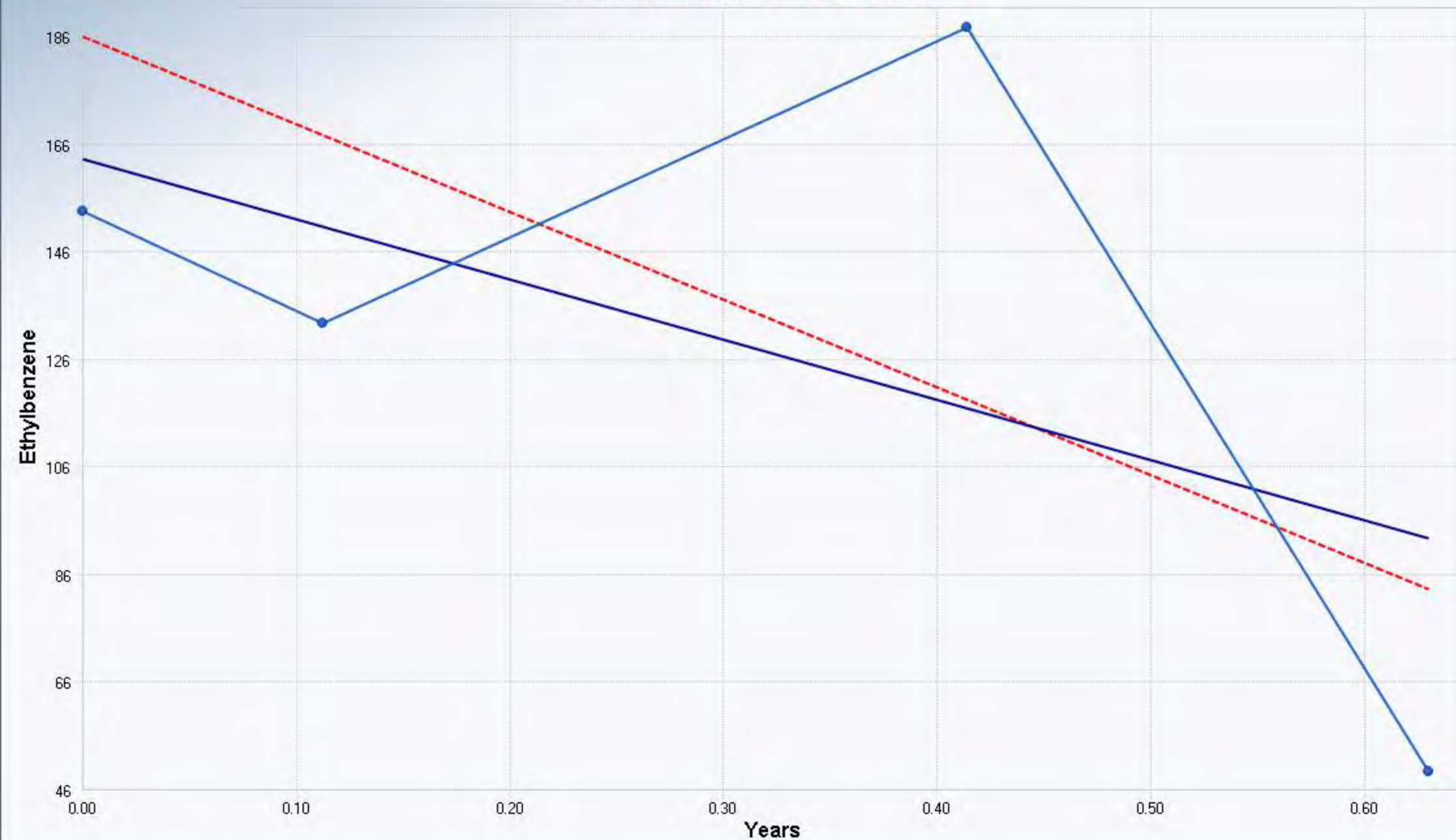
OLS Regression Line (Blue)

OLS Regression Slope	-111.8670
OLS Regression Intercept	163.5342

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-163.0191
Theil-Sen Intercept	186.3762

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



Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.6984
M-K Test Value (S)	-6
Tabulated p-value	0.0420
Approximate p-value	0.0447

OLS Regression Line (Blue)

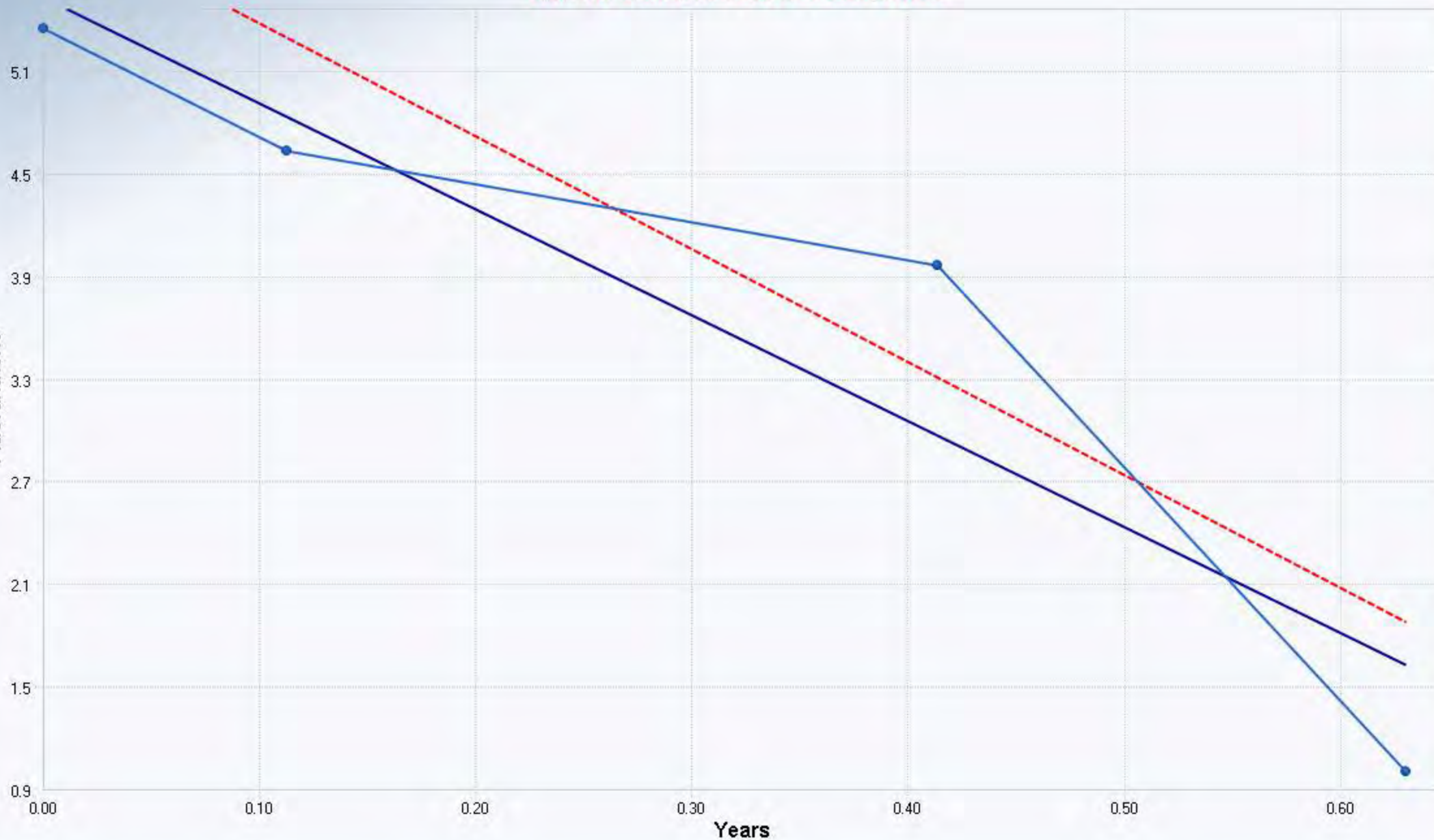
OLS Regression Slope	-6.1904
OLS Regression Intercept	5.5518

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-6.6041
Theil-Sen Intercept	6.0620

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

Fluoranthene



Years

Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.6984
M-K Test Value (S)	-6
Tabulated p-value	0.0420
Approximate p-value	0.0447

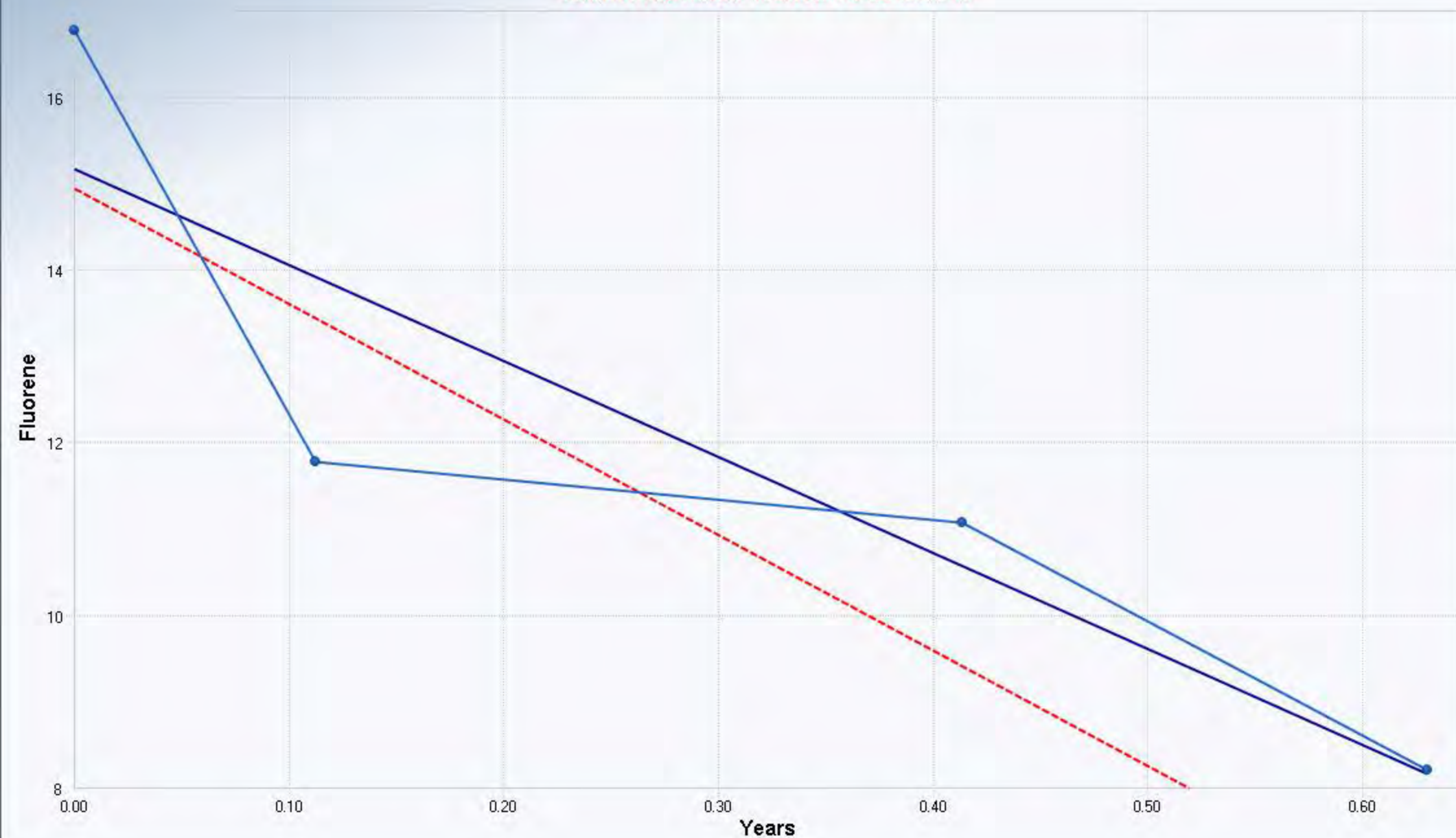
OLS Regression Line (Blue)

OLS Regression Slope	-11.1359
OLS Regression Intercept	15.6037

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-13.3991
Theil-Sen Intercept	15.3742

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



Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	
M-K Test Value (S)	0
Tabulated p-value	0.6250
Approximate p-value	

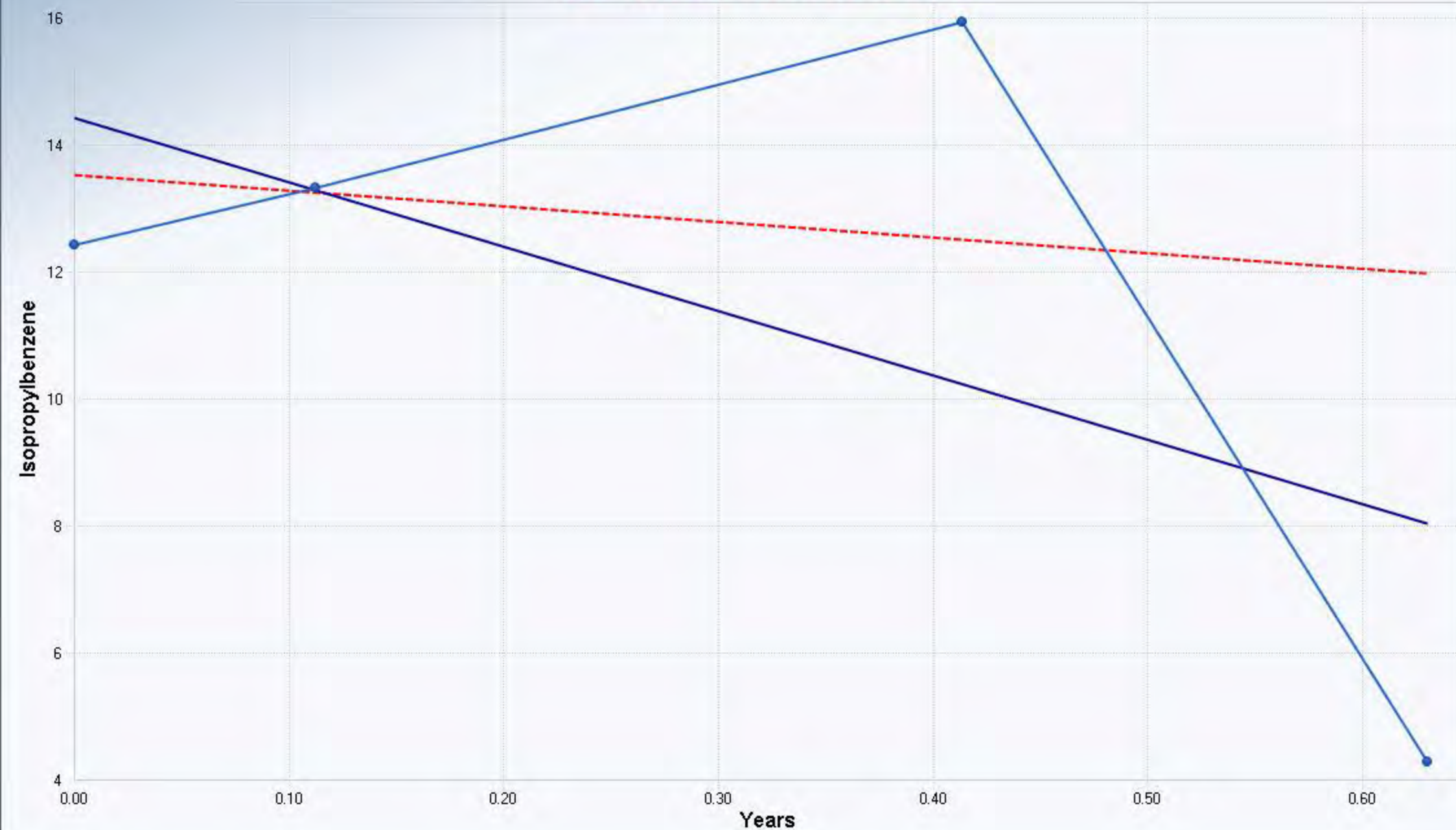
OLS Regression Line (Blue)

OLS Regression Slope	-10.1325
OLS Regression Intercept	14.8937

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-2.4528
Theil-Sen Intercept	13.9951

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



Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.6984
M-K Test Value (S)	-6
Tabulated p-value	0.0420
Approximate p-value	0.0447

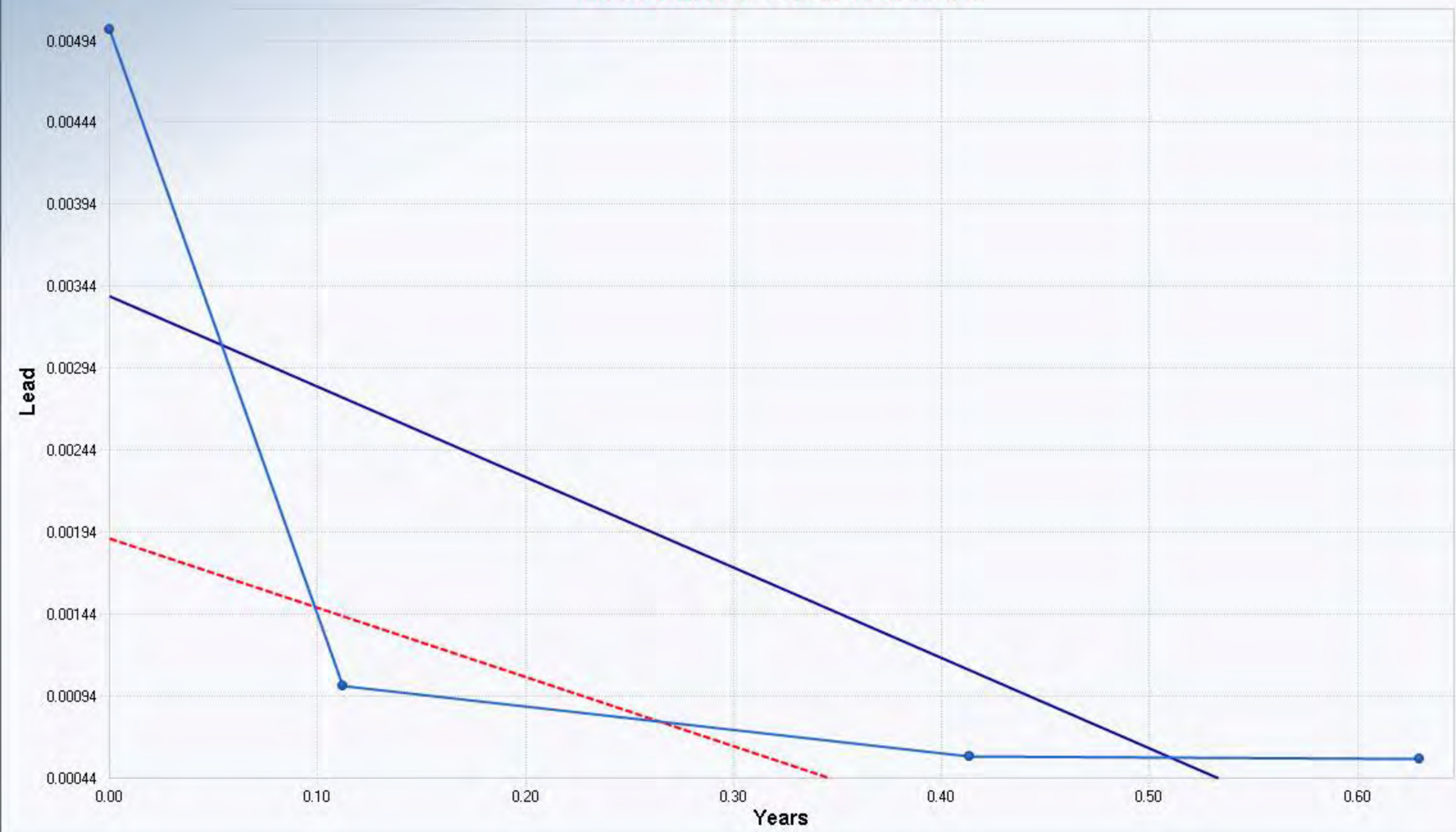
OLS Regression Line (Blue)

OLS Regression Slope	-0.0055
OLS Regression Intercept	0.0034

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0042
Theil-Sen Intercept	0.0019

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



Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.6984
M-K Test Value (S)	-6
Tabulated p-value	0.0420
Approximate p-value	0.0447

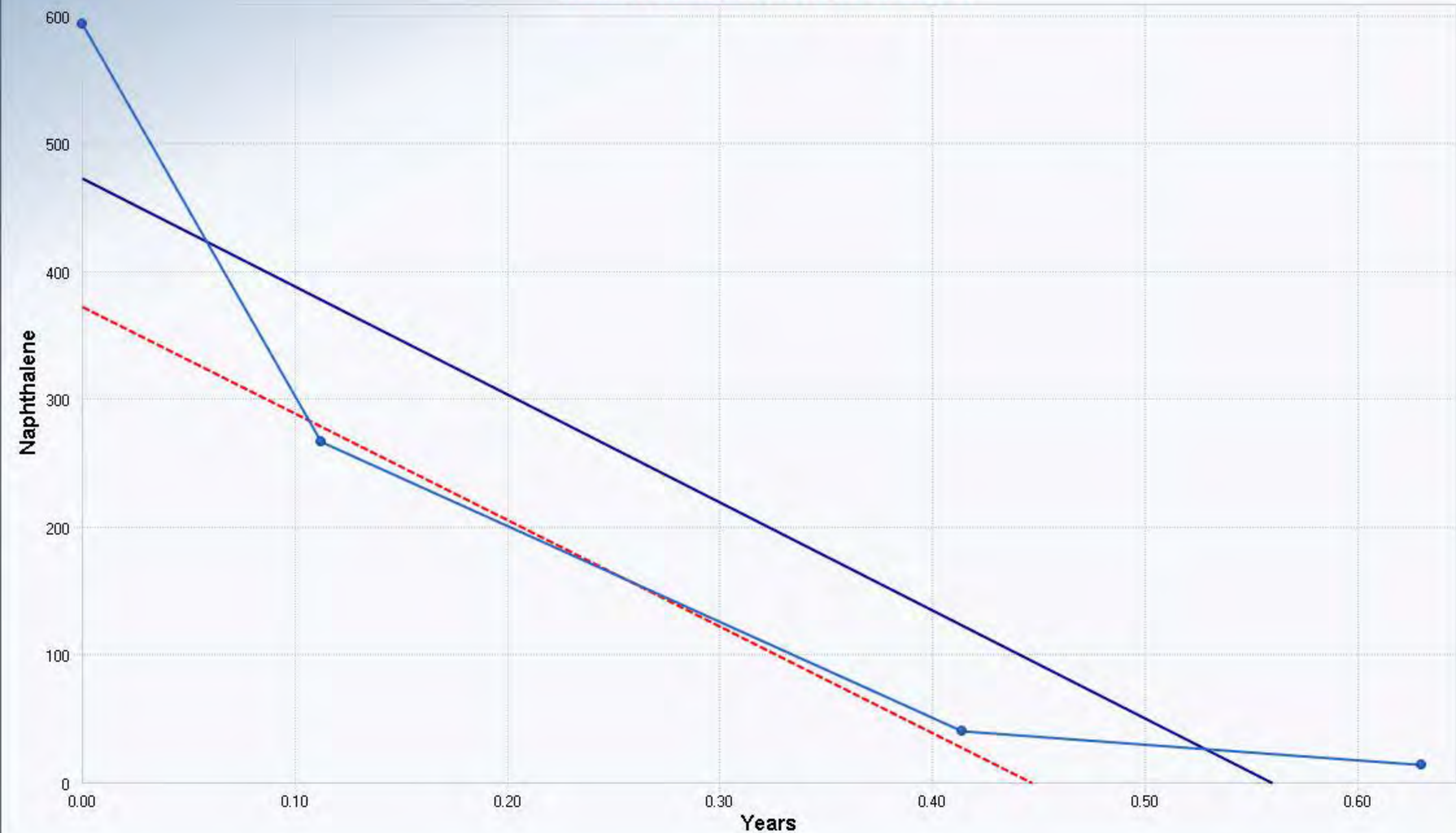
OLS Regression Line (Blue)

OLS Regression Slope	-845.9395
OLS Regression Intercept	472.7363

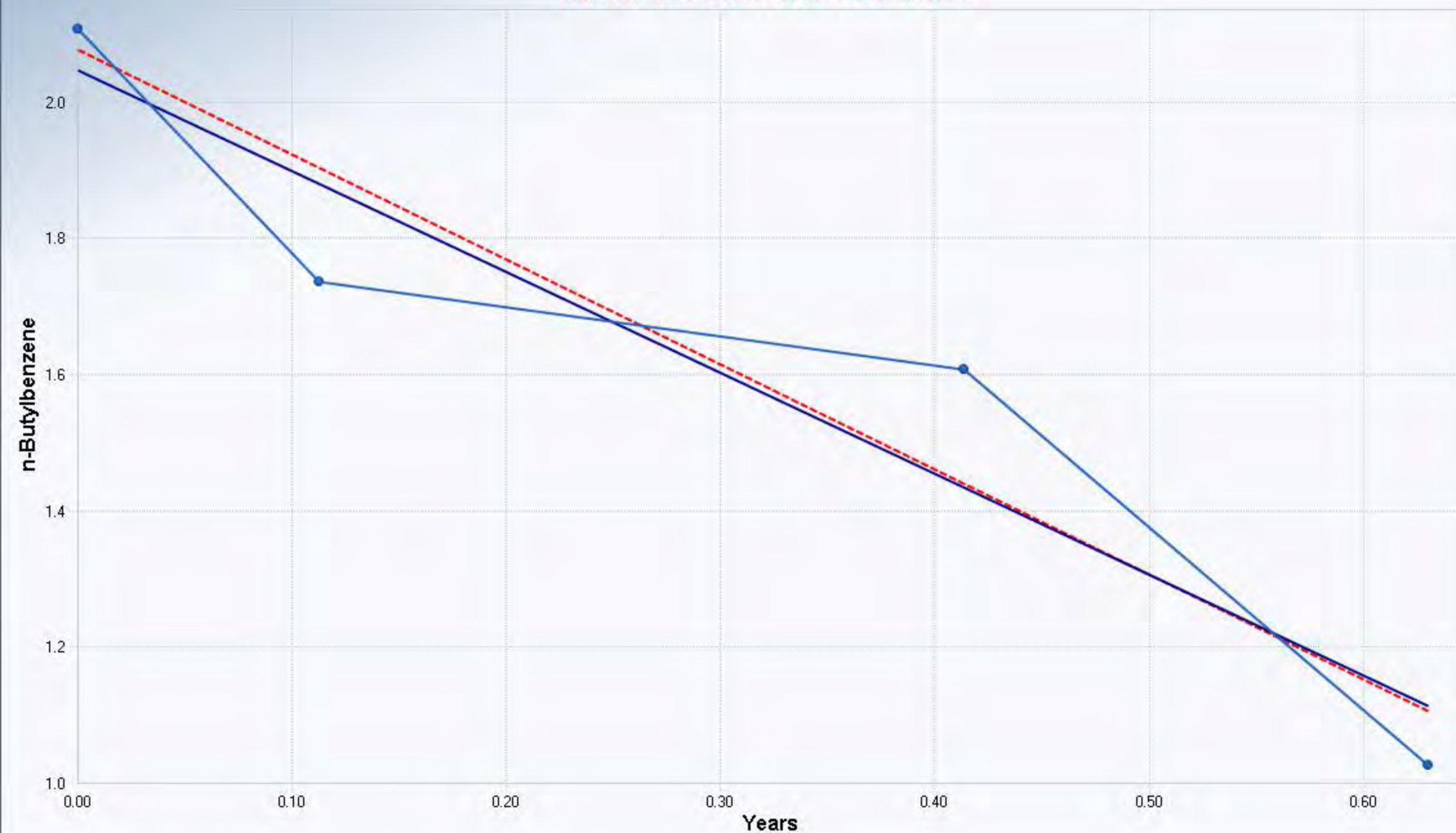
Theil-Sen Trend Line (Red)

Theil-Sen Slope	-834.5444
Theil-Sen Intercept	372.4466

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



Mann-Kendall Trend Test MW-3



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.6984
M-K Test Value (S)	-6
Tabulated p-value	0.0420
Approximate p-value	0.0447

OLS Regression Line (Blue)

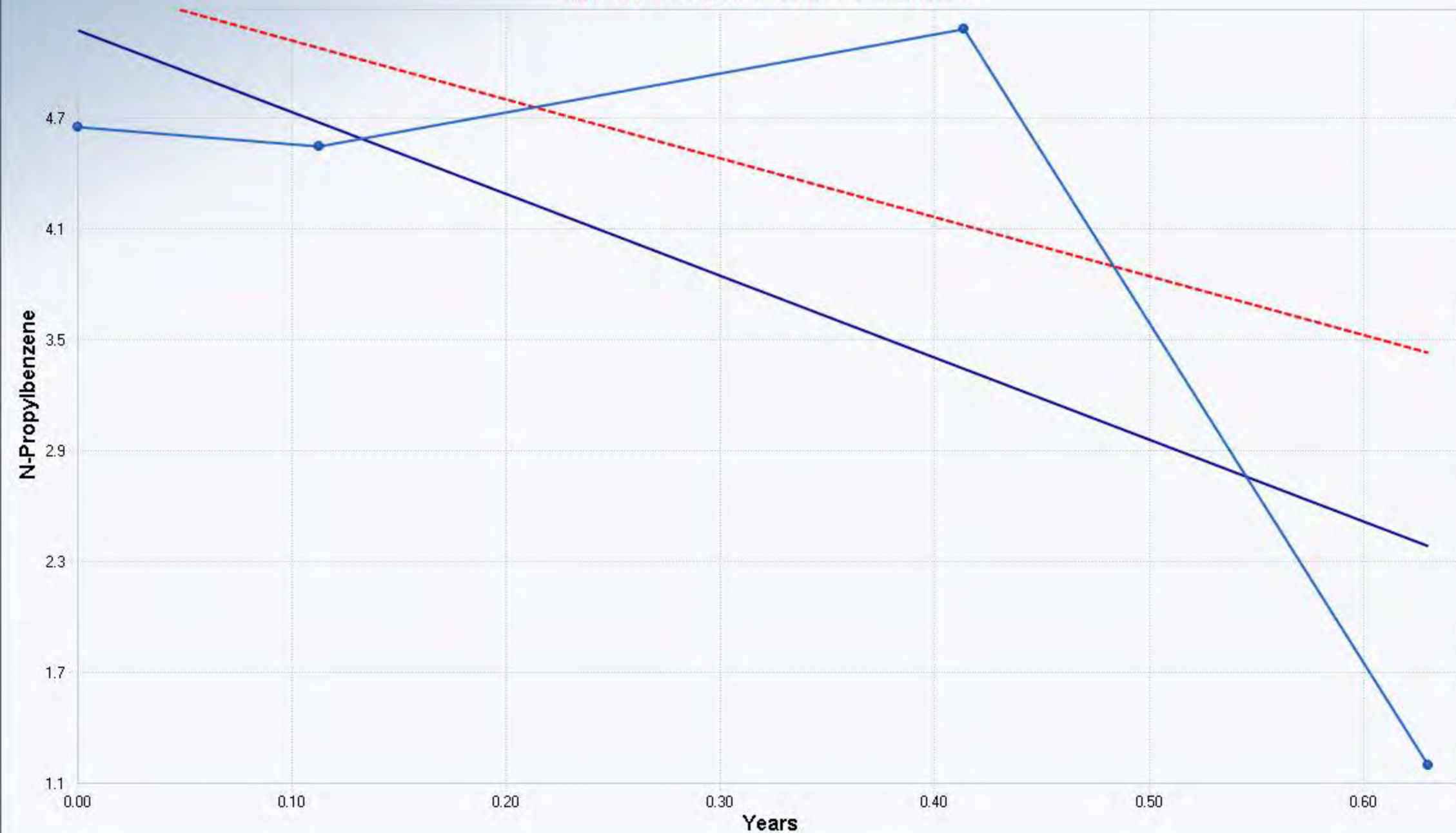
OLS Regression Slope	-1.4811
OLS Regression Intercept	2.0606

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-1.5425
Theil-Sen Intercept	2.0907

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

Mann-Kendall Trend Test MW-3



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-0.3397
M-K Test Value (S)	-2
Tabulated p-value	0.3750
Approximate p-value	0.3670

OLS Regression Line (Blue)

OLS Regression Slope	-4.4314
OLS Regression Intercept	5.2059

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-3.1826
Theil-Sen Intercept	5.4671

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

Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.6984
M-K Test Value (S)	-6
Tabulated p-value	0.0420
Approximate p-value	0.0447

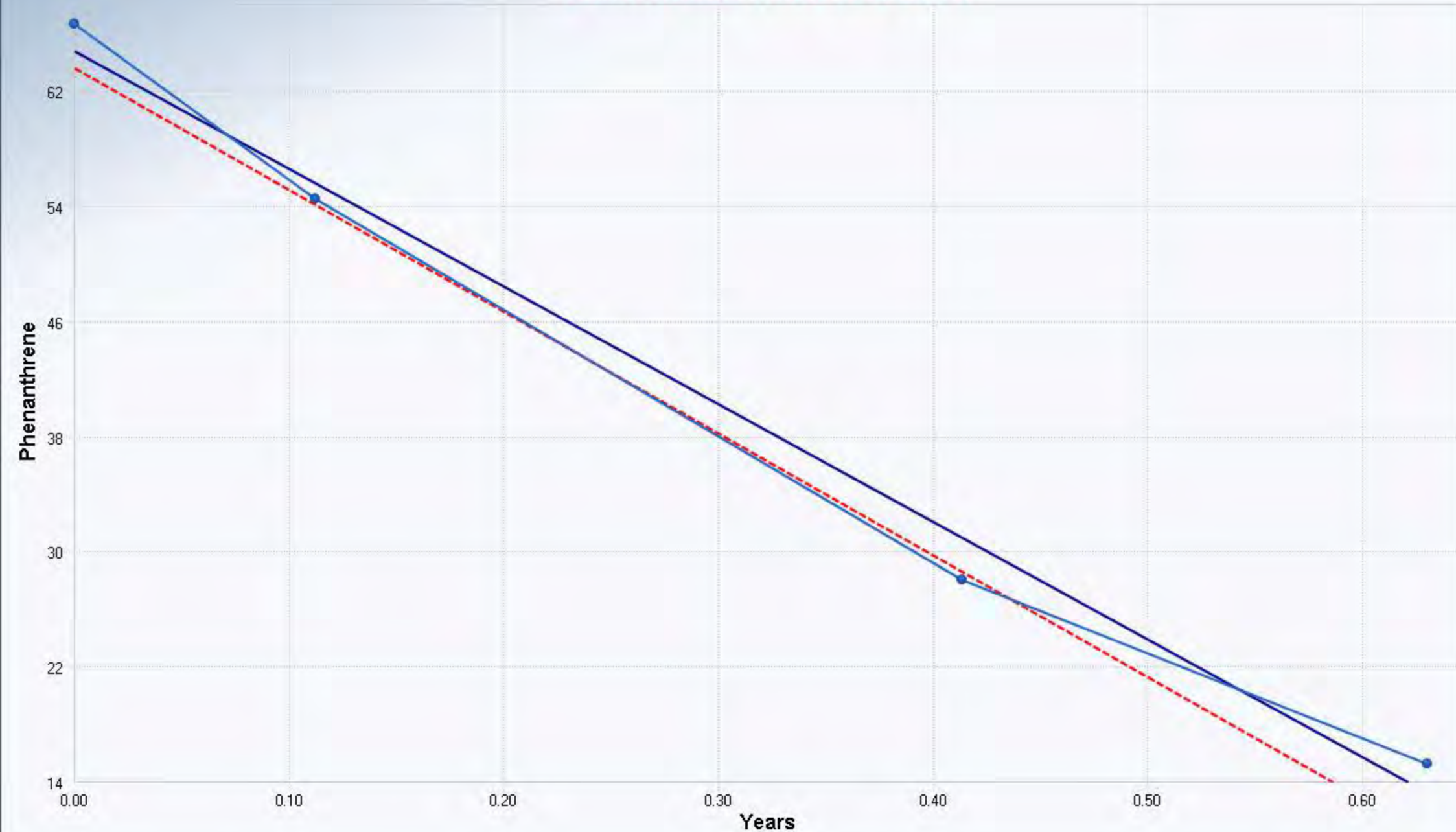
OLS Regression Line (Blue)

OLS Regression Slope	-81.9187
OLS Regression Intercept	64.5529

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-84.7507
Theil-Sen Intercept	63.3406

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



Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.2361
Standardized Value of S	-0.8944
M-K Test Value (S)	-3
Tabulated p-value	0.3750
Approximate p-value	0.1855

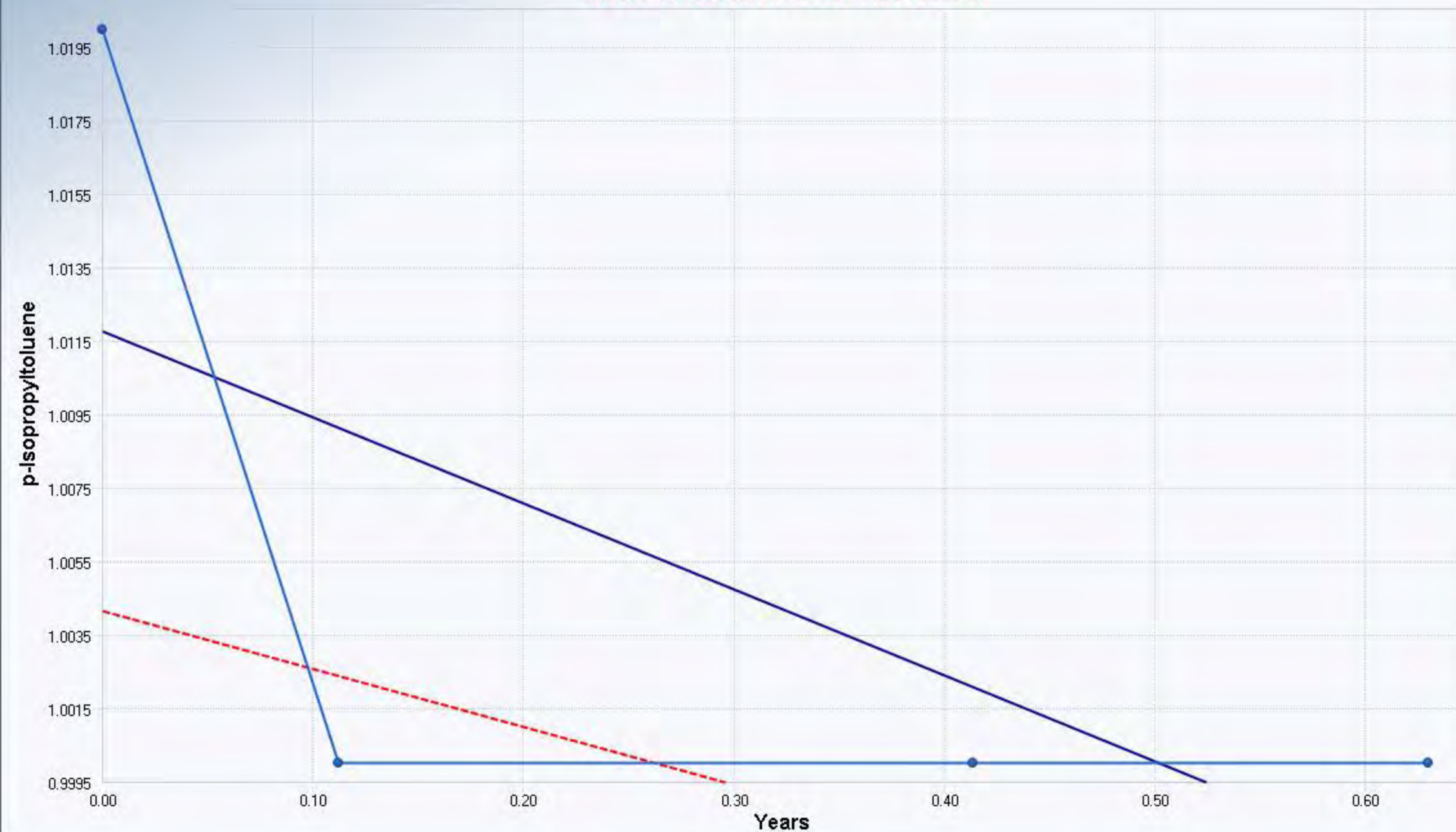
OLS Regression Line (Blue)

OLS Regression Slope	-0.0234
OLS Regression Intercept	1.0118

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0159
Theil-Sen Intercept	1.0042

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



Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.6984
M-K Test Value (S)	-6
Tabulated p-value	0.0420
Approximate p-value	0.0447

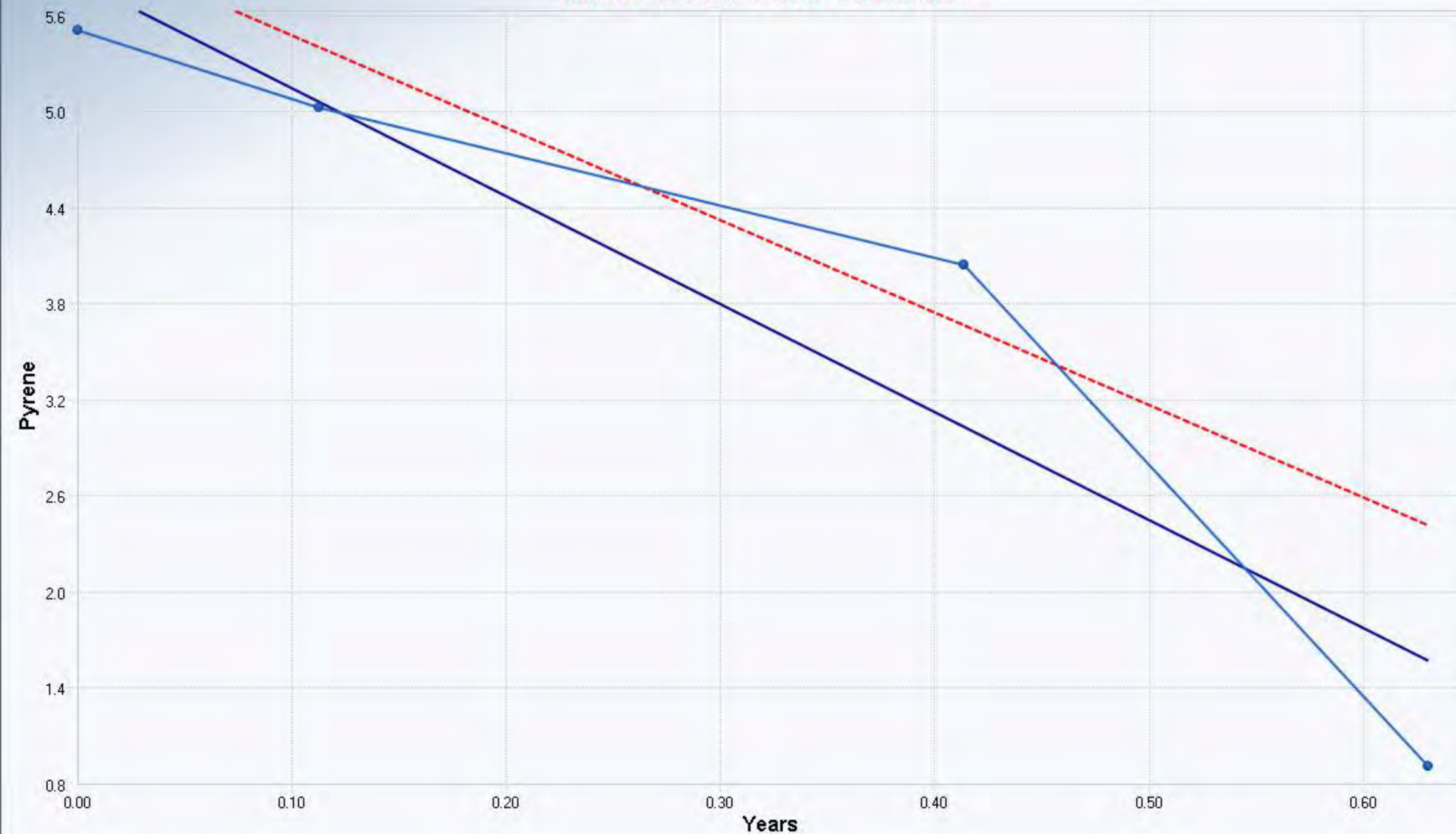
OLS Regression Line (Blue)

OLS Regression Slope	-6.7427
OLS Regression Intercept	5.8662

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-5.7794
Theil-Sen Intercept	6.1001

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



Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.2361
Standardized Value of S	-0.8944
M-K Test Value (S)	-3
Tabulated p-value	0.3750
Approximate p-value	0.1855

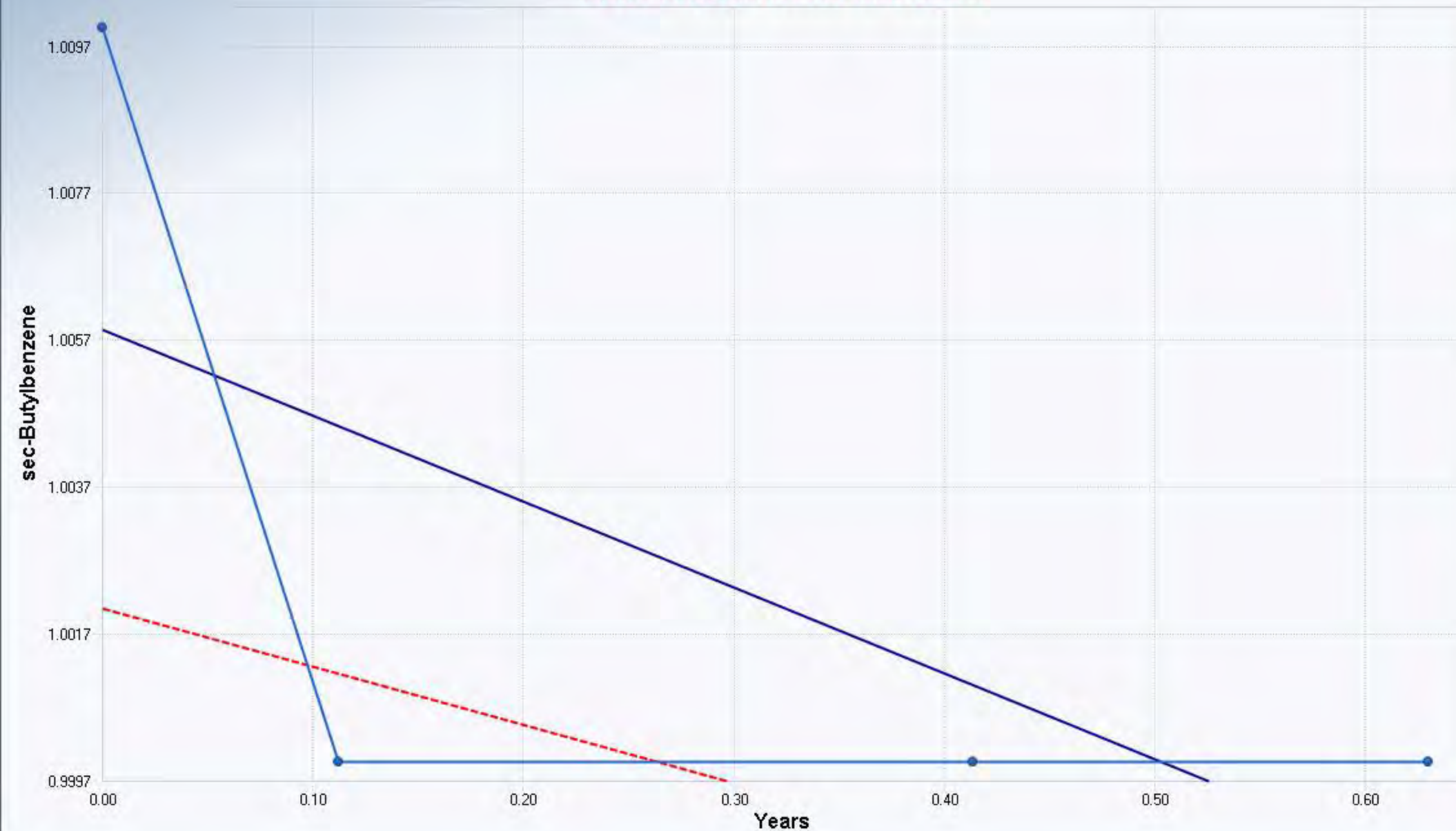
OLS Regression Line (Blue)

OLS Regression Slope	-0.0117
OLS Regression Intercept	1.0059

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0079
Theil-Sen Intercept	1.0021

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



Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

OLS Regression Line (Blue)

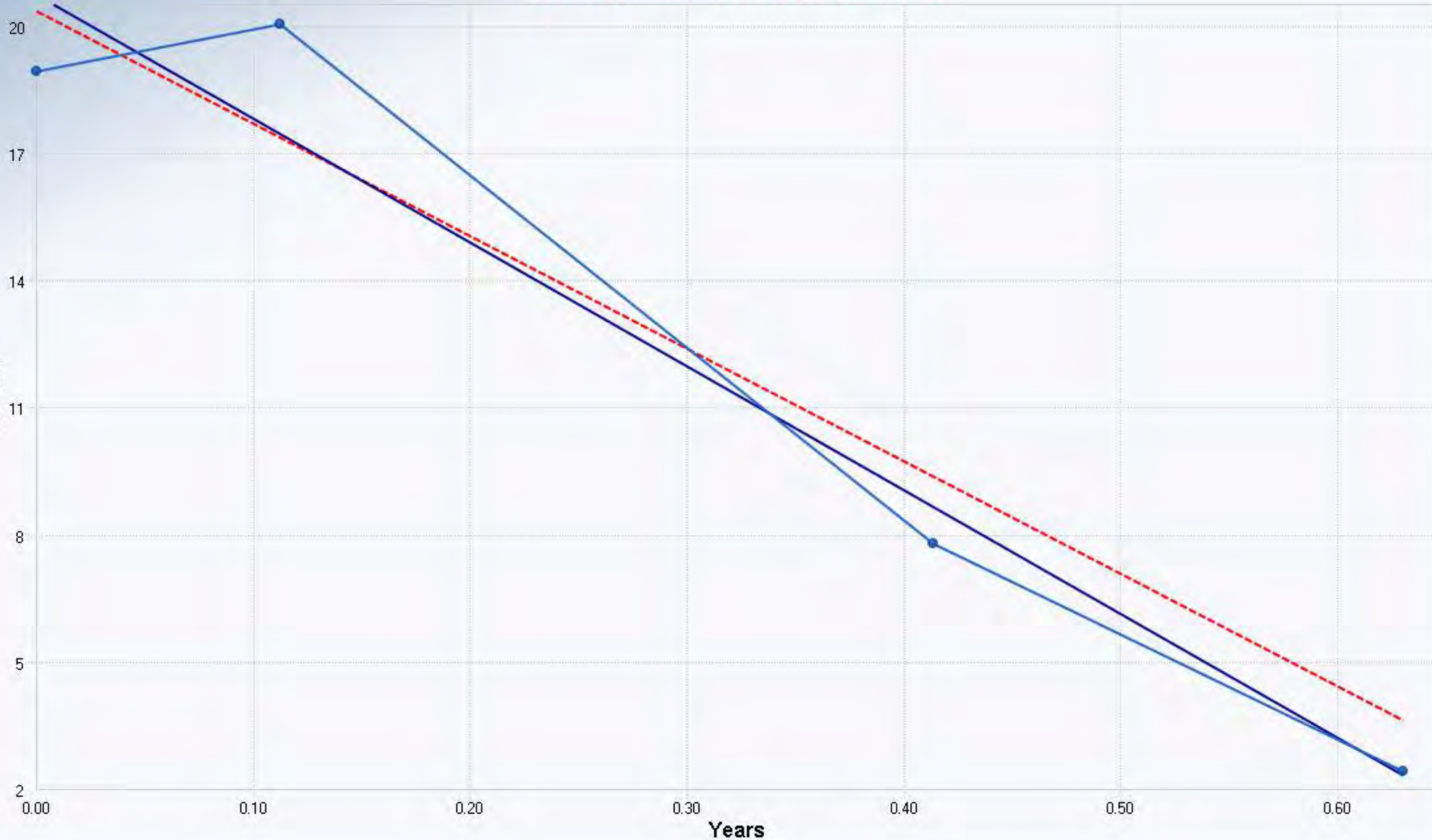
OLS Regression Slope	-29.2354
OLS Regression Intercept	20.8152

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-26.5563
Theil-Sen Intercept	20.4147

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

Toluene



Years

Mann-Kendall Trend Test MW-3

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.6984
M-K Test Value (S)	-6
Tabulated p-value	0.0420
Approximate p-value	0.0447

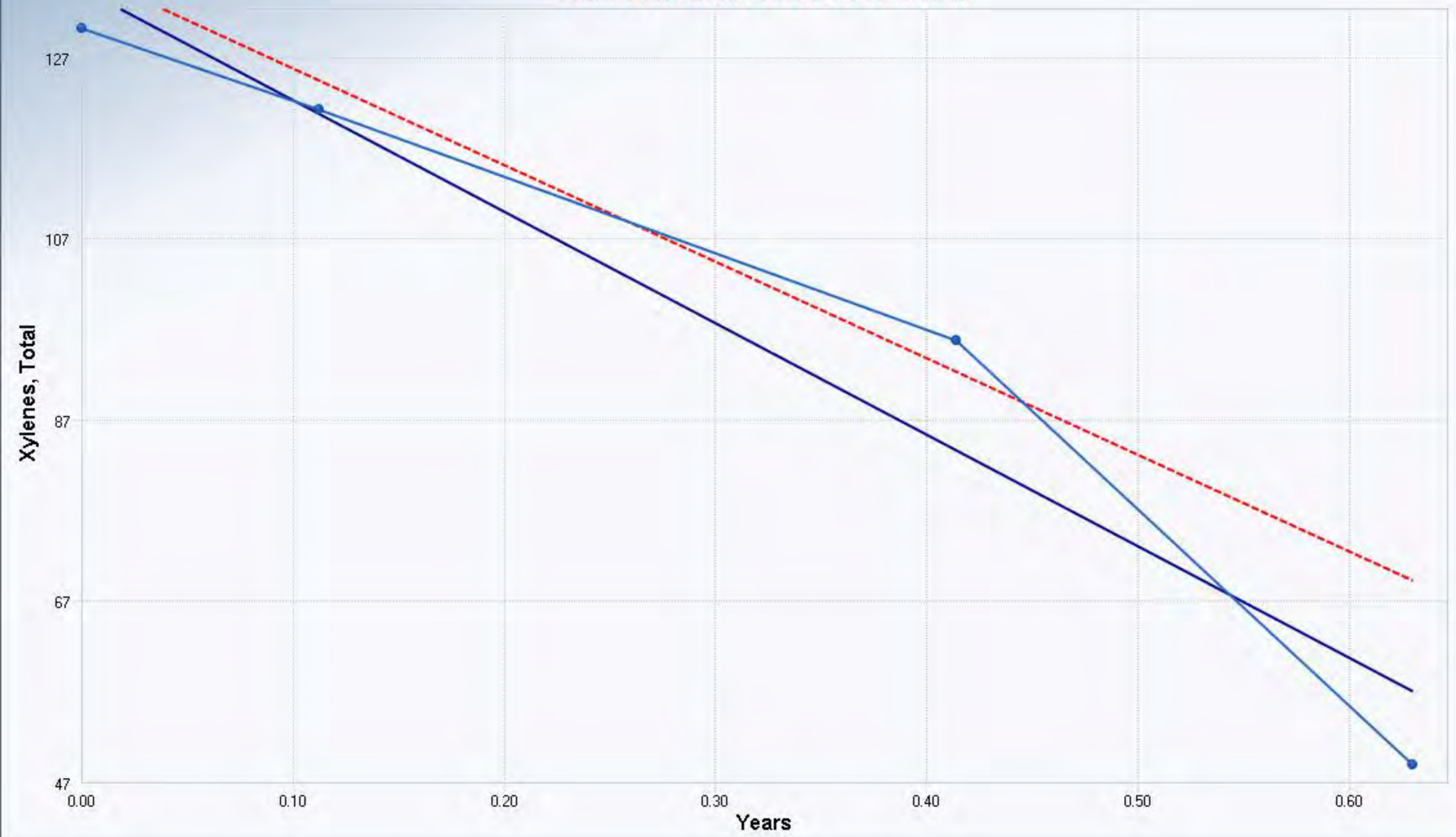
OLS Regression Line (Blue)

OLS Regression Slope	-123.2265
OLS Regression Intercept	134.4675

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-106.5713
Theil-Sen Intercept	136.3297

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



Mann-Kendall Trend Test MW-4

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	
M-K Test Value (S)	0
Tabulated p-value	0.6250
Approximate p-value	

OLS Regression Line (Blue)

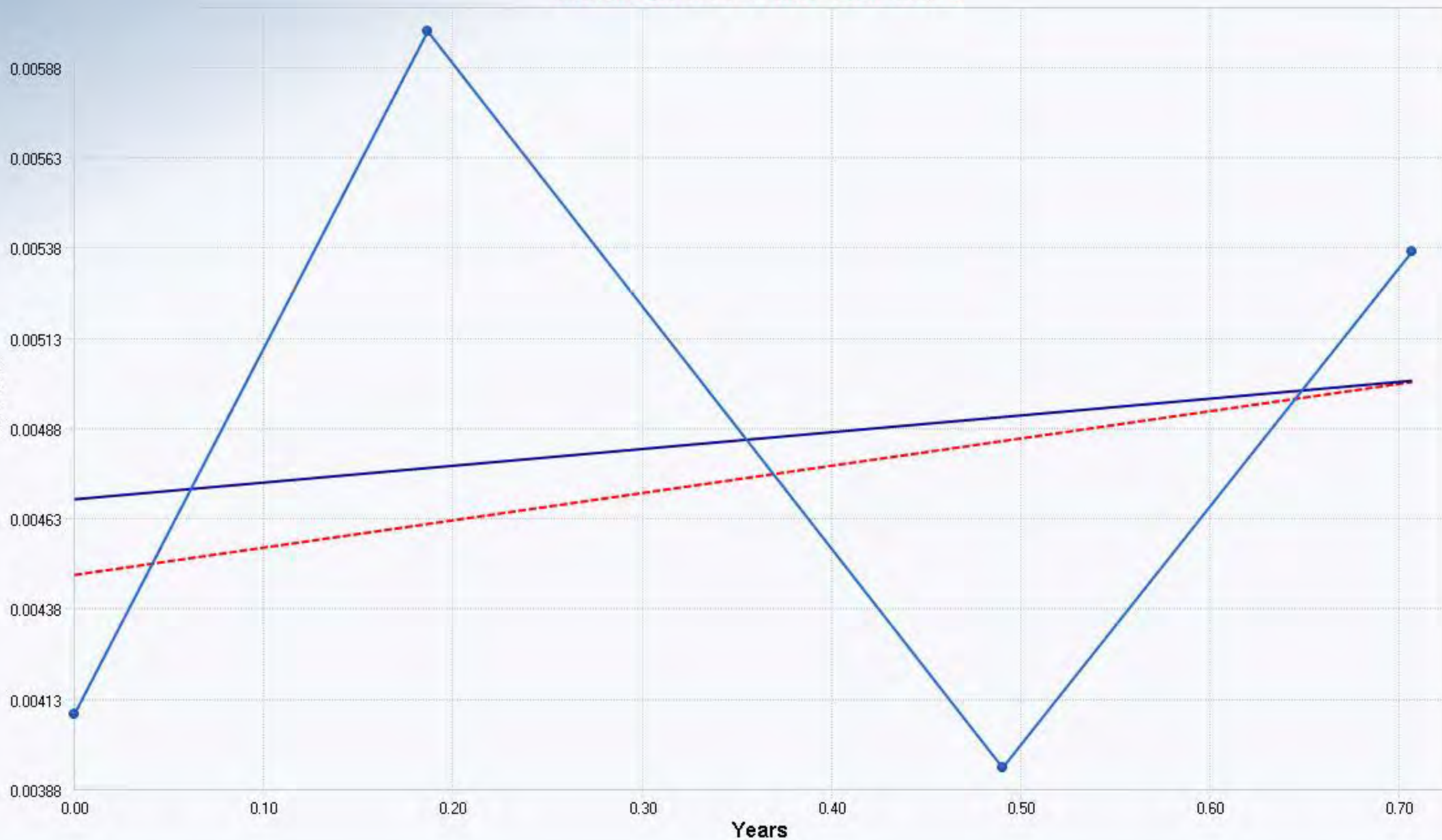
OLS Regression Slope	0.0005
OLS Regression Intercept	0.0047

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0008
Theil-Sen Intercept	0.0045

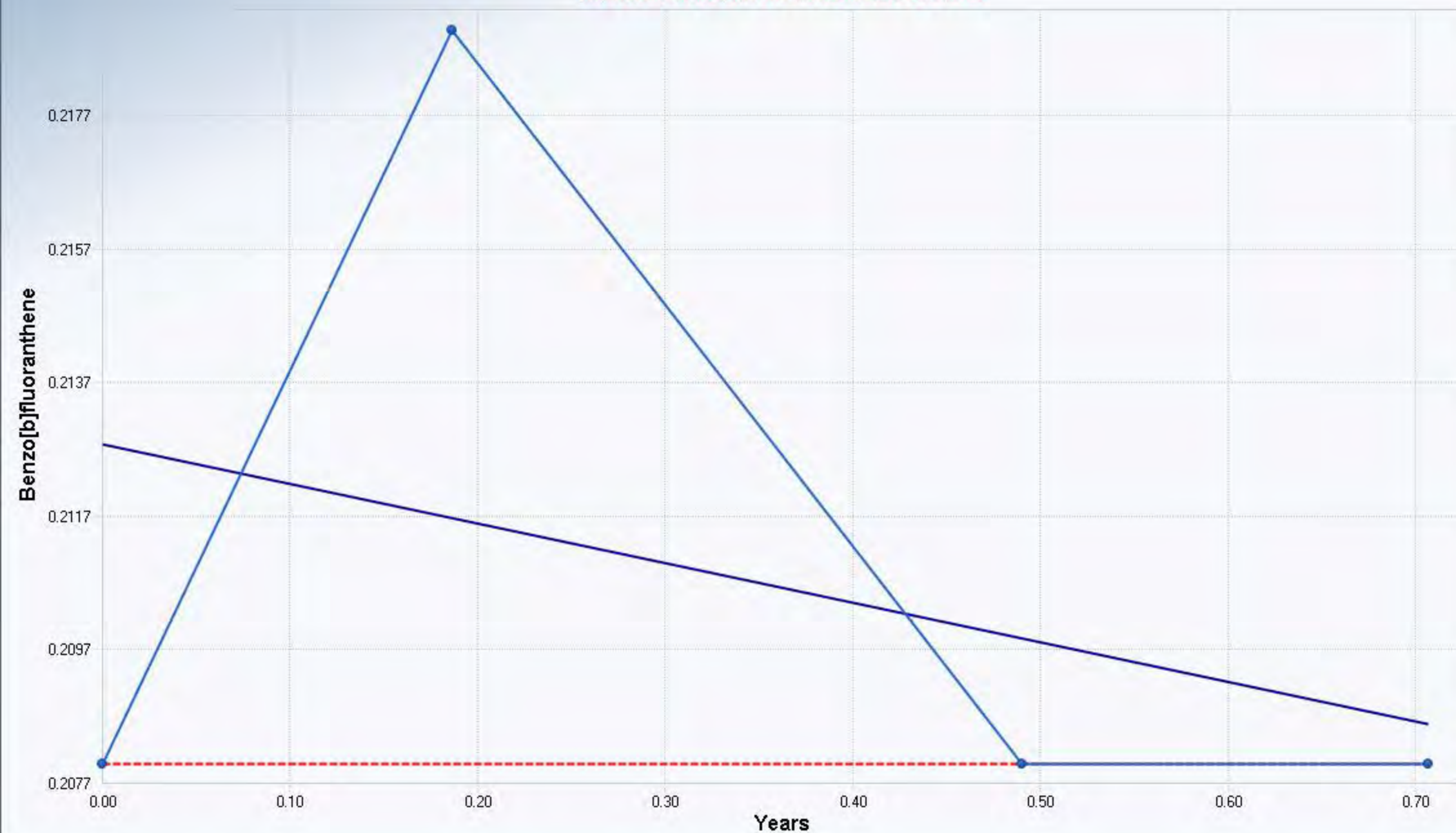
Insufficient statistical evidence of a significant trend at the specified level of significance.

Arsenic



Years

Mann-Kendall Trend Test MW-4



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.2361
Standardized Value of S	0.0000
M-K Test Value (S)	-1
Tabulated p-value	0.6250
Approximate p-value	0.5000

OLS Regression Line (Blue)

OLS Regression Slope	-0.0059
OLS Regression Intercept	0.2128

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	0.2080

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

Mann-Kendall Trend Test MW-4

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.7689
Standardized Value of S	-0.7223
M-K Test Value (S)	-3
Tabulated p-value	0.3750
Approximate p-value	0.2351

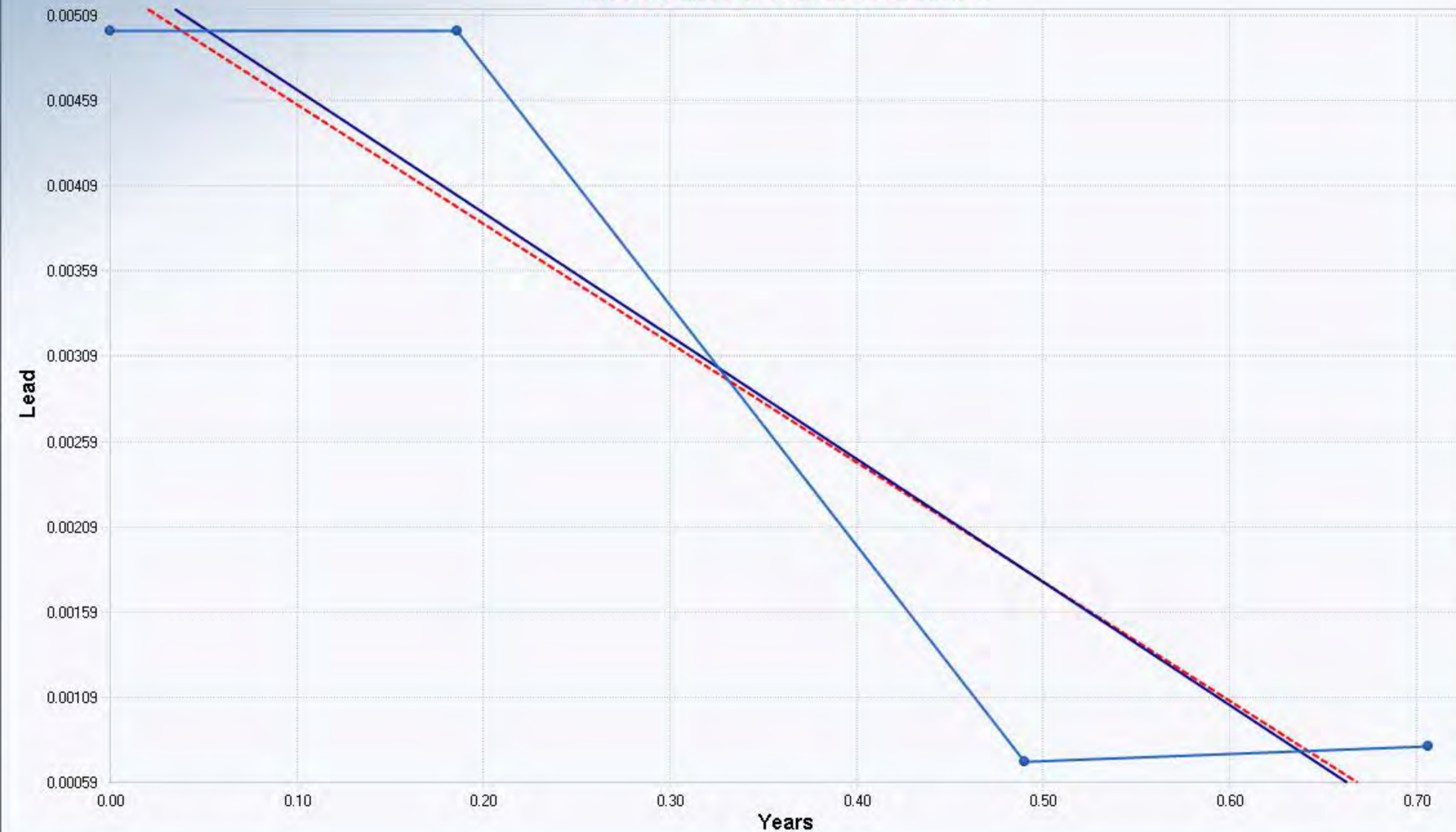
OLS Regression Line (Blue)

OLS Regression Slope	-0.0072
OLS Regression Intercept	0.0054

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0070
Theil-Sen Intercept	0.0053

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



Mann-Kendall Trend Test MW-5

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.2361
Standardized Value of S	-0.8944
M-K Test Value (S)	-3
Tabulated p-value	0.3750
Approximate p-value	0.1855

OLS Regression Line (Blue)

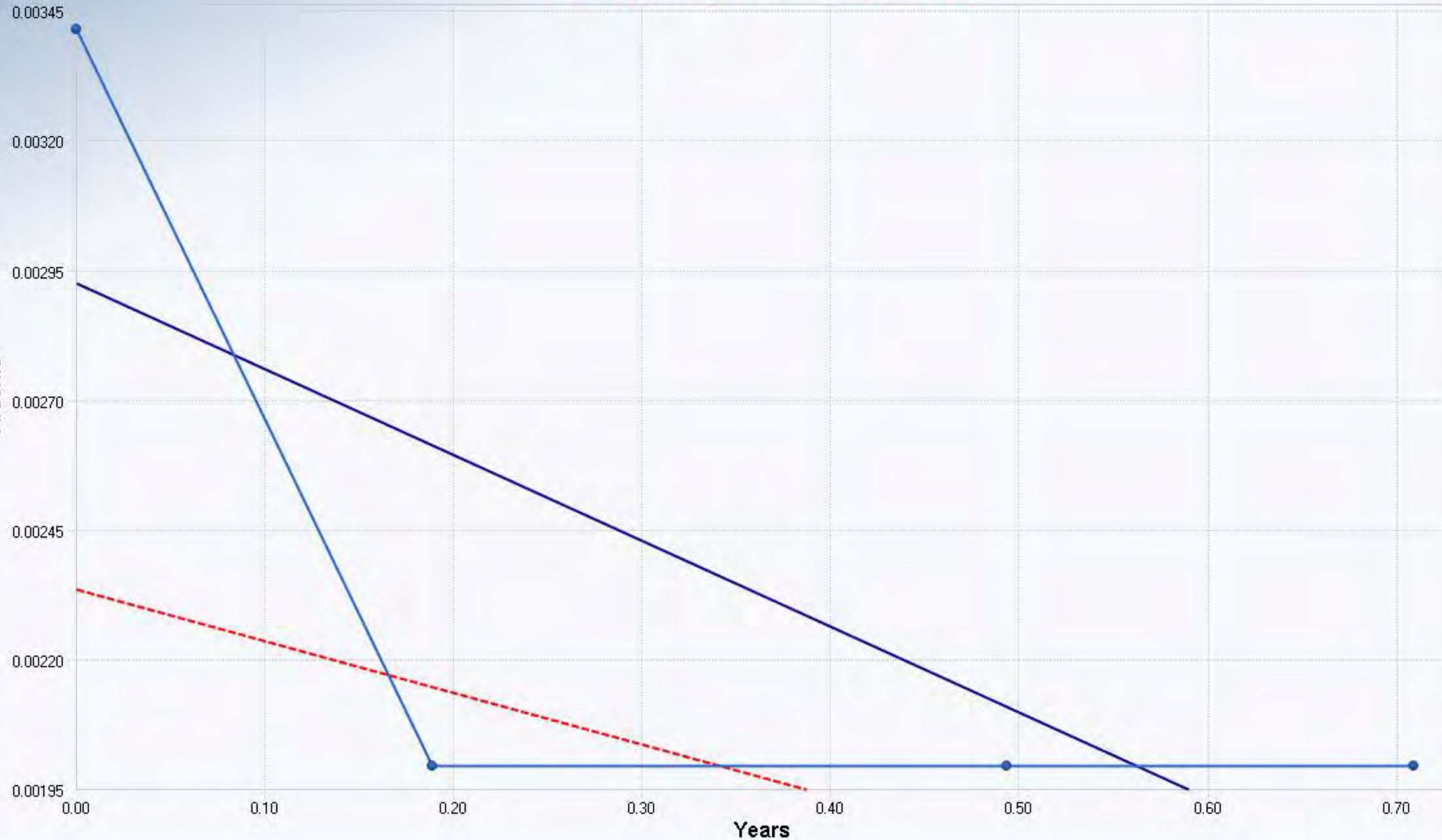
OLS Regression Slope	-0.0017
OLS Regression Intercept	0.0029

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0010
Theil-Sen Intercept	0.0023

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

Arsenic



Years

Mann-Kendall Trend Test MW-5

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.2361
Standardized Value of S	0.0000
M-K Test Value (S)	1
Tabulated p-value	0.6250
Approximate p-value	0.5000

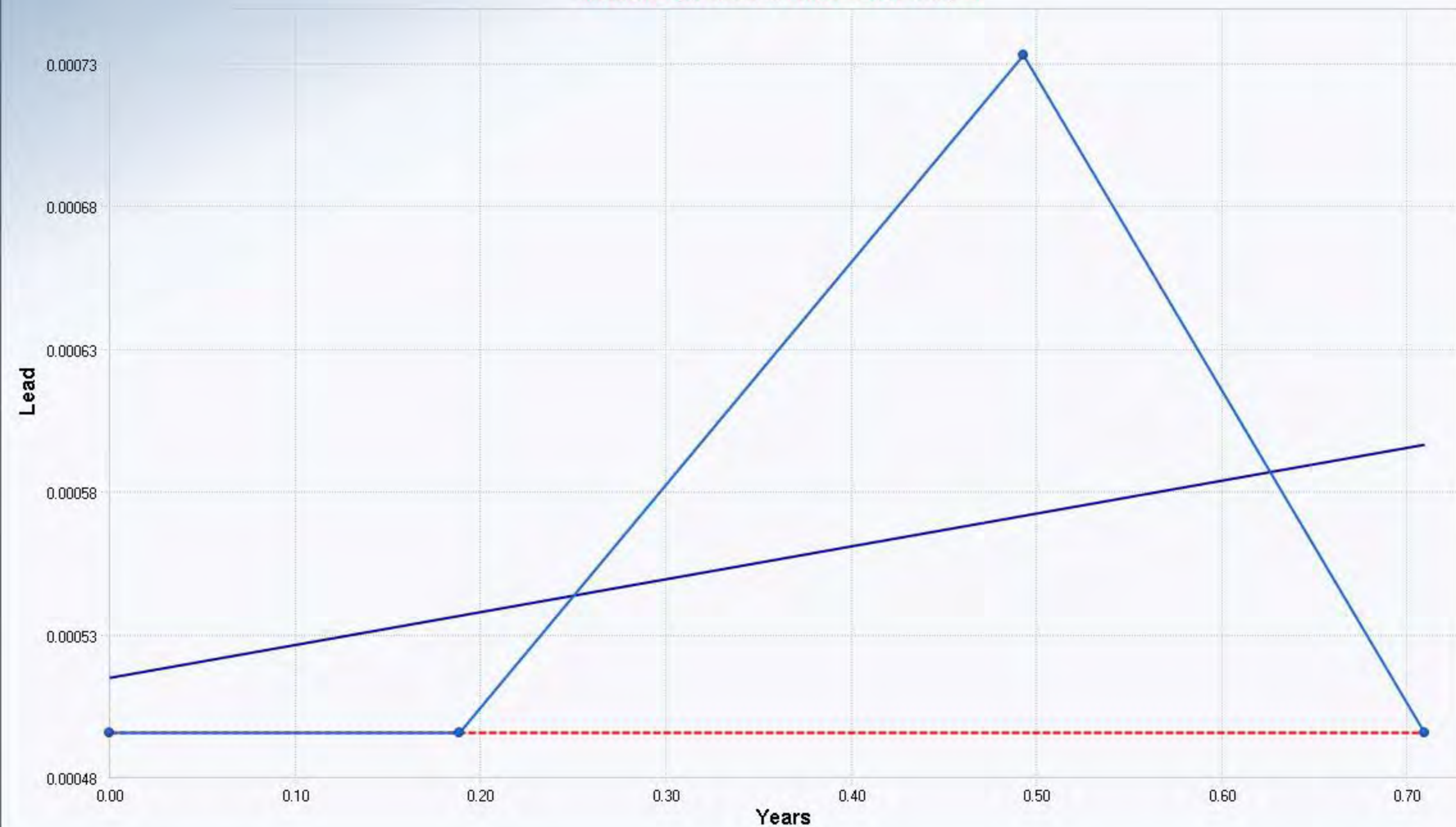
OLS Regression Line (Blue)

OLS Regression Slope	0.0001
OLS Regression Intercept	0.0005

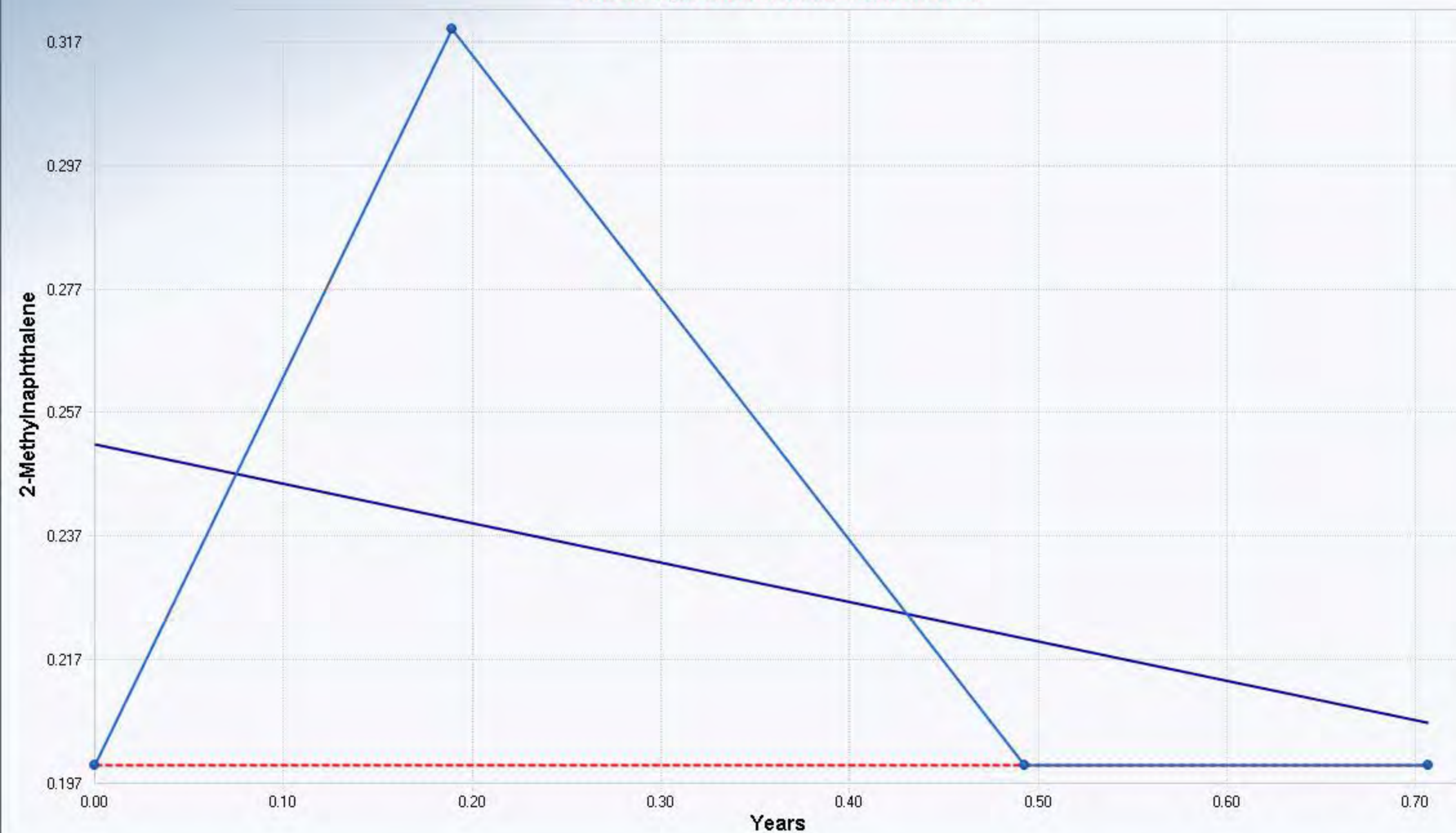
Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	0.0005

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



Mann-Kendall Trend Test MW-6



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.2361
Standardized Value of S	0.0000
M-K Test Value (S)	-1
Tabulated p-value	0.6250
Approximate p-value	0.5000

OLS Regression Line (Blue)

OLS Regression Slope	-0.0636
OLS Regression Intercept	0.2518

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	0.2000

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

Mann-Kendall Trend Test MW-6

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-0.3397
M-K Test Value (S)	-2
Tabulated p-value	0.3750
Approximate p-value	0.3670

OLS Regression Line (Blue)

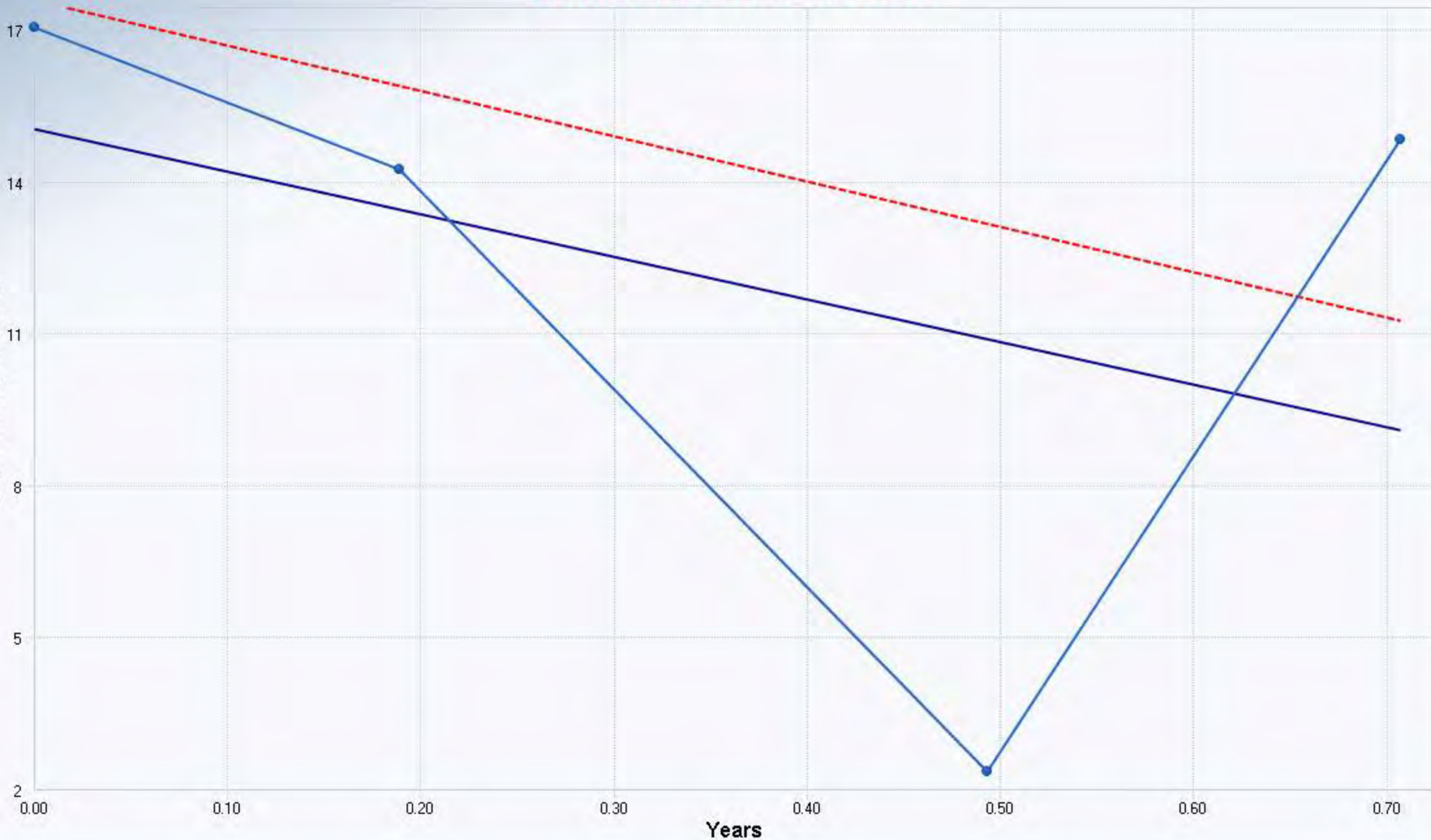
OLS Regression Slope	-8.4103
OLS Regression Intercept	15.3980

Theil-Sen Trend Line (Red)

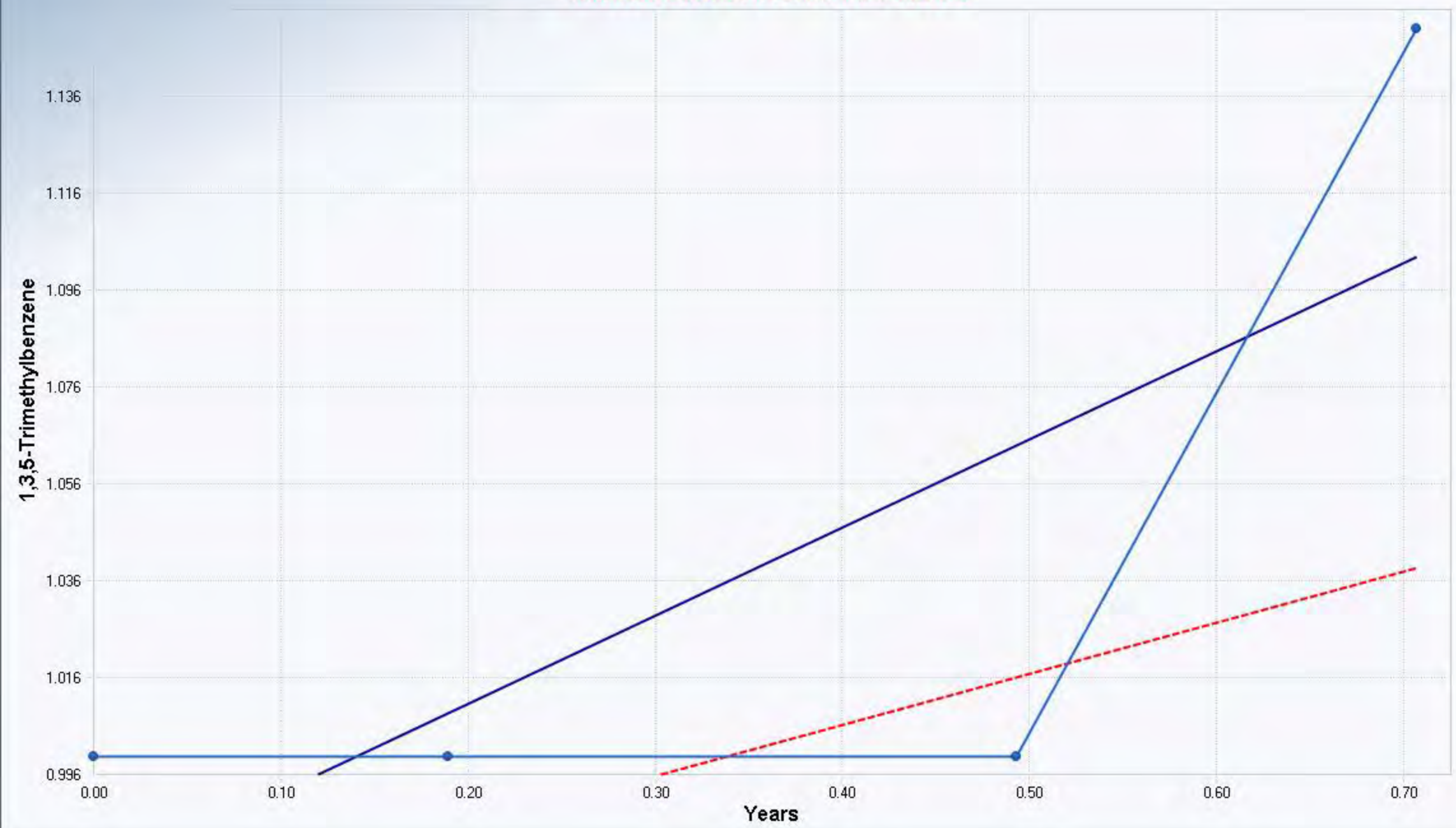
Theil-Sen Slope	-8.9620
Theil-Sen Intercept	17.9569

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

1,2,4-Trimethylbenzene



Mann-Kendall Trend Test MW-6



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.2361
Standardized Value of S	0.8944
M-K Test Value (S)	3
Tabulated p-value	0.3750
Approximate p-value	0.1855

OLS Regression Line (Blue)

OLS Regression Slope	0.1821
OLS Regression Intercept	0.9743

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.1061
Theil-Sen Intercept	0.9638

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

Mann-Kendall Trend Test MW-6

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	0.3397
M-K Test Value (S)	2
Tabulated p-value	0.3750
Approximate p-value	0.3670

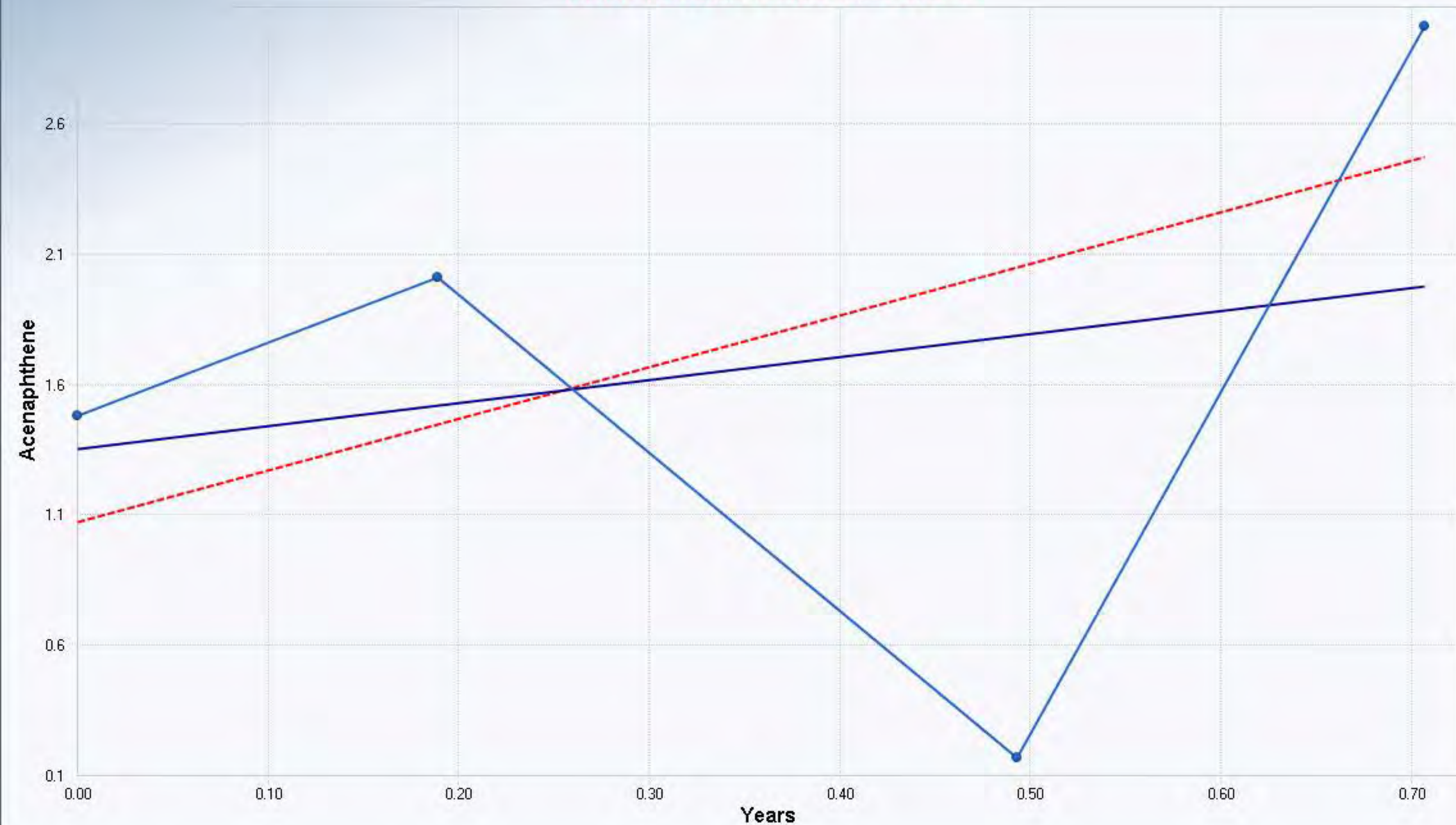
OLS Regression Line (Blue)

OLS Regression Slope	0.8790
OLS Regression Intercept	1.4015

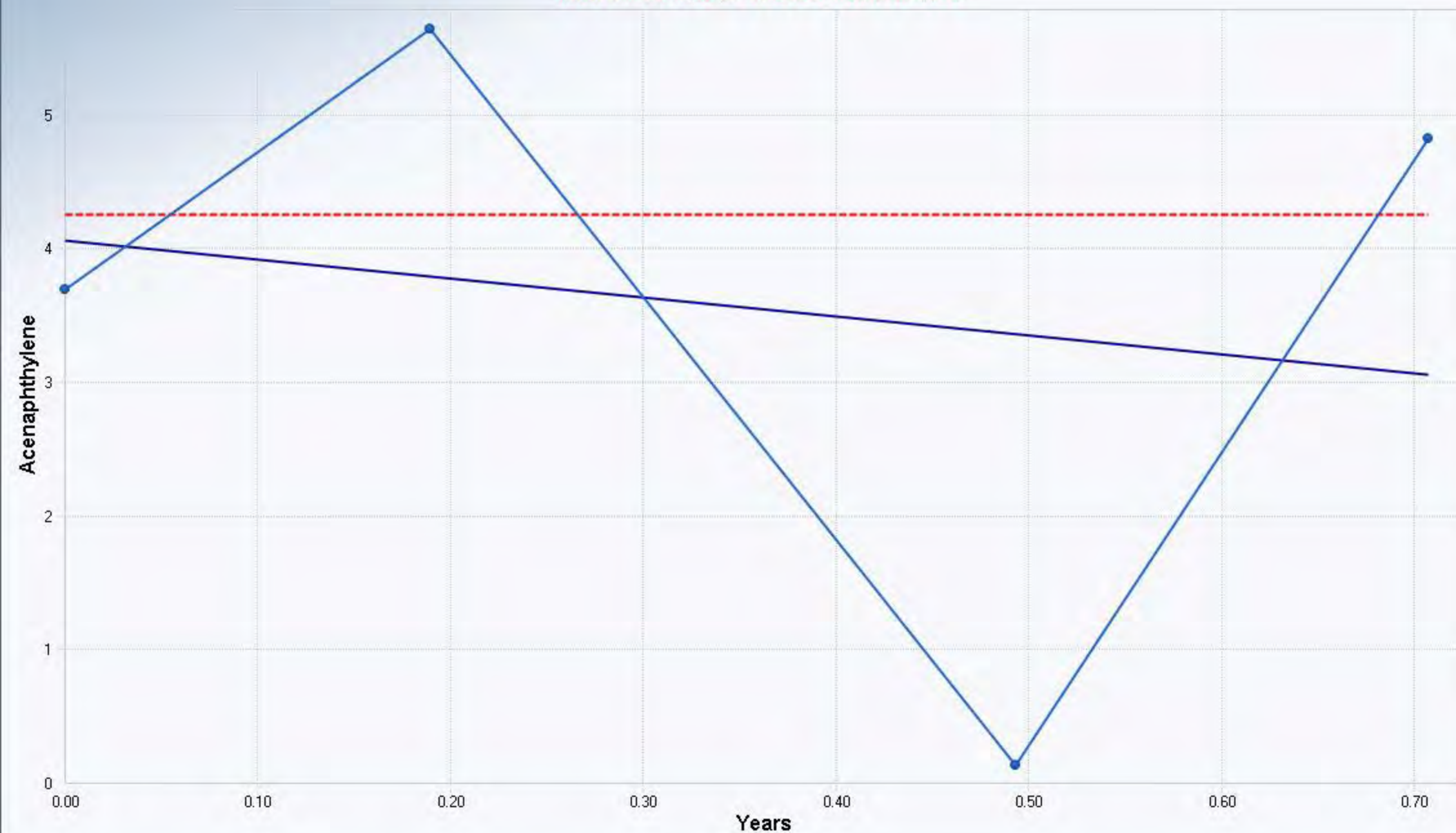
Theil-Sen Trend Line (Red)

Theil-Sen Slope	1.9810
Theil-Sen Intercept	1.1193

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



Mann-Kendall Trend Test MW-6



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	
M-K Test Value (S)	0
Tabulated p-value	0.6250
Approximate p-value	

OLS Regression Line (Blue)

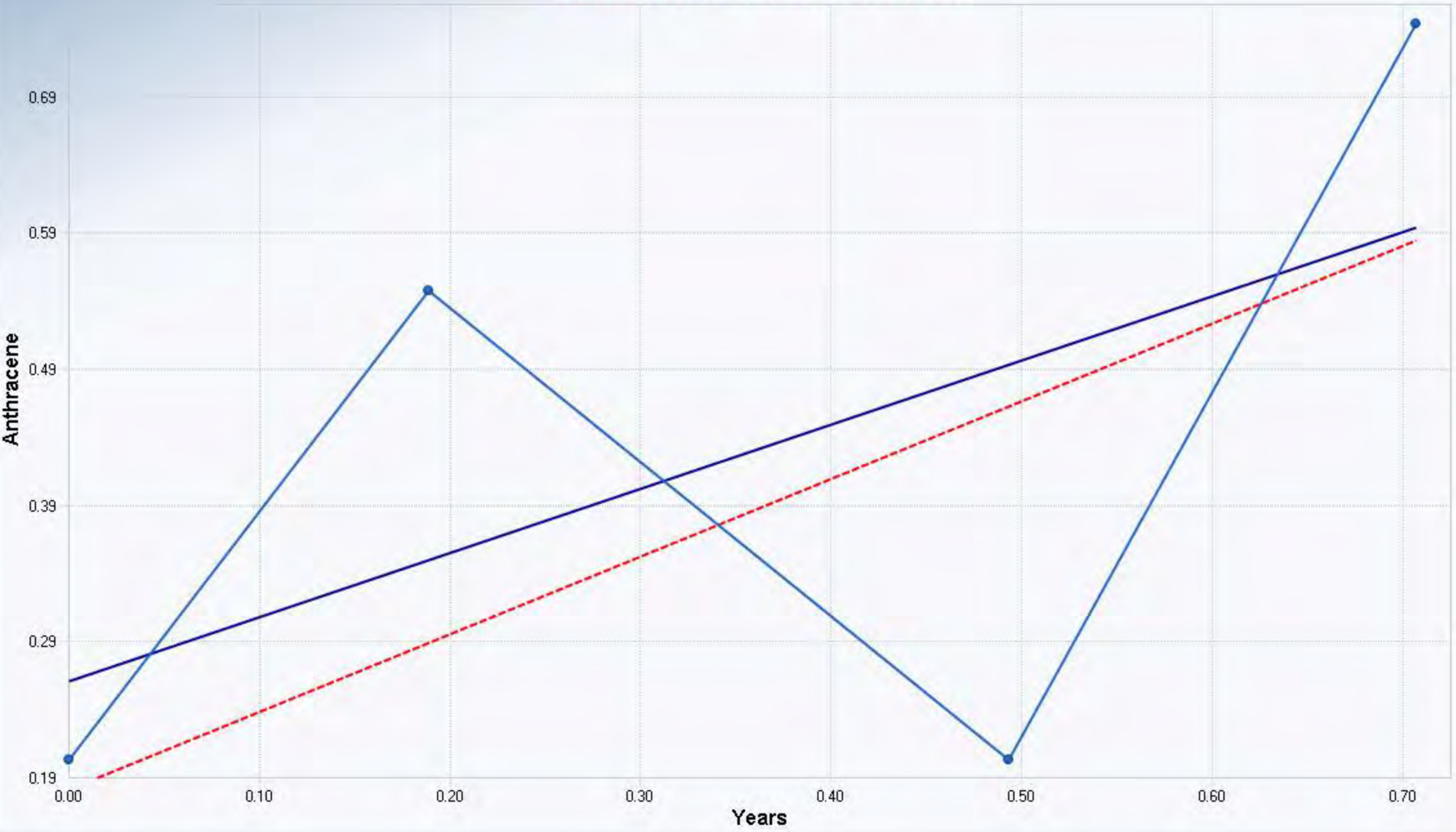
OLS Regression Slope	-1.4197
OLS Regression Intercept	4.1448

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0075
Theil-Sen Intercept	4.3324

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

Mann-Kendall Trend Test MW-6



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.7689
Standardized Value of S	0.7223
M-K Test Value (S)	3
Tabulated p-value	0.3750
Approximate p-value	0.2351

OLS Regression Line (Blue)

OLS Regression Slope	0.4718
OLS Regression Intercept	0.2572

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.5712
Theil-Sen Intercept	0.1772

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

Mann-Kendall Trend Test MW-6

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-0.3397
M-K Test Value (S)	-2
Tabulated p-value	0.3750
Approximate p-value	0.3670

OLS Regression Line (Blue)

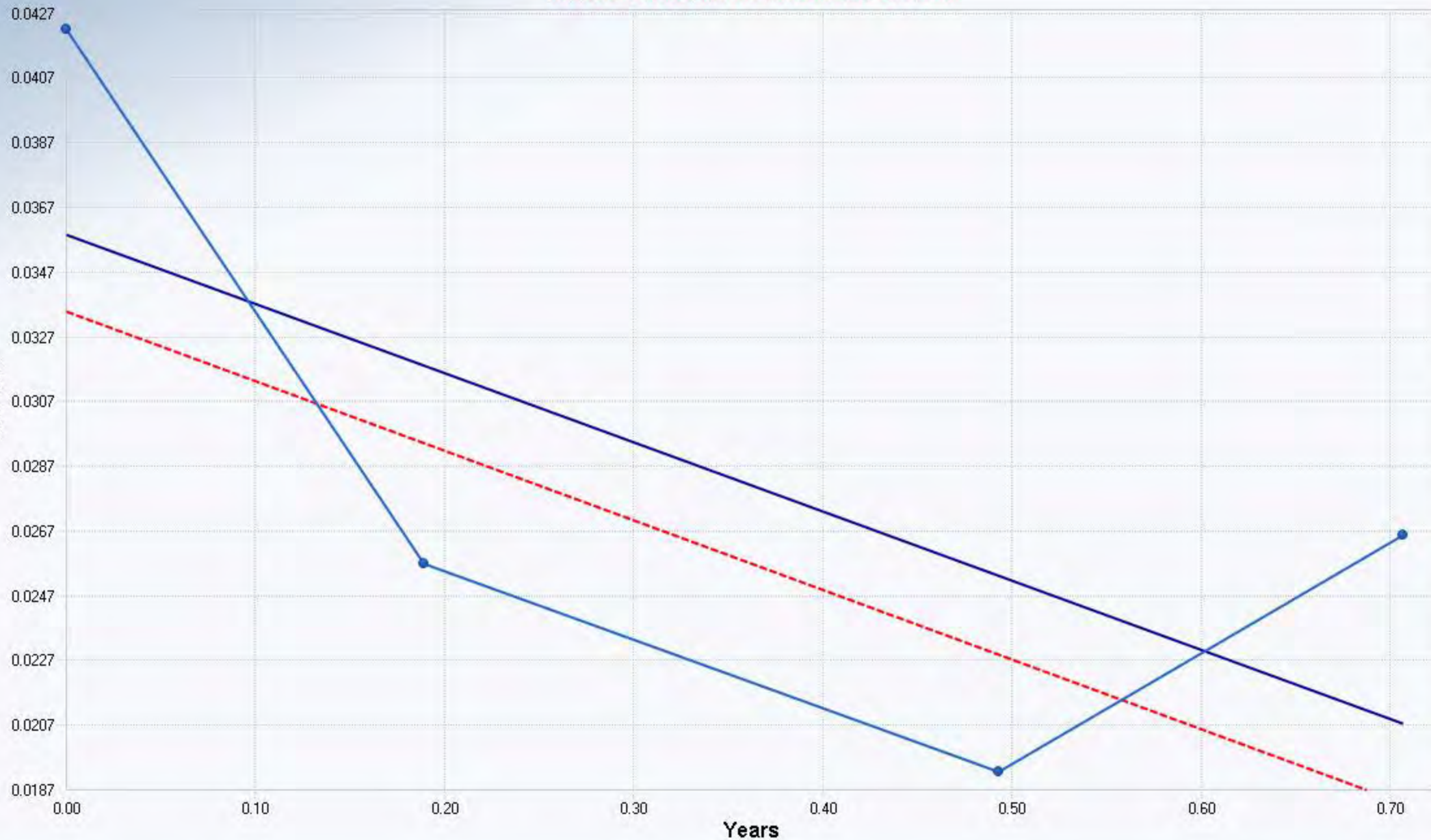
OLS Regression Slope	-0.0214
OLS Regression Intercept	0.0359

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0216
Theil-Sen Intercept	0.0335

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

Arsenic



Years

Mann-Kendall Trend Test MW-6

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

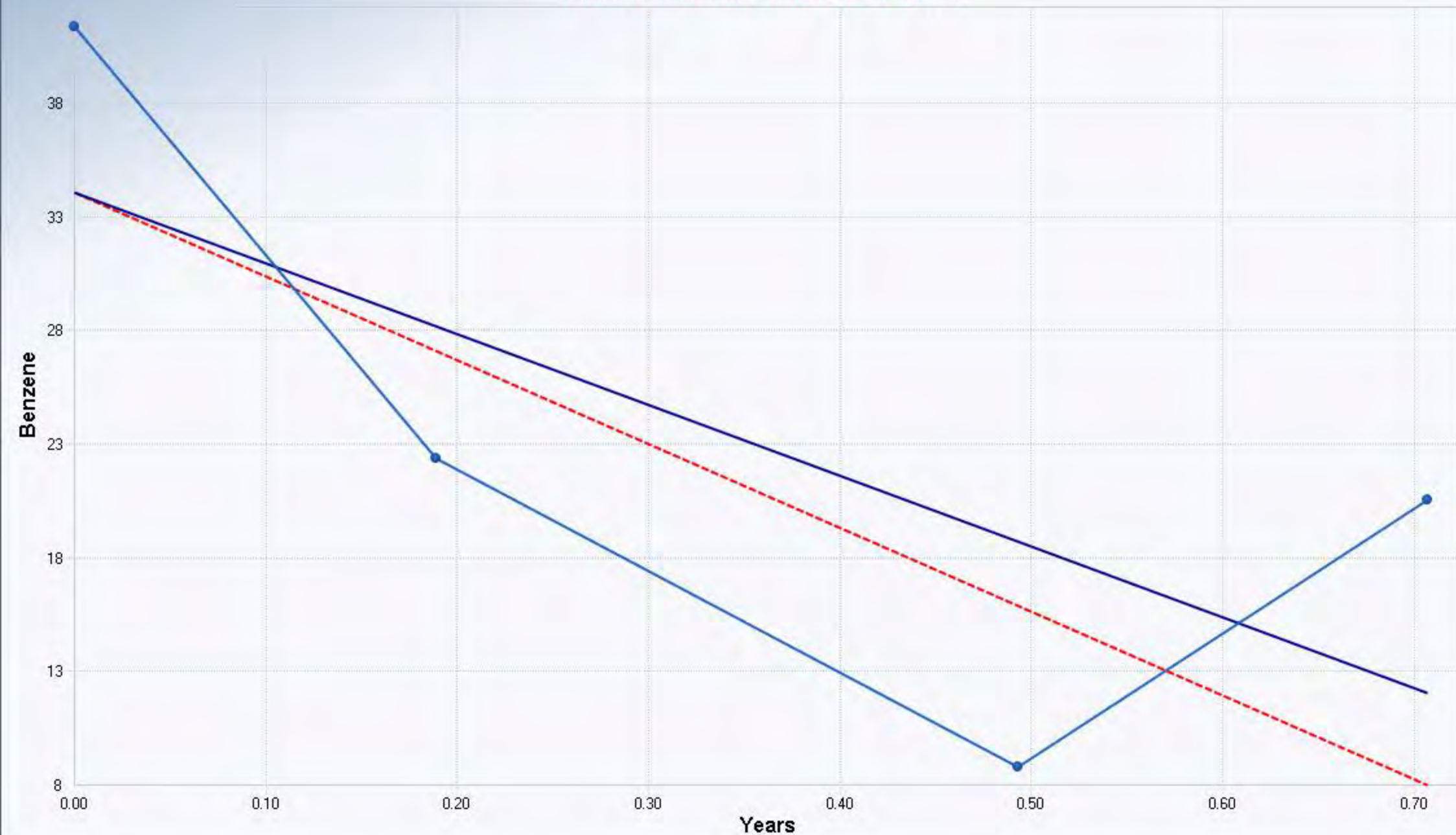
OLS Regression Line (Blue)

OLS Regression Slope	-31.1283
OLS Regression Intercept	34.4246

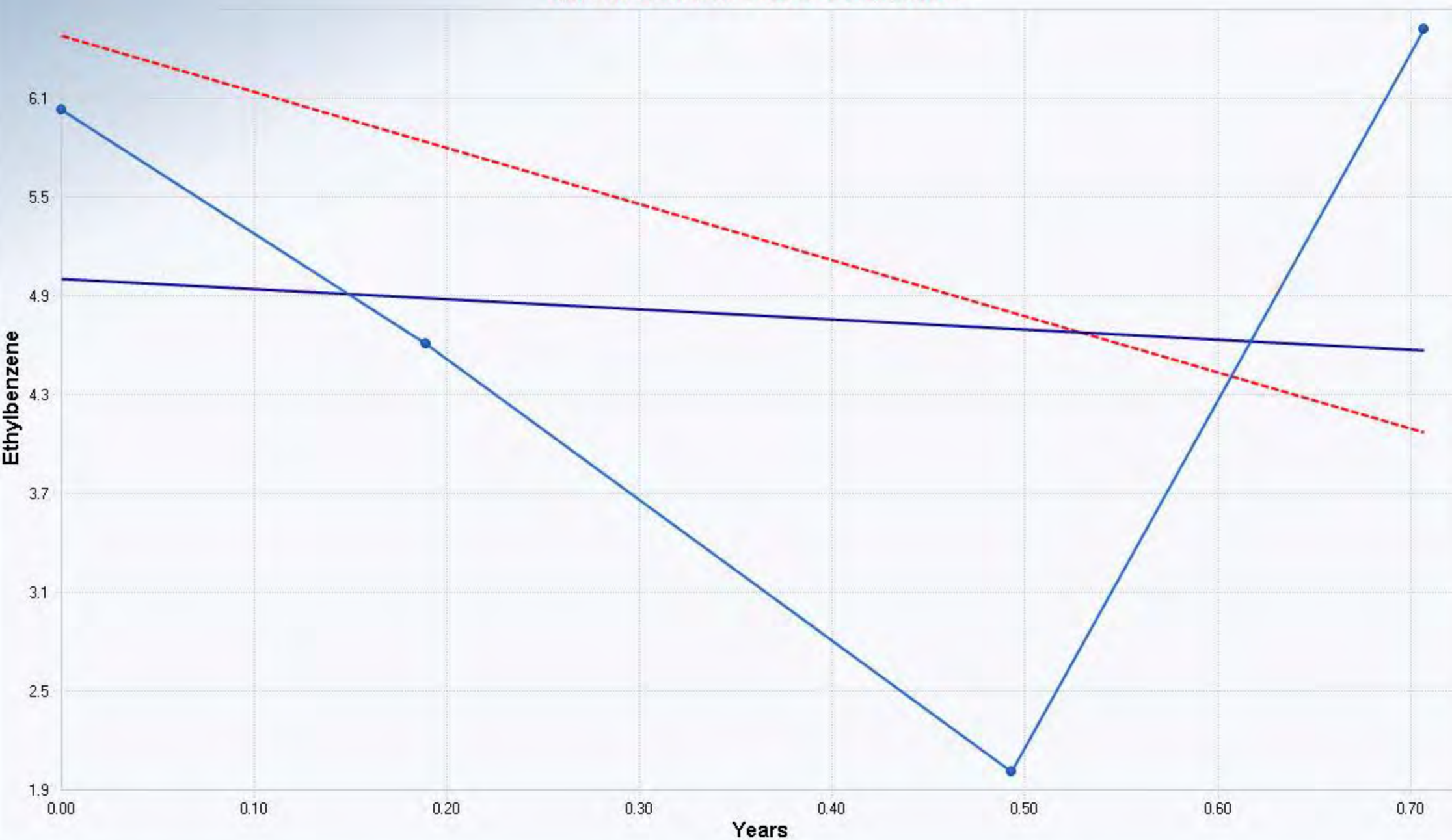
Theil-Sen Trend Line (Red)

Theil-Sen Slope	-36.9749
Theil-Sen Intercept	34.4120

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



Mann-Kendall Trend Test MW-6



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	
M-K Test Value (S)	0
Tabulated p-value	0.6250
Approximate p-value	

OLS Regression Line (Blue)

OLS Regression Slope	-0.6217
OLS Regression Intercept	5.0309

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-3.4092
Theil-Sen Intercept	6.5029

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

Mann-Kendall Trend Test MW-6

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	0.3397
M-K Test Value (S)	2
Tabulated p-value	0.3750
Approximate p-value	0.3670

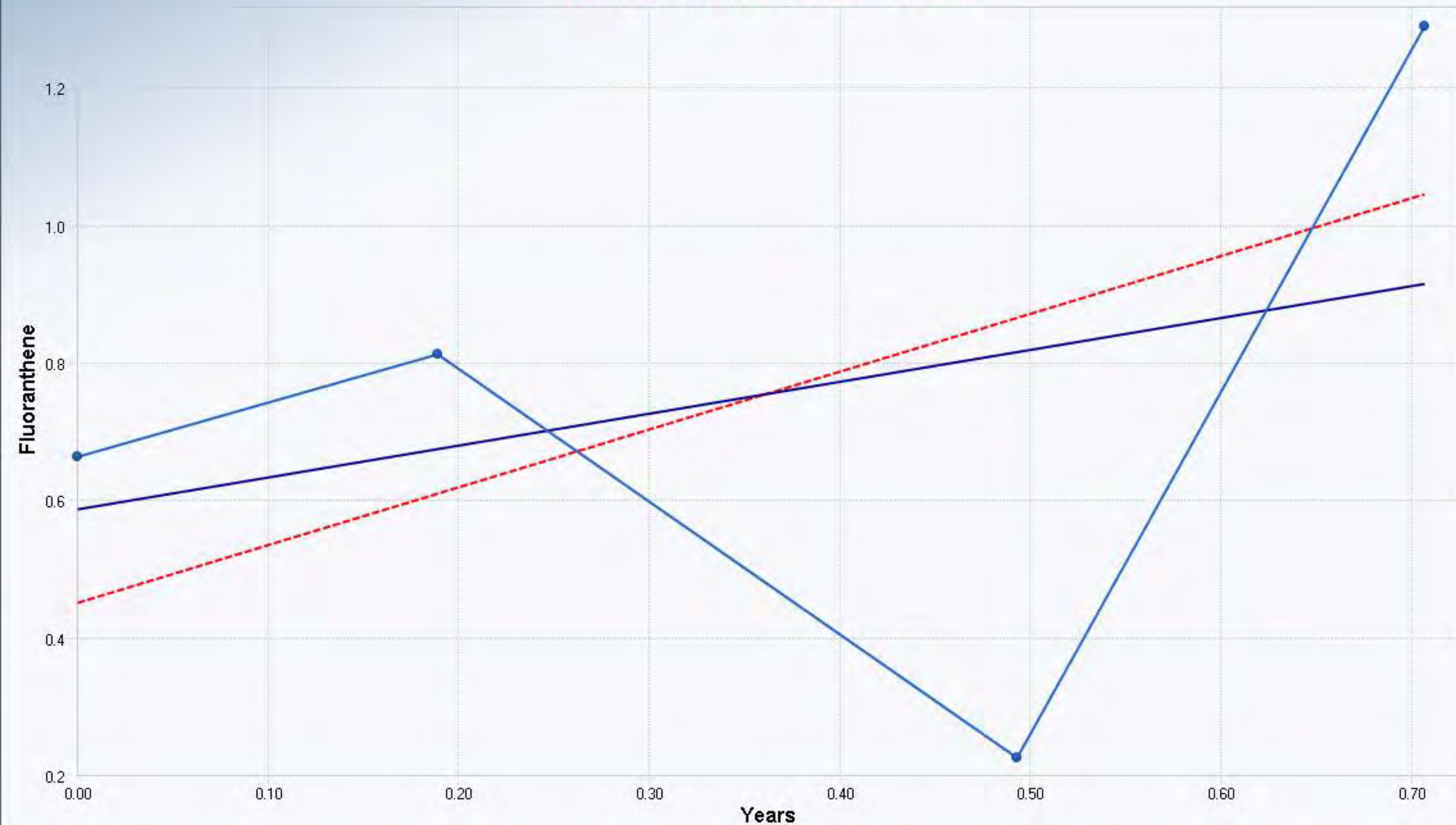
OLS Regression Line (Blue)

OLS Regression Slope	0.4646
OLS Regression Intercept	0.5774

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.8395
Theil-Sen Intercept	0.4426

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



Mann-Kendall Trend Test MW-6

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	0.3397
M-K Test Value (S)	2
Tabulated p-value	0.3750
Approximate p-value	0.3670

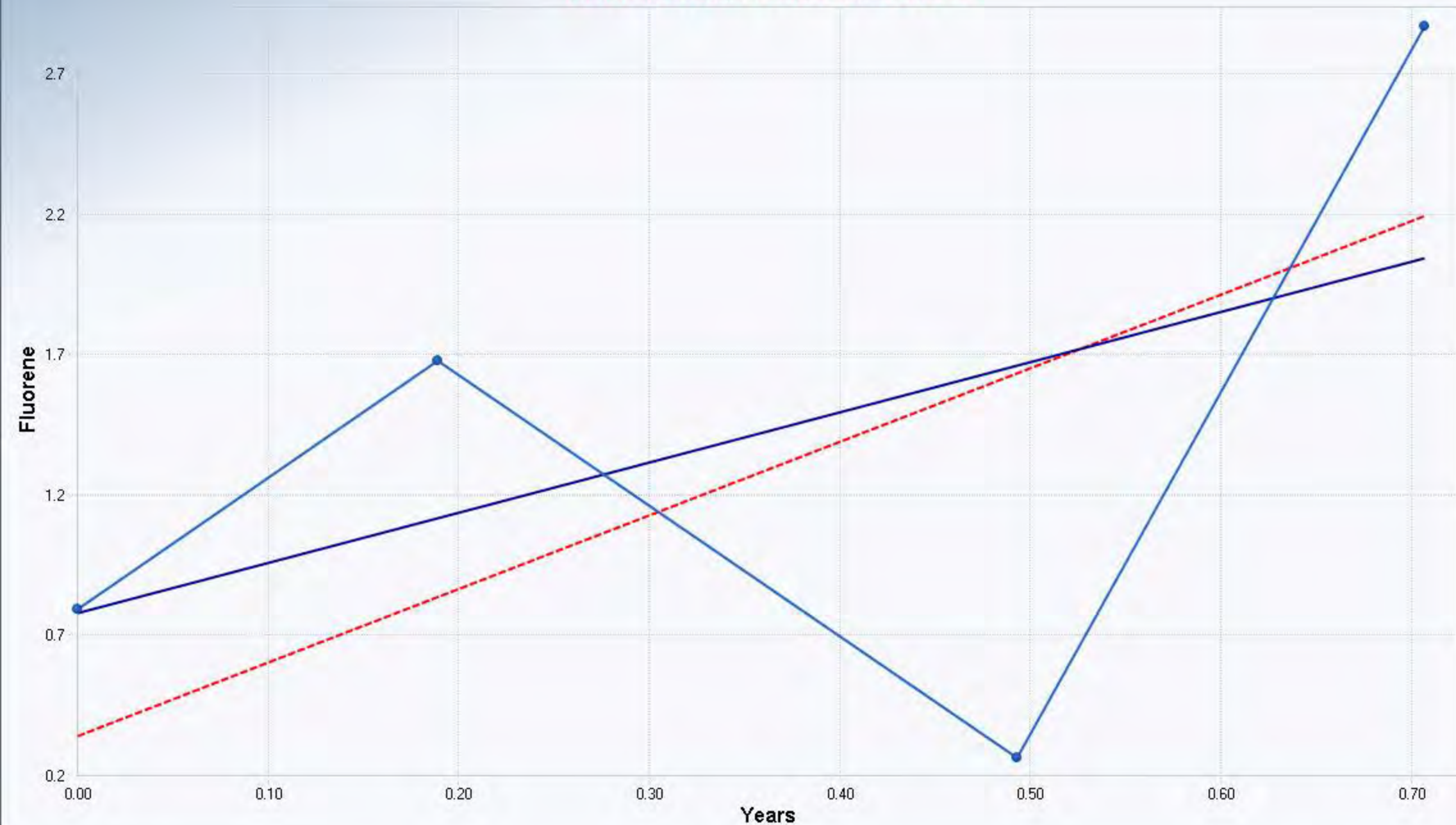
OLS Regression Line (Blue)

OLS Regression Slope	1.7874
OLS Regression Intercept	0.7321

Theil-Sen Trend Line (Red)

Theil-Sen Slope	2.6176
Theil-Sen Intercept	0.2942

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



Mann-Kendall Trend Test MW-6

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	0.3397
M-K Test Value (S)	2
Tabulated p-value	0.3750
Approximate p-value	0.3670

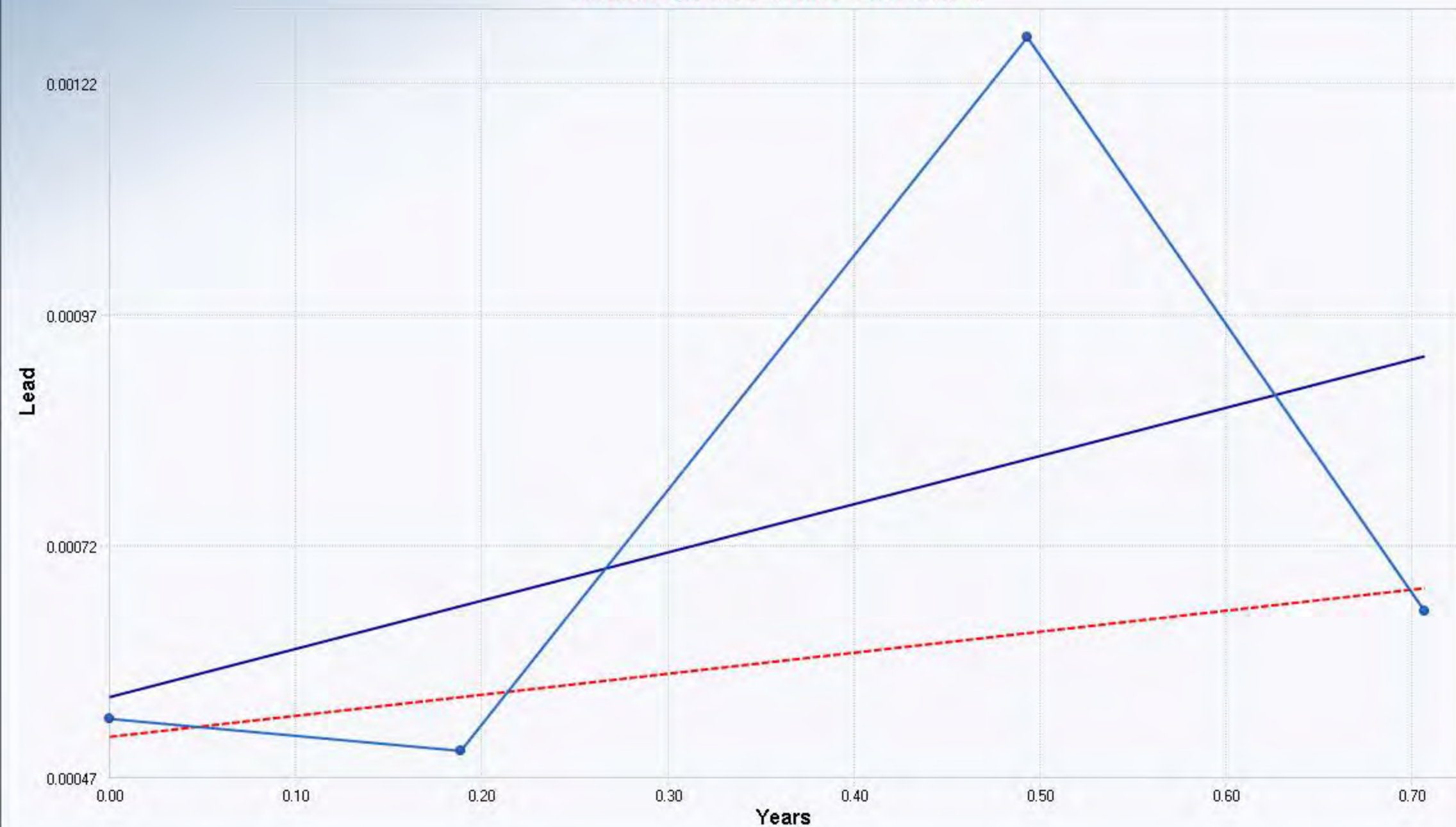
OLS Regression Line (Blue)

OLS Regression Slope	0.0005
OLS Regression Intercept	0.0006

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0002
Theil-Sen Intercept	0.0005

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



Mann-Kendall Trend Test MW-6

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	
M-K Test Value (S)	0
Tabulated p-value	0.6250
Approximate p-value	

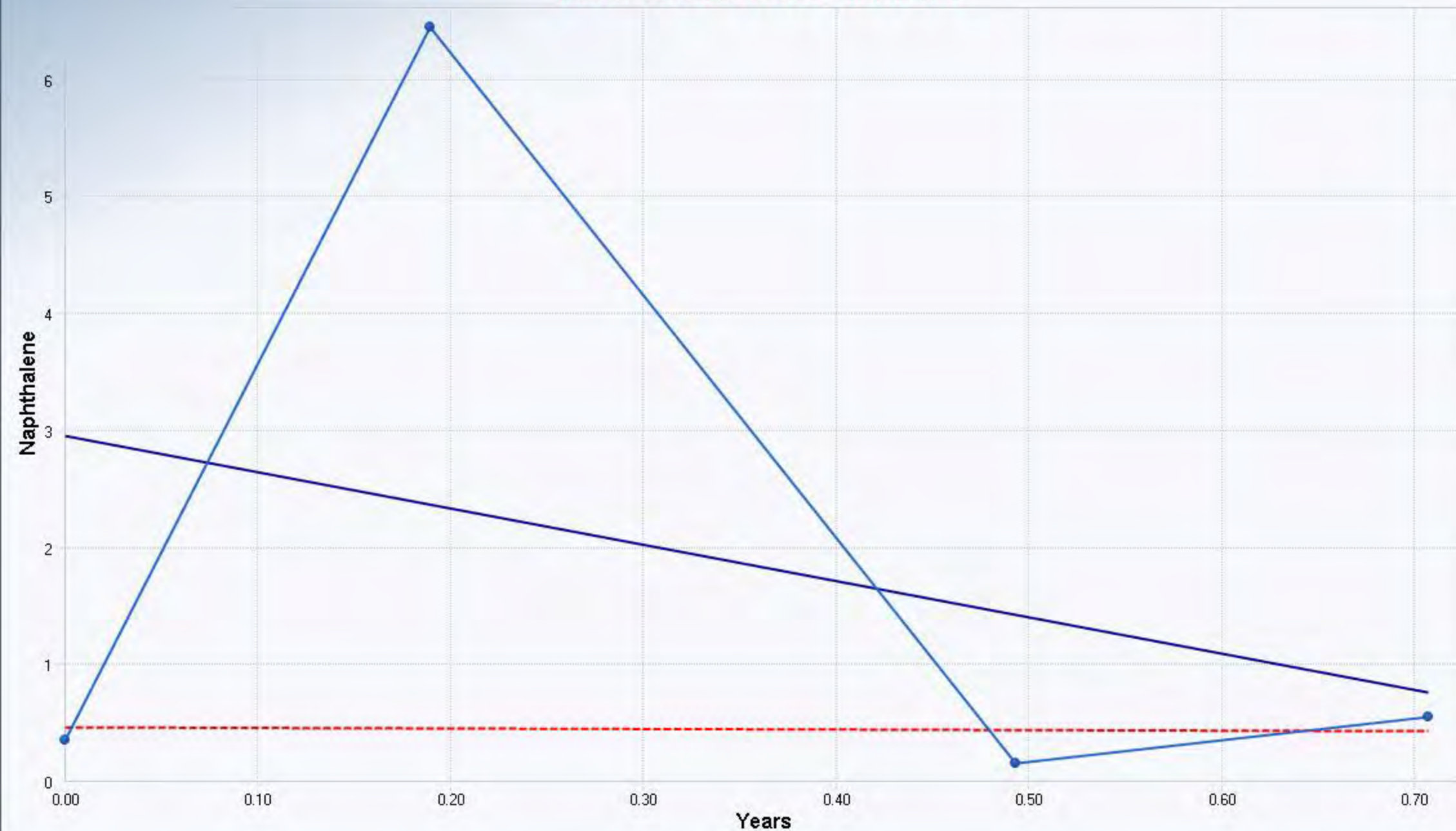
OLS Regression Line (Blue)

OLS Regression Slope	-3.1075
OLS Regression Intercept	3.3388

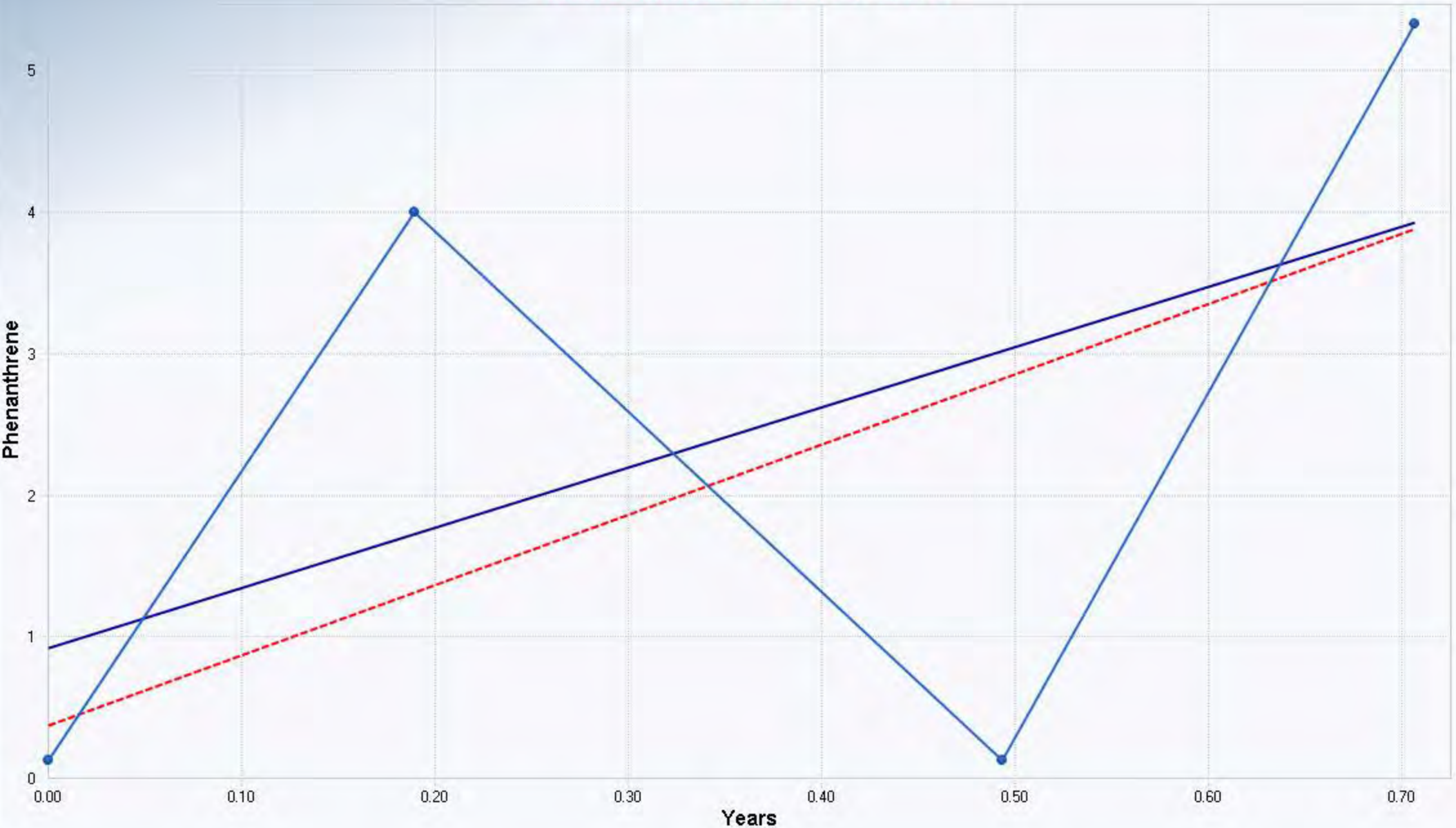
Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0512
Theil-Sen Intercept	0.8505

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



Mann-Kendall Trend Test MW-6



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.7689
Standardized Value of S	0.7223
M-K Test Value (S)	3
Tabulated p-value	0.3750
Approximate p-value	0.2351

OLS Regression Line (Blue)

OLS Regression Slope	4.2455
OLS Regression Intercept	0.9932

Theil-Sen Trend Line (Red)

Theil-Sen Slope	4.9626
Theil-Sen Intercept	0.4423

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

Mann-Kendall Trend Test MW-6

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	0.3397
M-K Test Value (S)	2
Tabulated p-value	0.3750
Approximate p-value	0.3670

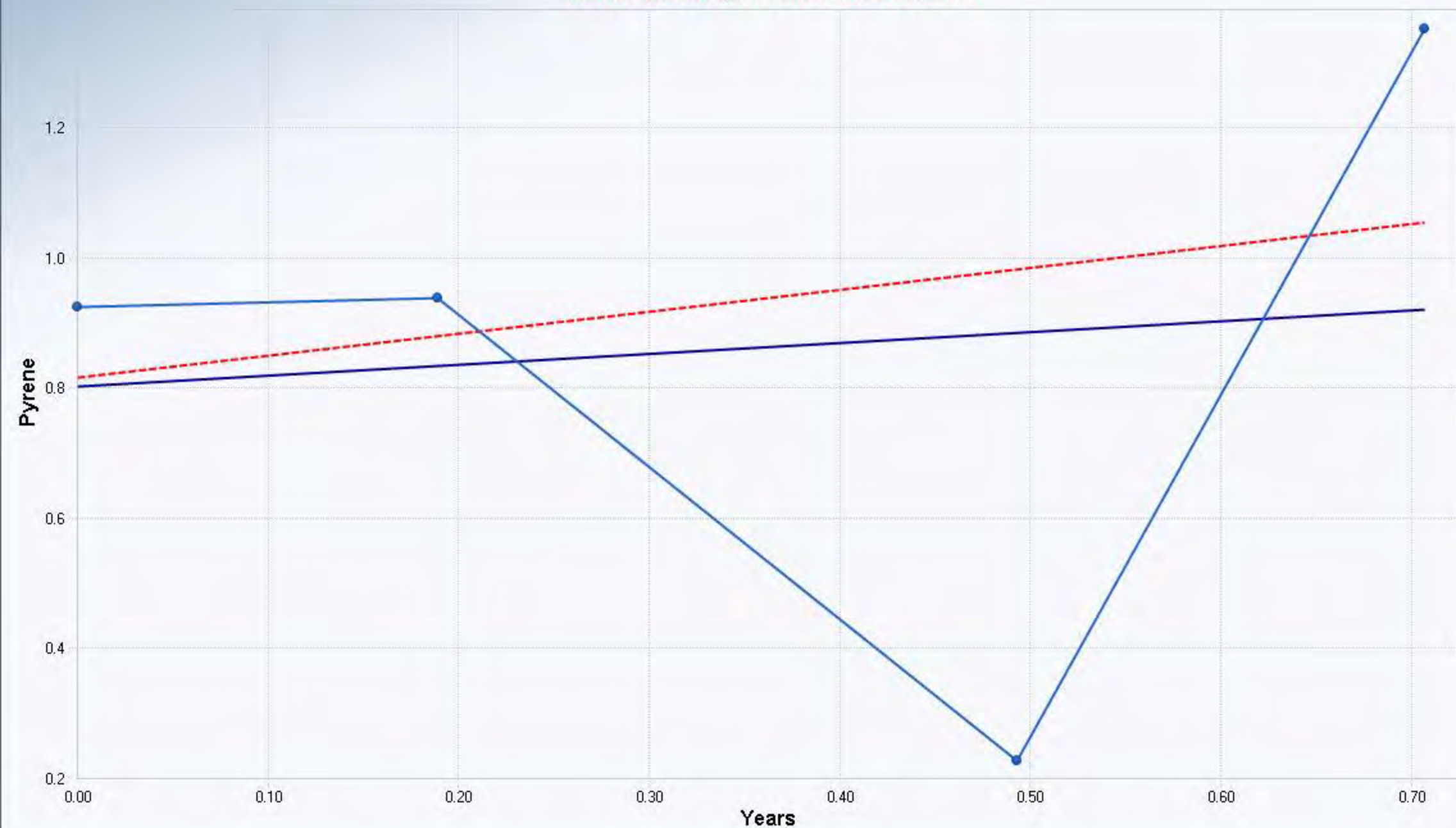
OLS Regression Line (Blue)

OLS Regression Slope	0.1669
OLS Regression Intercept	0.7915

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.3357
Theil-Sen Intercept	0.8060

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



Mann-Kendall Trend Test MW-6

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

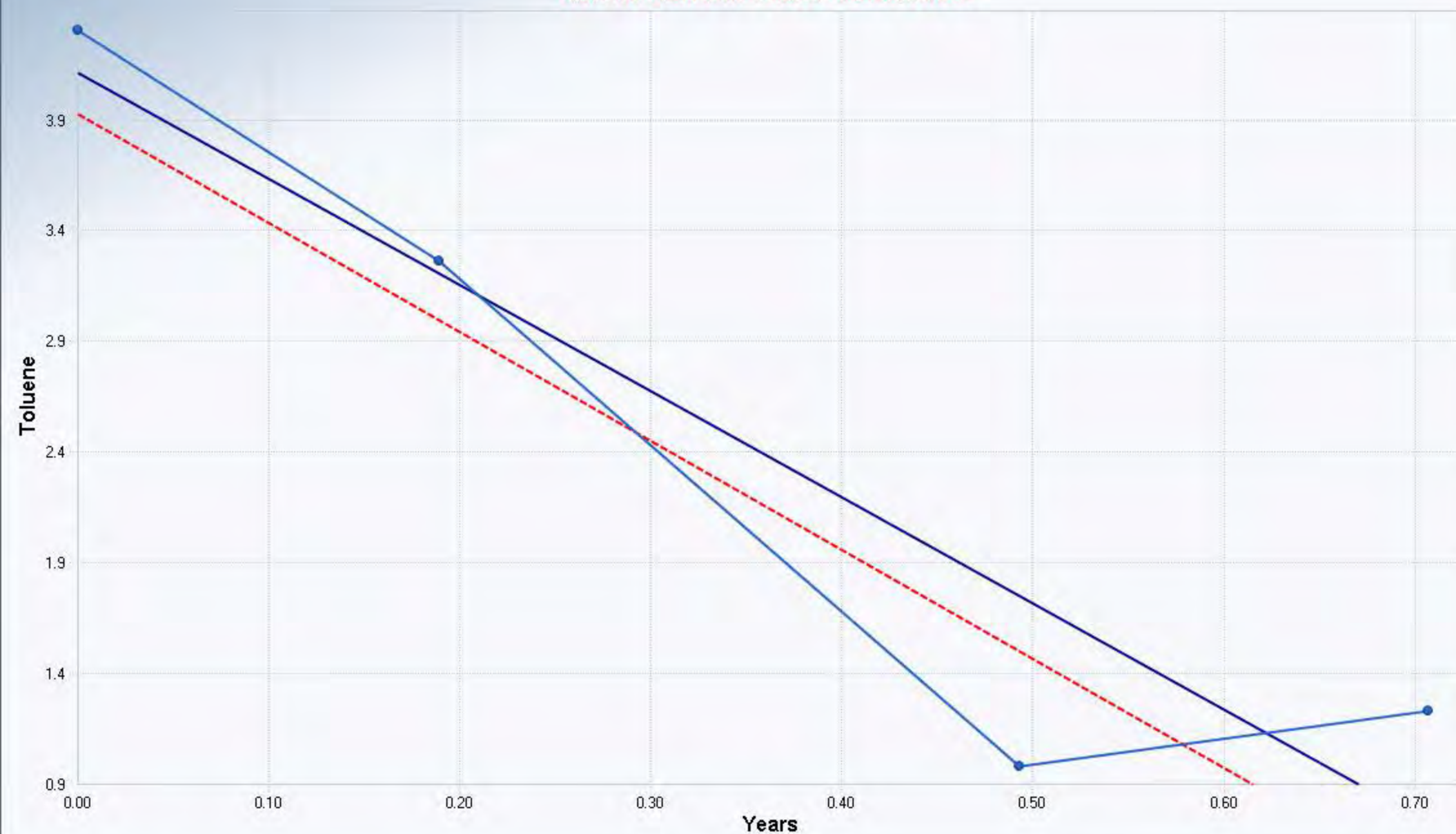
OLS Regression Line (Blue)

OLS Regression Slope	-4.8065
OLS Regression Intercept	4.1316

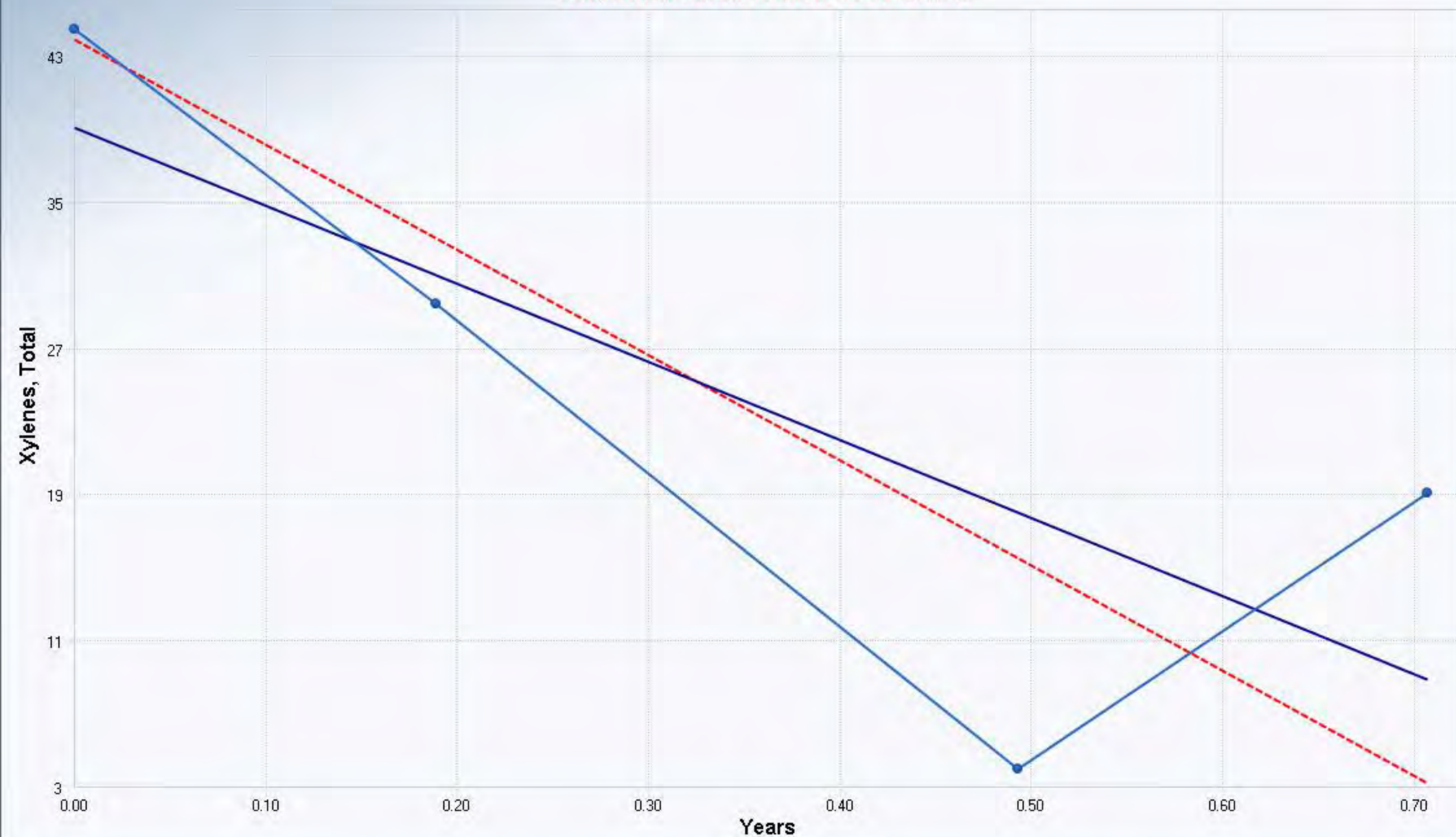
Theil-Sen Trend Line (Red)

Theil-Sen Slope	-4.9223
Theil-Sen Intercept	3.9440

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



Mann-Kendall Trend Test MW-6



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.0190
M-K Test Value (S)	-4
Tabulated p-value	0.1670
Approximate p-value	0.1541

OLS Regression Line (Blue)

OLS Regression Slope	-42.7548
OLS Regression Intercept	39.3295

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-57.6410
Theil-Sen Intercept	44.1611

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

Mann-Kendall Trend Test MW-7

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.2361
Standardized Value of S	-0.8944
M-K Test Value (S)	-3
Tabulated p-value	0.3750
Approximate p-value	0.1855

OLS Regression Line (Blue)

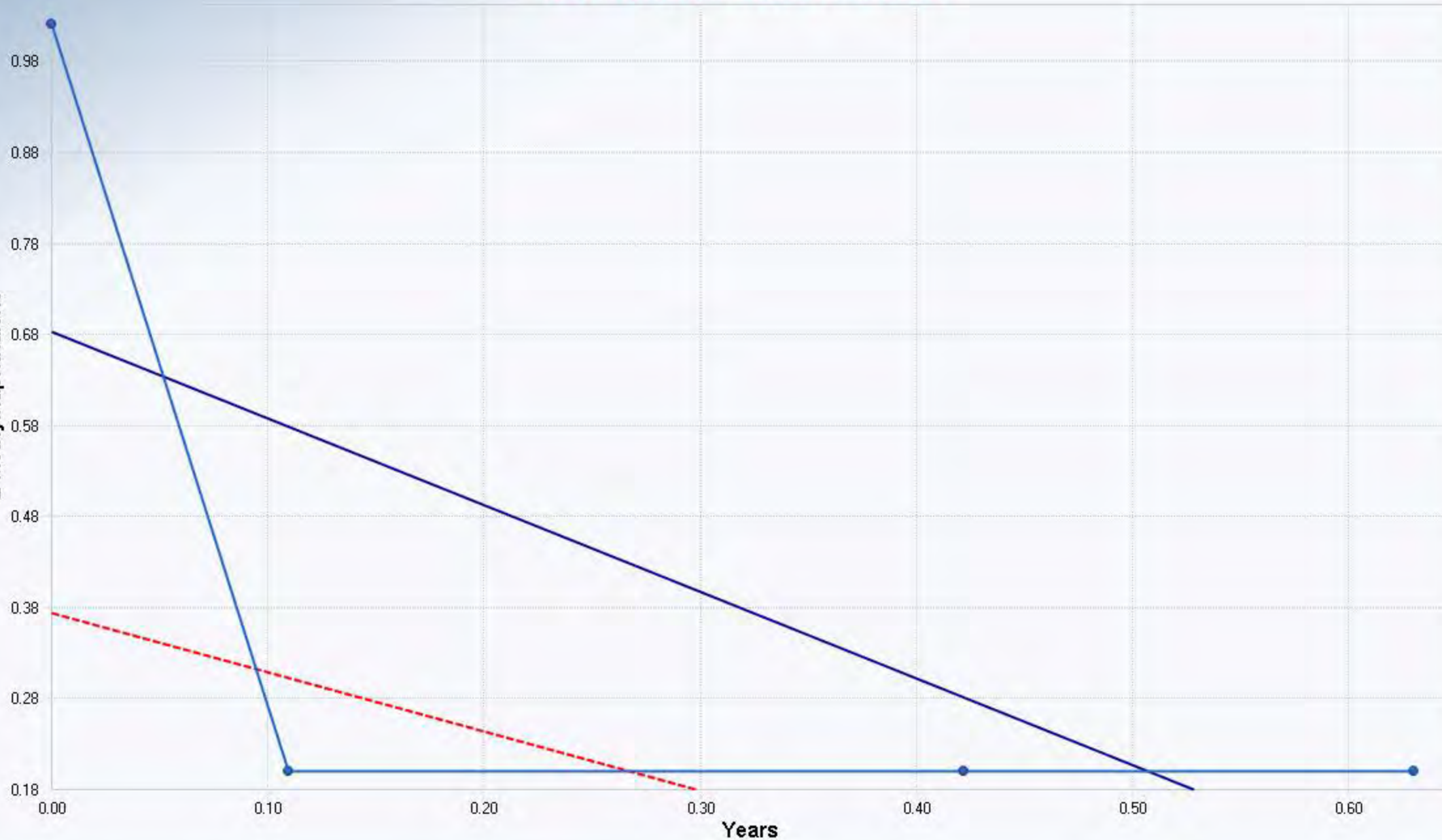
OLS Regression Slope	-0.9535
OLS Regression Intercept	0.6819

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.6507
Theil-Sen Intercept	0.3729

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

2-Methylnaphthalene



Years

Mann-Kendall Trend Test MW-7

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.2361
Standardized Value of S	-0.8944
M-K Test Value (S)	-3
Tabulated p-value	0.3750
Approximate p-value	0.1855

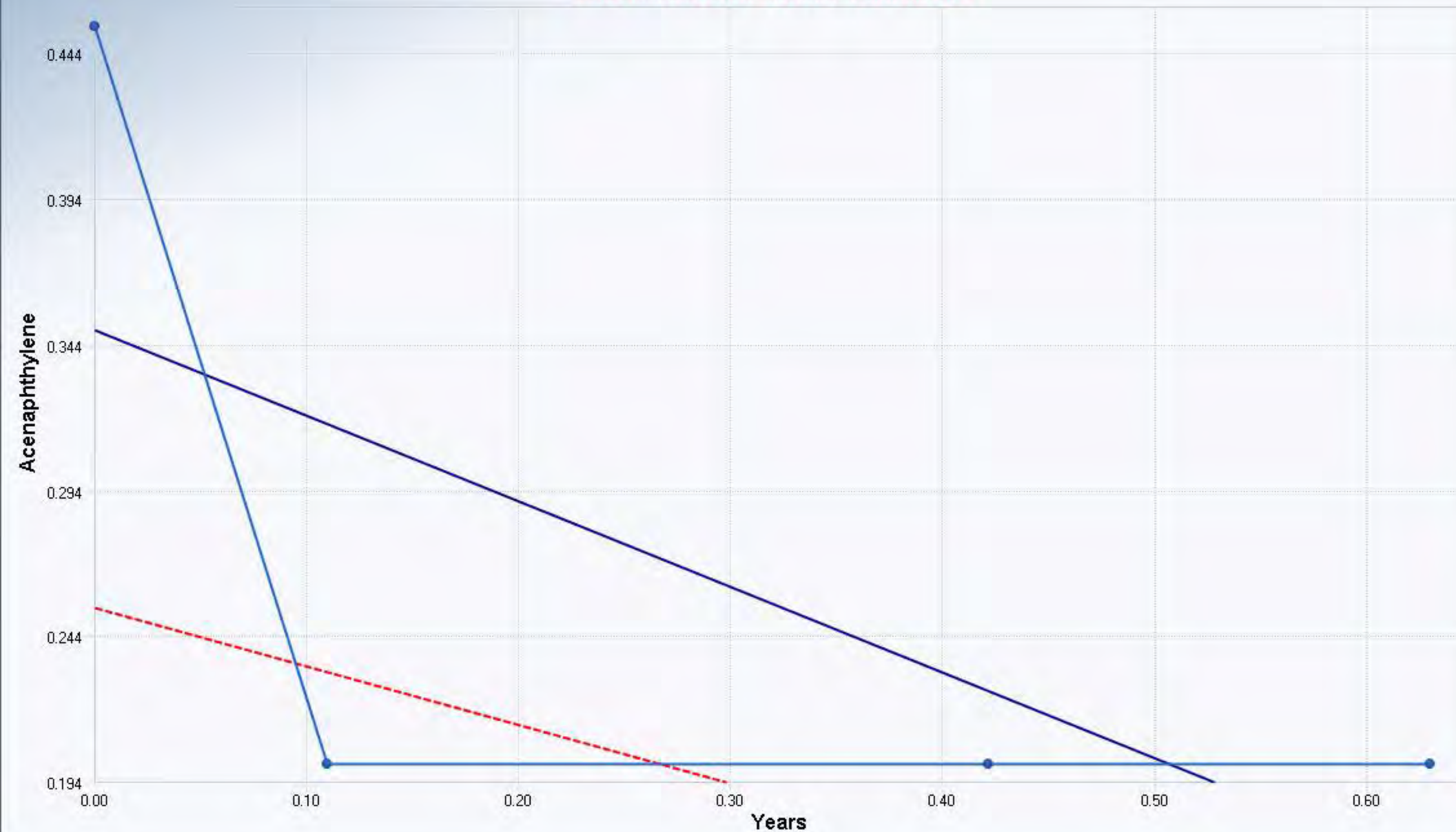
OLS Regression Line (Blue)

OLS Regression Slope	-0.2942
OLS Regression Intercept	0.3487

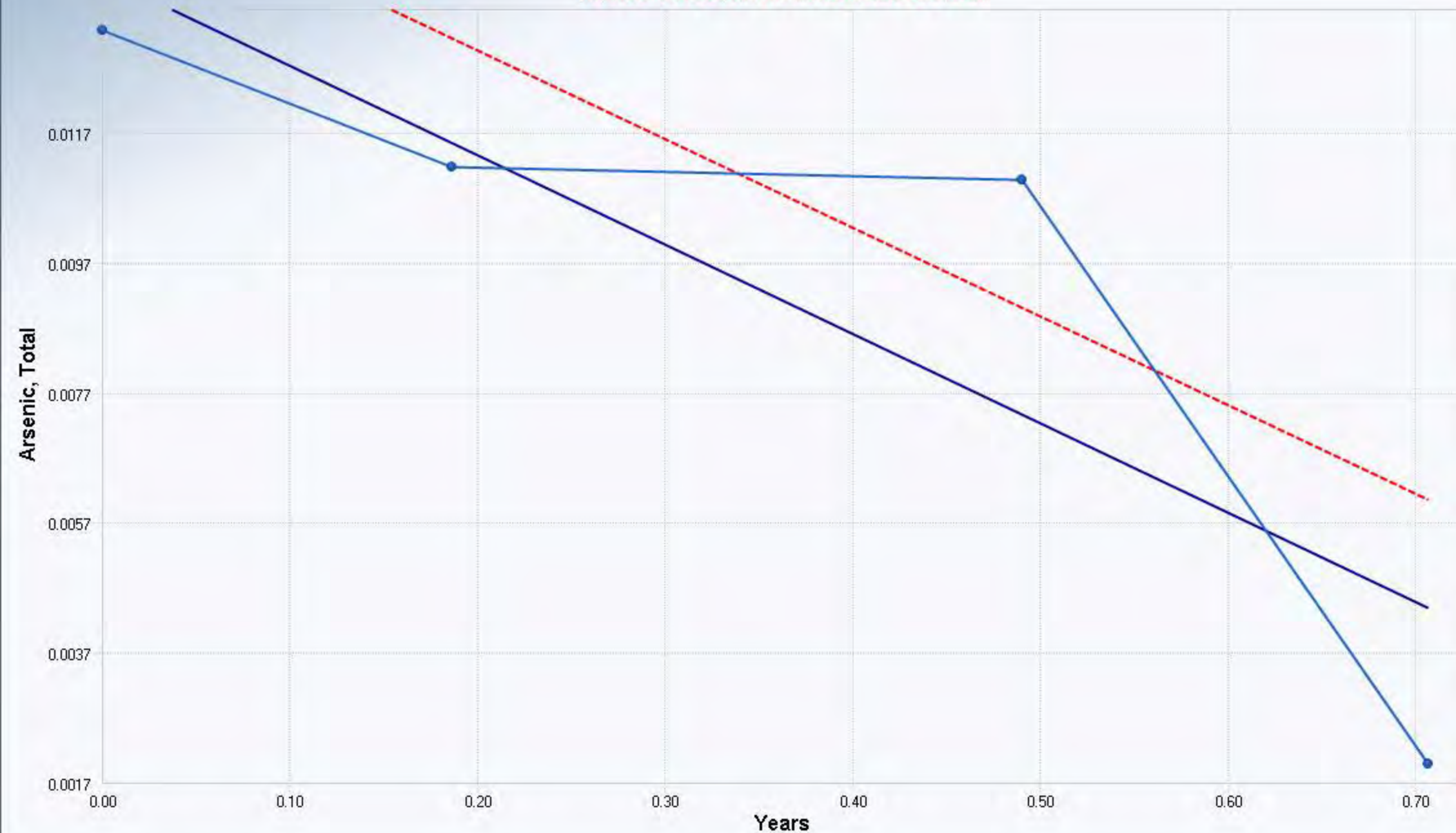
Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.2008
Theil-Sen Intercept	0.2534

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



Mann-Kendall Trend Test MW-8



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-1.6984
M-K Test Value (S)	-6
Tabulated p-value	0.0420
Approximate p-value	0.0447

OLS Regression Line (Blue)

OLS Regression Slope	-0.0138
OLS Regression Intercept	0.0141

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0136
Theil-Sen Intercept	0.0157

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

Mann-Kendall Trend Test MW-8

Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.9439
Standardized Value of S	-0.3397
M-K Test Value (S)	-2
Tabulated p-value	0.3750
Approximate p-value	0.3670

OLS Regression Line (Blue)

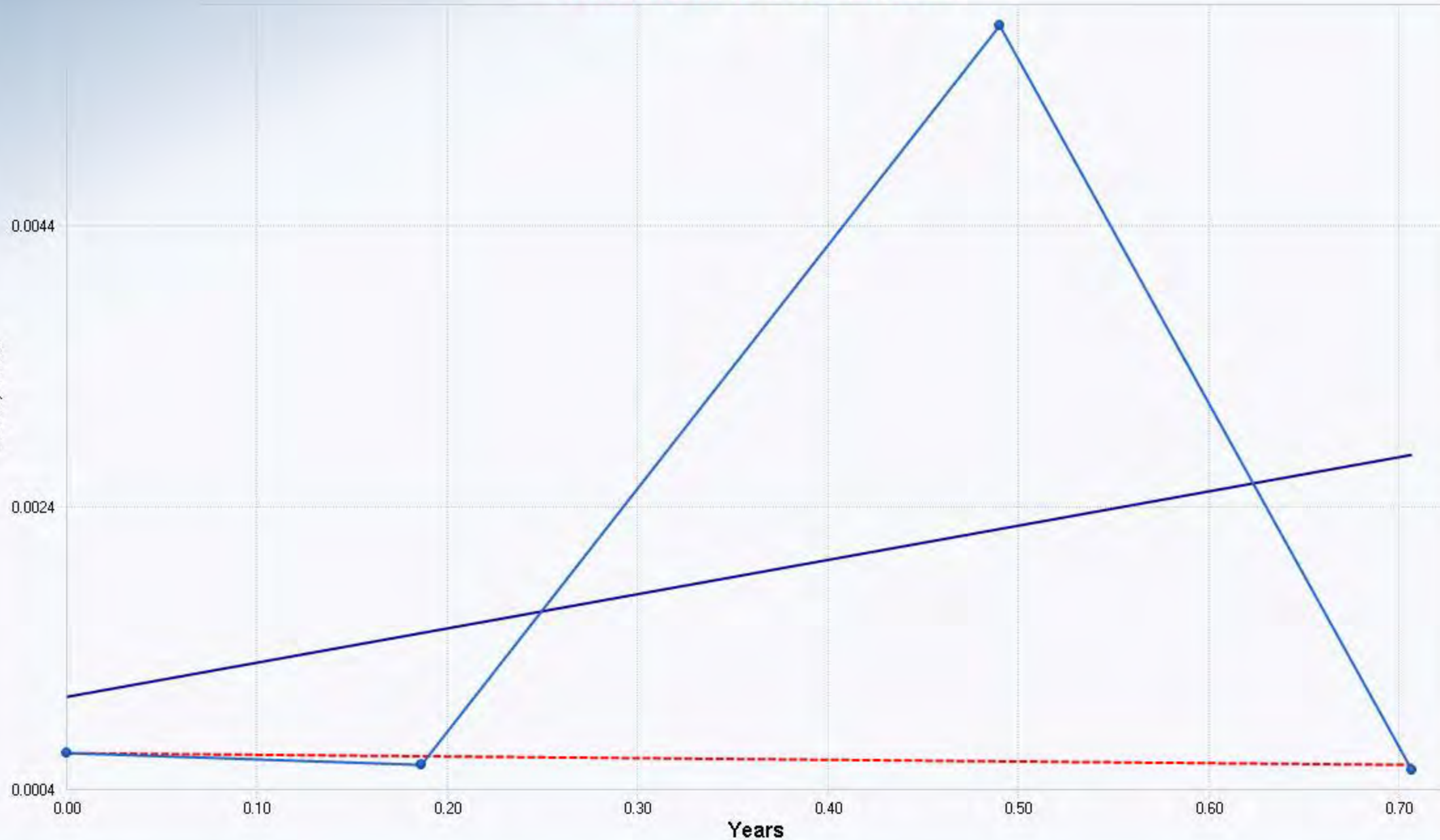
OLS Regression Slope	0.0024
OLS Regression Intercept	0.0010

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0001
Theil-Sen Intercept	0.0006

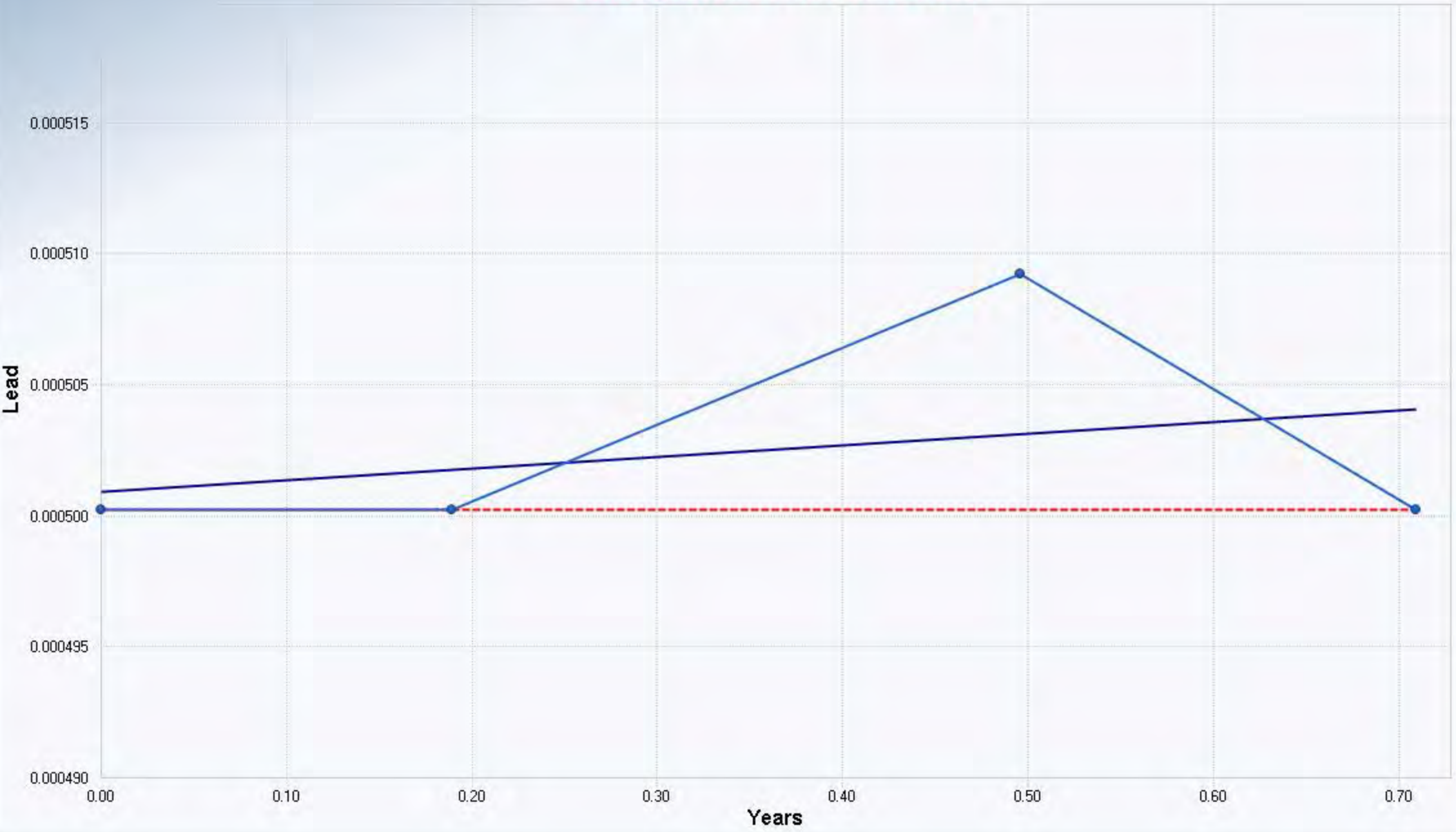
Insufficient statistical evidence of a significant trend at the specified level of significance.

Lead, Total



Years

Mann-Kendall Trend Test MW-9



Mann-Kendall Trend Analysis

n	4
Confidence Coefficient	0.9000
Level of Significance	0.1000
Standard Deviation of S	2.2361
Standardized Value of S	0.0000
M-K Test Value (S)	1
Tabulated p-value	0.6250
Approximate p-value	0.5000

OLS Regression Line (Blue)

OLS Regression Slope	0.0000
OLS Regression Intercept	0.0005

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	0.0005

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