

APPENDIX E
MANN-KENDALL ANALYSIS DATA SHEETS

GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: 5-Oct-16		Job ID: E-1	
Facility Name: Buffalo Airport		Constituent: Total VOCs - All Data	
Conducted By: K.A. Higbee		Concentration Units: nmol/L	

Sampling Point ID:	MH-2A	MH-2B	MH-2C	MH-2D	MH-3A		
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Sampling Event	Sampling Date	TOTAL VOCs - ALL DATA CONCENTRATION (nmol/L)					
1	18-Dec-08	634	1097			1607	
2	16-Apr-09	584	1796	418	751	4128	
3	14-Jul-14	162	604	648	183	3383	
4	24-Nov-14	1161	687	474	1621	1164	
5	1-Apr-15	751	931	942	1085	739	
6	18-Jun-15	687	832	840	10660	1017	
7	10-Sep-15	170	821	750	249	690	
8	10-Dec-15	344	850	966	639	983	
9	17-Mar-16	916	723	536	1249	814	
10	23-Jun-16	133	437	796	194	768	
11	20-Sep-16	201	553	551	283	617	
12							
13							
14							
15							
16							
17							
18							
19							
20							
Coefficient of Variation:		0.66	0.43	0.28	1.89	0.82	
Mann-Kendall Statistic (S):		-11	-25	9	-5	-37	
Confidence Factor:		77.7%	97.0%	75.8%	63.6%	99.8%	
Concentration Trend:		Stable	Decreasing	No Trend	No Trend	Decreasing	

Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **5-Oct-16**
 Facility Name: **Buffalo Airport**
 Conducted By: **K.A. Higbee**

Job ID: **E-2**
 Constituent: **Total VOCs - Post-Closure**
 Concentration Units: **nmol**

Sampling Point ID:		MH-2A	MH-2B	MH-2C	MH-2D	MH-3A		
Sampling Event	Sampling Date	TOTAL VOCs - POST-CLOSURE CONCENTRATION (nmol)						
1	14-Jul-14	162	604	648	183	3383		
2	24-Nov-14	1161	687	474	1621	1164		
3	1-Apr-15	751	931	942	1085	739		
4	18-Jun-15	687	832	840	10660	1017		
5	10-Sep-15	170	821	750	249	690		
6	10-Dec-15	344	850	966	639	983		
7	17-Mar-16	916	723	536	1249	814		
8	23-Jun-16	133	437	796	194	768		
9	20-Sep-16	201	553	551	283	617		
10								
11								
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13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.76	0.22	0.25	1.87	0.76		
Mann-Kendall Statistic (S):		-8	-8	0	-4	-22		
Confidence Factor:		76.2%	76.2%	46.0%	61.9%	98.8%		
Concentration Trend:		Stable	Stable	Stable	No Trend	Decreasing		

Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: **5-Oct-16**
 Facility Name: **Buffalo Airport**
 Conducted By: **K.A. Higbee**

Job ID: **E-3**
 Constituent: **Total VOCs - All Data**
 Concentration Units: **ug/L**

Sampling Point ID:		MH-2A	MH-2B	MH-2C	MH-2D	MH-3A		
Sampling Event	Sampling Date	TOTAL VOCs - ALL DATA CONCENTRATION (ug/L)						
1	18-Dec-08	73	126			198		
2	16-Apr-09	69	221	52	91	518		
3	14-Jul-14	21	72	78	23	427		
4	24-Nov-14	144	81	56	189	141		
5	1-Apr-15	91	114	113	132	90		
6	18-Jun-15	86	99	100	1374	127		
7	10-Sep-15	21	98	91	31	84		
8	10-Dec-15	41	101	114	76	117		
9	17-Mar-16	113	86	64	155	99		
10	23-Jun-16	16	51	94	24	92		
11	20-Sep-16	24	66	66	35	73		
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.67	0.45	0.28	1.94	0.84		
Mann-Kendall Statistic (S):		-11	-25	9	-5	-37		
Confidence Factor:		77.7%	97.0%	75.8%	63.6%	99.8%		
Concentration Trend:		Stable	Decreasing	No Trend	No Trend	Decreasing		

Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **5-Oct-16**
 Facility Name: **Buffalo Airport**
 Conducted By: **K.A. Higbee**

Job ID: **E-4**
 Constituent: **Total VOCs - Post-Closure**
 Concentration Units: **ug/L**

Sampling Point ID:		MH-2A	MH-2B	MH-2C	MH-2D	MH-3A		
Sampling Event	Sampling Date	TOTAL VOCs - POST-CLOSURE CONCENTRATION (ug/L)						
1	14-Jul-14	21	72	78	23	427		
2	24-Nov-14	144	81	56	189	141		
3	1-Apr-15	91	114	113	132	90		
4	18-Jun-15	86	99	100	1374	127		
5	10-Sep-15	21	98	91	31	84		
6	10-Dec-15	41	101	114	76	117		
7	17-Mar-16	113	86	64	155	99		
8	23-Jun-16	16	51	94	24	92		
9	20-Sep-16	24	66	66	35	73		
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11								
12								
13								
14								
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16								
17								
18								
19								
20								
Coefficient of Variation:		0.77	0.23	0.25	1.92	0.79		
Mann-Kendall Statistic (S):		-8	-8	0	-4	-22		
Confidence Factor:		76.2%	76.2%	46.0%	61.9%	98.8%		
Concentration Trend:		Stable	Stable	Stable	No Trend	Decreasing		

Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **5-Oct-16**
 Facility Name: **Buffalo Airport**
 Conducted By: **K.A. Higbee**

Job ID: **E-5**
 Constituent: **TCE - All Data**
 Concentration Units: **ug/L**

Sampling Point ID:		MH-1A	MH-2A	MH-2B	MH-2C	MH-2D	MH-3A	MH-3B
Sampling Event	Sampling Date	TCE - ALL DATA CONCENTRATION (ug/L)						
1	18-Dec-08	0.20	42	75			160	
2	16-Apr-09	0.20	49	150	34	71	450	
3	14-Jul-14	0.20	18	41	46	20	370	0.95
4	24-Nov-14	0.22	120	44	30	130	110	0.2
5	1-Apr-15	0.25	70	82	66	100	71	0.5
6	18-Jun-15	0.25	74	57	55	1300	110	0.6
7	10-Sep-15	0.20	16	59	56	24	64	1.7
8	10-Dec-15	0.20	25	58	69	46	84	0.2
9	17-Mar-16	0.17	93	52	37	130	77	0.2
10	23-Jun-16	0.20	11	28	56	19	67	1.0
11	20-Sep-16	0.20	20	36	36	30	51	1.4
12								
13								
14								
15								
16								
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18								
19								
20								
Coefficient of Variation:		0.11	0.74	0.54	0.28	2.10	0.92	0.72
Mann-Kendall Statistic (S):		-7	-9	-23	7	-6	-38	8
Confidence Factor:		67.6%	72.9%	95.7%	70.0%	66.8%	99.9%	76.2%
Concentration Trend:		Stable	Stable	Decreasing	No Trend	No Trend	Decreasing	No Trend

Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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for Constituent Trend Analysis

Evaluation Date: **5-Oct-16**
 Facility Name: **Buffalo Airport**
 Conducted By: **K.A. Higbee**

Job ID: **E-6**
 Constituent: **TCE - Post-Closure**
 Concentration Units: **ug/L**

Sampling Point ID:		MH-1A	MH-2A	MH-2B	MH-2C	MH-2D	MH-3A	MH-3B
Sampling Event	Sampling Date	TCE - POST-CLOSURE CONCENTRATION (ug/L)						
1	14-Jul-14	0.20	18	41	46	20	370	0.95
2	24-Nov-14	0.22	120	44	30	130	110	0.20
3	1-Apr-15	0.25	70	82	66	100	71	0.54
4	18-Jun-15	0.25	74	57	55	1300	110	0.60
5	10-Sep-15	0.20	16	59	56	24	64	1.7
6	10-Dec-15	0.20	25	58	69	46	84	0.22
7	17-Mar-16	0.17	93	52	37	130	77	0.21
8	23-Jun-16	0.20	11	28	56	19	67	1.0
9	20-Sep-16	0.20	20	36	36	30	51	1.4
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17								
18								
19								
20								
Coefficient of Variation:		0.12	0.81	0.31	0.27	2.08	0.89	0.72
Mann-Kendall Statistic (S):		-11	-8	-8	0	-5	-23	8
Confidence Factor:		84.6%	76.2%	76.2%	46.0%	65.7%	99.1%	76.2%
Concentration Trend:		Stable	Stable	Stable	Stable	No Trend	Decreasing	No Trend

Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **5-Oct-16**
 Facility Name: **Buffalo Airport**
 Conducted By: **K.A. Higbee**

Job ID: **E-7**
 Constituent: **PCE - All Data**
 Concentration Units: **ug/L**

Sampling Point ID:		MH-1A	MH-2A	MH-2B	MH-2C	MH-2D		
Sampling Event	Sampling Date	PCE - ALL DATA CONCENTRATION (ug/L)						
1	18-Dec-08	0.71	0.88	15				
2	16-Apr-09	0.94	0.2	19	5.4	0.2		
3	14-Jul-14	1.9	0.2	5.7	6.6	0.2		
4	24-Nov-14	0.25	0.98	7.9	6.3	1.00		
5	1-Apr-15	1.2	1.0	7.0	15	2.3		
6	18-Jun-15	2.4	1.2	10	12	0.87		
7	10-Sep-15	1.0	0.55	9.4	8.85	0.75		
8	10-Dec-15	1.7	2.7	8.6	9.35	4.4		
9	17-Mar-16	1.3	1.0	7.5	6.7	1.0		
10	23-Jun-16	0.98	1.0	4.7	7	0.2		
11	20-Sep-16	1.7	0.2	6.5	8.3	0.2		
12								
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16								
17								
18								
19								
20								
Coefficient of Variation:		0.47	0.78	0.46	0.35	1.19		
Mann-Kendall Statistic (S):		14	13	-23	9	0		
Confidence Factor:		84.0%	82.1%	95.7%	75.8%	45.6%		
Concentration Trend:		No Trend	No Trend	Decreasing	No Trend	No Trend		

Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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for Constituent Trend Analysis

Evaluation Date: **5-Oct-16**
 Facility Name: **Buffalo Airport**
 Conducted By: **K.A. Higbee**

Job ID: **E-8**
 Constituent: **PCE - Post-Closure**
 Concentration Units: **ug/L**

Sampling Point ID:		MH-1A	MH-2A	MW-2B	MH-2C	MH-2D		
Sampling Event	Sampling Date	PCE - POST-CLOSURE CONCENTRATION (ug/L)						
1	14-Jul-14	1.9	0.2	5.7	6.6	0.2		
2	24-Nov-14	0.25	0.98	7.9	6.3	1.00		
3	1-Apr-15	1.2	1.0	7.0	15	2.3		
4	18-Jun-15	2.4	1.2	10	12	0.87		
5	10-Sep-15	1.0	0.55	9.4	8.85	0.75		
6	10-Dec-15	1.7	2.7	8.6	9.35	4.4		
7	17-Mar-16	1.3	1.0	7.5	6.7	1.0		
8	23-Jun-16	0.98	1.0	4.7	7	0.2		
9	20-Sep-16	1.7	0.2	6.5	8.3	0.2		
10								
11								
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16								
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18								
19								
20								
Coefficient of Variation:		0.45	0.76	0.23	0.33	1.12		
Mann-Kendall Statistic (S):		-1	4	-6	0	-6		
Confidence Factor:		50.0%	61.9%	69.4%	46.0%	69.4%		
Concentration Trend:		Stable	No Trend	Stable	Stable	No Trend		

Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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Evaluation Date: **5-Oct-16**
 Facility Name: **Buffalo Airport**
 Conducted By: **K.A. Higbee**

Job ID: **E-9**
 Constituent: **MH-1A Cadmium**
 Concentration Units: **ug/L**

Sampling Point ID: **Monitoring** **All Data**

Sampling Event	Sampling Date	MH-1A CADMIUM CONCENTRATION (ug/L)					
1	18-Dec-08						
2	16-Apr-09		1.3				
3	14-Jul-14	0.61	0.61				
4	24-Nov-14	0.54	0.54				
5	1-Apr-15	1.1	1.1				
6	18-Jun-15	2.3	2.3				
7	10-Sep-15	1.3	1.3				
8	10-Dec-15	3.8	3.8				
9	17-Mar-16	1.5	1.5				
10	23-Jun-16	2.6	2.6				
11	20-Sep-16	2.0	2.0				
12							
13							
14							
15							
16							
17							
18							
19							
20							
Coefficient of Variation:		0.60	0.58				
Mann-Kendall Statistic (S):		20	22				
Confidence Factor:		97.8%	97.1%				
Concentration Trend:		Increasing	Increasing				

Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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for Constituent Trend Analysis

Evaluation Date: **5-Oct-16**
 Facility Name: **Buffalo Airport**
 Conducted By: **K.A. Higbee**

Job ID: **E-10**
 Constituent: **Chromium - All Data**
 Concentration Units: **ug/L**

Sampling Point ID:		MH-1A	MH-2B	MH-3B	MH-3C			
Sampling Event	Sampling Date	CHROMIUM - ALL DATA CONCENTRATION (ug/L)						
1	18-Dec-08				3.1			
2	16-Apr-09	3.0	5.3	1.4	21			
3	14-Jul-14	1.4	5.7	13	27			
4	24-Nov-14	3.8	7.1	15	31			
5	1-Apr-15	1.9	7.1	13	3.9			
6	18-Jun-15	1.0	5.5	7.5	9.0			
7	10-Sep-15	1.0	5.0	4.6	1.9			
8	10-Dec-15	1.5	5.2	1.6	13			
9	17-Mar-16	0.97	6.6	5.2	16			
10	23-Jun-16	5.7	7.3	17	14			
11	20-Sep-16	0.8	6.45	4.1	1.9			
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.76	0.14	0.70	0.79			
Mann-Kendall Statistic (S):		-16	6	-4	-8			
Confidence Factor:		90.7%	66.8%	60.3%	70.3%			
Concentration Trend:		Prob. Decreasing	No Trend	Stable	Stable			

Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

Evaluation Date: **5-Oct-16**
 Facility Name: **Buffalo Airport**
 Conducted By: **K.A. Higbee**

Job ID: **E-11**
 Constituent: **Chromium - Post-Closure**
 Concentration Units: **ug/L**

Sampling Point ID:		MH-1A	MH-2B	MH-3B	MH-3C			
Sampling Event	Sampling Date	CHROMIUM - POST-CLOSURE CONCENTRATION (ug/L)						
1	14-Jul-14	1.4	5.7	13	27			
2	24-Nov-14	3.8	7.1	15	31			
3	1-Apr-15	1.9	7.1	13	3.9			
4	18-Jun-15	1.0	5.5	7.5	9.0			
5	10-Sep-15	1.0	5.0	4.6	1.9			
6	10-Dec-15	1.5	5.2	1.6	13			
7	17-Mar-16	0.97	6.6	5.2	16			
8	23-Jun-16	5.7	7.3	17	14			
9	20-Sep-16	0.8	6.45	4.1	1.9			
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.83	0.14	0.62	0.80			
Mann-Kendall Statistic (S):		-11	1	-13	-9			
Confidence Factor:		84.6%	50.0%	89.0%	79.2%			
Concentration Trend:		Stable	No Trend	Stable	Stable			

Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: **5-Oct-16**
 Facility Name: **Buffalo Airport**
 Conducted By: **K.A. Higbee**

Job ID: **E-12**
 Constituent: **MH-1A Lead**
 Concentration Units: **ug/L**

Sampling Point ID: **Monitoring** **All Data**

Sampling Event	Sampling Date	MH-1A LEAD CONCENTRATION (ug/L)					
1	18-Dec-08						
2	16-Apr-09		6.1				
3	14-Jul-14						
4	24-Nov-14	3.1	3.1				
5	1-Apr-15	2.0	2.0				
6	18-Jun-15	2.0	2.0				
7	10-Sep-15	2.2	2.2				
8	10-Dec-15	2.0	2.0				
9	17-Mar-16	2.0	2.0				
10	23-Jun-16	9.2	9.2				
11	20-Sep-16	2.0	2.0				
12							
13							
14							
15							
16							
17							
18							
19							
20							
Coefficient of Variation:		0.82	0.75				
Mann-Kendall Statistic (S):		-2	-8				
Confidence Factor:		54.8%	76.2%				
Concentration Trend:		Stable	Stable				

Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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