

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

SiteID: WEL-08-0005 **USGS Hydrologic Unit:** 051202080802
Stream Name: Clear Creek **County:** Monroe
Description: SR 37 **Latitude:** 39 5 47.51511 **Longitude:** -86 32 46.37476
Drainage: **Site Number:** 16T-001

SiteID: WEL-08-0005 **Sample Date:** 11/16/2015 **IDEM Sample #:** AB23709
Water Flow Type Run **Water Appearance** Clear **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	11.21 mg/L		ASTM D888-09(C)
pH (Field)	7.47 SU		EPA 150.2
Specific Conductance (Field)	723 umho/cm		SM2510B
Temperature	6.22 °C		SM2550B(2)
Turbidity (Hach)	1.63 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	5.02 cf/sec		TM D5389-95/D3858
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 553799</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	227 mg/L	10	EPA 310.2
Chloride	76 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	288 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	418 mg/L	10	SM2540C
Sulfate	37 mg/L	5	EPA 375.2
Calcium (Total)	89 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.69 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	< 0.03 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.7 mg/L	1	SM5310B

<u>Lab ID # AB23709</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	186 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0005 Sample Date: 12/14/2015 IDEM Sample #: AB23943
 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	Method
% Sat	88.2 %		ASTM D888-09(C)
DO	9.2 mg/L		ASTM D888-09(C)
pH (Field)	8.07 SU		EPA 150.2
Specific Conductance (Field)	735 umho/cm		SM2510B
Temperature	13.33 °C		SM2550B(2)
Turbidity (Hach)	13.4 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	35.246 cf/sec		FM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 556136	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	183 mg/L	10	EPA 310.2
Chloride	96 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	283 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	10 mg/L	6	SM2540D
Solids, Total (TS)	464 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	430 mg/L	10	SM2540C
Sulfate	38 mg/L	5	EPA 375.2
Calcium (Total)	93.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.18 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.019 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.9 mg/L	1	SM5310B

Lab ID # AB23943	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

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

SiteID: WEL-08-0005

Sample Date: 1/25/2016

IDEM Sample #: AB24209

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	Method
% Sat	93.6 %		ASTM D888-09(C)
DO	13.03 mg/L		ASTM D888-09(C)
pH (Field)	8.02 SU		EPA 150.2
Specific Conductance (Field)	856 umho/cm		SM2510B
Temperature	1.64 °C		SM2550B(2)
Turbidity (Hach)	6.03 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 559563	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	237 mg/L	10	EPA 310.2
Chloride	97 mg/L	10	SM4500CI-E
Hardness (as CaCO3)	291 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	488 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	472 mg/L	10	SM2540C
Sulfate	32 mg/L	5	EPA 375.2
Calcium (Total)	97 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.64 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.023 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.3 mg/L	1	SM5310B

Lab ID # AB24209	Result	Reporting Limit	Method
Coliforms (Total)	517.2 MPN/100mL	1	SM9223B
E. coli	117.2 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0012 **USGS Hydrologic Unit:** 051202080803
Stream Name: Clear Creek **County:** Monroe
Description: S Ketcham Rd **Latitude:** 39 2 2.93321 **Longitude:** -86 34 1.17707
Drainage: **Site Number:** 16T-008

SiteID: WEL-08-0012 **Sample Date:** 11/16/2015 **IDEM Sample #:** AB23710
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	Method
% Sat	95.5 %		ASTM D888-09(C)
DO	11.39 mg/L		ASTM D888-09(C)
pH (Field)	8.08 SU		EPA 150.2
Specific Conductance (Field)	650 umho/cm		SM2510B
Temperature	7.61 °C		SM2550B(2)
Turbidity (Hach)	5.32 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	16.689 cf/sec		TM D5389-95/D3858
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 553800	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	139 mg/L	10	EPA 310.2
Chloride	61 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	216 mg/L	75	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	414 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	379 mg/L	10	SM2540C
Sulfate	53 mg/L	5	EPA 375.2
Calcium (Total)	65.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.43 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	8.1 mg/L	0.5	EPA 353.1
Phosphorus, Total	0.682 mg/L	0.03	EPA 365.1
TKN	0.5 mg/L	0.3	EPA 351.2
TOC	3.5 mg/L	1	SM5310B

Lab ID # AB23710	Result	Reporting Limit	Method
Coliforms (Total)	1986.3 MPN/100mL	1	SM9223B
E. coli	113.7 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0012 Sample Date: 12/14/2015 IDEM Sample #: AB23944
 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	Method
% Sat	89.3 %		ASTM D888-09(C)
DO	9.25 mg/L		ASTM D888-09(C)
pH (Field)	8.08 SU		EPA 150.2
Specific Conductance (Field)	616 umho/cm		SM2510B
Temperature	13.7 °C		SM2550B(2)
Turbidity (Hach)	6.14 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	27.0155 cf/sec		FM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 556137	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	172 mg/L	10	EPA 310.2
Chloride	58 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	236 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	390 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	368 mg/L	10	SM2540C
Sulfate	49 mg/L	5	EPA 375.2
Calcium (Total)	75.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.94 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	5.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.6 mg/L	0.03	EPA 365.1
TKN	0.5 mg/L	0.3	EPA 351.2
TOC	2.9 mg/L	1	SM5310B

Lab ID # AB23944	Result	Reporting Limit	Method
Coliforms (Total)	1732.9 MPN/100mL	1	SM9223B
E. coli	83.9 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0012 Sample Date: 1/25/2016 IDEM Sample #: AB24210
 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	Method
% Sat	92.9 %		ASTM D888-09(C)
DO	12.74 mg/L		ASTM D888-09(C)
pH (Field)	8.11 SU		EPA 150.2
Specific Conductance (Field)	753 umho/cm		SM2510B
Temperature	2.22 °C		SM2550B(2)
Turbidity (Hach)	7.02 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 559564	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	194 mg/L	10	EPA 310.2
Chloride	74 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	262 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	429 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	407 mg/L	10	SM2540C
Sulfate	38 mg/L	5	EPA 375.2
Calcium (Total)	83 mg/L	0.2	EPA 200.7
Magnesium (Total)	9 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	4.9 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.394 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.1 mg/L	1	SM5310B

Lab ID # AB24210	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

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

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

SiteID: WEL-08-0016 **USGS Hydrologic Unit:** 051202080803
Stream Name: Clear Creek **County:** Monroe
Description: Depot Hill Rd **Latitude:** 39 0 43.54920 **Longitude:** -86 31 45.42240
Drainage: **Site Number:** 16T-012

SiteID: WEL-08-0016 **Sample Date:** 11/16/2015 **IDEM Sample #:** AB23711
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	Method
% Sat	93.4 %		ASTM D888-09(C)
DO	11.26 mg/L		ASTM D888-09(C)
pH (Field)	8.11 SU		EPA 150.2
Specific Conductance (Field)	652 umho/cm		SM2510B
Temperature	7.22 °C		SM2550B(2)
Turbidity (Hach)	4.82 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	22.175 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 553801	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	144 mg/L	10	EPA 310.2
Chloride	66 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	218 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	402 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	371 mg/L	10	SM2540C
Sulfate	52 mg/L	5	EPA 375.2
Calcium (Total)	68.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.47 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	8.6 mg/L	0.5	EPA 353.1
Phosphorus, Total	0.626 mg/L	0.03	EPA 365.1
TKN	0.7 mg/L	0.3	EPA 351.2
TOC	3.5 mg/L	1	SM5310B

Lab ID # AB23711	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	57.3 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0016 Sample Date: 12/14/2015 IDEM Sample #: AB23945
 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	Method
% Sat	85.7 %		ASTM D888-09(C)
DO	8.94 mg/L		ASTM D888-09(C)
pH (Field)	7.97 SU		EPA 150.2
Specific Conductance (Field)	625 umho/cm		SM2510B
Temperature	13.39 °C		SM2550B(2)
Turbidity (Hach)	5.59 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	32.4246 cf/sec		FM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 556138	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	174 mg/L	10	EPA 310.2
Chloride	56 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	239 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	395 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	369 mg/L	10	SM2540C
Sulfate	50 mg/L	5	EPA 375.2
Calcium (Total)	76 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.8 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.629 mg/L	0.03	EPA 365.1
TKN	0.5 mg/L	0.3	EPA 351.2
TOC	2.7 mg/L	1	SM5310B

Lab ID # AB23945	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	178.5 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0016

Sample Date: 1/25/2016

IDEM Sample #: AB24211

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	Method
% Sat	92.1 %		ASTM D888-09(C)
DO	12.61 mg/L		ASTM D888-09(C)
pH (Field)	8.14 SU		EPA 150.2
Specific Conductance (Field)	743 umho/cm		SM2510B
Temperature	2.07 °C		SM2550B(2)
Turbidity (Hach)	7.84 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 559565	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	209 mg/L	10	EPA 310.2
Chloride	63 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	273 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	6 mg/L	6	SM2540D
Solids, Total (TS)	419 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	401 mg/L	10	SM2540C
Sulfate	35 mg/L	5	EPA 375.2
Calcium (Total)	88.9 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.19 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	3.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.275 mg/L	0.03	EPA 365.1
TKN	0.3 mg/L	0.3	EPA 351.2
TOC	2.1 mg/L	1	SM5310B

Lab ID # AB24211	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1732.9 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0018 **USGS Hydrologic Unit:** 051202080805
Stream Name: Little Salt Creek **County:** Lawrence
Description: SR 446 **Latitude:** 38 57 52.77061 **Longitude:** -86 22 41.47965
Drainage: **Site Number:** 16T-014

SiteID: WEL-08-0018 **Sample Date:** 11/16/2015 **IDEM Sample #:** AB23712
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	Method
% Sat	109.1 %		ASTM D888-09(C)
DO	12.61 mg/L		ASTM D888-09(C)
pH (Field)	7.85 SU		EPA 150.2
Specific Conductance (Field)	296 umho/cm		SM2510B
Temperature	8.95 °C		SM2550B(2)
Turbidity (Hach)	3.42 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	2.576 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 553802	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	89 mg/L	10	EPA 310.2
Chloride	8.4 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	125 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	166 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	156 mg/L	10	SM2540C
Sulfate	29 mg/L	5	EPA 375.2
Calcium (Total)	37.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.41 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	< 0.03 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

Lab ID # AB23712	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	96 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0018 Sample Date: 12/14/2015 IDEM Sample #: AB23946
 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	Method
% Sat	110 %		ASTM D888-09(C)
DO	11.7 mg/L		ASTM D888-09(C)
pH (Field)	8.05 SU		EPA 150.2
Specific Conductance (Field)	269 umho/cm		SM2510B
Temperature	12.57 °C		SM2550B(2)
Turbidity (Hach)	3.41 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	7.7645 cf/sec		FM D5389-95/D3858
Sky Conditions	7 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID # 556139	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	81 mg/L	10	EPA 310.2
Chloride	8.3 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	113 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	151 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	142 mg/L	10	SM2540C
Sulfate	23 mg/L	5	EPA 375.2
Calcium (Total)	35.9 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.89 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.8 mg/L	0.1	EPA 353.1
Phosphorus, Total	< 0.03 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1 mg/L	1	SM5310B

Lab ID # AB23946	Result	Reporting Limit	Method
Coliforms (Total)	1986.3 MPN/100mL	1	SM9223B
E. coli	131.7 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0018

Sample Date: 1/25/2016

IDEM Sample #: AB24212

Water Flow Type Riffle

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	Method
% Sat	101.3 %		ASTM D888-09(C)
DO	13.84 mg/L		ASTM D888-09(C)
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	252 umho/cm		SM2510B
Temperature	2.42 °C		SM2550B(2)
Turbidity (Hach)	4.15 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 559566	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	60 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	82 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	120 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	117 mg/L	10	SM2540C
Sulfate	24 mg/L	5	EPA 375.2
Calcium (Total)	26.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.94 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.013 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

Lab ID # AB24212	Result	Reporting Limit	Method
Coliforms (Total)	260.3 MPN/100mL	1	SM9223B
E. coli	31.5 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0021 **USGS Hydrologic Unit:** 051202080805
Stream Name: Little Salt Creek **County:** Lawrence
Description: Judah Legan Rd **Latitude:** 38 56 59.32707 **Longitude:** -86 28 46.35308
Drainage: **Site Number:** 16T-017

SiteID: WEL-08-0021 **Sample Date:** 11/16/2015 **IDEM Sample #:** AB23713
Water Flow Type Pool **Water Appearance** Clear **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	71.3 %		ASTM D888-09(C)
DO	8.6 mg/L		ASTM D888-09(C)
pH (Field)	7.31 SU		EPA 150.2
Specific Conductance (Field)	276 umho/cm		SM2510B
Temperature	7.18 °C		SM2550B(2)
Turbidity (Hach)	7.86 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	5.101 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 553803</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	79 mg/L	10	EPA 310.2
Chloride	8 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	109 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	147 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	145 mg/L	10	SM2540C
Sulfate	23 mg/L	5	EPA 375.2
Calcium (Total)	32.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.03 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.011 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.4 mg/L	1	SM5310B

<u>Lab ID # AB23713</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	1299.7 MPN/100mL	1	SM9223B
E. coli	50.4 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0021 Sample Date: 12/14/2015 IDEM Sample #: AB23947
 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	77.3 %		ASTM D888-09(C)
DO	8.19 mg/L		ASTM D888-09(C)
pH (Field)	7.41 SU		EPA 150.2
Specific Conductance (Field)	256 umho/cm		SM2510B
Temperature	12.71 °C		SM2550B(2)
Turbidity (Hach)	12.7 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Flow	9.5175 cf/sec		TM D5389-95/D3858
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID # 556140	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	82 mg/L	10	EPA 310.2
Chloride	8.2 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	105 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	147 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	136 mg/L	10	SM2540C
Sulfate	23 mg/L	5	EPA 375.2
Calcium (Total)	32.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.78 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.012 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.1 mg/L	1	SM5310B

Lab ID # AB23947	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	193.5 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0021

Sample Date: 1/25/2016

IDEM Sample #: AB24213

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	Method
	% Sat	92.2 %	ASTM D888-09(C)
	DO	12.94 mg/L	ASTM D888-09(C)
	pH (Field)	7.7 SU	EPA 150.2
	Specific Conductance (Field)	256 umho/cm	SM2510B
	Temperature	1.38 °C	SM2550B(2)
	Turbidity (Hach)	6.79 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	0 Lookup	Observation

Lab ID # 559567	Result	Reporting Limit	Method
	Alkalinity (as CaCO3)	60 mg/L	10 EPA 310.2
	Chloride	5.2 mg/L	5 SM4500CI-E
	Hardness (as CaCO3)	84 mg/L	30 EPA 130.1
	Solids, Suspended Total, (TSS)	< 6 mg/L	6 SM2540D
	Solids, Total (TS)	121 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	118 mg/L	10 SM2540C
	Sulfate	21 mg/L	5 EPA 375.2
	Calcium (Total)	25.4 mg/L	0.2 EPA 200.7
	Magnesium (Total)	4.8 mg/L	0.2 EPA 200.7
	Nitrogen, Ammonia	< 0.1 mg/L	0.1 EPA 350.1
	Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1 EPA 353.1
	Phosphorus, Total	0.015 mg/L	0.03 EPA 365.1
	TKN	< 0.3 mg/L	0.3 EPA 351.2
	TOC	< 1 mg/L	1 SM5310B

Lab ID # AB24213	Result	Reporting Limit	Method
	Coliforms (Total)	488.4 MPN/100mL	1 SM9223B
	E. coli	25.6 MPN/100mL	1 SM9223B

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

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

SiteID: WEL-08-0033 **USGS Hydrologic Unit:** 051202080807
Stream Name: Salt Creek **County:** Lawrence
Description: Old SR 450/Old Williams Rd **Latitude:** 38 50 19.79614 **Longitude:** -86 32 56.36801
Drainage: **Site Number:** 16T-026

SiteID: WEL-08-0033 **Sample Date:** 11/16/2015 **IDEM Sample #:** AB23714
Water Flow Type Pool **Water Appearance** Clear **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	72.5 %		ASTM D888-09(C)
DO	8.22 mg/L		ASTM D888-09(C)
pH (Field)	7.79 SU		EPA 150.2
Specific Conductance (Field)	387 umho/cm		SM2510B
Temperature	9.66 °C		SM2550B(2)
Turbidity (Hach)	6.75 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	8 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

<u>Lab ID # 553804</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	105 mg/L	10	EPA 310.2
Chloride	23 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	144 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	222 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	208 mg/L	10	SM2540C
Sulfate	36 mg/L	5	EPA 375.2
Calcium (Total)	44.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.75 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.063 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	3.2 mg/L	1	SM5310B

<u>Lab ID # AB23714</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	686.7 MPN/100mL	1	SM9223B
E. coli	34.1 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0033 Sample Date: 12/14/2015 IDEM Sample #: AB23948
 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	83.4 %		ASTM D888-09(C)
DO	9.52 mg/L		ASTM D888-09(C)
pH (Field)	7.81 SU		EPA 150.2
Specific Conductance (Field)	417 umho/cm		SM2510B
Temperature	9.56 °C		SM2550B(2)
Turbidity (Hach)	8.71 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID # 556141	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	127 mg/L	10	EPA 310.2
Chloride	26 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	164 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	249 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	235 mg/L	10	SM2540C
Sulfate	37 mg/L	5	EPA 375.2
Calcium (Total)	52.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.33 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.8 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.073 mg/L	0.03	EPA 365.1
TKN	0.3 mg/L	0.3	EPA 351.2
TOC	2.6 mg/L	1	SM5310B

Lab ID # AB23948	Result	Reporting Limit	Method
Coliforms (Total)	410.6 MPN/100mL	1	SM9223B
E. coli	63.8 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0033

Sample Date: 1/25/2016

IDEM Sample #: AB24214

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	97.8 %	ASTM D888-09(C)
	DO	13.33 mg/L	ASTM D888-09(C)
	pH (Field)	7.72 SU	EPA 150.2
	Specific Conductance (Field)	214 umho/cm	SM2510B
	Temperature	2.49 °C	SM2550B(2)
	Turbidity (Hach)	18.7 NTU	EPA 180.1
	Air Temp	2 Lookup	Observation
	Sky Conditions	4 Lookup	Observation
	Wind Direction	18 Lookup	Observation
	Wind Strength	1 Lookup	Observation

Lab ID # 559568	Result	Reporting Limit	Method
	Alkalinity (as CaCO3)	43 mg/L	10 EPA 310.2
	Chloride	6.9 mg/L	5 SM4500CI-E
	Hardness (as CaCO3)	63 mg/L	30 EPA 130.1
	Solids, Suspended Total, (TSS)	24 mg/L	6 SM2540D
	Solids, Total (TS)	124 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	103 mg/L	10 SM2540C
	Sulfate	18 mg/L	5 EPA 375.2
	Calcium (Total)	17.7 mg/L	0.2 EPA 200.7
	Magnesium (Total)	4.44 mg/L	0.2 EPA 200.7
	Nitrogen, Ammonia	< 0.1 mg/L	0.1 EPA 350.1
	Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1 EPA 353.1
	Phosphorus, Total	0.037 mg/L	0.03 EPA 365.1
	TKN	< 0.3 mg/L	0.3 EPA 351.2
	TOC	3 mg/L	1 SM5310B

Lab ID # AB24214	Result	Reporting Limit	Method
	Coliforms (Total)	228.2 MPN/100mL	1 SM9223B
	E. coli	13.2 MPN/100mL	1 SM9223B

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

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

SiteID: WEL090-0003 **USGS Hydrologic Unit:** 051202080807
Stream Name: Salt Creek **County:** Lawrence
Description: Oolitic Rd, Near Oolitic **Latitude:** 38 53 18.37666 **Longitude:** -86 30 31.00000
Drainage: **Site Number:** 16T-028

SiteID: WEL090-0003 **Sample Date:** 11/16/2015 **IDEM Sample #:** AB23715
Water Flow Type Run **Water Appearance** Clear **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	84.2 %		ASTM D888-09(C)
DO	9.7 mg/L		ASTM D888-09(C)
pH (Field)	7.85 SU		EPA 150.2
Specific Conductance (Field)	388 umho/cm		SM2510B
Temperature	9.09 °C		SM2550B(2)
Turbidity (Hach)	5.7 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

<u>Lab ID # 553807</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	92 mg/L	10	EPA 310.2
Chloride	28 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	136 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	219 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	206 mg/L	10	SM2540C
Sulfate	35 mg/L	5	EPA 375.2
Calcium (Total)	38.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.25 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	2.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.059 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	3.3 mg/L	1	SM5310B

<u>Lab ID # AB23715</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	648.8 MPN/100mL	1	SM9223B
E. coli	35.9 MPN/100mL	1	SM9223B

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

SiteID: WEL090-0003 Sample Date: 12/14/2015 IDEM Sample #: AB23949
 Water Flow Type Riffle 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	Method
% Sat	83.2 %		ASTM D888-09(C)
DO	9.03 mg/L		ASTM D888-09(C)
pH (Field)	7.71 SU		EPA 150.2
Specific Conductance (Field)	389 umho/cm		SM2510B
Temperature	11.6 °C		SM2550B(2)
Turbidity (Hach)	10 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID # 556144	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	112 mg/L	10	EPA 310.2
Chloride	25 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	156 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	236 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	220 mg/L	10	SM2540C
Sulfate	35 mg/L	5	EPA 375.2
Calcium (Total)	46.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.88 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.9 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.162 mg/L	0.03	EPA 365.1
TKN	0.3 mg/L	0.3	EPA 351.2
TOC	2.7 mg/L	1	SM5310B

Lab ID # AB23949	Result	Reporting Limit	Method
Coliforms (Total)	920.8 MPN/100mL	1	SM9223B
E. coli	73.3 MPN/100mL	1	SM9223B

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

SiteID: WEL090-0003

Sample Date: 1/25/2016

IDEM Sample #: AB24215

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	97.6 %		ASTM D888-09(C)
DO	13.42 mg/L		ASTM D888-09(C)
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	212 umho/cm		SM2510B
Temperature	2.14 °C		SM2550B(2)
Turbidity (Hach)	26.2 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 559571	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	40 mg/L	10	EPA 310.2
Chloride	6.9 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	65 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	17 mg/L	6	SM2540D
Solids, Total (TS)	118 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	101 mg/L	10	SM2540C
Sulfate	18 mg/L	5	EPA 375.2
Calcium (Total)	16.9 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.37 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.074 mg/L	0.03	EPA 365.1
TKN	0.5 mg/L	0.3	EPA 351.2
TOC	3.2 mg/L	1	SM5310B

Lab ID # AB24215	Result	Reporting Limit	Method
Coliforms (Total)	214.3 MPN/100mL	1	SM9223B
E. coli	18.5 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0005 **USGS Hydrologic Unit:** 051202080802
Stream Name: Clear Creek **County:** Monroe
Description: SR 37 **Latitude:** 39 5 47.51511 **Longitude:** -86 32 46.37476
Drainage: 25.654 **Site Number:** 16T-001

SiteID: WEL-08-0005 **Sample Date:** 2/22/2016 **IDEM Sample #:** AB24424
Water Flow Type Eddy **Water Appearance** Murky **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	95.1 %		ASTM D888-09(C)
DO	11.4 mg/L		ASTM D888-09(C)
pH (Field)	8.02 SU		EPA 150.2
Specific Conductance (Field)	853 umho/cm		SM2510B
Temperature	7.35 °C		SM2550B(2)
Turbidity (Hach)	19.6 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID #</u> 562142	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	185 mg/L	10	EPA 310.2
Chloride	140 mg/L	10	SM4500Cl-E
Hardness (as CaCO3)	265 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	11 mg/L	6	SM2540D
Solids, Total (TS)	518 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	479 mg/L	10	SM2540C
Sulfate	25 mg/L	5	EPA 375.2
Calcium (Total)	87.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.63 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.022 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2

<u>Lab ID #</u> AB24424	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	547.5 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0005 Sample Date: 3/22/2016 IDEM Sample #: AB24638
 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	Method
% Sat	94.3 %		ASTM D888-09(C)
DO	11.36 mg/L		ASTM D888-09(C)
pH (Field)	8.01 SU		EPA 150.2
Specific Conductance (Field)	709 umho/cm		SM2510B
Temperature	7.2 °C		SM2550B(2)
Turbidity (Hach)	5.73 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 565031	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	215 mg/L	10	EPA 310.2
Chloride	71 mg/L	10	SM4500CI-E
Hardness (as CaCO3)	290 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	450 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	423 mg/L	10	SM2540C
Sulfate	32 mg/L	5	EPA 375.2
Calcium (Total)	93.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	10.2 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	< 0.03 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.2 mg/L	1	SM5310B

Lab ID # AB24638	Result	Reporting Limit	Method
Coliforms (Total)	920.8 MPN/100mL	1	SM9223B
E. coli	101.4 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0005 Sample Date: 4/18/2016 IDEM Sample #: AB25094
 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	Method
% Sat	113.7 %		ASTM D888-09(C)
DO	11.94 mg/L		ASTM D888-09(C)
pH (Field)	7.94 SU		EPA 150.2
Specific Conductance (Field)	654 umho/cm		SM2510B
Temperature	13.01 °C		SM2550B(2)
Turbidity (Hach)	5.08 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 567477	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	187 mg/L	10	EPA 310.2
Chloride	59 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	274 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	392 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	369 mg/L	10	SM2540C
Sulfate	38 mg/L	5	EPA 375.2
Calcium (Total)	84 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.02 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.011 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.5 mg/L	1	SM5310B

Lab ID # AB25094	Result	Reporting Limit	Method
Coliforms (Total)	1299.7 MPN/100mL	1	SM9223B
E. coli	101.7 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0006 **USGS Hydrologic Unit:** 051202080801
Stream Name: Jackson Creek **County:** Monroe
Description: S Rogers St **Latitude:** 39 6 0.74880 **Longitude:** -86 32 18.43080
Drainage: 10.713 **Site Number:** 16T-002

SiteID: WEL-08-0006 **Sample Date:** 4/18/2016 **IDEM Sample #:** AB25098
Water Flow Type Riffle **Water Appearance** Clear **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	112 %		ASTM D888-09(C)
DO	11.79 mg/L		ASTM D888-09(C)
pH (Field)	8 SU		EPA 150.2
Specific Conductance (Field)	549 umho/cm		SM2510B
Temperature	12.96 °C		SM2550B(2)
Turbidity (Hach)	4.43 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID #</u> 567475	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	170 mg/L	10	EPA 310.2
Chloride	44 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	231 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	320 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	314 mg/L	10	SM2540C
Sulfate	27 mg/L	5	EPA 375.2
Calcium (Total)	72.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.76 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.012 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.2 mg/L	1	SM5310B

<u>Lab ID #</u> AB25098	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	1732.9 MPN/100mL	1	SM9223B
E. coli	141.4 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0007 **USGS Hydrologic Unit:** 051202080801
Stream Name: Clear Creek **County:** Monroe
Description: W Church Ln **Latitude:** 39 6 28.15320 **Longitude:** -86 32 32.08782
Drainage: 8.51 **Site Number:** 16T-003

SiteID: WEL-08-0007 **Sample Date:** 4/18/2016 **IDEM Sample #:** AB25099
Water Flow Type Riffle **Water Appearance** Clear **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	111.4 %		ASTM D888-09(C)
DO	11.56 mg/L		ASTM D888-09(C)
pH (Field)	7.86 SU		EPA 150.2
Specific Conductance (Field)	622 umho/cm		SM2510B
Temperature	13.54 °C		SM2550B(2)
Turbidity (Hach)	6.63 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 567476</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	182 mg/L	10	EPA 310.2
Chloride	42 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	283 mg/L	75	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	388 mg/L	20	SM2540B
Solids, Total Dissolved (TDS)	366 mg/L	20	SM2540C
Sulfate	38 mg/L	5	EPA 375.2
Calcium (Total)	85 mg/L	0.2	EPA 200.7
Magnesium (Total)	10.1 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.008 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.3 mg/L	1	SM5310B

<u>Lab ID # AB25099</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	1732.9 MPN/100mL	1	SM9223B
E. coli	58.3 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0008 **USGS Hydrologic Unit:** 051202080801
Stream Name: Clear Creek **County:** Monroe
Description: W Country Club Dr **Latitude:** 39 8 10.02881 **Longitude:** -86 32 0.86984
Drainage: 5.788 **Site Number:** 16T-004

SiteID: WEL-08-0008 **Sample Date:** 4/18/2016 **IDEM Sample #:** AB25100
Water Flow Type Riffle **Water Appearance** Clear **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	99.6 %		ASTM D888-09(C)
DO	10.52 mg/L		ASTM D888-09(C)
pH (Field)	7.77 SU		EPA 150.2
Specific Conductance (Field)	886 umho/cm		SM2510B
Temperature	12.78 °C		SM2550B(2)
Turbidity (Hach)	4.84 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 567474</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	200 mg/L	10	EPA 310.2
Chloride	118 mg/L	12.5	SM4500Cl-E
Hardness (as CaCO3)	334 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	564 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	532 mg/L	10	SM2540C
Sulfate	42 mg/L	5	EPA 375.2
Calcium (Total)	107 mg/L	0.2	EPA 200.7
Magnesium (Total)	11 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.022 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.3 mg/L	1	SM5310B

<u>Lab ID # AB25100</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	272.3 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0010 **USGS Hydrologic Unit:** 051202080802
Stream Name: Tributary of Clear Creek **County:** Monroe
Description: S Victor Pike **Latitude:** 39 4 46.69815 **Longitude:** -86 34 8.12546
Drainage: 4.448 **Site Number:** 16T-006

SiteID: WEL-08-0010 **Sample Date:** 4/18/2016 **IDEM Sample #:** AB25101
Water Flow Type Riffle **Water Appearance** Clear **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	120.5 %		ASTM D888-09(C)
DO	12.39 mg/L		ASTM D888-09(C)
pH (Field)	8.09 SU		EPA 150.2
Specific Conductance (Field)	440 umho/cm		SM2510B
Temperature	13.97 °C		SM2550B(2)
Turbidity (Hach)	5.54 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 567478</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	156 mg/L	10	EPA 310.2
Chloride	5.5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	268 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	318 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	301 mg/L	10	SM2540C
Sulfate	54 mg/L	5	EPA 375.2
Calcium (Total)	84.9 mg/L	0.2	EPA 200.7
Magnesium (Total)	10.2 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.01 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.4 mg/L	1	SM5310B

<u>Lab ID # AB25101</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	1553.1 MPN/100mL	1	SM9223B
E. coli	142.1 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0011 **USGS Hydrologic Unit:** 051202080802
Stream Name: Tributary of Clear Creek **County:** Monroe
Description: S Victor Pike **Latitude:** 39 3 46.42787 **Longitude:** -86 34 47.27708
Drainage: 3.919 **Site Number:** 16T-007

SiteID: WEL-08-0011 **Sample Date:** 4/18/2016 **IDEM Sample #:** AB25102
Water Flow Type Riffle **Water Appearance** Clear **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	131.3 %		ASTM D888-09(C)
DO	13.47 mg/L		ASTM D888-09(C)
pH (Field)	8.16 SU		EPA 150.2
Specific Conductance (Field)	466 umho/cm		SM2510B
Temperature	14.08 °C		SM2550B(2)
Turbidity (Hach)	6.01 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 567480</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	158 mg/L	10	EPA 310.2
Chloride	5.5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	242 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	280 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	270 mg/L	10	SM2540C
Sulfate	35 mg/L	5	EPA 375.2
Calcium (Total)	78.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.28 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.008 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.3 mg/L	1	SM5310B

<u>Lab ID # AB25102</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	866.4 MPN/100mL	1	SM9223B
E. coli	214.3 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0012 **USGS Hydrologic Unit:** 051202080803
Stream Name: Clear Creek **County:** Monroe
Description: S Ketcham Rd **Latitude:** 39 2 2.93321 **Longitude:** -86 34 1.17707
Drainage: 55.088 **Site Number:** 16T-008

SiteID: WEL-08-0012 **Sample Date:** 2/22/2016 **IDEM Sample #:** AB24425
Water Flow Type Eddy **Water Appearance** Murky **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	94.9 %		ASTM D888-09(C)
DO	11.29 mg/L		ASTM D888-09(C)
pH (Field)	8.09 SU		EPA 150.2
Specific Conductance (Field)	700 umho/cm		SM2510B
Temperature	7.75 °C		SM2550B(2)
Turbidity (Hach)	23.9 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID #</u> 562143	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	170 mg/L	10	EPA 310.2
Chloride	92 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	238 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	14 mg/L	6	SM2540D
Solids, Total (TS)	422 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	380 mg/L	10	SM2540C
Sulfate	28 mg/L	5	EPA 375.2
Calcium (Total)	84.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.33 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.086 mg/L	0.03	EPA 365.1
TKN	0.5 mg/L	0.3	EPA 351.2

<u>Lab ID #</u> AB24425	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	488.4 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0012 Sample Date: 3/22/2016 IDEM Sample #: AB24639
 Water Flow Type Eddy 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	Method
% Sat	95.1 %		ASTM D888-09(C)
DO	11.21 mg/L		ASTM D888-09(C)
pH (Field)	7.89 SU		EPA 150.2
Specific Conductance (Field)	613 umho/cm		SM2510B
Temperature	8.15 °C		SM2550B(2)
Turbidity (Hach)	6.36 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 565032	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	177 mg/L	10	EPA 310.2
Chloride	53 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	242 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	395 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	368 mg/L	10	SM2540C
Sulfate	42 mg/L	5	EPA 375.2
Calcium (Total)	76.9 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.14 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	3.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.456 mg/L	0.03	EPA 365.1
TKN	0.3 mg/L	0.3	EPA 351.2
TOC	2.1 mg/L	1	SM5310B

Lab ID # AB24639	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	410.6 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0012

Sample Date: 4/18/2016

IDEM Sample #: AB25103

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	Method
% Sat	137.5 %		ASTM D888-09(C)
DO	13.58 mg/L		ASTM D888-09(C)
pH (Field)	8.27 SU		EPA 150.2
Specific Conductance (Field)	578 umho/cm		SM2510B
Temperature	15.82 °C		SM2550B(2)
Turbidity (Hach)	5.9 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 567481	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	191 mg/L	10	EPA 310.2
Chloride	42 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	243 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	362 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	365 mg/L	10	SM2540C
Sulfate	38 mg/L	5	EPA 375.2
Calcium (Total)	78.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.9 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.253 mg/L	0.03	EPA 365.1
TKN	0.6 mg/L	0.3	EPA 351.2
TOC	2.9 mg/L	1	SM5310B

Lab ID # AB25103	Result	Reporting Limit	Method
Coliforms (Total)	1413.6 MPN/100mL	1	SM9223B
E. coli	107.6 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0013 **USGS Hydrologic Unit:** 051202080802
Stream Name: Tributary of Clear Creek **County:** Monroe
Description: Will Flock Mill Rd **Latitude:** 39 4 12.79415 **Longitude:** -86 33 41.99568
Drainage: 1.206 **Site Number:** 16T-009

SiteID: WEL-08-0013 **Sample Date:** 4/18/2016 **IDEM Sample #:** AB25104
Water Flow Type Riffle **Water Appearance** Clear **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	104.9 %		ASTM D888-09(C)
DO	10.84 mg/L		ASTM D888-09(C)
pH (Field)	7.92 SU		EPA 150.2
Specific Conductance (Field)	522 umho/cm		SM2510B
Temperature	13.78 °C		SM2550B(2)
Turbidity (Hach)	5.46 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID #</u> 567479	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	181 mg/L	10	EPA 310.2
Chloride	11 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	265 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	304 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	291 mg/L	10	SM2540C
Sulfate	26 mg/L	5	EPA 375.2
Calcium (Total)	87.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.74 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.008 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.6 mg/L	1	SM5310B

<u>Lab ID #</u> AB25104	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	1046.2 MPN/100mL	1	SM9223B
E. coli	22.8 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0014 **USGS Hydrologic Unit:** 051202080803
Stream Name: Judah Branch **County:** Monroe
Description: S Old SR 37 **Latitude:** 38 59 53.63025 **Longitude:** -86 32 43.20164
Drainage: 3.306 **Site Number:** 16T-010

SiteID: WEL-08-0014 **Sample Date:** 4/18/2016 **IDEM Sample #:** AB25105
Water Flow Type Run **Water Appearance** Clear **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	118 %		ASTM D888-09(C)
DO	10.82 mg/L		ASTM D888-09(C)
pH (Field)	8.25 SU		EPA 150.2
Specific Conductance (Field)	396 umho/cm		SM2510B
Temperature	19.55 °C		SM2550B(2)
Turbidity (Hach)	7.39 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 567485</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	161 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	202 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	226 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	215 mg/L	10	SM2540C
Sulfate	35 mg/L	5	EPA 375.2
Calcium (Total)	61.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.79 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.018 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.9 mg/L	1	SM5310B

<u>Lab ID # AB25105</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	770.1 MPN/100mL	1	SM9223B
E. coli	79.4 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0015 **USGS Hydrologic Unit:** 051202080803
Stream Name: Clear Creek **County:** Monroe
Description: S Gore Rd **Latitude:** 39 1 8.54542 **Longitude:** -86 32 38.30868
Drainage: 60.963 **Site Number:** 16T-011

SiteID: WEL-08-0015 **Sample Date:** 4/18/2016 **IDEM Sample #:** AB25095
Water Flow Type Run **Water Appearance** Clear **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	126.3 %		ASTM D888-09(C)
DO	12.37 mg/L		ASTM D888-09(C)
pH (Field)	8.18 SU		EPA 150.2
Specific Conductance (Field)	563 umho/cm		SM2510B
Temperature	16.21 °C		SM2550B(2)
Turbidity (Hach)	6.98 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 567482</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	192 mg/L	10	EPA 310.2
Chloride	39 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	234 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	346 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	328 mg/L	10	SM2540C
Sulfate	40 mg/L	5	EPA 375.2
Calcium (Total)	77.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.77 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.108 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.7 mg/L	1	SM5310B

<u>Lab ID # AB25095</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	1553.1 MPN/100mL	1	SM9223B
E. coli	79.4 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0016 **USGS Hydrologic Unit:** 051202080803
Stream Name: Clear Creek **County:** Monroe
Description: Depot Hill Rd **Latitude:** 39 0 43.30393 **Longitude:** -86 31 45.58572
Drainage: 68.368 **Site Number:** 16T-012

SiteID: WEL-08-0016 **Sample Date:** 2/22/2016 **IDEM Sample #:** AB24426
Water Flow Type Eddy **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	93.6 %		ASTM D888-09(C)
DO	11.08 mg/L		ASTM D888-09(C)
pH (Field)	8.11 SU		EPA 150.2
Specific Conductance (Field)	673 umho/cm		SM2510B
Temperature	7.94 °C		SM2550B(2)
Turbidity (Hach)	28.9 NTU		EPA 180.1
Air Temp	2 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 562144	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	174 mg/L	10	EPA 310.2
Chloride	88 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	226 mg/L	75	EPA 130.1
Solids, Suspended Total, (TSS)	25 mg/L	6	SM2540D
Solids, Total (TS)	416 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	364 mg/L	10	SM2540C
Sulfate	27 mg/L	5	EPA 375.2
Calcium (Total)	75.9 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.43 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.109 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2

Lab ID # AB24426	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	387.3 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0016 Sample Date: 3/22/2016 IDEM Sample #: AB24640
 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	Method
% Sat	91.4 %		ASTM D888-09(C)
DO	10.67 mg/L		ASTM D888-09(C)
pH (Field)	7.98 SU		EPA 150.2
Specific Conductance (Field)	605 umho/cm		SM2510B
Temperature	8.53 °C		SM2550B(2)
Turbidity (Hach)	5.29 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 565033	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	191 mg/L	10	EPA 310.2
Chloride	45 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	248 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	388 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	359 mg/L	10	SM2540C
Sulfate	36 mg/L	5	EPA 375.2
Calcium (Total)	82.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.11 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	2.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.256 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.9 mg/L	1	SM5310B

Lab ID # AB24640	Result	Reporting Limit	Method
Coliforms (Total)	1986.3 MPN/100mL	1	SM9223B
E. coli	111.9 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0016

Sample Date: 4/18/2016

IDEM Sample #: AB25096

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	Method
% Sat	125.4 %		ASTM D888-09(C)
DO	12.23 mg/L		ASTM D888-09(C)
pH (Field)	8.1 SU		EPA 150.2
Specific Conductance (Field)	557 umho/cm		SM2510B
Temperature	16.5 °C		SM2550B(2)
Turbidity (Hach)	7.6 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 567484	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	188 mg/L	10	EPA 310.2
Chloride	37 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	246 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	355 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	319 mg/L	10	SM2540C
Sulfate	24 mg/L	5	EPA 375.2
Calcium (Total)	75.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.44 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.075 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.8 mg/L	1	SM5310B

Lab ID # AB25096	Result	Reporting Limit	Method
Coliforms (Total)	1119.9 MPN/100mL	1	SM9223B
E. coli	63.8 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0017 **USGS Hydrologic Unit:** 051202080803
Stream Name: Little Clear Creek **County:** Monroe
Description: E Monroe Dam Rd **Latitude:** 39 1 17.19911 **Longitude:** -86 31 50.54274
Drainage: 5.702 **Site Number:** 16T-013

SiteID: WEL-08-0017 **Sample Date:** 4/18/2016 **IDEM Sample #:** AB25097
Water Flow Type Run **Water Appearance** Clear **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	121.8 %		ASTM D888-09(C)
DO	12.14 mg/L		ASTM D888-09(C)
pH (Field)	8.02 SU		EPA 150.2
Specific Conductance (Field)	475 umho/cm		SM2510B
Temperature	15.5 °C		SM2550B(2)
Turbidity (Hach)	5.63 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 567483</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	181 mg/L	10	EPA 310.2
Chloride	9.2 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	251 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	7 mg/L	6	SM2540D
Solids, Total (TS)	275 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	264 mg/L	10	SM2540C
Sulfate	36 mg/L	5	EPA 375.2
Calcium (Total)	77.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.3 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.016 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.9 mg/L	1	SM5310B

<u>Lab ID # AB25097</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	365.4 MPN/100mL	1	SM9223B
E. coli	38.4 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0018 **USGS Hydrologic Unit:** 051202080805
Stream Name: Little Salt Creek **County:** Lawrence
Description: SR 446 **Latitude:** 38 57 52.77061 **Longitude:** -86 22 41.47965
Drainage: 29.672 **Site Number:** 16T-014

SiteID: WEL-08-0018 **Sample Date:** 2/22/2016 **IDEM Sample #:** AB24427
Water Flow Type Riffle **Water Appearance** Clear **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	107.2 %		ASTM D888-09(C)
DO	13.01 mg/L		ASTM D888-09(C)
pH (Field)	7.89 SU		EPA 150.2
Specific Conductance (Field)	231 umho/cm		SM2510B
Temperature	6.94 °C		SM2550B(2)
Turbidity (Hach)	5.22 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #</u> 562145	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	48 mg/L	10	EPA 310.2
Chloride	5.1 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	74 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	110 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	102 mg/L	10	SM2540C
Sulfate	26 mg/L	5	EPA 375.2
Calcium (Total)	23.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.04 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.008 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2

<u>Lab ID #</u> AB24427	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	224.7 MPN/100mL	1	SM9223B
E. coli	17.5 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0018 Sample Date: 3/22/2016 IDEM Sample #: AB24641
 Water Flow Type Riffle 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	Method
% Sat	105.8 %		ASTM D888-09(C)
DO	12.46 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	224 umho/cm		SM2510B
Temperature	8.11 °C		SM2550B(2)
Turbidity (Hach)	6.76 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 565034	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	52 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	83 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	126 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	118 mg/L	10	SM2540C
Sulfate	24 mg/L	5	EPA 375.2
Calcium (Total)	22.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.56 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.011 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.2 mg/L	1	SM5310B

Lab ID # AB24641	Result	Reporting Limit	Method
Coliforms (Total)	261.3 MPN/100mL	1	SM9223B
E. coli	38.9 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0018

Sample Date: 4/19/2016

IDEM Sample #: AB25108

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	Method
% Sat	108 %		ASTM D888-09(C)
DO	11.08 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	228 umho/cm		SM2510B
Temperature	14.19 °C		SM2550B(2)
Turbidity (Hach)	3.62 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 567862	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	64 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	86 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	116 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	111 mg/L	10	SM2540C
Sulfate	25 mg/L	5	EPA 375.2
Calcium (Total)	24.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.73 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.009 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

Lab ID # AB25108	Result	Reporting Limit	Method
Coliforms (Total)	1203.3 MPN/100mL	1	SM9223B
E. coli	45.7 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0019 **USGS Hydrologic Unit:** 051202080804
Stream Name: Henderson Creek **County:** Lawrence
Description: Humpback Ridge Rd **Latitude:** 38 57 43.33971 **Longitude:** -86 22 4.64101
Drainage: 13.018 **Site Number:** 16T-015

SiteID: WEL-08-0019 **Sample Date:** 4/19/2016 **IDEM Sample #:** AB25109
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	Method
% Sat	105 %		ASTM D888-09(C)
DO	10.85 mg/L		ASTM D888-09(C)
pH (Field)	7.31 SU		EPA 150.2
Specific Conductance (Field)	202 umho/cm		SM2510B
Temperature	13.83 °C		SM2550B(2)
Turbidity (Hach)	3.75 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 567861	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	47 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	71 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	100 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	93 mg/L	10	SM2540C
Sulfate	24 mg/L	5	EPA 375.2
Calcium (Total)	18.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.22 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.01 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

Lab ID # AB25109	Result	Reporting Limit	Method
Coliforms (Total)	770.1 MPN/100mL	1	SM9223B
E. coli	30.1 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0035 **USGS Hydrologic Unit:** 051202080804
Stream Name: Little Salt Creek **County:** Lawrence
Description: Unnamed County Road off of Hunter Cree **Latitude:** 38 58 58.99800 **Longitude:** -86 22 7.49640
Drainage: 12.183 **Site Number:** 16T-016

SiteID: WEL-08-0035 **Sample Date:** 4/19/2016 **IDEM Sample #:** AB25110
Water Flow Type Riffle **Water Appearance** Clear **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	104.7 %		ASTM D888-09(C)
DO	11.02 mg/L		ASTM D888-09(C)
pH (Field)	7.36 SU		EPA 150.2
Specific Conductance (Field)	214 umho/cm		SM2510B
Temperature	13.02 °C		SM2550B(2)
Turbidity (Hach)	4.73 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 567860</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	59 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	82 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	112 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	102 mg/L	10	SM2540C
Sulfate	23 mg/L	5	EPA 375.2
Calcium (Total)	22.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.71 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.017 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

<u>Lab ID # AB25110</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	1553.1 MPN/100mL	1	SM9223B
E. coli	209.8 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0021 **USGS Hydrologic Unit:** 051202080805
Stream Name: Little Salt Creek **County:** Lawrence
Description: Judah Legan Rd **Latitude:** 38 56 59.32707 **Longitude:** -86 28 46.35308
Drainage: 52.705 **Site Number:** 16T-017

SiteID: WEL-08-0021 **Sample Date:** 2/22/2016 **IDEM Sample #:** AB24428
Water Flow Type Pool **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	94.7 %		ASTM D888-09(C)
DO	11.04 mg/L		ASTM D888-09(C)
pH (Field)	7.89 SU		EPA 150.2
Specific Conductance (Field)	240 umho/cm		SM2510B
Temperature	8.62 °C		SM2550B(2)
Turbidity (Hach)	18.8 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #</u> 562146	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	47 mg/L	10	EPA 310.2
Chloride	6.7 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	85 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	13 mg/L	6	SM2540D
Solids, Total (TS)	128 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	104 mg/L	10	SM2540C
Sulfate	25 mg/L	5	EPA 375.2
Calcium (Total)	23.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.82 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.029 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2

<u>Lab ID #</u> AB24428	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	1413.6 MPN/100mL	1	SM9223B
E. coli	56.3 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0021

Sample Date: 3/22/2016

IDEM Sample #: AB24642

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	Method
% Sat	91.9 %		ASTM D888-09(C)
DO	10.72 mg/L		ASTM D888-09(C)
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	230 umho/cm		SM2510B
Temperature	8.57 °C		SM2550B(2)
Turbidity (Hach)	9.05 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID # 565035	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	52 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	75 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	7 mg/L	6	SM2540D
Solids, Total (TS)	130 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	121 mg/L	10	SM2540C
Sulfate	24 mg/L	5	EPA 375.2
Calcium (Total)	22.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.5 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.01 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.2 mg/L	1	SM5310B

Lab ID # AB24642	Result	Reporting Limit	Method
Coliforms (Total)	613.1 MPN/100mL	1	SM9223B
E. coli	63.1 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0021

Sample Date: 4/19/2016

IDEM Sample #: AB25111

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	Method
% Sat	91.6 %		ASTM D888-09(C)
DO	8.95 mg/L		ASTM D888-09(C)
pH (Field)	7.34 SU		EPA 150.2
Specific Conductance (Field)	221 umho/cm		SM2510B
Temperature	16.47 °C		SM2550B(2)
Turbidity (Hach)	11.6 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 # 567866	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	61 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	85 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	13 mg/L	6	SM2540D
Solids, Total (TS)	128 mg/L	20	SM2540B
Solids, Total Dissolved (TDS)	106 mg/L	20	SM2540C
Sulfate	21 mg/L	5	EPA 375.2
Calcium (Total)	23.9 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.56 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.009 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.1 mg/L	1	SM5310B

Lab ID # AB25111	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	235.9 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0022 **USGS Hydrologic Unit:** 051202080805
Stream Name: Knob Creek **County:** Lawrence
Description: Bat Hollow Rd **Latitude:** 38 57 18.60054 **Longitude:** -86 27 58.75952
Drainage: 6.532 **Site Number:** 16T-018

SiteID: WEL-08-0022 **Sample Date:** 4/19/2016 **IDEM Sample #:** AB25112
Water Flow Type Run **Water Appearance** Clear **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	101.9 %		ASTM D888-09(C)
DO	10.29 mg/L		ASTM D888-09(C)
pH (Field)	7.05 SU		EPA 150.2
Specific Conductance (Field)	147 umho/cm		SM2510B
Temperature	14.9 °C		SM2550B(2)
Turbidity (Hach)	4.51 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 567864</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	27 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	45 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	81 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	72 mg/L	10	SM2540C
Sulfate	22 mg/L	5	EPA 375.2
Calcium (Total)	11.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	3.17 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.007 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

<u>Lab ID # AB25112</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	1413.6 MPN/100mL	1	SM9223B
E. coli	42.8 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0023 **USGS Hydrologic Unit:** 051202080805
Stream Name: Little Salt Creek **County:** Lawrence
Description: Bat Hollow Rd **Latitude:** 38 56 59.00833 **Longitude:** -86 27 51.72558
Drainage: 44.753 **Site Number:** 16T-019

SiteID: WEL-08-0023 **Sample Date:** 4/19/2016 **IDEM Sample #:** AB25113
Water Flow Type Pool **Water Appearance** Clear **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	97.2 %		ASTM D888-09(C)
DO	9.4 mg/L		ASTM D888-09(C)
pH (Field)	7.39 SU		EPA 150.2
Specific Conductance (Field)	227 umho/cm		SM2510B
Temperature	16.9 °C		SM2550B(2)
Turbidity (Hach)	8.42 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 567865</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	65 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	84 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	122 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	109 mg/L	10	SM2540C
Sulfate	23 mg/L	5	EPA 375.2
Calcium (Total)	24.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.51 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.009 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.1 mg/L	1	SM5310B

<u>Lab ID # AB25113</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	184.2 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0024 **USGS Hydrologic Unit:** 051202080805
Stream Name: Tributary of Little Salt Creek **County:** Lawrence
Description: Heltonville Bartlettville Rd **Latitude:** 38 57 58.79220 **Longitude:** -86 24 53.30822
Drainage: 2.983 **Site Number:** 16T-020

SiteID: WEL-08-0024 **Sample Date:** 4/19/2016 **IDEM Sample #:** AB25114
Water Flow Type Riffle **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	Method
% Sat	96.4 %		ASTM D888-09(C)
DO	9.91 mg/L		ASTM D888-09(C)
pH (Field)	7.07 SU		EPA 150.2
Specific Conductance (Field)	163 umho/cm		SM2510B
Temperature	14.13 °C		SM2550B(2)
Turbidity (Hach)	4.5 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 567863	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	26 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	45 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	82 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	74 mg/L	10	SM2540C
Sulfate	26 mg/L	5	EPA 375.2
Calcium (Total)	10.9 mg/L	0.2	EPA 200.7
Magnesium (Total)	3.71 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.008 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.1 mg/L	1	SM5310B

Lab ID # AB25114	Result	Reporting Limit	Method
Coliforms (Total)	1732.9 MPN/100mL	1	SM9223B
E. coli	43.1 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0025 **USGS Hydrologic Unit:** 051202080806
Stream Name: Gulletts Creek **County:** Lawrence
Description: Peerless Rd **Latitude:** 38 55 20.08859 **Longitude:** -86 31 7.18044
Drainage: 12.57 **Site Number:** 16T-021

SiteID: WEL-08-0025 **Sample Date:** 4/20/2016 **IDEM Sample #:** AB25115
Water Flow Type Run **Water Appearance** Clear **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	82.9 %		ASTM D888-09(C)
DO	8.36 mg/L		ASTM D888-09(C)
pH (Field)	7.55 SU		EPA 150.2
Specific Conductance (Field)	516 umho/cm		SM2510B
Temperature	14.95 °C		SM2550B(2)
Turbidity (Hach)	6.64 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID #</u> 567869	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	214 mg/L	10	EPA 310.2
Chloride	14 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	277 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	311 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	292 mg/L	10	SM2540C
Sulfate	32 mg/L	5	EPA 375.2
Calcium (Total)	81.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.4 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.01 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.3 mg/L	1	SM5310B

<u>Lab ID #</u> AB25115	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	133.3 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0026 **USGS Hydrologic Unit:** 051202080806
Stream Name: Pleasant Run **County:** Lawrence
Description: Peerless Rd **Latitude:** 38 54 14.92846 **Longitude:** -86 29 30.85836
Drainage: 9.067 **Site Number:** 16T-022

SiteID: WEL-08-0026 **Sample Date:** 4/20/2016 **IDEM Sample #:** AB25116
Water Flow Type Riffle **Water Appearance** Clear **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	110.7 %		ASTM D888-09(C)
DO	10.71 mg/L		ASTM D888-09(C)
pH (Field)	7.77 SU		EPA 150.2
Specific Conductance (Field)	579 umho/cm		SM2510B
Temperature	16.78 °C		SM2550B(2)
Turbidity (Hach)	6.2 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 567871</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	192 mg/L	10	EPA 310.2
Chloride	11 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	279 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	379 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	352 mg/L	10	SM2540C
Sulfate	99 mg/L	12.5	EPA 375.2
Calcium (Total)	76.9 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.12 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.023 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.9 mg/L	1	SM5310B

<u>Lab ID # AB25116</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	123.6 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0027 **USGS Hydrologic Unit:** 051202080806
Stream Name: Salt Creek **County:** Lawrence
Description: Peerless Rd **Latitude:** 38 55 36.46049 **Longitude:** -86 30 27.24003
Drainage: 576.38 **Site Number:** 16T-023

SiteID: WEL-08-0027 **Sample Date:** 4/20/2016 **IDEM Sample #:** AB25117
Water Flow Type Eddy **Water Appearance** Murky **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	99.3 %		ASTM D888-09(C)
DO	10.22 mg/L		ASTM D888-09(C)
pH (Field)	7.58 SU		EPA 150.2
Specific Conductance (Field)	189 umho/cm		SM2510B
Temperature	14.02 °C		SM2550B(2)
Turbidity (Hach)	21.1 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 567870</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	36 mg/L	10	EPA 310.2
Chloride	5.3 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	59 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	31 mg/L	6	SM2540D
Solids, Total (TS)	128 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	89 mg/L	10	SM2540C
Sulfate	18 mg/L	5	EPA 375.2
Calcium (Total)	15.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	3.91 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.037 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.7 mg/L	1	SM5310B

<u>Lab ID # AB25117</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	1046.2 MPN/100mL	1	SM9223B
E. coli	82 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0034 **USGS Hydrologic Unit:** 051202080806
Stream Name: Salt Creek **County:** Lawrence
Description: Guthrie Rd **Latitude:** 38 58 38.68999 **Longitude:** -86 30 22.34425
Drainage: 510.326 **Site Number:** 16T-024

SiteID: WEL-08-0034 **Sample Date:** 4/19/2016 **IDEM Sample #:** AB25118
Water Flow Type Run **Water Appearance** Murky **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	104.3 %		ASTM D888-09(C)
DO	10.72 mg/L		ASTM D888-09(C)
pH (Field)	7.68 SU		EPA 150.2
Specific Conductance (Field)	175 umho/cm		SM2510B
Temperature	13.96 °C		SM2550B(2)
Turbidity (Hach)	15.1 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 567868</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	32 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	50 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	11 mg/L	6	SM2540D
Solids, Total (TS)	100 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	83 mg/L	10	SM2540C
Sulfate	19 mg/L	5	EPA 375.2
Calcium (Total)	13 mg/L	0.2	EPA 200.7
Magnesium (Total)	3.63 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.016 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.7 mg/L	1	SM5310B

<u>Lab ID # AB25118</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	285.1 MPN/100mL	1	SM9223B
E. coli	34.5 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0029 **USGS Hydrologic Unit:** 051202080806
Stream Name: Wolf Creek **County:** Lawrence
Description: Guthrie Rd **Latitude:** 38 58 34.96564 **Longitude:** -86 28 40.25715
Drainage: 1.696 **Site Number:** 16T-025

SiteID: WEL-08-0029 **Sample Date:** 4/19/2016 **IDEM Sample #:** AB25119
Water Flow Type Riffle **Water Appearance** Clear **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	107 %		ASTM D888-09(C)
DO	10.74 mg/L		ASTM D888-09(C)
pH (Field)	7.44 SU		EPA 150.2
Specific Conductance (Field)	260 umho/cm		SM2510B
Temperature	15.14 °C		SM2550B(2)
Turbidity (Hach)	4.95 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 567867</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	89 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	104 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	140 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	132 mg/L	10	SM2540C
Sulfate	21 mg/L	5	EPA 375.2
Calcium (Total)	33.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.88 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.007 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

<u>Lab ID # AB25119</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	1413.6 MPN/100mL	1	SM9223B
E. coli	35 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0033 **USGS Hydrologic Unit:** 051202080807
Stream Name: Salt Creek **County:** Lawrence
Description: Old SR 450/Old Williams Rd **Latitude:** 38 50 19.79614 **Longitude:** -86 32 56.36801
Drainage: 627.267 **Site Number:** 16T-026

SiteID: WEL-08-0033 **Sample Date:** 2/22/2016 **IDEM Sample #:** AB24429
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	94.2 %		ASTM D888-09(C)
DO	11.25 mg/L		ASTM D888-09(C)
pH (Field)	7.77 SU		EPA 150.2
Specific Conductance (Field)	342 umho/cm		SM2510B
Temperature	7.55 °C		SM2550B(2)
Turbidity (Hach)	17.8 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #</u> 562147	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	82 mg/L	10	EPA 310.2
Chloride	24 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	104 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	10 mg/L	6	SM2540D
Solids, Total (TS)	192 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	170 mg/L	10	SM2540C
Sulfate	24 mg/L	5	EPA 375.2
Calcium (Total)	36.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.85 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.117 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2

<u>Lab ID #</u> AB24429	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	980.4 MPN/100mL	1	SM9223B
E. coli	72.8 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0033 Sample Date: 3/22/2016 IDEM Sample #: AB24643
 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	104.1 %		ASTM D888-09(C)
DO	11.74 mg/L		ASTM D888-09(C)
pH (Field)	8.03 SU		EPA 150.2
Specific Conductance (Field)	221 umho/cm		SM2510B
Temperature	10.08 °C		SM2550B(2)
Turbidity (Hach)	33.9 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID # 565036	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	50 mg/L	10	EPA 310.2
Chloride	6.3 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	73 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	49 mg/L	6	SM2540D
Solids, Total (TS)	174 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	122 mg/L	10	SM2540C
Sulfate	18 mg/L	5	EPA 375.2
Calcium (Total)	19.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.26 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.047 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	3 mg/L	1	SM5310B

Lab ID # AB24643	Result	Reporting Limit	Method
Coliforms (Total)	410.6 MPN/100mL	1	SM9223B
E. coli	30.9 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0033

Sample Date: 4/20/2016

IDEM Sample #: AB25120

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	97.5 %		ASTM D888-09(C)
DO	9.95 mg/L		ASTM D888-09(C)
pH (Field)	7.67 SU		EPA 150.2
Specific Conductance (Field)	184 umho/cm		SM2510B
Temperature	14.34 °C		SM2550B(2)
Turbidity (Hach)	27.4 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 567873	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	36 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	60 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	43 mg/L	6	SM2540D
Solids, Total (TS)	137 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	89 mg/L	10	SM2540C
Sulfate	20 mg/L	5	EPA 375.2
Calcium (Total)	15.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	3.83 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.038 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.8 mg/L	1	SM5310B

Lab ID # AB25120	Result	Reporting Limit	Method
Coliforms (Total)	866.4 MPN/100mL	1	SM9223B
E. coli	110.6 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0031 **USGS Hydrologic Unit:** 051202080807
Stream Name: Goose Creek **County:** Lawrence
Description: Patton Hill Rd, approximately 20 meters d **Latitude:** 38 53 59.32317 **Longitude:** -86 31 55.84388
Drainage: 7.564 **Site Number:** 16T-027

SiteID: WEL-08-0031 **Sample Date:** 4/20/2016 **IDEM Sample #:** AB25121
Water Flow Type Run **Water Appearance** Murky **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	112.7 %		ASTM D888-09(C)
DO	11.65 mg/L		ASTM D888-09(C)
pH (Field)	8.06 SU		EPA 150.2
Specific Conductance (Field)	514 umho/cm		SM2510B
Temperature	13.77 °C		SM2550B(2)
Turbidity (Hach)	9.32 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 567872</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	195 mg/L	10	EPA 310.2
Chloride	9.6 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	282 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	27 mg/L	6	SM2540D
Solids, Total (TS)	338 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	331 mg/L	10	SM2540C
Sulfate	56 mg/L	5	EPA 375.2
Calcium (Total)	82.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	11.6 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.009 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

<u>Lab ID # AB25121</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	1119.9 MPN/100mL	1	SM9223B
E. coli	78 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL090-0003 **USGS Hydrologic Unit:** 051202080807
Stream Name: Salt Creek **County:** Lawrence
Description: Oolitic Rd, Near Oolitic **Latitude:** 38 53 18.37666 **Longitude:** -86 30 31.00000
Drainage: 603.506 **Site Number:** 16T-028

SiteID: WEL090-0003 **Sample Date:** 2/22/2016 **IDEM Sample #:** AB24430
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	90.8 %		ASTM D888-09(C)
DO	10.57 mg/L		ASTM D888-09(C)
pH (Field)	7.81 SU		EPA 150.2
Specific Conductance (Field)	406 umho/cm		SM2510B
Temperature	8.65 °C		SM2550B(2)
Turbidity (Hach)	43 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 562150	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	93 mg/L	10	EPA 310.2
Chloride	42 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	131 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	17 mg/L	6	SM2540D
Solids, Total (TS)	249 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	218 mg/L	10	SM2540C
Sulfate	22 mg/L	5	EPA 375.2
Calcium (Total)	45 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.67 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.054 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2

Lab ID # AB24430	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	517.2 MPN/100mL	1	SM9223B

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

SiteID: WEL090-0003

Sample Date: 3/22/2016

IDEM Sample #: AB24644

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	99.9 %		ASTM D888-09(C)
DO	11.62 mg/L		ASTM D888-09(C)
pH (Field)	7.51 SU		EPA 150.2
Specific Conductance (Field)	208 umho/cm		SM2510B
Temperature	8.71 °C		SM2550B(2)
Turbidity (Hach)	40.2 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 565039	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	44 mg/L	10	EPA 310.2
Chloride	6.4 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	68 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	62 mg/L	6	SM2540D
Solids, Total (TS)	174 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	118 mg/L	10	SM2540C
Sulfate	19 mg/L	5	EPA 375.2
Calcium (Total)	18.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.34 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.064 mg/L	0.03	EPA 365.1
TKN	0.3 mg/L	0.3	EPA 351.2
TOC	3 mg/L	1	SM5310B

Lab ID # AB24644	Result	Reporting Limit	Method
Coliforms (Total)	613.1 MPN/100mL	1	SM9223B
E. coli	23.1 MPN/100mL	1	SM9223B

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

SiteID: WEL090-0003

Sample Date: 4/20/2016

IDEM Sample #: AB25122

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	10.27 mg/L		ASTM D888-09(C)
pH (Field)	7.41 SU		EPA 150.2
Specific Conductance (Field)	188 umho/cm		SM2510B
Temperature	13.72 °C		SM2550B(2)
Turbidity (Hach)	28.7 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 # 567876	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	38 mg/L	10	EPA 310.2
Chloride	5.2 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	65 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	53 mg/L	6	SM2540D
Solids, Total (TS)	152 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	91 mg/L	10	SM2540C
Sulfate	20 mg/L	5	EPA 375.2
Calcium (Total)	16.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	3.96 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.043 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.7 mg/L	1	SM5310B

Lab ID # AB25122	Result	Reporting Limit	Method
Coliforms (Total)	1553.1 MPN/100mL	1	SM9223B
E. coli	95.9 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0005 **USGS Hydrologic Unit:** 051202080802
Stream Name: Clear Creek **County:** Monroe
Description: SR 37 **Latitude:** 39 5 47.51511 **Longitude:** -86 32 46.37476
Drainage: 25.654 **Site Number:** 16T-001

SiteID: WEL-08-0005 **Sample Date:** 5/23/2016 **IDEM Sample #:** AB25414
Water Flow Type Riffle **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	Method
% Sat	108.6 %		ASTM D888-09(C)
DO	11.02 mg/L		ASTM D888-09(C)
pH (Field)	8.16 SU		EPA 150.2
Specific Conductance (Field)	673 umho/cm		SM2510B
Temperature	14.55 °C		SM2550B(2)
Turbidity (Hach)	6.09 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 570798	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	215 mg/L	10	EPA 310.2
Chloride	65 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	278 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	415 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	389 mg/L	10	SM2540C
Sulfate	34 mg/L	5	EPA 375.2
Calcium (Total)	91.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	10.1 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.8 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.009 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.3 mg/L	1	SM5310B

Lab ID # AB25414	Result	Reporting Limit	Method
Coliforms (Total)	180.7 MPN/100mL	1	SM9223B
E. coli	93.4 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0005 Sample Date: 6/13/2016 IDEM Sample #: AB25768
 Water Flow Type Riffle 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	Method
% Sat	80.5 %		ASTM D888-09(C)
DO	7.13 mg/L		ASTM D888-09(C)
pH (Field)	7.8 SU		EPA 150.2
Specific Conductance (Field)	696 umho/cm		SM2510B
Temperature	21.17 °C		SM2550B(2)
Turbidity (Hach)	4.15 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 572749	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	188 mg/L	10	EPA 310.2
Chloride	86 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	260 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	445 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	426 mg/L	10	SM2540C
Sulfate	37 mg/L	5	EPA 375.2
Calcium (Total)	79.9 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.91 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.03 mg/L	0.03	EPA 365.1
TKN	0.3 mg/L	0.3	EPA 351.2
TOC	4.9 mg/L	1	SM5310B

Lab ID # AB25768	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

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

SiteID: WEL-08-0005 Sample Date: 7/11/2016 IDEM Sample #: AB25819
 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	Method
% Sat	96.9 %		ASTM D888-09(C)
DO	8.79 mg/L		ASTM D888-09(C)
pH (Field)	8.1 SU		EPA 150.2
Specific Conductance (Field)	706 umho/cm		SM2510B
Temperature	20.01 °C		SM2550B(2)
Turbidity (Hach)	11.2 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 575239	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	218 mg/L	10	EPA 310.2
Chloride	68 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	273 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	430 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	415 mg/L	10	SM2540C
Sulfate	32 mg/L	5	EPA 375.2
Calcium (Total)	85.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.79 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.012 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.5 mg/L	1	SM5310B

Lab ID # AB25819	Result	Reporting Limit	Method
E. coli	770.1 MPN/100mL	1	SM9223B

Lab ID # AB25819a	Result	Reporting Limit	Method
Coliforms (Total)	24196 MPN/100mL	10	SM9223B

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

SiteID: WEL-08-0005 Sample Date: 7/18/2016 IDEM Sample #: AB25865
 Water Flow Type Eddy Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Muddy due to recent rain.

Lab ID #	Result	Reporting Limit	Method
% Sat	90.7 %		ASTM D888-09(C)
DO	7.97 mg/L		ASTM D888-09(C)
pH (Field)	7.98 SU		EPA 150.2
Specific Conductance (Field)	218 umho/cm		SM2510B
Temperature	21.76 °C		SM2550B(2)
Turbidity (Hach)	196 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	17329 MPN/100mL	10	SM9223B

SiteID: WEL-08-0005 Sample Date: 7/25/2016 IDEM Sample #: AB25896
 Water Flow Type Riffle 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	Method
% Sat	95.9 %		ASTM D888-09(C)
DO	8.02 mg/L		ASTM D888-09(C)
pH (Field)	8.08 SU		EPA 150.2
Specific Conductance (Field)	645 umho/cm		SM2510B
Temperature	24.2 °C		SM2550B(2)
Turbidity (Hach)	7.68 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	613.1 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0006 **USGS Hydrologic Unit:** 051202080801
Stream Name: Jackson Creek **County:** Monroe
Description: S Rogers St **Latitude:** 39 6 0.74880 **Longitude:** -86 32 18.43080
Drainage: 10.713 **Site Number:** 16T-002

SiteID: WEL-08-0006 **Sample Date:** 5/23/2016 **IDEM Sample #:** AB25415
Water Flow Type Riffle **Water Appearance** Clear **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	102.6 %		ASTM D888-09(C)
DO	10.56 mg/L		ASTM D888-09(C)
pH (Field)	8.15 SU		EPA 150.2
Specific Conductance (Field)	584 umho/cm		SM2510B
Temperature	14.05 °C		SM2550B(2)
Turbidity (Hach)	4.36 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 570799</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	197 mg/L	10	EPA 310.2
Chloride	50 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	244 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	358 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	339 mg/L	10	SM2540C
Sulfate	24 mg/L	5	EPA 375.2
Calcium (Total)	80.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.6 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.8 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.006 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.8 mg/L	1	SM5310B

<u>Lab ID # AB25415</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	180.7 MPN/100mL	1	SM9223B
E. coli	86.2 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0006 Sample Date: 6/13/2016 IDEM Sample #: AB25769
 Water Flow Type Riffle 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	Method
% Sat	86.1 %		ASTM D888-09(C)
DO	7.65 mg/L		ASTM D888-09(C)
pH (Field)	7.89 SU		EPA 150.2
Specific Conductance (Field)	557 umho/cm		SM2510B
Temperature	21.11 °C		SM2550B(2)
Turbidity (Hach)	2.38 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 572750	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	168 mg/L	10	EPA 310.2
Chloride	54 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	227 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	342 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	334 mg/L	10	SM2540C
Sulfate	27 mg/L	5	EPA 375.2
Calcium (Total)	67 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.77 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.02 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2 mg/L	1	SM5310B

Lab ID # AB25769	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	248.9 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0006

Sample Date: 7/11/2016

IDEM Sample #: AB25820

Water Flow Type Riffle

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	Method
% Sat	94.9 %		ASTM D888-09(C)
DO	8.67 mg/L		ASTM D888-09(C)
pH (Field)	8.11 SU		EPA 150.2
Specific Conductance (Field)	620 umho/cm		SM2510B
Temperature	19.7 °C		SM2550B(2)
Turbidity (Hach)	6.08 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 # 575240	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	199 mg/L	10	EPA 310.2
Chloride	54 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	230 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	367 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	349 mg/L	10	SM2540C
Sulfate	26 mg/L	5	EPA 375.2
Calcium (Total)	73.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.31 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.008 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.4 mg/L	1	SM5310B

Lab ID # AB25820	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	648.8 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0006 Sample Date: 7/18/2016 IDEM Sample #: AB25866
 Water Flow Type Eddy Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Muddy from recent rain.

Lab ID #	Result	Reporting Limit	Method
% Sat	92.3 %		ASTM D888-09(C)
DO	8.14 mg/L		ASTM D888-09(C)
pH (Field)	7.98 SU		EPA 150.2
Specific Conductance (Field)	192 umho/cm		SM2510B
Temperature	21.55 °C		SM2550B(2)
Turbidity (Hach)	148 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	19863 MPN/100mL	10	SM9223B

SiteID: WEL-08-0006 Sample Date: 7/25/2016 IDEM Sample #: AB25897
 Water Flow Type Riffle 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	Method
% Sat	93.2 %		ASTM D888-09(C)
DO	7.84 mg/L		ASTM D888-09(C)
pH (Field)	8.1 SU		EPA 150.2
Specific Conductance (Field)	570 umho/cm		SM2510B
Temperature	23.95 °C		SM2550B(2)
Turbidity (Hach)	6.86 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	648.8 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0007 **USGS Hydrologic Unit:** 051202080801
Stream Name: Clear Creek **County:** Monroe
Description: W Church Ln **Latitude:** 39 6 28.15320 **Longitude:** -86 32 32.08782
Drainage: 8.51 **Site Number:** 16T-003

SiteID: WEL-08-0007 **Sample Date:** 5/23/2016 **IDEM Sample #:** AB25413
Water Flow Type Riffle **Water Appearance** Clear **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	96.7 %		ASTM D888-09(C)
DO	9.82 mg/L		ASTM D888-09(C)
pH (Field)	8.06 SU		EPA 150.2
Specific Conductance (Field)	633 umho/cm		SM2510B
Temperature	14.58 °C		SM2550B(2)
Turbidity (Hach)	9.71 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 570797</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	213 mg/L	10	EPA 310.2
Chloride	48 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	284 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	6 mg/L	6	SM2540D
Solids, Total (TS)	399 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	372 mg/L	10	SM2540C
Sulfate	44 mg/L	5	EPA 375.2
Calcium (Total)	90.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	11.1 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.014 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.8 mg/L	1	SM5310B

<u>Lab ID # AB25413</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	180.7 MPN/100mL	1	SM9223B
E. coli	95.8 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0007

Sample Date: 6/13/2016

IDEM Sample #: AB25767

Water Flow Type Riffle

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	Method
% Sat	82.6 %		ASTM D888-09(C)
DO	7.46 mg/L		ASTM D888-09(C)
pH (Field)	7.95 SU		EPA 150.2
Specific Conductance (Field)	658 umho/cm		SM2510B
Temperature	20.33 °C		SM2550B(2)
Turbidity (Hach)	21.6 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 572748	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	213 mg/L	10	EPA 310.2
Chloride	51 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	280 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	19 mg/L	6	SM2540D
Solids, Total (TS)	460 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	396 mg/L	10	SM2540C
Sulfate	46 mg/L	5	EPA 375.2
Calcium (Total)	91 mg/L	0.2	EPA 200.7
Magnesium (Total)	11 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.032 mg/L	0.03	EPA 365.1
TKN	0.3 mg/L	0.3	EPA 351.2
TOC	2.6 mg/L	1	SM5310B

Lab ID # AB25767	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	2419.6 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0007 Sample Date: 7/11/2016 IDEM Sample #: AB25818
 Water Flow Type Riffle 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	Method
% Sat	92.9 %		ASTM D888-09(C)
DO	8.42 mg/L		ASTM D888-09(C)
pH (Field)	8.05 SU		EPA 150.2
Specific Conductance (Field)	601 umho/cm		SM2510B
Temperature	20.05 °C		SM2550B(2)
Turbidity (Hach)	16.4 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 575238	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	205 mg/L	10	EPA 310.2
Chloride	38 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	247 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	10 mg/L	6	SM2540D
Solids, Total (TS)	371 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	34 mg/L	5	EPA 375.2
Calcium (Total)	80.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.76 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.017 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.7 mg/L	1	SM5310B

Lab ID # AB25818	Result	Reporting Limit	Method
E. coli	613.1 MPN/100mL	1	SM9223B

Lab ID # AB25818a	Result	Reporting Limit	Method
Coliforms (Total)	24196 MPN/100mL	10	SM9223B

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

SiteID: WEL-08-0007 Sample Date: 7/18/2016 IDEM Sample #: AB25856
 Water Flow Type Eddy Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Muddy due to recent heavy rain.

Lab ID #	Result	Reporting Limit	Method
% Sat	89.7 %		ASTM D888-09(C)
DO	7.81 mg/L		ASTM D888-09(C)
pH (Field)	7.96 SU		EPA 150.2
Specific Conductance (Field)	469 umho/cm		SM2510B
Temperature	22.19 °C		SM2550B(2)
Turbidity (Hach)	312 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	7 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	14136 MPN/100mL	10	SM9223B

SiteID: WEL-08-0007 Sample Date: 7/25/2016 IDEM Sample #: AB25887
 Water Flow Type Riffle 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	Method
% Sat	91.6 %		ASTM D888-09(C)
DO	7.74 mg/L		ASTM D888-09(C)
pH (Field)	8.11 SU		EPA 150.2
Specific Conductance (Field)	602 umho/cm		SM2510B
Temperature	23.74 °C		SM2550B(2)
Turbidity (Hach)	12.9 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	325.5 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0008 **USGS Hydrologic Unit:** 051202080801
Stream Name: Clear Creek **County:** Monroe
Description: W Country Club Dr **Latitude:** 39 8 10.02881 **Longitude:** -86 32 0.86984
Drainage: 5.788 **Site Number:** 16T-004

SiteID: WEL-08-0008 **Sample Date:** 5/23/2016 **IDEM Sample #:** AB25409
Water Flow Type Riffle **Water Appearance** Clear **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	92.4 %		ASTM D888-09(C)
DO	9.38 mg/L		ASTM D888-09(C)
pH (Field)	7.93 SU		EPA 150.2
Specific Conductance (Field)	904 umho/cm		SM2510B
Temperature	14.55 °C		SM2550B(2)
Turbidity (Hach)	8.04 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 570796</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	227 mg/L	10	EPA 310.2
Chloride	136 mg/L	12.5	SM4500Cl-E
Hardness (as CaCO3)	317 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	582 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	544 mg/L	10	SM2540C
Sulfate	38 mg/L	5	EPA 375.2
Calcium (Total)	105 mg/L	0.2	EPA 200.7
Magnesium (Total)	11 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.015 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.2 mg/L	1	SM5310B

<u>Lab ID # AB25409</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	180.7 MPN/100mL	1	SM9223B
E. coli	103.6 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0008 Sample Date: 6/13/2016 IDEM Sample #: AB25763
 Water Flow Type Riffle 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	Method
% Sat	62.7 %		ASTM D888-09(C)
DO	5.59 mg/L		ASTM D888-09(C)
pH (Field)	7.59 SU		EPA 150.2
Specific Conductance (Field)	631 umho/cm		SM2510B
Temperature	20.89 °C		SM2550B(2)
Turbidity (Hach)	9.95 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 572747	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	152 mg/L	10	EPA 310.2
Chloride	82 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	202 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	388 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	371 mg/L	10	SM2540C
Sulfate	25 mg/L	5	EPA 375.2
Calcium (Total)	65.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.62 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.044 mg/L	0.03	EPA 365.1
TKN	0.5 mg/L	0.3	EPA 351.2
TOC	7.5 mg/L	1	SM5310B

Lab ID # AB25763	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

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

SiteID: WEL-08-0008 Sample Date: 7/11/2016 IDEM Sample #: AB25814
 Water Flow Type Riffle 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	Method
% Sat	92.3 %		ASTM D888-09(C)
DO	8.5 mg/L		ASTM D888-09(C)
pH (Field)	7.99 SU		EPA 150.2
Specific Conductance (Field)	924 umho/cm		SM2510B
Temperature	19.2 °C		SM2550B(2)
Turbidity (Hach)	6.7 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 575237	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	239 mg/L	10	EPA 310.2
Chloride	119 mg/L	12.5	SM4500Cl-E
Hardness (as CaCO3)	323 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	581 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	540 mg/L	10	SM2540C
Sulfate	40 mg/L	5	EPA 375.2
Calcium (Total)	100 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.65 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.029 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.4 mg/L	1	SM5310B

Lab ID # AB25814	Result	Reporting Limit	Method
E. coli	920.8 MPN/100mL	1	SM9223B

Lab ID # AB25814a	Result	Reporting Limit	Method
Coliforms (Total)	24196 MPN/100mL	10	SM9223B

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

SiteID: WEL-08-0008 Sample Date: 7/18/2016 IDEM Sample #: AB25845
 Water Flow Type Eddy Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Near bankfull, recent heavy rain.

Lab ID #	Result	Reporting Limit	Method
% Sat	91.2 %		ASTM D888-09(C)
DO	7.99 mg/L		ASTM D888-09(C)
pH (Field)	8.07 SU		EPA 150.2
Specific Conductance (Field)	202 umho/cm		SM2510B
Temperature	21.87 °C		SM2550B(2)
Turbidity (Hach)	96.1 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	14136 MPN/100mL	10	SM9223B

SiteID: WEL-08-0008 Sample Date: 7/25/2016 IDEM Sample #: AB25876
 Water Flow Type Riffle 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	Method
% Sat	95 %		ASTM D888-09(C)
DO	8.04 mg/L		ASTM D888-09(C)
pH (Field)	8.08 SU		EPA 150.2
Specific Conductance (Field)	883 umho/cm		SM2510B
Temperature	23.52 °C		SM2550B(2)
Turbidity (Hach)	7.52 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1119.9 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0010 **USGS Hydrologic Unit:** 051202080802
Stream Name: Tributary of Clear Creek **County:** Monroe
Description: S Victor Pike **Latitude:** 39 4 46.69815 **Longitude:** -86 34 8.12546
Drainage: 4.448 **Site Number:** 16T-006

SiteID: WEL-08-0010 **Sample Date:** 5/23/2016 **IDEM Sample #:** AB25416
Water Flow Type Riffle **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	Method
% Sat	105.4 %		ASTM D888-09(C)
DO	10.68 mg/L		ASTM D888-09(C)
pH (Field)	8.24 SU		EPA 150.2
Specific Conductance (Field)	530 umho/cm		SM2510B
Temperature	14.68 °C		SM2550B(2)
Turbidity (Hach)	6.83 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 570800	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	180 mg/L	10	EPA 310.2
Chloride	5.6 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	274 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	349 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	349 mg/L	10	SM2540C
Sulfate	79 mg/L	5	EPA 375.2
Calcium (Total)	86.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	12.6 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.007 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.5 mg/L	1	SM5310B

Lab ID # AB25416	Result	Reporting Limit	Method
Coliforms (Total)	180.7 MPN/100mL	1	SM9223B
E. coli	48.7 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0010 Sample Date: 6/13/2016 IDEM Sample #: AB25770
 Water Flow Type Riffle 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	Method
% Sat	95 %		ASTM D888-09(C)
DO	8.48 mg/L		ASTM D888-09(C)
pH (Field)	8.05 SU		EPA 150.2
Specific Conductance (Field)	451 umho/cm		SM2510B
Temperature	20.9 °C		SM2550B(2)
Turbidity (Hach)	4.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 572751	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	181 mg/L	10	EPA 310.2
Chloride	8.1 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	350 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	426 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	400 mg/L	10	SM2540C
Sulfate	105 mg/L	12.5	EPA 375.2
Calcium (Total)	93.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	14.5 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.018 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.8 mg/L	1	SM5310B

Lab ID # AB25770	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	131.4 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0010 Sample Date: 7/11/2016 IDEM Sample #: AB25821
 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	Method
% Sat	98.9 %		ASTM D888-09(C)
DO	9.02 mg/L		ASTM D888-09(C)
pH (Field)	8.12 SU		EPA 150.2
Specific Conductance (Field)	625 umho/cm		SM2510B
Temperature	19.76 °C		SM2550B(2)
Turbidity (Hach)	8.97 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 575241	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	179 mg/L	10	EPA 310.2
Chloride	8.2 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	302 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	6 mg/L	6	SM2540D
Solids, Total (TS)	443 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	405 mg/L	10	SM2540C
Sulfate	129 mg/L	12.5	EPA 375.2
Calcium (Total)	92.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	14 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.021 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.5 mg/L	1	SM5310B

Lab ID # AB25821	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	290.9 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0010 **Sample Date:** 7/18/2016 **IDEM Sample #:** AB25867
Water Flow Type Eddy **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Stream muddy due to recent rain.

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
% Sat	92.1 %		ASTM D888-09(C)
DO	8.17 mg/L		ASTM D888-09(C)
pH (Field)	8.03 SU		EPA 150.2
Specific Conductance (Field)	430 umho/cm		SM2510B
Temperature	21.27 °C		SM2550B(2)
Turbidity (Hach)	190 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	2382 MPN/100mL	10	SM9223B

SiteID: WEL-08-0010 **Sample Date:** 7/25/2016 **IDEM Sample #:** AB25898
Water Flow Type Riffle **Water Appearance** Clear **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	96.9 %		ASTM D888-09(C)
DO	8.26 mg/L		ASTM D888-09(C)
pH (Field)	8.13 SU		EPA 150.2
Specific Conductance (Field)	587 umho/cm		SM2510B
Temperature	23.22 °C		SM2550B(2)
Turbidity (Hach)	8.67 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID #</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	127.4 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0011 **USGS Hydrologic Unit:** 051202080802
Stream Name: Tributary of Clear Creek **County:** Monroe
Description: S Victor Pike **Latitude:** 39 3 46.42787 **Longitude:** -86 34 47.27708
Drainage: 3.919 **Site Number:** 16T-007

SiteID: WEL-08-0011 **Sample Date:** 5/23/2016 **IDEM Sample #:** AB25417
Water Flow Type Riffle **Water Appearance** Clear **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	113.9 %		ASTM D888-09(C)
DO	11.48 mg/L		ASTM D888-09(C)
pH (Field)	8.27 SU		EPA 150.2
Specific Conductance (Field)	512 umho/cm		SM2510B
Temperature	14.94 °C		SM2550B(2)
Turbidity (Hach)	10.1 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 570801</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	198 mg/L	10	EPA 310.2
Chloride	6.3 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	295 mg/L	75	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	318 mg/L	20	SM2540B
Solids, Total Dissolved (TDS)	302 mg/L	20	SM2540C
Sulfate	39 mg/L	5	EPA 375.2
Calcium (Total)	86.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	10.8 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.01 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.3 mg/L	1	SM5310B

<u>Lab ID # AB25417</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	180.7 MPN/100mL	1	SM9223B
E. coli	130.8 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0011

Sample Date: 6/13/2016

IDEM Sample #: AB25771

Water Flow Type

Water Appearance

Water Depth

Algae?

Water Flow (cf/sec):

Flow Estimated?

Aquatic Life?

Canopy Closed % 0-20%

Sampler Comments:

Lab ID #	Result	Reporting Limit	Method
% Sat	101 %		ASTM D888-09(C)
DO	9.04 mg/L		ASTM D888-09(C)
pH (Field)	8.1 SU		EPA 150.2
Specific Conductance (Field)	543 umho/cm		SM2510B
Temperature	20.7 °C		SM2550B(2)
Turbidity (Hach)	11.9 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 572752	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	191 mg/L	10	EPA 310.2
Chloride	9 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	296 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	12 mg/L	6	SM2540D
Solids, Total (TS)	381 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	352 mg/L	10	SM2540C
Sulfate	68 mg/L	5	EPA 375.2
Calcium (Total)	84.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	12.1 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.033 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.6 mg/L	1	SM5310B

Lab ID # AB25771	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	365.4 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0011

Sample Date: 7/11/2016

IDEM Sample #: AB25822

Water Flow Type Riffle

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	Method
% Sat	105.1 %		ASTM D888-09(C)
DO	9.59 mg/L		ASTM D888-09(C)
pH (Field)	8.18 SU		EPA 150.2
Specific Conductance (Field)	584 umho/cm		SM2510B
Temperature	19.72 °C		SM2550B(2)
Turbidity (Hach)	13.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 575242	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	216 mg/L	10	EPA 310.2
Chloride	9.2 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	295 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	7 mg/L	6	SM2540D
Solids, Total (TS)	391 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	352 mg/L	10	SM2540C
Sulfate	68 mg/L	5	EPA 375.2
Calcium (Total)	95.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	12 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.015 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.4 mg/L	1	SM5310B

Lab ID # AB25822	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	920.8 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0011 Sample Date: 7/18/2016 IDEM Sample #: AB25868
 Water Flow Type Eddy Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Muddy due to recent rain.

Lab ID #	Result	Reporting Limit	Method
% Sat	93.9 %		ASTM D888-09(C)
DO	8.39 mg/L		ASTM D888-09(C)
pH (Field)	8.07 SU		EPA 150.2
Specific Conductance (Field)	468 umho/cm		SM2510B
Temperature	20.8 °C		SM2550B(2)
Turbidity (Hach)	347 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	15531 MPN/100mL	10	SM9223B

SiteID: WEL-08-0011 Sample Date: 7/25/2016 IDEM Sample #: AB25899
 Water Flow Type Riffle 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	Method
% Sat	100.9 %		ASTM D888-09(C)
DO	8.67 mg/L		ASTM D888-09(C)
pH (Field)	8.14 SU		EPA 150.2
Specific Conductance (Field)	566 umho/cm		SM2510B
Temperature	22.8 °C		SM2550B(2)
Turbidity (Hach)	12.22 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	770.1 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0012 **USGS Hydrologic Unit:** 051202080803
Stream Name: Clear Creek **County:** Monroe
Description: S Ketcham Rd **Latitude:** 39 2 2.93321 **Longitude:** -86 34 1.17707
Drainage: 55.088 **Site Number:** 16T-008

SiteID: WEL-08-0012 **Sample Date:** 5/23/2016 **IDEM Sample #:** AB25419
Water Flow Type Run **Water Appearance** Clear **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	135.7 %		ASTM D888-09(C)
DO	13.01 mg/L		ASTM D888-09(C)
pH (Field)	8.48 SU		EPA 150.2
Specific Conductance (Field)	592 umho/cm		SM2510B
Temperature	17.29 °C		SM2550B(2)
Turbidity (Hach)	6.95 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 570803</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	174 mg/L	10	EPA 310.2
Chloride	50 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	231 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	369 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	347 mg/L	10	SM2540C
Sulfate	39 mg/L	5	EPA 375.2
Calcium (Total)	74.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.28 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	3.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.041 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.9 mg/L	1	SM5310B

<u>Lab ID # AB25419</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	176.9 MPN/100mL	1	SM9223B
E. coli	29.8 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0012 Sample Date: 6/13/2016 IDEM Sample #: AB25773
 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	Method
% Sat	118.7 %		ASTM D888-09(C)
DO	9.97 mg/L		ASTM D888-09(C)
pH (Field)	8.35 SU		EPA 150.2
Specific Conductance (Field)	646 umho/cm		SM2510B
Temperature	23.93 °C		SM2550B(2)
Turbidity (Hach)	2.96 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 572754	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	137 mg/L	10	EPA 310.2
Chloride	70 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	207 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	420 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	398 mg/L	10	SM2540C
Sulfate	45 mg/L	5	EPA 375.2
Calcium (Total)	59.9 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.03 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	8.5 mg/L	0.5	EPA 353.1
Phosphorus, Total	0.131 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	3.8 mg/L	1	SM5310B

Lab ID # AB25773	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	90.8 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0012

Sample Date: 7/11/2016

IDEM Sample #: AB25824

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	Method
% Sat	97.3 %		ASTM D888-09(C)
DO	8.45 mg/L		ASTM D888-09(C)
pH (Field)	8.15 SU		EPA 150.2
Specific Conductance (Field)	670 umho/cm		SM2510B
Temperature	22.19 °C		SM2550B(2)
Turbidity (Hach)	10.7 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 # 575244	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	181 mg/L	10	EPA 310.2
Chloride	60 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	232 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	6 mg/L	6	SM2540D
Solids, Total (TS)	425 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	389 mg/L	10	SM2540C
Sulfate	42 mg/L	5	EPA 375.2
Calcium (Total)	74.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.08 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	4.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.132 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.6 mg/L	1	SM5310B

Lab ID # AB25824	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	275.5 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0012 Sample Date: 7/18/2016 IDEM Sample #: AB25870
 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	Method
% Sat	91.8 %		ASTM D888-09(C)
DO	7.78 mg/L		ASTM D888-09(C)
pH (Field)	8.11 SU		EPA 150.2
Specific Conductance (Field)	630 umho/cm		SM2510B
Temperature	23.6 °C		SM2550B(2)
Turbidity (Hach)	10.5 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # AB25870	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	488.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0012 Sample Date: 7/25/2016 IDEM Sample #: AB25901
 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	Method
% Sat	97 %		ASTM D888-09(C)
DO	7.88 mg/L		ASTM D888-09(C)
pH (Field)	8.18 SU		EPA 150.2
Specific Conductance (Field)	649 umho/cm		SM2510B
Temperature	25.8 °C		SM2550B(2)
Turbidity (Hach)	9.99 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 # AB25901	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	139.6 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0013 **USGS Hydrologic Unit:** 051202080802
Stream Name: Tributary of Clear Creek **County:** Monroe
Description: Will Flock Mill Rd **Latitude:** 39 4 12.79415 **Longitude:** -86 33 41.99568
Drainage: 1.206 **Site Number:** 16T-009

SiteID: WEL-08-0013 **Sample Date:** 5/23/2016 **IDEM Sample #:** AB25418
Water Flow Type Riffle **Water Appearance** Clear **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	96 %		ASTM D888-09(C)
DO	9.92 mg/L		ASTM D888-09(C)
pH (Field)	8.02 SU		EPA 150.2
Specific Conductance (Field)	522 umho/cm		SM2510B
Temperature	13.82 °C		SM2550B(2)
Turbidity (Hach)	4.85 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 570802</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	224 mg/L	10	EPA 310.2
Chloride	12 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	256 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	320 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	295 mg/L	10	SM2540C
Sulfate	21 mg/L	5	EPA 375.2
Calcium (Total)	86.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.94 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.005 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.4 mg/L	1	SM5310B

<u>Lab ID # AB25418</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	176.9 MPN/100mL	1	SM9223B
E. coli	39.3 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0013

Sample Date: 6/13/2016

IDEM Sample #: AB25772

Water Flow Type Riffle

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	Method
% Sat	56.8 %		ASTM D888-09(C)
DO	5.4 mg/L		ASTM D888-09(C)
pH (Field)	7.36 SU		EPA 150.2
Specific Conductance (Field)	498 umho/cm		SM2510B
Temperature	17.8 °C		SM2550B(2)
Turbidity (Hach)	8.92 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 572753	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	209 mg/L	10	EPA 310.2
Chloride	15 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	251 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	9 mg/L	6	SM2540D
Solids, Total (TS)	302 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	287 mg/L	10	SM2540C
Sulfate	21 mg/L	5	EPA 375.2
Calcium (Total)	79.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.89 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.019 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.1 mg/L	1	SM5310B

Lab ID # AB25772	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	30.1 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0013 Sample Date: 7/11/2016 IDEM Sample #: AB25823
 Water Flow Type Riffle 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	Method
% Sat	91.2 %		ASTM D888-09(C)
DO	8.41 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	565 umho/cm		SM2510B
Temperature	19.16 °C		SM2550B(2)
Turbidity (Hach)	6.39 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 575243	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	232 mg/L	10	EPA 310.2
Chloride	18 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	262 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	327 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	315 mg/L	10	SM2540C
Sulfate	26 mg/L	5	EPA 375.2
Calcium (Total)	83 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.03 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.005 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.3 mg/L	1	SM5310B

Lab ID # AB25823	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	172.3 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0013 **Sample Date:** 7/18/2016 **IDEM Sample #:** AB25869
Water Flow Type Eddy **Water Appearance** Brown **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Muddy due to recent rain.

Lab ID #	Result	Reporting Limit	Method
% Sat	94.8 %		ASTM D888-09(C)
DO	8.49 mg/L		ASTM D888-09(C)
pH (Field)	8.01 SU		EPA 150.2
Specific Conductance (Field)	310 umho/cm		SM2510B
Temperature	20.74 °C		SM2550B(2)
Turbidity (Hach)	103 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	12033 MPN/100mL	10	SM9223B

SiteID: WEL-08-0013 **Sample Date:** 7/25/2016 **IDEM Sample #:** AB25900
Water Flow Type Riffle **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	Method
% Sat	87 %		ASTM D888-09(C)
DO	7.47 mg/L		ASTM D888-09(C)
pH (Field)	7.94 SU		EPA 150.2
Specific Conductance (Field)	522 umho/cm		SM2510B
Temperature	22.9 °C		SM2550B(2)
Turbidity (Hach)	6.29 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	76.7 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0014 **USGS Hydrologic Unit:** 051202080803
Stream Name: Judah Branch **County:** Monroe
Description: S Old SR 37 **Latitude:** 38 59 53.63025 **Longitude:** -86 32 43.20164
Drainage: 3.306 **Site Number:** 16T-010

SiteID: WEL-08-0014 **Sample Date:** 5/23/2016 **IDEM Sample #:** AB25412
Water Flow Type Run **Water Appearance** Clear **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	102 %		ASTM D888-09(C)
DO	9.76 mg/L		ASTM D888-09(C)
pH (Field)	8.24 SU		EPA 150.2
Specific Conductance (Field)	457 umho/cm		SM2510B
Temperature	17.37 °C		SM2550B(2)
Turbidity (Hach)	10.2 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 570807</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	199 mg/L	10	EPA 310.2
Chloride	5.7 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	240 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	6 mg/L	6	SM2540D
Solids, Total (TS)	271 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	255 mg/L	10	SM2540C
Sulfate	16 mg/L	5	EPA 375.2
Calcium (Total)	75.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	11 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.013 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.1 mg/L	1	SM5310B

<u>Lab ID # AB25412</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	176.9 MPN/100mL	1	SM9223B
E. coli	119.4 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0014 Sample Date: 6/13/2016 IDEM Sample #: AB25766
 Water Flow Type Riffle 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	Method
% Sat	94.7 %		ASTM D888-09(C)
DO	8.32 mg/L		ASTM D888-09(C)
pH (Field)	8.11 SU		EPA 150.2
Specific Conductance (Field)	462 umho/cm		SM2510B
Temperature	21.68 °C		SM2550B(2)
Turbidity (Hach)	5.65 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 572758	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	210 mg/L	10	EPA 310.2
Chloride	7 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	248 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	6 mg/L	6	SM2540D
Solids, Total (TS)	332 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	280 mg/L	10	SM2540C
Sulfate	22 mg/L	5	EPA 375.2
Calcium (Total)	72.9 mg/L	0.2	EPA 200.7
Magnesium (Total)	11.8 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.032 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.6 mg/L	1	SM5310B

Lab ID # AB25766	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1986.3 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0014 Sample Date: 7/11/2016 IDEM Sample #: AB25817
 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	Method
% Sat	95.2 %		ASTM D888-09(C)
DO	8.48 mg/L		ASTM D888-09(C)
pH (Field)	8.21 SU		EPA 150.2
Specific Conductance (Field)	492 umho/cm		SM2510B
Temperature	20.97 °C		SM2550B(2)
Turbidity (Hach)	12.7 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 575248	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	213 mg/L	10	EPA 310.2
Chloride	6.6 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	224 mg/L	75	EPA 130.1
Solids, Suspended Total, (TSS)	7 mg/L	6	SM2540D
Solids, Total (TS)	306 mg/L	20	SM2540B
Solids, Total Dissolved (TDS)	274 mg/L	20	SM2540C
Sulfate	15 mg/L	5	EPA 375.2
Calcium (Total)	74.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	10.1 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.027 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.8 mg/L	1	SM5310B

Lab ID # AB25817	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	191.8 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0014 Sample Date: 7/18/2016 IDEM Sample #: AB25848
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Muddy due to recent rain

Lab ID #	Result	Reporting Limit	Method
% Sat	93.3 %		ASTM D888-09(C)
DO	8.3 mg/L		ASTM D888-09(C)
pH (Field)	8.07 SU		EPA 150.2
Specific Conductance (Field)	404 umho/cm		SM2510B
Temperature	21.08 °C		SM2550B(2)
Turbidity (Hach)	191 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	> 24196 MPN/100mL	24196	SM9223B

SiteID: WEL-08-0014 Sample Date: 7/25/2016 IDEM Sample #: AB25879
 Water Flow Type Riffle 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	Method
% Sat	93.5 %		ASTM D888-09(C)
DO	8.05 mg/L		ASTM D888-09(C)
pH (Field)	8.18 SU		EPA 150.2
Specific Conductance (Field)	482 umho/cm		SM2510B
Temperature	22.75 °C		SM2550B(2)
Turbidity (Hach)	13.1 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	648.8 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0015 **USGS Hydrologic Unit:** 051202080803
Stream Name: Clear Creek **County:** Monroe
Description: S Gore Rd **Latitude:** 39 1 8.54542 **Longitude:** -86 32 38.30868
Drainage: 60.963 **Site Number:** 16T-011

SiteID: WEL-08-0015 **Sample Date:** 5/23/2016 **IDEM Sample #:** AB25420
Water Flow Type Run **Water Appearance** Clear **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	116.7 %		ASTM D888-09(C)
DO	11.16 mg/L		ASTM D888-09(C)
pH (Field)	8.28 SU		EPA 150.2
Specific Conductance (Field)	588 umho/cm		SM2510B
Temperature	17.41 °C		SM2550B(2)
Turbidity (Hach)	6.83 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 570804</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	183 mg/L	10	EPA 310.2
Chloride	47 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	234 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	368 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	345 mg/L	10	SM2540C
Sulfate	42 mg/L	5	EPA 375.2
Calcium (Total)	76 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.31 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.034 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.6 mg/L	1	SM5310B

<u>Lab ID # AB25420</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	176.9 MPN/100mL	1	SM9223B
E. coli	59.4 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0015 Sample Date: 6/13/2016 IDEM Sample #: AB25774
 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	Method
% Sat	93.7 %		ASTM D888-09(C)
DO	7.8 mg/L		ASTM D888-09(C)
pH (Field)	8.01 SU		EPA 150.2
Specific Conductance (Field)	655 umho/cm		SM2510B
Temperature	24.51 °C		SM2550B(2)
Turbidity (Hach)	5.95 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 572755	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	142 mg/L	10	EPA 310.2
Chloride	69 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	225 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	7 mg/L	6	SM2540D
Solids, Total (TS)	431 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	403 mg/L	10	SM2540C
Sulfate	47 mg/L	5	EPA 375.2
Calcium (Total)	62.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.14 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	8.2 mg/L	0.5	EPA 353.1
Phosphorus, Total	0.146 mg/L	0.03	EPA 365.1
TKN	0.5 mg/L	0.3	EPA 351.2
TOC	3.5 mg/L	1	SM5310B

Lab ID # AB25774	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	167.4 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0015 Sample Date: 7/11/2016 IDEM Sample #: AB25825
 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	Method
% Sat	95.4 %		ASTM D888-09(C)
DO	8.23 mg/L		ASTM D888-09(C)
pH (Field)	8.12 SU		EPA 150.2
Specific Conductance (Field)	671 umho/cm		SM2510B
Temperature	22.65 °C		SM2550B(2)
Turbidity (Hach)	12.7 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 575245	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	187 mg/L	10	EPA 310.2
Chloride	61 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	224 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	8 mg/L	6	SM2540D
Solids, Total (TS)	423 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	389 mg/L	10	SM2540C
Sulfate	41 mg/L	5	EPA 375.2
Calcium (Total)	77 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.2 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	4.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.116 mg/L	0.03	EPA 365.1
TKN	0.3 mg/L	0.3	EPA 351.2
TOC	2.4 mg/L	1	SM5310B

Lab ID # AB25825	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	275.5 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0015 Sample Date: 7/18/2016 IDEM Sample #: AB25871
 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	Method
% Sat	87.5 %		ASTM D888-09(C)
DO	7.41 mg/L		ASTM D888-09(C)
pH (Field)	7.96 SU		EPA 150.2
Specific Conductance (Field)	630 umho/cm		SM2510B
Temperature	23.6 °C		SM2550B(2)
Turbidity (Hach)	20.7 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # AB25871	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

SiteID: WEL-08-0015 Sample Date: 7/25/2016 IDEM Sample #: AB25902
 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	Method
% Sat	96 %		ASTM D888-09(C)
DO	7.73 mg/L		ASTM D888-09(C)
pH (Field)	8.14 SU		EPA 150.2
Specific Conductance (Field)	632 umho/cm		SM2510B
Temperature	26.28 °C		SM2550B(2)
Turbidity (Hach)	10.9 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 # AB25902	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	149.7 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0016 **USGS Hydrologic Unit:** 051202080803
Stream Name: Clear Creek **County:** Monroe
Description: Depot Hill Rd **Latitude:** 39 0 43.30393 **Longitude:** -86 31 45.58572
Drainage: 68.368 **Site Number:** 16T-012

SiteID: WEL-08-0016 **Sample Date:** 5/23/2016 **IDEM Sample #:** AB25411
Water Flow Type Pool **Water Appearance** Murky **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	92.8 %		ASTM D888-09(C)
DO	8.86 mg/L		ASTM D888-09(C)
pH (Field)	8.12 SU		EPA 150.2
Specific Conductance (Field)	580 umho/cm		SM2510B
Temperature	17.42 °C		SM2550B(2)
Turbidity (Hach)	8.84 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 570806</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	183 mg/L	10	EPA 310.2
Chloride	42 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	234 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	369 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	340 mg/L	10	SM2540C
Sulfate	36 mg/L	5	EPA 375.2
Calcium (Total)	75.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.09 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	2.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.05 mg/L	0.03	EPA 365.1
TKN	0.3 mg/L	0.3	EPA 351.2
TOC	2 mg/L	1	SM5310B

<u>Lab ID # AB25411</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	176.9 MPN/100mL	1	SM9223B
E. coli	64 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0016 Sample Date: 6/13/2016 IDEM Sample #: AB25765
 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	Method
% Sat	89.7 %		ASTM D888-09(C)
DO	7.44 mg/L		ASTM D888-09(C)
pH (Field)	7.97 SU		EPA 150.2
Specific Conductance (Field)	650 umho/cm		SM2510B
Temperature	24.71 °C		SM2550B(2)
Turbidity (Hach)	5.6 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 572757	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	145 mg/L	10	EPA 310.2
Chloride	64 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	202 mg/L	75	EPA 130.1
Solids, Suspended Total, (TSS)	9 mg/L	6	SM2540D
Solids, Total (TS)	426 mg/L	20	SM2540B
Solids, Total Dissolved (TDS)	398 mg/L	20	SM2540C
Sulfate	42 mg/L	5	EPA 375.2
Calcium (Total)	64.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.27 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	7.4 mg/L	0.5	EPA 353.1
Phosphorus, Total	0.149 mg/L	0.03	EPA 365.1
TKN	0.6 mg/L	0.3	EPA 351.2
TOC	3.3 mg/L	1	SM5310B

Lab ID # AB25765	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	214.2 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0016 Sample Date: 7/11/2016 IDEM Sample #: AB25816
 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	Method
% Sat	95.4 %		ASTM D888-09(C)
DO	8.14 mg/L		ASTM D888-09(C)
pH (Field)	8.14 SU		EPA 150.2
Specific Conductance (Field)	661 umho/cm		SM2510B
Temperature	23.15 °C		SM2550B(2)
Turbidity (Hach)	11.7 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 575247	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	188 mg/L	10	EPA 310.2
Chloride	59 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	241 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	9 mg/L	6	SM2540D
Solids, Total (TS)	423 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	387 mg/L	10	SM2540C
Sulfate	38 mg/L	5	EPA 375.2
Calcium (Total)	78.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.22 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	3.9 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.109 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.3 mg/L	1	SM5310B

Lab ID # AB25816	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	248.1 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0016 Sample Date: 7/18/2016 IDEM Sample #: AB25847
 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	87.3 %		ASTM D888-09(C)
DO	7.37 mg/L		ASTM D888-09(C)
pH (Field)	7.99 SU		EPA 150.2
Specific Conductance (Field)	610 umho/cm		SM2510B
Temperature	23.82 °C		SM2550B(2)
Turbidity (Hach)	31.7 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 # AB25847	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

SiteID: WEL-08-0016 Sample Date: 7/25/2016 IDEM Sample #: AB25878
 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	Method
% Sat	94.2 %		ASTM D888-09(C)
DO	7.56 mg/L		ASTM D888-09(C)
pH (Field)	8.14 SU		EPA 150.2
Specific Conductance (Field)	626 umho/cm		SM2510B
Temperature	26.55 °C		SM2550B(2)
Turbidity (Hach)	10.8 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 # AB25878	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	328.2 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0017 **USGS Hydrologic Unit:** 051202080803
Stream Name: Little Clear Creek **County:** Monroe
Description: E Monroe Dam Rd **Latitude:** 39 1 17.19911 **Longitude:** -86 31 50.54274
Drainage: 5.702 **Site Number:** 16T-013

SiteID: WEL-08-0017 **Sample Date:** 5/23/2016 **IDEM Sample #:** AB25410
Water Flow Type Pool **Water Appearance** Clear **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	104.7 %		ASTM D888-09(C)
DO	10.48 mg/L		ASTM D888-09(C)
pH (Field)	8.07 SU		EPA 150.2
Specific Conductance (Field)	500 umho/cm		SM2510B
Temperature	15.29 °C		SM2550B(2)
Turbidity (Hach)	5.62 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 570805</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	214 mg/L	10	EPA 310.2
Chloride	11 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	270 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	306 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	286 mg/L	10	SM2540C
Sulfate	25 mg/L	5	EPA 375.2
Calcium (Total)	84 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.9 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.01 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.1 mg/L	1	SM5310B

<u>Lab ID # AB25410</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	176.9 MPN/100mL	1	SM9223B
E. coli	91.3 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0017 Sample Date: 6/13/2016 IDEM Sample #: AB25764
 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	Method
% Sat	85.2 %		ASTM D888-09(C)
DO	7.53 mg/L		ASTM D888-09(C)
pH (Field)	7.82 SU		EPA 150.2
Specific Conductance (Field)	537 umho/cm		SM2510B
Temperature	21.38 °C		SM2550B(2)
Turbidity (Hach)	5.05 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 572756	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	224 mg/L	10	EPA 310.2
Chloride	14 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	263 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	325 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	313 mg/L	10	SM2540C
Sulfate	24 mg/L	5	EPA 375.2
Calcium (Total)	84.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.81 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.021 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.3 mg/L	1	SM5310B

Lab ID # AB25764	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	816.4 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0017 Sample Date: 7/11/2016 IDEM Sample #: AB25815
 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	Method
% Sat	92.1 %		ASTM D888-09(C)
DO	8.33 mg/L		ASTM D888-09(C)
pH (Field)	7.96 SU		EPA 150.2
Specific Conductance (Field)	570 umho/cm		SM2510B
Temperature	20.17 °C		SM2550B(2)
Turbidity (Hach)	6.79 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 575246	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	240 mg/L	10	EPA 310.2
Chloride	15 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	241 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	340 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	310 mg/L	10	SM2540C
Sulfate	23 mg/L	5	EPA 375.2
Calcium (Total)	89.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.37 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.005 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1 mg/L	1	SM5310B

Lab ID # AB25815	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	410.6 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0017 Sample Date: 7/18/2016 IDEM Sample #: AB25846
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Muddy

Lab ID #	Result	Reporting Limit	Method
% Sat	82.2 %		ASTM D888-09(C)
DO	7.28 mg/L		ASTM D888-09(C)
pH (Field)	7.9 SU		EPA 150.2
Specific Conductance (Field)	477 umho/cm		SM2510B
Temperature	21.25 °C		SM2550B(2)
Turbidity (Hach)	48.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	5172 MPN/100mL	10	SM9223B

SiteID: WEL-08-0017 Sample Date: 7/25/2016 IDEM Sample #: AB25877
 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	Method
% Sat	92.7 %		ASTM D888-09(C)
DO	7.93 mg/L		ASTM D888-09(C)
pH (Field)	7.97 SU		EPA 150.2
Specific Conductance (Field)	499 umho/cm		SM2510B
Temperature	22.98 °C		SM2550B(2)
Turbidity (Hach)	6.23 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	648.8 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0018 **USGS Hydrologic Unit:** 051202080805
Stream Name: Little Salt Creek **County:** Lawrence
Description: SR 446 **Latitude:** 38 57 52.77061 **Longitude:** -86 22 41.47965
Drainage: 29.672 **Site Number:** 16T-014

SiteID: WEL-08-0018 **Sample Date:** 5/24/2016 **IDEM Sample #:** AB25431
Water Flow Type Riffle **Water Appearance** Clear **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	104.6 %		ASTM D888-09(C)
DO	10.53 mg/L		ASTM D888-09(C)
pH (Field)	7.73 SU		EPA 150.2
Specific Conductance (Field)	248 umho/cm		SM2510B
Temperature	15.04 °C		SM2550B(2)
Turbidity (Hach)	4.72 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 571225</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	71 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	106 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	130 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	125 mg/L	10	SM2540C
Sulfate	20 mg/L	5	EPA 375.2
Calcium (Total)	28 mg/L	0.2	EPA 200.7
Magnesium (Total)	5 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	< 0.03 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

<u>Lab ID # AB25431</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	176.9 MPN/100mL	1	SM9223B
E. coli	58.6 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0018 Sample Date: 6/14/2016 IDEM Sample #: AB25785
 Water Flow Type Riffle 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	Method
% Sat	95.8 %		ASTM D888-09(C)
DO	8.29 mg/L		ASTM D888-09(C)
pH (Field)	7.59 SU		EPA 150.2
Specific Conductance (Field)	299 umho/cm		SM2510B
Temperature	22.47 °C		SM2550B(2)
Turbidity (Hach)	4.6 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 573081	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	96 mg/L	10	EPA 310.2
Chloride	7.3 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	120 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	155 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	157 mg/L	10	SM2540C
Sulfate	22 mg/L	5	EPA 375.2
Calcium (Total)	39.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.96 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.01 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

Lab ID # AB25785	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	139.6 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0018 Sample Date: 7/12/2016 IDEM Sample #: AB25836
 Water Flow Type Riffle 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	Method
% Sat	97.3 %		ASTM D888-09(C)
DO	8.55 mg/L		ASTM D888-09(C)
pH (Field)	7.75 SU		EPA 150.2
Specific Conductance (Field)	292 umho/cm		SM2510B
Temperature	21.72 °C		SM2550B(2)
Turbidity (Hach)	5.26 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 # 575548	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	93 mg/L	10	EPA 310.2
Chloride	6.4 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	105 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	159 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	147 mg/L	10	SM2540C
Sulfate	23 mg/L	5	EPA 375.2
Calcium (Total)	35.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.08 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.006 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

Lab ID # AB25836	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	275.5 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0018 Sample Date: 7/19/2016 IDEM Sample #: AB25851
 Water Flow Type Riffle 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	Method
% Sat	93.4 %		ASTM D888-09(C)
DO	8.24 mg/L		ASTM D888-09(C)
pH (Field)	7.67 SU		EPA 150.2
Specific Conductance (Field)	278 umho/cm		SM2510B
Temperature	21.49 °C		SM2550B(2)
Turbidity (Hach)	7.53 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # AB25851	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	980.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0018 Sample Date: 7/26/2016 IDEM Sample #: AB25882
 Water Flow Type Riffle 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	Method
% Sat	84.9 %		ASTM D888-09(C)
DO	7.01 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	304 umho/cm		SM2510B
Temperature	25.01 °C		SM2550B(2)
Turbidity (Hach)	5.9 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # AB25882	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	201.4 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0019 **USGS Hydrologic Unit:** 051202080804
Stream Name: Henderson Creek **County:** Lawrence
Description: Humpback Ridge Rd **Latitude:** 38 57 43.33971 **Longitude:** -86 22 4.64101
Drainage: 13.018 **Site Number:** 16T-015

SiteID: WEL-08-0019 **Sample Date:** 5/24/2016 **IDEM Sample #:** AB25430
Water Flow Type Riffle **Water Appearance** Clear **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	98.6 %		ASTM D888-09(C)
DO	10.03 mg/L		ASTM D888-09(C)
pH (Field)	7.45 SU		EPA 150.2
Specific Conductance (Field)	203 umho/cm		SM2510B
Temperature	14.57 °C		SM2550B(2)
Turbidity (Hach)	3.72 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 571224</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	57 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	78 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	114 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	107 mg/L	10	SM2540C
Sulfate	18 mg/L	5	EPA 375.2
Calcium (Total)	20.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.5 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.004 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

<u>Lab ID # AB25430</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	165.7 MPN/100mL	1	SM9223B
E. coli	39.7 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0019 Sample Date: 6/14/2016 IDEM Sample #: AB25784
 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	Method
% Sat	68.2 %		ASTM D888-09(C)
DO	6 mg/L		ASTM D888-09(C)
pH (Field)	7.25 SU		EPA 150.2
Specific Conductance (Field)	174 umho/cm		SM2510B
Temperature	21.72 °C		SM2550B(2)
Turbidity (Hach)	4.72 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 573080	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	62 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	81 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	113 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	113 mg/L	10	SM2540C
Sulfate	18 mg/L	5	EPA 375.2
Calcium (Total)	25.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.92 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.009 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

Lab ID # AB25784	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	88.4 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0019 Sample Date: 7/12/2016 IDEM Sample #: AB25835
 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	Method
% Sat	88.2 %		ASTM D888-09(C)
DO	7.86 mg/L		ASTM D888-09(C)
pH (Field)	7.71 SU		EPA 150.2
Specific Conductance (Field)	232 umho/cm		SM2510B
Temperature	21 °C		SM2550B(2)
Turbidity (Hach)	4.96 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 575547	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	65 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	81 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	120 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	117 mg/L	10	SM2540C
Sulfate	19 mg/L	5	EPA 375.2
Calcium (Total)	24.9 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.66 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.006 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

Lab ID # AB25835	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	125.9 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0019 Sample Date: 7/19/2016 IDEM Sample #: AB25850
 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	Method
% Sat	86.5 %		ASTM D888-09(C)
DO	7.66 mg/L		ASTM D888-09(C)
pH (Field)	7.56 SU		EPA 150.2
Specific Conductance (Field)	221 umho/cm		SM2510B
Temperature	21.26 °C		SM2550B(2)
Turbidity (Hach)	11 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation
Lab ID # AB25850	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	365.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0019 Sample Date: 7/26/2016 IDEM Sample #: AB25881
 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	Method
% Sat	73.5 %		ASTM D888-09(C)
DO	6.13 mg/L		ASTM D888-09(C)
pH (Field)	7.61 SU		EPA 150.2
Specific Conductance (Field)	241 umho/cm		SM2510B
Temperature	24.47 °C		SM2550B(2)
Turbidity (Hach)	5.23 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation
Lab ID # AB25881	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	108.1 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0035 **USGS Hydrologic Unit:** 051202080804
Stream Name: Little Salt Creek **County:** Lawrence
Description: Unnamed County Road off of Hunter Cree **Latitude:** 38 58 58.99800 **Longitude:** -86 22 7.49640
Drainage: 12.183 **Site Number:** 16T-016

SiteID: WEL-08-0035 **Sample Date:** 5/24/2016 **IDEM Sample #:** AB25423
Water Flow Type Riffle **Water Appearance** Clear **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	100.8 %		ASTM D888-09(C)
DO	10.47 mg/L		ASTM D888-09(C)
pH (Field)	7.82 SU		EPA 150.2
Specific Conductance (Field)	245 umho/cm		SM2510B
Temperature	13.6 °C		SM2550B(2)
Turbidity (Hach)	4.77 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID #</u> 571223	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	65 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	95 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	135 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	121 mg/L	10	SM2540C
Sulfate	23 mg/L	5	EPA 375.2
Calcium (Total)	26.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.61 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.009 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

<u>Lab ID #</u> AB25423	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	169.4 MPN/100mL	1	SM9223B
E. coli	60.8 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0035 Sample Date: 6/14/2016 IDEM Sample #: AB25777
 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	Method
% Sat	100.4 %		ASTM D888-09(C)
DO	9.01 mg/L		ASTM D888-09(C)
pH (Field)	7.87 SU		EPA 150.2
Specific Conductance (Field)	312 umho/cm		SM2510B
Temperature	20.63 °C		SM2550B(2)
Turbidity (Hach)	3.48 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 573079	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	92 mg/L	10	EPA 310.2
Chloride	6 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	120 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	165 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	154 mg/L	10	SM2540C
Sulfate	26 mg/L	5	EPA 375.2
Calcium (Total)	36.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.18 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.012 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

Lab ID # AB25777	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	365.4 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0035 Sample Date: 7/12/2016 IDEM Sample #: AB25828
 Water Flow Type Riffle 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	Method
% Sat	98.4 %		ASTM D888-09(C)
DO	8.84 mg/L		ASTM D888-09(C)
pH (Field)	7.85 SU		EPA 150.2
Specific Conductance (Field)	283 umho/cm		SM2510B
Temperature	20.52 °C		SM2550B(2)
Turbidity (Hach)	4.36 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 575546	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	92 mg/L	10	EPA 310.2
Chloride	6.3 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	108 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	155 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	149 mg/L	10	SM2540C
Sulfate	25 mg/L	5	EPA 375.2
Calcium (Total)	35.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.09 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.009 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1 mg/L	1	SM5310B

Lab ID # AB25828	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	111.9 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0035 Sample Date: 7/19/2016 IDEM Sample #: AB25849
 Water Flow Type Riffle 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	Method
% Sat	94.8 %		ASTM D888-09(C)
DO	8.57 mg/L		ASTM D888-09(C)
pH (Field)	7.74 SU		EPA 150.2
Specific Conductance (Field)	289 umho/cm		SM2510B
Temperature	20.26 °C		SM2550B(2)
Turbidity (Hach)	5.79 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # AB25849	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	461.1 MPN/100mL	1	SM9223B

SiteID: WEL-08-0035 Sample Date: 7/26/2016 IDEM Sample #: AB25880
 Water Flow Type Riffle 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	Method
% Sat	94 %		ASTM D888-09(C)
DO	7.98 mg/L		ASTM D888-09(C)
pH (Field)	7.77 SU		EPA 150.2
Specific Conductance (Field)	306 umho/cm		SM2510B
Temperature	23.39 °C		SM2550B(2)
Turbidity (Hach)	6.67 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # AB25880	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	307.6 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0021 **USGS Hydrologic Unit:** 051202080805
Stream Name: Little Salt Creek **County:** Lawrence
Description: Judah Legan Rd **Latitude:** 38 56 59.32707 **Longitude:** -86 28 46.35308
Drainage: 52.705 **Site Number:** 16T-017

SiteID: WEL-08-0021 **Sample Date:** 5/24/2016 **IDEM Sample #:** AB25435
Water Flow Type Pool **Water Appearance** Murky **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	82.7 %		ASTM D888-09(C)
DO	7.68 mg/L		ASTM D888-09(C)
pH (Field)	7.44 SU		EPA 150.2
Specific Conductance (Field)	234 umho/cm		SM2510B
Temperature	18.93 °C		SM2550B(2)
Turbidity (Hach)	15.4 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 571229</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	65 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	98 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	8 mg/L	6	SM2540D
Solids, Total (TS)	132 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	118 mg/L	10	SM2540C
Sulfate	18 mg/L	5	EPA 375.2
Calcium (Total)	25.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.76 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.011 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.1 mg/L	1	SM5310B

<u>Lab ID # AB25435</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	180.7 MPN/100mL	1	SM9223B
E. coli	82.9 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0021 Sample Date: 6/14/2016 IDEM Sample #: AB25789
 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	41.3 %		ASTM D888-09(C)
DO	3.45 mg/L		ASTM D888-09(C)
pH (Field)	7.15 SU		EPA 150.2
Specific Conductance (Field)	262 umho/cm		SM2510B
Temperature	24.46 °C		SM2550B(2)
Turbidity (Hach)	16.5 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 573084	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	88 mg/L	10	EPA 310.2
Chloride	5.8 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	100 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	8 mg/L	6	SM2540D
Solids, Total (TS)	144 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	132 mg/L	10	SM2540C
Sulfate	11 mg/L	5	EPA 375.2
Calcium (Total)	32 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.52 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.048 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.4 mg/L	1	SM5310B

Lab ID # AB25789	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	67 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0021 Sample Date: 7/12/2016 IDEM Sample #: AB25840
 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	69.8 %		ASTM D888-09(C)
DO	5.94 mg/L		ASTM D888-09(C)
pH (Field)	7.53 SU		EPA 150.2
Specific Conductance (Field)	267 umho/cm		SM2510B
Temperature	23.53 °C		SM2550B(2)
Turbidity (Hach)	20.5 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 575552	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	86 mg/L	10	EPA 310.2
Chloride	6 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	95 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	13 mg/L	6	SM2540D
Solids, Total (TS)	155 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	135 mg/L	10	SM2540C
Sulfate	16 mg/L	5	EPA 375.2
Calcium (Total)	31 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.36 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.022 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.7 mg/L	1	SM5310B

Lab ID # AB25840	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	410.6 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0021 Sample Date: 7/19/2016 IDEM Sample #: AB25855
 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	66.6 %		ASTM D888-09(C)
DO	5.68 mg/L		ASTM D888-09(C)
pH (Field)	7.64 SU		EPA 150.2
Specific Conductance (Field)	281 umho/cm		SM2510B
Temperature	23.33 °C		SM2550B(2)
Turbidity (Hach)	25.6 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # AB25855	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	2419.6 MPN/100mL	1	SM9223B

SiteID: WEL-08-0021 Sample Date: 7/26/2016 IDEM Sample #: AB25886
 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	48.7 %		ASTM D888-09(C)
DO	3.92 mg/L		ASTM D888-09(C)
pH (Field)	7.38 SU		EPA 150.2
Specific Conductance (Field)	270 umho/cm		SM2510B
Temperature	26.63 °C		SM2550B(2)
Turbidity (Hach)	19.2 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # AB25886	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	248.1 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0022 **USGS Hydrologic Unit:** 051202080805
Stream Name: Knob Creek **County:** Lawrence
Description: Bat Hollow Rd **Latitude:** 38 57 18.60054 **Longitude:** -86 27 58.75952
Drainage: 6.532 **Site Number:** 16T-018

SiteID: WEL-08-0022 **Sample Date:** 5/24/2016 **IDEM Sample #:** AB25433
Water Flow Type Run **Water Appearance** Clear **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	102.1 %		ASTM D888-09(C)
DO	9.87 mg/L		ASTM D888-09(C)
pH (Field)	7.02 SU		EPA 150.2
Specific Conductance (Field)	170 umho/cm		SM2510B
Temperature	16.98 °C		SM2550B(2)
Turbidity (Hach)	6.86 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 571227</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	28 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	51 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	88 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	76 mg/L	10	SM2540C
Sulfate	16 mg/L	5	EPA 375.2
Calcium (Total)	12.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	3.42 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	< 0.03 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

<u>Lab ID # AB25433</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	176.9 MPN/100mL	1	SM9223B
E. coli	16 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0022 Sample Date: 6/14/2016 IDEM Sample #: AB25787
 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	Method
% Sat	86.9 %		ASTM D888-09(C)
DO	7.18 mg/L		ASTM D888-09(C)
pH (Field)	6.99 SU		EPA 150.2
Specific Conductance (Field)	182 umho/cm		SM2510B
Temperature	24.96 °C		SM2550B(2)
Turbidity (Hach)	12 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 573082	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	37 mg/L	10	EPA 310.2
Chloride	5.3 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	56 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	7 mg/L	6	SM2540D
Solids, Total (TS)	93 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	87 mg/L	10	SM2540C
Sulfate	15 mg/L	5	EPA 375.2
Calcium (Total)	15.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	3.88 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.011 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

Lab ID # AB25787	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	579.4 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0022 Sample Date: 7/12/2016 IDEM Sample #: AB25838
 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	Method
% Sat	96.2 %		ASTM D888-09(C)
DO	8.34 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	184 umho/cm		SM2510B
Temperature	22.41 °C		SM2550B(2)
Turbidity (Hach)	8.29 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 575550	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	37 mg/L	10	EPA 310.2
Chloride	5.3 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	61 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	121 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	110 mg/L	10	SM2540C
Sulfate	17 mg/L	5	EPA 375.2
Calcium (Total)	15.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.1 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.8 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.007 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

Lab ID # AB25838	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	344.8 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0022 Sample Date: 7/19/2016 IDEM Sample #: AB25853
 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	Method
% Sat	90.4 %		ASTM D888-09(C)
DO	7.72 mg/L		ASTM D888-09(C)
pH (Field)	7.36 SU		EPA 150.2
Specific Conductance (Field)	190 umho/cm		SM2510B
Temperature	23.18 °C		SM2550B(2)
Turbidity (Hach)	8.02 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation
Lab ID # AB25853	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	816.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0022 Sample Date: 7/26/2016 IDEM Sample #: AB25884
 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	Method
% Sat	76.8 %		ASTM D888-09(C)
DO	6.41 mg/L		ASTM D888-09(C)
pH (Field)	7.36 SU		EPA 150.2
Specific Conductance (Field)	184 umho/cm		SM2510B
Temperature	24.46 °C		SM2550B(2)
Turbidity (Hach)	10.9 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation
Lab ID # AB25884	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	579.4 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0023 **USGS Hydrologic Unit:** 051202080805
Stream Name: Little Salt Creek **County:** Lawrence
Description: Bat Hollow Rd **Latitude:** 38 56 59.00833 **Longitude:** -86 27 51.72558
Drainage: 44.753 **Site Number:** 16T-019

SiteID: WEL-08-0023 **Sample Date:** 5/24/2016 **IDEM Sample #:** AB25434
Water Flow Type Pool **Water Appearance** Murky **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 %		ASTM D888-09(C)
DO	8.59 mg/L		ASTM D888-09(C)
pH (Field)	7.55 SU		EPA 150.2
Specific Conductance (Field)	244 umho/cm		SM2510B
Temperature	17.53 °C		SM2550B(2)
Turbidity (Hach)	10.5 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 571228</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	70 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	102 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	6 mg/L	6	SM2540D
Solids, Total (TS)	132 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	123 mg/L	10	SM2540C
Sulfate	18 mg/L	5	EPA 375.2
Calcium (Total)	27.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.99 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.007 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.2 mg/L	1	SM5310B

<u>Lab ID # AB25434</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	173.1 MPN/100mL	1	SM9223B
E. coli	100.5 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0023 Sample Date: 6/14/2016 IDEM Sample #: AB25788
 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	54 %		ASTM D888-09(C)
DO	4.55 mg/L		ASTM D888-09(C)
pH (Field)	7.19 SU		EPA 150.2
Specific Conductance (Field)	263 umho/cm		SM2510B
Temperature	23.97 °C		SM2550B(2)
Turbidity (Hach)	21.2 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 573083	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	82 mg/L	10	EPA 310.2
Chloride	5.9 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	99 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	10 mg/L	6	SM2540D
Solids, Total (TS)	144 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	130 mg/L	10	SM2540C
Sulfate	14 mg/L	5	EPA 375.2
Calcium (Total)	30.9 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.39 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.039 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	1.6 mg/L	1	SM5310B

Lab ID # AB25788	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	613.1 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0023

Sample Date: 7/12/2016

IDEM Sample #: AB25839

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	76.3 %		ASTM D888-09(C)
DO	6.52 mg/L		ASTM D888-09(C)
pH (Field)	7.85 SU		EPA 150.2
Specific Conductance (Field)	279 umho/cm		SM2510B
Temperature	23.2 °C		SM2550B(2)
Turbidity (Hach)	18.9 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID # 575551	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	88 mg/L	10	EPA 310.2
Chloride	6 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	103 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	12 mg/L	6	SM2540D
Solids, Total (TS)	154 mg/L	20	SM2540B
Solids, Total Dissolved (TDS)	138 mg/L	20	SM2540C
Sulfate	17 mg/L	5	EPA 375.2
Calcium (Total)	33.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.7 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.034 mg/L	0.03	EPA 365.1
TKN	0.3 mg/L	0.3	EPA 351.2
TOC	1.5 mg/L	1	SM5310B

Lab ID # AB25839	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	238.2 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0023 Sample Date: 7/19/2016 IDEM Sample #: AB25854
 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	74.1 %		ASTM D888-09(C)
DO	6.29 mg/L		ASTM D888-09(C)
pH (Field)	7.54 SU		EPA 150.2
Specific Conductance (Field)	271 umho/cm		SM2510B
Temperature	23.54 °C		SM2550B(2)
Turbidity (Hach)	21.2 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # AB25854	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	547.5 MPN/100mL	1	SM9223B

SiteID: WEL-08-0023 Sample Date: 7/26/2016 IDEM Sample #: AB25885
 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	60.5 %		ASTM D888-09(C)
DO	4.94 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	282 umho/cm		SM2510B
Temperature	25.8 °C		SM2550B(2)
Turbidity (Hach)	20.1 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # AB25885	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1046.2 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0024 **USGS Hydrologic Unit:** 051202080805
Stream Name: Tributary of Little Salt Creek **County:** Lawrence
Description: Heltonville Bartlettville Rd **Latitude:** 38 57 58.79220 **Longitude:** -86 24 53.30822
Drainage: 2.983 **Site Number:** 16T-020

SiteID: WEL-08-0024 **Sample Date:** 5/24/2016 **IDEM Sample #:** AB25432
Water Flow Type Riffle **Water Appearance** Clear **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	80 %		ASTM D888-09(C)
DO	7.98 mg/L		ASTM D888-09(C)
pH (Field)	6.95 SU		EPA 150.2
Specific Conductance (Field)	179 umho/cm		SM2510B
Temperature	15.41 °C		SM2550B(2)
Turbidity (Hach)	4.07 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID #</u> 571226	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	34 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	58 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	87 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	83 mg/L	10	SM2540C
Sulfate	20 mg/L	5	EPA 375.2
Calcium (Total)	13.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.18 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	< 0.03 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

<u>Lab ID #</u> AB25432	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	176.9 MPN/100mL	1	SM9223B
E. coli	74.3 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0024 Sample Date: 7/12/2016 IDEM Sample #: AB25837
 Water Flow Type Riffle 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	Method
% Sat	64.4 %		ASTM D888-09(C)
DO	5.73 mg/L		ASTM D888-09(C)
pH (Field)	7.45 SU		EPA 150.2
Specific Conductance (Field)	193 umho/cm		SM2510B
Temperature	21.11 °C		SM2550B(2)
Turbidity (Hach)	4.05 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 # 575549	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	50 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	67 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	96 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	94 mg/L	10	SM2540C
Sulfate	20 mg/L	5	EPA 375.2
Calcium (Total)	16.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.03 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.006 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

Lab ID # AB25837	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	325.5 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0024 Sample Date: 7/26/2016 IDEM Sample #: AB25883
 Water Flow Type Riffle 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 #	Result	Reporting Limit	Method
% Sat	55.1 %		ASTM D888-09(C)
DO	4.78 mg/L		ASTM D888-09(C)
pH (Field)	7.02 SU		EPA 150.2
Specific Conductance (Field)	161 umho/cm		SM2510B
Temperature	22.63 °C		SM2550B(2)
Turbidity (Hach)	3.96 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB25883			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	488.4 MPN/100mL	1	SM9223B

Weather Code Definitions			
SC Sky Conditions	WD Wind Direction	WS Wind Strength	AT 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: WEL-08-0025 **USGS Hydrologic Unit:** 051202080806
Stream Name: Gulletts Creek **County:** Lawrence
Description: Peerless Rd **Latitude:** 38 55 20.08859 **Longitude:** -86 31 7.18044
Drainage: 12.57 **Site Number:** 16T-021

SiteID: WEL-08-0025 **Sample Date:** 5/25/2016 **IDEM Sample #:** AB25424
Water Flow Type Pool **Water Appearance** Murky **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	80.3 %		ASTM D888-09(C)
DO	7.8 mg/L		ASTM D888-09(C)
pH (Field)	7.84 SU		EPA 150.2
Specific Conductance (Field)	540 umho/cm		SM2510B
Temperature	16.69 °C		SM2550B(2)
Turbidity (Hach)	11.2 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 571232</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	215 mg/L	10	EPA 310.2
Chloride	18 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	280 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	346 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	322 mg/L	10	SM2540C
Sulfate	35 mg/L	5	EPA 375.2
Calcium (Total)	88.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	10.5 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.009 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.1 mg/L	1	SM5310B

<u>Lab ID # AB25424</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	180.7 MPN/100mL	1	SM9223B
E. coli	101 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0025 Sample Date: 6/15/2016 IDEM Sample #: AB25778
 Water Flow Type Eddy 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	84.5 %		ASTM D888-09(C)
DO	8.01 mg/L		ASTM D888-09(C)
pH (Field)	7.69 SU		EPA 150.2
Specific Conductance (Field)	440 umho/cm		SM2510B
Temperature	17.93 °C		SM2550B(2)
Turbidity (Hach)	57 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 573087	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	159 mg/L	10	EPA 310.2
Chloride	14 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	218 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	41 mg/L	6	SM2540D
Solids, Total (TS)	326 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	275 mg/L	10	SM2540C
Sulfate	20 mg/L	5	EPA 375.2
Calcium (Total)	67 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.72 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	2.9 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.085 mg/L	0.03	EPA 365.1
TKN	0.6 mg/L	0.3	EPA 351.2
TOC	5 mg/L	1	SM5310B

Lab ID # AB25778	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

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

SiteID: WEL-08-0025 Sample Date: 7/13/2016 IDEM Sample #: AB25829
 Water Flow Type Eddy 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	Method
% Sat	79.7 %		ASTM D888-09(C)
DO	7.22 mg/L		ASTM D888-09(C)
pH (Field)	7.77 SU		EPA 150.2
Specific Conductance (Field)	574 umho/cm		SM2510B
Temperature	20.13 °C		SM2550B(2)
Turbidity (Hach)	10.4 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 575555	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	232 mg/L	10	EPA 310.2
Chloride	21 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	284 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	7 mg/L	6	SM2540D
Solids, Total (TS)	375 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	349 mg/L	10	SM2540C
Sulfate	38 mg/L	5	EPA 375.2
Calcium (Total)	91.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	10.4 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.021 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.5 mg/L	1	SM5310B

Lab ID # AB25829	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	313 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0025 Sample Date: 7/20/2016 IDEM Sample #: AB25859
 Water Flow Type Eddy Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Muddy due to recent rain.

Lab ID #	Result	Reporting Limit	Method
% Sat	88.8 %		ASTM D888-09(C)
DO	7.98 mg/L		ASTM D888-09(C)
pH (Field)	7.61 SU		EPA 150.2
Specific Conductance (Field)	249 umho/cm		SM2510B
Temperature	20.59 °C		SM2550B(2)
Turbidity (Hach)	331 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	> 24196 MPN/100mL	24196	SM9223B

SiteID: WEL-08-0025 Sample Date: 7/27/2016 IDEM Sample #: AB25890
 Water Flow Type Riffle 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	Method
% Sat	77 %		ASTM D888-09(C)
DO	6.65 mg/L		ASTM D888-09(C)
pH (Field)	7.91 SU		EPA 150.2
Specific Conductance (Field)	560 umho/cm		SM2510B
Temperature	22.66 °C		SM2550B(2)
Turbidity (Hach)	13.1 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	547.5 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0026 **USGS Hydrologic Unit:** 051202080806
Stream Name: Pleasant Run **County:** Lawrence
Description: Peerless Rd **Latitude:** 38 54 14.92846 **Longitude:** -86 29 30.85836
Drainage: 9.067 **Site Number:** 16T-022

SiteID: WEL-08-0026 **Sample Date:** 5/25/2016 **IDEM Sample #:** AB25426
Water Flow Type Riffle **Water Appearance** Clear **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	154.2 %		ASTM D888-09(C)
DO	13.82 mg/L		ASTM D888-09(C)
pH (Field)	8.3 SU		EPA 150.2
Specific Conductance (Field)	585 umho/cm		SM2510B
Temperature	20.62 °C		SM2550B(2)
Turbidity (Hach)	8.01 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 571234</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	196 mg/L	10	EPA 310.2
Chloride	14 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	248 mg/L	75	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	388 mg/L	20	SM2540B
Solids, Total Dissolved (TDS)	372 mg/L	20	SM2540C
Sulfate	85 mg/L	10	EPA 375.2
Calcium (Total)	76.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.34 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.012 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	3.6 mg/L	1	SM5310B

<u>Lab ID # AB25426</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	180.7 MPN/100mL	1	SM9223B
E. coli	31.3 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0026 Sample Date: 6/15/2016 IDEM Sample #: AB25780
 Water Flow Type Eddy 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	Method
% Sat	72.9 %		ASTM D888-09(C)
DO	6.04 mg/L		ASTM D888-09(C)
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	1100 umho/cm		SM2510B
Temperature	24.73 °C		SM2550B(2)
Turbidity (Hach)	6.63 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 # 573089	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	203 mg/L	10	EPA 310.2
Chloride	35 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	250 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	808 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	785 mg/L	10	SM2540C
Sulfate	341 mg/L	50	EPA 375.2
Calcium (Total)	76.9 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.61 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.167 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	9.5 mg/L	1	SM5310B

Lab ID # AB25780	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	325.5 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0026 Sample Date: 7/13/2016 IDEM Sample #: AB25831
 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	Method
% Sat	190 %		ASTM D888-09(C)
DO	16.15 mg/L		ASTM D888-09(C)
pH (Field)	8.34 SU		EPA 150.2
Specific Conductance (Field)	570 umho/cm		SM2510B
Temperature	23.28 °C		SM2550B(2)
Turbidity (Hach)	5.15 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 575557	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	213 mg/L	10	EPA 310.2
Chloride	12 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	241 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	357 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	350 mg/L	10	SM2540C
Sulfate	74 mg/L	5	EPA 375.2
Calcium (Total)	79.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.52 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.018 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	3 mg/L	1	SM5310B

Lab ID # AB25831	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	166.4 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0026 Sample Date: 7/20/2016 IDEM Sample #: AB25861
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Thick mats of algae. Water is clear.

Lab ID #	Result	Reporting Limit	Method
% Sat	97.6 %		ASTM D888-09(C)
DO	8.19 mg/L		ASTM D888-09(C)
pH (Field)	7.93 SU		EPA 150.2
Specific Conductance (Field)	607 umho/cm		SM2510B
Temperature	24.01 °C		SM2550B(2)
Turbidity (Hach)	6.69 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 # AB25861	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	40.2 MPN/100mL	1	SM9223B

SiteID: WEL-08-0026 Sample Date: 7/27/2016 IDEM Sample #: AB25892
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Thick algae mats observed.

Lab ID #	Result	Reporting Limit	Method
% Sat	58.3 %		ASTM D888-09(C)
DO	4.69 mg/L		ASTM D888-09(C)
pH (Field)	7.64 SU		EPA 150.2
Specific Conductance (Field)	748 umho/cm		SM2510B
Temperature	26.31 °C		SM2550B(2)
Turbidity (Hach)	4.81 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # AB25892	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	9.7 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0027 **USGS Hydrologic Unit:** 051202080806
Stream Name: Salt Creek **County:** Lawrence
Description: Peerless Rd **Latitude:** 38 55 36.46049 **Longitude:** -86 30 27.24003
Drainage: 576.38 **Site Number:** 16T-023

SiteID: WEL-08-0027 **Sample Date:** 5/25/2016 **IDEM Sample #:** AB25425
Water Flow Type Run **Water Appearance** Murky **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	99 %		ASTM D888-09(C)
DO	9.18 mg/L		ASTM D888-09(C)
pH (Field)	7.52 SU		EPA 150.2
Specific Conductance (Field)	169 umho/cm		SM2510B
Temperature	19 °C		SM2550B(2)
Turbidity (Hach)	16 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID # 571233</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	30 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	54 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	25 mg/L	6	SM2540D
Solids, Total (TS)	114 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	81 mg/L	10	SM2540C
Sulfate	16 mg/L	5	EPA 375.2
Calcium (Total)	12.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	3.72 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.017 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.6 mg/L	1	SM5310B

<u>Lab ID # AB25425</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	148.3 MPN/100mL	1	SM9223B
E. coli	14.8 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0027 Sample Date: 6/15/2016 IDEM Sample #: AB25779
 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	67 %		ASTM D888-09(C)
DO	5.74 mg/L		ASTM D888-09(C)
pH (Field)	7.44 SU		EPA 150.2
Specific Conductance (Field)	383 umho/cm		SM2510B
Temperature	23.09 °C		SM2550B(2)
Turbidity (Hach)	17.6 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 573088	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	92 mg/L	10	EPA 310.2
Chloride	30 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	127 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	12 mg/L	6	SM2540D
Solids, Total (TS)	230 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	209 mg/L	10	SM2540C
Sulfate	26 mg/L	5	EPA 375.2
Calcium (Total)	40.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.38 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	2.8 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.07 mg/L	0.03	EPA 365.1
TKN	0.5 mg/L	0.3	EPA 351.2
TOC	3 mg/L	1	SM5310B

Lab ID # AB25779	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	198.9 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0027

Sample Date: 7/13/2016

IDEM Sample #: AB25830

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	77.6 %		ASTM D888-09(C)
DO	6.66 mg/L		ASTM D888-09(C)
pH (Field)	7.74 SU		EPA 150.2
Specific Conductance (Field)	358 umho/cm		SM2510B
Temperature	23.01 °C		SM2550B(2)
Turbidity (Hach)	38.1 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 575556	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	103 mg/L	10	EPA 310.2
Chloride	22 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	118 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	50 mg/L	6	SM2540D
Solids, Total (TS)	261 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	204 mg/L	10	SM2540C
Sulfate	24 mg/L	5	EPA 375.2
Calcium (Total)	42 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.12 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.076 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.8 mg/L	1	SM5310B

Lab ID # AB25830	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	488.4 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0027 Sample Date: 7/20/2016 IDEM Sample #: AB25860
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Muddy

Lab ID #	Result	Reporting Limit	Method
% Sat	75.3 %		ASTM D888-09(C)
DO	6.41 mg/L		ASTM D888-09(C)
pH (Field)	7.69 SU		EPA 150.2
Specific Conductance (Field)	349 umho/cm		SM2510B
Temperature	23.47 °C		SM2550B(2)
Turbidity (Hach)	41 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 #	Result	Reporting Limit	Method
AB25860			
E. coli	1203.3 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB25860a			
Coliforms (Total)	11199 MPN/100mL	10	SM9223B

SiteID: WEL-08-0027 Sample Date: 7/27/2016 IDEM Sample #: AB25891
 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	79.4 %		ASTM D888-09(C)
DO	6.63 mg/L		ASTM D888-09(C)
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	442 umho/cm		SM2510B
Temperature	24.51 °C		SM2550B(2)
Turbidity (Hach)	43.3 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB25891			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1299.7 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0034 **USGS Hydrologic Unit:** 051202080806
Stream Name: Salt Creek **County:** Lawrence
Description: Guthrie Rd **Latitude:** 38 58 38.68999 **Longitude:** -86 30 22.34425
Drainage: 510.326 **Site Number:** 16T-024

SiteID: WEL-08-0034 **Sample Date:** 5/24/2016 **IDEM Sample #:** AB25437
Water Flow Type Run **Water Appearance** Murky **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	103.8 %		ASTM D888-09(C)
DO	9.67 mg/L		ASTM D888-09(C)
pH (Field)	7.58 SU		EPA 150.2
Specific Conductance (Field)	172 umho/cm		SM2510B
Temperature	18.68 °C		SM2550B(2)
Turbidity (Hach)	7.17 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID #</u> 571231	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	31 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	56 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	6 mg/L	6	SM2540D
Solids, Total (TS)	91 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	81 mg/L	10	SM2540C
Sulfate	14 mg/L	5	EPA 375.2
Calcium (Total)	12.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	3.56 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.009 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.6 mg/L	1	SM5310B

<u>Lab ID #</u> AB25437	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	132.2 MPN/100mL	1	SM9223B
E. coli	9.8 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0034 Sample Date: 6/14/2016 IDEM Sample #: AB25791
 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	72.7 %		ASTM D888-09(C)
DO	6.1 mg/L		ASTM D888-09(C)
pH (Field)	7.53 SU		EPA 150.2
Specific Conductance (Field)	391 umho/cm		SM2510B
Temperature	24.11 °C		SM2550B(2)
Turbidity (Hach)	11.6 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 573086	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	90 mg/L	10	EPA 310.2
Chloride	33 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	118 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	9 mg/L	6	SM2540D
Solids, Total (TS)	244 mg/L	20	SM2540B
Solids, Total Dissolved (TDS)	224 mg/L	20	SM2540C
Sulfate	29 mg/L	5	EPA 375.2
Calcium (Total)	40.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.3 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.072 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.9 mg/L	1	SM5310B

Lab ID # AB25791	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	128.1 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0034 Sample Date: 7/12/2016 IDEM Sample #: AB25842
 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	79.8 %		ASTM D888-09(C)
DO	6.81 mg/L		ASTM D888-09(C)
pH (Field)	7.73 SU		EPA 150.2
Specific Conductance (Field)	448 umho/cm		SM2510B
Temperature	23.24 °C		SM2550B(2)
Turbidity (Hach)	27.6 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 # 575554	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	127 mg/L	10	EPA 310.2
Chloride	34 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	153 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	28 mg/L	6	SM2540D
Solids, Total (TS)	302 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	259 mg/L	10	SM2540C
Sulfate	29 mg/L	5	EPA 375.2
Calcium (Total)	53.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.94 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	2.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.089 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.5 mg/L	1	SM5310B

Lab ID # AB25842	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	461.1 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0034 Sample Date: 7/19/2016 IDEM Sample #: AB25858
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Muddy

Lab ID #	Result	Reporting Limit	Method
% Sat	83.5 %		ASTM D888-09(C)
DO	7.15 mg/L		ASTM D888-09(C)
pH (Field)	7.7 SU		EPA 150.2
Specific Conductance (Field)	352 umho/cm		SM2510B
Temperature	22.97 °C		SM2550B(2)
Turbidity (Hach)	44.6 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	4352 MPN/100mL	10	SM9223B

SiteID: WEL-08-0034 Sample Date: 7/26/2016 IDEM Sample #: AB25889
 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	81.6 %		ASTM D888-09(C)
DO	6.97 mg/L		ASTM D888-09(C)
pH (Field)	7.44 SU		EPA 150.2
Specific Conductance (Field)	254 umho/cm		SM2510B
Temperature	23.18 °C		SM2550B(2)
Turbidity (Hach)	22.9 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
E. coli	166.4 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	9208 MPN/100mL	10	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0029 **USGS Hydrologic Unit:** 051202080806
Stream Name: Wolf Creek **County:** Lawrence
Description: Guthrie Rd **Latitude:** 38 58 34.96564 **Longitude:** -86 28 40.25715
Drainage: 1.696 **Site Number:** 16T-025

SiteID: WEL-08-0029 **Sample Date:** 5/24/2016 **IDEM Sample #:** AB25436
Water Flow Type Run **Water Appearance** Clear **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	102 %		ASTM D888-09(C)
DO	9.98 mg/L		ASTM D888-09(C)
pH (Field)	7.55 SU		EPA 150.2
Specific Conductance (Field)	271 umho/cm		SM2510B
Temperature	16.34 °C		SM2550B(2)
Turbidity (Hach)	3.78 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 571230</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	93 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	123 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	145 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	141 mg/L	10	SM2540C
Sulfate	17 mg/L	5	EPA 375.2
Calcium (Total)	36.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.34 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.005 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

<u>Lab ID # AB25436</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	165.7 MPN/100mL	1	SM9223B
E. coli	33.6 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0029 Sample Date: 6/14/2016 IDEM Sample #: AB25790
 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	Method
% Sat	79.8 %		ASTM D888-09(C)
DO	7.03 mg/L		ASTM D888-09(C)
pH (Field)	7.2 SU		EPA 150.2
Specific Conductance (Field)	278 umho/cm		SM2510B
Temperature	21.55 °C		SM2550B(2)
Turbidity (Hach)	4.63 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 573085	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	99 mg/L	10	EPA 310.2
Chloride	5.7 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	109 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	11 mg/L	6	SM2540D
Solids, Total (TS)	165 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	147 mg/L	10	SM2540C
Sulfate	16 mg/L	5	EPA 375.2
Calcium (Total)	37.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.19 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.019 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

Lab ID # AB25790	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	29.9 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0029 Sample Date: 7/12/2016 IDEM Sample #: AB25841
 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	Method
% Sat	79.3 %		ASTM D888-09(C)
DO	6.97 mg/L		ASTM D888-09(C)
pH (Field)	7.41 SU		EPA 150.2
Specific Conductance (Field)	307 umho/cm		SM2510B
Temperature	21.67 °C		SM2550B(2)
Turbidity (Hach)	4.56 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

Lab ID # 575553	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	116 mg/L	10	EPA 310.2
Chloride	5.7 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	118 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	165 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	160 mg/L	10	SM2540C
Sulfate	18 mg/L	5	EPA 375.2
Calcium (Total)	41 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.17 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.011 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.1 mg/L	1	SM5310B

Lab ID # AB25841	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	30.9 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0029 Sample Date: 7/19/2016 IDEM Sample #: AB25857
 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	Method
% Sat	91 %		ASTM D888-09(C)
DO	7.82 mg/L		ASTM D888-09(C)
pH (Field)	7.53 SU		EPA 150.2
Specific Conductance (Field)	289 umho/cm		SM2510B
Temperature	22.86 °C		SM2550B(2)
Turbidity (Hach)	4.56 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # AB25857	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	96 MPN/100mL	1	SM9223B

SiteID: WEL-08-0029 Sample Date: 7/26/2016 IDEM Sample #: AB25888
 Water Flow Type Riffle 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	Method
% Sat	78.2 %		ASTM D888-09(C)
DO	6.61 mg/L		ASTM D888-09(C)
pH (Field)	7.37 SU		EPA 150.2
Specific Conductance (Field)	323 umho/cm		SM2510B
Temperature	23.82 °C		SM2550B(2)
Turbidity (Hach)	5.73 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # AB25888	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	111.2 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0033 **USGS Hydrologic Unit:** 051202080807
Stream Name: Salt Creek **County:** Lawrence
Description: Old SR 450/Old Williams Rd **Latitude:** 38 50 19.79614 **Longitude:** -86 32 56.36801
Drainage: 627.267 **Site Number:** 16T-026

SiteID: WEL-08-0033 **Sample Date:** 5/25/2016 **IDEM Sample #:** AB25429
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	94.7 %		ASTM D888-09(C)
DO	8.83 mg/L		ASTM D888-09(C)
pH (Field)	7.54 SU		EPA 150.2
Specific Conductance (Field)	176 umho/cm		SM2510B
Temperature	18.72 °C		SM2550B(2)
Turbidity (Hach)	39.9 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

<u>Lab ID # 571236</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	35 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	60 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	62 mg/L	6	SM2540D
Solids, Total (TS)	151 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	87 mg/L	10	SM2540C
Sulfate	16 mg/L	5	EPA 375.2
Calcium (Total)	14.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	3.81 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.026 mg/L	0.03	EPA 365.1
TKN	0.3 mg/L	0.3	EPA 351.2
TOC	2.5 mg/L	1	SM5310B

<u>Lab ID # AB25429</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	155.1 MPN/100mL	1	SM9223B
E. coli	24.3 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0033 Sample Date: 6/15/2016 IDEM Sample #: AB25783
 Water Flow Type Pool 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	100.6 %		ASTM D888-09(C)
DO	8.16 mg/L		ASTM D888-09(C)
pH (Field)	7.88 SU		EPA 150.2
Specific Conductance (Field)	262 umho/cm		SM2510B
Temperature	25.82 °C		SM2550B(2)
Turbidity (Hach)	15 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	8 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 573091	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	65 mg/L	10	EPA 310.2
Chloride	11 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	87 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	11 mg/L	6	SM2540D
Solids, Total (TS)	151 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	136 mg/L	10	SM2540C
Sulfate	20 mg/L	5	EPA 375.2
Calcium (Total)	27.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.4 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.064 mg/L	0.03	EPA 365.1
TKN	0.5 mg/L	0.3	EPA 351.2
TOC	3 mg/L	1	SM5310B

Lab ID # AB25783	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	178.5 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0033 Sample Date: 7/13/2016 IDEM Sample #: AB25834
 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	57.9 %		ASTM D888-09(C)
DO	4.87 mg/L		ASTM D888-09(C)
pH (Field)	7.58 SU		EPA 150.2
Specific Conductance (Field)	420 umho/cm		SM2510B
Temperature	23.98 °C		SM2550B(2)
Turbidity (Hach)	23 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 575559	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	147 mg/L	10	EPA 310.2
Chloride	18 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	167 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	14 mg/L	6	SM2540D
Solids, Total (TS)	261 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	237 mg/L	10	SM2540C
Sulfate	27 mg/L	5	EPA 375.2
Calcium (Total)	58.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.72 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.039 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.4 mg/L	1	SM5310B

Lab ID # AB25834	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	104.6 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0033 Sample Date: 7/20/2016 IDEM Sample #: AB25864
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Slightly Muddy

Lab ID #	Result	Reporting Limit	Method
% Sat	57.8 %		ASTM D888-09(C)
DO	4.8 mg/L		ASTM D888-09(C)
pH (Field)	7.6 SU		EPA 150.2
Specific Conductance (Field)	411 umho/cm		SM2510B
Temperature	24.75 °C		SM2550B(2)
Turbidity (Hach)	16.1 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 # AB25864	Result	Reporting Limit	Method
Coliforms (Total)	1732.9 MPN/100mL	1	SM9223B
E. coli	46.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0033 Sample Date: 7/27/2016 IDEM Sample #: AB25895
 Water Flow Type Pool 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	62.4 %		ASTM D888-09(C)
DO	5.18 mg/L		ASTM D888-09(C)
pH (Field)	7.69 SU		EPA 150.2
Specific Conductance (Field)	299 umho/cm		SM2510B
Temperature	24.79 °C		SM2550B(2)
Turbidity (Hach)	26.2 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # AB25895	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	127.4 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0031 **USGS Hydrologic Unit:** 051202080807
Stream Name: Goose Creek **County:** Lawrence
Description: Patton Hill Rd, approximately 20 meters d **Latitude:** 38 53 59.32317 **Longitude:** -86 31 55.84388
Drainage: 7.564 **Site Number:** 16T-027

SiteID: WEL-08-0031 **Sample Date:** 5/25/2016 **IDEM Sample #:** AB25428
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	108.1 %		ASTM D888-09(C)
DO	10.55 mg/L		ASTM D888-09(C)
pH (Field)	8.2 SU		EPA 150.2
Specific Conductance (Field)	475 umho/cm		SM2510B
Temperature	16.46 °C		SM2550B(2)
Turbidity (Hach)	14.8 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 571235	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	174 mg/L	10	EPA 310.2
Chloride	11 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	251 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	7 mg/L	6	SM2540D
Solids, Total (TS)	317 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	294 mg/L	10	SM2540C
Sulfate	47 mg/L	5	EPA 375.2
Calcium (Total)	75.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	10.9 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.007 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1 mg/L	1	SM5310B

Lab ID # AB25428	Result	Reporting Limit	Method
Coliforms (Total)	169.4 MPN/100mL	1	SM9223B
E. coli	86.7 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0031 Sample Date: 6/15/2016 IDEM Sample #: AB25782
 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	97.3 %		ASTM D888-09(C)
DO	9.38 mg/L		ASTM D888-09(C)
pH (Field)	7.89 SU		EPA 150.2
Specific Conductance (Field)	429 umho/cm		SM2510B
Temperature	17.03 °C		SM2550B(2)
Turbidity (Hach)	60.3 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 573090	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	156 mg/L	10	EPA 310.2
Chloride	12 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	221 mg/L	75	EPA 130.1
Solids, Suspended Total, (TSS)	22 mg/L	12	SM2540D
Solids, Total (TS)	312 mg/L	20	SM2540B
Solids, Total Dissolved (TDS)	276 mg/L	20	SM2540C
Sulfate	34 mg/L	5	EPA 375.2
Calcium (Total)	70.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.82 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.04 mg/L	0.03	EPA 365.1
TKN	0.6 mg/L	0.3	EPA 351.2
TOC	3.5 mg/L	1	SM5310B

Lab ID # AB25782	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

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

SiteID: WEL-08-0031 Sample Date: 7/13/2016 IDEM Sample #: AB25833
 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	99.6 %		ASTM D888-09(C)
DO	9.12 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	523 umho/cm		SM2510B
Temperature	19.54 °C		SM2550B(2)
Turbidity (Hach)	22.3 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 575558	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	178 mg/L	10	EPA 310.2
Chloride	12 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	274 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	10 mg/L	6	SM2540D
Solids, Total (TS)	362 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	338 mg/L	10	SM2540C
Sulfate	67 mg/L	5	EPA 375.2
Calcium (Total)	76.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	11.2 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.016 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.4 mg/L	1	SM5310B

Lab ID # AB25833	Result	Reporting Limit	Method
E. coli	127.4 MPN/100mL	1	SM9223B

Lab ID # AB25833a	Result	Reporting Limit	Method
Coliforms (Total)	7270 MPN/100mL	10	SM9223B

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

SiteID: WEL-08-0031 Sample Date: 7/20/2016 IDEM Sample #: AB25863
 Water Flow Type Run Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Muddy

Lab ID #	Result	Reporting Limit	Method
% Sat	95.4 %		ASTM D888-09(C)
DO	8.75 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	505 umho/cm		SM2510B
Temperature	19.47 °C		SM2550B(2)
Turbidity (Hach)	52.9 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 24196 MPN/100mL	24196	SM9223B
E. coli	5475 MPN/100mL	10	SM9223B

SiteID: WEL-08-0031 Sample Date: 7/27/2016 IDEM Sample #: AB25894
 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 %		ASTM D888-09(C)
DO	8.55 mg/L		ASTM D888-09(C)
pH (Field)	7.99 SU		EPA 150.2
Specific Conductance (Field)	535 umho/cm		SM2510B
Temperature	20.45 °C		SM2550B(2)
Turbidity (Hach)	17.8 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	770.1 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL090-0003 **USGS Hydrologic Unit:** 051202080807
Stream Name: Salt Creek **County:** Lawrence
Description: Oolitic Rd, Near Oolitic **Latitude:** 38 53 18.37666 **Longitude:** -86 30 31.00000
Drainage: 603.506 **Site Number:** 16T-028

SiteID: WEL090-0003 **Sample Date:** 5/25/2016 **IDEM Sample #:** AB25427
Water Flow Type Eddy **Water Appearance** Murky **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	97.3 %		ASTM D888-09(C)
DO	9.12 mg/L		ASTM D888-09(C)
pH (Field)	7.46 SU		EPA 150.2
Specific Conductance (Field)	171 umho/cm		SM2510B
Temperature	18.44 °C		SM2550B(2)
Turbidity (Hach)	20.8 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

<u>Lab ID #</u> 571239	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Alkalinity (as CaCO3)	32 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	60 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	48 mg/L	6	SM2540D
Solids, Total (TS)	132 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	84 mg/L	10	SM2540C
Sulfate	16 mg/L	5	EPA 375.2
Calcium (Total)	13.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	3.79 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.02 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.5 mg/L	1	SM5310B

<u>Lab ID #</u> AB25427	<u>Result</u>	<u>Reporting Limit</u>	<u>Method</u>
Coliforms (Total)	155.1 MPN/100mL	1	SM9223B
E. coli	16 MPN/100mL	1	SM9223B

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

SiteID: WEL090-0003 Sample Date: 6/15/2016 IDEM Sample #: AB25781
 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	51.7 %		ASTM D888-09(C)
DO	4.52 mg/L		ASTM D888-09(C)
pH (Field)	7.34 SU		EPA 150.2
Specific Conductance (Field)	394 umho/cm		SM2510B
Temperature	21.97 °C		SM2550B(2)
Turbidity (Hach)	77.2 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 573094	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	96 mg/L	10	EPA 310.2
Chloride	23 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	135 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	46 mg/L	6	SM2540D
Solids, Total (TS)	274 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	224 mg/L	10	SM2540C
Sulfate	36 mg/L	5	EPA 375.2
Calcium (Total)	43.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.37 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.071 mg/L	0.03	EPA 365.1
TKN	0.9 mg/L	0.3	EPA 351.2
TOC	4 mg/L	1	SM5310B

Lab ID # AB25781	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	> 2419.6 MPN/100mL	2419.6	SM9223B

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

SiteID: WEL090-0003 Sample Date: 7/13/2016 IDEM Sample #: AB25832
 Water Flow Type Eddy 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	67.1 %		ASTM D888-09(C)
DO	5.69 mg/L		ASTM D888-09(C)
pH (Field)	7.63 SU		EPA 150.2
Specific Conductance (Field)	437 umho/cm		SM2510B
Temperature	23.49 °C		SM2550B(2)
Turbidity (Hach)	42.2 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 575562	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	133 mg/L	10	EPA 310.2
Chloride	29 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	160 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	40 mg/L	6	SM2540D
Solids, Total (TS)	299 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	251 mg/L	10	SM2540C
Sulfate	31 mg/L	5	EPA 375.2
Calcium (Total)	53.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.87 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.058 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.6 mg/L	1	SM5310B

Lab ID # AB25832	Result	Reporting Limit	Method
E. coli	387.3 MPN/100mL	1	SM9223B

Lab ID # AB25832a	Result	Reporting Limit	Method
Coliforms (Total)	12997 MPN/100mL	10	SM9223B

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

SiteID: WEL090-0003 Sample Date: 7/20/2016 IDEM Sample #: AB25862
 Water Flow Type Eddy Water Appearance Brown Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Slightly muddy

Lab ID #	Result	Reporting Limit	Method
% Sat	61.4 %		ASTM D888-09(C)
DO	5.18 mg/L		ASTM D888-09(C)
pH (Field)	7.57 SU		EPA 150.2
Specific Conductance (Field)	346 umho/cm		SM2510B
Temperature	23.82 °C		SM2550B(2)
Turbidity (Hach)	49.2 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 #	Result	Reporting Limit	Method
AB25862			
E. coli	231 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB25862a			
Coliforms (Total)	15531 MPN/100mL	10	SM9223B

SiteID: WEL090-0003 Sample Date: 7/27/2016 IDEM Sample #: AB25893
 Water Flow Type Eddy 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	72.2 %		ASTM D888-09(C)
DO	6.12 mg/L		ASTM D888-09(C)
pH (Field)	7.48 SU		EPA 150.2
Specific Conductance (Field)	266 umho/cm		SM2510B
Temperature	23.62 °C		SM2550B(2)
Turbidity (Hach)	45 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB25893			
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	365.4 MPN/100mL	1	SM9223B

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

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0005 **USGS Hydrologic Unit:** 051202080802
Stream Name: Clear Creek **County:** Monroe
Description: SR 37 **Latitude:** 39 5 47.51511 **Longitude:** -86 32 46.37476
Drainage: 25.654 **Site Number:** 16T-001

SiteID: WEL-08-0005 **Sample Date:** 8/1/2016 **IDEM Sample #:** AB25927
Water Flow Type Riffle **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	Method
% Sat	95.1 %		ASTM D888-09(C)
DO	8.34 mg/L		ASTM D888-09(C)
pH (Field)	7.98 SU		EPA 150.2
Specific Conductance (Field)	670 umho/cm		SM2510B
Temperature	21.74 °C		SM2550B(2)
Turbidity (Hach)	6.89 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	435.2 MPN/100mL	1	SM9223B

SiteID: WEL-08-0005 **Sample Date:** 8/8/2016 **IDEM Sample #:** AB25943
Water Flow Type Riffle **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	Method
% Sat	92.7 %		ASTM D888-09(C)
DO	8.19 mg/L		ASTM D888-09(C)
pH (Field)	7.97 SU		EPA 150.2
Specific Conductance (Field)	653 umho/cm		SM2510B
Temperature	21.44 °C		SM2550B(2)
Turbidity (Hach)	2.88 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 577677	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	203 mg/L	10	EPA 310.2
Chloride	70 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	258 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	409 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	397 mg/L	10	SM2540C
Sulfate	34 mg/L	5	EPA 375.2
Calcium (Total)	78.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.17 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.017 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	3.3 mg/L	1	SM5310B

Lab ID # AB25943	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	206.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0005 **Sample Date:** 8/25/2016 **IDEM Sample #:** AB23915
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	Method
% Sat	102 %		ASTM D888-09(C)
DO	8.54 mg/L		ASTM D888-09(C)
pH (Field)	7.86 SU		EPA 150.2
Specific Conductance (Field)	476 umho/cm		SM2510B
Temperature	23.08 °C		SM2550B(2)
Turbidity (Hach)	11 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

SiteID: WEL-08-0005 Sample Date: 8/29/2016 IDEM Sample #: AB26671
 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	Method
% Sat	98.3 %		SM4500-OG
DO	7.8 mg/L		SM4500-OG
pH (Field)	7.5 SU		EPA 150.2
Specific Conductance (Field)	576 umho/cm		SM2510B
Temperature	22.61 °C		SM2550B(2)
Turbidity (Hach)	4.75 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEL-08-0005 Sample Date: 9/12/2016 IDEM Sample #: AB26896
 Water Flow Type Riffle 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	Method
% Sat	94 %		ASTM D888-09(C)
DO	8.98 mg/L		ASTM D888-09(C)
pH (Field)	7.94 SU		EPA 150.2
Specific Conductance (Field)	658 umho/cm		SM2510B
Temperature	17.45 °C		SM2550B(2)
Turbidity (Hach)	3.9 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 581379	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	227 mg/L	10	EPA 310.2
Chloride	54 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	288 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	421 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	391 mg/L	10	SM2540C
Sulfate	41 mg/L	5	EPA 375.2
Calcium (Total)	90.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.55 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.023 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.9 mg/L	1	SM5310B

Lab ID # AB26896	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	410.6 MPN/100mL	1	SM9223B

SiteID: WEL-08-0005 **Sample Date:** 10/17/2016 **IDEM Sample #:** AB27199
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	Method
% Sat	83.1 %		ASTM D888-09(C)
DO	8.04 mg/L		ASTM D888-09(C)
pH (Field)	7.96 SU		EPA 150.2
Specific Conductance (Field)	662 umho/cm		SM2510B
Temperature	16.84 °C		SM2550B(2)
Turbidity (Hach)	4.22 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 584878	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	231 mg/L	10	EPA 310.2
Chloride	64 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	279 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	425 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	408 mg/L	10	SM2540C
Sulfate	39 mg/L	5	EPA 375.2
Calcium (Total)	88.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	10.3 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.014 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	3.4 mg/L	1	SM5310B

Lab ID # AB27199	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	65.7 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0006 **USGS Hydrologic Unit:** 051202080801
Stream Name: Jackson Creek **County:** Monroe
Description: S Rogers St **Latitude:** 39 6 0.74880 **Longitude:** -86 32 18.43080
Drainage: 10.713 **Site Number:** 16T-002

SiteID: WEL-08-0006 **Sample Date:** 8/1/2016 **IDEM Sample #:** AB25928
Water Flow Type Riffle **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	Method
% Sat	95.6 %		ASTM D888-09(C)
DO	8.42 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	531 umho/cm		SM2510B
Temperature	21.58 °C		SM2550B(2)
Turbidity (Hach)	6.84 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	488.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0006 **Sample Date:** 8/8/2016 **IDEM Sample #:** AB25944
Water Flow Type Riffle **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	Method
% Sat	93.4 %		ASTM D888-09(C)
DO	8.29 mg/L		ASTM D888-09(C)
pH (Field)	8.03 SU		EPA 150.2
Specific Conductance (Field)	561 umho/cm		SM2510B
Temperature	21.12 °C		SM2550B(2)
Turbidity (Hach)	4.38 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID # 577678	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	186 mg/L	10	EPA 310.2
Chloride	51 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	222 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	334 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	324 mg/L	10	SM2540C
Sulfate	27 mg/L	5	EPA 375.2
Calcium (Total)	66.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.73 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	< 0.03 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.6 mg/L	1	SM5310B

Lab ID # AB25944	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	461.1 MPN/100mL	1	SM9223B

SiteID: WEL-08-0006 **Sample Date:** 8/24/2016 **IDEM Sample #:** AB23916
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	Method
% Sat	95.8 %		ASTM D888-09(C)
DO	8.59 mg/L		ASTM D888-09(C)
pH (Field)	7.86 SU		EPA 150.2
Specific Conductance (Field)	532 umho/cm		SM2510B
Temperature	19.71 °C		SM2550B(2)
Turbidity (Hach)	6.62 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: WEL-08-0006 **Sample Date:** 8/29/2016 **IDEM Sample #:** AB26670
Water Flow Type Riffle **Water Appearance** Clear **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	115.2 %		SM4500-OG
DO	9.32 mg/L		SM4500-OG
pH (Field)	7.49 SU		EPA 150.2
Specific Conductance (Field)	487 umho/cm		SM2510B
Temperature	25.12 °C		SM2550B(2)
Turbidity (Hach)	4.62 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEL-08-0006 **Sample Date:** 9/12/2016 **IDEM Sample #:** AB26897
Water Flow Type Riffle **Water Appearance** Clear **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	92.6 %		ASTM D888-09(C)
DO	8.9 mg/L		ASTM D888-09(C)
pH (Field)	7.96 SU		EPA 150.2
Specific Conductance (Field)	579 umho/cm		SM2510B
Temperature	17.14 °C		SM2550B(2)
Turbidity (Hach)	1.81 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 581380	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	209 mg/L	10	EPA 310.2
Chloride	47 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	245 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	360 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	341 mg/L	10	SM2540C
Sulfate	25 mg/L	5	EPA 375.2
Calcium (Total)	77.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.2 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.019 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.4 mg/L	1	SM5310B

Lab ID # AB26897	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	579.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0006 **Sample Date:** 10/17/2016 **IDEM Sample #:** AB27200
Water Flow Type Riffle **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	Method
% Sat	83.4 %		ASTM D888-09(C)
DO	7.9 mg/L		ASTM D888-09(C)
pH (Field)	8 SU		EPA 150.2
Specific Conductance (Field)	567 umho/cm		SM2510B
Temperature	17.08 °C		SM2550B(2)
Turbidity (Hach)	3.14 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID # 584879	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	198 mg/L	10	EPA 310.2
Chloride	48 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	211 mg/L	75	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	338 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	324 mg/L	10	SM2540C
Sulfate	29 mg/L	5	EPA 375.2
Calcium (Total)	70.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.81 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.011 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.8 mg/L	1	SM5310B

Lab ID # AB27200	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	29.4 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0007 **USGS Hydrologic Unit:** 051202080801
Stream Name: Clear Creek **County:** Monroe
Description: W Church Ln **Latitude:** 39 6 28.15320 **Longitude:** -86 32 32.08782
Drainage: 8.51 **Site Number:** 16T-003

SiteID: WEL-08-0007 **Sample Date:** 8/1/2016 **IDEM Sample #:** AB25918
Water Flow Type Riffle **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	Method
% Sat	92.4 %		ASTM D888-09(C)
DO	8.1 mg/L		ASTM D888-09(C)
pH (Field)	7.95 SU		EPA 150.2
Specific Conductance (Field)	585 umho/cm		SM2510B
Temperature	21.8 °C		SM2550B(2)
Turbidity (Hach)	11.4 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	290.9 MPN/100mL	1	SM9223B

SiteID: WEL-08-0007 **Sample Date:** 8/8/2016 **IDEM Sample #:** AB25942
Water Flow Type Riffle **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	Method
% Sat	89.7 %		ASTM D888-09(C)
DO	8 mg/L		ASTM D888-09(C)
pH (Field)	8.01 SU		EPA 150.2
Specific Conductance (Field)	597 umho/cm		SM2510B
Temperature	20.88 °C		SM2550B(2)
Turbidity (Hach)	5.17 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 577676	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	207 mg/L	10	EPA 310.2
Chloride	46 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	254 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	377 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	356 mg/L	10	SM2540C
Sulfate	39 mg/L	5	EPA 375.2
Calcium (Total)	77.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.33 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.009 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	3.5 mg/L	1	SM5310B

Lab ID # AB25942	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	275.5 MPN/100mL	1	SM9223B

SiteID: WEL-08-0007 **Sample Date:** 8/23/2016 **IDEM Sample #:** AB23917
Water Flow Type Riffle **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	Method
% Sat	103.9 %		SM4500-OG
DO	9.16 mg/L		SM4500-OG
pH (Field)	8.08 SU		EPA 150.2
Specific Conductance (Field)	534 umho/cm		SM2510B
Temperature	20.29 °C		SM2550B(2)
Turbidity (Hach)	5.23 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: WEL-08-0007 **Sample Date:** 8/29/2016 **IDEM Sample #:** AB26676
Water Flow Type Riffle **Water Appearance** Clear **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	105.6 %		SM4500-OG
DO	8.61 mg/L		SM4500-OG
pH (Field)	7.67 SU		EPA 150.2
Specific Conductance (Field)	517 umho/cm		SM2510B
Temperature	24.75 °C		SM2550B(2)
Turbidity (Hach)	5.45 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEL-08-0007 **Sample Date:** 9/12/2016 **IDEM Sample #:** AB26895
Water Flow Type Riffle **Water Appearance** Clear **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	92.8 %		ASTM D888-09(C)
DO	8.85 mg/L		ASTM D888-09(C)
pH (Field)	7.82 SU		EPA 150.2
Specific Conductance (Field)	580 umho/cm		SM2510B
Temperature	17.56 °C		SM2550B(2)
Turbidity (Hach)	6.31 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 581378	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	201 mg/L	10	EPA 310.2
Chloride	28 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	277 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	386 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	353 mg/L	10	SM2540C
Sulfate	64 mg/L	5	EPA 375.2
Calcium (Total)	85.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	10.1 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.027 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.8 mg/L	1	SM5310B

Lab ID # AB26895	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	248.9 MPN/100mL	1	SM9223B

SiteID: WEL-08-0007 **Sample Date:** 10/17/2016 **IDEM Sample #:** AB27198
Water Flow Type Riffle **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	Method
% Sat	81.7 %		ASTM D888-09(C)
DO	8 mg/L		ASTM D888-09(C)
pH (Field)	8.01 SU		EPA 150.2
Specific Conductance (Field)	640 umho/cm		SM2510B
Temperature	16.2 °C		SM2550B(2)
Turbidity (Hach)	4.19 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID # 584877	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	239 mg/L	10	EPA 310.2
Chloride	42 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	297 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	411 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	394 mg/L	10	SM2540C
Sulfate	49 mg/L	5	EPA 375.2
Calcium (Total)	91.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	11.2 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.016 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	3.8 mg/L	1	SM5310B

Lab ID # AB27198	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	57.3 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0008 **USGS Hydrologic Unit:** 051202080801
Stream Name: Clear Creek **County:** Monroe
Description: W Country Club Dr **Latitude:** 39 8 10.02881 **Longitude:** -86 32 0.86984
Drainage: 5.788 **Site Number:** 16T-004

SiteID: WEL-08-0008 **Sample Date:** 8/1/2016 **IDEM Sample #:** AB25907
Water Flow Type Riffle **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	Method
% Sat	94.2 %		ASTM D888-09(C)
DO	8.26 mg/L		ASTM D888-09(C)
pH (Field)	7.9 SU		EPA 150.2
Specific Conductance (Field)	900 umho/cm		SM2510B
Temperature	21.7 °C		SM2550B(2)
Turbidity (Hach)	6.93 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	686.7 MPN/100mL	1	SM9223B

SiteID: WEL-08-0008 **Sample Date:** 8/8/2016 **IDEM Sample #:** AB25938
Water Flow Type Riffle **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	Method
% Sat	87.4 %		ASTM D888-09(C)
DO	7.76 mg/L		ASTM D888-09(C)
pH (Field)	7.89 SU		EPA 150.2
Specific Conductance (Field)	867 umho/cm		SM2510B
Temperature	21.1 °C		SM2550B(2)
Turbidity (Hach)	2.39 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 577675	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	218 mg/L	10	EPA 310.2
Chloride	130 mg/L	12.5	SM4500Cl-E
Hardness (as CaCO3)	297 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	574 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	541 mg/L	10	SM2540C
Sulfate	41 mg/L	5	EPA 375.2
Calcium (Total)	93.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.45 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.013 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.1 mg/L	1	SM5310B

Lab ID # AB25938	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	613.1 MPN/100mL	1	SM9223B

SiteID: WEL-08-0008 **Sample Date:** 8/25/2016 **IDEM Sample #:** AB23918
Water Flow Type Riffle **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	Method
% Sat	111 %		ASTM D888-09(C)
DO	9.08 mg/L		ASTM D888-09(C)
pH (Field)	7.76 SU		EPA 150.2
Specific Conductance (Field)	711 umho/cm		SM2510B
Temperature	24.25 °C		SM2550B(2)
Turbidity (Hach)	3.68 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: WEL-08-0008 Sample Date: 8/29/2016 IDEM Sample #: AB26675
 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	Method
% Sat	122.8 %		SM4500-OG
DO	10.16 mg/L		SM4500-OG
pH (Field)	7.51 SU		EPA 150.2
Specific Conductance (Field)	817 umho/cm		SM2510B
Temperature	23.88 °C		SM2550B(2)
Turbidity (Hach)	4.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEL-08-0008 Sample Date: 9/12/2016 IDEM Sample #: AB26891
 Water Flow Type Riffle 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	Method
% Sat	88.7 %		ASTM D888-09(C)
DO	8.44 mg/L		ASTM D888-09(C)
pH (Field)	7.77 SU		EPA 150.2
Specific Conductance (Field)	857 umho/cm		SM2510B
Temperature	17.65 °C		SM2550B(2)
Turbidity (Hach)	3.69 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 581377	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	256 mg/L	10	EPA 310.2
Chloride	98 mg/L	12.5	SM4500Cl-E
Hardness (as CaCO3)	317 mg/L	75	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	536 mg/L	20	SM2540B
Solids, Total Dissolved (TDS)	514 mg/L	20	SM2540C
Sulfate	40 mg/L	5	EPA 375.2
Calcium (Total)	103 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.86 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.027 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.7 mg/L	1	SM5310B

Lab ID # AB26891	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	365.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0008 **Sample Date:** 10/17/2016 **IDEM Sample #:** AB27194
Water Flow Type Riffle **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	Method
% Sat	77.3 %		ASTM D888-09(C)
DO	7.43 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	792 umho/cm		SM2510B
Temperature	17.14 °C		SM2550B(2)
Turbidity (Hach)	4.29 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 584876	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	223 mg/L	10	EPA 310.2
Chloride	108 mg/L	12.5	SM4500Cl-E
Hardness (as CaCO3)	291 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	498 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	486 mg/L	10	SM2540C
Sulfate	36 mg/L	5	EPA 375.2
Calcium (Total)	90.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.43 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.043 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.9 mg/L	1	SM5310B

Lab ID # AB27194	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	344.8 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0010 **USGS Hydrologic Unit:** 051202080802
Stream Name: Tributary of Clear Creek **County:** Monroe
Description: S Victor Pike **Latitude:** 39 4 46.69815 **Longitude:** -86 34 8.12546
Drainage: 4.448 **Site Number:** 16T-006

SiteID: WEL-08-0010 **Sample Date:** 8/1/2016 **IDEM Sample #:** AB25929
Water Flow Type Riffle **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	Method
% Sat	93.9 %		ASTM D888-09(C)
DO	8.2 mg/L		ASTM D888-09(C)
pH (Field)	8.02 SU		EPA 150.2
Specific Conductance (Field)	584 umho/cm		SM2510B
Temperature	21.95 °C		SM2550B(2)
Turbidity (Hach)	7.58 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	101.2 MPN/100mL	1	SM9223B

SiteID: WEL-08-0010 **Sample Date:** 8/8/2016 **IDEM Sample #:** AB25945
Water Flow Type Riffle **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	Method
% Sat	96 %		ASTM D888-09(C)
DO	8.37 mg/L		ASTM D888-09(C)
pH (Field)	8.05 SU		EPA 150.2
Specific Conductance (Field)	636 umho/cm		SM2510B
Temperature	21.56 °C		SM2550B(2)
Turbidity (Hach)	4.85 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID # 577679	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	200 mg/L	10	EPA 310.2
Chloride	11 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	335 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	466 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	436 mg/L	10	SM2540C
Sulfate	134 mg/L	12.5	EPA 375.2
Calcium (Total)	101 mg/L	0.2	EPA 200.7
Magnesium (Total)	15.1 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	< 0.03 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.9 mg/L	1	SM5310B

Lab ID # AB25945	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	81.6 MPN/100mL	1	SM9223B

SiteID: WEL-08-0010 **Sample Date:** 8/23/2016 **IDEM Sample #:** AB23919
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	Method
% Sat	101.1 %		SM4500-OG
DO	9.2 mg/L		SM4500-OG
pH (Field)	8.1 SU		EPA 150.2
Specific Conductance (Field)	495 umho/cm		SM2510B
Temperature	18.73 °C		SM2550B(2)
Turbidity (Hach)	6.81 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: WEL-08-0010 **Sample Date:** 9/7/2016 **IDEM Sample #:** AB26674
Water Flow Type Run **Water Appearance** Clear **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	97.2 %		SM4500-OG
DO	8.43 mg/L		SM4500-OG
pH (Field)	8.15 SU		EPA 150.2
Specific Conductance (Field)	527 umho/cm		SM2510B
Temperature	21.61 °C		SM2550B(2)
Turbidity (Hach)	5.9 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: WEL-08-0010 **Sample Date:** 9/12/2016 **IDEM Sample #:** AB26898
Water Flow Type Riffle **Water Appearance** Clear **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	98.3 %		ASTM D888-09(C)
DO	9.49 mg/L		ASTM D888-09(C)
pH (Field)	8.01 SU		EPA 150.2
Specific Conductance (Field)	562 umho/cm		SM2510B
Temperature	16.95 °C		SM2550B(2)
Turbidity (Hach)	5.41 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 581381	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	216 mg/L	10	EPA 310.2
Chloride	6.2 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	294 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	395 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	373 mg/L	10	SM2540C
Sulfate	82 mg/L	5	EPA 375.2
Calcium (Total)	96.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	11.9 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.02 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.9 mg/L	1	SM5310B

Lab ID # AB26898	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	488.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0010 **Sample Date:** 10/17/2016 **IDEM Sample #:** AB27201
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	Method
% Sat	88.5 %		ASTM D888-09(C)
DO	8.66 mg/L		ASTM D888-09(C)
pH (Field)	8.08 SU		EPA 150.2
Specific Conductance (Field)	642 umho/cm		SM2510B
Temperature	16.33 °C		SM2550B(2)
Turbidity (Hach)	4.14 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 584880	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	232 mg/L	10	EPA 310.2
Chloride	7.3 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	348 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	466 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	438 mg/L	10	SM2540C
Sulfate	117 mg/L	10	EPA 375.2
Calcium (Total)	108 mg/L	0.2	EPA 200.7
Magnesium (Total)	16 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.011 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	3.3 mg/L	1	SM5310B

Lab ID # AB27201	Result	Reporting Limit	Method
Coliforms (Total)	1732.9 MPN/100mL	1	SM9223B
E. coli	18.7 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0011 **USGS Hydrologic Unit:** 051202080802
Stream Name: Tributary of Clear Creek **County:** Monroe
Description: S Victor Pike **Latitude:** 39 3 46.42787 **Longitude:** -86 34 47.27708
Drainage: 3.919 **Site Number:** 16T-007

SiteID: WEL-08-0011 **Sample Date:** 8/1/2016 **IDEM Sample #:** AB25930
Water Flow Type Riffle **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	Method
% Sat	95.2 %		ASTM D888-09(C)
DO	8.45 mg/L		ASTM D888-09(C)
pH (Field)	8.01 SU		EPA 150.2
Specific Conductance (Field)	570 umho/cm		SM2510B
Temperature	21.8 °C		SM2550B(2)
Turbidity (Hach)	95.2 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	7 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	298.7 MPN/100mL	1	SM9223B

SiteID: WEL-08-0011 **Sample Date:** 8/8/2016 **IDEM Sample #:** AB25946
Water Flow Type Riffle **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	Method
% Sat	103.1 %		ASTM D888-09(C)
DO	9.12 mg/L		ASTM D888-09(C)
pH (Field)	7.99 SU		EPA 150.2
Specific Conductance (Field)	597 umho/cm		SM2510B
Temperature	21.31 °C		SM2550B(2)
Turbidity (Hach)	7.81 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 577680	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	224 mg/L	10	EPA 310.2
Chloride	10 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	308 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	423 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	406 mg/L	10	SM2540C
Sulfate	78 mg/L	10	EPA 375.2
Calcium (Total)	97.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	12.8 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.005 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.9 mg/L	1	SM5310B

Lab ID # AB25946	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	488.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0011 **Sample Date:** 8/22/2016 **IDEM Sample #:** AB23920
Water Flow Type Riffle **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	Method
% Sat	101 %		SM4500-OG
DO	9.21 mg/L		SM4500-OG
pH (Field)	8.08 SU		EPA 150.2
Specific Conductance (Field)	464 umho/cm		SM2510B
Temperature	18.54 °C		SM2550B(2)
Turbidity (Hach)	6.58 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: WEL-08-0011 Sample Date: 9/7/2016 IDEM Sample #: AB26669
 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	Method
% Sat	102.2 %		SM4500-OG
DO	8.78 mg/L		SM4500-OG
pH (Field)	8.19 SU		EPA 150.2
Specific Conductance (Field)	475 umho/cm		SM2510B
Temperature	22.37 °C		SM2550B(2)
Turbidity (Hach)	6 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: WEL-08-0011 Sample Date: 9/12/2016 IDEM Sample #: AB26899
 Water Flow Type Riffle 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	Method
% Sat	104.7 %		ASTM D888-09(C)
DO	10.1 mg/L		ASTM D888-09(C)
pH (Field)	8.06 SU		EPA 150.2
Specific Conductance (Field)	574 umho/cm		SM2510B
Temperature	17 °C		SM2550B(2)
Turbidity (Hach)	4.45 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 581382	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	218 mg/L	10	EPA 310.2
Chloride	8.6 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	290 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	405 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	384 mg/L	10	SM2540C
Sulfate	78 mg/L	5	EPA 375.2
Calcium (Total)	91.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	12.3 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.02 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2 mg/L	1	SM5310B

Lab ID # AB26899	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	579.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0011 **Sample Date:** 10/17/2016 **IDEM Sample #:** AB27202
Water Flow Type Riffle **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	Method
% Sat	88.5 %		ASTM D888-09(C)
DO	8.75 mg/L		ASTM D888-09(C)
pH (Field)	8.07 SU		EPA 150.2
Specific Conductance (Field)	597 umho/cm		SM2510B
Temperature	15.74 °C		SM2550B(2)
Turbidity (Hach)	5.7 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

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

Lab ID # 584881	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	245 mg/L	10	EPA 310.2
Chloride	8.4 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	322 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	413 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	392 mg/L	10	SM2540C
Sulfate	78 mg/L	5	EPA 375.2
Calcium (Total)	96.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	14.4 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.012 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	3.3 mg/L	1	SM5310B

Lab ID # AB27202	Result	Reporting Limit	Method
Coliforms (Total)	1732.9 MPN/100mL	1	SM9223B
E. coli	186 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0012 **USGS Hydrologic Unit:** 051202080803
Stream Name: Clear Creek **County:** Monroe
Description: S Ketcham Rd **Latitude:** 39 2 2.93321 **Longitude:** -86 34 1.17707
Drainage: 55.088 **Site Number:** 16T-008

SiteID: WEL-08-0012 **Sample Date:** 8/1/2016 **IDEM Sample #:** AB25932
Water Flow Type Riffle **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	Method
% Sat	93.1 %		ASTM D888-09(C)
DO	7.92 mg/L		ASTM D888-09(C)
pH (Field)	8.06 SU		EPA 150.2
Specific Conductance (Field)	636 umho/cm		SM2510B
Temperature	23.35 °C		SM2550B(2)
Turbidity (Hach)	9.39 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	5 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	260.3 MPN/100mL	1	SM9223B

SiteID: WEL-08-0012 **Sample Date:** 8/8/2016 **IDEM Sample #:** AB25948
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	Method
% Sat	101.7 %		ASTM D888-09(C)
DO	8.57 mg/L		ASTM D888-09(C)
pH (Field)	8.09 SU		EPA 150.2
Specific Conductance (Field)	626 umho/cm		SM2510B
Temperature	23.8 °C		SM2550B(2)
Turbidity (Hach)	5.06 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 577682	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	158 mg/L	10	EPA 310.2
Chloride	60 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	211 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	408 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	378 mg/L	10	SM2540C
Sulfate	52 mg/L	5	EPA 375.2
Calcium (Total)	67 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.31 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	6.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.124 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	3.6 mg/L	1	SM5310B

Lab ID # AB25948	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	129.6 MPN/100mL	1	SM9223B

SiteID: WEL-08-0012 **Sample Date:** 8/24/2016 **IDEM Sample #:** AB23921
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	Method
% Sat	107.8 %		ASTM D888-09(C)
DO	9.1 mg/L		ASTM D888-09(C)
pH (Field)	8.01 SU		EPA 150.2
Specific Conductance (Field)	599 umho/cm		SM2510B
Temperature	22.57 °C		SM2550B(2)
Turbidity (Hach)	5.2 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: WEL-08-0012 Sample Date: 9/7/2016 IDEM Sample #: AB26673
 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	Method
% Sat	103.3 %		SM4500-OG
DO	8.42 mg/L		SM4500-OG
pH (Field)	8.27 SU		EPA 150.2
Specific Conductance (Field)	545 umho/cm		SM2510B
Temperature	24.6 °C		SM2550B(2)
Turbidity (Hach)	5 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: WEL-08-0012 Sample Date: 9/12/2016 IDEM Sample #: AB26901
 Water Flow Type Riffle 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	Method
% Sat	95.2 %		ASTM D888-09(C)
DO	8.71 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	614 umho/cm		SM2510B
Temperature	19.59 °C		SM2550B(2)
Turbidity (Hach)	3.75 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID # 581384	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	187 mg/L	10	EPA 310.2
Chloride	55 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	224 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	399 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	372 mg/L	10	SM2540C
Sulfate	43 mg/L	5	EPA 375.2
Calcium (Total)	72.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.88 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.053 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	3.3 mg/L	1	SM5310B

Lab ID # AB26901	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	344.8 MPN/100mL	1	SM9223B

SiteID: WEL-08-0012 **Sample Date:** 10/17/2016 **IDEM Sample #:** AB27204
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	Method
% Sat	92.8 %		ASTM D888-09(C)
DO	8.8 mg/L		ASTM D888-09(C)
pH (Field)	8.1 SU		EPA 150.2
Specific Conductance (Field)	624 umho/cm		SM2510B
Temperature	17.79 °C		SM2550B(2)
Turbidity (Hach)	4.99 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

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

Lab ID # 584883	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	148 mg/L	10	EPA 310.2
Chloride	61 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	186 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	406 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	385 mg/L	10	SM2540C
Sulfate	46 mg/L	5	EPA 375.2
Calcium (Total)	60.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.52 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	9.3 mg/L	0.5	EPA 353.1
Phosphorus, Total	0.232 mg/L	0.03	EPA 365.1
TKN	0.5 mg/L	0.3	EPA 351.2
TOC	4.4 mg/L	1	SM5310B

Lab ID # AB27204	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	60.9 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0013 **USGS Hydrologic Unit:** 051202080802
Stream Name: Tributary of Clear Creek **County:** Monroe
Description: Will Flock Mill Rd **Latitude:** 39 4 12.79415 **Longitude:** -86 33 41.99568
Drainage: 1.206 **Site Number:** 16T-009

SiteID: WEL-08-0013 **Sample Date:** 8/1/2016 **IDEM Sample #:** AB25931
Water Flow Type Riffle **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	Method
% Sat	84.7 %		ASTM D888-09(C)
DO	7.57 mg/L		ASTM D888-09(C)
pH (Field)	7.79 SU		EPA 150.2
Specific Conductance (Field)	505 umho/cm		SM2510B
Temperature	20.86 °C		SM2550B(2)
Turbidity (Hach)	6.73 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	7 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	118.7 MPN/100mL	1	SM9223B

SiteID: WEL-08-0013 **Sample Date:** 8/8/2016 **IDEM Sample #:** AB25947
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 #	Result	Reporting Limit	Method
% Sat	87.4 %		ASTM D888-09(C)
DO	7.89 mg/L		ASTM D888-09(C)
pH (Field)	7.88 SU		EPA 150.2
Specific Conductance (Field)	513 umho/cm		SM2510B
Temperature	20.32 °C		SM2550B(2)
Turbidity (Hach)	2.82 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID # 577681	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	214 mg/L	10	EPA 310.2
Chloride	22 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	234 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	299 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	292 mg/L	10	SM2540C
Sulfate	23 mg/L	5	EPA 375.2
Calcium (Total)	76.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.2 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	< 0.03 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.7 mg/L	1	SM5310B

Lab ID # AB25947	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	77.1 MPN/100mL	1	SM9223B

SiteID: WEL-08-0013 **Sample Date:** 8/23/2016 **IDEM Sample #:** AB23922
Water Flow Type Riffle **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	Method
% Sat	97.7 %		ASTM D888-09(C)
DO	9.08 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	502 umho/cm		SM2510B
Temperature	17.33 °C		SM2550B(2)
Turbidity (Hach)	5.46 NTU		EPA 180.1
Air Temp	Lookup		Observation
Sky Conditions	Lookup		Observation
Wind Direction	Lookup		Observation
Wind Strength	Lookup		Observation

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

SiteID: WEL-08-0013 Sample Date: 9/12/2016 IDEM Sample #: AB26900
 Water Flow Type Riffle 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	Method
% Sat	90.7 %		ASTM D888-09(C)
DO	8.78 mg/L		ASTM D888-09(C)
pH (Field)	7.85 SU		EPA 150.2
Specific Conductance (Field)	512 umho/cm		SM2510B
Temperature	16.8 °C		SM2550B(2)
Turbidity (Hach)	2.49 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 581383	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	244 mg/L	10	EPA 310.2
Chloride	17 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	255 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	325 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	314 mg/L	10	SM2540C
Sulfate	23 mg/L	5	EPA 375.2
Calcium (Total)	86.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.34 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.015 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.5 mg/L	1	SM5310B

Lab ID # AB26900	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	63.7 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0013 **Sample Date:** 9/21/2016 **IDEM Sample #:** AB26668
Water Flow Type Run **Water Appearance** Murky **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	94.9 %		SM4500-OG
DO	8.48 mg/L		SM4500-OG
pH (Field)	7.7 SU		EPA 150.2
Specific Conductance (Field)	516.1 umho/cm		SM2510B
Temperature	19.63 °C		SM2550B(2)
Turbidity (Hach)	2.53 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: WEL-08-0013 **Sample Date:** 10/17/2016 **IDEM Sample #:** AB27203
Water Flow Type Pool **Water Appearance** Clear **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	79 %		ASTM D888-09(C)
DO	7.69 mg/L		ASTM D888-09(C)
pH (Field)	7.92 SU		EPA 150.2
Specific Conductance (Field)	529 umho/cm		SM2510B
Temperature	16.29 °C		SM2550B(2)
Turbidity (Hach)	3.68 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID # 584882	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	239 mg/L	10	EPA 310.2
Chloride	16 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	250 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	314 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	308 mg/L	10	SM2540C
Sulfate	23 mg/L	5	EPA 375.2
Calcium (Total)	82.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.44 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.008 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	3.1 mg/L	1	SM5310B

Lab ID # AB27203	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	32.7 MPN/100mL	1	SM9223B

Weather Code Definitions							
SC Sky Conditions		WD Wind Direction		WS Wind Strength		AT 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			

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

SiteID: WEL-08-0014 **USGS Hydrologic Unit:** 051202080803
Stream Name: Judah Branch **County:** Monroe
Description: S Old SR 37 **Latitude:** 38 59 53.63025 **Longitude:** -86 32 43.20164
Drainage: 3.306 **Site Number:** 16T-010

SiteID: WEL-08-0014 **Sample Date:** 8/1/2016 **IDEM Sample #:** AB25910
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	Method
% Sat	95.9 %		ASTM D888-09(C)
DO	8.86 mg/L		ASTM D888-09(C)
pH (Field)	8.02 SU		EPA 150.2
Specific Conductance (Field)	476 umho/cm		SM2510B
Temperature	19.09 °C		SM2550B(2)
Turbidity (Hach)	11.9 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	648.8 MPN/100mL	1	SM9223B

SiteID: WEL-08-0014 **Sample Date:** 8/8/2016 **IDEM Sample #:** AB25941
Water Flow Type Riffle **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	Method
% Sat	95 %		ASTM D888-09(C)
DO	8.31 mg/L		ASTM D888-09(C)
pH (Field)	8.1 SU		EPA 150.2
Specific Conductance (Field)	466 umho/cm		SM2510B
Temperature	21.91 °C		SM2550B(2)
Turbidity (Hach)	13.3 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 577686	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	212 mg/L	10	EPA 310.2
Chloride	5.2 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	248 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	282 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	266 mg/L	10	SM2540C
Sulfate	16 mg/L	5	EPA 375.2
Calcium (Total)	72 mg/L	0.2	EPA 200.7
Magnesium (Total)	10.9 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.011 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.7 mg/L	1	SM5310B

Lab ID # AB25941	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	214.2 MPN/100mL	1	SM9223B

SiteID: WEL-08-0014 **Sample Date:** 8/22/2016 **IDEM Sample #:** AB23923
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	Method
% Sat	104 %		SM4500-OG
DO	9.65 mg/L		SM4500-OG
pH (Field)	7.98 SU		EPA 150.2
Specific Conductance (Field)	430 umho/cm		SM2510B
Temperature	16 °C		SM2550B(2)
Turbidity (Hach)	9.87 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: WEL-08-0014 Sample Date: 9/12/2016 IDEM Sample #: AB26894
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Missing turbidity data.

Lab ID #	Result	Reporting Limit	Method
% Sat	95.3 %		ASTM D888-09(C)
DO	8.97 mg/L		ASTM D888-09(C)
pH (Field)	8.09 SU		EPA 150.2
Specific Conductance (Field)	504 umho/cm		SM2510B
Temperature	18.19 °C		SM2550B(2)
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 581388	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	237 mg/L	10	EPA 310.2
Chloride	7.2 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	247 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	6 mg/L	6	SM2540D
Solids, Total (TS)	311 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	292 mg/L	10	SM2540C
Sulfate	17 mg/L	5	EPA 375.2
Calcium (Total)	83.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	11 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.027 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.7 mg/L	1	SM5310B

Lab ID # AB26894	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	214.2 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0014 Sample Date: 9/20/2016 IDEM Sample #: AB26679
 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	Method
% Sat	91.3 %		SM4500-OG
DO	8.6 mg/L		SM4500-OG
pH (Field)	8.03 SU		EPA 150.2
Specific Conductance (Field)	447 umho/cm		SM2510B
Temperature	17.91 °C		SM2550B(2)
Turbidity (Hach)	3.47 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEL-08-0014 Sample Date: 10/17/2016 IDEM Sample #: AB27197
 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	Method
% Sat	92 %		ASTM D888-09(C)
DO	8.77 mg/L		ASTM D888-09(C)
pH (Field)	8.13 SU		EPA 150.2
Specific Conductance (Field)	530 umho/cm		SM2510B
Temperature	17.6 °C		SM2550B(2)
Turbidity (Hach)	4.37 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

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

Lab ID # 584887	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	254 mg/L	10	EPA 310.2
Chloride	7.9 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	286 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	328 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	312 mg/L	10	SM2540C
Sulfate	25 mg/L	5	EPA 375.2
Calcium (Total)	83 mg/L	0.2	EPA 200.7
Magnesium (Total)	13.5 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.019 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	3 mg/L	1	SM5310B

Lab ID # AB27197	Result	Reporting Limit	Method
Coliforms (Total)	1299.7 MPN/100mL	1	SM9223B
E. coli	45.7 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0015 **USGS Hydrologic Unit:** 051202080803
Stream Name: Clear Creek **County:** Monroe
Description: S Gore Rd **Latitude:** 39 1 8.54542 **Longitude:** -86 32 38.30868
Drainage: 60.963 **Site Number:** 16T-011

SiteID: WEL-08-0015 **Sample Date:** 8/1/2016 **IDEM Sample #:** AB25933
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	Method
% Sat	90 %		ASTM D888-09(C)
DO	7.64 mg/L		ASTM D888-09(C)
pH (Field)	8.05 SU		EPA 150.2
Specific Conductance (Field)	625 umho/cm		SM2510B
Temperature	23.48 °C		SM2550B(2)
Turbidity (Hach)	7.98 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	143.9 MPN/100mL	1	SM9223B

SiteID: WEL-08-0015 **Sample Date:** 8/8/2016 **IDEM Sample #:** AB25949
Water Flow Type Riffle **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	Method
% Sat	98.4 %		ASTM D888-09(C)
DO	8.32 mg/L		ASTM D888-09(C)
pH (Field)	8.01 SU		EPA 150.2
Specific Conductance (Field)	617 umho/cm		SM2510B
Temperature	23.75 °C		SM2550B(2)
Turbidity (Hach)	6.33 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 577683	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	167 mg/L	10	EPA 310.2
Chloride	54 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	229 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	397 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	373 mg/L	10	SM2540C
Sulfate	51 mg/L	5	EPA 375.2
Calcium (Total)	69.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.4 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	5.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.125 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	3.4 mg/L	1	SM5310B

Lab ID # AB25949	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	141.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0015 **Sample Date:** 8/24/2016 **IDEM Sample #:** AB23924
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	Method
% Sat	96.8 %		SM4500-OG
DO	8.34 mg/L		SM4500-OG
pH (Field)	7.97 SU		EPA 150.2
Specific Conductance (Field)	553 umho/cm		SM2510B
Temperature	21.34 °C		SM2550B(2)
Turbidity (Hach)	4.87 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

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

SiteID: WEL-08-0015 Sample Date: 9/12/2016 IDEM Sample #: AB26902
 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	Method
% Sat	92.7 %		ASTM D888-09(C)
DO	8.47 mg/L		ASTM D888-09(C)
pH (Field)	8.02 SU		EPA 150.2
Specific Conductance (Field)	611 umho/cm		SM2510B
Temperature	19.7 °C		SM2550B(2)
Turbidity (Hach)	4.57 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # 581385	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	189 mg/L	10	EPA 310.2
Chloride	52 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	226 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	398 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	373 mg/L	10	SM2540C
Sulfate	42 mg/L	5	EPA 375.2
Calcium (Total)	75.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.08 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	4.8 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.052 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.8 mg/L	1	SM5310B

Lab ID # AB26902	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	231 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0015 **Sample Date:** 9/20/2016 **IDEM Sample #:** AB26672
Water Flow Type Run **Water Appearance** Clear **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	96 %		SM4500-OG
DO	8.23 mg/L		SM4500-OG
pH (Field)	8.22 SU		EPA 150.2
Specific Conductance (Field)	578 umho/cm		SM2510B
Temperature	21.57 °C		SM2550B(2)
Turbidity (Hach)	2.92 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: WEL-08-0015 **Sample Date:** 10/17/2016 **IDEM Sample #:** AB27205
Water Flow Type Riffle **Water Appearance** Clear **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 %		ASTM D888-09(C)
DO	8.58 mg/L		ASTM D888-09(C)
pH (Field)	8.04 SU		EPA 150.2
Specific Conductance (Field)	630 umho/cm		SM2510B
Temperature	17.16 °C		SM2550B(2)
Turbidity (Hach)	5 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	2 Lookup		Observation

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

Lab ID # 584884	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	152 mg/L	10	EPA 310.2
Chloride	62 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	191 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	412 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	389 mg/L	10	SM2540C
Sulfate	48 mg/L	5	EPA 375.2
Calcium (Total)	61.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.41 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	9.2 mg/L	0.5	EPA 353.1
Phosphorus, Total	0.206 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	4.4 mg/L	1	SM5310B

Lab ID # AB27205	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	10 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0016 **USGS Hydrologic Unit:** 051202080803
Stream Name: Clear Creek **County:** Monroe
Description: Depot Hill Rd **Latitude:** 39 0 43.30393 **Longitude:** -86 31 45.58572
Drainage: 68.368 **Site Number:** 16T-012

SiteID: WEL-08-0016 **Sample Date:** 8/1/2016 **IDEM Sample #:** AB25909
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	Method
% Sat	90.3 %		ASTM D888-09(C)
DO	7.66 mg/L		ASTM D888-09(C)
pH (Field)	8.05 SU		EPA 150.2
Specific Conductance (Field)	619 umho/cm		SM2510B
Temperature	23.5 °C		SM2550B(2)
Turbidity (Hach)	10.2 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	7 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	137.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0016 **Sample Date:** 8/8/2016 **IDEM Sample #:** AB25940
Water Flow Type Riffle **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	Method
% Sat	96.7 %		ASTM D888-09(C)
DO	8.12 mg/L		ASTM D888-09(C)
pH (Field)	8.03 SU		EPA 150.2
Specific Conductance (Field)	614 umho/cm		SM2510B
Temperature	24.05 °C		SM2550B(2)
Turbidity (Hach)	6.84 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 577685	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	169 mg/L	10	EPA 310.2
Chloride	53 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	227 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	402 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	378 mg/L	10	SM2540C
Sulfate	47 mg/L	5	EPA 375.2
Calcium (Total)	70.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.32 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	5.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.117 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	3.4 mg/L	1	SM5310B

Lab ID # AB25940	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	218.7 MPN/100mL	1	SM9223B

SiteID: WEL-08-0016 **Sample Date:** 8/24/2016 **IDEM Sample #:** AB23925
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	91.4 %		ASTM D888-09(C)
DO	7.96 mg/L		ASTM D888-09(C)
pH (Field)	7.84 SU		EPA 150.2
Specific Conductance (Field)	583 umho/cm		SM2510B
Temperature	21.08 °C		SM2550B(2)
Turbidity (Hach)	8.12 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

SiteID: WEL-08-0016 Sample Date: 9/12/2016 IDEM Sample #: AB26893
 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	Method
% Sat	93.4 %		ASTM D888-09(C)
DO	8.43 mg/L		ASTM D888-09(C)
pH (Field)	8.01 SU		EPA 150.2
Specific Conductance (Field)	612 umho/cm		SM2510B
Temperature	20.28 °C		SM2550B(2)
Turbidity (Hach)	5.78 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 581387	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	196 mg/L	10	EPA 310.2
Chloride	52 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	228 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	6 mg/L	6	SM2540D
Solids, Total (TS)	402 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	370 mg/L	10	SM2540C
Sulfate	40 mg/L	5	EPA 375.2
Calcium (Total)	75.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.97 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	4.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.067 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.8 mg/L	1	SM5310B

Lab ID # AB26893	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	158.5 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0016 Sample Date: 9/20/2016 IDEM Sample #: AB26680
 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	Method
% Sat	89.1 %		SM4500-OG
DO	7.78 mg/L		SM4500-OG
pH (Field)	8.14 SU		EPA 150.2
Specific Conductance (Field)	571 umho/cm		SM2510B
Temperature	20.87 °C		SM2550B(2)
Turbidity (Hach)	3.76 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: WEL-08-0016 Sample Date: 10/17/2016 IDEM Sample #: AB27196
 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	Method
% Sat	85.3 %		ASTM D888-09(C)
DO	8.15 mg/L		ASTM D888-09(C)
pH (Field)	8 SU		EPA 150.2
Specific Conductance (Field)	627 umho/cm		SM2510B
Temperature	17.47 °C		SM2550B(2)
Turbidity (Hach)	5.79 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

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

Lab ID # 584886	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	157 mg/L	10	EPA 310.2
Chloride	60 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	201 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	433 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	399 mg/L	10	SM2540C
Sulfate	44 mg/L	5	EPA 375.2
Calcium (Total)	64.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.62 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	8.8 mg/L	0.5	EPA 353.1
Phosphorus, Total	0.258 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	3.9 mg/L	1	SM5310B

Lab ID # AB27196	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	131.7 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0017 **USGS Hydrologic Unit:** 051202080803
Stream Name: Little Clear Creek **County:** Monroe
Description: E Monroe Dam Rd **Latitude:** 39 1 17.19911 **Longitude:** -86 31 50.54274
Drainage: 5.702 **Site Number:** 16T-013

SiteID: WEL-08-0017 **Sample Date:** 8/1/2016 **IDEM Sample #:** AB25908
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	Method
% Sat	84.2 %		ASTM D888-09(C)
DO	7.46 mg/L		ASTM D888-09(C)
pH (Field)	7.76 SU		EPA 150.2
Specific Conductance (Field)	530 umho/cm		SM2510B
Temperature	21.23 °C		SM2550B(2)
Turbidity (Hach)	7.02 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	613.1 MPN/100mL	1	SM9223B

SiteID: WEL-08-0017 **Sample Date:** 8/8/2016 **IDEM Sample #:** AB25939
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	Method
% Sat	94.4 %		ASTM D888-09(C)
DO	8.39 mg/L		ASTM D888-09(C)
pH (Field)	7.86 SU		EPA 150.2
Specific Conductance (Field)	426 umho/cm		SM2510B
Temperature	21.09 °C		SM2550B(2)
Turbidity (Hach)	6.54 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 577684	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	245 mg/L	10	EPA 310.2
Chloride	15 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	282 mg/L	75	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	348 mg/L	20	SM2540B
Solids, Total Dissolved (TDS)	326 mg/L	20	SM2540C
Sulfate	24 mg/L	5	EPA 375.2
Calcium (Total)	91.9 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.83 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	< 0.03 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.7 mg/L	1	SM5310B

Lab ID # AB25939	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	387.3 MPN/100mL	1	SM9223B

SiteID: WEL-08-0017 **Sample Date:** 8/22/2016 **IDEM Sample #:** AB23926
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	Method
% Sat	94.3 %		ASTM D888-09(C)
DO	8.68 mg/L		ASTM D888-09(C)
pH (Field)	7.87 SU		EPA 150.2
Specific Conductance (Field)	465 umho/cm		SM2510B
Temperature	18.18 °C		SM2550B(2)
Turbidity (Hach)	4.26 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: WEL-08-0017 Sample Date: 9/12/2016 IDEM Sample #: AB26892
 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	Method
% Sat	86.8 %		ASTM D888-09(C)
DO	8.1 mg/L		ASTM D888-09(C)
pH (Field)	7.81 SU		EPA 150.2
Specific Conductance (Field)	543 umho/cm		SM2510B
Temperature	18.66 °C		SM2550B(2)
Turbidity (Hach)	3.19 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 581386	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	245 mg/L	10	EPA 310.2
Chloride	15 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	296 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	329 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	315 mg/L	10	SM2540C
Sulfate	22 mg/L	5	EPA 375.2
Calcium (Total)	89.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.54 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.02 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.4 mg/L	1	SM5310B

Lab ID # AB26892	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	214.2 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0017 Sample Date: 9/20/2016 IDEM Sample #: AB26678
 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	Method
% Sat	71.9 %		SM4500-OG
DO	6.57 mg/L		SM4500-OG
pH (Field)	7.94 SU		EPA 150.2
Specific Conductance (Field)	499 umho/cm		SM2510B
Temperature	19.52 °C		SM2550B(2)
Turbidity (Hach)	3.72 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEL-08-0017 Sample Date: 10/17/2016 IDEM Sample #: AB27195
 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	Method
% Sat	71.2 %		ASTM D888-09(C)
DO	6.84 mg/L		ASTM D888-09(C)
pH (Field)	7.87 SU		EPA 150.2
Specific Conductance (Field)	570 umho/cm		SM2510B
Temperature	16.95 °C		SM2550B(2)
Turbidity (Hach)	5.23 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	3 Lookup		Observation

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

Lab ID # 584885	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	260 mg/L	10	EPA 310.2
Chloride	16 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	294 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	348 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	336 mg/L	10	SM2540C
Sulfate	21 mg/L	5	EPA 375.2
Calcium (Total)	96.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.92 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.011 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.2 mg/L	1	SM5310B

Lab ID # AB27195	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	410.6 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0018 **USGS Hydrologic Unit:** 051202080805
Stream Name: Little Salt Creek **County:** Lawrence
Description: SR 446 **Latitude:** 38 57 52.77061 **Longitude:** -86 22 41.47965
Drainage: 29.672 **Site Number:** 16T-014

SiteID: WEL-08-0018 **Sample Date:** 8/2/2016 **IDEM Sample #:** AB25913
Water Flow Type Riffle **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	Method
% Sat	97.7 %		ASTM D888-09(C)
DO	8.43 mg/L		ASTM D888-09(C)
pH (Field)	7.63 SU		EPA 150.2
Specific Conductance (Field)	278 umho/cm		SM2510B
Temperature	22.62 °C		SM2550B(2)
Turbidity (Hach)	5.99 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	198.9 MPN/100mL	1	SM9223B

SiteID: WEL-08-0018 **Sample Date:** 8/9/2016 **IDEM Sample #:** AB25960
Water Flow Type Riffle **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	Method
% Sat	93.9 %		ASTM D888-09(C)
DO	8.12 mg/L		ASTM D888-09(C)
pH (Field)	7.66 SU		EPA 150.2
Specific Conductance (Field)	304 umho/cm		SM2510B
Temperature	22.54 °C		SM2550B(2)
Turbidity (Hach)	2.07 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 578433	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	116 mg/L	10	EPA 310.2
Chloride	6.6 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	129 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	169 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	163 mg/L	10	SM2540C
Sulfate	19 mg/L	5	EPA 375.2
Calcium (Total)	41.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.8 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.005 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.1 mg/L	1	SM5310B

Lab ID # AB25960	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	166.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0018 **Sample Date:** 9/8/2016 **IDEM Sample #:** AB26667
Water Flow Type Riffle **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	Method
% Sat	75 %		SM4500-OG
DO	6.36 mg/L		SM4500-OG
pH (Field)	7.58 SU		EPA 150.2
Specific Conductance (Field)	254 umho/cm		SM2510B
Temperature	22.77 °C		SM2550B(2)
Turbidity (Hach)	1.52 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

SiteID: WEL-08-0018 Sample Date: 9/13/2016 IDEM Sample #: AB26913
 Water Flow Type Riffle 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	Method
% Sat	94.1 %		ASTM D888-09(C)
DO	8.83 mg/L		ASTM D888-09(C)
pH (Field)	7.61 SU		EPA 150.2
Specific Conductance (Field)	288 umho/cm		SM2510B
Temperature	18.31 °C		SM2550B(2)
Turbidity (Hach)	1.64 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 581648	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	102 mg/L	10	EPA 310.2
Chloride	6 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	112 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	157 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	148 mg/L	10	SM2540C
Sulfate	19 mg/L	5	EPA 375.2
Calcium (Total)	36.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.29 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.011 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.4 mg/L	1	SM5310B

Lab ID # AB26913	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	104.6 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0018 Sample Date: 10/4/2016 IDEM Sample #: AB26979
 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	Method
% Sat	91 %		ASTM D888-09(C)
DO	8.88 mg/L		ASTM D888-09(C)
pH (Field)	7.64 SU		EPA 150.2
Specific Conductance (Field)	297 umho/cm		SM2510B
Temperature	16.44 °C		SM2550B(2)
Turbidity (Hach)	6.83 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # AB26979	Result	Reporting Limit	Method
Coliforms (Total)	1986.3 MPN/100mL	1	SM9223B
E. coli	133.3 MPN/100mL	1	SM9223B

SiteID: WEL-08-0018 Sample Date: 10/18/2016 IDEM Sample #: AB27216
 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	Method
% Sat	78.8 %		ASTM D888-09(C)
DO	7.31 mg/L		ASTM D888-09(C)
pH (Field)	7.61 SU		EPA 150.2
Specific Conductance (Field)	324 umho/cm		SM2510B
Temperature	18.89 °C		SM2550B(2)
Turbidity (Hach)	4.17 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

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

Lab ID # 585064	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	122 mg/L	10	EPA 310.2
Chloride	8.4 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	128 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	175 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	167 mg/L	10	SM2540C
Sulfate	21 mg/L	5	EPA 375.2
Calcium (Total)	43.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.3 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.009 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.6 mg/L	1	SM5310B

Lab ID # AB27216	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	83.6 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0019 **USGS Hydrologic Unit:** 051202080804
Stream Name: Henderson Creek **County:** Lawrence
Description: Humpback Ridge Rd **Latitude:** 38 57 43.33971 **Longitude:** -86 22 4.64101
Drainage: 13.018 **Site Number:** 16T-015

SiteID: WEL-08-0019 **Sample Date:** 8/2/2016 **IDEM Sample #:** AB25912
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	Method
% Sat	86.8 %		ASTM D888-09(C)
DO	7.54 mg/L		ASTM D888-09(C)
pH (Field)	7.52 SU		EPA 150.2
Specific Conductance (Field)	226 umho/cm		SM2510B
Temperature	22.31 °C		SM2550B(2)
Turbidity (Hach)	4.95 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	93.3 MPN/100mL	1	SM9223B

SiteID: WEL-08-0019 **Sample Date:** 8/9/2016 **IDEM Sample #:** AB25959
Water Flow Type Riffle **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	Method
% Sat	75.5 %		ASTM D888-09(C)
DO	6.59 mg/L		ASTM D888-09(C)
pH (Field)	7.47 SU		EPA 150.2
Specific Conductance (Field)	222 umho/cm		SM2510B
Temperature	22.18 °C		SM2550B(2)
Turbidity (Hach)	1.76 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 578432	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	73 mg/L	10	EPA 310.2
Chloride	5.7 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	80 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	123 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	117 mg/L	10	SM2540C
Sulfate	16 mg/L	5	EPA 375.2
Calcium (Total)	26 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.46 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.043 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

Lab ID # AB25959	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	344.8 MPN/100mL	1	SM9223B

SiteID: WEL-08-0019 **Sample Date:** 8/22/2016 **IDEM Sample #:** AB23928
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	Method
% Sat	92.7 %		SM4500-OG
DO	8.21 mg/L		SM4500-OG
pH (Field)	8.07 SU		EPA 150.2
Specific Conductance (Field)	161 umho/cm		SM2510B
Temperature	20.04 °C		SM2550B(2)
Turbidity (Hach)	3.2 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

SiteID: WEL-08-0019 **Sample Date:** 9/7/2016 **IDEM Sample #:** AB26663
Water Flow Type Run **Water Appearance** Clear **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 %		SM4500-OG
DO	7.39 mg/L		SM4500-OG
pH (Field)	7.63 SU		EPA 150.2
Specific Conductance (Field)	187 umho/cm		SM2510B
Temperature	24.31 °C		SM2550B(2)
Turbidity (Hach)	2.85 NTU		EPA 180.1
Air Temp	6 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

SiteID: WEL-08-0019 **Sample Date:** 9/13/2016 **IDEM Sample #:** AB26912
Water Flow Type Run **Water Appearance** Clear **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	83 %		ASTM D888-09(C)
DO	7.86 mg/L		ASTM D888-09(C)
pH (Field)	7.42 SU		EPA 150.2
Specific Conductance (Field)	234 umho/cm		SM2510B
Temperature	17.98 °C		SM2550B(2)
Turbidity (Hach)	1.17 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 581647	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	69 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	88 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	124 mg/L	20	SM2540B
Solids, Total Dissolved (TDS)	118 mg/L	20	SM2540C
Sulfate	18 mg/L	5	EPA 375.2
Calcium (Total)	26.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.42 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	< 0.03 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.1 mg/L	1	SM5310B

Lab ID # AB26912	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	275.5 MPN/100mL	1	SM9223B

SiteID: WEL-08-0019 **Sample Date:** 10/4/2016 **IDEM Sample #:** AB26978
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	Method
% Sat	74.7 %		ASTM D888-09(C)
DO	7.38 mg/L		ASTM D888-09(C)
pH (Field)	7.51 SU		EPA 150.2
Specific Conductance (Field)	251 umho/cm		SM2510B
Temperature	15.88 °C		SM2550B(2)
Turbidity (Hach)	4.11 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # AB26978	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	104.6 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0019 Sample Date: 10/18/2016 IDEM Sample #: AB27215
 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	Method
% Sat	57.3 %		ASTM D888-09(C)
DO	5.41 mg/L		ASTM D888-09(C)
pH (Field)	7.34 SU		EPA 150.2
Specific Conductance (Field)	252 umho/cm		SM2510B
Temperature	18.06 °C		SM2550B(2)
Turbidity (Hach)	4.96 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID # 585063	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	88 mg/L	10	EPA 310.2
Chloride	6.1 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	89 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	133 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	127 mg/L	10	SM2540C
Sulfate	17 mg/L	5	EPA 375.2
Calcium (Total)	30.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.31 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.013 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.5 mg/L	1	SM5310B

Lab ID # AB27215	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	54.6 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0035 **USGS Hydrologic Unit:** 051202080804
Stream Name: Little Salt Creek **County:** Lawrence
Description: Unnamed County Road off of Hunter Cree **Latitude:** 38 58 58.99800 **Longitude:** -86 22 7.49640
Drainage: 12.183 **Site Number:** 16T-016

SiteID: WEL-08-0035 **Sample Date:** 8/2/2016 **IDEM Sample #:** AB25911
Water Flow Type Riffle **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	Method
% Sat	103.8 %		ASTM D888-09(C)
DO	9.19 mg/L		ASTM D888-09(C)
pH (Field)	7.91 SU		EPA 150.2
Specific Conductance (Field)	275 umho/cm		SM2510B
Temperature	21.18 °C		SM2550B(2)
Turbidity (Hach)	5.38 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	172.3 MPN/100mL	1	SM9223B

SiteID: WEL-08-0035 **Sample Date:** 8/9/2016 **IDEM Sample #:** AB25952
Water Flow Type Riffle **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 #	Result	Reporting Limit	Method
% Sat	104.7 %		ASTM D888-09(C)
DO	9.33 mg/L		ASTM D888-09(C)
pH (Field)	7.9 SU		EPA 150.2
Specific Conductance (Field)	310 umho/cm		SM2510B
Temperature	20.63 °C		SM2550B(2)
Turbidity (Hach)	1.4 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 578431	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	122 mg/L	10	EPA 310.2
Chloride	5.4 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	135 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	175 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	169 mg/L	10	SM2540C
Sulfate	19 mg/L	5	EPA 375.2
Calcium (Total)	41.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.18 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.007 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

Lab ID # AB25952	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	190.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0035 **Sample Date:** 8/22/2016 **IDEM Sample #:** AB23929
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	Method
% Sat	96.6 %		ASTM D888-09(C)
DO	8.86 mg/L		ASTM D888-09(C)
pH (Field)	8.09 SU		EPA 150.2
Specific Conductance (Field)	192 umho/cm		SM2510B
Temperature	18.28 °C		SM2550B(2)
Turbidity (Hach)	3.03 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

SiteID: WEL-08-0035 **Sample Date:** 9/7/2016 **IDEM Sample #:** AB26662
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	Method
% Sat	127.8 %		SM4500-OG
DO	10.02 mg/L		SM4500-OG
pH (Field)	8.58 SU		EPA 150.2
Specific Conductance (Field)	223 umho/cm		SM2510B
Temperature	26.27 °C		SM2550B(2)
Turbidity (Hach)	1.38 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: WEL-08-0035 **Sample Date:** 9/13/2016 **IDEM Sample #:** AB26905
Water Flow Type Riffle **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	Method
% Sat	96.7 %		ASTM D888-09(C)
DO	9.38 mg/L		ASTM D888-09(C)
pH (Field)	7.76 SU		EPA 150.2
Specific Conductance (Field)	286 umho/cm		SM2510B
Temperature	16.88 °C		SM2550B(2)
Turbidity (Hach)	1.12 NTU		EPA 180.1
Air Temp	3 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 581646	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	97 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	108 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	153 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	144 mg/L	10	SM2540C
Sulfate	20 mg/L	5	EPA 375.2
Calcium (Total)	33.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.69 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.015 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.1 mg/L	1	SM5310B

Lab ID # AB26905	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	118.2 MPN/100mL	1	SM9223B

SiteID: WEL-08-0035 **Sample Date:** 10/4/2016 **IDEM Sample #:** AB26977
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	Method
% Sat	102 %		ASTM D888-09(C)
DO	10.19 mg/L		ASTM D888-09(C)
pH (Field)	7.81 SU		EPA 150.2
Specific Conductance (Field)	303 umho/cm		SM2510B
Temperature	15.44 °C		SM2550B(2)
Turbidity (Hach)	3.71 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # AB26977	Result	Reporting Limit	Method
Coliforms (Total)	1413.6 MPN/100mL	1	SM9223B
E. coli	52 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0035

Sample Date: 10/18/2016

IDEM Sample #: AB27208

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	Method
% Sat	79.3 %		ASTM D888-09(C)
DO	7.51 mg/L		ASTM D888-09(C)
pH (Field)	7.67 SU		EPA 150.2
Specific Conductance (Field)	327 umho/cm		SM2510B
Temperature	18 °C		SM2550B(2)
Turbidity (Hach)	4.53 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID # 585062	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	117 mg/L	10	EPA 310.2
Chloride	6.8 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	126 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	179 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	172 mg/L	10	SM2540C
Sulfate	24 mg/L	5	EPA 375.2
Calcium (Total)	42.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.12 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.014 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2 mg/L	1	SM5310B

Lab ID # AB27208	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	33.1 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0021 **USGS Hydrologic Unit:** 051202080805
Stream Name: Little Salt Creek **County:** Lawrence
Description: Judah Legan Rd **Latitude:** 38 56 59.32707 **Longitude:** -86 28 46.35308
Drainage: 52.705 **Site Number:** 16T-017

SiteID: WEL-08-0021 **Sample Date:** 8/2/2016 **IDEM Sample #:** AB25917
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	66.8 %		ASTM D888-09(C)
DO	5.63 mg/L		ASTM D888-09(C)
pH (Field)	7.36 SU		EPA 150.2
Specific Conductance (Field)	248 umho/cm		SM2510B
Temperature	23.93 °C		SM2550B(2)
Turbidity (Hach)	18.7 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	488.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0021 **Sample Date:** 8/9/2016 **IDEM Sample #:** AB25964
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	58.5 %		ASTM D888-09(C)
DO	4.87 mg/L		ASTM D888-09(C)
pH (Field)	7.31 SU		EPA 150.2
Specific Conductance (Field)	241 umho/cm		SM2510B
Temperature	24.64 °C		SM2550B(2)
Turbidity (Hach)	16.9 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 578436	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	85 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	91 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	8 mg/L	6	SM2540D
Solids, Total (TS)	141 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	128 mg/L	10	SM2540C
Sulfate	12 mg/L	5	EPA 375.2
Calcium (Total)	29.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.15 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.032 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.8 mg/L	1	SM5310B

Lab ID # AB25964	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	161.6 MPN/100mL	1	SM9223B

SiteID: WEL-08-0021 **Sample Date:** 8/22/2016 **IDEM Sample #:** AB23930
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	79 %		ASTM D888-09(C)
DO	6.91 mg/L		ASTM D888-09(C)
pH (Field)	8.02 SU		EPA 150.2
Specific Conductance (Field)	196 umho/cm		SM2510B
Temperature	20.96 °C		SM2550B(2)
Turbidity (Hach)	11.1 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

SiteID: WEL-08-0021 Sample Date: 9/13/2016 IDEM Sample #: AB26917
 Water Flow Type Pool 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	65 %		ASTM D888-09(C)
DO	5.87 mg/L		ASTM D888-09(C)
pH (Field)	7.25 SU		EPA 150.2
Specific Conductance (Field)	253 umho/cm		SM2510B
Temperature	20.36 °C		SM2550B(2)
Turbidity (Hach)	14.4 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 581652	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	89 mg/L	10	EPA 310.2
Chloride	5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	95 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	10 mg/L	6	SM2540D
Solids, Total (TS)	151 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	136 mg/L	10	SM2540C
Sulfate	15 mg/L	5	EPA 375.2
Calcium (Total)	32.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.7 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.029 mg/L	0.03	EPA 365.1
TKN	0.3 mg/L	0.3	EPA 351.2
TOC	2.5 mg/L	1	SM5310B

Lab ID # AB26917	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	248.9 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0021 Sample Date: 9/20/2016 IDEM Sample #: AB26666
 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	59.2 %		SM4500-OG
DO	5.13 mg/L		SM4500-OG
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	217 umho/cm		SM2510B
Temperature	22.13 °C		SM2550B(2)
Turbidity (Hach)	10.3 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEL-08-0021 Sample Date: 10/4/2016 IDEM Sample #: AB26982
 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	61.4 %		ASTM D888-09(C)
DO	5.9 mg/L		ASTM D888-09(C)
pH (Field)	7.24 SU		EPA 150.2
Specific Conductance (Field)	275 umho/cm		SM2510B
Temperature	17.45 °C		SM2550B(2)
Turbidity (Hach)	16.1 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # AB26982	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	410.6 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0021

Sample Date: 10/18/2016

IDEM Sample #: AB27220

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	Method
% Sat	38 %		ASTM D888-09(C)
DO	3.54 mg/L		ASTM D888-09(C)
pH (Field)	7.25 SU		EPA 150.2
Specific Conductance (Field)	260 umho/cm		SM2510B
Temperature	18.34 °C		SM2550B(2)
Turbidity (Hach)	15.8 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID # 585067	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	93 mg/L	10	EPA 310.2
Chloride	6.7 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	94 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	6 mg/L	6	SM2540D
Solids, Total (TS)	140 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	132 mg/L	10	SM2540C
Sulfate	12 mg/L	5	EPA 375.2
Calcium (Total)	30.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.37 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.032 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	2.8 mg/L	1	SM5310B

Lab ID # AB27220	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	517.2 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0022 **USGS Hydrologic Unit:** 051202080805
Stream Name: Knob Creek **County:** Lawrence
Description: Bat Hollow Rd **Latitude:** 38 57 18.60054 **Longitude:** -86 27 58.75952
Drainage: 6.532 **Site Number:** 16T-018

SiteID: WEL-08-0022 **Sample Date:** 8/2/2016 **IDEM Sample #:** AB25915
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	Method
% Sat	93.5 %		ASTM D888-09(C)
DO	8.08 mg/L		ASTM D888-09(C)
pH (Field)	7.26 SU		EPA 150.2
Specific Conductance (Field)	175 umho/cm		SM2510B
Temperature	22.58 °C		SM2550B(2)
Turbidity (Hach)	6.76 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	770.1 MPN/100mL	1	SM9223B

SiteID: WEL-08-0022 **Sample Date:** 8/9/2016 **IDEM Sample #:** AB25962
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	Method
% Sat	86.4 %		ASTM D888-09(C)
DO	7.47 mg/L		ASTM D888-09(C)
pH (Field)	7.25 SU		EPA 150.2
Specific Conductance (Field)	174 umho/cm		SM2510B
Temperature	22.57 °C		SM2550B(2)
Turbidity (Hach)	5.73 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 578434	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	40 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	52 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	96 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	87 mg/L	10	SM2540C
Sulfate	16 mg/L	5	EPA 375.2
Calcium (Total)	14.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	3.86 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.004 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	< 1 mg/L	1	SM5310B

Lab ID # AB25962	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	461.1 MPN/100mL	1	SM9223B

SiteID: WEL-08-0022 **Sample Date:** 8/23/2016 **IDEM Sample #:** AB23931
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	89.7 %		ASTM D888-09(C)
DO	7.85 mg/L		ASTM D888-09(C)
pH (Field)	8.22 SU		EPA 150.2
Specific Conductance (Field)	114 umho/cm		SM2510B
Temperature	20.7 °C		SM2550B(2)
Turbidity (Hach)	3.77 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: WEL-08-0022

Sample Date: 9/13/2016

IDEM Sample #: AB26915

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	Method
% Sat	83.2 %		ASTM D888-09(C)
DO	7.53 mg/L		ASTM D888-09(C)
pH (Field)	7.02 SU		EPA 150.2
Specific Conductance (Field)	168 umho/cm		SM2510B
Temperature	20.23 °C		SM2550B(2)
Turbidity (Hach)	6.55 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 581650	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	38 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	55 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	92 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	84 mg/L	10	SM2540C
Sulfate	15 mg/L	5	EPA 375.2
Calcium (Total)	14.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.03 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.012 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.1 mg/L	1	SM5310B

Lab ID # AB26915	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	344.1 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0022 Sample Date: 9/21/2016 IDEM Sample #: AB26665
 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	66 %		ASTM D888-09(C)
DO	5.81 mg/L		ASTM D888-09(C)
pH (Field)	6.79 SU		EPA 150.2
Specific Conductance (Field)	1439 umho/cm		SM2510B
Temperature	20.42 °C		SM2550B(2)
Turbidity (Hach)	28.1 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: WEL-08-0022 Sample Date: 10/4/2016 IDEM Sample #: AB26980
 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	Method
% Sat	84.1 %		ASTM D888-09(C)
DO	8.13 mg/L		ASTM D888-09(C)
pH (Field)	7.25 SU		EPA 150.2
Specific Conductance (Field)	183 umho/cm		SM2510B
Temperature	16.91 °C		SM2550B(2)
Turbidity (Hach)	10.9 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # AB26980	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	228.2 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0022 Sample Date: 10/18/2016 IDEM Sample #: AB27218
 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	69.9 %		ASTM D888-09(C)
DO	6.45 mg/L		ASTM D888-09(C)
pH (Field)	7.27 SU		EPA 150.2
Specific Conductance (Field)	186 umho/cm		SM2510B
Temperature	19.1 °C		SM2550B(2)
Turbidity (Hach)	36.6 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID # 585065	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	46 mg/L	10	EPA 310.2
Chloride	5.2 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	54 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	15 mg/L	6	SM2540D
Solids, Total (TS)	110 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	89 mg/L	10	SM2540C
Sulfate	14 mg/L	5	EPA 375.2
Calcium (Total)	16.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	3.95 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.024 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.5 mg/L	1	SM5310B

Lab ID # AB27218	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	125.9 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0023 **USGS Hydrologic Unit:** 051202080805
Stream Name: Little Salt Creek **County:** Lawrence
Description: Bat Hollow Rd **Latitude:** 38 56 59.00833 **Longitude:** -86 27 51.72558
Drainage: 44.753 **Site Number:** 16T-019

SiteID: WEL-08-0023 **Sample Date:** 8/2/2016 **IDEM Sample #:** AB25916
Water Flow Type Pool **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	74.7 %		ASTM D888-09(C)
DO	6.32 mg/L		ASTM D888-09(C)
pH (Field)	7.61 SU		EPA 150.2
Specific Conductance (Field)	264 umho/cm		SM2510B
Temperature	23.72 °C		SM2550B(2)
Turbidity (Hach)	23.5 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	461.1 MPN/100mL	1	SM9223B

SiteID: WEL-08-0023 **Sample Date:** 8/9/2016 **IDEM Sample #:** AB25963
Water Flow Type Pool **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	66.6 %		ASTM D888-09(C)
DO	5.64 mg/L		ASTM D888-09(C)
pH (Field)	7.51 SU		EPA 150.2
Specific Conductance (Field)	264 umho/cm		SM2510B
Temperature	23.68 °C		SM2550B(2)
Turbidity (Hach)	19.6 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID # 578435	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	96 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	104 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	15 mg/L	6	SM2540D
Solids, Total (TS)	156 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	138 mg/L	10	SM2540C
Sulfate	12 mg/L	5	EPA 375.2
Calcium (Total)	33.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.63 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.2 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.023 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.6 mg/L	1	SM5310B

Lab ID # AB25963	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	517.2 MPN/100mL	1	SM9223B

SiteID: WEL-08-0023 **Sample Date:** 8/22/2016 **IDEM Sample #:** AB23932
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	80.5 %		ASTM D888-09(C)
DO	7.04 mg/L		ASTM D888-09(C)
pH (Field)	7.53 SU		EPA 150.2
Specific Conductance (Field)	204 umho/cm		SM2510B
Temperature	20.91 °C		SM2550B(2)
Turbidity (Hach)	11.2 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

SiteID: WEL-08-0023

Sample Date: 9/13/2016

IDEM Sample #: AB26916

Water Flow Type Pool

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	75.3 %		ASTM D888-09(C)
DO	6.84 mg/L		ASTM D888-09(C)
pH (Field)	7.38 SU		EPA 150.2
Specific Conductance (Field)	266 umho/cm		SM2510B
Temperature	20.1 °C		SM2550B(2)
Turbidity (Hach)	13.6 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 581651	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	90 mg/L	10	EPA 310.2
Chloride	< 5 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	98 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	11 mg/L	6	SM2540D
Solids, Total (TS)	159 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	145 mg/L	10	SM2540C
Sulfate	15 mg/L	5	EPA 375.2
Calcium (Total)	32.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.66 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.025 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.2 mg/L	1	SM5310B

Lab ID # AB26916	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	298.7 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0023 Sample Date: 9/20/2016 IDEM Sample #: AB26661
 Water Flow Type Glide 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	67.1 %		SM4500-OG
DO	5.85 mg/L		SM4500-OG
pH (Field)	7.77 SU		EPA 150.2
Specific Conductance (Field)	222 umho/cm		SM2510B
Temperature	21.19 °C		SM2550B(2)
Turbidity (Hach)	10.8 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	1 Lookup		Observation

SiteID: WEL-08-0023 Sample Date: 10/4/2016 IDEM Sample #: AB26981
 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	59.9 %		ASTM D888-09(C)
DO	5.81 mg/L		ASTM D888-09(C)
pH (Field)	7.17 SU		EPA 150.2
Specific Conductance (Field)	252 umho/cm		SM2510B
Temperature	16.67 °C		SM2550B(2)
Turbidity (Hach)	19.1 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # AB26981	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	178.5 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0023

Sample Date: 10/18/2016

IDEM Sample #: AB27219

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	38.3 %		ASTM D888-09(C)
DO	3.59 mg/L		ASTM D888-09(C)
pH (Field)	7.22 SU		EPA 150.2
Specific Conductance (Field)	273 umho/cm		SM2510B
Temperature	18.36 °C		SM2550B(2)
Turbidity (Hach)	14.1 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID # 585066	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	99 mg/L	10	EPA 310.2
Chloride	6.9 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	101 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	148 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	140 mg/L	10	SM2540C
Sulfate	14 mg/L	5	EPA 375.2
Calcium (Total)	33.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.72 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.026 mg/L	0.03	EPA 365.1
TKN	0.3 mg/L	0.3	EPA 351.2
TOC	2.8 mg/L	1	SM5310B

Lab ID # AB27219	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	58.1 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0024 **USGS Hydrologic Unit:** 051202080805
Stream Name: Tributary of Little Salt Creek **County:** Lawrence
Description: Heltonville Bartlettville Rd **Latitude:** 38 57 58.79220 **Longitude:** -86 24 53.30822
Drainage: 2.983 **Site Number:** 16T-020

SiteID: WEL-08-0024 **Sample Date:** 8/2/2016 **IDEM Sample #:** AB25914
Water Flow Type Riffle **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 #	Result	Reporting Limit	Method
% Sat	66 %		ASTM D888-09(C)
DO	5.74 mg/L		ASTM D888-09(C)
pH (Field)	6.98 SU		EPA 150.2
Specific Conductance (Field)	196 umho/cm		SM2510B
Temperature	22.2 °C		SM2550B(2)
Turbidity (Hach)	4.22 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	517.2 MPN/100mL	1	SM9223B

SiteID: WEL-08-0024 **Sample Date:** 8/23/2016 **IDEM Sample #:** AB23933
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	Method
% Sat	68.6 %		SM4500-OG
DO	6 mg/L		SM4500-OG
pH (Field)	7.9 SU		EPA 150.2
Specific Conductance (Field)	130 umho/cm		SM2510B
Temperature	20.61 °C		SM2550B(2)
Turbidity (Hach)	NTU		EPA 180.1
Air Temp	6 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

SiteID: WEL-08-0024

Sample Date: 9/13/2016

IDEM Sample #: AB26914

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	Method
	% Sat	66.4 %	ASTM D888-09(C)
	DO	6.07 mg/L	ASTM D888-09(C)
	pH (Field)	6.88 SU	EPA 150.2
	Specific Conductance (Field)	167 umho/cm	SM2510B
	Temperature	19.7 °C	SM2550B(2)
	Turbidity (Hach)	1.13 NTU	EPA 180.1
	Air Temp	5 Lookup	Observation
	Sky Conditions	1 Lookup	Observation
	Wind Direction	0 Lookup	Observation
	Wind Strength	0 Lookup	Observation

Lab ID # 581649	Result	Reporting Limit	Method
	Alkalinity (as CaCO3)	53 mg/L	10 EPA 310.2
	Chloride	< 5 mg/L	5 SM4500CI-E
	Hardness (as CaCO3)	64 mg/L	30 EPA 130.1
	Solids, Suspended Total, (TSS)	< 6 mg/L	6 SM2540D
	Solids, Total (TS)	99 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	93 mg/L	10 SM2540C
	Sulfate	18 mg/L	5 EPA 375.2
	Calcium (Total)	17.1 mg/L	0.2 EPA 200.7
	Magnesium (Total)	5.25 mg/L	0.2 EPA 200.7
	Nitrogen, Ammonia	< 0.1 mg/L	0.1 EPA 350.1
	Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1 EPA 353.1
	Phosphorus, Total	0.01 mg/L	0.03 EPA 365.1
	TKN	< 0.3 mg/L	0.3 EPA 351.2
	TOC	1.1 mg/L	1 SM5310B

Lab ID # AB26914	Result	Reporting Limit	Method
	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6 SM9223B
	E. coli	261.3 MPN/100mL	1 SM9223B

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

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

SiteID: WEL-08-0025 **USGS Hydrologic Unit:** 051202080806
Stream Name: Gulletts Creek **County:** Lawrence
Description: Peerless Rd **Latitude:** 38 55 20.08859 **Longitude:** -86 31 7.18044
Drainage: 12.57 **Site Number:** 16T-021

SiteID: WEL-08-0025 **Sample Date:** 8/3/2016 **IDEM Sample #:** AB25921
Water Flow Type Riffle **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	Method
% Sat	52.3 %		ASTM D888-09(C)
DO	7.32 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	528 umho/cm		SM2510B
Temperature	21.05 °C		SM2550B(2)
Turbidity (Hach)	13 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	6 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	613.1 MPN/100mL	1	SM9223B

SiteID: WEL-08-0025 **Sample Date:** 8/10/2016 **IDEM Sample #:** AB25953
Water Flow Type Riffle **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	Method
% Sat	74.6 %		ASTM D888-09(C)
DO	6.43 mg/L		ASTM D888-09(C)
pH (Field)	7.77 SU		EPA 150.2
Specific Conductance (Field)	662 umho/cm		SM2510B
Temperature	22.73 °C		SM2550B(2)
Turbidity (Hach)	6.91 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 578439	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	212 mg/L	10	EPA 310.2
Chloride	23 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	274 mg/L	75	EPA 130.1
Solids, Suspended Total, (TSS)	6 mg/L	6	SM2540D
Solids, Total (TS)	380 mg/L	20	SM2540B
Solids, Total Dissolved (TDS)	358 mg/L	20	SM2540C
Sulfate	42 mg/L	5	EPA 375.2
Calcium (Total)	82.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	10.6 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.008 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.5 mg/L	1	SM5310B

Lab ID # AB25953	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	238.2 MPN/100mL	1	SM9223B

SiteID: WEL-08-0025 **Sample Date:** 8/22/2016 **IDEM Sample #:** AB23934
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Use Revisit (AB26888) for assessments.

Lab ID #	Result	Reporting Limit	Method
% Sat	97.5 %		ASTM D888-09(C)
DO	8.96 mg/L		ASTM D888-09(C)
pH (Field)	7.84 SU		EPA 150.2
Specific Conductance (Field)	468 umho/cm		SM2510B
Temperature	18.39 °C		SM2550B(2)
Turbidity (Hach)	7.69 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

SiteID: WEL-08-0025 Sample Date: 9/14/2016 IDEM Sample #: AB26906
 Water Flow Type Riffle 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	Method
% Sat	79.7 %		ASTM D888-09(C)
DO	7.46 mg/L		ASTM D888-09(C)
pH (Field)	7.83 SU		EPA 150.2
Specific Conductance (Field)	567 umho/cm		SM2510B
Temperature	18.48 °C		SM2550B(2)
Turbidity (Hach)	7.53 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 581655	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	224 mg/L	10	EPA 310.2
Chloride	24 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	280 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	6 mg/L	6	SM2540D
Solids, Total (TS)	370 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	344 mg/L	10	SM2540C
Sulfate	42 mg/L	5	EPA 375.2
Calcium (Total)	96.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	12 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.9 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.021 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.9 mg/L	1	SM5310B

Lab ID # AB26906	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	435.2 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0025 Sample Date: 9/20/2016 IDEM Sample #: AB26683
 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	86.1 %		ASTM D888-09(C)
DO	7.6 mg/L		ASTM D888-09(C)
pH (Field)	7.52 SU		EPA 150.2
Specific Conductance (Field)	575 umho/cm		SM2510B
Temperature	20.37 °C		SM2550B(2)
Turbidity (Hach)	7.69 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

SiteID: WEL-08-0025 Sample Date: 9/20/2016 IDEM Sample #: AB26888
 Water Flow Type Pool Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Use for assessments.

Lab ID #	Result	Reporting Limit	Method
% Sat	85.9 %		ASTM D888-09(C)
DO	7.55 mg/L		ASTM D888-09(C)
pH (Field)	7.54 SU		EPA 150.2
Specific Conductance (Field)	568 umho/cm		SM2510B
Temperature	20.22 °C		SM2550B(2)
Turbidity (Hach)	NTU		EPA 180.1
Air Temp	6 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

SiteID: WEL-08-0025

Sample Date: 10/19/2016

IDEM Sample #: AB27209

Water Flow Type Riffle

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	Method
% Sat	51.7 %		ASTM D888-09(C)
DO	4.88 mg/L		ASTM D888-09(C)
pH (Field)	7.77 SU		EPA 150.2
Specific Conductance (Field)	625 umho/cm		SM2510B
Temperature	18.1 °C		SM2550B(2)
Turbidity (Hach)	6.27 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	6 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 585070	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	250 mg/L	10	EPA 310.2
Chloride	25 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	315 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	396 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	376 mg/L	10	SM2540C
Sulfate	59 mg/L	5	EPA 375.2
Calcium (Total)	94.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	12.4 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.025 mg/L	0.03	EPA 365.1
TKN	0.3 mg/L	0.3	EPA 351.2
TOC	3.5 mg/L	1	SM5310B

Lab ID # AB27209	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	98.8 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0026 **USGS Hydrologic Unit:** 051202080806
Stream Name: Pleasant Run **County:** Lawrence
Description: Peerless Rd **Latitude:** 38 54 14.92846 **Longitude:** -86 29 30.85836
Drainage: 9.067 **Site Number:** 16T-022

SiteID: WEL-08-0026 **Sample Date:** 8/3/2016 **IDEM Sample #:** AB25923
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Thick algae mats observed.

Lab ID #	Result	Reporting Limit	Method
% Sat	136.8 %		ASTM D888-09(C)
DO	11.44 mg/L		ASTM D888-09(C)
pH (Field)	8.01 SU		EPA 150.2
Specific Conductance (Field)	596 umho/cm		SM2510B
Temperature	24.29 °C		SM2550B(2)
Turbidity (Hach)	5.87 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	19.9 MPN/100mL	1	SM9223B

SiteID: WEL-08-0026 **Sample Date:** 8/10/2016 **IDEM Sample #:** AB25955
Water Flow Type Run **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Lots of algae mats observed.

Lab ID #	Result	Reporting Limit	Method
% Sat	58.7 %		ASTM D888-09(C)
DO	4.76 mg/L		ASTM D888-09(C)
pH (Field)	7.61 SU		EPA 150.2
Specific Conductance (Field)	1068 umho/cm		SM2510B
Temperature	25.77 °C		SM2550B(2)
Turbidity (Hach)	1.66 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 578441	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	211 mg/L	10	EPA 310.2
Chloride	32 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	236 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	777 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	755 mg/L	10	SM2540C
Sulfate	330 mg/L	25	EPA 375.2
Calcium (Total)	65.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.08 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.021 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	8.4 mg/L	1	SM5310B

Lab ID # AB25955	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	13.5 MPN/100mL	1	SM9223B

SiteID: WEL-08-0026 **Sample Date:** 8/22/2016 **IDEM Sample #:** AB23935
Water Flow Type Riffle **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	Method
% Sat	218.3 %		ASTM D888-09(C)
DO	18.13 mg/L		ASTM D888-09(C)
pH (Field)	8.11 SU		EPA 150.2
Specific Conductance (Field)	463 umho/cm		SM2510B
Temperature	23.61 °C		SM2550B(2)
Turbidity (Hach)	4.16 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: WEL-08-0026 Sample Date: 9/14/2016 IDEM Sample #: AB26908
 Water Flow Type Run Water Appearance Clear Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Thick algae mats

Lab ID #	Result	Reporting Limit	Method
% Sat	84.6 %		ASTM D888-09(C)
DO	7.64 mg/L		ASTM D888-09(C)
pH (Field)	7.72 SU		EPA 150.2
Specific Conductance (Field)	720 umho/cm		SM2510B
Temperature	20.21 °C		SM2550B(2)
Turbidity (Hach)	2.01 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 581657	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	223 mg/L	10	EPA 310.2
Chloride	20 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	238 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	478 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	465 mg/L	10	SM2540C
Sulfate	152 mg/L	10	EPA 375.2
Calcium (Total)	79.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	8.32 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.022 mg/L	0.03	EPA 365.1
TKN	0.3 mg/L	0.3	EPA 351.2
TOC	4.1 mg/L	1	SM5310B

Lab ID # AB26908	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	25 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0026 **Sample Date:** 9/20/2016 **IDEM Sample #:** AB26682
Water Flow Type Riffle **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: EXCESSIVE FILAMENTOUS ALGAE ON SUBSTRATE.

Lab ID #	Result	Reporting Limit	Method
% Sat	109.3 %		SM4500-OG
DO	9.5 mg/L		SM4500-OG
pH (Field)	7.87 SU		EPA 150.2
Specific Conductance (Field)	758 umho/cm		SM2510B
Temperature	21.07 °C		SM2550B(2)
Turbidity (Hach)	2.13 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	9 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEL-08-0026 **Sample Date:** 10/19/2016 **IDEM Sample #:** AB27211
Water Flow Type Pool **Water Appearance** Clear **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Algae mats observed.

Lab ID #	Result	Reporting Limit	Method
% Sat	44.4 %		ASTM D888-09(C)
DO	4.1 mg/L		ASTM D888-09(C)
pH (Field)	7.71 SU		EPA 150.2
Specific Conductance (Field)	955 umho/cm		SM2510B
Temperature	19.1 °C		SM2550B(2)
Turbidity (Hach)	4.18 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 585072	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	225 mg/L	10	EPA 310.2
Chloride	48 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	266 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	667 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	643 mg/L	10	SM2540C
Sulfate	247 mg/L	25	EPA 375.2
Calcium (Total)	79.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	9.93 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	< 0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.033 mg/L	0.03	EPA 365.1
TKN	0.3 mg/L	0.3	EPA 351.2
TOC	4.2 mg/L	1	SM5310B

Lab ID # AB27211	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	24.3 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0027 **USGS Hydrologic Unit:** 051202080806
Stream Name: Salt Creek **County:** Lawrence
Description: Peerless Rd **Latitude:** 38 55 36.46049 **Longitude:** -86 30 27.24003
Drainage: 576.38 **Site Number:** 16T-023

SiteID: WEL-08-0027 **Sample Date:** 8/3/2016 **IDEM Sample #:** AB25922
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	Method
% Sat	80.1 %		ASTM D888-09(C)
DO	6.85 mg/L		ASTM D888-09(C)
pH (Field)	7.59 SU		EPA 150.2
Specific Conductance (Field)	276 umho/cm		SM2510B
Temperature	23.15 °C		SM2550B(2)
Turbidity (Hach)	30.5 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	240 MPN/100mL	1	SM9223B

SiteID: WEL-08-0027 **Sample Date:** 8/10/2016 **IDEM Sample #:** AB25954
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	76.7 %		ASTM D888-09(C)
DO	6.45 mg/L		ASTM D888-09(C)
pH (Field)	7.47 SU		EPA 150.2
Specific Conductance (Field)	233 umho/cm		SM2510B
Temperature	24.12 °C		SM2550B(2)
Turbidity (Hach)	26.3 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 578440	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	64 mg/L	10	EPA 310.2
Chloride	11 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	82 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	34 mg/L	6	SM2540D
Solids, Total (TS)	165 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	124 mg/L	10	SM2540C
Sulfate	16 mg/L	5	EPA 375.2
Calcium (Total)	23.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.77 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.068 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	3.3 mg/L	1	SM5310B

Lab ID # AB25954	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	48.8 MPN/100mL	1	SM9223B

SiteID: WEL-08-0027 **Sample Date:** 8/23/2016 **IDEM Sample #:** AB23936
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	74.1 %		ASTM D888-09(C)
DO	6.4 mg/L		ASTM D888-09(C)
pH (Field)	7.71 SU		EPA 150.2
Specific Conductance (Field)	281 umho/cm		SM2510B
Temperature	21.63 °C		SM2550B(2)
Turbidity (Hach)	18 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: WEL-08-0027

Sample Date: 9/14/2016

IDEM Sample #: AB26907

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	73.6 %		ASTM D888-09(C)
DO	6.3 mg/L		ASTM D888-09(C)
pH (Field)	7.47 SU		EPA 150.2
Specific Conductance (Field)	297 umho/cm		SM2510B
Temperature	23.27 °C		SM2550B(2)
Turbidity (Hach)	16.1 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 581656	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	88 mg/L	10	EPA 310.2
Chloride	16 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	101 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	20 mg/L	6	SM2540D
Solids, Total (TS)	189 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	162 mg/L	10	SM2540C
Sulfate	20 mg/L	5	EPA 375.2
Calcium (Total)	35.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.32 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.036 mg/L	0.03	EPA 365.1
TKN	0.5 mg/L	0.3	EPA 351.2
TOC	3.7 mg/L	1	SM5310B

Lab ID # AB26907	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	67.6 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0027 Sample Date: 9/20/2016 IDEM Sample #: AB26681
 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	61.6 %		ASTM D888-09(C)
DO	5.2 mg/L		ASTM D888-09(C)
pH (Field)	7.29 SU		EPA 150.2
Specific Conductance (Field)	399.4 umho/cm		SM2510B
Temperature	22.75 °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	0 Lookup		Observation

SiteID: WEL-08-0027 Sample Date: 10/19/2016 IDEM Sample #: AB27210
 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	71.5 %		ASTM D888-09(C)
DO	6.55 mg/L		ASTM D888-09(C)
pH (Field)	7.74 SU		EPA 150.2
Specific Conductance (Field)	356 umho/cm		SM2510B
Temperature	19.69 °C		SM2550B(2)
Turbidity (Hach)	17.2 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	6 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 585071	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	99 mg/L	10	EPA 310.2
Chloride	24 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	110 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	11 mg/L	6	SM2540D
Solids, Total (TS)	210 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	192 mg/L	10	SM2540C
Sulfate	24 mg/L	5	EPA 375.2
Calcium (Total)	36.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.83 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	2.8 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.073 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	3.9 mg/L	1	SM5310B

Lab ID # AB27210	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	63.1 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL-08-0034 **USGS Hydrologic Unit:** 051202080806
Stream Name: Salt Creek **County:** Lawrence
Description: Guthrie Rd **Latitude:** 38 58 38.68999 **Longitude:** -86 30 22.34425
Drainage: 510.326 **Site Number:** 16T-024

SiteID: WEL-08-0034 **Sample Date:** 8/2/2016 **IDEM Sample #:** AB25920
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	85.3 %		ASTM D888-09(C)
DO	7.31 mg/L		ASTM D888-09(C)
pH (Field)	7.44 SU		EPA 150.2
Specific Conductance (Field)	307 umho/cm		SM2510B
Temperature	23.02 °C		SM2550B(2)
Turbidity (Hach)	23.8 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	613.1 MPN/100mL	1	SM9223B

SiteID: WEL-08-0034 **Sample Date:** 8/9/2016 **IDEM Sample #:** AB25966
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	82.2 %		ASTM D888-09(C)
DO	7.03 mg/L		ASTM D888-09(C)
pH (Field)	7.29 SU		EPA 150.2
Specific Conductance (Field)	232 umho/cm		SM2510B
Temperature	23.14 °C		SM2550B(2)
Turbidity (Hach)	19.6 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 578438	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	69 mg/L	10	EPA 310.2
Chloride	10 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	76 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	24 mg/L	6	SM2540D
Solids, Total (TS)	154 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	146 mg/L	10	SM2540C
Sulfate	17 mg/L	5	EPA 375.2
Calcium (Total)	21.7 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.72 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.084 mg/L	0.03	EPA 365.1
TKN	0.6 mg/L	0.3	EPA 351.2
TOC	3.5 mg/L	1	SM5310B

Lab ID # AB25966	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	79.4 MPN/100mL	1	SM9223B

SiteID: WEL-08-0034 **Sample Date:** 8/23/2016 **IDEM Sample #:** AB23937
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	83.3 %		ASTM D888-09(C)
DO	7.05 mg/L		ASTM D888-09(C)
pH (Field)	7.81 SU		EPA 150.2
Specific Conductance (Field)	271 umho/cm		SM2510B
Temperature	22.48 °C		SM2550B(2)
Turbidity (Hach)	14.7 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

SiteID: WEL-08-0034

Sample Date: 9/13/2016

IDEM Sample #: AB26919

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	90.5 %		ASTM D888-09(C)
DO	7.53 mg/L		ASTM D888-09(C)
pH (Field)	7.52 SU		EPA 150.2
Specific Conductance (Field)	224 umho/cm		SM2510B
Temperature	24.58 °C		SM2550B(2)
Turbidity (Hach)	13.4 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 581654	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	62 mg/L	10	EPA 310.2
Chloride	9.4 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	72 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	16 mg/L	6	SM2540D
Solids, Total (TS)	140 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	117 mg/L	10	SM2540C
Sulfate	16 mg/L	5	EPA 375.2
Calcium (Total)	22.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.9 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.034 mg/L	0.03	EPA 365.1
TKN	0.5 mg/L	0.3	EPA 351.2
TOC	4 mg/L	1	SM5310B

Lab ID # AB26919	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	52.1 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0034 Sample Date: 9/21/2016 IDEM Sample #: AB26684
 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	71.8 %		ASTM D888-09(C)
DO	6.11 mg/L		ASTM D888-09(C)
pH (Field)	7.42 SU		EPA 150.2
Specific Conductance (Field)	415 umho/cm		SM2510B
Temperature	22.08 °C		SM2550B(2)
Turbidity (Hach)	15.7 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

SiteID: WEL-08-0034 Sample Date: 10/4/2016 IDEM Sample #: AB26984
 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	77.6 %		ASTM D888-09(C)
DO	7.1 mg/L		ASTM D888-09(C)
pH (Field)	7.7 SU		EPA 150.2
Specific Conductance (Field)	408 umho/cm		SM2510B
Temperature	19.52 °C		SM2550B(2)
Turbidity (Hach)	25.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # AB26984	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	1986.3 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0034

Sample Date: 10/18/2016

IDEM Sample #: AB27222

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	75.3 %	ASTM D888-09(C)
	DO	6.88 mg/L	ASTM D888-09(C)
	pH (Field)	7.73 SU	EPA 150.2
	Specific Conductance (Field)	334 umho/cm	SM2510B
	Temperature	20.21 °C	SM2550B(2)
	Turbidity (Hach)	19 NTU	EPA 180.1
	Air Temp	4 Lookup	Observation
	Sky Conditions	3 Lookup	Observation
	Wind Direction	27 Lookup	Observation
	Wind Strength	3 Lookup	Observation

Lab ID # 585069	Result	Reporting Limit	Method
	Alkalinity (as CaCO3)	89 mg/L	10 EPA 310.2
	Chloride	22 mg/L	5 SM4500CI-E
	Hardness (as CaCO3)	99 mg/L	30 EPA 130.1
	Solids, Suspended Total, (TSS)	14 mg/L	6 SM2540D
	Solids, Total (TS)	203 mg/L	10 SM2540B
	Solids, Total Dissolved (TDS)	184 mg/L	10 SM2540C
	Sulfate	23 mg/L	5 EPA 375.2
	Calcium (Total)	33.1 mg/L	0.2 EPA 200.7
	Magnesium (Total)	5.6 mg/L	0.2 EPA 200.7
	Nitrogen, Ammonia	0.1 mg/L	0.1 EPA 350.1
	Nitrogen, Nitrate+Nitrite	2.8 mg/L	0.1 EPA 353.1
	Phosphorus, Total	0.096 mg/L	0.03 EPA 365.1
	TKN	0.8 mg/L	0.3 EPA 351.2
	TOC	4 mg/L	1 SM5310B

Lab ID # AB27222	Result	Reporting Limit	Method
	Coliforms (Total)	> 2419.6 MPN/100mL	2419.6 SM9223B
	E. coli	228.2 MPN/100mL	1 SM9223B

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

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

SiteID: WEL-08-0029 **USGS Hydrologic Unit:** 051202080806
Stream Name: Wolf Creek **County:** Lawrence
Description: Guthrie Rd **Latitude:** 38 58 34.96564 **Longitude:** -86 28 40.25715
Drainage: 1.696 **Site Number:** 16T-025

SiteID: WEL-08-0029 **Sample Date:** 8/2/2016 **IDEM Sample #:** AB25919
Water Flow Type Riffle **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	Method
% Sat	90 %		ASTM D888-09(C)
DO	7.74 mg/L		ASTM D888-09(C)
pH (Field)	7.38 SU		EPA 150.2
Specific Conductance (Field)	305 umho/cm		SM2510B
Temperature	22.79 °C		SM2550B(2)
Turbidity (Hach)	6.21 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 #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	172.5 MPN/100mL	1	SM9223B

SiteID: WEL-08-0029 **Sample Date:** 8/9/2016 **IDEM Sample #:** AB25965
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	Method
% Sat	82.5 %		ASTM D888-09(C)
DO	7.12 mg/L		ASTM D888-09(C)
pH (Field)	7.41 SU		EPA 150.2
Specific Conductance (Field)	315 umho/cm		SM2510B
Temperature	22.7 °C		SM2550B(2)
Turbidity (Hach)	2.71 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 578437	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	128 mg/L	10	EPA 310.2
Chloride	5.8 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	129 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	178 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	172 mg/L	10	SM2540C
Sulfate	14 mg/L	5	EPA 375.2
Calcium (Total)	43.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.6 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.4 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.007 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.2 mg/L	1	SM5310B

Lab ID # AB25965	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	121.1 MPN/100mL	1	SM9223B

SiteID: WEL-08-0029 **Sample Date:** 8/23/2016 **IDEM Sample #:** AB23938
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	Method
% Sat	89.6 %		SM4500-OG
DO	7.78 mg/L		SM4500-OG
pH (Field)	8.47 SU		EPA 150.2
Specific Conductance (Field)	230 umho/cm		SM2510B
Temperature	21.02 °C		SM2550B(2)
Turbidity (Hach)	2.15 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: WEL-08-0029 Sample Date: 9/8/2016 IDEM Sample #: AB26685
 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	Method
% Sat	75.3 %		SM4500-OG
DO	6.36 mg/L		SM4500-OG
pH (Field)	7.47 SU		EPA 150.2
Specific Conductance (Field)	246 umho/cm		SM2510B
Temperature	22.82 °C		SM2550B(2)
Turbidity (Hach)	2.22 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	2 Lookup		Observation

SiteID: WEL-08-0029 Sample Date: 9/13/2016 IDEM Sample #: AB26918
 Water Flow Type Riffle 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	Method
% Sat	88.1 %		ASTM D888-09(C)
DO	8 mg/L		ASTM D888-09(C)
pH (Field)	7.26 SU		EPA 150.2
Specific Conductance (Field)	302 umho/cm		SM2510B
Temperature	20.08 °C		SM2550B(2)
Turbidity (Hach)	2.16 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID # 581653	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	118 mg/L	10	EPA 310.2
Chloride	6.6 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	115 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	171 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	164 mg/L	10	SM2540C
Sulfate	15 mg/L	5	EPA 375.2
Calcium (Total)	43.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.73 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.016 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.2 mg/L	1	SM5310B

Lab ID # AB26918	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	165.8 MPN/100mL	1	SM9223B

SiteID: WEL-08-0029 **Sample Date:** 10/4/2016 **IDEM Sample #:** AB26983
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	Method
% Sat	86.7 %		ASTM D888-09(C)
DO	8.34 mg/L		ASTM D888-09(C)
pH (Field)	7.35 SU		EPA 150.2
Specific Conductance (Field)	323 umho/cm		SM2510B
Temperature	17.18 °C		SM2550B(2)
Turbidity (Hach)	4.49 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	2 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

Lab ID # AB26983	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	133.4 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0029

Sample Date: 10/18/2016

IDEM Sample #: AB27221

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	Method
% Sat	63.4 %		ASTM D888-09(C)
DO	5.87 mg/L		ASTM D888-09(C)
pH (Field)	7.3 SU		EPA 150.2
Specific Conductance (Field)	305 umho/cm		SM2510B
Temperature	18.85 °C		SM2550B(2)
Turbidity (Hach)	4.63 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	3 Lookup		Observation

Lab ID # 585068	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	122 mg/L	10	EPA 310.2
Chloride	6.2 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	117 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	166 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	159 mg/L	10	SM2540C
Sulfate	15 mg/L	5	EPA 375.2
Calcium (Total)	40.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.71 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.013 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.4 mg/L	1	SM5310B

Lab ID # AB27221	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	18.5 MPN/100mL	1	SM9223B

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

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

SiteID: WEL-08-0033 **USGS Hydrologic Unit:** 051202080807
Stream Name: Salt Creek **County:** Lawrence
Description: Old SR 450/Old Williams Rd **Latitude:** 38 50 19.79614 **Longitude:** -86 32 56.36801
Drainage: 627.267 **Site Number:** 16T-026

SiteID: WEL-08-0033 **Sample Date:** 8/3/2016 **IDEM Sample #:** AB25926
Water Flow Type Pool **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	65.9 %		ASTM D888-09(C)
DO	5.57 mg/L		ASTM D888-09(C)
pH (Field)	7.53 SU		EPA 150.2
Specific Conductance (Field)	296 umho/cm		SM2510B
Temperature	23.72 °C		SM2550B(2)
Turbidity (Hach)	26.9 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
AB25926			
E. coli	110 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB25926a			
Coliforms (Total)	5794 MPN/100mL	10	SM9223B

SiteID: WEL-08-0033 **Sample Date:** 8/10/2016 **IDEM Sample #:** AB25958
Water Flow Type Pool **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	63.2 %		ASTM D888-09(C)
DO	5.23 mg/L		ASTM D888-09(C)
pH (Field)	7.43 SU		EPA 150.2
Specific Conductance (Field)	264 umho/cm		SM2510B
Temperature	24.97 °C		SM2550B(2)
Turbidity (Hach)	15.5 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 578443	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	81 mg/L	10	EPA 310.2
Chloride	11 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	94 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	14 mg/L	6	SM2540D
Solids, Total (TS)	170 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	145 mg/L	10	SM2540C
Sulfate	19 mg/L	5	EPA 375.2
Calcium (Total)	29.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.15 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.052 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	3.4 mg/L	1	SM5310B

Lab ID # AB25958	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	25.9 MPN/100mL	1	SM9223B

SiteID: WEL-08-0033 **Sample Date:** 9/14/2016 **IDEM Sample #:** AB26911
Water Flow Type Pool **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	72.5 %		ASTM D888-09(C)
DO	6.02 mg/L		ASTM D888-09(C)
pH (Field)	7.41 SU		EPA 150.2
Specific Conductance (Field)	217 umho/cm		SM2510B
Temperature	24.22 °C		SM2550B(2)
Turbidity (Hach)	20.4 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID # 581659	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	62 mg/L	10	EPA 310.2
Chloride	7.8 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	74 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	19 mg/L	6	SM2540D
Solids, Total (TS)	140 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	113 mg/L	10	SM2540C
Sulfate	16 mg/L	5	EPA 375.2
Calcium (Total)	23.3 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.04 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.3 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.036 mg/L	0.03	EPA 365.1
TKN	0.5 mg/L	0.3	EPA 351.2
TOC	3.5 mg/L	1	SM5310B

Lab ID # AB26911	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	37.3 MPN/100mL	1	SM9223B

SiteID: WEL-08-0033 **Sample Date:** 9/19/2016 **IDEM Sample #:** AB26677
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	35.4 %		ASTM D888-09(C)
DO	2.91 mg/L		ASTM D888-09(C)
pH (Field)	7.35 SU		EPA 150.2
Specific Conductance (Field)	268 umho/cm		SM2510B
Temperature	23.77 °C		SM2550B(2)
Turbidity (Hach)	7.86 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

SiteID: WEL-08-0033 Sample Date: 9/19/2016 IDEM Sample #: AB23939
 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	35.4 %		ASTM D888-09(C)
DO	2.93 mg/L		SM4500-OG
pH (Field)	7.25 SU		EPA 150.2
Specific Conductance (Field)	268 umho/cm		SM2510B
Temperature	23.76 °C		SM2550B(2)
Turbidity (Hach)	7.86 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: WEL-08-0033 Sample Date: 10/19/2016 IDEM Sample #: AB27214
 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	57.1 %		ASTM D888-09(C)
DO	5.37 mg/L		ASTM D888-09(C)
pH (Field)	7.62 SU		EPA 150.2
Specific Conductance (Field)	430 umho/cm		SM2510B
Temperature	18.39 °C		SM2550B(2)
Turbidity (Hach)	11.2 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID # 585074	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	128 mg/L	10	EPA 310.2
Chloride	28 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	148 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	< 6 mg/L	6	SM2540D
Solids, Total (TS)	255 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	242 mg/L	10	SM2540C
Sulfate	36 mg/L	5	EPA 375.2
Calcium (Total)	49.5 mg/L	0.2	EPA 200.7
Magnesium (Total)	7.34 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	2.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.043 mg/L	0.03	EPA 365.1
TKN	0.4 mg/L	0.3	EPA 351.2
TOC	3.7 mg/L	1	SM5310B

Lab ID # AB27214	Result	Reporting Limit	Method
Coliforms (Total)	770.1 MPN/100mL	1	SM9223B
E. coli	39.3 MPN/100mL	1	SM9223B

Weather Code Definitions							
SC Sky Conditions		WD Wind Direction		WS Wind Strength		AT 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			

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

SiteID: WEL-08-0031 **USGS Hydrologic Unit:** 051202080807
Stream Name: Goose Creek **County:** Lawrence
Description: Patton Hill Rd, approximately 20 meters d **Latitude:** 38 53 59.32317 **Longitude:** -86 31 55.84388
Drainage: 7.564 **Site Number:** 16T-027

SiteID: WEL-08-0031 **Sample Date:** 8/3/2016 **IDEM Sample #:** AB25925
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Fine whitish floc in the creek.

Lab ID #	Result	Reporting Limit	Method
% Sat	97.8 %		ASTM D888-09(C)
DO	8.49 mg/L		ASTM D888-09(C)
pH (Field)	7.92 SU		EPA 150.2
Specific Conductance (Field)	460 umho/cm		SM2510B
Temperature	22.29 °C		SM2550B(2)
Turbidity (Hach)	34.6 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 #	Result	Reporting Limit	Method
AB25925			
E. coli	88 MPN/100mL	1	SM9223B

Lab ID #	Result	Reporting Limit	Method
AB25925a			
Coliforms (Total)	9208 MPN/100mL	10	SM9223B

SiteID: WEL-08-0031 **Sample Date:** 8/10/2016 **IDEM Sample #:** AB25957
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Water is whitish in color

Lab ID #	Result	Reporting Limit	Method
% Sat	96.8 %		ASTM D888-09(C)
DO	8.18 mg/L		ASTM D888-09(C)
pH (Field)	7.97 SU		EPA 150.2
Specific Conductance (Field)	440 umho/cm		SM2510B
Temperature	23.81 °C		SM2550B(2)
Turbidity (Hach)	21.3 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 578442	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	147 mg/L	10	EPA 310.2
Chloride	14 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	237 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	7 mg/L	6	SM2540D
Solids, Total (TS)	308 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	277 mg/L	10	SM2540C
Sulfate	55 mg/L	5	EPA 375.2
Calcium (Total)	63.8 mg/L	0.2	EPA 200.7
Magnesium (Total)	10.2 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.8 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.087 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.7 mg/L	1	SM5310B

Lab ID # AB25957	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	81.6 MPN/100mL	1	SM9223B

SiteID: WEL-08-0031 **Sample Date:** 8/23/2016 **IDEM Sample #:** AB23940
Water Flow Type Run **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: Weird Limestone color.

Lab ID #	Result	Reporting Limit	Method
% Sat	104.8 %		ASTM D888-09(C)
DO	9.79 mg/L		ASTM D888-09(C)
pH (Field)	7.94 SU		EPA 150.2
Specific Conductance (Field)	473 umho/cm		SM2510B
Temperature	17.5 °C		SM2550B(2)
Turbidity (Hach)	13.8 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

SiteID: WEL-08-0031 Sample Date: 9/14/2016 IDEM Sample #: AB26910
 Water Flow Type Run Water Appearance Murky Water Depth Algae?
 Water Flow (cf/sec): Flow Estimated? Aquatic Life? Canopy Closed % 0-20%
 Sampler Comments: Slight white floc observed in the creek

Lab ID #	Result	Reporting Limit	Method
% Sat	97.3 %		ASTM D888-09(C)
DO	8.85 mg/L		ASTM D888-09(C)
pH (Field)	7.98 SU		EPA 150.2
Specific Conductance (Field)	470 umho/cm		SM2510B
Temperature	19.94 °C		SM2550B(2)
Turbidity (Hach)	18.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 581658	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	169 mg/L	10	EPA 310.2
Chloride	12 mg/L	5	SM4500CI-E
Hardness (as CaCO3)	235 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	9 mg/L	6	SM2540D
Solids, Total (TS)	329 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	301 mg/L	10	SM2540C
Sulfate	56 mg/L	5	EPA 375.2
Calcium (Total)	80.6 mg/L	0.2	EPA 200.7
Magnesium (Total)	12.3 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.8 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.016 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	1.9 mg/L	1	SM5310B

Lab ID # AB26910	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	142.1 MPN/100mL	1	SM9223B

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

SiteID: WEL-08-0031 **Sample Date:** 9/20/2016 **IDEM Sample #:** AB26686
Water Flow Type Glide **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: WATER IS GRAY, LIKELY FROM ROCK QUARRY ACTIVITY.

Lab ID #	Result	Reporting Limit	Method
% Sat	104.6 %		ASTM D888-09(C)
DO	9.17 mg/L		ASTM D888-09(C)
pH (Field)	7.74 SU		EPA 150.2
Specific Conductance (Field)	458.9 umho/cm		SM2510B
Temperature	20.49 °C		SM2550B(2)
Turbidity (Hach)	16.3 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

SiteID: WEL-08-0031 **Sample Date:** 10/19/2016 **IDEM Sample #:** AB27213
Water Flow Type Pool **Water Appearance** Murky **Water Depth** **Algae?**
Water Flow (cf/sec): **Flow Estimated?** **Aquatic Life?** **Canopy Closed %** 0-20%
Sampler Comments: White floc observed in stream and white sediment on substrate.

Lab ID #	Result	Reporting Limit	Method
% Sat	91.8 %		ASTM D888-09(C)
DO	8.61 mg/L		ASTM D888-09(C)
pH (Field)	7.99 SU		EPA 150.2
Specific Conductance (Field)	502 umho/cm		SM2510B
Temperature	18.43 °C		SM2550B(2)
Turbidity (Hach)	38.3 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 585073	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	179 mg/L	10	EPA 310.2
Chloride	22 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	235 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	17 mg/L	6	SM2540D
Solids, Total (TS)	336 mg/L	20	SM2540B
Solids, Total Dissolved (TDS)	296 mg/L	10	SM2540C
Sulfate	52 mg/L	5	EPA 375.2
Calcium (Total)	72.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	10.5 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	1.6 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.019 mg/L	0.03	EPA 365.1
TKN	< 0.3 mg/L	0.3	EPA 351.2
TOC	2.5 mg/L	1	SM5310B

Lab ID # AB27213	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	104.3 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	

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

SiteID: WEL090-0003 **USGS Hydrologic Unit:** 051202080807
Stream Name: Salt Creek **County:** Lawrence
Description: Oolitic Rd, Near Oolitic **Latitude:** 38 53 18.37666 **Longitude:** -86 30 31.00000
Drainage: 603.506 **Site Number:** 16T-028

SiteID: WEL090-0003 **Sample Date:** 8/3/2016 **IDEM Sample #:** AB25924
Water Flow Type Eddy **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	72.7 %		ASTM D888-09(C)
DO	6.2 mg/L		ASTM D888-09(C)
pH (Field)	7.44 SU		EPA 150.2
Specific Conductance (Field)	322 umho/cm		SM2510B
Temperature	23.31 °C		SM2550B(2)
Turbidity (Hach)	36.5 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID #	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	185 MPN/100mL	1	SM9223B

SiteID: WEL090-0003 **Sample Date:** 8/10/2016 **IDEM Sample #:** AB25956
Water Flow Type Eddy **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	68.7 %		ASTM D888-09(C)
DO	5.77 mg/L		ASTM D888-09(C)
pH (Field)	7.32 SU		EPA 150.2
Specific Conductance (Field)	244 umho/cm		SM2510B
Temperature	24.2 °C		SM2550B(2)
Turbidity (Hach)	27.3 NTU		EPA 180.1
Air Temp	5 Lookup		Observation
Sky Conditions	4 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

Lab ID # 578446	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	69 mg/L	10	EPA 310.2
Chloride	10 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	87 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	33 mg/L	6	SM2540D
Solids, Total (TS)	171 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	134 mg/L	10	SM2540C
Sulfate	20 mg/L	5	EPA 375.2
Calcium (Total)	25.2 mg/L	0.2	EPA 200.7
Magnesium (Total)	4.84 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.7 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.073 mg/L	0.03	EPA 365.1
TKN	0.5 mg/L	0.3	EPA 351.2
TOC	3.4 mg/L	1	SM5310B

Lab ID # AB25956	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	67 MPN/100mL	1	SM9223B

SiteID: WEL090-0003 **Sample Date:** 8/23/2016 **IDEM Sample #:** AB23941
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	72.3 %		ASTM D888-09(C)
DO	6.24 mg/L		ASTM D888-09(C)
pH (Field)	7.68 SU		EPA 150.2
Specific Conductance (Field)	300 umho/cm		SM2510B
Temperature	21.6 °C		SM2550B(2)
Turbidity (Hach)	14.1 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	0 Lookup		Observation

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

SiteID: WEL090-0003 Sample Date: 9/14/2016 IDEM Sample #: AB26909
 Water Flow Type Eddy 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	65.3 %		ASTM D888-09(C)
DO	5.47 mg/L		ASTM D888-09(C)
pH (Field)	7.28 SU		EPA 150.2
Specific Conductance (Field)	243 umho/cm		SM2510B
Temperature	24.28 °C		SM2550B(2)
Turbidity (Hach)	28.8 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	0 Lookup		Observation
Wind Strength	0 Lookup		Observation

Lab ID # 581662	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	71 mg/L	10	EPA 310.2
Chloride	9.6 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	87 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	31 mg/L	6	SM2540D
Solids, Total (TS)	168 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	133 mg/L	10	SM2540C
Sulfate	18 mg/L	5	EPA 375.2
Calcium (Total)	27.4 mg/L	0.2	EPA 200.7
Magnesium (Total)	5.46 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	0.5 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.048 mg/L	0.03	EPA 365.1
TKN	0.5 mg/L	0.3	EPA 351.2
TOC	3.6 mg/L	1	SM5310B

Lab ID # AB26909	Result	Reporting Limit	Method
Coliforms (Total)	> 2419.6 MPN/100mL	2419.6	SM9223B
E. coli	65.7 MPN/100mL	1	SM9223B

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

SiteID: WEL090-0003 Sample Date: 9/20/2016 IDEM Sample #: AB26687
 Water Flow Type Riffle 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	50.3 %		ASTM D888-09(C)
DO	4.27 mg/L		ASTM D888-09(C)
pH (Field)	7.46 SU		EPA 150.2
Specific Conductance (Field)	394.4 umho/cm		SM2510B
Temperature	22.44 °C		SM2550B(2)
Turbidity (Hach)	12.7 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	1 Lookup		Observation
Wind Direction	27 Lookup		Observation
Wind Strength	1 Lookup		Observation

SiteID: WEL090-0003 Sample Date: 10/19/2016 IDEM Sample #: AB27212
 Water Flow Type Eddy 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	Method
% Sat	57.6 %		ASTM D888-09(C)
DO	5.31 mg/L		ASTM D888-09(C)
pH (Field)	7.58 SU		EPA 150.2
Specific Conductance (Field)	364 umho/cm		SM2510B
Temperature	19.29 °C		SM2550B(2)
Turbidity (Hach)	13.9 NTU		EPA 180.1
Air Temp	4 Lookup		Observation
Sky Conditions	3 Lookup		Observation
Wind Direction	18 Lookup		Observation
Wind Strength	1 Lookup		Observation

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

Lab ID # 585077	Result	Reporting Limit	Method
Alkalinity (as CaCO3)	106 mg/L	10	EPA 310.2
Chloride	25 mg/L	5	SM4500Cl-E
Hardness (as CaCO3)	115 mg/L	30	EPA 130.1
Solids, Suspended Total, (TSS)	9 mg/L	6	SM2540D
Solids, Total (TS)	228 mg/L	10	SM2540B
Solids, Total Dissolved (TDS)	199 mg/L	10	SM2540C
Sulfate	26 mg/L	5	EPA 375.2
Calcium (Total)	38.1 mg/L	0.2	EPA 200.7
Magnesium (Total)	6.06 mg/L	0.2	EPA 200.7
Nitrogen, Ammonia	< 0.1 mg/L	0.1	EPA 350.1
Nitrogen, Nitrate+Nitrite	2.1 mg/L	0.1	EPA 353.1
Phosphorus, Total	0.059 mg/L	0.03	EPA 365.1
TKN	0.5 mg/L	0.3	EPA 351.2
TOC	4 mg/L	1	SM5310B

Lab ID # AB27212	Result	Reporting Limit	Method
Coliforms (Total)	2419.6 MPN/100mL	1	SM9223B
E. coli	43.7 MPN/100mL	1	SM9223B

Weather Code Definitions					
SC Sky Conditions		WD Wind Direction		WS Wind Strength	AT 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	