APPENDIX C

WATER QUALITY DATA SHEETS/RESULTS

COMPLETE FORM WITH PERMANENT INK ONLY

Lawson-Fisher Associates P.C.
525 West Washington Avenue
South Bend, Indiana 46601
Ph. 219-234-3167
FAX 219-236-1330

WATER QUALITY ACQUISITION DATA SHEET

Project: Elkhart County 319 Grant

Job Number: 200132

Date: 11/7/2001

Time: 8:30 hrs.

Crew: KMG, CLF

Weather: cool

Ambient Temp.: 50s

STREAM INFORMATION

Watershed ID: Elkhart Riva - Yellow Creek

Stream Name: Yellow Creek

Site Location: CR 13

Width: ~~28~~ (28.2 ft.)

Depth: ~~9~~ (9.2 ft.)

GPS ID No.:

Location Sketch

CR 13 facing WEST

SAMPLE INFORMATION

pH: 7.9

Temp (°C): 8.0 C°

Cond. (µS): 442

TDS (ppm): 220

Color: Clear slight Yellow

D.O. (m): 7.8 (mg/L) 66.6 (%)

Sample Depth(s): Kem 0.5

Sample Number(s): 2UP

Bottle Numbers:

Comments:

Chain of Custody:

Relinquished By:	Date	Time	Received By:	Date	Time
Signature: Lee M. Young	11/7/01	2:55pm	Signature:		
Printed			Printed		
Relinquished By:	Date	Time	Received By:	Date	Time
Signature: Dan Shaw	11-7-01	15:00	Signature:		
Printed			Printed		

COMPLETE FORM WITH PERMANENT INK ONLY

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South Bend, Indiana 46601
Ph. 219-234-3167
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WATER QUALITY ACQUISITION DATA SHEET

Project: Elkhart County 319 Grant

Job Number: 200132

Date: 11/7/200

Time: 7:55 hrs.

Crew: KMG CLF

Weather: Coolish

Ambient Temp.: 50s

STREAM INFORMATION

Watershed ID: Elkhart River - Yellow Creek

Stream Name: Yellow Creek

Site Location: CR 26

Width: ~~~~ (17.7 ft.)

Depth DTW = 13.8' ~~~~ (ft.)

GPS ID No.:

Location Sketch

CR 26 facing South

SAMPLE INFORMATION

pH: 8.06

Temp (°C): 7.2

Cond. (µS): 461

TDS (ppm): 230

Color: Clear slight yellow.

D.O. (m): 10.08 (mg/L) 84 (%)

Sample Depth(s) type: KCM 0.5'

Sample Number(s): 2DWN

Bottle Numbers:

Comments:

Chain of Custody:

Relinquished By:	Date	Time	Received By:	Date	Time
Kyan M. Young (Signature)	11/7/01	2:55pm	(Signature)		
Printed			Printed		
Relinquished By:	Date	Time	Received By:	Date	Time
Dan Shane (Signature)	11.7.01	15:00	(Signature)		
Printed			Printed		

SAMPLE NAME _CR 26 & Yellow Creed Lower__ LOG # 2001- 1530

SAMPLE DATE 11-7-01

ANALYSIS REQUESTED	X	RESULT	UNITS	ANALYSIS DATE	ANALYST	METHOD	CONTAINER
pH			S.U.			EPA 150.1	P or G
cBOD5			mg/L			18TH, 5210B	P or G
TSS	X	25	mg/L	11-7-01	EM/LMH	EPA 160.2	P or G
VSS			mg/L			EPA 160.2	P or G
COD			mg/L			Hach	P or G
TS			mg/L			18TH, 2540G	P or G
VS			mg/L			18TH, 2540G	P or G
Cyanide			mg/L			18TH, 4500CN B,E	P or G
Arsenic			mg/L			18TH, 3120B	P or G
Copper			mg/L			18TH, 3500Cu B	P or G
Cadmium			mg/L			18TH, 3500Cd B	P or G
Chromium			mg/L			18TH, 3500Cr B	P or G
Zinc			mg/L			18TH 3500Zn B	P or G
Nickel			mg/L			18TH, 3500Ni B	P or G
Silver			mg/L			18TH 3500Ag B	P or G
Lead			mg/L			18TH, 3500Pb B	P or G
Mercury			mg/L			18TH, 3500Hg B	P or G
Ammonia	X	0.1	mg/L	11-8-01	LMH	18TH, 4500NH3 F	P or G
Phosphorus	X	0.17	mg/L	11-9-01	LMH	18TH, 4500P E 4500P, B5	P or G
Ortho PO4	X	0.15	mg/L	11-8-01	LMH	18TH, 4500	P or G
Phenol			mg/L			18TH, 5530C	P or G
TKN	X		mg/L			18TH, 5520B	G only
Nitrate	X		mg/L			EPA 624/625	G only
BNA			mg/L			EPA 624/625	G only
MBAS	X		mg/L				
E Coli	X	270	COLONIES / 100mL	11-7-01	BA		

COMMENTS: _____

O.K. TO DISPOSE
INITIALS / DATE _____ 11/28

DISPOSED BY
INITIALS / DATE CP/11-28-01

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SAMPLE NAME _CR 13 & Yellow Creed Lower__ LOG # 2001- 1541

SAMPLE DATE 11-7-01

ANALYSIS REQUESTED	X	RESULT	UNITS	ANALYSIS DATE	ANALYST	METHOD	CONTAINER
pH			S.U.			EPA 150.1	P or G
cBOD5			mg/L			18TH, 5210B	P or G
TSS	X	17	mg/L	11-7-01	Em/UMH	EPA 160.2	P or G
VSS			mg/L			EPA 160.2	P or G
COD			mg/L			Hach	P or G
TS			mg/L			18TH, 2540G	P or G
VS			mg/L			18TH, 2540G	P or G
Cyanide			mg/L			18TH, 4500CN B,E	P or G
Arsenic			mg/L			18TH, 3120B	P or G
Copper			mg/L			18TH, 3500Cu B	P or G
Cadmium			mg/L			18TH, 3500Cd B	P or G
Chromium			mg/L			18TH, 3500Cr B	P or G
Zinc			mg/L			18TH 3500Zn B	P or G
Nickel			mg/L			18TH, 3500Ni B	P or G
Silver			mg/L			18TH 3500Ag B	P or G
Lead			mg/L			18TH, 3500Pb B	P or G
Mercury			mg/L			18TH, 3500Hg B	P or G
Ammonia	X	0.1	mg/L	11-8-01	Lmh	18TH, 4500NH3 F	P or G
Phosphorus	X	0.27	mg/L	11-9-01	Lmh	18TH, 4500P E 4500P, B5	P or G
Ortho PO4	X	0.23	mg/L	11-8-01	Lmh	18TH, 4500	P or G
Phenol			mg/L			18TH, 5530C	P or G
TKN	X		mg/L			18TH, 5520B	G only
Nitrate	X		mg/L			EPA 624/625	G only
BNA			mg/L			EPA 624/625	G only
MBAS	X		mg/L				
E Coli	X	330	COLONIES / 100mL	11-7-01	BA		

COMMENTS: _____

O.K. TO DISPOSE INITIALS / DATE LMH 11/28

DISPOSED BY INITIALS / DATE CP/11-28-01

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ELKHART PUBLIC WORKS & UTILITIES
LABORATORY
SAMPLE / ANALYTICAL REPORT FORM

NPDES PERMIT
IN0025674

SAMPLE LOG # 2001-1541

SAMPLE LOCATION:

Facility Name & Address **Elkhart River-Yellow Creek Lower**

Sample Site Location **CR13 & Yellow Creek – 2 Up** Site # _____

Collector's Initials: Grab KNY/~~JECLF~~ ; Composite: In _____ Out _____

PURPOSE: Scheduled ☐ Demand ☐ Unscheduled ☐

Special ■ Routine ☐ Other ☐

Discharge: Measured Flow _____ Estimated Flow _____ NA ☐

SAMPLE CONDITION: Is this typical for this site: YES ☐ NO ☐

If no, describe: COLOR _____ : ODOR _____

Additional description: _____

SAMPLE TYPE:

Grab ■ : Month 11 Day 7 Year 01 Time 8:35 (am) / pm

Composite ☐ : *From:* Month _____ Day _____ Year _____ Time _____ am / pm

To: Month _____ Day _____ Year _____ Time _____ am / pm

Time Proportional ☐ ; Flow Proportional ☐ ; Continuous ☐ ;

Discrete ☐ : Interval _____ Number Combined _____

Seals Intact? **Yes** ☐ **No** ☐

CUSTODY SEAL SERIAL #'S: _____ _____ _____ _____

PRESERVATION: Refrigerated in field? Yes ☐ No ☐

Analysis	Preservation	Amount	Date	Time	Analyst
PO4, COD, NH3, O&G & Nitrate	1:1 H_2SO_4 pH <2	2 mL x	11-7-01	1:40 PM	KNY
Metals , Mercury	HNO_3 pH <2	3 mL x			
Cyanide	NaOH pH >12	5 mL x			
		mL			
		mL			

SPLIT SAMPLE: Yes ☐ No ☐ If yes: Date & Time _____ am / pm

Industrial Representative's Signature

LawsonFisher319 SARF

_____

ELKHART PUBLIC WORKS & UTILITIES
LABORATORY
SAMPLE / ANALYTICAL REPORT FORM

NPDES PERMIT
IN0025674

SAMPLE LOG # 2001-1530

SAMPLE LOCATION:

Facility Name & Address: **Elkhart River-Yellow Creek Lower**

Sample Site Location: **CR 26 & Yellow Creek – 2 Dwn** Site #: _____

Collector's Initials: Grab KNV/ACLF ; Composite: In _____ Out _____

PURPOSE: Scheduled ☐ Demand ☐ Unscheduled ☐

Special ■ Routine ☐ Other ☐

Discharge: Measured Flow _____ Estimated Flow _____ NA ☐

SAMPLE CONDITION: Is this typical for this site: YES ☐ NO ☐

If no, describe: COLOR _____ : ODOR _____

Additional description: _____

SAMPLE TYPE:

Grab ■ : Month 11 Day 7 Year 01 Time 8:10 (am) / pm

Composite ☐ : *From:* Month _____ Day _____ Year _____ Time _____ am / pm

To: Month _____ Day _____ Year _____ Time _____ am / pm

Time Proportional ☐ ; Flow Proportional ☐ ; Continuous ☐ ;

Discrete ☐ : Interval _____ Number Combined _____

Seals Intact? Yes ☐ No ☐

CUSTODY SEAL SERIAL #'S: _____ _____ _____ _____

PRESERVATION: Refrigerated in field? Yes ☐ No ☐

Analysis	Preservation	Amount	Date	Time	Analyst
(PO_4, COD, NH_3, O&G Nitro	1:1 H_2SO_4 pH <2	2 mL x	11-7-01	1:40 PM	KNV
Metals , Mercury	HNO_3 pH <2	3 mL x			
Cyanide	NaOH pH >12	5 mL x			
		mL			
		mL			

SPLIT SAMPLE: Yes ☐ No ☐ If yes: Date & Time _____ am / pm

Industrial Representative's Signature

LawsonFisher319 SARF

_____

SAMPLE RESULTS

Client Name: Lawson-Fisher Associates
Client Project: Elkhart County 319 Grant

Report Date: 11/29/01
EIS Order No: 011100081

EIS Lab Number	Client Description	Sample Date	Parameter	Result	Units	RDL	Test Date	Analyst ID	Method
079281	2 UP	11/7/01	Nitrogen(Kjeldahl)Total	0.92	mg/L	0.1	11/16/0	E03	351.2
		11/7/01	Nitrogen(Nitrate)	4.9	mg/L	0.1	11/7/01	E03	353.2
		11/7/01	Surfactants (MBAS)	<0.1	mg/L	0.1	11/8/01	E21	5540 C
079282	2 DWN	11/7/01	Nitrogen(Kjeldahl)Total	0.65	mg/L	0.1	11/16/0	E03	351.2
		11/7/01	Nitrogen(Nitrate)	4.9	mg/L	0.1	11/7/01	E03	353.2
		11/7/01	Surfactants (MBAS)	<0.1	mg/L	0.1	11/8/01	E21	5540 C
079283	5 UP	11/7/01	Nitrogen(Kjeldahl)Total	0.59	mg/L	0.1	11/16/0	E03	351.2
		11/7/01	Nitrogen(Nitrate)	7.4	mg/L	0.1	11/7/01	E03	353.2
		11/7/01	Surfactants (MBAS)	<0.1	mg/L	0.1	11/8/01	E21	5540 C
079284	5 DWN	11/7/01	Nitrogen(Kjeldahl)Total	1.2	mg/L	0.1	11/16/0	E03	351.2
		11/7/01	Nitrogen(Nitrate)	2.6	mg/L	0.1	11/7/01	E03	353.2
		11/7/01	Surfactants (MBAS)	<0.1	mg/L	0.1	11/8/01	E21	5540 C
079285	6 UP	11/7/01	Nitrogen(Kjeldahl)Total	0.22	mg/L	0.1	11/16/0	E03	351.2
		11/7/01	Nitrogen(Nitrate)	7.6	mg/L	0.1	11/7/01	E03	353.2
		11/7/01	Surfactants (MBAS)	<0.1	mg/L	0.1	11/8/01	E21	5540 C
079286	6 DWN	11/7/01	Nitrogen(Kjeldahl)Total	<0.1	mg/L	0.1	11/16/0	E03	351.2
		11/7/01	Nitrogen(Nitrate)	6.4	mg/L	0.1	11/7/01	E03	353.2
		11/7/01	Surfactants (MBAS)	<0.1	mg/L	0.1	11/8/01	E16	5540 C
079287	6 DWN DUP	11/7/01	Nitrogen(Kjeldahl)Total	0.56	mg/L	0.1	11/16/0	E03	351.2
		11/7/01	Nitrogen(Nitrate)	6.4	mg/L	0.1	11/7/01	E03	353.2
		11/7/01	Surfactants (MBAS)	<0.1	mg/L	0.1	11/8/01	E16	5540 C
079288	7 UP	11/7/01	Nitrogen(Kjeldahl)Total	<0.1	mg/L	0.1	11/16/0	E03	351.2
		11/7/01	Nitrogen(Nitrate)	17	mg/L	0.2	11/7/01	E03	353.2
		11/7/01	Surfactants (MBAS)	<0.1	mg/L	0.1	11/8/01	E16	5540 C
079289	7 DWN	11/7/01	Nitrogen(Kjeldahl)Total	0.33	mg/L	0.1	11/16/0	E03	351.2
		11/7/01	Nitrogen(Nitrate)	12	mg/L	0.1	11/7/01	E03	353.2
		11/7/01	Surfactants (MBAS)	0.13	mg/L	0.1	11/8/01	E16	5540 C
079290	8 UP	11/7/01	Nitrogen(Kjeldahl)Total	1.1	mg/L	0.1	11/16/0	E03	351.2
		11/7/01	Nitrogen(Nitrate)	2.4	mg/L	0.1	11/7/01	E03	353.2
		11/7/01	Surfactants (MBAS)	<0.1	mg/L	0.1	11/8/01	E16	5540 C
079291	8 DWN	11/7/01	Nitrogen(Kjeldahl)Total	2.0	mg/L	0.1	11/16/0	E03	351.2
		11/7/01	Nitrogen(Nitrate)	1.5	mg/L	0.1	11/7/01	E03	353.2
		11/7/01	Surfactants (MBAS)	<0.1	mg/L	0.1	11/8/01	E16	5540 C

COMPLETE FORM WITH PERMANENT INK ONLY

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525 West Washington Avenue
South Bend, Indiana 46601
Ph. 219-234-3167
FAX 219-236-1330

WATER QUALITY ACQUISITION DATA SHEET

Project: Elkhart County 319 Grant

Job Number: 200132

Date: 12/12/200

Time: 11:16 hrs.

Crew: KMY, CFF

Weather: slight mist

Ambient Temp.: 40°F

STREAM INFORMATION

Watershed ID: Elkhart River-Yellow Creek

Stream Name: Yellow Creek

Site Location: CR 13

Width (ft.): 25'

Depth (ft.): DTW = 1' DTB =

GPS ID No.:

Location Sketch

C.R. CR 13 Facing West

SAMPLE INFORMATION

pH: 7.77

Temp (°C): 5.7

Cond. (µS): 731

TDS (ppm): 371

Color: CLEAR

D.O. (m): 10.1 (mg/L) 80.5 (%)

Sample Type: Kemmerer (Grab)

Sample Number(s): 2UP

Bottle Numbers:

Comments:

Chain of Custody:

Relinquished By:	Date	Time	Received By:	Date	Time
Signature	12/12/01	1:20pm	Signature	12-12-01	1320
Printed			Printed		
Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Printed			Printed		

Rev. 11/5/01

COMPLETE FORM WITH PERMANENT INK ONLY

Lawson-Fisher Associates P.C.
525 West Washington Avenue
South Bend, Indiana 46601
Ph. 219-234-3167
FAX 219-236-1330

WATER QUALITY ACQUISITION DATA SHEET

Project: Elkhart County 319 Grant

Job Number: 200132

Date: 12/21/200[illegible]

Time: 10:50 hrs.

Crew: KMY, CFF

Weather: slight mist

Ambient Temp.: 40°F

STREAM INFORMATION

Watershed ID: Elkhart River – Yellow Creek

Stream Name: Yellow Creek

Site Location: CR 26

Width (ft.): 15-20'

Depth (ft.): DTW = 2' DTB =

GPS ID No.:

Location Sketch

C.R. 26 Facing South

SAMPLE INFORMATION

pH: 7.91

Temp (°C): 5.7

Cond. (µS): 724.

TDS (ppm): 367

Color: CLEAR

D.O. (m): 10.6 (mg/L) 85.0 (%)

Sample Type: Kemmerer (Grab)

Sample Number(s): 2DN

Bottle Numbers:

Comments:

Chain of Custody:

Relinquished By:	Date	Time	Received By:	Date	Time
Signature: Kara M. Young	12/12/01	1:20pm	Signature: [illegible]	12.12.01	1320
Printed			Printed		
Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Printed			Printed		

Rev. 11/5/01

DRY-2

ELKHART PUBLIC WORKS & UTILITIES
LABORATORY
SAMPLE / ANALYTICAL REPORT FORM

NPDES PERMIT
IN0025674

SAMPLE LOG # 2001-1835

SAMPLE LOCATION:

Facility Name & Address: **Elkhart River-Yellow Creek Lower**

Sample Site Location: **CR13 & Yellow Creek – 2 Up** Site #: _____

Collector's Initials: Grab KMY/CEF ; Composite: In _____ Out _____

PURPOSE: Scheduled ☐ Demand ☐ Unscheduled ☐

Special ■ Routine ☐ Other ☐

Discharge: Measured Flow _____ Estimated Flow _____ NA ☐

SAMPLE CONDITION: Is this typical for this site: YES ☐ NO ☐

If no, describe: COLOR _____ : ODOR _____

Additional description: _____

SAMPLE TYPE:

Grab ■ : Month 12 Day 12 Year 01 Time 11:10 (am) / pm

Composite ☐ : *From:* Month _____ Day _____ Year _____ Time _____ am / pm

To: Month _____ Day _____ Year _____ Time _____ am / pm

Time Proportional ☐ ; Flow Proportional ☐ ; Continuous ☐ ;

Discrete ☐ : Interval _____ Number Combined _____

Seals Intact? Yes ☐ No ☐

CUSTODY SEAL SERIAL #'S: _____ _____ _____ _____

PRESERVATION: Refrigerated in field? Yes ☐ No ☐

Analysis	Preservation	Amount	Date	Time	Analyst
PO_4, COD, NH_3, O&G cyanide	1:1 H_2SO_4 pH <2	2 mL x 1	12-12-01	12:40 PM	LMH
Metals , Mercury	HNO_3 pH <2	3 mL x			
Cyanide	NaOH pH >12	5 mL x			
		mL			
		mL			

SPLIT SAMPLE: Yes ☐ No ☐ If yes: Date & Time _____ am / pm

Industrial Representative's Signature

LawsonFisher319 SARF

_____

SAMPLE NAME _CR 13 & Yellow Creed Lower__ LOG # 2001- 1835

SAMPLE DATE 12-12-01

ANALYSIS REQUESTED	X	RESULT	UNITS	ANALYSIS DATE	ANALYST	METHOD	CONTAINER
pH			S.U.			EPA 150.1	P or G
cBOD5			mg/L			18TH, 5210B	P or G
TSS	X	10	mg/L	12/12/01	EM	EPA 160.2	P or G
VSS			mg/L			EPA 160.2	P or G
COD			mg/L			Hach	P or G
TS			mg/L			18TH, 2540G	P or G
VS			mg/L			18TH, 2540G	P or G
Cyanide			mg/L			18TH, 4500CN B,E	P or G
Arsenic			mg/L			18TH, 3120B	P or G
Copper			mg/L			18TH, 3500Cu B	P or G
Cadmium			mg/L			18TH, 3500Cd B	P or G
Chromium			mg/L			18TH, 3500Cr B	P or G
Zinc			mg/L			18TH 3500Zn B	P or G
Nickel			mg/L			18TH, 3500Ni B	P or G
Silver			mg/L			18TH 3500Ag B	P or G
Lead			mg/L			18TH, 3500Pb B	P or G
Mercury			mg/L			18TH, 3500Hg B	P or G
Ammonia	X	0.2	mg/L	12-14-01	BA	18TH, 4500NH3 F	P or G
Phosphorus	X	0.12	mg/L	12-17-01	HNH	18TH, 4500P E 4500P, B5	P or G
Ortho PO4	X	0.10	mg/L	12-13-01	HNH	18TH, 4500	P or G
Phenol			mg/L			18TH, 5530C	P or G
TKN	X		mg/L			18TH, 5520B	G only
Nitrate	X		mg/L			EPA 624/625	G only
BNA			mg/L			EPA 624/625	G only
MBAS	X		mg/L				
E Coli	X	320	COLONIES / 100mL	12-12-01	BA		

COMMENTS: _____

O.K. TO DISPOSE
INITIALS / DATE _____

DISPOSED BY
INITIALS / DATE _____

DRY-2

ELKHART PUBLIC WORKS & UTILITIES LABORATORY

SAMPLE / ANALYTICAL REPORT FORM

NPDES PERMIT IN0025674

SAMPLE LOG # 2001-1834

SAMPLE LOCATION:

Facility Name & Address **Elkhart River-Yellow Creek Lower**

Sample Site Location **CR 26 & Yellow Creek – 2 Dwn** Site # _____

Collector's Initials: Grab KMY/CFF ; Composite: In _____ Out _____

PURPOSE: Scheduled ☐ Demand ☐ Unscheduled ☐

Special ■ Routine ☐ Other ☐

Discharge: Measured Flow _____ Estimated Flow _____ NA ☐

SAMPLE CONDITION: Is this typical for this site: YES ☐ NO ☐

If no, describe: COLOR _____ : ODOR _____

Additional description: _____

SAMPLE TYPE:

Grab ■ : Month 12 Day 12 Year 01 Time 10:50 am / pm

Composite ☐ : *From:* Month _____ Day _____ Year _____ Time _____ am / pm

To: Month _____ Day _____ Year _____ Time _____ am / pm

Time Proportional ☐ ; Flow Proportional ☐ ; Continuous ☐ ;

Discrete ☐ : Interval _____ Number Combined _____

Seals Intact? Yes ☐ No ☐

CUSTODY SEAL SERIAL #'S: _____ _____ _____ _____

PRESERVATION: Refrigerated in field? Yes ☐ No ☐

Analysis	Preservation	Amount	Date	Time	Analyst
PO_4, COD, NH_3, O& G Ortho	1:1 H_2SO_4 pH <2	2 mL x 1	12-12-01	12:40 pm	[illegible]
Metals , Mercury	HNO_3 pH <2	3 mL x			
Cyanide	NaOH pH >12	5 mL x			
		mL			
		mL			

SPLIT SAMPLE: Yes ☐ No ☐ If yes: Date & Time _____ am / pm

Industrial Representative's Signature

LawsonFisher319 SARF

SAMPLE NAME _CR 26 & Yellow Creed Lower__ LOG # 2001- 1834

SAMPLE DATE 12-12-01

ANALYSIS REQUESTED	X	RESULT	UNITS	ANALYSIS DATE	ANALYST	METHOD	CONTAINER
pH			S.U.			EPA 150.1	P or G
cBOD5			mg/L			18TH, 5210B	P or G
TSS	X	10	mg/L	12/12/01	EM	EPA 160.2	P or G
VSS			mg/L			EPA 160.2	P or G
COD			mg/L			Hach	P or G
TS			mg/L			18TH, 2540G	P or G
VS			mg/L			18TH, 2540G	P or G
Cyanide			mg/L			18TH, 4500CN B,E	P or G
Arsenic			mg/L			18TH, 3120B	P or G
Copper			mg/L			18TH, 3500Cu B	P or G
Cadmium			mg/L			18TH, 3500Cd B	P or G
Chromium			mg/L			18TH, 3500Cr B	P or G
Zinc			mg/L			18TH 3500Zn B	P or G
Nickel			mg/L			18TH, 3500Ni B	P or G
Silver			mg/L			18TH 3500Ag B	P or G
Lead			mg/L			18TH, 3500Pb B	P or G
Mercury			mg/L			18TH, 3500Hg B	P or G
Ammonia	X	0.1	mg/L	12-14-01	BA	18TH, 4500NH3 F	P or G
Phosphorus	X	0.12	mg/L	12-17-01	LMH	18TH, 4500P E 4500P, B5	P or G
Ortho PO4	X	0.09	mg/L	12-13-01	LMH	18TH, 4500	P or G
Phenol			mg/L			18TH, 5530C	P or G
TKN	X		mg/L			18TH, 5520B	G only
Nitrate	X		mg/L			EPA 624/625	G only
BNA			mg/L			EPA 624/625	G only
MBAS	X		mg/L				
E Coli	X	330	COLONIES / 100mL	12-12-01	BA		

COMMENTS: _____

O.K. TO DISPOSE
INITIALS / DATE _____

DISPOSED BY
INITIALS / DATE _____

REPORT OF ANALYSIS

Ms. Kara M. Young
Lawson-Fisher Associates
525 West Washington Street
South Bend, IN 46601
Tel No: 234-3167
Fax No: 236-1330
PO No:
Project Name: Elkhart County 319 Grant

Report Date:	1/8/02
EIS Order No:	**011200123**
EIS Sample No:	079917
EIS Project No:	1091-1004-01
Client Sample ID:	**2 UP**
Date Collected:	12/12/01
Date Received:	12/12/01
Collected By:	K. Young

This report presents results of analysis for your sample(s) received under our Order No above. This Number is to be used in all inquiries concerning this report. The EIS Sample No above, as well as your Sample ID, refer to the first sample in a multi-sample submission

DEFINITIONS:

RDL = Reporting Detection Limit for your sample and may include adjustments for matrix interferences.
nd = Not Detected at the RDL value. If present, result is less than this value.
< = Not Detected at the numerical value shown. If present, result is less than this value.
( ) = Result is estimated due to matrix interferences.

CHAIN-OF-CUSTODY is enclosed if received with your sample submission.

DRINKING WATER CERTIFICATIONS: Chemistry = C-71-02 Bacteriology = M-76-5

QUALITY ASSURANCE OFFICER

LABORATORY DIRECTOR

The data in this report has been reviewed and complies with EIS Quality Control unless specifically addressed above.

SAMPLE RESULTS

Client Name: Lawson-Fisher Associates
Client Project: Elkhart County 319 Grant

Report Date: 1/8/02
EIS Order No: 011200123

EIS Lab Number	Client Description	Sample Date	Parameter	Result	Units	RDL	Test Date	Analyst ID	Method
079917	2 UP	12/12/01	Nitrogen(Kjeldahl)Total	0.82	mg/L	0.1	12/18/01	E03	351.2
		12/12/01	Nitrogen(Nitrate)	4.0	mg/L	0.1	12/12/01	E03	353.2
		12/12/01	Surfactants (MBAS)	0.18	mg/L	0.1	12/13/01	E21	5540 C
079918	2 DN	12/12/01	Nitrogen(Kjeldahl)Total	0.52	mg/L	0.1	12/18/01	E03	351.2
		12/12/01	Nitrogen(Nitrate)	4.3	mg/L	0.1	12/12/01	E03	353.2
		12/12/01	Surfactants (MBAS)	<0.1	mg/L	0.1	12/13/01	E21	5540 C
079919	5 DN	12/12/01	Nitrogen(Kjeldahl)Total	0.68	mg/L	0.1	12/18/01	E03	351.2
		12/12/01	Nitrogen(Nitrate)	2.5	mg/L	0.1	12/12/01	E03	353.2
		12/12/01	Surfactants (MBAS)	<0.1	mg/L	0.1	12/13/01	E21	5540 C
079920	6 UP	12/12/01	Nitrogen(Kjeldahl)Total	0.26	mg/L	0.1	12/18/01	E03	351.2
		12/12/01	Nitrogen(Nitrate)	7.1	mg/L	0.1	12/12/01	E03	353.2
		12/12/01	Surfactants (MBAS)	<0.1	mg/L	0.1	12/13/01	E21	5540 C
079921	6 DN	12/12/01	Nitrogen(Kjeldahl)Total	0.22	mg/L	0.1	12/18/01	E03	351.2
		12/12/01	Nitrogen(Nitrate)	5.8	mg/L	0.1	12/12/01	E03	353.2
		12/12/01	Surfactants (MBAS)	<0.1	mg/L	0.1	12/13/01	E21	5540 C
079922	7 UP	12/12/01	Nitrogen(Kjeldahl)Total	<0.1	mg/L	0.1	12/18/01	E03	351.2
		12/12/01	Nitrogen(Nitrate)	17	mg/L	0.3	12/12/01	E03	353.2
		12/12/01	Surfactants (MBAS)	<0.1	mg/L	0.1	12/13/01	E21	5540 C
079923	7 DN	12/12/01	Nitrogen(Kjeldahl)Total	0.70	mg/L	0.1	12/18/01	E03	351.2
		12/12/01	Nitrogen(Nitrate)	13	mg/L	0.3	12/12/01	E03	353.2
		12/12/01	Surfactants (MBAS)	<0.1	mg/L	0.1	12/13/01	E21	5540 C
079924	8 UP	12/12/01	Nitrogen(Kjeldahl)Total	1.2	mg/L	0.1	12/18/01	E03	351.2
		12/12/01	Nitrogen(Nitrate)	2.2	mg/L	0.1	12/12/01	E03	353.2
		12/12/01	Surfactants (MBAS)	<0.1	mg/L	0.1	12/13/01	E21	5540 C
079925	8 DN	12/12/01	Nitrogen(Kjeldahl)Total	1.1	mg/L	0.1	12/18/01	E03	351.2
		12/12/01	Nitrogen(Nitrate)	1.8	mg/L	0.1	12/12/01	E03	353.2
		12/12/01	Surfactants (MBAS)	<0.1	mg/L	0.1	12/13/01	E21	5540 C
079926	DUP	12/12/01	Nitrogen(Kjeldahl)Total	<0.1	mg/L	0.1	12/18/01	E03	351.2
		12/12/01	Nitrogen(Nitrate)	5.8	mg/L	0.1	12/12/01	E03	353.2
		12/12/01	Surfactants (MBAS)	<0.1	mg/L	0.1	12/13/01	E21	5540 C

COMPLETE FORM WITH PERMANENT INK ONLY

Lawson-Fisher Associates P.C.
525 West Washington Avenue
South Bend, Indiana 46601
Ph. 219-234-3167
FAX 219-236-1330

WATER QUALITY ACQUISITION DATA SHEET

Project: Elkhart County 319 Grant

Job Number: 200132

Date: 6/26/2002

Time: 1:30 pm

Crew: Kmy, DRD

Weather: Sunny

Ambient Temp.: 75°F

STREAM INFORMATION

Watershed ID: Elkhart River - Yellow Creek (lower)

Stream Name: Yellow Creek

Site Location: CR 13 / Yellow Cr.

Width (ft.): 25'

Depth (ft.): DTW = ~3' DTB =

GPS ID No.:

Location Sketch

C.R. 13 Facing EAST

SAMPLE INFORMATION

pH: 7.64

Temp (°C): 22.1

Cond. (µS): 617

TDS (ppm): 314

Color: Cloudy yellow

D.O. (m): 3.24 (mg/L) 37.2 (%)

Sample Type: Kemmerer Grab

Sample Number(s): 2UP

Bottle Numbers:

Comments: 2002-912

Chain of Custody:

Relinquished By:	Date	Time	Received By:	Date	Time
Kara M. Young	6/26/02	3:00pm	[signature]	6-26-02	3:00
Signature			Signature		
Printed			Printed		
Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Printed			Printed		

Rev. 11/5/01

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Lawson-Fisher Associates P.C.
525 West Washington Avenue
South Bend, Indiana 46601
Ph. 219-234-3167
FAX 219-236-1330

WATER QUALITY ACQUISITION DATA SHEET

Project: Elkhart County 319 Grant

Job Number: 200132

Date: 6/26/2002

Time: 1:40pm hrs.

Crew: Krug, DRD

Weather: Sunny

Ambient Temp.: 75°F

STREAM INFORMATION

Watershed ID: Elkhart River-Yellow Creek (lower)

Stream Name: Yellow Creek

Site Location: CR 26 Yellow Cr

Width (ft.): 20'

Depth (ft.): DTW = 2' DTB =

GPS ID No.:

Location Sketch

C.R. 26 Facing North

SAMPLE INFORMATION

pH: 7.11

Temp (°C): 22.1

Cond. (µS): 620

TDS (ppm): 316

Color: Very light brown

D.O. (m): 3.94 (mg/L) 45.0(%)

Sample Type: Kemmerer (Grab)

Sample Number(s): 2DWN

Bottle Numbers:

Comments: 2002-913

Chain of Custody:

Relinquished By:	Date	Time	Received By:	Date	Time
Signature	6/26/02	3:00pm	Signature	6.26.02	3:00p
Printed			Printed		
Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Printed			Printed		

Rev 11/501

ELKHART PUBLIC WORKS & UTILITIES
LABORATORY
SAMPLE / ANALYTICAL REPORT FORM

NPDES PERMIT
IN0025674

SAMPLE LOG # 2002-0913

SAMPLE LOCATION:

Facility Name & Address **Elkhart River-Yellow Creek Lower**

Sample Site Location **CR 26 & Yellow Creek – 2 Dwn** Site # _____

Collector's Initials: Grab KMY, DJZD ; Composite: In _____ Out _____

PURPOSE: Scheduled ☐ Demand ☐ Unscheduled ☐

Special ■ Routine ☐ Other ☐

Discharge: Measured Flow _____ Estimated Flow _____ NA ☐

SAMPLE CONDITION: Is this typical for this site: YES ☐ NO ☐

If no, describe: COLOR _____ : ODOR _____

Additional description: _____

SAMPLE TYPE:

Grab ■ : Month 6 Day 26 Year 02 Time 1:40 am / (pm)

Composite ☐ : *From:* Month _____ Day _____ Year _____ Time _____ am / pm

To: Month _____ Day _____ Year _____ Time _____ am / pm

Time Proportional ☐ ; Flow Proportional ☐ ; Continuous ☐ ;

Discrete ☐ : Interval _____ Number Combined _____

Seals Intact? **Yes** ☐ **No** ☐

CUSTODY SEAL SERIAL #'S: _____ _____ _____ _____

PRESERVATION: Refrigerated in field? Yes ☐ No ☐

Analysis	Preservation	Amount	Date	Time	Analyst
(PO4, COD, NH3) O&G	1:1 H_2SO_4 pH <2	2 mL x 1	6/26/02	2:30pm	EM
Metals , Mercury	HNO_3 pH <2	3 mL x			
Cyanide	NaOH pH >12	5 mL x			
		mL			
		mL			

SPLIT SAMPLE: Yes ☐ No ☐ If yes: Date & Time _____ am / pm

Industrial Representative's Signature _____

LawsonFisher319 SARF

SAMPLE NAME _CR 26 & Yellow Creed Lower__ LOG # 2001- 0913

SAMPLE DATE 6/26/02

ANALYSIS REQUESTED	X	RESULT	UNITS	ANALYSIS DATE	ANALYST	METHOD	CONTAINER
pH			S.U.			EPA 150.1	P or G
cBOD5			mg/L			18TH, 5210B	P or G
TSS	X	48	mg/L	6-26-02	EM	EPA 160.2	P or G
VSS			mg/L			EPA 160.2	P or G
COD			mg/L			Hach	P or G
TS			mg/L			18TH, 2540G	P or G
VS			mg/L			18TH, 2540G	P or G
Cyanide			mg/L			18TH, 4500CN B,E	P or G
Arsenic			mg/L			18TH, 3120B	P or G
Copper			mg/L			18TH, 3500Cu B	P or G
Cadmium			mg/L			18TH, 3500Cd B	P or G
Chromium			mg/L			18TH, 3500Cr B	P or G
Zinc			mg/L			18TH 3500Zn B	P or G
Nickel			mg/L			18TH, 3500Ni B	P or G
Silver			mg/L			18TH 3500Ag B	P or G
Lead			mg/L			18TH, 3500Pb B	P or G
Mercury			mg/L			18TH, 3500Hg B	P or G
Ammonia	X	0.3	mg/L	6.28.02	BA	18TH, 4500NH3 F	P or G
Phosphorus	X	~~0.24~~ 0.41	mg/L	~~6.28.02~~ 7.3.02	LMH	18TH, 4500P E 4500P, B5	P or G
Ortho PO4	X	0.24	mg/L	6.28.02	LMH	18TH, 4500	P or G
Phenol			mg/L			18TH, 5530C	P or G
TKN	X		mg/L			18TH, 5520B	G only
Nitrate	X		mg/L			EPA 624/625	G only
BNA			mg/L			EPA 624/625	G only
MBAS	X		mg/L				
E Coli	X	62400	COLONIES / 100mL	6-26-02	BA		

COMMENTS: _____

O.K. TO DISPOSE
INITIALS / DATE _____

DISPOSED BY
INITIALS / DATE _____

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ELKHART PUBLIC WORKS & UTILITIES
LABORATORY
SAMPLE / ANALYTICAL REPORT FORM

NPDES PERMIT
IN0025674

SAMPLE LOG # 2002-0912

SAMPLE LOCATION:

Facility Name & Address: **Elkhart River-Yellow Creek Lower**

Sample Site Location: **CR13 & Yellow Creek – 2 Up** Site #: _____

Collector's Initials: Grab KMV, DRD ; Composite: In _____ Out _____

PURPOSE: Scheduled ☐ Demand ☐ Unscheduled ☐

Special ■ Routine ☐ Other ☐

Discharge: Measured Flow _____ Estimated Flow _____ NA ☐

SAMPLE CONDITION: Is this typical for this site: YES ☐ NO ☐

If no, describe: COLOR _____ : ODOR _____

Additional description: _____

SAMPLE TYPE:

Grab ■ : Month 6 Day 26 Year 02 Time 1:30 am / (pm)

Composite ☐ : *From:* Month _____ Day _____ Year _____ Time _____ am / pm

To: Month _____ Day _____ Year _____ Time _____ am / pm

Time Proportional ☐ ; Flow Proportional ☐ ; Continuous ☐ ;

Discrete ☐ : Interval _____ Number Combined _____

Seals Intact? **Yes** ☐ **No** ☐

CUSTODY SEAL SERIAL #'S: _____ _____ _____ _____

PRESERVATION: **Refrigerated in field?** Yes ☐ No ☐

Analysis	Preservation	Amount	Date	Time	Analyst
PO_4, COD, NH_3, O& G	1:1 H_2SO_4 pH <2	2 mL x 1	6/26/02	2:30pm	EM
Metals , Mercury	HNO_3 pH <2	3 mL x			
Cyanide	NaOH pH >12	5 mL x			
		mL			
		mL			

SPLIT SAMPLE: Yes ☐ No ☐ If yes: Date & Time _____ am / pm

Industrial Representative's Signature

_____

LawsonFisher319 SARF

SAMPLE NAME _CR 13 & Yellow Creed Lower__ LOG # 2001- 0912

SAMPLE DATE 6/26/02

ANALYSIS REQUESTED	X	RESULT	UNITS	ANALYSIS DATE	ANALYST	METHOD	CONTAINER
pH			S.U.			EPA 150.1	P or G
cBOD5			mg/L			18TH, 5210B	P or G
TSS	X	52	mg/L	6/26/02	EM	EPA 160.2	P or G
VSS			mg/L			EPA 160.2	P or G
COD			mg/L			Hach	P or G
TS			mg/L			18TH, 2540G	P or G
VS			mg/L			18TH, 2540G	P or G
Cyanide			mg/L			18TH, 4500CN B,E	P or G
Arsenic			mg/L			18TH, 3120B	P or G
Copper			mg/L			18TH, 3500Cu B	P or G
Cadmium			mg/L			18TH, 3500Cd B	P or G
Chromium			mg/L			18TH, 3500Cr B	P or G
Zinc			mg/L			18TH 3500Zn B	P or G
Nickel			mg/L			18TH, 3500Ni B	P or G
Silver			mg/L			18TH 3500Ag B	P or G
Lead			mg/L			18TH, 3500Pb B	P or G
Mercury			mg/L			18TH, 3500Hg B	P or G
Ammonia	X	0.3	mg/L	6.28.02	BA	18TH, 4500NH3 F	P or G
Phosphorus	X	0.44 ~~0.29~~	mg/L	7.3.02 ~~6.28.02~~ LM	LMH	18TH, 4500P E 4500P, B5	P or G
Ortho PO4	X	0.27	mg/L	6.28.02	LMH	18TH, 4500	P or G
Phenol			mg/L			18TH, 5530C	P or G
TKN	X		mg/L			18TH, 5520B	G only
Nitrate	X		mg/L			EPA 624/625	G only
BNA			mg/L			EPA 624/625	G only
MBAS	X		mg/L				
E Coli	X	36000	COLONIES / 100mL	6-26-02	BA		

COMMENTS: _____

O.K. TO DISPOSE
INITIALS / DATE _____

DISPOSED BY
INITIALS / DATE _____

L:\Lab\Labdat\forms\SARF_LF319

REPORT OF ANALYSIS

Ms. Kara M. Young
Lawson-Fisher Associates
525 West Washington Street
South Bend, IN 46601
Tel No: 234-3167
Fax No: 236-1330
PO No:
Project Name: Elkhart County 319 Grant

Report Date:	7/11/02
EIS Order No:	**020600239**
EIS Sample No:	082984
EIS Project No:	1091-1004-02
Client Sample ID:	**2 UP**
Date Collected:	6/26/02
Date Received:	6/26/02
Collected By:	K. Young

This report presents results of analysis for your sample(s) received under our Order No above. This Number is to be used in all inquiries concerning this report. The EIS Sample No above, as well as your Sample ID, refer to the first sample in a multi-sample submission

DEFINITIONS:

RDL = Reporting Detection Limit for your sample and may include adjustments for matrix interferences.
nd = Not Detected at the RDL value. If present, result is less than this value.
< = Not Detected at the numerical value shown. If present, result is less than this value.
( ) = Result is estimated due to matrix interferences.

CHAIN-OF-CUSTODY is enclosed if received with your sample submission.

DRINKING WATER CERTIFICATIONS: Chemistry = C-71-02 Bacteriology = M-76-5

RECEIVED
JUL 11 2002
LAWSON • FISHER ASSOCIATES P.C.

QUALITY ASSURANCE OFFICER

LABORATORY DIRECTOR

The data in this report has been reviewed and complies with EIS Quality Control unless specifically addressed above.

SAMPLE RESULTS

Client Name: Lawson-Fisher Associates
Client Project: Elkhart County 319 Grant

Report Date: 7/11/02
EIS Order No: 020600239

EIS Lab Number	Client Description	Sample Date	Parameter	Result	Units	RDL	Test Date	Analyst ID	Method
082984	2 UP	6/26/02	Nitrogen(Kjeldahl)Total TKN	1.7	mg/L	0.1	7/2/02	E03	351.2
		6/26/02	Nitrogen(Nitrate)	10	mg/L	0.1	6/26/02	E03	353.2
		6/26/02	Surfactants (MBAS)	<0.1	mg/L	0.1	6/27/02	E21	5540 C
082985	2 DWN	6/26/02	Nitrogen(Kjeldahl)Total	1.1	mg/L	0.1	7/2/02	E03	351.2
		6/26/02	Nitrogen(Nitrate)	9.8	mg/L	0.1	6/26/02	E03	353.2
		6/26/02	Surfactants (MBAS)	<0.1	mg/L	0.1	6/27/02	E21	5540 C
082986	5 DWN	6/26/02	Nitrogen(Kjeldahl)Total	0.36	mg/L	0.1	7/2/02	E03	351.2
		6/26/02	Nitrogen(Nitrate)	2.6	mg/L	0.1	6/26/02	E03	353.2
		6/26/02	Surfactants (MBAS)	<0.1	mg/L	0.1	6/27/02	E21	5540 C
082987	6 UP	6/26/02	Nitrogen(Kjeldahl)Total	<0.1	mg/L	0.1	7/2/02	E03	351.2
		6/26/02	Nitrogen(Nitrate)	7.3	mg/L	0.1	6/26/02	E03	353.2
		6/26/02	Surfactants (MBAS)	<0.1	mg/L	0.1	6/27/02	E21	5540 C
082988	6 DWN	6/26/02	Nitrogen(Kjeldahl)Total	0.29	mg/L	0.1	7/2/02	E03	351.2
		6/26/02	Nitrogen(Nitrate)	5.6	mg/L	0.1	6/26/02	E03	353.2
		6/26/02	Surfactants (MBAS)	<0.1	mg/L	0.1	6/27/02	E21	5540 C
082989	7 UP	6/26/02	Nitrogen(Kjeldahl)Total	<0.1	mg/L	0.1	7/2/02	E03	351.2
		6/26/02	Nitrogen(Nitrate)	16	mg/L	0.3	6/26/02	E03	353.2
		6/26/02	Surfactants (MBAS)	<0.1	mg/L	0.1	6/27/02	E21	5540 C
082990	7 DWN	6/26/02	Nitrogen(Kjeldahl)Total	2.0	mg/L	0.1	7/2/02	E03	351.2
		6/26/02	Nitrogen(Nitrate)	12	mg/L	0.3	6/26/02	E03	353.2
		6/26/02	Surfactants (MBAS)	0.1	mg/L	0.1	6/27/02	E21	5540 C
082991	8 UP	6/26/02	Nitrogen(Kjeldahl)Total	0.50	mg/L	0.1	7/2/02	E03	351.2
		6/26/02	Nitrogen(Nitrate)	6.0	mg/L	0.1	6/26/02	E03	353.2
		6/26/02	Surfactants (MBAS)	<0.1	mg/L	0.1	6/27/02	E21	5540 C
082992	DUP	6/26/02	Nitrogen(Kjeldahl)Total	0.45	mg/L	0.1	7/2/02	E03	351.2
		6/26/02	Nitrogen(Nitrate)	5.9	mg/L	0.1	6/26/02	E03	353.2
		6/26/02	Surfactants (MBAS)	<0.1	mg/L	0.1	6/27/02	E21	5540 C

CHAIN OF CUSTODY RECORD

PROJ. NO	PROJECT NAME	Total No. of Con–tainers	Lab Order ID
	L-F		0206.239

SAMPLERS: (Print Name & Sign)

FIELD ID	DATE	TIME	COMP	GRAB	STATION LOCATION	Total No. of Con–tainers	Sample Type	TAT	Lab Number
					2 UP				82984
					2 DWN				82985
					5 DWN				82986
					6 UP				82987
					6 DWN				82988
					7 UP				82989
					7 DWN				82990
					8 UP				82991
					DUP				82992

Relinquished By: (Signature)	Date	Time	Received By: (Signature)	EIS QUOTE NO:
Relinquished By: (Signature)	Date	Time	Received By: (Signature)	Ship To:
Relinquished By: (Signature)	Date	Time	Received By: (Signature)	

NOTES: 1) **If you were issued a quote number, it must appear on this document.**
2) **Instructions & area for comments are on reverse side.**

EIS ANALYTICAL SERVICES, INC. • 1701 NORTH IRONWOOD DRIVE SUITE B •SOUTH BEND IN 46635 • Phone (574)277–0707 • Fax (574)273–5699

COMPLETE FORM WITH PERMANENT INK ONLY

Lawson-Fisher Associates P.C.
525 West Washington Avenue
South Bend, Indiana 46601
Ph. 219-234-3167
FAX 219-236-1330

WATER QUALITY ACQUISITION DATA SHEET

Project: Elkhart County 319 Grant

Job Number: 200132

Date: 2/20 2002
Time: 11:10 hrs.
Crew: KMG, CMF
Weather: Rainy (stopped)
Ambient Temp.: 40°F

STREAM INFORMATION

Watershed ID: Elkhart River-Yellow Creek
Stream Name: Yellow Creek
Site Location: CR 13
Width (ft.) 0. 29'
Depth (ft.) -0.9 DTW = / DTB = >1'
GPS ID No. /

Location Sketch
C.R. 13 Facing West

SAMPLE INFORMATION

pH 7.64
Temp (°C) 9.25
Cond. (µS) 2.0
TDS (ppm) /
Color Cloudy yellowish
D.O. (m) 9.39 (mg/L) (%)
Sample Type Kemmerer Grab

Sample Number(s) 2UP

Bottle Numbers: 2001 - 1860

Comments:

Chain of Custody:

Relinquished By:	Date	Time	Received By:	Date	Time
Kara Young	2/20/02	2:10 pm	S. [illegible]	2/20/02	14:20
Signature			Signature		
Printed			Printed		
Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Printed			Printed		

Rev. 11/5/01

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Lawson-Fisher Associates P.C.
525 West Washington Avenue
South Bend, Indiana 46601
Ph. 219-234-3167
FAX 219-236-1330

WATER QUALITY ACQUISITION DATA SHEET

Project: Elkhart County 319 Grant

Job Number: 200132

Date: 2/20 2002

Time: 11am hrs.

Crew: KMY, CNF

Weather: Rainy (stopped)

Ambient Temp.: 40°F

STREAM INFORMATION

Watershed ID: Elkhart River - Yellow Creek

Stream Name: Yellow Creek

Site Location: CR 26

Width (ft.): 18'

Depth (ft.) 0.9' DTW = DTB = >1'

GPS ID No. /

Location Sketch

C.R. 26 Facing South

SAMPLE INFORMATION

pH: ~~9~~ 7.66

Temp (°C): 9.55

Cond. (µS): 2.3

TDS (ppm): /

Color: Cloudy

D.O. (m): 10.34 (mg/L) (%)

Sample Type: Kemmerer (Grab)

Sample Number(s): 2DWN

Bottle Numbers: 2001-1869

Comments:

Chain of Custody:

Relinquished By:	Date	Time	Received By:	Date	Time
Kara C Young	2/20/02	2:10pm	S. Clark	2/20/02	14:20
Signature			Signature		
Printed			Printed		
Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Printed			Printed		

Rev. 11/5/01

1860

WET - 1

ELKHART PUBLIC WORKS & UTILITIES
LABORATORY
SAMPLE / ANALYTICAL REPORT FORM

NPDES PERMIT
IN0025674

SAMPLE LOG # 2002-282

SAMPLE LOCATION:

Facility Name & Address: **Elkhart River-Yellow Creek Lower**

Sample Site Location: **CR13 & Yellow Creek – 2 Up** Site #: _____

Collector's Initials: Grab KMY/CNF ; Composite: In _____ Out _____

PURPOSE: Scheduled ☐ Demand ☐ Unscheduled ☐

Special ■ Routine ☐ Other ☐

Discharge: Measured Flow _____ Estimated Flow _____ NA ☐

SAMPLE CONDITION: Is this typical for this site: YES ☐ NO ☐

If no, describe: COLOR _____ : ODOR _____

Additional description: _____

SAMPLE TYPE:

Grab ■ : Month 2 Day 20 Year 02 Time 11:10 am / pm

Composite ☐ : *From:* Month _____ Day _____ Year _____ Time _____ am / pm

To: Month _____ Day _____ Year _____ Time _____ am / pm

Time Proportional ☐ ; Flow Proportional ☐ ; Continuous ☐ ;

Discrete ☐ : Interval _____ Number Combined _____

Seals Intact? Yes ☐ No ☐

CUSTODY SEAL SERIAL #'S: _____ _____ _____ _____

PRESERVATION: Refrigerated in field? Yes ☐ No ☐

Analysis	Preservation	Amount	Date	Time	Analyst
PO_4, COD, NH_3, O& G	1:1 H_2SO_4 pH <2	2 mL x /	2-20-02	12:42 PM	LMH
Metals , Mercury	HNO_3 pH <2	3 mL x			
Cyanide	NaOH pH >12	5 mL x			
		mL			
		mL			

SPLIT SAMPLE: Yes ☐ No ☐ If yes: Date & Time _____ am / pm

Industrial Representative's Signature

LawsonFisher319 SARF

_____

SAMPLE NAME _CR 13 & Yellow Creed Lower__ LOG # 2002-0282

SAMPLE DATE 2-20-02

ANALYSIS REQUESTED	X	RESULT	UNITS	ANALYSIS DATE	ANALYST	METHOD	CONTAINER
pH			S.U.			EPA 150.1	P or G
cBOD5			mg/L			18TH, 5210B	P or G
TSS	X	44	mg/L	2-20-02	EM	EPA 160.2	P or G
VSS			mg/L			EPA 160.2	P or G
COD			mg/L			Hach	P or G
TS			mg/L			18TH, 2540G	P or G
VS			mg/L			18TH, 2540G	P or G
Cyanide			mg/L			18TH, 4500CN B,E	P or G
Arsenic			mg/L			18TH, 3120B	P or G
Copper			mg/L			18TH, 3500Cu B	P or G
Cadmium			mg/L			18TH, 3500Cd B	P or G
Chromium			mg/L			18TH, 3500Cr B	P or G
Zinc			mg/L			18TH 3500Zn B	P or G
Nickel			mg/L			18TH, 3500Ni B	P or G
Silver			mg/L			18TH 3500Ag B	P or G
Lead			mg/L			18TH, 3500Pb B	P or G
Mercury			mg/L			18TH, 3500Hg B	P or G
Ammonia	X	1.3	mg/L	2-21-02	BA	18TH, 4500NH3 F	P or G
Phosphorus	X	0.48	mg/L	2-25-02	LMH	18TH, 4500P E 4500P, B5	P or G
Ortho PO4	X	0.37	mg/L	2-21-02	LMH	18TH, 4500	P or G
Phenol			mg/L			18TH, 5530C	P or G
TKN	X		mg/L			18TH, 5520B	G only
Nitrate	X		mg/L			EPA 624/625	G only
BNA			mg/L			EPA 624/625	G only
MBAS	X		mg/L				
E Coli	X	4000	COLONIES / 100mL	2-20-02	BA		

COMMENTS: _____

O.K. TO DISPOSE
INITIALS / DATE _____

DISPOSED BY
INITIALS / DATE _____

WET - 1

ELKHART PUBLIC WORKS & UTILITIES LABORATORY

SAMPLE / ANALYTICAL REPORT FORM

NPDES PERMIT IN0025674

SAMPLE LOG # 2002-281

SAMPLE LOCATION:

Facility Name & Address **Elkhart River-Yellow Creek Lower**

Sample Site Location **CR 26 & Yellow Creek – 2 Dwn** Site # _____

Collector's Initials: Grab KMY/CNF ; Composite: In _____ Out _____

PURPOSE: Scheduled ☐ Demand ☐ Unscheduled ☐

Special ■ Routine ☐ Other ☐

Discharge: Measured Flow _____ Estimated Flow _____ NA ☐

SAMPLE CONDITION: Is this typical for this site: YES ☐ NO ☐

If no, describe: COLOR _____ : ODOR _____

Additional description: _____

SAMPLE TYPE:

Grab ■ : Month 2 Day 20 Year 02 Time 11:00 am / pm

Composite ☐ : *From:* Month _____ Day _____ Year _____ Time _____ am / pm

To: Month _____ Day _____ Year _____ Time _____ am / pm

Time Proportional ☐ ; Flow Proportional ☐ ; Continuous ☐ ;

Discrete ☐ : Interval _____ Number Combined _____

Seals Intact? Yes ☐ No ☐

CUSTODY SEAL SERIAL #'S: _____ _____ _____ _____

PRESERVATION: Refrigerated in field? Yes ☐ No ☐

Analysis	Preservation	Amount	Date	Time	Analyst
PO_4, COD, NH_3, O& G	1:1 H_2SO_4 pH <2	2 mL x 1	2.20.02	12:42 Pm	LMH
Metals , Mercury	HNO_3 pH <2	3 mL x			
Cyanide	NaOH pH >12	5 mL x			
		mL			
		mL			

SPLIT SAMPLE: Yes ☐ No ☐ If yes: Date & Time _____ am / pm

Industrial Representative's Signature _____

LawsonFisher319 SARF

SAMPLE NAME _CR 26 & Yellow Creed Lower__ LOG # 2002-0281

SAMPLE DATE 2-20-02

ANALYSIS REQUESTED	X	RESULT	UNITS	ANALYSIS DATE	ANALYST	METHOD	CONTAINER
pH			S.U.			EPA 150.1	P or G
cBOD5			mg/L			18TH, 5210B	P or G
TSS	X	28	mg/L	2-20-02	EM	EPA 160.2	P or G
VSS			mg/L			EPA 160.2	P or G
COD			mg/L			Hach	P or G
TS			mg/L			18TH, 2540G	P or G
VS			mg/L			18TH, 2540G	P or G
Cyanide			mg/L			18TH, 4500CN B,E	P or G
Arsenic			mg/L			18TH, 3120B	P or G
Copper			mg/L			18TH, 3500Cu B	P or G
Cadmium			mg/L			18TH, 3500Cd B	P or G
Chromium			mg/L			18TH, 3500Cr B	P or G
Zinc			mg/L			18TH 3500Zn B	P or G
Nickel			mg/L			18TH, 3500Ni B	P or G
Silver			mg/L			18TH 3500Ag B	P or G
Lead			mg/L			18TH, 3500Pb B	P or G
Mercury			mg/L			18TH, 3500Hg B	P or G
Ammonia	X	0.7	mg/L	2-21-02	BA	18TH, 4500NH3 F	P or G
Phosphorus	X	0.33	mg/L	2-25.02	LMH	18TH, 4500P E 4500P, B5	P or G
Ortho PO4	X	0.26	mg/L	2-21-02	LMH	18TH, 4500	P or G
Phenol			mg/L			18TH, 5530C	P or G
TKN	X		mg/L			18TH, 5520B	G only
Nitrate	X		mg/L			EPA 624/625	G only
BNA			mg/L			EPA 624/625	G only
MBAS	X		mg/L				
E Coli	X	5200	COLONIES / 100mL	2-20-02	BA		

COMMENTS: _____

O.K. TO DISPOSE
INITIALS / DATE _____

DISPOSED BY
INITIALS / DATE _____

L:\Lab\Labdat\forms\SARF_LF319

REPORT OF ANALYSIS

Ms. Kara M. Young
Lawson-Fisher Associates
525 West Washington Street
South Bend, IN 46601
Tel No: 234-3167
Fax No: 236-1330
PO No:
Project Name: Elkhart County 319 Grant

Report Date:	3/13/02
EIS Order No:	**020200159**
EIS Sample No:	080867
EIS Project No:	1091-1004-02
Client Sample ID:	**1 UP**
Date Collected:	2/20/02
Date Received:	2/20/02
Collected By:	K. Young

This report presents results of analysis for your sample(s) received under our Order No above. This Number is to be used in all inquiries concerning this report. The EIS Sample No above, as well as your Sample ID, refer to the first sample in a multi-sample submission

DEFINITIONS:

RDL = Reporting Detection Limit for your sample and may include adjustments for matrix interferences.
nd = Not Detected at the RDL value. If present, result is less than this value.
< = Not Detected at the numerical value shown. If present, result is less than this value.
( ) = Result is estimated due to matrix interferences.

CHAIN-OF-CUSTODY is enclosed if received with your sample submission.

DRINKING WATER CERTIFICATIONS: Chemistry = C-71-02 Bacteriology = M-76-5

QUALITY ASSURANCE OFFICER

LABORATORY DIRECTOR

The data in this report has been reviewed and complies with EIS Quality Control unless specifically addressed above.

SAMPLE RESULTS

Client Name: Lawson-Fisher Associates
Client Project: Elkhart County 319 Grant

Report Date: 3/13/02
EIS Order No: 020200159

→Wet 2←

EIS Lab Number	Client Description	Sample Date	Parameter	Result	Units	RDL	Test Date	Analyst ID	Method
080867	1 UP	2/20/02	Coliform,E.Coli	1790	col/100ml	1	2/20/02	E25	40CFR141
		2/20/02	Nitrogen(Kjeldahl)Total	0.89	mg/L	0.2	2/22/02	E03	351.2
		2/20/02	Nitrogen(Ammonia)	<0.05	mg/L	0.05	2/26/02	E03	350.1
		2/20/02	Nitrogen(Nitrate)	6.0	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Phosphorus,ortho	0.11	mg/L	0.05	2/21/02	E03	4500-P F
		2/20/02	Phosphorus,Total	0.30	mg/L	0.1	2/22/02	E03	4500-P F
		2/20/02	Solids,Total Suspended	7	mg/L	1	2/22/02	E21	2540 D
		2/20/02	Surfactants (MBAS)	<0.1	mg/L	0.1	2/21/02	E21	5540 C
080868	1 DWN	2/20/02	Coliform,E.Coli	10700	col/100ml	1	2/20/02	E25	40CFR141
		2/20/02	Nitrogen(Kjeldahl)Total	4.4	mg/L	0.2	2/22/02	E03	351.2
		2/20/02	Nitrogen(Ammonia)	2.0	mg/L	0.05	2/26/02	E03	350.1
		2/20/02	Nitrogen(Nitrate)	5.5	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Phosphorus,ortho	0.46	mg/L	0.05	2/21/02	E03	4500-P F
		2/20/02	Phosphorus,Total	0.73	mg/L	0.1	2/22/02	E03	4500-P F
		2/20/02	Solids,Total Suspended	34	mg/L	1	2/22/02	E21	2540 D
		2/20/02	Surfactants (MBAS)	0.18	mg/L	0.1	2/21/02	E21	5540 C
080869	3 UP	2/20/02	Coliform,E.Coli	2580	col/100ml	1	2/20/02	E25	40CFR141
		2/20/02	Nitrogen(Kjeldahl)Total	0.72	mg/L	0.1	2/22/02	E03	351.2
		2/20/02	Nitrogen(Ammonia)	<0.05	mg/L	0.05	2/26/02	E03	350.1
		2/20/02	Nitrogen(Nitrate)	2.5	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Phosphorus,ortho	0.071	mg/L	0.05	2/21/02	E03	4500-P F
		2/20/02	Phosphorus,Total	0.18	mg/L	0.05	2/22/02	E03	4500-P F
		2/20/02	Solids,Total Suspended	4	mg/L	1	2/22/02	E21	2540 D
		2/20/02	Surfactants (MBAS)	0.13	mg/L	0.1	2/21/02	E21	5540 C
080870	3 DWN	2/20/02	Coliform,E.Coli	2620	col/100ml	1	2/20/02	E25	40CFR141
		2/20/02	Nitrogen(Kjeldahl)Total 3	0.77	mg/L	0.1	2/22/02	E03	351.2
		2/20/02	Nitrogen(Ammonia) 5	<0.05	mg/L	0.05	2/26/02	E03	350.1
		2/20/02	Nitrogen(Nitrate) 2	2.5	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Phosphorus,ortho 7	0.085	mg/L	0.05	2/21/02	E03	4500-P F
		2/20/02	Phosphorus,Total 6	0.17	mg/L	0.05	2/22/02	E03	4500-P F
		2/20/02	Solids,Total Suspended 8	10	mg/L	1	2/22/02	E21	2540 D
		2/20/02	Surfactants (MBAS) 4	0.1	mg/L	0.1	2/21/02	E21	5540 C
080871	4 UP	2/20/02	Coliform,E.Coli	3700	col/100ml	1	2/20/02	E25	40CFR141
		2/20/02	Nitrogen(Kjeldahl)Total	0.86	mg/L	0.1	2/22/02	E03	351.2
		2/20/02	Nitrogen(Ammonia)	0.35	mg/L	0.05	2/26/02	E03	350.1
		2/20/02	Nitrogen(Nitrate)	6.3	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Phosphorus,ortho	0.13	mg/L	0.05	2/21/02	E03	4500-P F

SAMPLE RESULTS

Client Name: Lawson-Fisher Associates
Client Project: Elkhart County 319 Grant

Report Date: 3/13/02
EIS Order No: 020200159

EIS Lab Number	Client Description	Sample Date	Parameter	Result	Units	RDL	Test Date	Analyst ID	Method
080871	4 UP	2/20/02	Phosphorus,Total	0.39	mg/L	0.05	2/22/02	E03	4500-P F
		2/20/02	Solids,Total Suspended	63	mg/L	1	2/22/02	E21	2540 D
		2/20/02	Surfactants (MBAS)	<0.1	mg/L	0.1	2/21/02	E21	5540 C
080872	4 DWN	2/20/02	Coliform,E.Coli 1	4900	col/100ml	1	2/20/02	E25	40CFR141
		2/20/02	Nitrogen(Kjeldahl)Total 3	0.69	mg/L	0.1	2/22/02	E03	351.2
		2/20/02	Nitrogen(Ammonia) 5	0.19	mg/L	0.05	2/26/02	E03	350.1
		2/20/02	Nitrogen(Nitrate) 2	6.0	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Phosphorus,ortho 7	0.19	mg/L	0.05	2/21/02	E03	4500-P F
		2/20/02	Phosphorus,Total 6	0.30	mg/L	0.05	2/22/02	E03	4500-P F
		2/20/02	Solids,Total Suspended 8	36	mg/L	1	2/22/02	E21	2540 D
		2/20/02	Surfactants (MBAS) 4	0.28	mg/L	0.1	2/21/02	E21	5540 C
080873	10 UP	2/20/02	Coliform,E.Coli	9200	col/100ml	1	2/20/02	E25	40CFR141
		2/20/02	Nitrogen(Kjeldahl)Total	<0.20	mg/L	0.2	2/22/02	E03	351.2
		2/20/02	Nitrogen(Ammonia)	<0.05	mg/L	0.05	2/26/02	E03	350.1
		2/20/02	Nitrogen(Nitrate)	3.5	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Phosphorus,ortho	0.41	mg/L	0.05	2/21/02	E03	4500-P F
		2/20/02	Phosphorus,Total	0.44	mg/L	0.1	2/22/02	E03	4500-P F
		2/20/02	Solids,Total Suspended	94	mg/L	1	2/22/02	E21	2540 D
		2/20/02	Surfactants (MBAS)	<0.1	mg/L	0.1	2/21/02	E21	5540 C
080874	10 DWN	2/20/02	Coliform,E.Coli	730	col/100ml	1	2/20/02	E25	40CFR141
		2/20/02	Nitrogen(Kjeldahl)Total	1.3	mg/L	0.1	2/22/02	E03	351.2
		2/20/02	Nitrogen(Ammonia)	0.24	mg/L	0.05	2/26/02	E03	350.1
		2/20/02	Nitrogen(Nitrate)	7.8	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Phosphorus,ortho	0.057	mg/L	0.05	2/21/02	E03	4500-P F
		2/20/02	Phosphorus,Total	0.32	mg/L	0.05	2/22/02	E03	4500-P F
		2/20/02	Solids,Total Suspended	<1	mg/L	1	2/22/02	E21	2540 D
		2/20/02	Surfactants (MBAS)	<0.1	mg/L	0.1	2/21/02	E21	5540 C
080875	12 UP	2/20/02	Coliform,E.Coli	145	col/100ml	1	2/20/02	E25	40CFR141
		2/20/02	Nitrogen(Kjeldahl)Total	0.93	mg/L	0.1	2/22/02	E03	351.2
		2/20/02	Nitrogen(Ammonia)	<0.05	mg/L	0.05	2/26/02	E03	350.1
		2/20/02	Nitrogen(Nitrate)	1.7	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Phosphorus,ortho	<0.05	mg/L	0.05	2/21/02	E03	4500-P F
		2/20/02	Phosphorus,Total	0.12	mg/L	0.05	2/22/02	E03	4500-P F
		2/20/02	Solids,Total Suspended	4	mg/L	1	2/22/02	E21	2540 D
		2/20/02	Surfactants (MBAS)	<0.1	mg/L	0.1	2/21/02	E21	5540 C
080876	12 DWN	2/20/02	Coliform,E.Coli	350	col/100ml	1	2/20/02	E25	40CFR141
		2/20/02	Nitrogen(Kjeldahl)Total	0.96	mg/L	0.1	2/22/02	E03	351.2

SAMPLE RESULTS

Client Name: Lawson-Fisher Associates
Client Project: Elkhart County 319 Grant

Report Date: 3/13/02
EIS Order No: 020200159

EIS Lab Number	Client Description	Sample Date	Parameter	Result	Units	RDL	Test Date	Analyst ID	Method
080876	12 DWN	2/20/02	Nitrogen(Ammonia)	<0.05	mg/L	0.05	2/26/02	E03	350.1
		2/20/02	Nitrogen(Nitrate)	1.7	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Phosphorus,ortho	<0.05	mg/L	0.05	2/21/02	E03	4500-P F
		2/20/02	Phosphorus,Total	0.14	mg/L	0.05	2/22/02	E03	4500-P F
		2/20/02	Solids,Total Suspended	2	mg/L	1	2/22/02	E21	2540 D
		2/20/02	Surfactants (MBAS)	<0.1	mg/L	0.1	2/21/02	E21	5540 C
080877	12 UP DUP	2/20/02	Coliform,E.Coli	162	col/100ml	1	2/20/02	E25	40CFR141
		2/20/02	Nitrogen(Kjeldahl)Total	1.0	mg/L	0.1	2/22/02	E03	351.2
		2/20/02	Nitrogen(Ammonia)	<0.05	mg/L	0.05	2/26/02	E03	350.1
		2/20/02	Nitrogen(Nitrate)	1.7	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Phosphorus,ortho	<0.05	mg/L	0.05	2/21/02	E03	4500-P F
		2/20/02	Phosphorus,Total	0.081	mg/L	0.05	2/22/02	E03	4500-P F
		2/20/02	Solids,Total Suspended	7	mg/L	1	2/22/02	E21	2540 D
		2/20/02	Surfactants (MBAS)	<0.1	mg/L	0.1	2/21/02	E21	5540 C
→ Wet I ←									
080878	2 UP	2/20/02	Nitrogen(Kjeldahl)Total	1.9	mg/L	0.1	2/28/02	E03	351.2
		2/20/02	Nitrogen(Nitrate)	4.6	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Surfactants (MBAS)	<0.1	mg/L	0.1	2/21/02	E21	5540 C
080879	2 DWN	2/20/02	Nitrogen(Kjeldahl)Total	1.6	mg/L	0.1	2/28/02	E03	351.2
		2/20/02	Nitrogen(Nitrate)	4.4	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Surfactants (MBAS)	0.12	mg/L	0.1	2/21/02	E21	5540 C
080880	5 UP	2/20/02	Nitrogen(Kjeldahl)Total	0.41	mg/L	0.1	2/28/02	E03	351.2
		2/20/02	Nitrogen(Nitrate)	5.5	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Surfactants (MBAS)	<0.1	mg/L	0.1	2/21/02	E21	5540 C
080881	5 DWN	2/20/02	Nitrogen(Kjeldahl)Total	1.0	mg/L	0.1	2/28/02	E03	351.2
		2/20/02	Nitrogen(Nitrate)	2.2	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Surfactants (MBAS)	<0.1	mg/L	0.1	2/21/02	E21	5540 C
080882	6 UP	2/20/02	Nitrogen(Kjeldahl)Total	<0.1	mg/L	0.1	2/28/02	E03	351.2
		2/20/02	Nitrogen(Nitrate)	7.7	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Surfactants (MBAS)	<0.1	mg/L	0.1	2/21/02	E21	5540 C
080883	6 DWN	2/20/02	Nitrogen(Kjeldahl)Total	0.33	mg/L	0.1	2/28/02	E03	351.2
		2/20/02	Nitrogen(Nitrate)	6.8	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Surfactants (MBAS)	<0.1	mg/L	0.1	2/21/02	E21	5540 C
080884	7 UP	2/20/02	Nitrogen(Kjeldahl)Total	0.25	mg/L	0.1	2/28/02	E03	351.2
		2/20/02	Nitrogen(Nitrate)	15	mg/L	0.3	2/20/02	E03	353.2
		2/20/02	Surfactants (MBAS)	<0.1	mg/L	0.1	2/21/02	E21	5540 C

SAMPLE RESULTS

Client Name: Lawson-Fisher Associates
Client Project: Elkhart County 319 Grant

Report Date: 3/13/02
EIS Order No: 020200159

EIS Lab Number	Client Description	Sample Date	Parameter	Result	Units	RDL	Test Date	Analyst ID	Method
080885	7 DWN	2/20/02	Nitrogen(Kjeldahl)Total	<0.1	mg/L	0.1	2/28/02	E03	351.2
		2/20/02	Nitrogen(Nitrate)	12	mg/L	0.2	2/20/02	E03	353.2
		2/20/02	Surfactants (MBAS)	0.13	mg/L	0.1	2/21/02	E21	5540 C
080886	8 UP	2/20/02	Nitrogen(Kjeldahl)Total	1.1	mg/L	0.1	2/28/02	E03	351.2
		2/20/02	Nitrogen(Nitrate)	2.1	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Surfactants (MBAS)	0.15	mg/L	0.1	2/21/02	E21	5540 C
080887	8 DWN	2/20/02	Nitrogen(Kjeldahl)Total	1.2	mg/L	0.1	2/28/02	E03	351.2
		2/20/02	Nitrogen(Nitrate)	2.0	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Surfactants (MBAS)	0.45	mg/L	0.1	2/21/02	E21	5540 C
080888	REP	2/20/02	Nitrogen(Kjeldahl)Total	0.93	mg/L	0.1	2/28/02	E03	351.2
		2/20/02	Nitrogen(Nitrate)	1.9	mg/L	0.1	2/20/02	E03	353.2
		2/20/02	Surfactants (MBAS)	0.34	mg/L	0.1	2/21/02	E21	5540 C

QUALITY CONTROL DATA

METHOD BLANK RESULTS

Test:

Matrix: Water

EIS Lab Numbers: 80867-80888

Comments :

Parameter	Result	Units	Date Analyzed	QC Batch	Detection Limit
Nitrogen(Nitrate)	<0.1	mg/L	2/20/02	QB01429	0.1
Nitrogen(Nitrate)	<0.1	mg/L	2/20/02	QB01430	0.1
Phosphorus,ortho	<0.05	mg/L	2/21/02	QB01436	0.05
Phosphorus,Total	<0.05	mg/L	2/22/02	QB01437	0.05
Nitrogen(Kjeldahl)Total	<0.1	mg/L	2/22/02	QB01438	0.1
Nitrogen(Ammonia)	<0.05	mg/L	2/26/02	QB01443	0.05
Nitrogen(Kjeldahl)Total	<0.1	mg/L	2/28/02	QB01450	0.1

QUALITY CONTROL DATA

LABORATORY FORTIFIED METHOD BLANK (LFB)

Matrix: Water

Test:

Prep Date:

Run Date:

EIS Lab #s With This LFB: 80867-80888

Comments Concerning This LFB:

Parameter	Spike Amount	Matrix Spike Result	Matrix Spike % R	Duplicate Spike Result	Duplicate Spike % R	RPD	Quality Control Limits RPD LCL	Quality Control Limits RPD UCL	Quality Control Limits % R LCL	Quality Control Limits % R UCL	QC Batch
Nitrogen(Nitrate)	0.27	0.272	101	0.251	93	8	0	20	80	120	QB01429
Nitrogen(Nitrate)	0.27	0.254	94	0.272	101	7	0	20	80	120	QB01430
Phosphorus,ortho	3.76	3.549	94	3.383	90	5	0	20	80	120	QB01436
Phosphorus,Total	4.84	4.468	92	4.526	94	1	0	20	80	120	QB01437
Nitrogen(Kjeldahl)Total	2.4	2.25	94	2.13	89	5	0	20	80	120	QB01438
Nitrogen(Ammonia)	8.01	7.559	94	7.558	94	0	0	20	80	120	QB01443
Nitrogen(Kjeldahl)Total	2.4	2.351	98	2.447	102	4	0	20	80	120	QB01450

LEGEND:

1. The LFB may be either a single spike or in dulicate and may or may not be in a QC Batch with a MS/DMS.
2. % R = Percent Recovery of Spike
3. RPD = Relative Percent Difference of the spike recoveries
4. LCL = Lower Control Limit
5. UCL = Upper Control Limit
6. Units are normally those shown in the Analysis Report and are always the same for the Spike and Duplicate Spike

QUALITY CONTROL DATA

REPLICATE ANALYSIS - SEPARATE DIGESTIONS / EXTRACTIONS

EIS Order: 020200159
QC Sample: 080877
Matrix: Water

Comments Concerning This Analysis:

Parameter	Units	Original Analysis	Replicate Analysis	RPD	Advisory QC Limits	QC Batch
Nitrogen(Nitrate)	mg/L	1.7	1.68	1.2	0 - 20	QB01429
Nitrogen(Nitrate)	mg/L	1.9	2.08	9.0	0 - 20	QB01430
Phosphorus,ortho	mg/L	<0.05	<0.05	0.0	0 - 20	QB01436
Phosphorus,Total	mg/L	0.081	0.096	16.9	0 - 20	QB01437
Nitrogen(Kjeldahl)Total	mg/L	1.0	1.0	0.0	0 - 20	QB01438
Nitrogen(Ammonia)	mg/L	<0.05	<0.05	0.0	0 - 20	QB01443
Nitrogen(Kjeldahl)Total	mg/L	0.93	0.91	2.2	0 - 20	QB01450

LEGEND:

1. RPD = Relative Percent Difference
2. Advisory QC Limits may not be applicable when results are close to the Sample Detection Limits.

QUALITY CONTROL DATA

MATRIX SPIKE / DUPLICATE MATRIX SPIKE (MS/DMS)

EIS Order: 020200159
QC Sample: 080877
Matrix: Water
Test:

EIS Lab #s in This Batch: 80867-80888

Comments Concerning This QC Batch:

Parameter	Back-ground	Spike Amount	Matrix Spike		Duplicate Spike		RPD	Quality Control Limits RPD		Quality Control Limits % R		QC Batch
			Result	% R	Result	% R		LCL	UCL	LCL	UCL	
Nitrogen(Nitrate)	1.7	5	6.811	102	6.911	104	2	0	20	75	125	QB01429
Nitrogen(Nitrate)	1.9	5	7.075	104	6.961	101	2	0	20	75	125	QB01430
Phosphorus,ortho	<0.05	2	1.869	93	1.905	95	2	0	20	75	125	QB01436
Phosphorus,Total	0.081	2	2.107	101	1.902	91	11	0	20	75	125	QB01437
Nitrogen(Kjeldahl)Total	1.0	2.5	3.0	80	3.003	80	0	0	20	75	125	QB01438
Nitrogen(Ammonia)	<0.05	10	10.266	103	9.592	96	7	0	20	75	125	QB01443
Nitrogen(Kjeldahl)Total	0.93	2.5	3.17	90	3.024	84	7	0	20	75	125	QB01450

LEGEND:

1. Background = Sample Result
2. Spike amount may be adjusted for dilution used in sample analysis
3. % R = Percent Recovery of Spike
4. RPD = Relative Percent Difference of the spike recoveries
5. LCL = Lower Control Limit
6. UCL = Upper Control Limit
7. Units are normally those shown in the Analysis Report and are always the same for the Background and Spike

CHAIN OF CUSTODY RECORD

PROJ. NO	PROJECT NAME	Total No. of Con-tainers													Lab Order ID
SAMPLERS: (Print Name & Sign)															

FIELD ID	DATE	TIME	COMP	GRAB	STATION LOCATION	Total No. of Con-tainers								Sample Type	TAT	Lab Number
					2 UP											80878
					2 DWN											80879
					5 UP											80880
					5 DWN											80881
					6 UP											80882
					6 DWN											80883
					7 UP											80884
					7 DWN											80885
					8 UP											80886
					8 DWN											80887
					REP											80888

Relinquished By: (Signature)	Date	Time	Received By: (Signature)	EIS QUOTE NO:
Relinquished By: (Signature)	Date	Time	Received By: (Signature)	Ship To:
Relinquished By: (Signature)	Date	Time	Received By: (Signature)	

NOTES: 1) **If you were issued a quote number, it must appear on this document.**
2) Instructions & area for comments are on reverse side.

EIS ANALYTICAL SERVICES, INC. • 1701 NORTH IRONWOOD DRIVE SUITE B •SOUTH BEND IN 46635 • Phone (574)277–0707 • Fax (574)273–5699
Form: Chain–of–Custody (6–12–97)

COMPLETE FORM WITH PERMANENT INK ONLY

Lawson-Fisher Associates P.C.
525 West Washington Avenue
South Bend, Indiana 46601
Ph. 219-234-3167
FAX 219-236-1330

WATER QUALITY ACQUISITION DATA SHEET

Project: Elkhart County 319 Grant

Job Number: 200132

Date: 10/02/200

Time: 11:30 hrs.

Crew: CLF RMY

Weather: 70 C

Ambient Temp.: Cloudy

STREAM INFORMATION

Watershed ID: Yellow creek

Stream Name: Yellow creek

Site Location: CR 24 – Arlene Dr (IRLENE DR.)

Width (ft.):

Depth (ft.): DTW = DTB =

GPS ID No.

Location Sketch

C.R. _____ Facing _____

SAMPLE INFORMATION

pH: 7.87

Temp (°C): 19.3

Cond. (µS): 700

TDS (ppm): 359

Color: Clear

D.O. (m): 3.65 (mg/L) 40.1 (%)

Sample Type: Kemmerer (Grab)

Sample Number(s):

Bottle Numbers:

Comments:

Chain of Custody:

Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Printed			Printed		
Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Printed			Printed		

COMPLETE FORM WITH PERMANENT INK ONLY

Lawson-Fisher Associates P.C.
525 West Washington Avenue
South Bend, Indiana 46601
Ph. 219-234-3167
FAX 219-236-1330

WATER QUALITY ACQUISITION DATA SHEET

Project: Elkhart County 319 Grant

Job Number: 200132

Date: 10/02 2002

Time: 9:30 hrs.

Crew: KMY, CNF

Weather: +70, Cloudy

Ambient Temp.:

STREAM INFORMATION

Watershed ID: Yellow Creek

Stream Name: Yellow Creek

Site Location: CR 26

Width (ft.):

Depth (ft.) DTW = DTB =

GPS ID No.

Location Sketch

C.R. 26 Facing North

SAMPLE INFORMATION

pH: 7.77

Temp (°C): 18.7

Cond. (µS): 717

TDS (ppm): 365

Color: Clear

D.O. (m): 3.8 (mg/L) 37.0 (%)

Sample Type: Kemmerer (Grab)

Sample Number(s):

Bottle Numbers:

Comments:

Chain of Custody:

Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Printed			Printed		
Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Printed			Printed		

COMPLETE FORM WITH PERMANENT INK ONLY

Lawson-Fisher Associates P.C.
525 West Washington Avenue
South Bend, Indiana 46601
Ph. 219-234-3167
FAX 219-236-1330

WATER QUALITY ACQUISITION DATA SHEET

Project: Elkhart County 319 Grant

Job Number: 200132

Date: 10/03/200

Time: 10:00 hrs.

Crew: CLF KMY

Weather: 70 C

Ambient Temp.: Cloudy

STREAM INFORMATION

Watershed ID: Yellow Creek

Stream Name: Ditch CR 126

Site Location: Creek Stone Subd.

Width (ft.):

Depth (ft.): DTW = DTB =

GPS ID No.

Location Sketch

C.R. _____ Facing _____

SAMPLE INFORMATION

pH: 710

Temp (°C): 20.3

Cond. (µS): 2315

TDS (ppm): 1179

Color: Black

D.O. (m): 0.31 (mg/L) 3.6 (%)

Sample Type: Kemmerer (Grab)

Sample Number(s):

Bottle Numbers:

Comments:

Chain of Custody:

Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Printed			Printed		
Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Printed			Printed		

COMPLETE FORM WITH PERMANENT INK ONLY

Lawson-Fisher Associates P.C.
525 West Washington Avenue
South Bend, Indiana 46601
Ph. 219-234-3167
FAX 219-236-1330

WATER QUALITY ACQUISITION DATA SHEET

Project: Elkhart County 319 Grant

Job Number: 200132

Date: 10/02/200

Time: 10:30 hrs.

Crew: KMG - CLF

Weather: 70°C

Ambient Temp.: Cloudy

STREAM INFORMATION

Watershed ID: CR 28

Stream Name: Yellow creek

Site Location:

Width (ft.):

Depth (ft.): DTW = DTB =

GPS ID No.

Location Sketch

C.R. _____ Facing _____

SAMPLE INFORMATION

pH: 8.01

Temp (°C): 19.7

Cond. (µS): 697

TDS (ppm): 354

Color: Clear

D.O. (m): 4.26 (mg/L) 47.1 (%)

Sample Type: Kemmerer (Grab)

Sample Number(s):

Bottle Numbers:

Comments: duplicate

Chain of Custody:

Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Printed			Printed		
Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Printed			Printed		

COMPLETE FORM WITH PERMANENT INK ONLY

Lawson-Fisher Associates P.C.
525 West Washington Avenue
South Bend, Indiana 46601
Ph. 219-234-3167
FAX 219-236-1330

WATER QUALITY ACQUISITION DATA SHEET

Project: Elkhart County 319 Grant

Job Number: 200132

Date: 10 10 21 200

Time: 9:50 hrs.

Crew: KMY-CLF

Weather: 70°

Ambient Temp.: Cloudy

STREAM INFORMATION

Watershed ID: Yellow Creek

Stream Name: Yellow Creek

Site Location: CR 13

Width (ft.):

Depth (ft.): DTW = DTB =

GPS ID No.

Location Sketch

C.R. _____ Facing _____

SAMPLE INFORMATION

pH: 7.83

Temp (°C): 19.1

Cond. (µS): 710

TDS (ppm): 359

Color: Yellow

D.O. (m): 4.20 (mg/L) 45.5 (%)

Sample Type: (Kemmerer) Grab

Sample Number(s):

Bottle Numbers:

Comments:

Chain of Custody:

Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Printed			Printed		
Relinquished By:	Date	Time	Received By:	Date	Time
Signature			Signature		
Printed			Printed		

ELKHART PUBLIC WORKS & UTILITIES
LABORATORY
SAMPLE / ANALYTICAL REPORT FORM

NPDES PERMIT
IN0025674

SAMPLE LOG # 2002-1567

SAMPLE LOCATION:
Facility Name & Address CITY OF ELKHART PW&U

Sample Site Location DUPLICATE Site # _____

Collector's Initials: Grab KMV ; Composite: In _____ Out _____

PURPOSE: Scheduled ☐ Demand ☐ Unscheduled ☐

Special ☒ Routine ☐ Other ☐

Discharge: Measured Flow _____ Estimated Flow _____ NA ☐

SAMPLE CONDITION: Is this typical for this site: YES ☐ NO ☐
If no, describe: COLOR _____ : ODOR _____
Additional description: _____

SAMPLE TYPE:
Grab ☒ : Month 10 Day 2 Year 02 Time _____ am / pm

Composite ☐ : *From:* Month _____ Day _____ Year _____ Time _____ am / pm

To: Month _____ Day _____ Year _____ Time _____ am / pm

Time Proportional ☐ ; Flow Proportional ☐ ; Continuous ☐ ;

Discrete ☐ : Interval _____ Number Combined _____

Seals Intact? Yes ☐ No ☐
CUSTODY SEAL SERIAL #'S: _____ _____ _____ _____

PRESERVATION: Refrigerated in field? Yes ☐ No ☐

Analysis	Preservation	Amount	Date	Time	Analyst
(PO4) COD, (NH3), O& G	1:1 H_2SO_4 pH <2	2 mL x 1	10/2/02	12:30pm	EM
Metals , Mercury	HNO_3 pH <2	3 mL x			
Cyanide	NaOH pH >12	5 mL x			
		mL			
		mL			

SPLIT SAMPLE: Yes ☐ No ☐ If yes: Date & Time _____ am / pm

Industrial Representative's Signature _____

H:/Forms/SARFfrnt 10/01

SAMPLE NAME DUPLICATE LOG # 2002-1567

SAMPLE DATE 10/2/02

ANALYSIS REQUESTED	X	RESULT	UNITS	ANALYSIS DATE	ANALYST	METHOD	CONTAINER
pH			S.U.			EPA 150.1	P or G
cBOD5			mg/L			18TH, 5210B	P or G
TSS	X	13	mg/L	10/2/02	BA	EPA 160.2	P or G
VSS			mg/L			EPA 160.2	P or G
COD			mg/L			Hach	P or G
TS			mg/L			18TH, 2540G	P or G
VS			mg/L			18TH, 2540G	P or G
Cyanide			mg/L			18TH, 4500CN B,E	P or G
Arsenic			mg/L			18TH, 3120B	P or G
Copper			mg/L			18TH, 3500Cu B	P or G
Cadmium			mg/L			18TH, 3500Cd B	P or G
Chromium			mg/L			18TH, 3500Cr B	P or G
Zinc			mg/L			18TH 3500Zn B	P or G
Nickel			mg/L			18TH, 3500Ni B	P or G
Silver			mg/L			18TH 3500Ag B	P or G
Lead			mg/L			18TH, 3500Pb B	P or G
Mercury			mg/L			18TH, 3500Hg B	P or G
Ammonia	X	<0.1	mg/L	10-3-02	CP	18TH, 4500NH3 F	P or G
Phosphorus	X	0.21	mg/L	10/4/02	EM	18TH, 4500P E 4500P, B5	P or G
Ortho PO4	X	0.13	mg/L	10/4/02	EM	18TH, 4500	P or G
Phenol			mg/L			18TH, 5530C	P or G
O & G			mg/L			18TH, 5520B	G only
VOC			mg/L			EPA 624/625	G only
BNA			mg/L			EPA 624/625	G only
E Coli	X	960	COLONIES / 100mL	10/2/02	EM		
Other:							

COMMENTS: _____

O.K. TO DISPOSE
INITIALS / DATE _____

DISPOSED BY
INITIALS / DATE _____

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ELKHART PUBLIC WORKS & UTILITIES
LABORATORY
SAMPLE / ANALYTICAL REPORT FORM

NPDES PERMIT
IN0025674

SAMPLE LOG # 2002-1566

SAMPLE LOCATION:
Facility Name & Address: CITY OF ELKHART PW&U

Sample Site Location: CREEK STONE 1 Site #:

Collector's Initials: Grab KMY ; Composite: In Out

PURPOSE: Scheduled ☐ Demand ☐ Unscheduled ☐

Special ☒ Routine ☐ Other ☐

Discharge: Measured Flow Estimated Flow NA ☐

SAMPLE CONDITION: Is this typical for this site: YES ☐ NO ☐
If no, describe: COLOR : ODOR
Additional description:

SAMPLE TYPE:
Grab ☒ : Month 10 Day 2 Year 02 Time 11:00 (am) / pm

Composite ☐ : *From:* Month Day Year Time am / pm

To: Month Day Year Time am / pm

Time Proportional ☐ ; Flow Proportional ☐ ; Continuous ☐ ;

Discrete ☐ : Interval Number Combined

Seals Intact? Yes ☐ No ☐
CUSTODY SEAL SERIAL #'S:

PRESERVATION: Refrigerated in field? Yes ☐ No ☐

Analysis	Preservation	Amount	Date	Time	Analyst
(PO4, COD, NH3,) O& G	1:1 H_2SO_4 pH <2	2 mL x 1	10/2/12	12:30pm	EM
Metals , Mercury	HNO_3 pH <2	3 mL x			
Cyanide	NaOH pH >12	5 mL x			
		mL			
		mL			

SPLIT SAMPLE: Yes ☐ No ☐ If yes: Date & Time am / pm

Industrial Representative's Signature

H:/Forms/SARFfrnt 10/01

SAMPLE NAME Creek Stone 1 LOG # 2002-1566

SAMPLE DATE 10/2/02

ANALYSIS REQUESTED	X	RESULT	UNITS	ANALYSIS DATE	ANALYST	METHOD	CONTAINER
pH			S.U.			EPA 150.1	P or G
cBOD5			mg/L			18TH, 5210B	P or G
TSS	X	240	mg/L	10/2/02	BA	EPA 160.2	P or G
VSS			mg/L			EPA 160.2	P or G
COD			mg/L			Hach	P or G
TS			mg/L			18TH, 2540G	P or G
VS			mg/L			18TH, 2540G	P or G
Cyanide			mg/L			18TH, 4500CN B,E	P or G
Arsenic			mg/L			18TH, 3120B	P or G
Copper			mg/L			18TH, 3500Cu B	P or G
Cadmium			mg/L			18TH, 3500Cd B	P or G
Chromium			mg/L			18TH, 3500Cr B	P or G
Zinc			mg/L			18TH 3500Zn B	P or G
Nickel			mg/L			18TH, 3500Ni B	P or G
Silver			mg/L			18TH 3500Ag B	P or G
Lead			mg/L			18TH, 3500Pb B	P or G
Mercury			mg/L			18TH, 3500Hg B	P or G
Ammonia	X	24.2	mg/L	10/3/02	CP	18TH, 4500NH3 F	P or G
Phosphorus	X	163.37	mg/L	10/4/02	EM	18TH, 4500P E 4500P, B5	P or G
Ortho PO4	X	29.43	mg/L	10/4/02	EM	18TH, 4500	P or G
Phenol			mg/L			18TH, 5530C	P or G
O & G			mg/L			18TH, 5520B	G only
VOC			mg/L			EPA 624/625	G only
BNA			mg/L			EPA 624/625	G only
E Coli	X	60,000	COLONIES / 100mL	10/2/02	EM		
Other:							

COMMENTS: Sample was black, with septic smell, high solids

O.K. TO DISPOSE
INITIALS / DATE _____

DISPOSED BY
INITIALS / DATE _____

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