USGS Hydrologic Unit: 051201111804 SiteID: WBU-18-0004 Stream Name: Maria Creek County: Knox N Old 41 Description: 38 46 24.47793 Longitude: -87 28 21.95307 Site Number: 20T-001 Drainage: SiteID: WBU-18-0004 Sample Date: 6/16/2020 IDEM Sample #: AB42533 ☐ Algae? Murky **Water Depth** Water Flow Type Run **Water Appearance** ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 95.6 % ASTM D888-09(C) % Sat DO 8.37 mg/L ASTM D888-09(C) pH (Field) 7.87 SU EPA 150.2 Specific Conductance (Field) 722 umho/cm SM2510B 21.6 °C Temperature SM2550B(2) Turbidity (Hach) 7.33 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation

Coliforms (Total) E. coli	> 2419.6 M 124.6 M	IPN/100mL IPN/100mL	2419.6 1	SM9223B SM9223B	
<b>Lab ID #</b> : AB42533	<u>Result</u>		Reporting Limit	<u>Method</u>	
Magnesium (Total)	23 n	ng/L	0.1	EPA 200.7	
Calcium (Total)	75 n	ng/L	0.2	EPA 200.7	
Sulfate	98 n	ng/L	4	EPA 300.0	
Solids, Total Dissolved (TDS)	490 n	ng/L	10	SM2540C	
Solids, Total (TS)	540 n	ng/L	10	SM2540B	
Solids, Suspended Total, (TSS)	7.5 n	ng/L	5	SM2540D	
Hardness (as CaCO3)	280 n	ng/L	0.91	SM2340B	
Chloride	40 n	ng/L	2	EPA 300.0	
Alkalinity (as CaCO3)	210 n	ng/L	5	SM2320B	
<b>Lab ID #</b> : 500-183767-18	Result		Reporting Limit	Method	
Wind Strength	3 L	ookup		Observation	
Wind Direction		ookup		Observation	
Sky Conditions		.ookup		Observation	

SiteID: WBU-18-0004 Sample Date: 6/22/2020 IDEM Sample #: AB42669 **Water Appearance Water Depth** ✓ Algae? Water Flow Type Glide Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 166.9 % ASTM D888-09(C) % Sat DO 13.44 mg/L ASTM D888-09(C) pH (Field) 8.24 SU EPA 150.2 Specific Conductance (Field) 797 umho/cm SM2510B Temperature 26.4 °C SM2550B(2) Turbidity (Hach) 5.49 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 27 Lookup Observation Observation Wind Strength 0 Lookup WBU-18-0004 IDEM Sample #: AB43061 SiteID: Sample Date: 7/8/2020 ☐ Algae? **Water Depth** Water Flow Type Glide **Water Appearance** Murky ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 87.3 % ASTM D888-09(C) DO 6.76 mg/L ASTM D888-09(C) pH (Field) 7.93 SU EPA 150.2 Specific Conductance (Field) 620 umho/cm SM2510B 28.5 °C Temperature SM2550B(2) Turbidity (Hach) 10.3 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation

Lab ID #: 500-184718-17		<u>Result</u>		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		190	mg/L	5	SM2320B
Chloride			mg/L	2	EPA 300.0
Hardness (as CaCO3)			mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)			mg/L	5	SM2540D
Solids, Total (TS)		420	mg/L	30	SM2540B
Solids, Total Dissolved (TDS)		280	mg/L	30	SM2540C
Sulfate		77	mg/L	2	EPA 300.0
Calcium (Total)		49	mg/L	0.2	EPA 200.7
Magnesium (Total)		20	mg/L	0.1	EPA 200.7
COD		19	mg/L	10	SM5220C
Nitrogen, Ammonia		0.27	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		1.2	mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.077	mg/L	0.05	SM4500P-E
TKN		0.46	mg/L	0.4	SM4500N(Org)-D
TOC		3	mg/L	1	SM5310C
<b>Lab ID #</b> : AB43061		Result		Reporting Limit	Method
Coliforms (Total)		> 2419 6	MPN/100mL	2419.6	SM9223B
		Z-110.0	WII 14/ 1001112	2410.0	002202
E. coli			MPN/100mL	1	SM9223B
	Sample Date: 7/14/2020			1	
E. coli	Sample Date: 7/14/2020 Water Appearance		MPN/100mL  IDEM Sample	1	
E. coli SiteID: WBU-18-0004	·	172.5	MPN/100mL  IDEM Sample	1 #: AB42979	SM9223B
E. coli SiteID: WBU-18-0004 Water Flow Type Pool Water Flow (cf/sec):	Water Appearance	172.5	MPN/100mL  IDEM Sample	1 #: AB42979 Vater Depth	SM9223B
E. coli SiteID: WBU-18-0004 Water Flow Type Pool Water Flow (cf/sec):	Water Appearance	172.5	MPN/100mL  IDEM Sample	1 #: AB42979 Vater Depth	SM9223B
E. coli  SiteID: WBU-18-0004  Water Flow Type Pool  Water Flow (cf/sec):  Sampler Comments:	Water Appearance	Murky	MPN/100mL  IDEM Sample  Viguatic Life?	1 #: AB42979 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%
E. coli  SiteID: WBU-18-0004  Water Flow Type Pool  Water Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Murky  Ac  Result	MPN/100mL  IDEM Sample  Viguatic Life?	1 #: AB42979 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method
E. coli  SiteID: WBU-18-0004  Nater Flow Type Pool  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Murky  Ac  Result	IDEM Sample Viguatic Life?  % mg/L	1 #: AB42979 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WBU-18-0004  Nater Flow Type Pool  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water Appearance	Murky  Ac  Result  74.5 6.19 7.77	IDEM Sample Viguatic Life?  % mg/L	1 #: AB42979 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
E. coli  SiteID: WBU-18-0004  Nater Flow Type Pool  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	Murky  Ac  Result  74.5 6.19 7.77	MPN/100mL  IDEM Sample  Viguatic Life?  % mg/L SU umho/cm	1 #: AB42979 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  SiteID: WBU-18-0004  Water Flow Type Pool  Water Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	Murky  Ac  Result  74.5 6.19 7.77 680 24.6	MPN/100mL  IDEM Sample  Viguatic Life?  % mg/L SU umho/cm	1 #: AB42979 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli  SiteID: WBU-18-0004  Water Flow Type Pool  Water Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	Murky  Ac  Result  74.5 6.19 7.77 680 24.6 11.8	MPN/100mL  IDEM Sample  Viguatic Life?  % mg/L SU umho/cm °C	1 #: AB42979 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: WBU-18-0004 Water Flow Type Pool Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water Appearance	Murky  Ac  Result  74.5 6.19 7.77 680 24.6 11.8 5	MPN/100mL  IDEM Sample  Viguatic Life?  % mg/L SU umho/cm °C NTU	1 #: AB42979 Vater Depth Canopy Closed %	SM9223B  Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: WBU-18-0004 Water Flow Type Pool Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Murky  Result  74.5 6.19 7.77 680 24.6 11.8 5	IDEM Sample Viguatic Life?  % mg/L SU umho/cm °C NTU Lookup	1 #: AB42979 Vater Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation

SiteID: WBU-18-0004 Sample Date: 7/15/2020 IDEM Sample #: AB43081 **Water Depth** ✓ Algae? Water Flow Type Run Water Appearance Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Very low flow Lab ID #: Result **Reporting Limit Method** 78.9 % % Sat ASTM D888-09(C) DO 6.43 mg/L ASTM D888-09(C) 7.67 SU pH (Field) EPA 150.2 Specific Conductance (Field) 710 umho/cm SM2510B Temperature 25.7 °C SM2550B(2) Turbidity (Hach) 7.95 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43081 **Reporting Limit** Result **Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B E. coli 285.1 MPN/100mL 1 SM9223B SiteID: WBU-18-0004 Sample Date: IDEM Sample #: AB43101 7/22/2020 ☐ Algae? Water Flow Type Water Appearance Brown **Water Depth** Run ☐ Flow Estimated? Water Flow (cf/sec): ☐ Aquatic Life? Canopy Closed % 0-20% Sampler Comments: Stream flow is up due to recent rain Lab ID #: Reporting Limit **Method** Result % Sat 69.4 % ASTM D888-09(C) DO 5.95 mg/L ASTM D888-09(C) pH (Field) 7.71 SU EPA 150.2 Specific Conductance (Field) 304 umho/cm SM2510B 23.1 °C Temperature SM2550B(2) Turbidity (Hach) 861 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43101a Result **Reporting Limit Method** 241960 MPN/100mL Coliforms (Total) 100 SM9223B E. coli 9870 MPN/100mL 100 SM9223B

**SiteID**: WBU-18-0004 **Sample Date**: 7/29/2020 **IDEM Sample #**: AB43121

Water Flow Type Pool Water Appearance Murky Water Depth 

Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	91.2	%		ASTM D888-09(C)
DO	7.28	mg/L		ASTM D888-09(C)
pH (Field)	7.85	SU		EPA 150.2
Specific Conductance (Field)	378	umho/cm		SM2510B
Temperature	26.8	°C		SM2550B(2)
Turbidity (Hach)	23	NTU		EPA 180.1
Air Temp	6	Lookup		Observation
Sky Conditions	2	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : AB43121	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	172.5	MPN/100mL	1	SM9223B

Weather Code Definitions									
SC			WD	WS	AT				
Sky Co	nditions	Wind Direction		Wind Direction		nditions Wind Direction		Wind Strength	Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32				
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45				
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60				
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75				
5 - Mist				4 - Mod./Strong	5 - 76-85				
6 - Fog				5 - Strong	6 - > 86				
7 - Shower				6 - Gale					

SiteID:WBU-18-0006USGS Hydrologic Unit:051201111804Stream Name:County:Knox

Description: E Springtown Road Latitude: 38 48 17.43643 Longitude: -87 26 12.60862

Drainage: Site Number: 20T-003

**SitelD:** WBU-18-0006 **Sample Date:** 6/16/2020 **IDEM Sample #:** AB42532

Water Flow Type Run Water Appearance Clear Water Depth Algae?

Water Flow (cf/sec): 

Flow Estimated? 

Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	91.5	%		ASTM D888-09(C)
DO	8.67	mg/L		ASTM D888-09(C)
pH (Field)	7.96	SU		EPA 150.2
Specific Conductance (Field)	568	umho/cm		SM2510B
Temperature	17.9	°C		SM2550B(2)
Turbidity (Hach)	5.47	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	9	Lookup		Observation
Wind Strength	3	Lookup		Observation
<b>Lab ID #</b> : 500-183767-17	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	230	mg/L	5	SM2320B
Chloride	16	mg/L	2	EPA 300.0
Hardness (as CaCO3)	290	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	5.5	mg/L	5	SM2540D
Solids, Total (TS)	440	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	420	mg/L	10	SM2540C
Sulfate	31	mg/L	2	EPA 300.0
Calcium (Total)	75	mg/L	0.2	EPA 200.7
Magnesium (Total)	24	mg/L	0.1	EPA 200.7
COD	13	mg/L	10	SM5220C
Nitrogen, Ammonia	0.29	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	4.7	mg/L	1	SM4500NO3-F
Phosphorus, Total	0.038	mg/L	0.05	SM4500P-E
TKN	0.71	mg/L	0.4	SM4500N(Org)-D
TOC	1.2	mg/L	1	SM5310C
<b>Lab ID #</b> : AB42532	Result		Reporting Limit	Method
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	248.1	MPN/100mL	1	SM9223B

SiteID: WBU-18-0006 Sample Date: 7/8/2020 IDEM Sample #: AB42670 **Water Appearance Water Depth** ✓ Algae? Water Flow Type Run Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 88.1 % ASTM D888-09(C) % Sat DO 7.87 mg/L ASTM D888-09(C) pH (Field) 8.04 SU EPA 150.2 Specific Conductance (Field) 558 umho/cm SM2510B Temperature 20.8 °C SM2550B(2) Turbidity (Hach) 5.27 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 27 Lookup Observation Observation Wind Strength 2 Lookup WBU-18-0006 IDEM Sample #: AB43060 SiteID: Sample Date: 7/8/2020 ☐ Algae? **Water Depth** Water Flow Type Run **Water Appearance** Clear ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 89 % ASTM D888-09(C) DO 7.87 mg/L ASTM D888-09(C) pH (Field) 7.92 SU EPA 150.2 Specific Conductance (Field) 557 umho/cm SM2510B 21.4 °C Temperature SM2550B(2) Turbidity (Hach) 9.64 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation

<b>Lab ID #</b> : 500-184718-16		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		240	mg/L	5	SM2320B
Chloride			mg/L	2	EPA 300.0
Hardness (as CaCO3)			mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)			mg/L	5	SM2540D
Solids, Total (TS)			mg/L	30	SM2540B
Solids, Total Dissolved (TDS)		230	mg/L	30	SM2540C
Sulfate		27	mg/L	2	EPA 300.0
Calcium (Total)		65	mg/L	0.2	EPA 200.7
Magnesium (Total)		22	mg/L	0.1	EPA 200.7
COD		< 10	mg/L	10	SM5220C
Nitrogen, Ammonia			mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		5.3	mg/L	0.5	SM4500NO3-F
Phosphorus, Total		0.07	mg/L	0.05	SM4500P-E
TKN		0.5	mg/L	0.4	SM4500N(Org)-D
TOC		1.4	mg/L	1	SM5310C
<b>Lab ID #</b> : AB43060		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		461.1	MPN/100mL	1	SM9223B
	Sample Date: 7/14/2020	461.1	MPN/100mL  IDEM Sample		SM9223B
<b>SiteID:</b> WBU-18-0006	Sample Date: 7/14/2020 Water Appearance	461.1 Clear	IDEM Sample		SM9223B
<b>SiteID:</b> WBU-18-0006	·	Clear	IDEM Sample	#: AB42978	☐ Algae?
SiteID: WBU-18-0006 Water Flow Type Run Water Flow (cf/sec):	Water Appearance	Clear	IDEM Sample	#: AB42978 /ater Depth	☐ Algae?
SiteID: WBU-18-0006  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:	Water Appearance	Clear	IDEM Sample	#: AB42978 /ater Depth	☐ Algae?
SiteID: WBU-18-0006  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:	Water Appearance	Clear ✓ Ac	IDEM Sample W quatic Life?	#: AB42978 /ater Depth Canopy Closed %	☐ Algae? 0-20%
SiteID: WBU-18-0006  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Clear  Ac  Result  88.9	IDEM Sample W quatic Life?	#: AB42978 /ater Depth Canopy Closed %	☐ Algae? 0-20% Method
SiteID: WBU-18-0006  Nater Flow Type Run  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Clear  Ac  Result  88.9	IDEM Sample W quatic Life?  % mg/L	#: AB42978 /ater Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
SiteID: WBU-18-0006  Nater Flow Type Run  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water Appearance	Clear  Result  88.9 8.2 7.95	IDEM Sample W quatic Life?  % mg/L	#: AB42978 /ater Depth Canopy Closed %	O-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
SiteID: WBU-18-0006  Water Flow Type Run  Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field)	Water Appearance	Clear  Result  88.9 8.2 7.95	IDEM Sample W quatic Life?  % mg/L SU umho/cm	#: AB42978 /ater Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WBU-18-0006  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field)  Specific Conductance (Field)	Water Appearance	Clear  Result  88.9 8.2 7.95 570 19.2	IDEM Sample W quatic Life?  % mg/L SU umho/cm	#: AB42978 /ater Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: WBU-18-0006 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Clear  Result  88.9 8.2 7.95 570 19.2 7.06	IDEM Sample Wiquatic Life? % mg/L SU umho/cm °C	#: AB42978 /ater Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: WBU-18-0006 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water Appearance	Clear  Result  88.9 8.2 7.95 570 19.2 7.06 5	IDEM Sample W quatic Life?  % mg/L SU umho/cm °C NTU	#: AB42978 /ater Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: WBU-18-0006 Water Flow Type Run Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Clear  Result  88.9 8.2 7.95 570 19.2 7.06 5	IDEM Sample W quatic Life?  % mg/L SU umho/cm °C NTU Lookup	#: AB42978 /ater Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation

SiteID: WBU-18-0006 Sample Date: 7/15/2020 IDEM Sample #: AB43080 **Water Depth** ✓ Algae? Water Flow Type Run Water Appearance Clear ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Very low flow Lab ID #: **Reporting Limit Method** Result 88.4 % % Sat ASTM D888-09(C) DO 8.18 mg/L ASTM D888-09(C) 7.91 SU pH (Field) EPA 150.2 Specific Conductance (Field) 550 umho/cm SM2510B Temperature 19 °C SM2550B(2) Turbidity (Hach) 5.62 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43080 **Reporting Limit** Result **Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B E. coli 517.2 MPN/100mL 1 SM9223B SiteID: WBU-18-0006 Sample Date: IDEM Sample #: AB43100 7/22/2020 ☐ Algae? Water Flow Type Water Appearance Brown **Water Depth** Run ☐ Flow Estimated? Water Flow (cf/sec): ☐ Aquatic Life? Canopy Closed % 0-20% Sampler Comments: Stream flow is up due to recent rain Lab ID #: Reporting Limit **Method** Result % Sat 75.4 % ASTM D888-09(C) DO 6.56 mg/L ASTM D888-09(C) pH (Field) 7.3 SU EPA 150.2 Specific Conductance (Field) 207 umho/cm SM2510B 22.2 °C Temperature SM2550B(2) Turbidity (Hach) 136 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43100a Result **Reporting Limit Method** > 241960 MPN/100mL Coliforms (Total) 241960 SM9223B E. coli 11780 MPN/100mL 100 SM9223B

.ab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	89.4	%		ASTM D888-09(C)
DO	7.75	mg/L		ASTM D888-09(C)
pH (Field)	7.91	SU		EPA 150.2
Specific Conductance (Field)	562	umho/cm		SM2510B
Temperature	22.3	°C		SM2550B(2)
Turbidity (Hach)	7.05	NTU		EPA 180.1
Air Temp	6	Lookup		Observation
Sky Conditions	2	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : AB43120	Result		Reporting Limit	Method
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	686.7	MPN/100mL	1	SM9223B

Weather Code Definitions									
SC			WD	WS	AT				
Sky Co	nditions	Wind Direction		Wind Direction		nditions Wind Direction		Wind Strength	Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32				
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45				
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60				
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75				
5 - Mist				4 - Mod./Strong	5 - 76-85				
6 - Fog				5 - Strong	6 - > 86				
7 - Shower				6 - Gale					

SiteID: WBU-18-0007 USGS Hydrologic Unit: 051201111804 Stream Name: Maria Creek County: Knox Description: N Perry Road **Latitude:** 38 48 40.75368 **Longitude:** -87 25 4.32367 Drainage: Site Number: 20T-004 SiteID: WBU-18-0007 Sample Date: 6/16/2020 IDEM Sample #: AB42531 Clear ☐ Algae? Water Flow Type Run **Water Appearance Water Depth** ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** 

Lab ID #:	<u>Result</u>		Reporting Limit	<u>Method</u>
% Sat	135.1	%		ASTM D888-09(C)
DO	11.53	mg/L		ASTM D888-09(C)
pH (Field)	8.1	SU		EPA 150.2
Specific Conductance (Field)	759	umho/cm		SM2510B
Temperature	23.1	°C		SM2550B(2)
Turbidity (Hach)	6.77	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	9	Lookup		Observation
Wind Strength	3	Lookup		Observation
<b>Lab ID #:</b> 500-183767-16	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	200	mg/L	5	SM2320B
Chloride	49	mg/L	2	EPA 300.0
Hardness (as CaCO3)	280	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	12	mg/L	5	SM2540D
Solids, Total (TS)	590	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	550	mg/L	10	SM2540C
Sulfate	120	mg/L	4	EPA 300.0
Calcium (Total)	74	mg/L	0.2	EPA 200.7
Magnesium (Total)	22	mg/L	0.1	EPA 200.7
COD	11	mg/L	10	SM5220C
Nitrogen, Ammonia	0.17	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	2.7	mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.055	mg/L	0.05	SM4500P-E
TKN	0.62	mg/L	0.4	SM4500N(Org)-D
TOC	2.2	mg/L	1	SM5310C
<b>Lab ID #</b> : AB42531	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	139.6	MPN/100mL	1	SM9223B

SiteID: WBU-18-0007 Sample Date: 6/22/2020 IDEM Sample #: AB42671 **Water Appearance Water Depth** ✓ Algae? Water Flow Type Glide Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 173.6 % ASTM D888-09(C) % Sat DO 14.62 mg/L ASTM D888-09(C) pH (Field) 8.25 SU EPA 150.2 Specific Conductance (Field) 638 umho/cm SM2510B Temperature 23.9 °C SM2550B(2) Turbidity (Hach) 5.41 NTU EPA 180.1 Air Temp Lookup Observation Sky Conditions Lookup Observation Wind Direction Lookup Observation Observation Wind Strength Lookup WBU-18-0007 IDEM Sample #: AB43059 SiteID: Sample Date: 7/8/2020 ✓ Algae? **Water Depth** Water Flow Type Glide **Water Appearance** Clear ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 174.7 % ASTM D888-09(C) DO 13.36 mg/L ASTM D888-09(C) pH (Field) 8.26 SU EPA 150.2 Specific Conductance (Field) 630 umho/cm SM2510B 29.3 °C Temperature SM2550B(2) Turbidity (Hach) 9.45 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation

<b>Lab ID #:</b> 500-184718-15			Result		Reporting Limit	Method
Alkalinity (as CaCO3)			200	mg/L	5	SM2320B
Chloride			32	mg/L	2	EPA 300.0
Hardness (as CaCO3)			240	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)			12	mg/L	5	SM2540D
Solids, Total (TS)			470	mg/L	30	SM2540B
Solids, Total Dissolved (TDS)			250	mg/L	30	SM2540C
Sulfate			97	mg/L	4	EPA 300.0
Calcium (Total)			61	mg/L	0.2	EPA 200.7
Magnesium (Total)			21	mg/L	0.1	EPA 200.7
COD			14	mg/L	10	SM5220C
Nitrogen, Ammonia			0.23	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			1.6	mg/L	0.1	SM4500NO3-F
Phosphorus, Total			0.075		0.05	SM4500P-E
TKN			0.65	mg/L	0.4	SM4500N(Org)-D
TOC			2.7	mg/L	1	SM5310C
<b>Lab ID #</b> : AB43059			Result		Reporting Limit	Method
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli			26.2	MPN/100mL	1	SM9223B
<b>SiteID:</b> WBU-18-0007	Sample Date:	7/14/2020		IDEM Sample	e#: AB42961	
Water Flow Type Run	Water	Appearance	Clear	,	Water Depth	✓ Algae?
Water Flow (cf/sec): Sampler Comments:	☐ Flow	v Estimated?	<b>✓</b> Ac	juatic Life?	Canopy Closed %	0-20%
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% Sat			213.6	%		ASTM D888-09(C)
DO			15.88			ASTM D888-09(C)
pH (Field)			8.42			EPA 150.2
Specific Conductance (Field)			816	umho/cm		SM2510B
Temperature			30.8	°C		SM2550B(2)
Turbidity (Hach)				NTU		EPA 180.1
			. •	-		

5 Lookup

2 Lookup

27 Lookup

2 Lookup

Air Temp

Sky Conditions

Wind Direction

Wind Strength

Observation

Observation

Observation

Observation

SiteID: WBU-18-0007 Sample Date: 7/15/2020 IDEM Sample #: AB43079 **Water Depth** ✓ Algae? Water Flow Type Run **Water Appearance** Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 142.8 % % Sat ASTM D888-09(C) DO 11.79 mg/L ASTM D888-09(C) 8.1 SU pH (Field) EPA 150.2 Specific Conductance (Field) 757 umho/cm SM2510B Temperature 24.9 °C SM2550B(2) Turbidity (Hach) 7.11 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength 1 Lookup Observation Lab ID #: AB43079 **Reporting Limit** Result **Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B E. coli 88.9 MPN/100mL 1 SM9223B SiteID: WBU-18-0007 Sample Date: IDEM Sample #: AB43099 7/22/2020 ☐ Algae? Water Flow Type Water Appearance Brown **Water Depth** Run ☐ Flow Estimated? Water Flow (cf/sec): ☐ Aquatic Life? Canopy Closed % 0-20% Sampler Comments: Stream flow is up due to recent rain Lab ID #: Reporting Limit **Method** Result % Sat 72.6 % ASTM D888-09(C) DO ASTM D888-09(C) 6.26 mg/L pH (Field) 7.78 SU EPA 150.2 Specific Conductance (Field) 199 umho/cm SM2510B 22.8 °C Temperature SM2550B(2) Turbidity (Hach) > 1000 NTU 1000 EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43099a Result **Reporting Limit Method** > 241960 MPN/100mL Coliforms (Total) 241960 SM9223B E. coli 64880 MPN/100mL 100 SM9223B

**SiteID:** WBU-18-0007 **Sample Date:** 7/29/2020 **IDEM Sample #**: AB43119

Water Flow Type Run Water Appearance Clear Water Depth ✓ Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** 

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	201.3	%		ASTM D888-09(C)
DO	14.84	mg/L		ASTM D888-09(C)
pH (Field)	8.35	SU		EPA 150.2
Specific Conductance (Field)	698	umho/cm		SM2510B
Temperature	31.3	°C		SM2550B(2)
Turbidity (Hach)	7.65	NTU		EPA 180.1
Air Temp	6	Lookup		Observation
Sky Conditions	2	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : AB43119	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	85.5	MPN/100mL	1	SM9223B

Weather Code Definitions									
SC			WD	WS	AT				
Sky Co	nditions	Wind Direction		Wind Direction		nditions Wind Direction		Wind Strength	Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32				
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45				
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60				
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75				
5 - Mist				4 - Mod./Strong	5 - 76-85				
6 - Fog				5 - Strong	6 - > 86				
7 - Shower				6 - Gale					

 SiteID: WBU-18-0008
 USGS Hydrologic Unit: 0512011111802

 Stream Name:
 Maria Creek
 County: Knox

 Description:
 N Risley Road
 Latitude: 38 49 21.98872 Longitude: -87 23 29.96194

 Drainage:
 Site Number: 20T-005

SiteID: WBU-18-0008 Sample Date: 6/16/2020 IDEM Sample #: AB42530

 Water Flow Type
 Run
 Water Appearance
 Murky
 Water Depth
 ☐ Algae?

 Water Flow (cf/sec):
 ☐ Flow Estimated?
 ☐ Aquatic Life?
 Canopy Closed % 0-20%

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	96.4	%		ASTM D888-09(C)
DO	8.5	mg/L		ASTM D888-09(C)
pH (Field)	7.92	SU		EPA 150.2
Specific Conductance (Field)	592	umho/cm		SM2510B
Temperature	21.7	°C		SM2550B(2)
Turbidity (Hach)	24.7	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction		Lookup		Observation
Wind Strength	3	Lookup		Observation
<b>Lab ID #</b> : 500-183767-15	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	200	mg/L	5	SM2320B
Chloride	20	mg/L	2	EPA 300.0
Hardness (as CaCO3)	240	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	25	mg/L	5	SM2540D
Solids, Total (TS)	520	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	450	mg/L	10	SM2540C
Sulfate	68	mg/L	2	EPA 300.0
Calcium (Total)	61	mg/L	0.2	EPA 200.7
Magnesium (Total)	22	mg/L	0.1	EPA 200.7
COD	16	mg/L	10	SM5220C
Nitrogen, Ammonia	0.2	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	3.1	mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.096		0.05	SM4500P-E
TKN	0.82	mg/L	0.4	SM4500N(Org)-D
TOC	2.4	mg/L	1	SM5310C
<b>Lab ID #</b> : AB42530	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	1010	MPN/100mL	1	SM9223B

SiteID: WBU-18-0008 Sample Date: 6/22/2020 IDEM Sample #: AB42672 **Water Appearance Water Depth** ✓ Algae? Water Flow Type Pool Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 104.5 % ASTM D888-09(C) % Sat DO 9.01 mg/L ASTM D888-09(C) pH (Field) 7.94 SU EPA 150.2 Specific Conductance (Field) 556 umho/cm SM2510B Temperature 22.7 °C SM2550B(2) Turbidity (Hach) 7.72 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 27 Lookup Observation Observation Wind Strength 2 Lookup WBU-18-0008 IDEM Sample #: AB43058 SiteID: Sample Date: 7/8/2020 ☐ Algae? **Water Depth** Water Flow Type Glide **Water Appearance** Green ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 79.3 % ASTM D888-09(C) DO 6.06 mg/L ASTM D888-09(C) pH (Field) 7.83 SU EPA 150.2 Specific Conductance (Field) 662 umho/cm SM2510B 29.3 °C Temperature SM2550B(2) Turbidity (Hach) 32 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation

<b>Lab ID #</b> : 500-184718-14			Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)			220	mg/L	5	SM2320B
Chloride			17	mg/L	2	EPA 300.0
Hardness (as CaCO3)			250	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)			32	mg/L	5	SM2540D
Solids, Total (TS)			490	mg/L	30	SM2540B
Solids, Total Dissolved (TDS)			280	mg/L	30	SM2540C
Sulfate			92	mg/L	4	EPA 300.0
Calcium (Total)			60	mg/L	0.2	EPA 200.7
Magnesium (Total)			23	mg/L	0.1	EPA 200.7
COD			16	mg/L	10	SM5220C
Nitrogen, Ammonia			0.25	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite				mg/L	0.1	SM4500NO3-F
Phosphorus, Total			0.075	•	0.05	SM4500P-E
TKN			0.53	mg/L	0.4	SM4500N(Org)-D
TOC			2.8	mg/L	1	SM5310C
<b>Lab ID #</b> : AB43058			Result		Reporting Limit	<u>Method</u>
Coliforms (Total)			> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli			161.6	MPN/100mL	1	SM9223B
SiteID: WBU-18-0008	Sample Date:	7/15/2020		IDEM Sample	e#: AB42977	
Water Flow Type Pool	-	Appearance	Brown	-	Water Depth	✓ Algae?
					-	_
Water Flow (cf/sec):	□ FIO	w Estimated?	<b>⊻</b> A0	quatic Life?	Canopy Closed %	0-20%
Sampler Comments:						
Lab ID #:			Result		Reporting Limit	<u>Method</u>
% Sat			74.08	%		ASTM D888-09(C)
DO				mg/L		ASTM D888-09(C)
pH (Field)			7.74	-		EPA 150.2
Specific Conductance (Field)			840	umho/cm		SM2510B
Temperature			25	°C		SM2550B(2)
Turbidity (Hach)				NTU		EPA 180.1
A. T.			_			O1 (*

5 Lookup

2 Lookup

27 Lookup

1 Lookup

Air Temp

Sky Conditions

Wind Direction

Wind Strength

Observation

Observation

Observation

Observation

SiteID: WBU-18-0008	<b>Sample Date:</b> 7/15/2020		IDEM Sample	#: AB43078	
Nater Flow Type Run	Water Appearance	Murky	,	Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow Estimated?		uatic Life?	Canopy Closed %	0-20%
Sampler Comments:					
Lab ID #:		Result		Reporting Limit	<u>Method</u>
% Sat		81.8	%		ASTM D888-09(C)
DO		6.63	mg/L		ASTM D888-09(C)
pH (Field)		7.86	SU		EPA 150.2
Specific Conductance (Field)		819	umho/cm		SM2510B
Temperature		26	°C		SM2550B(2)
Turbidity (Hach)		34.3	NTU		EPA 180.1
Air Temp		5	Lookup		Observation
Sky Conditions		2	Lookup		Observation
Wind Direction		18	Lookup		Observation
Wind Strength		1	Lookup		Observation
<b>Lab ID #</b> : AB43078		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
					0110000
E. coli SitelD: WBU-18-0008	Sample Date: 7/22/2020	816.4	MPN/100mL	1 ∍#: AB43098	SM9223B
SiteID: WBU-18-0008	Sample Date: 7/22/2020 Water Appearance	816.4 Brown	IDEM Sample		SM9223B
SiteID: WBU-18-0008 Water Flow Type Run	·	Brown	IDEM Sample	∍#: AB43098	☐ Algae?
SiteID: WBU-18-0008  Water Flow Type Run  Water Flow (cf/sec):	Water Appearance	Brown	IDEM Sample	#: AB43098 Water Depth	☐ Algae?
SiteID: WBU-18-0008  Water Flow Type Run  Water Flow (cf/sec):	Water Appearance  Flow Estimated?	Brown	IDEM Sample	#: AB43098 Water Depth	☐ Algae?
SiteID: WBU-18-0008  Nater Flow Type Run  Nater Flow (cf/sec):  Sampler Comments: Stream  Lab ID #:	Water Appearance  Flow Estimated?	Brown  Ac  Result	IDEM Sample	#: AB43098 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
SiteID: WBU-18-0008  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments: Stream  Lab ID #:  % Sat DO	Water Appearance  Flow Estimated?	Brown  Ac  Result  76.7 6.62	IDEM Sample  quatic Life?  %  mg/L	#: AB43098 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
SiteID: WBU-18-0008  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments: Stream  Lab ID #:  % Sat  DO  pH (Field)	Water Appearance  Flow Estimated?	Brown  Aq  Result  76.7 6.62 7.85	IDEM Sample  quatic Life?  % mg/L SU	#: AB43098 Water Depth Canopy Closed %	O-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WBU-18-0008  Water Flow Type Run  Water Flow (cf/sec): Sampler Comments: Stream  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance  Flow Estimated?	Brown  Result  76.7 6.62 7.85 203	JUEM Sample  Juatic Life?  %  mg/L SU  umho/cm	#: AB43098 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: WBU-18-0008  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments: Stream  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance  Flow Estimated?	Brown  Result  76.7 6.62 7.85 203 22.8	guatic Life?  % mg/L SU umho/cm °C	e#: AB43098  Water Depth  Canopy Closed %  Reporting Limit	O-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WBU-18-0008  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments: Stream  Lab ID #:  % Sat  DO  pH (Field)  Specific Conductance (Field)	Water Appearance  Flow Estimated?	Brown  Result  76.7 6.62 7.85 203	guatic Life?  % mg/L SU umho/cm °C	#: AB43098 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: WBU-18-0008  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments: Stream  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance  Flow Estimated?	Brown  Result  76.7 6.62 7.85 203 22.8 > 1000	guatic Life?  % mg/L SU umho/cm °C	e#: AB43098  Water Depth  Canopy Closed %  Reporting Limit	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: WBU-18-0008  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments: Stream  Lab ID #:  % Sat	Water Appearance  Flow Estimated?	Brown  Result  76.7 6.62 7.85 203 22.8 > 1000 5	IDEM Sample  quatic Life?  % mg/L SU umho/cm °C NTU	e#: AB43098  Water Depth  Canopy Closed %  Reporting Limit	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: WBU-18-0008  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments: Stream  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance  Flow Estimated?	Brown  Result  76.7 6.62 7.85 203 22.8 > 1000 5 4	IDEM Sample  quatic Life?  % mg/L SU umho/cm °C NTU Lookup	e#: AB43098  Water Depth  Canopy Closed %  Reporting Limit	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
SiteID: WBU-18-0008  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments: Stream  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions	Water Appearance  Flow Estimated?	Brown  Result  76.7 6.62 7.85 203 22.8 > 1000 5 4 18	"We will be sometimes of the second s	e#: AB43098  Water Depth  Canopy Closed %  Reporting Limit	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
SiteID: WBU-18-0008  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments: Stream  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance  Flow Estimated?	Brown  Result  76.7 6.62 7.85 203 22.8 > 1000 5 4 18	% mg/L SU umho/cm °C NTU Lookup Lookup	e#: AB43098  Water Depth  Canopy Closed %  Reporting Limit	Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation  Observation  Observation
SiteID: WBU-18-0008  Water Flow Type Run  Water Flow (cf/sec): Sampler Comments: Stream  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water Appearance  Flow Estimated?  flow is up due to recent rain	Brown  ☐ Ac  Result  76.7 6.62 7.85 203 22.8 > 1000 5 4 18 0  Result	% mg/L SU umho/cm °C NTU Lookup Lookup	#: AB43098 Water Depth Canopy Closed %  Reporting Limit	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

**SiteID:** WBU-18-0008 **Sample Date:** 7/29/2020 **IDEM Sample #**: AB43118

Water Flow Type Run Water Appearance Brown Water Depth ✓ Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

Sampler Comments: Water appearance greenish brown

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	102.9	%		ASTM D888-09(C)
DO	8.05	mg/L		ASTM D888-09(C)
pH (Field)	7.91	SU		EPA 150.2
Specific Conductance (Field)	817	umho/cm		SM2510B
Temperature	28	°C		SM2550B(2)
Turbidity (Hach)	32.9	NTU		EPA 180.1
Air Temp	6	Lookup		Observation
Sky Conditions	2	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	0	Lookup		Observation
<b>Lab ID #</b> : AB43118	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	91.1	MPN/100mL	1	SM9223B

	Weather Code Definitions						
S	C		WD	WS	AT		
Sky Co	nditions	V	Vind Direction	Wind Strength	Air Temp		
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32		
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45		
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60		
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75		
5 - Mist				4 - Mod./Strong	5 - 76-85		
6 - Fog				5 - Strong	6 - > 86		
7 - Shower				6 - Gale			

SiteID: WBU-18-0009 USGS Hydrologic Unit: 051201111802 Stream Name: Tilley Ditch County: Knox Description: E Pepmeir Road Latitude: 38 50 6.57523 Longitude: -87 21 47.52254 Site Number: 20T-006 Drainage: SiteID: WBU-18-0009 Sample Date: 6/15/2020 IDEM Sample #: AB42541 ☐ Algae? Clear **Water Depth** Water Flow Type Run **Water Appearance** ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 114.8 % ASTM D888-09(C) % Sat DO 9.94 mg/L ASTM D888-09(C) pH (Field) 7.68 SU EPA 150.2 Specific Conductance (Field) 607 umho/cm SM2510B 22.4 °C Temperature SM2550B(2) Turbidity (Hach) 10.4 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions Observation 1 Lookup

Wind Direction Wind Strength	9 Lookup 1 Lookup		Observation Observation		
wind Strength	1 Lookup		Observation		
<b>Lab ID #</b> : 500-183767-9	Result	Reporting Limit	<u>Method</u>		
Alkalinity (as CaCO3)	200 mg/L	5	SM2320B		
Chloride	20 mg/L	2	EPA 300.0		
Hardness (as CaCO3)	250 mg/L	0.91	SM2340B		
Solids, Suspended Total, (TSS)	13 mg/L	5	SM2540D		
Solids, Total (TS)	440 mg/L	10	SM2540B		
Solids, Total Dissolved (TDS)	430 mg/L	10	SM2540C		
Sulfate	79 mg/L	2	EPA 300.0		
Calcium (Total)	65 mg/L	0.2	EPA 200.7		
Magnesium (Total)	22 mg/L	0.1	EPA 200.7		
COD	37 mg/L	10	SM5220C		
Nitrogen, Ammonia	0.22 mg/L	0.2	SM4500NH3-G		
Nitrogen, Nitrate+Nitrite	3 mg/L	0.5	SM4500NO3-F		
Phosphorus, Total	0.068 mg/L	0.05	SM4500P-E		
TKN	0.7 mg/L	0.4	SM4500N(Org)-D		
TOC	2.4 mg/L	1	SM5310C		
<b>Lab ID #</b> : AB42541	Result	Reporting Limit	<u>Method</u>		
Coliforms (Total)	> 2419.6 MPN/100	mL 2419.6	SM9223B		
E. coli	61.6 MPN/100	mL 1	SM9223B		

SiteID: WBU-18-0009	<b>Sample Date:</b> 7/7/2020	IDEM Samp	ole #: AB43069	
Nater Flow Type Run	Water Appearance	Clear	Water Depth	☐ Algae?
Nater Flow (cf/sec):	☐ Flow Estimated?	☐ Aquatic Life?	Canopy Closed %	0-20%
Sampler Comments:				
Lab ID #:		Result	Reporting Limit	<u>Method</u>
% Sat		135.2 %		ASTM D888-09(C)
DO		10.82 mg/L		ASTM D888-09(C)
pH (Field)		7.81 SU		EPA 150.2
Specific Conductance (Field)		559 umho/cm		SM2510B
Temperature		26.8 °C		SM2550B(2)
Turbidity (Hach)		9.17 NTU		EPA 180.1
Air Temp		6 Lookup		Observation
Sky Conditions		3 Lookup		Observation
Wind Direction		9 Lookup		Observation
Wind Strength		1 Lookup		Observation
<b>Lab ID #:</b> 500-184718-8		Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		210 mg/L	5	SM2320B
Chloride		15 mg/L	2	EPA 300.0
Hardness (as CaCO3)		260 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		13 mg/L	5	SM2540D
Solids, Total (TS)		390 mg/L	30	SM2540B
Solids, Total Dissolved (TDS)		230 mg/L	30	SM2540C
Sulfate		51 mg/L	2	EPA 300.0
Calcium (Total)		66 mg/L	0.2	EPA 200.7
Magnesium (Total)		23 mg/L	0.1	EPA 200.7
COD		13 mg/L	10	SM5220C
Nitrogen, Ammonia		0.17 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		2.2 mg/L	0.5	SM4500NO3-F
Phosphorus, Total		0.055 mg/L	0.05	SM4500P-E
TKN		0.37 mg/L	0.4	SM4500N(Org)-D
TOC		2.4 mg/L	1	SM5310C
<b>Lab ID #</b> : AB43069		Result	Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6 MPN/100ml	_ 2419.6	SM9223B
E. coli		125 MPN/100ml	_ 1	SM9223B

SiteID: WBU-18-0009 Sample Date: IDEM Sample #: AB42962 7/13/2020 **Water Depth** ✓ Algae? Water Flow Type Pool **Water Appearance** Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% Forgot isopropanal and jars. Collected into jar of water, then picked up rubbing alcohol and mason jars at **Sampler Comments:** store immediately after and preserved. Lab ID #: **Reporting Limit** Result **Method** % Sat 89.2 % ASTM D888-09(C) DO ASTM D888-09(C) 8.08 mg/L pH (Field) 7.71 SU EPA 150.2 Specific Conductance (Field) 702 umho/cm SM2510B Temperature 20.119 °C SM2550B(2) Turbidity (Hach) 5.49 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 0 Lookup Observation SiteID: WBU-18-0009 Sample Date: IDEM Sample #: AB43089 7/14/2020 ✓ Algae? Water Flow Type Run Water Appearance Clear Water Depth ☐ Flow Estimated? Water Flow (cf/sec): □ Aquatic Life? Canopy Closed % **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 120.3 % % Sat ASTM D888-09(C) DO 10.2 mg/L ASTM D888-09(C) pH (Field) 7.55 SU EPA 150.2 Specific Conductance (Field) 587 umho/cm SM2510B 23.5 °C Temperature SM2550B(2) Turbidity (Hach) 9.58 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 27 Lookup Observation Wind Strength Observation 0 Lookup Lab ID #: AB43089 Result **Reporting Limit** <u>Method</u> Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B E. coli 24.5 MPN/100mL 1 SM9223B

SiteID: WBU-18-0009 Sample Date: 7/21/2020 IDEM Sample #: AB43109 **Water Depth** ✓ Algae? Water Flow Type Riffle Water Appearance Clear ☐ Flow Estimated? **✓** Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 115.6 % ASTM D888-09(C) % Sat DO 9.87 mg/L ASTM D888-09(C) 7.6 SU pH (Field) EPA 150.2 Specific Conductance (Field) 554 umho/cm SM2510B Temperature 23.1 °C SM2550B(2) Turbidity (Hach) 6.47 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength 1 Lookup Observation Lab ID #: AB43109 **Reporting Limit** Result **Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B E. coli 72.8 MPN/100mL 1 SM9223B SiteID: WBU-18-0009 Sample Date: IDEM Sample #: AB43129 7/28/2020 ✓ Algae? Water Flow Type Water Appearance Clear **Water Depth** Run Water Flow (cf/sec): Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Reporting Limit **Method** Result % Sat 98.5 % ASTM D888-09(C) DO 8.31 mg/L ASTM D888-09(C) pH (Field) 7.53 SU EPA 150.2 Specific Conductance (Field) 555 umho/cm SM2510B 23.8 °C Temperature SM2550B(2) Turbidity (Hach) 12.4 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation Lab ID #: AB43129 Result **Reporting Limit Method** > 2419.6 MPN/100mL 2419.6 Coliforms (Total) SM9223B E. coli 151.5 MPN/100mL 1 SM9223B

<b>Weather Code Definitions</b>						
S	SC WD		WS	AT		
Sky Co	nditions	Wind Direction		Wind Strength	Air Temp	
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32	
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45	
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60	
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75	
5 - Mist				4 - Mod./Strong	5 - 76-85	
6 - Fog				5 - Strong	6 - > 86	
7 - Shower				6 - Gale		

SiteID: WBU-18-0010 USGS Hydrologic Unit: 051201111802 Stream Name: Tributary of Maria Creek County: Knox County Road 700 E, Lane Road Description: Latitude: 38 51 17.67748 Longitude: -87 20 3.32353 Site Number: 20T-007 Drainage: SiteID: WBU-18-0010 Sample Date: 6/15/2020 IDEM Sample #: AB42538 ☐ Algae? Clear Water Flow Type Run **Water Appearance Water Depth** ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 170.8 % % Sat ASTM D888-09(C) DO 14.65 mg/L ASTM D888-09(C) pH (Field) 8.2 SU EPA 150.2 Specific Conductance (Field) 608 umho/cm SM2510B 22.9 °C Temperature SM2550B(2) Turbidity (Hach) 4.4 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions 1 Lookup Observation

,				
Wind Direction	9	Lookup		Observation
Wind Strength	1	Lookup		Observation
Lab ID #: 500-183767-6	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	160	mg/L	5	SM2320B
Chloride	54	mg/L	2	EPA 300.0
Hardness (as CaCO3)	230	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	7	mg/L	5	SM2540D
Solids, Total (TS)	400	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	430	mg/L	10	SM2540C
Sulfate	45	mg/L	2	EPA 300.0
Calcium (Total)	57	mg/L	0.2	EPA 200.7
Magnesium (Total)	21	mg/L	0.1	EPA 200.7
COD	17	mg/L	10	SM5220C
Nitrogen, Ammonia	0.18	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	6.1	mg/L	1	SM4500NO3-F
Phosphorus, Total	0.067	mg/L	0.05	SM4500P-E
TKN	1	mg/L	0.4	SM4500N(Org)-D
TOC	3	mg/L	1	SM5310C
<b>Lab ID #</b> : AB42538	Result		Reporting Limit	Method
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	816.4	MPN/100mL	1	SM9223B

SiteID: WBU-18-0010 Sample Date: 6/22/2020 IDEM Sample #: AB42674 **Water Appearance Water Depth** ✓ Algae? Water Flow Type Glide Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 173.6 % ASTM D888-09(C) % Sat DO 14.62 mg/L ASTM D888-09(C) pH (Field) 8.25 SU EPA 150.2 Specific Conductance (Field) 638 umho/cm SM2510B Temperature 23.9 °C SM2550B(2) Turbidity (Hach) 5.41 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 27 Lookup Observation Observation Wind Strength 2 Lookup WBU-18-0010 IDEM Sample #: AB43066 SiteID: Sample Date: 7/7/2020 ✓ Algae? **Water Depth** Water Flow Type Glide **Water Appearance** Clear ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 173.8 % ASTM D888-09(C) DO 12.77 mg/L ASTM D888-09(C) pH (Field) 8.53 SU EPA 150.2 Specific Conductance (Field) 586 umho/cm SM2510B 30.7 °C Temperature SM2550B(2) Turbidity (Hach) 6.65 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 9 Lookup Observation Wind Strength 0 Lookup Observation

<b>Lab ID #</b> : 500-184718-5	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	160	mg/L	5	SM2320B
Chloride	71	mg/L	2	EPA 300.0
Hardness (as CaCO3)	190	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	9	mg/L	5	SM2540D
Solids, Total (TS)	390	mg/L	30	SM2540B
Solids, Total Dissolved (TDS)	270	mg/L	30	SM2540C
Sulfate	42	mg/L	2	EPA 300.0
Calcium (Total)	41	mg/L	0.2	EPA 200.7
Magnesium (Total)	22	mg/L	0.1	EPA 200.7
COD	24	mg/L	10	SM5220C
Nitrogen, Ammonia	0.19	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.22	mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.068	mg/L	0.05	SM4500P-E
TKN	0.93	mg/L	0.4	SM4500N(Org)-D
TOC	6.5	mg/L	1	SM5310C
<b>Lab ID #</b> : AB43066	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	2419.6	MPN/100mL	1	SM9223B

SiteID: WBU-18-0010 **Sample Date:** 7/13/2020 IDEM Sample #: AB42970

✓ Algae? Water Flow Type Stagnant **Water Appearance** Murky **Water Depth** 

**✓** Aquatic Life? ☐ Flow Estimated? Water Flow (cf/sec): Canopy Closed % 0-20%

**Sampler Comments:** Nearly no flow. Lots of filamentous algae. Warm like dirty bath water. Very small unionid found, picture

taken. Added to bench sheet.

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	166.1	%		ASTM D888-09(C)
DO	12.92	mg/L		ASTM D888-09(C)
pH (Field)	8.32	SU		EPA 150.2
Specific Conductance (Field)	758	umho/cm		SM2510B
Temperature	28.27	°C		SM2550B(2)
Turbidity (Hach)	13.8	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	2	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	2	Lookup		Observation

SiteID: WBU-18-0010 Sample Date: 7/14/2020 IDEM Sample #: AB43086 **Water Depth** ✓ Algae? Water Flow Type Pool **Water Appearance** Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 94.3 % % Sat ASTM D888-09(C) DO 7.8 mg/L ASTM D888-09(C) 7.69 SU pH (Field) EPA 150.2 Specific Conductance (Field) 737 umho/cm SM2510B Temperature 24.9 °C SM2550B(2) Turbidity (Hach) 8.39 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43086 **Reporting Limit** Result **Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B E. coli 727 MPN/100mL 1 SM9223B SiteID: WBU-18-0010 Sample Date: IDEM Sample #: AB43106 7/21/2020 ✓ Algae? Water Flow Type Pool Water Appearance Clear **Water Depth** ☐ Flow Estimated? Water Flow (cf/sec): ✓ Aquatic Life? Canopy Closed % 0-20% Sampler Comments: Very low flow. Stream nearly pooled. Lab ID #: Reporting Limit **Method** Result 76 % % Sat ASTM D888-09(C) DO ASTM D888-09(C) 6.02 mg/L 8.27 SU pH (Field) EPA 150.2 Specific Conductance (Field) 590 umho/cm SM2510B 21.1 °C Temperature SM2550B(2) Turbidity (Hach) 11.9 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 4 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength 1 Lookup Observation Lab ID #: AB43106 Result **Reporting Limit Method** > 2419.6 MPN/100mL Coliforms (Total) 2419.6 SM9223B E. coli > 2419.6 MPN/100mL 2419.6 SM9223B

**SiteID:** WBU-18-0010 **Sample Date:** 7/28/2020 **IDEM Sample #**: AB43126

Water Flow Type Pool Water Appearance Clear Water Depth 

Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

**Sampler Comments:** Very low flow. Stream nearly pooled.

Lab ID #:	<u>Result</u>		Reporting Limit	<u>Method</u>
% Sat	97.7 %			ASTM D888-09(C)
DO	7.77 mg	g/L		ASTM D888-09(C)
pH (Field)	7.88 SL	J		EPA 150.2
Specific Conductance (Field)	455 um	nho/cm		SM2510B
Temperature	27.1 °C			SM2550B(2)
Turbidity (Hach)	6.85 NT	Ū		EPA 180.1
Air Temp	5 Lo	okup		Observation
Sky Conditions	1 Lo	okup		Observation
Wind Direction	27 Lo	okup		Observation
Wind Strength	1 Lo	okup		Observation
<b>Lab ID #</b> : AB43126	<u>Result</u>		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6 MF	PN/100mL	2419.6	SM9223B
E. coli	1986.3 MF	PN/100mL	1	SM9223B

	Weather Code Definitions				
S	C		WD	WS	AT
Sky Co	nditions	V	Vind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

SiteID: WBU-18-0011 USGS Hydrologic Unit: 051201111802 Stream Name: Tributary of Maria Creek County: Knox County Road 900 N, E Lower Freelandvill Latitude: Description: 38 51 29.73365 Longitude: Site Number: 20T-008 Drainage: SiteID: WBU-18-0011 Sample Date: 6/15/2020 IDEM Sample #: AB42540 ☐ Algae? Clear Water Flow Type Run **Water Appearance Water Depth** ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 115.9 % % Sat ASTM D888-09(C) DO 10.31 mg/L ASTM D888-09(C) pH (Field) 7.99 SU EPA 150.2 Specific Conductance (Field) 558 umho/cm SM2510B 21 °C Temperature SM2550B(2) Turbidity (Hach) 7.43 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 9 Lookup Observation

Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : 500-183767-8	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	220	mg/L	5	SM2320B
Chloride	21	mg/L	2	EPA 300.0
Hardness (as CaCO3)	280	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	9	mg/L	5	SM2540D
Solids, Total (TS)	390	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	390	mg/L	10	SM2540C
Sulfate	25	mg/L	2	EPA 300.0
Calcium (Total)	69	mg/L	0.2	EPA 200.7
Magnesium (Total)	25	mg/L	0.1	EPA 200.7
COD	16	mg/L	10	SM5220C
Nitrogen, Ammonia	0.26	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	5	mg/L	1	SM4500NO3-F
Phosphorus, Total	0.065	mg/L	0.05	SM4500P-E
TKN	0.87	mg/L	0.4	SM4500N(Org)-D
TOC	2.3	mg/L	1	SM5310C
<b>Lab ID #</b> : AB42540	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	488.4	MPN/100mL	1	SM9223B

SiteID: WBU-18-0011 Sample Date: 6/22/2020 IDEM Sample #: AB42675 **Water Appearance Water Depth** ✓ Algae? Water Flow Type Pool Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 104.5 % ASTM D888-09(C) % Sat DO 9.01 mg/L ASTM D888-09(C) pH (Field) 7.94 SU EPA 150.2 Specific Conductance (Field) 556 umho/cm SM2510B Temperature 22.7 °C SM2550B(2) Turbidity (Hach) 7.72 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 27 Lookup Observation Observation Wind Strength 2 Lookup WBU-18-0011 IDEM Sample #: AB43068 SiteID: Sample Date: 7/7/2020 ☐ Algae? **Water Depth** Water Flow Type Glide **Water Appearance** Murky ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 113.1 % ASTM D888-09(C) DO 8.89 mg/L ASTM D888-09(C) pH (Field) 8.01 SU EPA 150.2 Specific Conductance (Field) 579 umho/cm SM2510B 27.6 °C Temperature SM2550B(2) Turbidity (Hach) 20.9 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions Observation 3 Lookup Wind Direction 9 Lookup Observation Wind Strength 0 Lookup Observation

<b>Lab ID #</b> : 500-184718-7		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		250	mg/L	5	SM2320B
Chloride		18	mg/L	2	EPA 300.0
Hardness (as CaCO3)		300	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		20	mg/L	5	SM2540D
Solids, Total (TS)		380	mg/L	30	SM2540B
Solids, Total Dissolved (TDS)		240	mg/L	30	SM2540C
Sulfate		23	mg/L	2	EPA 300.0
Calcium (Total)		73	mg/L	0.2	EPA 200.7
Magnesium (Total)		28	mg/L	0.1	EPA 200.7
COD		13	mg/L	10	SM5220C
Nitrogen, Ammonia		0.18	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		1.4	mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.067	mg/L	0.05	SM4500P-E
TKN			mg/L	0.4	SM4500N(Org)-D
TOC		3.3	mg/L	1	SM5310C
<b>Lab ID #</b> : AB43068		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
Coliforms (Total) E. coli			MPN/100mL MPN/100mL	2419.6 1	SM9223B SM9223B
E. coli			MPN/100mL	1	
E. coli SiteID: WBU-18-0011	Sample Date: 7/13/2020	727	MPN/100mL  IDEM Sample	1 #: AB42969	SM9223B
E. coli	Sample Date: 7/13/2020 Water Appearance	727 Murky	MPN/100mL  IDEM Sample	1	
E. coli SiteID: WBU-18-0011	-	727 Murky	MPN/100mL  IDEM Sample	1 #: AB42969	SM9223B  ✓ Algae?
E. coli SiteID: WBU-18-0011 Water Flow Type Pool	Water Appearance	727 Murky	MPN/100mL  IDEM Sample	1 #: AB42969 /ater Depth	SM9223B  ✓ Algae?
E. coli SiteID: WBU-18-0011 Water Flow Type Pool Water Flow (cf/sec):	Water Appearance	727 Murky	MPN/100mL  IDEM Sample	1 #: AB42969 /ater Depth	SM9223B  ✓ Algae?
SiteID: WBU-18-0011 Water Flow Type Pool Water Flow (cf/sec): Sampler Comments:	Water Appearance	Murky	MPN/100mL  IDEM Sample  Watic Life?	#: AB42969 Vater Depth Canopy Closed %	SM9223B  ✓ Algae? 0-20%
E. coli  SiteID: WBU-18-0011  Water Flow Type Pool  Water Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Murky  Ac  Result  136.4	MPN/100mL  IDEM Sample  Watic Life?	#: AB42969 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method
E. coli  SiteID: WBU-18-0011  Nater Flow Type Pool  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Murky  Ac  Result  136.4 10.8	IDEM Sample Wiguatic Life?	#: AB42969 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WBU-18-0011  Nater Flow Type Pool  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water Appearance	Murky  Result  136.4 10.8 8	IDEM Sample Waquatic Life?  % mg/L	#: AB42969 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
E. coli  SiteID: WBU-18-0011  Nater Flow Type Pool  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	Murky  Result  136.4 10.8 8	MPN/100mL  IDEM Sample  Wiquatic Life?  % mg/L SU umho/cm	#: AB42969 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WBU-18-0011 Water Flow Type Pool Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Murky  Ac  Result  136.4  10.8  8  526  27.09	MPN/100mL  IDEM Sample  Wiquatic Life?  % mg/L SU umho/cm	#: AB42969 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli  SiteID: WBU-18-0011  Nater Flow Type Pool  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	Murky  Result  136.4 10.8 8 526 27.09 12.8	MPN/100mL  IDEM Sample  Wiguatic Life?  % mg/L SU umho/cm °C	#: AB42969 Vater Depth Canopy Closed %	SM9223B  ✓ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)

27 Lookup

1 Lookup

Wind Direction

Wind Strength

Observation

Observation

SiteID: WBU-18-0011 Sample Date: 7/14/2020 IDEM Sample #: AB43088 **Water Depth** ✓ Algae? Water Flow Type Run Water Appearance Clear ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 80.1 % ASTM D888-09(C) % Sat DO 6.86 mg/L ASTM D888-09(C) 7.61 SU pH (Field) EPA 150.2 Specific Conductance (Field) 554 umho/cm SM2510B Temperature 22.9 °C SM2550B(2) Turbidity (Hach) 17.2 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43088 **Reporting Limit** Result **Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B E. coli 1732.9 MPN/100mL 1 SM9223B SiteID: WBU-18-0011 Sample Date: IDEM Sample #: AB43108 7/21/2020 ✓ Algae? Water Flow Type Water Appearance Clear **Water Depth** Run ☐ Flow Estimated? Water Flow (cf/sec): ✓ Aquatic Life? Canopy Closed % 0-20% Sampler Comments: Very low flow Lab ID #: Reporting Limit **Method** Result % Sat 44.2 % ASTM D888-09(C) DO ASTM D888-09(C) 3.6 mg/L pH (Field) 7.41 SU EPA 150.2 Specific Conductance (Field) 498 umho/cm SM2510B 25.7 °C Temperature SM2550B(2) Turbidity (Hach) 25.3 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength 1 Lookup Observation Lab ID #: AB43108 Result **Reporting Limit Method** > 2419.6 MPN/100mL Coliforms (Total) 2419.6 SM9223B E. coli > 2419.6 MPN/100mL 2419.6 SM9223B

**SiteID:** WBU-18-0011 **Sample Date:** 7/28/2020 **IDEM Sample #**: AB43128

Water Flow Type Run Water Appearance Clear Water Depth ✓ Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

Sampler Comments: Very low flow

Lab ID #:	<u>Result</u>		Reporting Limit	<u>Method</u>
% Sat	52.1	%		ASTM D888-09(C)
DO	4.27	mg/L		ASTM D888-09(C)
pH (Field)	7.54	SU		EPA 150.2
Specific Conductance (Field)	567	umho/cm		SM2510B
Temperature	25.4	°C		SM2550B(2)
Turbidity (Hach)	9.97	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : AB43128	<u>Result</u>		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	1553.1	MPN/100mL	1	SM9223B

Weather Code Definitions					
S	C		WD	WS	AT
Sky Co	nditions	1	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

SiteID: WBU-18-0013 USGS Hydrologic Unit: 051201111802 County: Knox Stream Name: Maria Creek Description: **Latitude**: 38 51 30.84594 **Longitude**: County Road 900 N -87 21 12.18373 Site Number: 20T-009 Drainage: SiteID: WBU-18-0013 Sample Date: 6/15/2020 IDEM Sample #: AB42539 Clear ☐ Algae? Water Flow Type Run **Water Appearance** Water Depth ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** 

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	140.9	%		ASTM D888-09(C)
DO	12.44	mg/L		ASTM D888-09(C)
pH (Field)	8.28	SU		EPA 150.2
Specific Conductance (Field)	627	umho/cm		SM2510B
Temperature	21.3	°C		SM2550B(2)
Turbidity (Hach)	12.2	NTU		EPA 180.1
Air Temp	4	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	9	Lookup		Observation
Wind Strength	3	Lookup		Observation
<b>Lab ID #</b> : 500-183767-7	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	160	mg/L	5	SM2320B
Chloride	22	mg/L	2	EPA 300.0
Hardness (as CaCO3)	200	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	13	mg/L	5	SM2540D
Solids, Total (TS)	430	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	460	mg/L	10	SM2540C
Sulfate	120	mg/L	4	EPA 300.0
Calcium (Total)	48	mg/L	0.2	EPA 200.7
Magnesium (Total)	19	mg/L	0.1	EPA 200.7
COD	19	mg/L	10	SM5220C
Nitrogen, Ammonia	0.14	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	2.5	mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.065	mg/L	0.05	SM4500P-E
TKN	0.68	mg/L	0.4	SM4500N(Org)-D
TOC	3	mg/L	1	SM5310C
<b>Lab ID #</b> : AB42539	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	121.1	MPN/100mL	1	SM9223B

SiteID: WBU-18-0013 Sample Date: 6/23/2020 IDEM Sample #: AB42676 Water Appearance **Water Depth** ✓ Algae? Water Flow Type ☐ Flow Estimated? **✓** Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 118.5 % ASTM D888-09(C) % Sat DO 9.98 mg/L ASTM D888-09(C) pH (Field) 8.23 SU EPA 150.2 Specific Conductance (Field) 714 umho/cm SM2510B Temperature 23.9 °C SM2550B(2) Turbidity (Hach) 10.4 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 3 Lookup Observation Wind Direction 27 Lookup Observation Observation Wind Strength 1 Lookup WBU-18-0013 IDEM Sample #: AB43067 SiteID: Sample Date: 7/7/2020 ☐ Algae? **Water Depth** Water Flow Type Riffle **Water Appearance** Murky ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 90.1 % ASTM D888-09(C) DO 7.02 mg/L ASTM D888-09(C) pH (Field) 8.14 SU EPA 150.2 Specific Conductance (Field) 1014 umho/cm SM2510B 28.1 °C Temperature SM2550B(2) Turbidity (Hach) 13.7 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions 3 Lookup Observation Wind Direction 9 Lookup Observation Wind Strength 0 Lookup Observation

<b>Lab ID #</b> : 500-184718-6		Result		Reporting Limit	Method
Alkalinity (as CaCO3)		180	mg/L	5	SM2320B
Chloride		23	mg/L	2	EPA 300.0
Hardness (as CaCO3)		170	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		30	mg/L	5	SM2540D
Solids, Total (TS)		760	mg/L	30	SM2540B
Solids, Total Dissolved (TDS)		590	mg/L	30	SM2540C
Sulfate		280	mg/L	10	EPA 300.0
Calcium (Total)		36	mg/L	0.2	EPA 200.7
Magnesium (Total)		19	mg/L	0.1	EPA 200.7
COD		13	mg/L	10	SM5220C
Nitrogen, Ammonia		0.15	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		< 0.1	mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.05	mg/L	0.05	SM4500P-E
TKN		0.52	mg/L	0.4	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
<b>Lab ID #:</b> AB43067		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		59.8	MPN/100mL	1	SM9223B
SiteID: WBU-18-0013 Water Flow Type Pool	Sample Date: 7/13/2020 Water Appearance	Green	•	e#: AB42968 Water Depth	✔ Algae?
valer flow type 1 001	- Water Appearance			water Deptil	Magae:
Water Flow (cf/sec): Sampler Comments:	☐ Flow Estimated?	<b>✓</b> Ac	quatic Life?	Canopy Closed %	0-20%
Lab ID #:		Result		Reporting Limit	<u>Method</u>
% Sat		169.7	%		ASTM D888-09(C)
DO		13.22	mg/L		ASTM D888-09(C)
pH (Field)			SU		EPA 150.2
Specific Conductance (Field)		1255	umho/cm		SM2510B
Temperature		28.091	°C		SM2550B(2)
Turbidity (Hach)			NTU		EPA 180.1
Air Temp			Lookup		Observation
Sky Conditions			Lookup		Observation
Sky Conditions Wind Direction		2	•		

0 Lookup

Wind Strength

Observation

SiteID: WBU-18-0013 Sample Date: 7/14/2020 IDEM Sample #: AB43087 **Water Depth** ✓ Algae? Water Flow Type Run **Water Appearance** Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 104.7 % % Sat ASTM D888-09(C) DO 8.81 mg/L ASTM D888-09(C) 7.97 SU pH (Field) EPA 150.2 Specific Conductance (Field) 1242 umho/cm SM2510B Temperature 23.8 °C SM2550B(2) Turbidity (Hach) 13.4 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43087 **Reporting Limit** Result **Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B E. coli 30 MPN/100mL 1 SM9223B SiteID: WBU-18-0013 Sample Date: IDEM Sample #: AB43107 7/21/2020 ✓ Algae? Water Flow Type Water Appearance Clear **Water Depth** Riffle Water Flow (cf/sec): Flow Estimated? ☐ Aquatic Life? Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Reporting Limit **Method** Result % Sat 104.9 % ASTM D888-09(C) DO ASTM D888-09(C) 8.34 mg/L pH (Field) 8.03 SU EPA 150.2 Specific Conductance (Field) 1297 umho/cm SM2510B 26.9 °C Temperature SM2550B(2) Turbidity (Hach) 23.5 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 3 Lookup Wind Direction 18 Lookup Observation Wind Strength 1 Lookup Observation Lab ID #: AB43107 Result **Reporting Limit Method** > 2419.6 MPN/100mL 2419.6 Coliforms (Total) SM9223B E. coli 110.6 MPN/100mL 1 SM9223B

SiteID: WBU-18-0013 Sample Date: 7/28/2020 IDEM Sample #: AB43127 ☐ Algae? **Water Appearance** Murky **Water Depth** Water Flow Type Run ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: <u>Method</u> Result **Reporting Limit** % Sat 93.7 % ASTM D888-09(C) DO 7.6 mg/L ASTM D888-09(C) 7.9 SU pH (Field) EPA 150.2 Specific Conductance (Field) 873 umho/cm SM2510B Temperature 25.8 °C SM2550B(2) Turbidity (Hach) 52.7 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation Observation Wind Strength 1 Lookup Lab ID #: AB43127 **Reporting Limit** Result **Method** E. coli 613.1 MPN/100mL SM9223B

Result

34480 MPN/100mL

**Reporting Limit** 

100

		W	eather Code Def	initions	
Sky Co	C nditions	,	WD Vind Direction	WS Wind Strength	AT Air Temp
1 - Clear 2 - Scattered 3 - Partly 4 - Cloudy 5 - Mist 6 - Fog 7 - Shower	8 - Rain 9 - Snow 10 - Sleet	0 9 18 27	North (0 Degrees) East (90 Degrees) South (180 Degrees) West (270 Degrees)	0 - Calm 1 - Light 2 - Mod./Light 3 - Moderate 4 - Mod./Strong 5 - Strong 6 - Gale	1 - < 32 2 - 33-45 3 - 46-60 4 - 61-75 5 - 76-85 6 - > 86

Lab ID #: AB43127a

Coliforms (Total)

**Method** 

SM9223B

☐ Flow Estimated?

SiteID: WBU190-0001 USGS Hydrologic Unit: 051201111803 Stream Name: Marsh Creek County: Knox Description: E Springtown Road **Latitude:** 38 49 42.46832 **Longitude:** Drainage: Site Number: 20T-010 23 SiteID: WBU190-0001 Sample Date: 6/16/2020 IDEM Sample #: AB42529 Clear ☐ Algae? Water Flow Type Run **Water Appearance** Water Depth

☐ Aquatic Life?

Canopy Closed % 0-20%

Water Flow (cf/sec): Sampler Comments:

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	117.5	%		ASTM D888-09(C)
DO	10.28 r	mg/L		ASTM D888-09(C)
pH (Field)	8.14 \$	SU		EPA 150.2
Specific Conductance (Field)	1006 ເ	umho/cm		SM2510B
Temperature	21.8	C.		SM2550B(2)
Turbidity (Hach)	5.22	NTU		EPA 180.1
Air Temp	5 L	_ookup		Observation
Sky Conditions	1 L	_ookup		Observation
Wind Direction	9 L	_ookup		Observation
Wind Strength	3 l	Lookup		Observation
<b>Lab ID #</b> : 500-183767-14	<u>Result</u>		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	180 r	mg/L	5	SM2320B
Chloride	80 r	mg/L	10	EPA 300.0
Hardness (as CaCO3)	320 r	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	9.5 r	mg/L	5	SM2540D
Solids, Total (TS)	800 r	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	760 r	mg/L	10	SM2540C
Sulfate	210 r	mg/L	10	EPA 300.0
Calcium (Total)	90 r	mg/L	0.2	EPA 200.7
Magnesium (Total)	23 r	mg/L	0.1	EPA 200.7
COD	16 r	mg/L	10	SM5220C
Nitrogen, Ammonia	0.32 r	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	2.9 r	mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.065 r	mg/L	0.05	SM4500P-E
TKN	0.61 r		0.4	SM4500N(Org)-D
TOC	2 r	mg/L	1	SM5310C
<b>Lab ID #</b> : AB42529	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	365.4 M	MPN/100mL	1	SM9223B

SiteID: WBU190-0001 Sample Date: 6/22/2020 IDEM Sample #: AB42677 **Water Appearance Water Depth** ✓ Algae? Water Flow Type Glide Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 116 % ASTM D888-09(C) % Sat DO 10.01 mg/L ASTM D888-09(C) pH (Field) 8.06 SU EPA 150.2 Specific Conductance (Field) 1055 umho/cm SM2510B Temperature 22.6 °C SM2550B(2) Turbidity (Hach) 4.33 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 9 Lookup Observation Observation Wind Strength 1 Lookup WBU190-0001 IDEM Sample #: AB43057 SiteID: Sample Date: 7/8/2020 ✓ Algae? **Water Depth** Water Flow Type Run **Water Appearance** Clear ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 129 % ASTM D888-09(C) DO 9.93 mg/L ASTM D888-09(C) pH (Field) 8.15 SU EPA 150.2 Specific Conductance (Field) 854 umho/cm SM2510B 28.9 °C Temperature SM2550B(2) Turbidity (Hach) 5.62 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation

<b>Lab ID #:</b> 500-184718-13		<u>Result</u>		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		180	mg/L	5	SM2320B
Chloride		66	mg/L	2	EPA 300.0
Hardness (as CaCO3)		280	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		9.5	mg/L	5	SM2540D
Solids, Total (TS)		590	mg/L	30	SM2540B
Solids, Total Dissolved (TDS)		380	mg/L	30	SM2540C
Sulfate		150	mg/L	4	EPA 300.0
Calcium (Total)		76	mg/L	0.2	EPA 200.7
Magnesium (Total)		22	mg/L	0.1	EPA 200.7
COD		9.8	mg/L	10	SM5220C
Nitrogen, Ammonia		0.2	-	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			mg/L	0.1	SM4500NO3-F
Phosphorus, Total			mg/L	0.05	SM4500P-E
TKN		0.36	mg/L	0.4	SM4500N(Org)-D
TOC		2.7	mg/L	1	SM5310C
<b>Lab ID #:</b> AB43057		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		118.2	MPN/100mL	1	SM9223B
<b>SiteID:</b> WBU190-0001	<b>Sample Date:</b> 7/14/2020		IDEM Sample	#: AB42967	_
Water Flow Type Run	Water Appearance	Clear	V	Vater Depth	✓ Algae?
Water Flow (cf/sec): Sampler Comments:	☐ Flow Estimated?	<b>✓</b> Aqı	uatic Life?	Canopy Closed %	0-20%
Lab ID #:		Result		Reporting Limit	<u>Method</u>
% Sat	-	163.5	%		ASTM D888-09(C
DO		11.71	mg/L		ASTM D888-09(C
pH (Field)		8.5	SU		EPA 150.2
O'(' O		972	umho/cm		SM2510B
Specific Conductance (Field)		013	ullilo/clll		310123100
Temperature		33.1			SM2550B(2)
			°C		
Temperature		33.1 14.7	°C		SM2550B(2)

2 Lookup

27 Lookup

1 Lookup

Sky Conditions

Wind Direction

Wind Strength

Observation

Observation

Observation

SiteID: WBU190-0001 Sample Date: 7/15/2020 IDEM Sample #: AB43077 **Water Depth** ✓ Algae? Water Flow Type Run **Water Appearance** Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 108.1 % % Sat ASTM D888-09(C) DO 9.1 mg/L ASTM D888-09(C) 7.95 SU pH (Field) EPA 150.2 Specific Conductance (Field) 841 umho/cm SM2510B 23.8 °C Temperature SM2550B(2) Turbidity (Hach) 4.34 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43077 **Reporting Limit** Result **Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B E. coli 325.5 MPN/100mL 1 SM9223B SiteID: WBU190-0001 Sample Date: IDEM Sample #: AB43097 7/22/2020 ☐ Algae? Water Flow Type Water Appearance Brown **Water Depth** Run ☐ Flow Estimated? Water Flow (cf/sec): ☐ Aquatic Life? Canopy Closed % 0-20% Sampler Comments: Stream flow is up due to recent rain Lab ID #: Reporting Limit **Method** Result % Sat 82.2 % ASTM D888-09(C) DO 6.93 mg/L ASTM D888-09(C) pH (Field) 7.7 SU EPA 150.2 Specific Conductance (Field) 624 umho/cm SM2510B 23.9 °C Temperature SM2550B(2) Turbidity (Hach) 213 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43097a Result **Reporting Limit Method** > 241960 MPN/100mL Coliforms (Total) 241960 SM9223B E. coli 5810 MPN/100mL 100 SM9223B

**SiteID**: WBU190-0001 **Sample Date**: 7/29/2020 **IDEM Sample #**: AB43117

Water Flow Type Riffle Water Appearance Clear Water Depth Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	128.3	%		ASTM D888-09(C)
DO	9.32	mg/L		ASTM D888-09(C)
pH (Field)	8.13	SU		EPA 150.2
Specific Conductance (Field)	716	umho/cm		SM2510B
Temperature	32.2	°C		SM2550B(2)
Turbidity (Hach)	7.34	NTU		EPA 180.1
Air Temp	6	Lookup		Observation
Sky Conditions	2	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : AB43117	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	189.2	MPN/100mL	1	SM9223B

		W	eather Code Def	initions	
S	C		WD	WS	AT
Sky Co	nditions	1	Vind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

SiteID:WBU-18-0012USGS Hydrologic Unit:051201111803Stream Name:Marsh CreekCounty:Knox

**Description:** E Hunley Road **Latitude:** 38 51 14.83083 **Longitude:** -87 24 2.25881

Drainage: Site Number: 20T-011

**SitelD:** WBU-18-0012 **Sample Date:** 6/16/2020 **IDEM Sample #:** AB42528

Water Flow Type Run Water Appearance Clear Water Depth Algae?

Water Flow (cf/sec): 

Flow Estimated? 

Aquatic Life? Canopy Closed % 0-20%

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	113.2	%		ASTM D888-09(C)
DO	9.84	mg/L		ASTM D888-09(C)
pH (Field)	8.09	SU		EPA 150.2
Specific Conductance (Field)	1035	umho/cm		SM2510B
Temperature	22.2	°C		SM2550B(2)
Turbidity (Hach)	5.15	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	9	Lookup		Observation
Wind Strength	3	Lookup		Observation
<b>Lab ID #</b> : 500-183767-13	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	170	mg/L	5	SM2320B
Chloride	90	mg/L	10	EPA 300.0
Hardness (as CaCO3)	320	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	6.5	mg/L	5	SM2540D
Solids, Total (TS)	820	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	790	mg/L	10	SM2540C
Sulfate	240	mg/L	10	EPA 300.0
Calcium (Total)	91	mg/L	0.2	EPA 200.7
Magnesium (Total)	23	mg/L	0.1	EPA 200.7
COD	9.4	mg/L	10	SM5220C
Nitrogen, Ammonia	0.17	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	2.7	mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.071	mg/L	0.05	SM4500P-E
TKN	0.67	mg/L	0.4	SM4500N(Org)-D
TOC	2.1	mg/L	1	SM5310C
<b>Lab ID #</b> : AB42528	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	410.6	MPN/100mL	1	SM9223B

SiteID: WBU-18-0012 Sample Date: 6/22/2020 IDEM Sample #: AB42678 **Water Appearance Water Depth** ✓ Algae? Water Flow Type Glide Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 137.7 % ASTM D888-09(C) % Sat DO 11.1 mg/L ASTM D888-09(C) pH (Field) 8.15 SU EPA 150.2 Specific Conductance (Field) 1148 umho/cm SM2510B Temperature 26.3 °C SM2550B(2) Turbidity (Hach) 4.26 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 9 Lookup Observation Observation Wind Strength 3 Lookup WBU-18-0012 IDEM Sample #: AB43056 SiteID: Sample Date: 7/8/2020 ✓ Algae? **Water Depth** Water Flow Type Glide **Water Appearance** Clear ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 154.4 % ASTM D888-09(C) DO 11.69 mg/L ASTM D888-09(C) pH (Field) 8.23 SU EPA 150.2 Specific Conductance (Field) 885 umho/cm SM2510B 29.8 °C Temperature SM2550B(2) Turbidity (Hach) 3.52 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation

Alkalinity (as CaCO3) Chloride Hardness (as CaCO3) Solids, Suspended Total, (TSS) Solids, Total (TS) Solids, Total Dissolved (TDS)					
Hardness (as CaCO3) Solids, Suspended Total, (TSS) Solids, Total (TS)		180	mg/L	5	SM2320B
Solids, Suspended Total, (TSS) Solids, Total (TS)		74	mg/L	2	EPA 300.0
Solids, Total (TS)		290	mg/L	0.91	SM2340B
		5	mg/L	5	SM2540D
Solida Total Dissolved (TDS)		680	mg/L	30	SM2540B
Solius, Total Dissolved (TDS)		520	mg/L	30	SM2540C
Sulfate		180	mg/L	4	EPA 300.0
Calcium (Total)		81	mg/L	0.2	EPA 200.7
Magnesium (Total)		22	mg/L	0.1	EPA 200.7
COD		7.2	mg/L	10	SM5220C
Nitrogen, Ammonia			mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			mg/L	0.1	SM4500NO3-F
Phosphorus, Total			mg/L	0.05	SM4500P-E
TKN			mg/L	0.4	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
<b>Lab ID #</b> : AB43056		Result		Reporting Limit	<u>Method</u>
O-1'( (T-1-1)		> 2419.6	MPN/100mL	2419.6	SM9223B
Coliforms (Total)			14D11/400		0110000
E. coli	Sample Date: 7/15/2020	435.2	MPN/100mL	#: AB43076	SM9223B
E. coli SiteID: WBU-18-0012	Sample Date: 7/15/2020 Water Appearance	435.2 Clear	IDEM Sample	#: AB43076	
SiteID: WBU-18-0012 Water Flow Type Run	Water Appearance	Clear	IDEM Sample	#: AB43076 Vater Depth	<b>✓</b> Algae?
SiteID: WBU-18-0012  Water Flow Type Run  Water Flow (cf/sec):	-	Clear	IDEM Sample	#: AB43076	<b>✓</b> Algae?
E. coli SiteID: WBU-18-0012	Water Appearance	Clear	IDEM Sample	#: AB43076 Vater Depth	<b>✓</b> Algae?
SiteID: WBU-18-0012  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:	Water Appearance	Clear ✓ Aq	IDEM Sample V Juatic Life?	#: AB43076 Vater Depth Canopy Closed %	✓ Algae? 0-20% Method
E. coli  SiteID: WBU-18-0012  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Clear  Aq  Result	IDEM Sample V Juatic Life?	#: AB43076 Vater Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C
E. coli  SiteID: WBU-18-0012  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:	Water Appearance	Clear  Result  111.1 9.29	IDEM Sample V quatic Life?	#: AB43076 Vater Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C
E. coli  SiteID: WBU-18-0012  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water Appearance	Clear  Result  111.1  9.29  7.9	IDEM Sample V quatic Life?  % mg/L	#: AB43076 Vater Depth Canopy Closed %	✓ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
E. coli  SiteID: WBU-18-0012  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:   % Sat  DO  pH (Field)  Specific Conductance (Field)	Water Appearance	Clear  Result  111.1  9.29  7.9  853	IDEM Sample V quatic Life?  % mg/L SU umho/cm	#: AB43076 Vater Depth Canopy Closed %	Method  ASTM D888-09(C ASTM D888-09(C EPA 150.2
E. coli  SiteID: WBU-18-0012  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:   % Sat	Water Appearance	Clear  Result  111.1  9.29  7.9  853  24.2	IDEM Sample V  Juatic Life?  %  mg/L SU umho/cm °C	#: AB43076 Vater Depth Canopy Closed %	■ Algae?  0-20%  Method  ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2)
SiteID: WBU-18-0012  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water Appearance	Clear  Result  111.1 9.29 7.9 853 24.2 3.72	IDEM Sample V  Juatic Life?  %  mg/L SU  umho/cm °C NTU	#: AB43076 Vater Depth Canopy Closed %	Method  ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WBU-18-0012  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Clear  Result  111.1 9.29 7.9 853 24.2 3.72 5	IDEM Sample V  Juatic Life?  %  mg/L SU  umho/cm °C  NTU  Lookup	#: AB43076 Vater Depth Canopy Closed %	Method  ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
SiteID: WBU-18-0012  Water Flow Type Run  Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water Appearance	Clear  Result  111.1 9.29 7.9 853 24.2 3.72 5 2	IDEM Sample V  Juatic Life?  %  mg/L SU  umho/cm °C NTU	#: AB43076 Vater Depth Canopy Closed %	Method  ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) EPA 180.1

> 2419.6 MPN/100mL

270 MPN/100mL

Coliforms (Total)

E. coli

SM9223B

SM9223B

2419.6

1

SiteID: WBU-18-0012 Sample Date: 7/15/2020 IDEM Sample #: AB42976 **Water Depth** ✓ Algae? Water Flow Type Run **Water Appearance** Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Progomphus digging in sand under bridge Lab ID #: Result **Reporting Limit Method** 144.8 % ASTM D888-09(C) % Sat DO 10.33 mg/L ASTM D888-09(C) 8.25 SU pH (Field) EPA 150.2 Specific Conductance (Field) 901 umho/cm SM2510B Temperature 30.6 °C SM2550B(2) Turbidity (Hach) 14.4 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions 3 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation SiteID: WBU-18-0012 IDEM Sample #: AB43096 Sample Date: 7/22/2020 ☐ Algae? **Water Depth** Water Flow Type Run Water Appearance Brown ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Stream flow is up due to recent rain Lab ID #: **Reporting Limit Method** Result % Sat 76 % ASTM D888-09(C) DO 6.41 mg/L ASTM D888-09(C) pH (Field) 7.65 SU EPA 150.2 Specific Conductance (Field) 583 umho/cm SM2510B 23.9 °C Temperature SM2550B(2) Turbidity (Hach) 315 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43096a Result **Reporting Limit Method** Coliforms (Total) > 241960 MPN/100mL 241960 SM9223B E. coli 12230 MPN/100mL 100 SM9223B

**SiteID:** WBU-18-0012 **Sample Date:** 7/29/2020 **IDEM Sample #:** AB43116

Water Flow Type Run Water Appearance Clear Water Depth ✓ Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

Lab ID #:	<u>Result</u>		Reporting Limit	<u>Method</u>
% Sat	172	%		ASTM D888-09(C)
DO	12.11	mg/L		ASTM D888-09(C)
pH (Field)	8.39	SU		EPA 150.2
Specific Conductance (Field)	852	umho/cm		SM2510B
Temperature	34.6	°C		SM2550B(2)
Turbidity (Hach)	4.29	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	2	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : AB43116	<u>Result</u>		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	74.2	MPN/100mL	1	SM9223B

		We	eather Code Defi	initions	
S	C		WD	WS	AT
Sky Co	nditions	V	Vind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

SiteID:WBU-18-0015USGS Hydrologic Unit:051201111803Stream Name:Marsh CreekCounty:Knox

**Description:** E Moody Road **Latitude:** 38 53 40.47876 **Longitude:** -87 25 19.41824

Drainage: Site Number: 20T-012

**SitelD:** WBU-18-0015 **Sample Date:** 6/16/2020 **IDEM Sample #:** AB42527

Water Flow Type Run Water Appearance Clear Water Depth Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	100.9	%		ASTM D888-09(C)
DO	9.01	mg/L		ASTM D888-09(C)
pH (Field)	7.84	SU		EPA 150.2
Specific Conductance (Field)	1273	umho/cm		SM2510B
Temperature	20.7	°C		SM2550B(2)
Turbidity (Hach)	4.91	NTU		EPA 180.1
Air Temp	4	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	9	Lookup		Observation
Wind Strength	2	Lookup		Observation
<b>Lab ID #</b> : 500-183767-12	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	170	mg/L	5	SM2320B
Chloride	120	mg/L	10	EPA 300.0
Hardness (as CaCO3)	360	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	5.5	mg/L	5	SM2540D
Solids, Total (TS)	970	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	890	mg/L	10	SM2540C
Sulfate	310	mg/L	10	EPA 300.0
Calcium (Total)	100	mg/L	0.2	EPA 200.7
Magnesium (Total)	25	mg/L	0.1	EPA 200.7
COD	11	mg/L	10	SM5220C
Nitrogen, Ammonia	0.24	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	2.8	mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.061	mg/L	0.05	SM4500P-E
TKN	0.43	mg/L	0.4	SM4500N(Org)-D
TOC	1.9	mg/L	1	SM5310C
Lab ID #: AB42527	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	488.4	MPN/100mL	1	SM9223B

SiteID: WBU-18-0015 Sample Date: 6/23/2020 IDEM Sample #: AB42679 **Water Depth** ✓ Algae? Water Flow Type Glide **Water Appearance** Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 112.7 % ASTM D888-09(C) % Sat DO 9.45 mg/L ASTM D888-09(C) pH (Field) 7.98 SU EPA 150.2 Specific Conductance (Field) 1240 umho/cm SM2510B Temperature 24 °C SM2550B(2) Turbidity (Hach) 6.09 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions 3 Lookup Observation Wind Direction 0 Lookup Observation Observation Wind Strength 3 Lookup WBU-18-0015 IDEM Sample #: AB43055 SiteID: Sample Date: 7/8/2020 ☐ Algae? **Water Depth** Water Flow Type Run **Water Appearance** Murky ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 109.4 % ASTM D888-09(C) DO 8.93 mg/L ASTM D888-09(C) pH (Field) 7.85 SU EPA 150.2 Specific Conductance (Field) 1031 umho/cm SM2510B 25.9 °C Temperature SM2550B(2) Turbidity (Hach) 11.9 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation

<b>Lab ID #:</b> 500-184718-11		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		170	mg/L	5	SM2320B
Chloride			mg/L	5	EPA 300.0
Hardness (as CaCO3)			mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		14	mg/L	5	SM2540D
Solids, Total (TS)			mg/L	30	SM2540B
Solids, Total Dissolved (TDS)			mg/L	30	SM2540C
Sulfate			mg/L	5	EPA 300.0
Calcium (Total)			mg/L	0.2	EPA 200.7
Magnesium (Total)			mg/L	0.1	EPA 200.7
COD			mg/L	10	SM5220C
Nitrogen, Ammonia			mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			mg/L	0.5	SM4500NO3-F
Phosphorus, Total			mg/L	0.05	SM4500P-E
TKN			mg/L	0.4	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
<b>Lab ID #:</b> AB43055		Result		Reporting Limit	<u>Method</u>
O 111 (T + 1)		04400	MDN1/400 1	0.440.0	0140000
Coliforms (Total) E. coli SiteID: WBU-18-0015	Sample Date: 7/15/2020		MPN/100mL MPN/100mL	2419.6 1 #- AB43075	SM9223B SM9223B
E. coli SiteID: WBU-18-0015	Sample Date: 7/15/2020 Water Appearance		MPN/100mL  IDEM Sample	1	SM9223B
E. coli SiteID: WBU-18-0015 S Water Flow Type Run	Water Appearance	727	MPN/100mL  IDEM Sample	1 #: AB43075 Vater Depth	SM9223B  ✓ Algae?
E. coli SiteID: WBU-18-0015	•	727	MPN/100mL  IDEM Sample	1 #: AB43075	SM9223B  ✓ Algae?
E. coli SiteID: WBU-18-0015  Water Flow Type Run Water Flow (cf/sec):	Water Appearance	727	MPN/100mL  IDEM Sample	1 #: AB43075 Vater Depth	SM9223B  ✓ Algae?
E. coli  SiteID: WBU-18-0015  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:	Water Appearance	Clear	MPN/100mL  IDEM Sample  V  Juatic Life?	#: AB43075 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method
E. coli  SiteID: WBU-18-0015  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Clear  Aq  Result  89.4	MPN/100mL  IDEM Sample  V  Juatic Life?	#: AB43075 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WBU-18-0015  Nater Flow Type Run  Nater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Clear  Aq  Result  89.4	IDEM Sample V juatic Life?  % mg/L	#: AB43075 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WBU-18-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water Appearance	Clear  Result  89.4 7.88 7.66	IDEM Sample V juatic Life?  % mg/L	#: AB43075 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
E. coli  SiteID: WBU-18-0015  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:   % Sat  DO  pH (Field)	Water Appearance	Clear  Result  89.4 7.88 7.66	MPN/100mL  IDEM Sample  V  Juatic Life?  %  mg/L SU  umho/cm	#: AB43075 Vater Depth Canopy Closed %	SM9223B  ✓ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  SiteID: WBU-18-0015  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field)  Specific Conductance (Field)	Water Appearance	Clear  Result  89.4 7.88 7.66 908 21.5	MPN/100mL  IDEM Sample  V  Juatic Life?  %  mg/L SU  umho/cm	#: AB43075 Vater Depth Canopy Closed %	SM9223B  ✓ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli  SiteID: WBU-18-0015  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	727  Clear  ✓ Aq  Result  89.4  7.88  7.66  908  21.5  15.4	MPN/100mL  IDEM Sample  V  Juatic Life?  %  mg/L SU  umho/cm °C	#: AB43075 Vater Depth Canopy Closed %	SM9223B  ✓ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli  SiteID: WBU-18-0015  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water Appearance	Clear  Result  89.4 7.88 7.66 908 21.5 15.4 4	MPN/100mL  IDEM Sample  V  Juatic Life?  %  mg/L SU  umho/cm °C NTU	#: AB43075 Vater Depth Canopy Closed %	SM9223B  ✓ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: WBU-18-0015  Water Flow Type Run  Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Clear  ✓ Ac  Result  89.4 7.88 7.66 908 21.5 15.4 4	MPN/100mL  IDEM Sample  V  Juatic Life?  %  mg/L SU  umho/cm °C  NTU  Lookup	#: AB43075 Vater Depth Canopy Closed %	SM9223B  ✓ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
E. coli  SiteID: WBU-18-0015  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions	Water Appearance	Clear  ✓ Aq  Result  89.4 7.88 7.66 908 21.5 15.4 4 2 18	MPN/100mL  IDEM Sample  V  Juatic Life?  %  mg/L SU  umho/cm °C  NTU  Lookup  Lookup	#: AB43075 Vater Depth Canopy Closed %	SM9223B  Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation

> 2419.6 MPN/100mL

2419.6 MPN/100mL

2419.6

1

Coliforms (Total)

E. coli

SM9223B

SM9223B

SiteID: WBU-18-0015 Sample Date: 7/15/2020 IDEM Sample #: AB42975 **Water Depth** ✓ Algae? Water Flow Type Glide **Water Appearance** Murky ☐ Flow Estimated? **✓** Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** % Sat 163 % ASTM D888-09(C) DO 12.29 mg/L ASTM D888-09(C) 8.27 SU pH (Field) EPA 150.2 Specific Conductance (Field) 953 umho/cm SM2510B Temperature 30 °C SM2550B(2) Turbidity (Hach) 12.1 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions 3 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength 3 Lookup Observation SiteID: WBU-18-0015 IDEM Sample #: AB43095 Sample Date: 7/22/2020 ☐ Algae? **Water Depth** Water Flow Type Run Water Appearance Brown ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% Stream flow is up due to recent rain **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 72.6 % ASTM D888-09(C) DO 6.25 mg/L ASTM D888-09(C) pH (Field) 7.75 SU EPA 150.2 Specific Conductance (Field) 207 umho/cm SM2510B 22.9 °C Temperature SM2550B(2) Turbidity (Hach) 408 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 18 Lookup Observation Wind Strength 1 Lookup Observation Lab ID #: AB43095a Result **Reporting Limit Method** Coliforms (Total) > 241960 MPN/100mL 241960 SM9223B E. coli 48840 MPN/100mL 100 SM9223B

**SitelD:** WBU-18-0015 **Sample Date:** 7/29/2020 **IDEM Sample #**: AB43115

Water Flow Type Run Water Appearance Clear Water Depth ✓ Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	155.6	%		ASTM D888-09(C)
DO	11.64	mg/L		ASTM D888-09(C)
pH (Field)	8.18	SU		EPA 150.2
Specific Conductance (Field)	950	umho/cm		SM2510B
Temperature	29.9	°C		SM2550B(2)
Turbidity (Hach)	11.1	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	2	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #:</b> AB43115	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	980.4	MPN/100mL	1	SM9223B

		We	eather Code Defi	initions	
S	C		WD	WS	AT
Sky Co	nditions	V	Vind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

SiteID:WBU-18-0016USGS Hydrologic Unit:051201111803Stream Name:Marsh CreekCounty:Sullivan

**Description:** S County Road 50 E **Latitude:** 38 55 22.25295 **Longitude:** -87 24 13.53507

Drainage: Site Number: 20T-013

**SitelD:** WBU-18-0016 **Sample Date:** 6/16/2020 **IDEM Sample #:** AB42526

Water Flow Type Run Water Appearance Clear Water Depth Algae?

Water Flow (cf/sec): 

Flow Estimated? 

Aquatic Life? Canopy Closed % 0-20%

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	117.6	%		ASTM D888-09(C)
DO	10.51	mg/L		ASTM D888-09(C)
pH (Field)	8	SU		EPA 150.2
Specific Conductance (Field)	1780	umho/cm		SM2510B
Temperature	20.6	°C		SM2550B(2)
Turbidity (Hach)	5.52	NTU		EPA 180.1
Air Temp	4	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	9	Lookup		Observation
Wind Strength	0	Lookup		Observation
<b>Lab ID #</b> : 500-183767-11	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	150	mg/L	5	SM2320B
Chloride	180	mg/L	20	EPA 300.0
Hardness (as CaCO3)	410	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	11	mg/L	5	SM2540D
Solids, Total (TS)	1300	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	1300	mg/L	10	SM2540C
Sulfate	480	mg/L	20	EPA 300.0
Calcium (Total)	120	mg/L	0.2	EPA 200.7
Magnesium (Total)	28	mg/L	0.1	EPA 200.7
COD	10	mg/L	10	SM5220C
Nitrogen, Ammonia	0.18	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	3.5	mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.033	mg/L	0.05	SM4500P-E
TKN	0.59	mg/L	0.4	SM4500N(Org)-D
TOC	1.6	mg/L	1	SM5310C
<b>Lab ID #</b> : AB42526	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	155.3	MPN/100mL	1	SM9223B

SiteID: WBU-18-0016 Sample Date: 6/23/2020 IDEM Sample #: AB42680 **Water Appearance Water Depth** ✓ Algae? Water Flow Type Glide Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 105.9 % ASTM D888-09(C) % Sat DO 9.07 mg/L ASTM D888-09(C) pH (Field) 7.87 SU EPA 150.2 Specific Conductance (Field) 1686 umho/cm SM2510B Temperature 22.8 °C SM2550B(2) Turbidity (Hach) 4.34 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions 3 Lookup Observation Wind Direction 0 Lookup Observation Observation Wind Strength 3 Lookup WBU-18-0016 IDEM Sample #: AB43054 SiteID: Sample Date: 7/8/2020 ☐ Algae? **Water Depth** Water Flow Type Riffle **Water Appearance** Clear ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 70 % ASTM D888-09(C) DO 5.76 mg/L ASTM D888-09(C) pH (Field) 7.43 SU EPA 150.2 Specific Conductance (Field) 1522 umho/cm SM2510B 25 °C Temperature SM2550B(2) Turbidity (Hach) 5.02 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation

<b>Lab ID #</b> : 500-184718-10	Resu	<u>t</u>	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	1.	50 mg/L	5	SM2320B
Chloride		50 mg/L	10	EPA 300.0
Hardness (as CaCO3)		30 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		9 mg/L	5	SM2540D
Solids, Total (TS)	11	00 mg/L	30	SM2540B
Solids, Total Dissolved (TDS)	9	00 mg/L	30	SM2540C
Sulfate	3	90 mg/L	10	EPA 300.0
Calcium (Total)	1	10 mg/L	0.2	EPA 200.7
Magnesium (Total)		27 mg/L	0.1	EPA 200.7
COD		12 mg/L	10	SM5220C
Nitrogen, Ammonia	0.	29 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		.3 mg/L	0.5	SM4500NO3-F
Phosphorus, Total		45 mg/L	0.05	SM4500P-E
TKN		44 mg/L	0.4	SM4500N(Org)-D
TOC		.2 mg/L	1	SM5310C
<b>Lab ID #</b> : AB43054	Resu	<u>t</u>	Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419	.6 MPN/100mL	2419.6	SM9223B
	4.0	.6 MPN/100mL	1	SM9223B
	ample Date: 7/15/2020	IDEM Sample	#: AB43074	
SiteID: WBU-18-0016 Sa Water Flow Type Run	mple Date: 7/15/2020  Water Appearance Clea	IDEM Sample	#: AB43074 Water Depth	☐ Algae?
SiteID: WBU-18-0016 Sa Water Flow Type Run Water Flow (cf/sec):	mple Date: 7/15/2020  Water Appearance Clea	IDEM Sample	#: AB43074	☐ Algae?
SiteID: WBU-18-0016 Sa Water Flow Type Run Water Flow (cf/sec): Sampler Comments:	mple Date: 7/15/2020  Water Appearance Clea	IDEM Sample · V Aquatic Life?	#: AB43074 Water Depth	☐ Algae?
SiteID: WBU-18-0016 Sa Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	mple Date: 7/15/2020  Water Appearance Clea  ☐ Flow Estimated?  Resu	IDEM Sample · V Aquatic Life?	#: AB43074 Water Depth Canopy Closed %	☐ <b>Algae?</b> 0-20%
SiteID: WBU-18-0016 Sa Water Flow Type Run Water Flow (cf/sec): Sampler Comments: Lab ID #:	mple Date: 7/15/2020  Water Appearance Clea  ☐ Flow Estimated?  Resu	IDEM Sample · V Aquatic Life?	#: AB43074 Water Depth Canopy Closed %	☐ Algae? 0-20%  Method
SiteID: WBU-18-0016 Sa  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	mple Date: 7/15/2020  Water Appearance Clea  ☐ Flow Estimated?  Resu  70 6.	IDEM Sample  Aquatic Life?	#: AB43074 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
SiteID: WBU-18-0016 Sa  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO	water Appearance Clea ☐ Flow Estimated?  Resu  70 6. 7.	IDEM Sample Aquatic Life?  t  .2 %  17 mg/L	#: AB43074 Water Depth Canopy Closed %	Algae? 0-20% Method ASTM D888-09(C) ASTM D888-09(C)
SiteID: WBU-18-0016 Sa  Water Flow Type Run  Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	water Appearance Clea ☐ Flow Estimated?  Resu  70 6. 7. 12	IDEM Sample  Aquatic Life?  Lt  12 %  17 mg/L  53 SU	#: AB43074 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
SiteID: WBU-18-0016 Sa  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	water Appearance Clea ☐ Flow Estimated?  Resu  70 6. 7. 12	IDEM Sample Aquatic Life?  t 1.2 % 17 mg/L 53 SU 36 umho/cm	#: AB43074 Water Depth Canopy Closed %	☐ Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: WBU-18-0016 Sa  Water Flow Type Run  Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	water Appearance Clea ☐ Flow Estimated?  Resu  70 6. 7. 12	IDEM Sample Aquatic Life?   1.2 % 1.7 mg/L 1.3 SU 1.6 umho/cm 1.5 °C 1.8 NTU	#: AB43074 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: WBU-18-0016 Sa  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	water Appearance Clea ☐ Flow Estimated?  Resu  70 6. 7. 12	IDEM Sample Aquatic Life?   1.2 % 1.7 mg/L 53 SU 36 umho/cm .5 °C 08 NTU 4 Lookup	#: AB43074 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
SiteID: WBU-18-0016 Sa  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions	water Appearance Clea ☐ Flow Estimated?  Resu  70 6. 7. 12 21 4.	IDEM Sample  Aquatic Life?   L2 %  17 mg/L  53 SU  36 umho/cm  .5 °C  08 NTU  4 Lookup  2 Lookup	#: AB43074 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
SiteID: WBU-18-0016 Sa  Water Flow Type Run  Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	water Appearance Clea ☐ Flow Estimated?  Resu  70 6. 7. 12 21 4.	IDEM Sample Aquatic Life?   1.2 % 1.7 mg/L 53 SU 36 umho/cm .5 °C 08 NTU 4 Lookup	#: AB43074 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
SiteID: WBU-18-0016 Sa  Water Flow Type Run  Water Flow (cf/sec): Sampler Comments:  Lab ID #:   % Sat  DO  pH (Field)  Specific Conductance (Field)  Temperature  Turbidity (Hach)  Air Temp  Sky Conditions  Wind Direction  Wind Strength	water Appearance Clea ☐ Flow Estimated?  Resu  70 6. 7. 12 21 4.	IDEM Sample Aquatic Life?  L2 % 17 mg/L 53 SU 36 umho/cm .5 °C 08 NTU 4 Lookup 2 Lookup 18 Lookup 0 Lookup	#: AB43074 Water Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
SiteID: WBU-18-0016 Sa  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	water Appearance Clea  Flow Estimated?  Resu  70 6. 7. 12 21 4.	IDEM Sample Aquatic Life?  L2 % 17 mg/L 53 SU 36 umho/cm .5 °C 08 NTU 4 Lookup 2 Lookup 18 Lookup 0 Lookup	#: AB43074  Nater Depth  Canopy Closed %  Reporting Limit	Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

SiteID: WBU-18-0016 Sample Date: 7/15/2020 IDEM Sample #: AB42974 **Water Depth** ✓ Algae? Water Flow Type Pool Water Appearance Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Riffle sampled 27 m downstream of reach Lab ID #: Result **Reporting Limit Method** 71.7 % ASTM D888-09(C) % Sat DO 6.29 mg/L ASTM D888-09(C) 7.74 SU pH (Field) EPA 150.2 Specific Conductance (Field) 1306 umho/cm SM2510B Temperature 21.624 °C SM2550B(2) Turbidity (Hach) 4.31 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 0 Lookup Observation SiteID: WBU-18-0016 IDEM Sample #: AB43094 Sample Date: 7/22/2020 ☐ Algae? **Water Depth** Water Flow Type Run Water Appearance Brown ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Stream flow is up due to recent rain Lab ID #: **Reporting Limit Method** Result % Sat 80.3 % ASTM D888-09(C) DO 6.89 mg/L ASTM D888-09(C) pH (Field) 7.55 SU EPA 150.2 Specific Conductance (Field) 315 umho/cm SM2510B 23 °C Temperature SM2550B(2) Turbidity (Hach) 259 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43094a Result **Reporting Limit Method** Coliforms (Total) > 241960 MPN/100mL 241960 SM9223B E. coli 24810 MPN/100mL 100 SM9223B

SiteID: WBU-18-0016 Sample Date: 7/29/2020 IDEM Sample #: AB43114

Water Flow Type Run Water Appearance Clear Water Depth Algae?

Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	102.9	%		ASTM D888-09(C)
DO	8.22	mg/L		ASTM D888-09(C)
pH (Field)	7.8	SU		EPA 150.2
Specific Conductance (Field)	1285	umho/cm		SM2510B
Temperature	26.7	°C		SM2550B(2)
Turbidity (Hach)	6.35	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	2	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : AB43114	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	206.4	MPN/100mL	1	SM9223B

		We	eather Code Defi	initions	
S	C		WD	WS	AT
Sky Co	nditions	V	Vind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

SiteID:WBU-18-0017USGS Hydrologic Unit:051201111803Stream Name:Marsh CreekCounty:Sullivan

**Description:** S County Road 5 SE **Latitude:** 38 56 7.96040 **Longitude:** -87 22 58.67837

Drainage: Site Number: 20T-014

**SitelD:** WBU-18-0017 **Sample Date:** 6/16/2020 **IDEM Sample #:** AB42525

Water Flow Type Stagnant Water Appearance Murky Water Depth Algae?

Water Flow (cf/sec): 

Flow Estimated? 

Aquatic Life? Canopy Closed % 0-20%

Lab ID #:	Result		Reporting Limit	Method
% Sat	69.1	%		ASTM D888-09(C)
DO	6.5	mg/L		ASTM D888-09(C)
pH (Field)	7.45	SU		EPA 150.2
Specific Conductance (Field)	526	umho/cm		SM2510B
Temperature	18.8	°C		SM2550B(2)
Turbidity (Hach)	12.9	NTU		EPA 180.1
Air Temp	4	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	9	Lookup		Observation
Wind Strength	0	Lookup		Observation
<b>Lab ID #</b> : 500-183767-10	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	170	mg/L	5	SM2320B
Chloride	41	mg/L	2	EPA 300.0
Hardness (as CaCO3)	220	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	9.5	mg/L	5	SM2540D
Solids, Total (TS)	370	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	390	mg/L	10	SM2540C
Sulfate	31	mg/L	2	EPA 300.0
Calcium (Total)	51	mg/L	0.2	EPA 200.7
Magnesium (Total)	23	mg/L	0.1	EPA 200.7
COD	16	mg/L	10	SM5220C
Nitrogen, Ammonia	0.22	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	3.1	mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.14		0.05	SM4500P-E
TKN	0.78	mg/L	0.4	SM4500N(Org)-D
TOC	2.6	mg/L	1	SM5310C
Lab ID #: AB42525	<u>Result</u>		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	461.1	MPN/100mL	1	SM9223B

SiteID: WBU-18-0017 Sample Date: 6/23/2020 IDEM Sample #: AB42681 **Water Appearance Water Depth** ✓ Algae? Water Flow Type Glide Brown ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 72.3 % ASTM D888-09(C) % Sat DO 6.48 mg/L ASTM D888-09(C) pH (Field) 7.38 SU EPA 150.2 Specific Conductance (Field) 478.5 umho/cm SM2510B Temperature 20.6 °C SM2550B(2) Turbidity (Hach) 8.34 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions 4 Lookup Observation Wind Direction 0 Lookup Observation Observation Wind Strength 3 Lookup WBU-18-0017 IDEM Sample #: AB43053 SiteID: Sample Date: 7/8/2020 ☐ Algae? **Water Depth** Water Flow Type Pool **Water Appearance** Murky ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Very low flow - nearly pooled. Lab ID #: **Reporting Limit Method** Result % Sat 25 % ASTM D888-09(C) DO 2.17 mg/L ASTM D888-09(C) pH (Field) 7.46 SU EPA 150.2 Specific Conductance (Field) 410 umho/cm SM2510B 24.4 °C Temperature SM2550B(2) Turbidity (Hach) 24.5 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation

Lab ID #: 500-184718-9		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		200	mg/L	5	SM2320B
Chloride		22	mg/L	2	EPA 300.0
Hardness (as CaCO3)		200	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		23	mg/L	5	SM2540D
Solids, Total (TS)		320	mg/L	30	SM2540B
Solids, Total Dissolved (TDS)		130	mg/L	30	SM2540C
Sulfate		8.8	mg/L	0.4	EPA 300.0
Calcium (Total)		47	mg/L	0.2	EPA 200.7
Magnesium (Total)		21	mg/L	0.1	EPA 200.7
COD		18	mg/L	10	SM5220C
Nitrogen, Ammonia		0.32	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.085	mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.2	mg/L	0.05	SM4500P-E
TKN		0.58	mg/L	0.4	SM4500N(Org)-D
TOC		5.2	mg/L	1	SM5310C
<b>Lab ID #</b> : AB43053		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli		1986.3	MPN/100mL	1	SM9223B
SiteID: WBU-18-0017	<b>Sample Date:</b> 7/15/2020		IDEM Sample #	: AB43073	
Vater Flow Type Pool	Water Appearance	Clear	Wa	ater Depth	✓ Algae?
Vater Flow (cf/sec):	☐ Flow Estimated?	<b>✓</b> Ac	juatic Life?	Canopy Closed %	0-20%
Sampler Comments: Very lo	w flow. Stream nearly pooled.				

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	25.1 %			ASTM D888-09(C)
DO	2.2 mg	g/L		ASTM D888-09(C)
pH (Field)	7.46 SL	J		EPA 150.2
Specific Conductance (Field)	452 um	nho/cm		SM2510B
Temperature	21.7 °C			SM2550B(2)
Turbidity (Hach)	8.27 NT	ΓU		EPA 180.1
Air Temp	4 Lo	okup		Observation
Sky Conditions	2 Lo	okup		Observation
Wind Direction	18 Lo	okup		Observation
Wind Strength	0 Lo	okup		Observation
<b>Lab ID #</b> : AB43073	<u>Result</u>		Reporting Limit	Method
Coliforms (Total)	> 2419.6 MF	PN/100mL	2419.6	SM9223B
E. coli	172.3 MF	PN/100mL	1	SM9223B

SiteID: WBU-18-0017 Sample Date: 7/22/2020 IDEM Sample #: AB43093 **Water Depth** ☐ Algae? Water Flow Type Run **Water Appearance** Brown ☐ Flow Estimated? ■ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Stream flow is up due to recent rain Lab ID #: Result **Reporting Limit Method** 81.2 % % Sat ASTM D888-09(C) DO 7.05 mg/L ASTM D888-09(C) 7.47 SU pH (Field) EPA 150.2 Specific Conductance (Field) 99 umho/cm SM2510B Temperature 22.4 °C SM2550B(2) Turbidity (Hach) 297 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions 4 Lookup Observation Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43093a **Reporting Limit** Result **Method** Coliforms (Total) > 241960 MPN/100mL 241960 SM9223B E. coli 36540 MPN/100mL 100 SM9223B SiteID: WBU-18-0017 Sample Date: IDEM Sample #: AB43113 7/29/2020 ☐ Algae? Water Flow Type Water Appearance Brown **Water Depth** Stagnant Water Flow (cf/sec): Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Reporting Limit **Method** Result % Sat 90.1 % ASTM D888-09(C) DO 7.38 mg/L ASTM D888-09(C) pH (Field) 7.6 SU EPA 150.2 Specific Conductance (Field) 213 umho/cm SM2510B 25.4 °C Temperature SM2550B(2) Turbidity (Hach) 49.2 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation Lab ID #: AB43113 Result **Reporting Limit Method** > 2419.6 MPN/100mL 2419.6 Coliforms (Total) SM9223B E. coli 1119.9 MPN/100mL 1 SM9223B

		We	eather Code Defi	initions	
S	С		WD	WS	AT
Sky Co	nditions	V	Vind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75
5 - Mist				4 - Mod./Strong	5 - 76-85
6 - Fog				5 - Strong	6 - > 86
7 - Shower				6 - Gale	

USGS Hydrologic Unit: 051201111801 SiteID: WBU-18-0014 Stream Name: Tributary of Maria Creek County: Knox Description: Freelandville Road 38 52 51.70769 Longitude: -87 21 10.19095 Site Number: 20T-015 Drainage: SiteID: WBU-18-0014 Sample Date: 6/15/2020 IDEM Sample #: AB42536 ☐ Algae? Clear Water Flow Type Run **Water Appearance Water Depth** ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 91.4 % % Sat ASTM D888-09(C) DO 8.64 mg/L ASTM D888-09(C) pH (Field) 7.83 SU EPA 150.2 Specific Conductance (Field) 529 umho/cm SM2510B 18.1 °C Temperature SM2550B(2) Turbidity (Hach) 5.91 NTU EPA 180.1 Air Temp 4 Lookup Observation Sky Conditions 1 Lookup Observation

Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : 500-183767-4	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	200	mg/L	5	SM2320B
Chloride	21	mg/L	2	EPA 300.0
Hardness (as CaCO3)	260	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	9.5	mg/L	5	SM2540D
Solids, Total (TS)	360	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	390	mg/L	10	SM2540C
Sulfate	25	mg/L	2	EPA 300.0
Calcium (Total)	64	mg/L	0.2	EPA 200.7
Magnesium (Total)	24	mg/L	0.1	EPA 200.7
COD	9.9	mg/L	10	SM5220C
Nitrogen, Ammonia	0.15	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	4.9	mg/L	1	SM4500NO3-F
Phosphorus, Total	0.054	mg/L	0.05	SM4500P-E
TKN	0.91	mg/L	0.4	SM4500N(Org)-D
TOC	2.1	mg/L	1	SM5310C
<b>Lab ID #</b> : AB42536	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6	MPN/100mL	2419.6	SM9223B

9 Lookup

Wind Direction

Observation

SiteID: WBU-18-0014 Sample Date: 6/22/2020 IDEM Sample #: AB42682 **Water Appearance Water Depth** ✓ Algae? Water Flow Type Glide Murky ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 143.4 % ASTM D888-09(C) % Sat DO 11.82 mg/L ASTM D888-09(C) 8.2 SU pH (Field) EPA 150.2 Specific Conductance (Field) 481.1 umho/cm SM2510B Temperature 25 °C SM2550B(2) Turbidity (Hach) 5.67 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 3 Lookup Observation Wind Direction 9 Lookup Observation Wind Strength 2 Lookup Observation WBU-18-0014 IDEM Sample #: AB43064 SiteID: Sample Date: 7/7/2020 ✓ Algae? **Water Depth** Water Flow Type Glide **Water Appearance** Murky ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 20.9 % ASTM D888-09(C) DO 1.69 mg/L ASTM D888-09(C) pH (Field) 7.58 SU EPA 150.2 Specific Conductance (Field) 400 umho/cm SM2510B 25.8 °C Temperature SM2550B(2) Turbidity (Hach) 14.7 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 9 Lookup Observation Wind Strength 0 Lookup Observation

<b>Lab ID #</b> : 500-184718-3		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		190	mg/L	5	SM2320B
Chloride		20	mg/L	2	EPA 300.0
Hardness (as CaCO3)		230	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		13	mg/L	5	SM2540D
Solids, Total (TS)		360	mg/L	30	SM2540B
Solids, Total Dissolved (TDS)		180	mg/L	30	SM2540C
Sulfate		28	mg/L	2	EPA 300.0
Calcium (Total)		51	mg/L	0.2	EPA 200.7
Magnesium (Total)		26	mg/L	0.1	EPA 200.7
COD		23	mg/L	10	SM5220C
Nitrogen, Ammonia		0.13	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		< 0.1	mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.14	mg/L	0.05	SM4500P-E
TKN			mg/L	0.4	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
<b>Lab ID #</b> : AB43064		<u>Result</u>		Reporting Limit	<u>Method</u>
E. coli		727	MPN/100mL	1	SM9223B
<b>Lab ID #</b> : AB43064a		Result		Reporting Limit	<u>Method</u>
Lab ID #: AD43004a					
Coliforms (Total)	mple Date: 7/14/2020		MPN/100mL  IDEM Sample	100 #: AB43084	SM9223B
Coliforms (Total)  SiteID: WBU-18-0014 Sar			IDEM Sample		SM9223B  ✓ Algae?
Coliforms (Total)  SiteID: WBU-18-0014 Sar  Water Flow Type Pool	mple Date: 7/14/2020	92080 Clear	IDEM Sample	#: AB43084	✓ Algae?
Coliforms (Total)  SiteID: WBU-18-0014 Sar  Nater Flow Type Pool  Nater Flow (cf/sec):	mple Date: 7/14/2020 Water Appearance	92080 Clear	IDEM Sample :	#: AB43084 /ater Depth	<b>✓</b> Algae?
Coliforms (Total)  SiteID: WBU-18-0014 Sar  Water Flow Type Pool  Water Flow (cf/sec):  Sampler Comments: Very low flow	mple Date: 7/14/2020  Water Appearance  Flow Estimated?  w. Stream nearly pooled.	92080 Clear	IDEM Sample :	#: AB43084 /ater Depth	<b>✓</b> Algae?
Coliforms (Total)  SiteID: WBU-18-0014 Sar  Water Flow Type Pool  Water Flow (cf/sec):  Sampler Comments: Very low flow	mple Date: 7/14/2020  Water Appearance  Flow Estimated?  w. Stream nearly pooled.	92080 Clear	IDEM Sample : W Juatic Life?	#: AB43084 /ater Depth Canopy Closed %	✓ Algae? 0-20% Method
Coliforms (Total)  SiteID: WBU-18-0014 Sar  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments: Very low flow  Lab ID #:	mple Date: 7/14/2020  Water Appearance  Flow Estimated?  w. Stream nearly pooled.	92080  Clear  Aq  Result	IDEM Sample : W Juatic Life?	#: AB43084 /ater Depth Canopy Closed %	✓ Algae? 0-20% Method
Coliforms (Total)  SiteID: WBU-18-0014 Sar  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments: Very low flow  Lab ID #:	mple Date: 7/14/2020  Water Appearance  Flow Estimated?  w. Stream nearly pooled.	92080  Clear  Aq  Result	IDEM Sample : Watic Life?	#: AB43084 /ater Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
Coliforms (Total)  SiteID: WBU-18-0014 Sar  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments: Very low flow  Lab ID #:  % Sat  DO	mple Date: 7/14/2020  Water Appearance  Flow Estimated?  w. Stream nearly pooled.	92080  Clear  Aq  Result  48.8  4.2  7.39	IDEM Sample : Watic Life?	#: AB43084 /ater Depth Canopy Closed %	✓ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
Coliforms (Total)  SiteID: WBU-18-0014 Sar  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments: Very low flow  Lab ID #:  % Sat  DO  pH (Field)	mple Date: 7/14/2020  Water Appearance  Flow Estimated?  w. Stream nearly pooled.	92080  Clear  Aq  Result  48.8  4.2  7.39	Muatic Life?  % mg/L SU umho/cm	#: AB43084 /ater Depth Canopy Closed %	✓ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
Coliforms (Total)  SiteID: WBU-18-0014 Sar  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments: Very low flow  Lab ID #:  % Sat  DO  pH (Field)  Specific Conductance (Field)  Temperature	mple Date: 7/14/2020  Water Appearance  Flow Estimated?  w. Stream nearly pooled.	92080  Clear  Aq  Result  48.8 4.2 7.39 442 22.7	Muatic Life?  % mg/L SU umho/cm	#: AB43084 /ater Depth Canopy Closed %	✓ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
Coliforms (Total)  SiteID: WBU-18-0014 Sar  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments: Very low flow  Lab ID #:  % Sat  DO  pH (Field)  Specific Conductance (Field)  Temperature  Turbidity (Hach)	mple Date: 7/14/2020  Water Appearance  Flow Estimated?  w. Stream nearly pooled.	92080  Clear  Aq  Result  48.8 4.2 7.39 442 22.7 14.9	Muatic Life?  % mg/L SU umho/cm °C NTU	#: AB43084 /ater Depth Canopy Closed %	■ Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)
Coliforms (Total)  SiteID: WBU-18-0014 Sar  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments: Very low flow  Lab ID #:  % Sat  DO  pH (Field)  Specific Conductance (Field)  Temperature  Turbidity (Hach)  Air Temp	mple Date: 7/14/2020  Water Appearance  Flow Estimated?  w. Stream nearly pooled.	92080  Clear  Result  48.8 4.2 7.39 442 22.7 14.9 5	Muatic Life?  % mg/L SU umho/cm °C NTU Lookup	#: AB43084 /ater Depth Canopy Closed %	■ Algae?  0-20%    Method     ASTM D888-09(C)     ASTM D888-09(C)     EPA 150.2     SM2510B     SM2550B(2)     EPA 180.1     Observation
Coliforms (Total)  SiteID: WBU-18-0014 Sar  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments: Very low flow  Lab ID #:  % Sat  DO  pH (Field)  Specific Conductance (Field)  Temperature  Turbidity (Hach)  Air Temp  Sky Conditions	mple Date: 7/14/2020  Water Appearance  Flow Estimated?  w. Stream nearly pooled.	92080  Clear  Ao  Result  48.8 4.2 7.39 442 22.7 14.9 5 1	Muatic Life?  % mg/L SU umho/cm °C NTU Lookup Lookup	#: AB43084 /ater Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
Coliforms (Total)  SiteID: WBU-18-0014 Sar  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments: Very low flow  Lab ID #:  % Sat  DO  pH (Field)  Specific Conductance (Field)  Temperature  Turbidity (Hach)  Air Temp	mple Date: 7/14/2020  Water Appearance  Flow Estimated?  w. Stream nearly pooled.	92080  Clear  Result  48.8 4.2 7.39 442 22.7 14.9 5 1 27	Muatic Life?  % mg/L SU umho/cm °C NTU Lookup	#: AB43084 /ater Depth Canopy Closed %	■ Algae?  0-20%    Method     ASTM D888-09(C)     ASTM D888-09(C)     EPA 150.2     SM2510B     SM2550B(2)     EPA 180.1     Observation
Coliforms (Total)  SiteID: WBU-18-0014 Sar  Vater Flow Type Pool  Vater Flow (cf/sec):  Sampler Comments: Very low flow  Lab ID #:  % Sat  DO  pH (Field)  Specific Conductance (Field)  Temperature  Turbidity (Hach)  Air Temp  Sky Conditions  Wind Direction  Wind Strength	water Appearance Flow Estimated? w. Stream nearly pooled.	92080  Clear  Result  48.8 4.2 7.39 442 22.7 14.9 5 1 27	"C NTU Lookup Lookup Lookup	#: AB43084 /ater Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
Coliforms (Total)  SiteID: WBU-18-0014 Sar  Nater Flow Type Pool  Nater Flow (cf/sec):  Sampler Comments: Very low flow  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	water Appearance Flow Estimated? w. Stream nearly pooled.	92080  Clear  Result  48.8 4.2 7.39 442 22.7 14.9 5 1 27 0  Result	"C NTU Lookup Lookup Lookup	#: AB43084 Vater Depth Canopy Closed % Reporting Limit	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

SiteID: WBU-18-0014 Sample Date: 7/14/2020 IDEM Sample #: AB42966 **Water Depth** ✓ Algae? Water Flow Type Stagnant **Water Appearance** Murky ☐ Flow Estimated? **✓** Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 76.6 % ASTM D888-09(C) % Sat DO 6.27 mg/L ASTM D888-09(C) 7.75 SU pH (Field) EPA 150.2 Specific Conductance (Field) 437.7 umho/cm SM2510B Temperature 25.395 °C SM2550B(2) Turbidity (Hach) 14.6 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 0 Lookup Observation SiteID: WBU-18-0014 IDEM Sample #: AB43104 Sample Date: 7/21/2020 ✓ Algae? **Water Depth** Water Flow Type Pool **Water Appearance** Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Very low flow. Stream nearly pooled. Lab ID #: **Reporting Limit Method** Result % Sat 52 % ASTM D888-09(C) DO 4.18 mg/L ASTM D888-09(C) pH (Field) 7.54 SU EPA 150.2 Specific Conductance (Field) 459 umho/cm SM2510B 26.6 °C Temperature SM2550B(2) Turbidity (Hach) 6.62 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43104 Result **Reporting Limit Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B E. coli 51.2 MPN/100mL 1 SM9223B

**SiteID:** WBU-18-0014 **Sample Date:** 7/28/2020 **IDEM Sample #**: AB43124

Water Flow Type Stagnant Water Appearance Clear Water Depth ✓ Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

Sampler Comments: Stream nearly pooled. Very low flow

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	20	%		ASTM D888-09(C)
DO	1.65	mg/L		ASTM D888-09(C)
pH (Field)	7.19	SU		EPA 150.2
Specific Conductance (Field)	347	umho/cm		SM2510B
Temperature	25.1	°C		SM2550B(2)
Turbidity (Hach)	6.6	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : AB43124	<u>Result</u>		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	64.5	MPN/100mL	1	SM9223B

Weather Code Definitions							
SC		WD		WS	AT		
Sky Co	nditions	- 1	Vind Direction	Wind Strength	Air Temp		
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32		
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45		
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60		
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75		
5 - Mist				4 - Mod./Strong	5 - 76-85		
6 - Fog				5 - Strong	6 - > 86		
7 - Shower				6 - Gale			

SiteID:WBU190-0002USGS Hydrologic Unit:051201111801Stream Name:Maria CreekCounty:Knox

**Description:** CR 1050 N/Freelandville Road **Latitude:** 38 52 54.21809 **Longitude:** -87 20 48.04908

Drainage: 22 Site Number: 20T-016

**SitelD:** WBU190-0002 **Sample Date:** 6/15/2020 **IDEM Sample #:** AB42535

Water Flow Type Run Water Appearance Clear Water Depth Algae?

Water Flow (cf/sec): 

Flow Estimated? 

Aquatic Life? Canopy Closed % 0-20%

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	98.2	%		ASTM D888-09(C)
DO	9.08	mg/L		ASTM D888-09(C)
pH (Field)	7.88	-		EPA 150.2
Specific Conductance (Field)	757	umho/cm	SM2510B	
Temperature	19	°C	SM2550B(2)	
Turbidity (Hach)	8.24	NTU	EPA 180.1	
Air Temp	4	Lookup	Observation	
Sky Conditions	1	Lookup	Observation	
Wind Direction	9	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : 500-183767-3	Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	150	mg/L	5	SM2320B
Chloride	17	mg/L	2	EPA 300.0
Hardness (as CaCO3)	160	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	6	mg/L	5	SM2540D
Solids, Total (TS)	510	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	530	mg/L	10	SM2540C
Sulfate	210	mg/L	5	EPA 300.0
Calcium (Total)	39	mg/L	0.2	EPA 200.7
Magnesium (Total)	15	mg/L	0.1	EPA 200.7
COD	20	mg/L	10	SM5220C
Nitrogen, Ammonia	0.19	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.2	mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.054	mg/L	0.05	SM4500P-E
TKN	0.87	mg/L	0.4	SM4500N(Org)-D
TOC	3.5	mg/L	1	SM5310C
<b>Lab ID #</b> : AB42535	<u>Result</u>		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	104.6	MPN/100mL	1	SM9223B

SiteID: WBU190-0002 Sample Date: 6/22/2020 IDEM Sample #: AB42683 **Water Appearance Water Depth** ✓ Algae? Water Flow Type Glide Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 219.4 % ASTM D888-09(C) % Sat DO 17.14 mg/L ASTM D888-09(C) pH (Field) 8.69 SU EPA 150.2 Specific Conductance (Field) 761 umho/cm SM2510B Temperature 28.1 °C SM2550B(2) Turbidity (Hach) 8.12 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 9 Lookup Observation Observation Wind Strength 2 Lookup WBU190-0002 IDEM Sample #: AB43063 SiteID: Sample Date: 7/7/2020 ✓ Algae? **Water Depth** Water Flow Type Riffle **Water Appearance** Clear ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 66 % ASTM D888-09(C) DO 5.33 mg/L ASTM D888-09(C) pH (Field) 7.87 SU EPA 150.2 Specific Conductance (Field) 1123 umho/cm SM2510B 26.1 °C Temperature SM2550B(2) Turbidity (Hach) 15.1 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 9 Lookup Observation Wind Strength 0 Lookup Observation

Chloride         23 mg/L         2 mg/L         3 m	Lab ID #: 500-184718-2		Result		Reporting Limit	<u>Method</u>
Hardness (as CaCO3) Hardness (as CaCO3) Solids, Suspended Total, (TSS) Solids, Suspended Total, (TSS) Solids, Total (TS) Solids, Total Dissolved (TDS) Soli	Alkalinity (as CaCO3)		200	mg/L	5	SM2320B
Solids, Suspended Total, (TSS) Solids, Total (TS) Solids, Total (TS) Solids, Total (TS) Solids, Total Dissolved (TDS) Solids, Total Dissolved (TDS) Sulfate Sulfate Solids, Total Dissolved (TDS) Sulfate Silved Dissolved (TDS) Sulfate Solids, Total Dissolved (TDS) Sulfate Sulfate Solid Dissolved (TDS) Sulfate	Chloride		23	mg/L	2	EPA 300.0
Solids, Total (TS)	Hardness (as CaCO3)		180	mg/L	0.91	SM2340B
Solids, Total Dissolved (TDS)	Solids, Suspended Total, (TSS)		11	mg/L	5	SM2540D
Sulfate         330 mg/L         10         EPA 300.00           Calcium (Total)         40 mg/L         0.2         EPA 200.7           Magnesium (Total)         18 mg/L         0.1         EPA 200.7           COD         14 mg/L         10         SM5220C           Nitrogen, Ammonia         0.2 mg/L         0.2         SM4500NO3           Nitrogen, Nitrate+Nitrite         0.21 mg/L         0.1         SM4500NO3           Phosphorus, Total         0.033 mg/L         0.05         SM4500P-I           TKN         0.57 mg/L         0.4         SM4500N(Org           TOC         3.7 mg/L         1         SM5310C           Lab ID #: AB43063         Result         Reporting Limit         Method           Coliforms (Total)         > 2419.6         MPN/100mL         2419.6         SM9223B           SiteID:         WBU190-0002         Sample Date:         7/14/2020         IDEM Sample #: AB43083         AB43083           Vater Flow Type         Run         Water Appearance         Clear         Water Depth         ✓ Algae           Vater Flow (cf/sec):         ☐ Flow Estimated?         ✓ Aquatic Life?         Canopy Closed %         0-20%           Sampler Comments:         Result         <	Solids, Total (TS)		840	mg/L	30	SM2540B
Calcium (Total)	Solids, Total Dissolved (TDS)		740	mg/L	30	SM2540C
Magnesium (Total)	Sulfate		330	mg/L	10	EPA 300.0
COD	Calcium (Total)		40	mg/L	0.2	EPA 200.7
COD	Magnesium (Total)		18	mg/L	0.1	EPA 200.7
Nitrogen, Ammonia         0.2 mg/L         0.2 SM4500NH3           Nitrogen, Nitrate+Nitrite         0.21 mg/L         0.1 SM4500NO3           Phosphorus, Total         0.033 mg/L         0.05 SM4500P-I           TKN         0.57 mg/L         0.4 SM4500N(Org           TOC         3.7 mg/L         1 SM5310C           Lab ID #: AB43063         Result         Reporting Limit         Method           Coliforms (Total)         > 2419.6 MPN/100mL         2419.6 SM9223B           E. coli         214.2 MPN/100mL         1 SM9223B           SiteID: WBU190-0002         Sample Date: 7/14/2020         IDEM Sample #: AB43083           Vater Flow Type Run         Water Appearance Clear         Water Depth         ✓ Algae           Vater Flow (cf/sec):         Flow Estimated?         ✓ Aquatic Life?         Canopy Closed % 0-20%           Sampler Comments:         Result         Reporting Limit         Method	COD				10	SM5220C
Nitrogen, Nitrate+Nitrite         0.21 mg/L         0.1 SM4500NO3           Phosphorus, Total         0.033 mg/L         0.05 SM4500P-I           TKN TKN TCO         0.57 mg/L         0.4 SM4500N(Org TCO           Lab ID #: AB43063         Result Reporting Limit         Method           Coliforms (Total) E. coli         > 2419.6 MPN/100mL         2419.6 SM9223B           E. coli         214.2 MPN/100mL         1 SM9223B           SiteID: WBU190-0002         Sample Date: 7/14/2020         IDEM Sample #: AB43083           Vater Flow Type Run         Water Appearance Clear Water Depth         ✓ Algae           Vater Flow (cf/sec): Flow Estimated?         ✓ Aquatic Life? Canopy Closed % 0-20%           Sampler Comments:         Result Reporting Limit Method	Nitrogen, Ammonia				0.2	SM4500NH3-G
Phosphorus, Total						SM4500NO3-F
TKN 0.57 mg/L 0.4 SM4500N(Ord 3.7 mg/L 1 SM5310C  Lab ID #: AB43063 Result Reporting Limit Method  Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B E. coli 214.2 MPN/100mL 1 SM9223B  SiteID: WBU190-0002 Sample Date: 7/14/2020 IDEM Sample #: AB43083  Water Flow Type Run Water Appearance Clear Water Depth  Algaer Algaer Appearance Clear Water Depth  Algaer Appearance Comments:  Result Reporting Limit Method	=			-		SM4500P-E
TOC  3.7 mg/L  1 SM5310C  Lab ID #: AB43063  Result  Reporting Limit  Method  Coliforms (Total) E. coli  2419.6 MPN/100mL 2419.6 SM9223B  E. coli  214.2 MPN/100mL 1 SM9223B  SiteID: WBU190-0002  Sample Date: 7/14/2020  IDEM Sample #: AB43083  Water Flow Type Run  Water Appearance Clear  Water Depth  ✓ Algae  Nater Flow (cf/sec):  Gampler Comments:  Result  Reporting Limit  Method				-		SM4500N(Org)-D
Lab ID #: AB43063  Result  Reporting Limit  Method  Coliforms (Total) E. coli  2419.6 MPN/100mL 2419.6 SM9223B 214.2 MPN/100mL 1 SM9223B  SiteID: WBU190-0002  Sample Date: 7/14/2020  IDEM Sample #: AB43083  Nater Flow Type Run Water Appearance Clear  Water Depth  ✓ Algae  Nater Flow (cf/sec):  □ Flow Estimated?  ✓ Aquatic Life?  Canopy Closed % 0-20%  Sampler Comments:				=		
Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B E. coli 214.2 MPN/100mL 1 SM9223B  SiteID: WBU190-0002 Sample Date: 7/14/2020 IDEM Sample #: AB43083  Vater Flow Type Run Water Appearance Clear Water Depth Algae  Vater Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%  Sampler Comments:  Result Reporting Limit Method				9-		
E. coli  214.2 MPN/100mL  1 SM9223B  SiteID: WBU190-0002 Sample Date: 7/14/2020 IDEM Sample #: AB43083  Vater Flow Type Run Water Appearance Clear Water Depth   Vater Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%  Sampler Comments:  Result Reporting Limit Method	Lab ID #: AB43063		Result		Reporting Limit	<u>Method</u>
SiteID: WBU190-0002 Sample Date: 7/14/2020 IDEM Sample #: AB43083  Vater Flow Type Run Water Appearance Clear Water Depth ✓ Algae  Vater Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%  Sampler Comments:  Lab ID #: Result Reporting Limit Method	Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
Water Flow Type Run Water Appearance Clear Water Depth ✓ Algae Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20% Flow Estimated? ✓ Aquatic Life? Reporting Limit Method	,					
Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%  Sampler Comments:  Lab ID #: Result Reporting Limit Method	E. coli	Sample Date: 7/44/2020	214.2			SM9223B
Sampler Comments:  Lab ID #: Result Reporting Limit Method	E. coli	·		IDEM Sample	#: AB43083	
Lab ID #: Result Reporting Limit Method	E. coli  SiteID: WBU190-0002  Water Flow Type Run	Water Appearance	Clear	IDEM Sample	#: AB43083 Vater Depth	<b>✓</b> Algae?
	E. coli  SiteID: WBU190-0002  Vater Flow Type Run  Vater Flow (cf/sec):	Water Appearance	Clear	IDEM Sample	#: AB43083 Vater Depth	✓ Algae?
77.0 W	E. coli SiteID: WBU190-0002  Nater Flow Type Run  Nater Flow (cf/sec):	Water Appearance	Clear	IDEM Sample	#: AB43083 Vater Depth	✓ Algae?
% Sat 77.2 % ASTM D888-0	E. coli  SiteID: WBU190-0002  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:	Water Appearance	Clear ✓ Aq	IDEM Sample	#: AB43083 Vater Depth Canopy Closed %	✓ Algae?
DO 6.74 mg/L ASTM D888-0	E. coli  SiteID: WBU190-0002  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:	Water Appearance	Clear ✓ Aq	IDEM Sample V Juatic Life?	#: AB43083 Vater Depth Canopy Closed %	✓ Algae? 0-20% Method
pH (Field) 7.82 SU EPA 150.2	E. coli  SiteID: WBU190-0002  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Clear  ✓ Aq  Result	IDEM Sample V puatic Life?	#: AB43083 Vater Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C
Specific Conductance (Field) 1272 umho/cm SM2510B	E. coli  SiteID: WBU190-0002  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water Appearance	Clear  Aq  Result  77.2 6.74	IDEM Sample V quatic Life?  % mg/L	#: AB43083 Vater Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
	E. coli  SiteID: WBU190-0002  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field)	Water Appearance	Clear  Result  77.2 6.74 7.82	IDEM Sample V quatic Life?  % mg/L SU	#: AB43083 Vater Depth Canopy Closed %	✓ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
·	E. coli  SiteID: WBU190-0002  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	Clear  Result  77.2 6.74 7.82 1272	IDEM Sample V Juatic Life?  % mg/L SU umho/cm	#: AB43083 Vater Depth Canopy Closed %	✓ Algae? 0-20%  Method  ASTM D888-09(C ASTM D888-09(C EPA 150.2
Turbidity (Hach) 4.81 NTU EPA 180.1	E. coli  SiteID: WBU190-0002  Vater Flow Type Run  Vater Flow (cf/sec):  sampler Comments:  Lab ID #:  % Sat	Water Appearance	Clear  Result  77.2 6.74 7.82 1272 21.8	IDEM Sample V Juatic Life?  % mg/L SU umho/cm °C	#: AB43083 Vater Depth Canopy Closed %	✓ Algae? 0-20%  Method  ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B
	E. coli  SiteID: WBU190-0002  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  **Lab ID #:  **Sat **DO **pH (Field) **Specific Conductance (Field) **Temperature **Turbidity (Hach)	Water Appearance	Clear  Result  77.2 6.74 7.82 1272 21.8 4.81	IDEM Sample V quatic Life?  % mg/L SU umho/cm °C NTU	#: AB43083 Vater Depth Canopy Closed %	■ Algae?  0-20%    Method     ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2)
Air Temp 5 Lookup Observation	E. coli  SiteID: WBU190-0002  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Clear  Result  77.2 6.74 7.82 1272 21.8 4.81 5	IDEM Sample V quatic Life?  % mg/L SU umho/cm °C NTU Lookup	#: AB43083 Vater Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation	SiteID: WBU190-0002  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions	Water Appearance	Clear  Result  77.2 6.74 7.82 1272 21.8 4.81 5 1	IDEM Sample V quatic Life?  % mg/L SU umho/cm °C NTU Lookup Lookup	#: AB43083 Vater Depth Canopy Closed %	■ Algae?  0-20%  Method  ASTM D888-09(C)  ASTM D888-09(C)  EPA 150.2  SM2510B  SM2550B(2)  EPA 180.1  Observation  Observation
Turbidity (Hach) 4.81 NTU EPA 180.1	E. coli  SiteID: WBU190-0002  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	Clear  Result  77.2 6.74 7.82 1272 21.8	IDEM Sample V Juatic Life?  % mg/L SU umho/cm °C	#: AB43083 Vater Depth Canopy Closed %	✓ Algae?  0-20%  Method  ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2)
Air Temp 5 Lookup Observation	SiteID: WBU190-0002  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Clear  Result  77.2 6.74 7.82 1272 21.8 4.81 5	IDEM Sample V quatic Life?  % mg/L SU umho/cm °C NTU Lookup	#: AB43083 Vater Depth Canopy Closed %	Method  ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation	SiteID: WBU190-0002  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions	Water Appearance	Clear  Result  77.2 6.74 7.82 1272 21.8 4.81 5 1	IDEM Sample V quatic Life?  % mg/L SU umho/cm °C NTU Lookup Lookup	#: AB43083 Vater Depth Canopy Closed %	Method  ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation	E. coli  SiteID: WBU190-0002  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water Appearance	Clear  Result  77.2 6.74 7.82 1272 21.8 4.81 5 1 27	"We mg/L SU umho/cm °C NTU Lookup Lookup Lookup	#: AB43083 Vater Depth Canopy Closed %	Method  ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation	E. coli  iitelD: WBU190-0002  /ater Flow Type Run  /ater Flow (cf/sec): ampler Comments:  _ab ID #:  % Sat	Water Appearance	Clear  Result  77.2 6.74 7.82 1272 21.8 4.81 5 1 27	"We mg/L SU umho/cm °C NTU Lookup Lookup Lookup	#: AB43083 Vater Depth Canopy Closed %	Method  ASTM D888-09(C ASTM D888-09(C EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation

> 2419.6 MPN/100mL

109.2 MPN/100mL

2419.6

1

Coliforms (Total)

E. coli

SM9223B

SM9223B

SiteID: WBU190-0002 Sample Date: 7/14/2020 IDEM Sample #: AB42965 **Water Depth** ✓ Algae? Water Flow Type Run **Water Appearance** Clear ☐ Flow Estimated? **✓** Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** adjacent soy fields being sprayed while sampling Lab ID #: Result **Reporting Limit Method** 111.7 % ASTM D888-09(C) % Sat DO 9.56 mg/L ASTM D888-09(C) pH (Field) 8.3 SU EPA 150.2 Specific Conductance (Field) 1282 umho/cm SM2510B Temperature 22.924 °C SM2550B(2) Turbidity (Hach) 3.74 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation WBU190-0002 IDEM Sample #: AB43103 SiteID: Sample Date: 7/21/2020 ☐ Algae? **Water Depth** Water Flow Type Run Water Appearance Murky Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 81.8 % ASTM D888-09(C) DO 6.6 mg/L ASTM D888-09(C) pH (Field) 7.88 SU EPA 150.2 Specific Conductance (Field) 1319 umho/cm SM2510B 26.1 °C Temperature SM2550B(2) Turbidity (Hach) 9.98 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 6 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43103 Result **Reporting Limit Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B E. coli 187.2 MPN/100mL 1 SM9223B

SiteID: WBU190-0002 Sample Date: 7/28/2020 IDEM Sample #: AB43123 ☐ Algae? **Water Appearance** Murky **Water Depth** Water Flow Type Run ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** % Sat 84.7 % ASTM D888-09(C) DO 6.96 mg/L ASTM D888-09(C) pH (Field) 7.84 SU EPA 150.2 Specific Conductance (Field) 962 umho/cm SM2510B Temperature 25.1 °C SM2550B(2) Turbidity (Hach) 36.5 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation Observation Wind Strength 1 Lookup Lab ID #: AB43123 **Reporting Limit** Result **Method** E. coli 613.1 MPN/100mL SM9223B Lab ID #: AB43123a Result **Reporting Limit Method** 

51720 MPN/100mL

100

	Weather Code Definitions							
S	C		WD	WS	AT			
Sky Co	nditions	1	Wind Direction	Wind Strength	Air Temp			
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32			
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45			
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60			
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75			
5 - Mist				4 - Mod./Strong	5 - 76-85			
6 - Fog				5 - Strong	6 - > 86			
7 - Shower				6 - Gale				

Coliforms (Total)

SM9223B

SiteID: WBU-18-0018 USGS Hydrologic Unit: 051201111801 Stream Name: Tributary of Maria Creek County: Knox County Road 700 E, Lane Road Description: 38 52 13.62972 Longitude: -87 20 2.55504 Site Number: 20T-017 Drainage: SiteID: WBU-18-0018 Sample Date: 6/15/2020 IDEM Sample #: AB42537 ☐ Algae? Clear **Water Depth** Water Flow Type Run **Water Appearance** ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** 117 % ASTM D888-09(C) % Sat DO 10.53 mg/L ASTM D888-09(C) pH (Field) 7.94 SU EPA 150.2 Specific Conductance (Field) 512 umho/cm SM2510B 21.7 °C Temperature SM2550B(2) Turbidity (Hach) 22.8 NTU EPA 180.1

4 Lookup

1 Lookup

,	. =		
Wind Direction	9 Look	cup	Observation
Wind Strength	1 Look	kup	Observation
<b>Lab ID #</b> : 500-183767-5	Result	Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	140 mg/l	_ 5	SM2320B
Chloride	39 mg/l	_ 2	EPA 300.0
Hardness (as CaCO3)	190 mg/l	0.91	SM2340B
Solids, Suspended Total, (TSS)	9.5 mg/l	_ 5	SM2540D
Solids, Total (TS)	360 mg/l	_ 10	SM2540B
Solids, Total Dissolved (TDS)	370 mg/l	_ 10	SM2540C
Sulfate	55 mg/l	_ 2	EPA 300.0
Calcium (Total)	49 mg/l	_ 0.2	EPA 200.7
Magnesium (Total)	17 mg/l	_ 0.1	EPA 200.7
COD	13 mg/l	_ 10	SM5220C
Nitrogen, Ammonia	0.15 mg/l	_ 0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	3.1 mg/l	_ 0.5	SM4500NO3-F
Phosphorus, Total	0.078 mg/l	0.05	SM4500P-E
TKN	0.77 mg/l	0.4	SM4500N(Org)-D
TOC	2.9 mg/l	_ 1	SM5310C
<b>Lab ID #</b> : AB42537	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN	J/100mL 2419.6	SM9223B
E. coli	517.2 MPN	I/100mL 1	SM9223B

Air Temp

Sky Conditions

Observation

Observation

SiteID: WBU-18-0018 Sample Date: 6/22/2020 IDEM Sample #: AB42684 **Water Appearance Water Depth** ✓ Algae? Water Flow Type Run Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 186 % ASTM D888-09(C) % Sat DO 14.6 mg/L ASTM D888-09(C) pH (Field) 8.54 SU EPA 150.2 Specific Conductance (Field) 506 umho/cm SM2510B Temperature 27.9 °C SM2550B(2) Turbidity (Hach) 5.46 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 27 Lookup Observation Observation Wind Strength 1 Lookup WBU-18-0018 IDEM Sample #: AB43065 SiteID: Sample Date: 7/7/2020 ☐ Algae? **Water Depth** Water Flow Type Glide **Water Appearance** Clear **✓** Aquatic Life? ☐ Flow Estimated? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 90.7 % ASTM D888-09(C) DO 7.14 mg/L ASTM D888-09(C) pH (Field) 7.84 SU EPA 150.2 Specific Conductance (Field) 641 umho/cm SM2510B 27.8 °C Temperature SM2550B(2) Turbidity (Hach) 7.94 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions 2 Lookup Observation Wind Direction 9 Lookup Observation Wind Strength 0 Lookup Observation

Lab ID #: 500-184718-4		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		160	mg/L	5	SM2320B
Chloride			mg/L	2	EPA 300.0
Hardness (as CaCO3)		230	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		13	mg/L	5	SM2540D
Solids, Total (TS)		490	mg/L	30	SM2540B
Solids, Total Dissolved (TDS)		260	mg/L	30	SM2540C
Sulfate		92	mg/L	2	EPA 300.0
Calcium (Total)		56	mg/L	0.2	EPA 200.7
Magnesium (Total)		23	mg/L	0.1	EPA 200.7
COD		12	mg/L	10	SM5220C
Nitrogen, Ammonia		0.17	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite		0.64	mg/L	0.1	SM4500NO3-F
Phosphorus, Total		0.069	mg/L	0.05	SM4500P-E
TKN			mg/L	0.4	SM4500N(Org)-D
TOC		3.4	mg/L	1	SM5310C
Lab ID #: AB43065		Result		Reporting Limit	<u>Method</u>
					0110000
Coliforms (Total)			MPN/100mL	2419.6	SM9223B
Coliforms (Total) E. coli			MPN/100mL MPN/100mL	2419.6 1	SM9223B SM9223B
E. coli	Sample Date: 7/14/2020			1	
E. coli	Sample Date: 7/14/2020 Water Appearance		MPN/100mL  IDEM Sample	1	
E. coli  SiteID: WBU-18-0018  Water Flow Type Run		410.6 Clear	MPN/100mL  IDEM Sample	1 #: AB42964 Vater Depth	SM9223B
E. coli	Water Appearance	410.6 Clear	MPN/100mL  IDEM Sample	1 #: AB42964	SM9223B
E. coli  SiteID: WBU-18-0018  Water Flow Type Run  Water Flow (cf/sec):	Water Appearance	410.6 Clear	MPN/100mL  IDEM Sample	1 #: AB42964 Vater Depth	SM9223B
E. coli  SiteID: WBU-18-0018  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:	Water Appearance	Clear	MPN/100mL  IDEM Sample  W  Juatic Life?	#: AB42964 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%
E. coli  SiteID: WBU-18-0018  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Clear  Ac  Result	MPN/100mL  IDEM Sample  W  Juatic Life?	#: AB42964 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method
E. coli  SiteID: WBU-18-0018  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Clear  Ac  Result	IDEM Sample  Viguatic Life?	#: AB42964 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C)
E. coli  SiteID: WBU-18-0018  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water Appearance	Clear  ✓ Aq  Result  45.7  3.52  7.68	IDEM Sample  Viguatic Life?	#: AB42964 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
E. coli  SiteID: WBU-18-0018  Vater Flow Type Run  Vater Flow (cf/sec):  sampler Comments:  Lab ID #:  % Sat DO pH (Field)	Water Appearance	Clear  ✓ Aq  Result  45.7  3.52  7.68	MPN/100mL  IDEM Sample  Wattic Life?  % mg/L SU umho/cm	#: AB42964 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2
E. coli  SiteID: WBU-18-0018  Vater Flow Type Run  Vater Flow (cf/sec):  sampler Comments:  Lab ID #:  % Sat DO pH (Field)  Specific Conductance (Field)	Water Appearance	410.6  Clear  Aq  Result  45.7  3.52  7.68  501  22.44	MPN/100mL  IDEM Sample  Wattic Life?  % mg/L SU umho/cm	#: AB42964 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
E. coli  SiteID: WBU-18-0018  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  **Lab ID #:  **Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	410.6  Clear  Result  45.7  3.52  7.68  501  22.44  6.41	MPN/100mL  IDEM Sample  W  Juatic Life?  %  mg/L SU  umho/cm °C	#: AB42964 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
E. coli  SiteID: WBU-18-0018  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	410.6  Clear  Result  45.7  3.52  7.68  501  22.44  6.41  4	MPN/100mL  IDEM Sample  W  Juatic Life?	#: AB42964 Vater Depth Canopy Closed %	SM9223B  Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
E. coli  SiteID: WBU-18-0018  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat	Water Appearance	Clear  ✓ Aq  Result  45.7 3.52 7.68 501 22.44 6.41 4 1	MPN/100mL  IDEM Sample  W  Juatic Life?  %  mg/L SU  umho/cm °C NTU	#: AB42964 Vater Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation

SiteID: WBU-18-0018 Sample Date: 7/14/2020 IDEM Sample #: AB43085 **Water Depth** ✓ Algae? Water Flow Type Riffle Water Appearance Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** very low flow Lab ID #: Result **Reporting Limit Method** 66.3 % ASTM D888-09(C) % Sat DO 5.62 mg/L ASTM D888-09(C) 7.57 SU pH (Field) EPA 150.2 Specific Conductance (Field) 496 umho/cm SM2510B Temperature 22.5 °C SM2550B(2) Turbidity (Hach) 17.7 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43085 **Reporting Limit** Result **Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B E. coli 648.8 MPN/100mL 1 SM9223B SiteID: WBU-18-0018 Sample Date: IDEM Sample #: AB43105 7/21/2020 ✓ Algae? Water Flow Type Pool Water Appearance Clear **Water Depth** ☐ Flow Estimated? Water Flow (cf/sec): ✓ Aquatic Life? Canopy Closed % 0-20% Sampler Comments: Very low flow. Lab ID #: Reporting Limit **Method** Result % Sat 44.8 % ASTM D888-09(C) DO ASTM D888-09(C) 3.67 mg/L pH (Field) 7.53 SU EPA 150.2 Specific Conductance (Field) 557 umho/cm SM2510B 25.4 °C Temperature SM2550B(2) 8.74 NTU Turbidity (Hach) EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 4 Lookup Wind Direction 18 Lookup Observation Wind Strength 1 Lookup Observation Lab ID #: AB43105 Result **Reporting Limit Method** > 2419.6 MPN/100mL 2419.6 Coliforms (Total) SM9223B

410.6 MPN/100mL

1

E. coli

SM9223B

**SiteID:** WBU-18-0018 **Sample Date:** 7/28/2020 **IDEM Sample #**: AB43125

Water Flow Type Pool Water Appearance Clear Water Depth 

Algae?

Water Flow (cf/sec): ☐ Flow Estimated? ✓ Aquatic Life? Canopy Closed % 0-20%

Sampler Comments:

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	89.1	%		ASTM D888-09(C)
DO	7.23	mg/L		ASTM D888-09(C)
pH (Field)	7.73	SU		EPA 150.2
Specific Conductance (Field)	620	umho/cm		SM2510B
Temperature	25.9	°C		SM2550B(2)
Turbidity (Hach)	3.69	NTU		EPA 180.1
Air Temp	5	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	27	Lookup		Observation
Wind Strength	1	Lookup		Observation
<b>Lab ID #</b> : AB43125	Result		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	1203.3	MPN/100mL	1	SM9223B

	Weather Code Definitions							
S	C		WD	WS	AT			
Sky Co	nditions	1	Wind Direction	Wind Strength	Air Temp			
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32			
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45			
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60			
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75			
5 - Mist				4 - Mod./Strong	5 - 76-85			
6 - Fog				5 - Strong	6 - > 86			
7 - Shower				6 - Gale				

SiteID: WBU-18-0019 USGS Hydrologic Unit: 051201111801 Stream Name: Maria Creek County: Sullivan Description: E County Road 1050 S 38 55 27.71266 Longitude: -87 19 59.22943 Site Number: 20T-018 Drainage: SiteID: WBU-18-0019 Sample Date: 6/15/2020 IDEM Sample #: AB42534 ☐ Algae? Clear **Water Depth** Water Flow Type Riffle **Water Appearance** ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** 

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	96.2	%		ASTM D888-09(C)
DO	1 88.8	mg/L		ASTM D888-09(C)
pH (Field)	7.93	SU		EPA 150.2
Specific Conductance (Field)	853 u	umho/cm		SM2510B
Temperature	19.1 °	°C		SM2550B(2)
Turbidity (Hach)	7.88 1	NTU		EPA 180.1
Air Temp	4 1	Lookup		Observation
Sky Conditions	1 1	Lookup		Observation
Wind Direction	9 1	Lookup		Observation
Wind Strength	0 1	Lookup		Observation
<b>Lab ID #</b> : 500-183767-2	<u>Result</u>		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)	150 r	mg/L	5	SM2320B
Chloride	14 r	mg/L	2	EPA 300.0
Hardness (as CaCO3)	150 r	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	4.5 r	mg/L	5	SM2540D
Solids, Total (TS)	570 r	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	600 r	mg/L	10	SM2540C
Sulfate	250 r	mg/L	10	EPA 300.0
Calcium (Total)	37 r	mg/L	0.2	EPA 200.7

	, and the second			
<b>Lab ID #</b> : AB42534	Result	Reporting Limit	Method	
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B	
E. coli	222.4 MPN/100mL	1	SM9223B	

15 mg/L

13 mg/L

0.17 mg/L

0.81 mg/L

0.039 mg/L

0.71 mg/L

3.3 mg/L

0.1

10

0.2

0.1

0.05

0.4

1

Magnesium (Total)

Nitrogen, Ammonia

Phosphorus, Total

Nitrogen, Nitrate+Nitrite

COD

TKN

TOC

EPA 200.7

SM5220C

SM4500NH3-G

SM4500NO3-F

SM4500P-E

SM4500N(Org)-D

SM5310C

SiteID: WBU-18-0019 Sample Date: 6/22/2020 IDEM Sample #: AB42685 **Water Appearance Water Depth** ✓ Algae? Water Flow Type Run Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 106.5 % ASTM D888-09(C) % Sat DO 8.89 mg/L ASTM D888-09(C) pH (Field) 8.22 SU EPA 150.2 Specific Conductance (Field) 968 umho/cm SM2510B Temperature 24.3 °C SM2550B(2) Turbidity (Hach) 10.1 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation WBU-18-0019 IDEM Sample #: AB43062 SiteID: Sample Date: 7/7/2020 ☐ Algae? **Water Depth** Water Flow Type Run **Water Appearance** Clear ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 94.5 % ASTM D888-09(C) DO 7.68 mg/L ASTM D888-09(C) pH (Field) 8.15 SU EPA 150.2 Specific Conductance (Field) 1179 umho/cm SM2510B 25.8 °C Temperature SM2550B(2) Turbidity (Hach) 13.7 NTU EPA 180.1 Air Temp 6 Lookup Observation Sky Conditions Observation 1 Lookup Wind Direction 9 Lookup Observation Wind Strength 0 Lookup Observation

<b>Lab ID #</b> : 500-184718-1		Result		Reporting Limit	<u>Method</u>
Alkalinity (as CaCO3)		200	mg/L	5	SM2320B
Chloride			mg/L	2	EPA 300.0
Hardness (as CaCO3)		160	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)		12	mg/L	5	SM2540D
Solids, Total (TS)		840	mg/L	30	SM2540B
Solids, Total Dissolved (TDS)		740	mg/L	30	SM2540C
Sulfate			mg/L	10	EPA 300.0
Calcium (Total)			mg/L	0.2	EPA 200.7
Magnesium (Total)			mg/L	0.1	EPA 200.7
COD			mg/L	10	SM5220C
Nitrogen, Ammonia			mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite			mg/L	0.1	SM4500NO3-F
Phosphorus, Total			mg/L	0.05	SM4500P-E
TKN			mg/L	0.4	SM4500N(Org)-D
TOC			mg/L	1	SM5310C
<b>Lab ID #</b> : AB43062		Result		Reporting Limit	<u>Method</u>
Coliforms (Total)		> 2419.6	MPN/100mL	2419.6	SM9223B
		<b>5470</b>	MPN/100mL	1	SM9223B
	ample Date: 7/14/2020		IDEM Sample	#: AB43082	
SiteID: WBU-18-0019 Sa Water Flow Type Run	Water Appearance	Clear	IDEM Sample	#: AB43082 /ater Depth	<b>✓</b> Algae?
SiteID: WBU-18-0019 Sa Water Flow Type Run Water Flow (cf/sec):		Clear	IDEM Sample	#: AB43082	<b>✓</b> Algae?
SiteID: WBU-18-0019 Sa Water Flow Type Run Water Flow (cf/sec): Sampler Comments:	Water Appearance	Clear	IDEM Sample	#: AB43082 /ater Depth	<b>✓</b> Algae?
SiteID: WBU-18-0019 Sa Vater Flow Type Run Vater Flow (cf/sec): Sampler Comments:	Water Appearance	Clear	IDEM Sample W Juatic Life?	#: AB43082 /ater Depth Canopy Closed %	✓ Algae? 0-20%
SiteID: WBU-18-0019 Sa  Water Flow Type Run  Water Flow (cf/sec):  Sampler Comments:  Lab ID #:	Water Appearance	Clear Aq Result	IDEM Sample W Juatic Life?	#: AB43082 /ater Depth Canopy Closed %	✓ Algae? 0-20% Method
SiteID: WBU-18-0019 Sa  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO	Water Appearance	Clear Aq Result	IDEM Sample W quatic Life? % mg/L	#: AB43082 /ater Depth Canopy Closed %	Algae? 0-20%  Method  ASTM D888-09(C)
SiteID: WBU-18-0019 Sa  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field)	Water Appearance	Clear  Aq  Result  92.3 7.95 8.05	IDEM Sample W quatic Life?  % mg/L SU	#: AB43082 /ater Depth Canopy Closed %	✓ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C)
SiteID: WBU-18-0019 Sa  Water Flow Type Run  Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field)	Water Appearance	Clear  Result  92.3 7.95 8.05 1295	IDEM Sample W Juatic Life?  % mg/L SU umho/cm	#: AB43082 /ater Depth Canopy Closed %	✓ Algae? 0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B
SiteID: WBU-18-0019 Sa  Vater Flow Type Run  Vater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature	Water Appearance	Clear  Result  92.3 7.95 8.05 1295 22.6	IDEM Sample W Juatic Life?  % mg/L SU umho/cm °C	#: AB43082 /ater Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2)
SiteID: WBU-18-0019 Sa  Water Flow Type Run  Water Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach)	Water Appearance	Clear  Result  92.3 7.95 8.05 1295 22.6 9.55	IDEM Sample Wijuatic Life? % mg/L SU umho/cm °C NTU	#: AB43082 /ater Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1
SiteID: WBU-18-0019 Sa  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Clear  Result  92.3 7.95 8.05 1295 22.6 9.55 4	IDEM Sample W quatic Life?  % mg/L SU umho/cm °C NTU Lookup	#: AB43082 /ater Depth Canopy Closed %	■ Algae?  0-20%    Method     ASTM D888-09(C)     ASTM D888-09(C)     EPA 150.2     SM2510B     SM2550B(2)     EPA 180.1     Observation
SiteID: WBU-18-0019 Sa  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions	Water Appearance	Clear  Result  92.3 7.95 8.05 1295 22.6 9.55 4 1	Muatic Life?  % mg/L SU umho/cm °C NTU Lookup Lookup	#: AB43082 /ater Depth Canopy Closed %	Algae?  0-20%  Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation
SiteID: WBU-18-0019 Sa  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp	Water Appearance	Clear  Result  92.3 7.95 8.05 1295 22.6 9.55 4 1 27	IDEM Sample W quatic Life?  % mg/L SU umho/cm °C NTU Lookup	#: AB43082 /ater Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation
SiteID: WBU-18-0019 Sa  Vater Flow Type Run  Vater Flow (cf/sec):  Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction Wind Strength	Water Appearance	Clear  Result  92.3 7.95 8.05 1295 22.6 9.55 4 1 27	"Wiguatic Life?"  "Marging and the second of	#: AB43082 /ater Depth Canopy Closed %	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation
SiteID: WBU-18-0019 Sa  Nater Flow Type Run  Nater Flow (cf/sec): Sampler Comments:  Lab ID #:  % Sat DO pH (Field) Specific Conductance (Field) Temperature Turbidity (Hach) Air Temp Sky Conditions Wind Direction	Water Appearance	Clear  Result  92.3 7.95 8.05 1295 22.6 9.55 4 1 27 1  Result	"Wiguatic Life?"  "Marging and the second of	#: AB43082 /ater Depth Canopy Closed %  Reporting Limit	Method  ASTM D888-09(C) ASTM D888-09(C) EPA 150.2 SM2510B SM2550B(2) EPA 180.1 Observation Observation Observation Observation

SiteID: WBU-18-0019 Sample Date: 7/15/2020 IDEM Sample #: AB42972 **Water Appearance Water Depth** ✓ Algae? Water Flow Type Riffle Clear ☐ Flow Estimated? **✓** Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 109.6 % ASTM D888-09(C) % Sat DO 9.05 mg/L ASTM D888-09(C) pH (Field) 8.38 SU EPA 150.2 Specific Conductance (Field) 1317 umho/cm SM2510B Temperature 24.875 °C SM2550B(2) Turbidity (Hach) 7.57 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 3 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation WBU-18-0019 IDEM Sample #: AB43102 SiteID: Sample Date: 7/21/2020 ✓ Algae? **Water Depth** Water Flow Type Riffle Water Appearance Murky Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit Method** Result % Sat 88.8 % ASTM D888-09(C) DO 7.07 mg/L ASTM D888-09(C) pH (Field) 8.09 SU EPA 150.2 Specific Conductance (Field) 1338 umho/cm SM2510B 26.9 °C Temperature SM2550B(2) Turbidity (Hach) 15.3 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions Observation 6 Lookup Wind Direction 18 Lookup Observation Wind Strength 0 Lookup Observation Lab ID #: AB43102 Result **Reporting Limit Method** Coliforms (Total) > 2419.6 MPN/100mL 2419.6 SM9223B E. coli 579.4 MPN/100mL 1 SM9223B

IDEM Sample #: AB43122 SiteID: WBU-18-0019 Sample Date: 7/28/2020 ☐ Algae? **Water Appearance** Murky **Water Depth** Water Flow Type Run ☐ Flow Estimated? ☐ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** % Sat 89.7 % ASTM D888-09(C) DO 7.25 mg/L ASTM D888-09(C) pH (Field) 7.88 SU EPA 150.2 Specific Conductance (Field) 1049 umho/cm SM2510B Temperature 26.1 °C SM2550B(2) Turbidity (Hach) 35 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation Observation Wind Strength 1 Lookup Lab ID #: AB43122 **Reporting Limit** Result **Method** 

> 2419.6 MPN/100mL

290.9 MPN/100mL

2419.6

1

SM9223B

SM9223B

	Weather Code Definitions							
S	C		WD	WS	AT			
Sky Co	nditions	V	Vind Direction	Wind Strength	Air Temp			
1 - Clear	8 - Rain	0	North (0 Degrees)	0 - Calm	1 - < 32			
2 - Scattered	9 - Snow	9	East (90 Degrees)	1 - Light	2 - 33-45			
3 - Partly	10 - Sleet	18	South (180 Degrees)	2 - Mod./Light	3 - 46-60			
4 - Cloudy		27	West (270 Degrees)	3 - Moderate	4 - 61-75			
5 - Mist				4 - Mod./Strong	5 - 76-85			
6 - Fog				5 - Strong	6 - > 86			
7 - Shower				6 - Gale				

Coliforms (Total)

E. coli

SiteID:WBU-18-0020USGS Hydrologic Unit:051201111801Stream Name:Maria CreekCounty:Sullivan

**Description:** E County Road 975 S **Latitude:** 38 56 8.07322 **Longitude:** -87 19 23.56253

Drainage: Site Number: 20T-019

**SiteID:** WBU-18-0020 **Sample Date:** 6/15/2020 **IDEM Sample #:** AB42524

Water Flow Type Pool Water Appearance Murky Water Depth Algae?

Water Flow (cf/sec): 

Flow Estimated? 

Aquatic Life? Canopy Closed % 0-20%

Sampler Comments: Low flow - nearly dry

Lab ID #:	Result		Reporting Limit	<u>Method</u>
% Sat	51.6	%		ASTM D888-09(C)
DO	4.86	mg/L		ASTM D888-09(C)
pH (Field)	7.5	SU		EPA 150.2
Specific Conductance (Field)	443	umho/cm		SM2510B
Temperature	18.3	°C		SM2550B(2)
Turbidity (Hach)	14	NTU		EPA 180.1
Air Temp	4	Lookup		Observation
Sky Conditions	1	Lookup		Observation
Wind Direction	9	Lookup		Observation
Wind Strength	0	Lookup		Observation
<b>Lab ID #</b> : 500-183767-1	Result		Reporting Limit	Method
Alkalinity (as CaCO3)	200	mg/L	5	SM2320B
Chloride	14	mg/L	2	EPA 300.0
Hardness (as CaCO3)	180	mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	11	mg/L	5	SM2540D
Solids, Total (TS)	310	mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	310	mg/L	10	SM2540C
Sulfate	10	mg/L	2	EPA 300.0
Calcium (Total)	53	mg/L	0.2	EPA 200.7
Magnesium (Total)	11	mg/L	0.1	EPA 200.7
COD	33	mg/L	10	SM5220C
Nitrogen, Ammonia	0.18	mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.12	mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.12	mg/L	0.05	SM4500P-E
TKN	1.2	mg/L	0.4	SM4500N(Org)-D
TOC	8	mg/L	1	SM5310C
<b>Lab ID #</b> : AB42524	<u>Result</u>		Reporting Limit	<u>Method</u>
Coliforms (Total)	> 2419.6	MPN/100mL	2419.6	SM9223B
E. coli	579.4	MPN/100mL	1	SM9223B

SiteID: WBU-18-0020 Sample Date: 6/22/2020 IDEM Sample #: AB42686 **Water Depth** ✓ Algae? Water Flow Type Run Water Appearance Clear ☐ Flow Estimated? **✓** Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: Result **Reporting Limit Method** 85.8 % ASTM D888-09(C) % Sat DO 7.12 mg/L ASTM D888-09(C) 8.02 SU pH (Field) EPA 150.2 Specific Conductance (Field) 997 umho/cm SM2510B Temperature 24.6 °C SM2550B(2) Turbidity (Hach) 11.5 NTU EPA 180.1 Air Temp 5 Lookup Observation Sky Conditions 1 Lookup Observation Wind Direction 27 Lookup Observation Wind Strength 1 Lookup Observation WBU-18-0020 IDEM Sample #: AB42963 SiteID: Sample Date: 7/15/2020 ✓ Algae? **Water Depth** Water Flow Type Run Water Appearance Clear ☐ Flow Estimated? ✓ Aquatic Life? Water Flow (cf/sec): Canopy Closed % 0-20% **Sampler Comments:** Lab ID #: **Reporting Limit** Result **Method** % Sat 106.6 % ASTM D888-09(C) DO 8.41 mg/L ASTM D888-09(C) pH (Field) 8.3 SU EPA 150.2 Specific Conductance (Field) 1325 umho/cm SM2510B 27.395 °C Temperature SM2550B(2) Turbidity (Hach) 5.76 NTU EPA 180.1 Air Temp 5 Lookup Observation Observation Sky Conditions 2 Lookup Wind Direction 9 Lookup Observation Wind Strength 2 Lookup Observation Weather Code Definitions SCWD AT **Sky Conditions Wind Direction** Wind Strength Air Temp 1 - Clear - Rain North (0 Degrees) 0 - Calm - < 32

2 - 33-45

3 - 46-60

4 - 61-75

5 - 76-85

6 - > 86

- Snow

10 - Sleet

East (90 Degrees)

South (180 Degrees)

West (270 Degrees)

1 - Light

5 - Strong

- Gale

- Mod./Light

- Mod./Strong

- Moderate

2 - Scattered

3 - Partly

4 - Cloudy

- Shower

5 - Mist

6 - Fog