

**Indiana Department of Environmental Management
Office of Water Quality-Watershed Assessment and Planning Branch
Surface Water Results Summary**

SiteID: WBU-18-0004 **USGS Hydrologic Unit:** 051201111804
Stream Name: Maria Creek **County:** Knox
Description: N Old 41 **Latitude:** 38 46 24.47793 **Longitude:** -87 28 21.95307
Drainage: **Site Number:** 20T-001

SiteID: WBU-18-0004 **Sample Date:** 2/10/2020 **IDEM Sample #:** AB41501
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	89.3 %		ASTM D888-09(C)
DO	11.23 mg/L		ASTM D888-09(C)
pH (Field)	7.71 SU		EPA 150.2
Specific Conductance (Field)	186 umho/cm		SM2510B
Temperature	5.6 °C		SM2550B(2)
Turbidity (Hach)	507 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> 500-177739-6	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	56 mg/L	5	SM2320B
Chloride	6.2 mg/L	0.2	EPA 300.0
Hardness (as CaCO3)	100 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	690 mg/L	33	SM2540D
Solids, Total (TS)	780 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	190 mg/L	10	SM2540C
Sulfate	21 mg/L	2	EPA 300.0
Calcium (Total)	25 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.4 mg/L	0.1	EPA 200.7
COD	15 mg/L	10	SM5220C
Nitrogen, Ammonia	0.11 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.98 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.095 mg/L	0.05	SM4500P-E
TKN	1.3 mg/L	0.4	SM4500N(Org)-D
TOC	6 mg/L	1	SM5310C

**Indiana Department of Environmental Management
Office of Water Quality-Watershed Assessment and Planning Branch
Surface Water Results Summary**

SiteID: WBU-18-0004 **Sample Date:** 3/9/2020 **IDEM Sample #:** AB41828
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	Method
	% Sat	94.8 %	ASTM D888-09(C)
	DO	10.93 mg/L	ASTM D888-09(C)
	pH (Field)	7.77 SU	EPA 150.2
	Specific Conductance (Field)	599 umho/cm	SM2510B
	Temperature	9.1 °C	SM2550B(2)
	Turbidity (Hach)	10.9 NTU	EPA 180.1
	Air Temp	3 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID #: 500-179111-6	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	190 mg/L	5	SM2320B
	Chloride	27 mg/L	2	EPA 300.0
	Hardness (as CaCO3)	270 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	12 mg/L	5	SM2540D
	Solids, Total (TS)	350 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	330 mg/L	10	SM2540C
	Sulfate	65 mg/L	2	EPA 300.0
	Calcium (Total)	67 mg/L	0.2	EPA 200.7
	Magnesium (Total)	24 mg/L	0.1	EPA 200.7
	COD	9.3 mg/L	10	SM5220C
	Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	4.1 mg/L	0.5	SM4500NO3-F
	Phosphorus, Total	0.083 mg/L	0.05	SM4500P-E
	TKN	0.56 mg/L	0.4	SM4500N(Org)-D
	TOC	2 mg/L	1	SM5310C

Weather Code Definitions			
SC	WD	WS	AT
Sky Conditions	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	2 - Mod./Light	3 - 46-60
4 - Cloudy		3 - Moderate	4 - 61-75
5 - Mist		4 - Mod./Strong	5 - 76-85
6 - Fog		5 - Strong	6 - > 86
7 - Shower		6 - Gale	

**Indiana Department of Environmental Management
Office of Water Quality-Watershed Assessment and Planning Branch
Surface Water Results Summary**

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:** 2/10/2020 **IDEM Sample #:** AB41500
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	90.1 %		ASTM D888-09(C)
DO	11.41 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	205 umho/cm		SM2510B
Temperature	5.3 °C		SM2550B(2)
Turbidity (Hach)	376 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	3 Lookup		Observation

<u>Lab ID #:</u> 500-177739-5	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	64 mg/L	5	SM2320B
Chloride	7 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	88 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	480 mg/L	20	SM2540D
Solids, Total (TS)	590 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	230 mg/L	10	SM2540C
Sulfate	27 mg/L	2	EPA 300.0
Calcium (Total)	22 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.2 mg/L	0.1	EPA 200.7
COD	18 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.2 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.57 mg/L	0.05	SM4500P-E
TKN	1.7 mg/L	0.4	SM4500N(Org)-D
TOC	5.9 mg/L	1	SM5310C

**Indiana Department of Environmental Management
Office of Water Quality-Watershed Assessment and Planning Branch
Surface Water Results Summary**

SiteID: WBU-18-0007

Sample Date: 3/9/2020

IDEM Sample #: AB41827

Water Flow Type Run

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	Method
% Sat	96.8 %		ASTM D888-09(C)
DO	11.18 mg/L		ASTM D888-09(C)
pH (Field)	7.8 SU		EPA 150.2
Specific Conductance (Field)	607 umho/cm		SM2510B
Temperature	8.9 °C		SM2550B(2)
Turbidity (Hach)	12.9 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	4 Lookup		Observation

Lab ID #: 500-179111-5	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	190 mg/L	5	SM2320B
Chloride	30 mg/L	2	EPA 300.0
Hardness (as CaCO3)	260 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	17 mg/L	5	SM2540D
Solids, Total (TS)	350 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	74 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	7.7 mg/L	10	SM5220C
Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	4.3 mg/L	0.5	SM4500NO3-F
Phosphorus, Total	0.09 mg/L	0.05	SM4500P-E
TKN	0.51 mg/L	0.4	SM4500N(Org)-D
TOC	2 mg/L	1	SM5310C

Weather Code Definitions			
SC	WD	WS	AT
Sky Conditions	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	2 - Mod./Light	3 - 46-60
4 - Cloudy		3 - Moderate	4 - 61-75
5 - Mist		4 - Mod./Strong	5 - 76-85
6 - Fog		5 - Strong	6 - > 86
7 - Shower		6 - Gale	

**Indiana Department of Environmental Management
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Surface Water Results Summary**

SiteID: WBU-18-0008 **USGS Hydrologic Unit:** 051201111802
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:** 2/10/2020 **IDEM Sample #:** AB41498
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	90.7 %		ASTM D888-09(C)
DO	11.53 mg/L		ASTM D888-09(C)
pH (Field)	7.39 SU		EPA 150.2
Specific Conductance (Field)	212 umho/cm		SM2510B
Temperature	5.2 °C		SM2550B(2)
Turbidity (Hach)	368 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #:</u> 500-177739-3	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	55 mg/L	5	SM2320B
Chloride	28 mg/L	2	EPA 300.0
Hardness (as CaCO3)	77 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	420 mg/L	25	SM2540D
Solids, Total (TS)	580 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	230 mg/L	10	SM2540C
Sulfate	31 mg/L	2	EPA 300.0
Calcium (Total)	19 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.3 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	1 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.52 mg/L	0.05	SM4500P-E
TKN	1.4 mg/L	0.4	SM4500N(Org)-D
TOC	5.8 mg/L	1	SM5310C

**Indiana Department of Environmental Management
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Surface Water Results Summary**

SiteID: WBU-18-0008 **Sample Date:** 3/9/2020 **IDEM Sample #:** AB41825
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	Method
	% Sat	95.5 %	ASTM D888-09(C)
	DO	11.06 mg/L	ASTM D888-09(C)
	pH (Field)	7.75 SU	EPA 150.2
	Specific Conductance (Field)	545 umho/cm	SM2510B
	Temperature	8.9 °C	SM2550B(2)
	Turbidity (Hach)	16.8 NTU	EPA 180.1
	Air Temp	3 Lookup	Observation
	Sky Conditions	3 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #: 500-179111-3	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	180 mg/L	5	SM2320B
	Chloride	23 mg/L	2	EPA 300.0
	Hardness (as CaCO3)	240 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	13 mg/L	5	SM2540D
	Solids, Total (TS)	300 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
	Sulfate	53 mg/L	2	EPA 300.0
	Calcium (Total)	59 mg/L	0.2	EPA 200.7
	Magnesium (Total)	23 mg/L	0.1	EPA 200.7
	COD	11 mg/L	10	SM5220C
	Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	4.1 mg/L	0.5	SM4500NO3-F
	Phosphorus, Total	0.088 mg/L	0.05	SM4500P-E
	TKN	0.6 mg/L	0.4	SM4500N(Org)-D
	TOC	2.2 mg/L	1	SM5310C

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

**Indiana Department of Environmental Management
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Surface Water Results Summary**

SiteID: WBU-18-0013 **USGS Hydrologic Unit:** 051201111802
Stream Name: Maria Creek **County:** Knox
Description: County Road 900 N **Latitude:** 38 51 30.84594 **Longitude:** -87 21 12.18373
Drainage: **Site Number:** 20T-009

SiteID: WBU-18-0013 **Sample Date:** 2/10/2020 **IDEM Sample #:** AB41497
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	91.1 %		ASTM D888-09(C)
DO	11.7 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	234 umho/cm		SM2510B
Temperature	4.9 °C		SM2550B(2)
Turbidity (Hach)	372 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	3 Lookup		Observation

<u>Lab ID #:</u> 500-177739-2	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	55 mg/L	5	SM2320B
Chloride	6.5 mg/L	0.2	EPA 300.0
Hardness (as CaCO3)	73 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	370 mg/L	25	SM2540D
Solids, Total (TS)	560 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	250 mg/L	10	SM2540C
Sulfate	43 mg/L	2	EPA 300.0
Calcium (Total)	18 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.1 mg/L	0.1	EPA 200.7
COD	24 mg/L	10	SM5220C
Nitrogen, Ammonia	0.11 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.91 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.47 mg/L	0.05	SM4500P-E
TKN	1.4 mg/L	0.4	SM4500N(Org)-D
TOC	5.3 mg/L	1	SM5310C

**Indiana Department of Environmental Management
Office of Water Quality-Watershed Assessment and Planning Branch
Surface Water Results Summary**

SiteID: WBU-18-0013 **Sample Date:** 3/9/2020 **IDEM Sample #:** AB41824
Water Flow Type Run **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	Method
	% Sat	99.1 %	ASTM D888-09(C)
	DO	11.79 mg/L	ASTM D888-09(C)
	pH (Field)	7.58 SU	EPA 150.2
	Specific Conductance (Field)	509 umho/cm	SM2510B
	Temperature	7.8 °C	SM2550B(2)
	Turbidity (Hach)	22.3 NTU	EPA 180.1
	Air Temp	3 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	3 Lookup	Observation

Lab ID #: 500-179111-2	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	140 mg/L	5	SM2320B
	Chloride	22 mg/L	2	EPA 300.0
	Hardness (as CaCO3)	180 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	16 mg/L	5	SM2540D
	Solids, Total (TS)	330 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	290 mg/L	10	SM2540C
	Sulfate	73 mg/L	2	EPA 300.0
	Calcium (Total)	44 mg/L	0.2	EPA 200.7
	Magnesium (Total)	18 mg/L	0.1	EPA 200.7
	COD	9.3 mg/L	10	SM5220C
	Nitrogen, Ammonia	0.19 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	3.4 mg/L	0.5	SM4500NO3-F
	Phosphorus, Total	0.093 mg/L	0.05	SM4500P-E
	TKN	0.62 mg/L	0.4	SM4500N(Org)-D
	TOC	2.4 mg/L	1	SM5310C

Weather Code Definitions			
SC	WD	WS	AT
Sky Conditions	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	2 - Mod./Light	3 - 46-60
4 - Cloudy		3 - Moderate	4 - 61-75
5 - Mist		4 - Mod./Strong	5 - 76-85
6 - Fog		5 - Strong	6 - > 86
7 - Shower		6 - Gale	

**Indiana Department of Environmental Management
Office of Water Quality-Watershed Assessment and Planning Branch
Surface Water Results Summary**

SiteID: WBU190-0001 **USGS Hydrologic Unit:** 051201111803
Stream Name: Marsh Creek **County:** Knox
Description: E Springtown Road **Latitude:** 38 49 42.46832 **Longitude:** -87 23 59.53848
Drainage: 23 **Site Number:** 20T-010

SiteID: WBU190-0001 **Sample Date:** 2/10/2020 **IDEM Sample #:** AB41499
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

Lab ID #:	Result	Reporting Limit	Method
% Sat	88.4 %		ASTM D888-09(C)
DO	11.09 mg/L		ASTM D888-09(C)
pH (Field)	7.2 SU		EPA 150.2
Specific Conductance (Field)	197 umho/cm		SM2510B
Temperature	5.6 °C		SM2550B(2)
Turbidity (Hach)	264 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID #: 500-177739-4	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	60 mg/L	5	SM2320B
Chloride	9 mg/L	0.4	EPA 300.0
Hardness (as CaCO3)	96 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	370 mg/L	20	SM2540D
Solids, Total (TS)	570 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	190 mg/L	10	SM2540C
Sulfate	18 mg/L	2	EPA 300.0
Calcium (Total)	25 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.3 mg/L	0.1	EPA 200.7
COD	71 mg/L	10	SM5220C
Nitrogen, Ammonia	0.12 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	1.2 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.62 mg/L	0.05	SM4500P-E
TKN	1.7 mg/L	0.4	SM4500N(Org)-D
TOC	5.7 mg/L	1	SM5310C

**Indiana Department of Environmental Management
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Surface Water Results Summary**

SiteID: WBU190-0001 **Sample Date:** 3/9/2020 **IDEM Sample #:** AB41826
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Stream bank recently disturbed downstream of bridge

Lab ID #:	Result	Reporting Limit	Method
	% Sat	102.4 %	ASTM D888-09(C)
	DO	11.89 mg/L	ASTM D888-09(C)
	pH (Field)	7.76 SU	EPA 150.2
	Specific Conductance (Field)	750 umho/cm	SM2510B
	Temperature	8.7 °C	SM2550B(2)
	Turbidity (Hach)	7.11 NTU	EPA 180.1
	Air Temp	3 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	3 Lookup	Observation

Lab ID #: 500-179111-4	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	190 mg/L	5	SM2320B
	Chloride	49 mg/L	2	EPA 300.0
	Hardness (as CaCO3)	300 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	8 mg/L	5	SM2540D
	Solids, Total (TS)	410 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	480 mg/L	10	SM2540C
	Sulfate	120 mg/L	4	EPA 300.0
	Calcium (Total)	79 mg/L	0.2	EPA 200.7
	Magnesium (Total)	24 mg/L	0.1	EPA 200.7
	COD	< 10 mg/L	10	SM5220C
	Nitrogen, Ammonia	< 0.2 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	4.2 mg/L	0.5	SM4500NO3-F
	Phosphorus, Total	0.074 mg/L	0.05	SM4500P-E
	TKN	0.59 mg/L	0.4	SM4500N(Org)-D
	TOC	1.7 mg/L	1	SM5310C

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

**Indiana Department of Environmental Management
Office of Water Quality-Watershed Assessment and Planning Branch
Surface Water Results Summary**

SiteID: WBU190-0002 **USGS Hydrologic Unit:** 051201111801
Stream Name: Maria Creek **County:** Knox
Description: CR 1050 N/Freelandville Road **Latitude:** 38 52 54.21809 **Longitude:** -87 20 48.04908
Drainage: 22 **Site Number:** 20T-016

SiteID: WBU190-0002 **Sample Date:** 2/10/2020 **IDEM Sample #:** AB41496
Water Flow Type Run **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments:

<u>Lab ID #:</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	90.3 %		ASTM D888-09(C)
DO	11.62 mg/L		ASTM D888-09(C)
pH (Field)	7.38 SU		EPA 150.2
Specific Conductance (Field)	291 umho/cm		SM2510B
Temperature	4.7 °C		SM2550B(2)
Turbidity (Hach)	417 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	3 Lookup		Observation

<u>Lab ID #:</u> 500-177739-1	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	57 mg/L	5	SM2320B
Chloride	7.2 mg/L	0.2	EPA 300.0
Hardness (as CaCO3)	76 mg/L	0.91	SM2340B
Solids, Suspended Total, (TSS)	400 mg/L	20	SM2540D
Solids, Total (TS)	640 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	260 mg/L	10	SM2540C
Sulfate	65 mg/L	2	EPA 300.0
Calcium (Total)	18 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.5 mg/L	0.1	EPA 200.7
COD	19 mg/L	10	SM5220C
Nitrogen, Ammonia	0.13 mg/L	0.2	SM4500NH3-G
Nitrogen, Nitrate+Nitrite	0.72 mg/L	0.1	SM4500NO3-F
Phosphorus, Total	0.44 mg/L	0.05	SM4500P-E
TKN	0.53 mg/L	0.4	SM4500N(Org)-D
TOC	5.2 mg/L	1	SM5310C

**Indiana Department of Environmental Management
Office of Water Quality-Watershed Assessment and Planning Branch
Surface Water Results Summary**

SiteID: WBU190-0002 **Sample Date:** 3/9/2020 **IDEM Sample #:** AB41823
Water Flow Type Run **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	Method
	% Sat	95.8 %	ASTM D888-09(C)
	DO	11.44 mg/L	ASTM D888-09(C)
	pH (Field)	7.42 SU	EPA 150.2
	Specific Conductance (Field)	516 umho/cm	SM2510B
	Temperature	7.6 °C	SM2550B(2)
	Turbidity (Hach)	29.4 NTU	EPA 180.1
	Air Temp	3 Lookup	Observation
	Sky Conditions	3 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	2 Lookup	Observation

Lab ID #: 500-179111-1	Result	Reporting Limit	Method	
	Alkalinity (as CaCO3)	110 mg/L	5	SM2320B
	Chloride	21 mg/L	2	EPA 300.0
	Hardness (as CaCO3)	140 mg/L	0.91	SM2340B
	Solids, Suspended Total, (TSS)	23 mg/L	5	SM2540D
	Solids, Total (TS)	270 mg/L	10	SM2540B
	Solids, Total Dissolved (TDS)	320 mg/L	10	SM2540C
	Sulfate	110 mg/L	4	EPA 300.0
	Calcium (Total)	34 mg/L	0.2	EPA 200.7
	Magnesium (Total)	14 mg/L	0.1	EPA 200.7
	COD	9.3 mg/L	10	SM5220C
	Nitrogen, Ammonia	0.11 mg/L	0.2	SM4500NH3-G
	Nitrogen, Nitrate+Nitrite	1.8 mg/L	0.1	SM4500NO3-F
	Phosphorus, Total	0.12 mg/L	0.05	SM4500P-E
	TKN	0.71 mg/L	0.4	SM4500N(Org)-D
	TOC	2.8 mg/L	1	SM5310C

Weather Code Definitions			
SC	WD	WS	AT
Sky Conditions	Wind Direction	Wind Strength	Air Temp
1 - Clear	8 - Rain	0 - Calm	1 - < 32
2 - Scattered	9 - Snow	1 - Light	2 - 33-45
3 - Partly	10 - Sleet	2 - Mod./Light	3 - 46-60
4 - Cloudy		3 - Moderate	4 - 61-75
5 - Mist		4 - Mod./Strong	5 - 76-85
6 - Fog		5 - Strong	6 - > 86
7 - Shower		6 - Gale	