

July 9, 2015

Ms. Charlene Sauls; Regional Hydrogeologist
Pennsylvania Department of Environmental Protection
Bureau of Waste Management
909 Elmerton Avenue
Harrisburg, PA 17110-8200

REF: Private Water Supply
3rd Quarter 2015 Water Quality Analysis
Frey Farm Landfill; BWM Permit #101389

Dear Ms. Sauls:

As required by the Pennsylvania Department of Environmental Protection, the Lancaster County Solid Waste Management Authority (LCSWMA) continues the above referenced water quality monitoring program. Enclosed are the quarterly reports with sampling events in electronic format, which should be compatible with your LandLinks software.

The laboratory data was reviewed to analyze changes or trends that may be apparent and as a quality assurance check of the information. In summary, all of the seven (7) privately-owned, contiguous locations were sampled, there were no Form 52 VOC detects at any of the monitored locations.

Please do not hesitate in contacting me if you have any questions or concerns at mreider@lcswma.org.

Respectfully submitted,



Mark D. Reider
Environmental Manager

Enclosures

cc: Bob Zorbaugh, Dan Brown, Bob Eshbach
John Spang (PaDEP w/Forms as pdf)
Ed Rawski (PaDEP)
Randy Weiss (PaDEP)



Date Prepared/Revised 10/02/2015
DEP USE ONLY
Date Received

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Creswell Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Creswell Landfill
County:	Lancaster County
Township or Municipality:	Manor Township
Landowner Name:	CHRIS & ELIZABETH BECK
Address:	3125 River Road
Phone No.:	
Sampling Point:	Latitude: 39 ^o 57' 11.6" Longitude: 76 ^o 26' 5.4"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged:
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	08/24/2015 Sample Collection Time: 2:55 PM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	34 Dogwood Lane Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	09/02/2015
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES**

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS IS & ELIZABETH BECK

Sample Date

08/24/2015

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	D6919-03
BICARBONATE	82	SM 2320 B
CALCIUM, TOTAL	0.12	EPA 200.7
CALCIUM, DISSOLVED	0.16	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	5 ND	EPA 410.4
CHLORIDE	78.3	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	0.05 ND	EPA 200.7
MAGNESIUM, DISSOLVED	0.1 ND	EPA 200.7
MANGANESE, TOTAL (ug/l)	2.5 ND	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	5 ND	EPA 200.7
NITRATE-NITROGEN	8.7	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS:IS & ELIZABETH BECK

Sample Date

08/24/2015

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE-NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	7.15	FIELD
pH-LAB (SU)	7.11	SM 4500B
POTASSIUM, TOTAL	2	EPA 200.7
POTASSIUM, DISSOLVED	1.2	EPA 200.7
SODIUM, TOTAL	90.1	EPA 200.7
SODIUM, DISSOLVED	97.1	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	483	FIELD
SPEC. COND., LAB (umhos/cm)	477	EPA 120.1
SULFATE	7.5	EPA 300
ALKALINITY	82	SM 2320B
TDS (TOTAL DISSOLVED SOLIDS)	277	SM 2540C
TOC (TOTAL ORGANIC CARBON)	1 ND	SM 5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.11	SM 2130B
TOTAL ORGANIC HALOGEN (ug/l)	20 ND	SW846 9020B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS: IS & ELIZABETH BECK

Sample Date

08/24/2015

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE (EDB) (ETHYLENE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
cis 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
trans 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



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FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Creswell Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Creswell Landfill
County:	Lancaster County
Township or Municipality:	Manor Township
Landowner Name:	HANS WEBER / DEB KALBACH
Address:	3088 River Road
Phone No.:	
Sampling Point:	Latitude: 39 ° 57 ' 21 " Longitude: 76 ° 26 ' 7.1 "
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: _____ ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	08/19/2015 Sample Collection Time: 10:41 AM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	34 Dogwood Lane Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	08/28/2015
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES**

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS WEBER / DEB KALBAO

Sample Date

08/19/2015

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	D6919-03
BICARBONATE	121	SM 2320 B
CALCIUM, TOTAL	0.36	EPA 200.7
CALCIUM, DISSOLVED	0.36	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	5 ND	EPA 410.4
CHLORIDE	186	EPA 300
FLUORIDE	0.5 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	0.12	EPA 200.7
MAGNESIUM, DISSOLVED	0.12	EPA 200.7
MANGANESE, TOTAL (ug/l)	2.5 ND	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	5 ND	EPA 200.7
NITRATE-NITROGEN	9.9	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS WEBER / DEB KALBAC

Sample Date

08/19/2015

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE-NITROGEN	0.5 ND	EPA 300
pH-FIELD (SU)	6.82	FIELD
pH-LAB (SU)	7.46	SM 4500B
POTASSIUM, TOTAL	3.5	EPA 200.7
POTASSIUM, DISSOLVED	3.5	EPA 200.7
SODIUM, TOTAL	167	EPA 200.7
SODIUM, DISSOLVED	167	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	951	FIELD
SPEC. COND., LAB (umhos/cm)	915	EPA 120.1
SULFATE	5 ND	EPA 300
ALKALINITY	121	SM 2320B
TDS (TOTAL DISSOLVED SOLIDS)	521	SM 2540C
TOC (TOTAL ORGANIC CARBON)	1 ND	SM 5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.1 ND	SM 2130B
TOTAL ORGANIC HALOGEN (ug/l)	20 ND	SW846 9020B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS WEBER / DEB KALBAC

Sample Date

08/19/2015

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE (EDB) (ETHYLENE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
cis 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
trans 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

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FORM 52 MUNICIPAL WASTE LANDFILL PRIVATE WATER SUPPLY QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Creswell Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Creswell Landfill
County:	Lancaster County
Township or Municipality:	Manor Township
Landowner Name:	DAVID C. & PATRICIA S. HILL
Address:	3106 River Road
Phone No.:	
Sampling Point:	Latitude: 39 ^o 57' 17.27" Longitude: 76 ^o 26' 5.6"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: _____ ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	08/19/2015 Sample Collection Time: 10:33 AM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	34 Dogwood Lane Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	08/28/2015
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS J C. & PATRICIA S. HIL

Sample Date

08/19/2015

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	D6919-03
BICARBONATE	118	SM 2320 B
CALCIUM, TOTAL	33	EPA 200.7
CALCIUM, DISSOLVED	33.4	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	5 ND	EPA 410.4
CHLORIDE	39.1	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	200	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	18.4	EPA 200.7
MAGNESIUM, DISSOLVED	18.1	EPA 200.7
MANGANESE, TOTAL (ug/l)	13	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	7.5	EPA 200.7
NITRATE-NITROGEN	8.8	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PSJ C. & PATRICIA S. HILL

Sample Date

08/19/2015

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE-NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	6.79	FIELD
pH-LAB (SU)	7.73	SM 4500B
POTASSIUM, TOTAL	1.4	EPA 200.7
POTASSIUM, DISSOLVED	1.4	EPA 200.7
SODIUM, TOTAL	20.8	EPA 200.7
SODIUM, DISSOLVED	20	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	423	FIELD
SPEC. COND., LAB (umhos/cm)	415	EPA 120.1
SULFATE	3.3	EPA 300
ALKALINITY	118	SM 2320B
TDS (TOTAL DISSOLVED SOLIDS)	249	SM 2540C
TOC (TOTAL ORGANIC CARBON)	1 ND	SM 5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.27	SM 2130B
TOTAL ORGANIC HALOGEN (ug/l)	20 ND	SW846 9020B

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FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS C. & PATRICIA S. HIL

Sample Date

08/19/2015

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE (EDB) (ETHYLENE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
cis 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
trans 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

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**FORM 52
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PRIVATE WATER SUPPLY
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General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Creswell Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Creswell Landfill
County:	Lancaster County
Township or Municipality:	Manor Township
Landowner Name:	LARRY & ANN KIRCHNER
Address:	3100 River Road
Phone No.:	
Sampling Point:	Latitude: 39 ^o 57' 17.9" Longitude: 76 ^o 26' 6.28"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: _____ ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	08/24/2015 Sample Collection Time: 2:44 PM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	34 Dogwood Lane Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	09/01/2015
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

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PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS:RY & ANN KIRCHNER

Sample Date

08/24/2015

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	D6919-03
BICARBONATE	24	SM 2320 B
CALCIUM, TOTAL	16.4	EPA 200.7
CALCIUM, DISSOLVED	17.4	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	5 ND	EPA 410.4
CHLORIDE	54	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	7.7	EPA 200.7
MAGNESIUM, DISSOLVED	7.9	EPA 200.7
MANGANESE, TOTAL (ug/l)	8.1	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	8.5	EPA 200.7
NITRATE-NITROGEN	6.7	EPA 300

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Monitoring Point I.D. No.

PS:RY & ANN KIRCHNER

Sample Date

08/24/2015

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE-NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	6.43	FIELD
pH-LAB (SU)	6.37	SM 4500B
POTASSIUM, TOTAL	3.5	EPA 200.7
POTASSIUM, DISSOLVED	1.6	EPA 200.7
SODIUM, TOTAL	15.3	EPA 200.7
SODIUM, DISSOLVED	14.3	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	256	FIELD
SPEC. COND., LAB (umhos/cm)	249	EPA 120.1
SULFATE	6.8	EPA 300
ALKALINITY	24	SM 2320B
TDS (TOTAL DISSOLVED SOLIDS)	213	SM 2540C
TOC (TOTAL ORGANIC CARBON)	1 ND	SM 5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.11	SM 2130B
TOTAL ORGANIC HALOGEN (ug/l)	20 ND	SW846 9020B

T Please indicate detection limit if analyte is not detected.

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Sample Date

08/24/2015

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE (EDB) (ETHYLENE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
cis 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
trans 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



Date Prepared/Revised
10/02/2015

DEP USE ONLY

Date Received

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Creswell Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DE° MM' SS.S")

Facility Name: Creswell Landfill

County: Lancaster County

Township or Municipality: Manor Township

Landowner Name: GERALD E., SR & JUDITH MILLE

Address: 3052 River Road

Phone No.:

Sampling Point: Latitude: 39° 57' 29.85" Longitude: 76° 26' 11.45"

Depth to Water Level: _____ ft.

Measured from: Land Surface TOC

Casing Stick Up: _____ ft.

Elevation of Water Level: _____ ft./MSL

Total Well Depth: _____ ft.

Sampling Depth: _____ ft.

Sampling Method: Pumped Bailed

Well Purged: Yes No

Well Volumes Purged: _____

Sample Field Filtered (must be 0.45 micron): Yes No

Sample Date:(mm/dd/yy) 08/24/2015

Sample Collection Time: 3:17 PM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number)

34 Dogwood Lane

Middletown, PA 17057

(717) 944-5541

Lab Accreditation Number(s)

22-293

Lab Analysis Date

09/01/2015

Were any holding times exceeded?: Yes No If yes, please explain in comments field.

Comments:

**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES**

Facility I.D. Number

101389

Monitoring Point I.D. No.

PSJ E., SR & JUDITH MIL

Sample Date

08/24/2015

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	D6919-03
BICARBONATE	7	SM 2320 B
CALCIUM, TOTAL	13.4	EPA 200.7
CALCIUM, DISSOLVED	13.9	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	5 ND	EPA 410.4
CHLORIDE	19.8	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	10.4	EPA 200.7
MAGNESIUM, DISSOLVED	10.5	EPA 200.7
MANGANESE, TOTAL (ug/l)	59	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	58	EPA 200.7
NITRATE-NITROGEN	18.7	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PSJ E., SR & JUDITH MIL

Sample Date

08/24/2015

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE-NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	6.1	FIELD
pH-LAB (SU)	5.94	SM 4500B
POTASSIUM, TOTAL	3	EPA 200.7
POTASSIUM, DISSOLVED	1.9	EPA 200.7
SODIUM, TOTAL	8.1	EPA 200.7
SODIUM, DISSOLVED	6.7	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	219	FIELD
SPEC. COND., LAB (umhos/cm)	208	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	7	SM 2320B
TDS (TOTAL DISSOLVED SOLIDS)	173	SM 2540C
TOC (TOTAL ORGANIC CARBON)	1 ND	SM 5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.47	SM 2130B
TOTAL ORGANIC HALOGEN (ug/l)	20 ND	SW846 9020B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PSJ E., SR & JUDITH MIL

Sample Date

08/24/2015

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE (EDB) (ETHYLENE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
cis 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
trans 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



Date Prepared/Revised 10/02/2015
DEP USE ONLY
Date Received

FORM 52 MUNICIPAL WASTE LANDFILL PRIVATE WATER SUPPLY QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Creswell Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Creswell Landfill
County:	Lancaster County
Township or Municipality:	Manor Township
Landowner Name:	MR. BRIAN SENSENICH
Address:	3076 River Road
Phone No.:	
Sampling Point:	Latitude: 39 ^o 57' 28.2" Longitude: 76 ^o 26' 11.1"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged:
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	08/19/2015 Sample Collection Time: 10:49 AM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	34 Dogwood Lane Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	08/28/2015
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES**

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS 1. BRIAN SENSENICH

Sample Date

08/19/2015

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	D6919-03
BICARBONATE	11	SM 2320 B
CALCIUM, TOTAL	20.1	EPA 200.7
CALCIUM, DISSOLVED	18.5	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	5 ND	EPA 410.4
CHLORIDE	62.1	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	10	EPA 200.7
MAGNESIUM, DISSOLVED	9.3	EPA 200.7
MANGANESE, TOTAL (ug/l)	160	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	140	EPA 200.7
NITRATE-NITROGEN	13.8	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS 3. BRIAN SENSENICH

Sample Date

08/19/2015

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE-NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	5.8	FIELD
pH-LAB (SU)	6.06	SM 4500B
POTASSIUM, TOTAL	2.8	EPA 200.7
POTASSIUM, DISSOLVED	2.6	EPA 200.7
SODIUM, TOTAL	27	EPA 200.7
SODIUM, DISSOLVED	25.4	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	377	FIELD
SPEC. COND., LAB (umhos/cm)	322	EPA 120.1
SULFATE	8.2	EPA 300
ALKALINITY	11	SM 2320B
TDS (TOTAL DISSOLVED SOLIDS)	257	SM 2540C
TOC (TOTAL ORGANIC CARBON)	1 ND	SM 5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.17	SM 2130B
TOTAL ORGANIC HALOGEN (ug/l)	20 ND	SW846 9020B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS1. BRIAN SENSENICH

Sample Date

08/19/2015

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE (EDB) (ETHYLENE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
cis 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
trans 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



Date Prepared/Revised 10/02/2015
DEP USE ONLY
Date Received

**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Creswell Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Creswell Landfill
County:	Lancaster County
Township or Municipality:	Manor Township
Landowner Name:	NELSON L. & NANCY E. SMITH
Address:	3044 River Road
Phone No.:	
Sampling Point:	Latitude: 39 ^o 57' 30.85" Longitude: 76 ^o 26' 11.25"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged:
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	08/19/2015 Sample Collection Time: 10:58 AM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	34 Dogwood Lane Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	08/28/2015
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES**

Facility I.D. Number

101389

Monitoring Point I.D. No.

E. P. S. J. L. & NANCY E. SMITH

Sample Date

08/19/2015

1. Inorganics (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	D6919-03
BICARBONATE	13	SM 2320 B
CALCIUM, TOTAL	15.1	EPA 200.7
CALCIUM, DISSOLVED	15.1	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	5 ND	EPA 410.4
CHLORIDE	21.5	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	10.1	EPA 200.7
MAGNESIUM, DISSOLVED	10.2	EPA 200.7
MANGANESE, TOTAL (ug/l)	16	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	14	EPA 200.7
NITRATE-NITROGEN	20	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

EPSON L. & NANCY E. SMITH

Sample Date

08/19/2015

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE-NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	5.61	FIELD
pH-LAB (SU)	6.13	SM 4500B
POTASSIUM, TOTAL	1.6	EPA 200.7
POTASSIUM, DISSOLVED	1.5	EPA 200.7
SODIUM, TOTAL	8.6	EPA 200.7
SODIUM, DISSOLVED	8.5	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	268	FIELD
SPEC. COND., LAB (umhos/cm)	229	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	13	SM 2320B
TDS (TOTAL DISSOLVED SOLIDS)	191	SM 2540C
TOC (TOTAL ORGANIC CARBON)	1 ND	SM 5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.23	SM 2130B
TOTAL ORGANIC HALOGEN (ug/l)	20 ND	SW846 9020B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS DON L. & NANCY E. SMI

Sample Date

08/19/2015

2. Organics (Enter all data in ug/l)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE (EDB) (ETHYLENE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
cis 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
trans 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.

September 4, 2015

Mr. Daniel Brown
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name: Nelson L. Smith	Workorder: 2090355
Purchase Order:	Workorder ID: Nelson L. Smith

Dear Mr. Brown:

Enclosed are the analytical results for samples received by the laboratory on Wednesday, August 19, 2015.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vanessa N Badman (Project Coordinator) at (717) 944-5541.

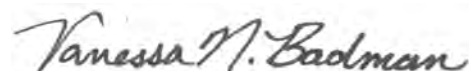
Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Mark Reider , Mr. Nelson L. Smith , Mr. Jeff Musser , Mr. Brooks Norris

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey

SAMPLE SUMMARY

Workorder: 2090355 Nelson L. Smith

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2090355001	3044 River Road, Conestoga, PA	Water	8/19/2015 10:58	8/19/2015 12:32	Mr. Brian G Shade

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ALS Environmental Laboratory Locations Across North America

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay
Vancouver Waterloo · Winnipeg · Yellowknife **United States:** Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York **Mexico:** Monterrey

ANALYTICAL RESULTS

Workorder: 2090355 Nelson L. Smith

Lab ID: **2090355001**

Date Collected: 8/19/2015 10:58

Matrix: Water

Sample ID: **3044 River Road, Conestoga, PA**

Date Received: 8/19/2015 12:32

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY									
Alkalinity, Bicarbonate	13		mg/L	5	S2320B-97		8/20/15 15:46	MBW	C
Alkalinity, Total	13		mg/L	5	S2320B-97		8/20/15 15:46	MBW	C
Ammonia-N	ND		mg/L	0.100	D6919-09		8/21/15 09:57	JAM	B
Chemical Oxygen Demand (COD)	ND		mg/L	5	EPA 410.4		8/20/15 01:00	JAM	B
Chloride	21.5		mg/L	2.0	EPA 300.0		8/20/15 10:43	JP	C
Fluoride	ND		mg/L	0.20	EPA 300.0		8/20/15 10:43	JP	C
Halogen, Total Organic (TOX)	ND		ug/L	20.0	SW846 9020B		8/28/15 11:42	PAG	K
Nitrate-N	20.0		mg/L	0.20	EPA 300.0		8/20/15 10:43	JP	C
Nitrite-N	ND		mg/L	0.20	EPA 300.0		8/20/15 10:43	JP	C
pH	6.13		pH_Units		S4500HB-00		8/20/15 15:46	MBW	C
Phenolics	ND		mg/L	0.005	EPA 420.4	8/26/15 AMH	8/28/15 11:03	SYB	H
Specific Conductance	229		umhos/cm	1	EPA 120.1		8/20/15 15:46	MBW	C
Sulfate	ND		mg/L	2.0	EPA 300.0		8/20/15 10:43	JP	C
Total Dissolved Solids	191		mg/L	5	S2540C-11		8/24/15 09:49	ML	C
Total Organic Carbon (TOC)	ND		mg/L	1.0	S5310B-00		8/20/15 11:10	PAG	F
Turbidity	0.23		NTU	0.10	S2130B-01		8/20/15 07:30	NK	C
VOLATILE ORGANICS									
Acetone	ND		ug/L	5.0	EPA 524.2		8/28/15 17:52	CPK	J
Acrylonitrile	ND		ug/L	2.5	EPA 524.2		8/28/15 17:52	CPK	J
Benzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Bromochloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Bromodichloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Bromoform	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Bromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
2-Butanone	ND		ug/L	2.5	EPA 524.2		8/28/15 17:52	CPK	J
Carbon Disulfide	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Carbon Tetrachloride	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Chlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Chlorodibromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Chloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Chloroform	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Chloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
3-Chloro-1-propene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J

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ANALYTICAL RESULTS

Workorder: 2090355 Nelson L. Smith

Lab ID: **2090355001**

Date Collected: 8/19/2015 10:58

Matrix: Water

Sample ID: **3044 River Road, Conestoga, PA**

Date Received: 8/19/2015 12:32

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,2-Dibromoethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Dibromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	EPA 524.2		8/28/15 17:52	CPK	J
1,2-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
1,3-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
1,4-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Dichlorodifluoromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
1,1-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
1,2-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
1,1-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
cis-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
trans-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
1,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
cis-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
trans-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Ethylbenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
2-Hexanone	ND		ug/L	2.5	EPA 524.2		8/28/15 17:52	CPK	J
Iodomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	EPA 524.2		8/28/15 17:52	CPK	J
Methylene Chloride	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Styrene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Tetrachloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Toluene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Total Xylenes	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
1,2,4-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
1,1,1-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
1,1,2-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Trichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Trichlorofluoromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
1,2,3-Trichloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
Vinyl Chloride	ND		ug/L	0.50	EPA 524.2		8/28/15 17:52	CPK	J
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichlorobenzene-d4 (S)	74.8		%	70 - 130	EPA 524.2		8/28/15 17:52	CPK	J
4-Bromofluorobenzene (S)	76.8		%	70 - 130	EPA 524.2		8/28/15 17:52	CPK	J

METALS
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ANALYTICAL RESULTS

Workorder: 2090355 Nelson L. Smith

Lab ID: **2090355001** Date Collected: 8/19/2015 10:58 Matrix: Water
Sample ID: **3044 River Road, Conestoga, PA** Date Received: 8/19/2015 12:32

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Calcium, Total	15.1		mg/L	0.050	EPA 200.7	8/20/15 JPS	8/21/15 08:43	TSS	D1
Calcium, Dissolved	15.1		mg/L	0.10	EPA 200.7	8/20/15 TSS	8/28/15 09:50	TSS	E
Iron, Total	ND		mg/L	0.030	EPA 200.7	8/20/15 JPS	8/21/15 08:43	TSS	D1
Iron, Dissolved	ND		mg/L	0.060	EPA 200.7	8/20/15 TSS	8/28/15 09:50	TSS	E
Magnesium, Total	10.1		mg/L	0.050	EPA 200.7	8/20/15 JPS	8/21/15 08:43	TSS	D1
Magnesium, Dissolved	10.2		mg/L	0.10	EPA 200.7	8/20/15 TSS	8/28/15 09:50	TSS	E
Manganese, Total	0.016		mg/L	0.0025	EPA 200.7	8/20/15 JPS	8/21/15 08:43	TSS	D1
Manganese, Dissolved	0.014		mg/L	0.0050	EPA 200.7	8/20/15 TSS	8/28/15 09:50	TSS	E
Potassium, Total	1.6		mg/L	0.25	EPA 200.7	8/20/15 JPS	8/21/15 08:43	TSS	D1
Potassium, Dissolved	1.5		mg/L	0.50	EPA 200.7	8/20/15 TSS	8/28/15 09:50	TSS	E
Sodium, Total	8.6		mg/L	0.25	EPA 200.7	8/20/15 JPS	8/21/15 08:43	TSS	D1
Sodium, Dissolved	8.5		mg/L	0.50	EPA 200.7	8/20/15 TSS	8/28/15 09:50	TSS	E
FIELD PARAMETERS									
pH, Field (SM4500B)	5.61		pH_Units		Field		8/19/15 10:58	BGS	M
Specific Conductance, Field	268		umhos/cm	1	Field		8/19/15 10:58	BGS	M
Temperature	17.90		Deg. C		Field		8/19/15 10:58	BGS	M



Mrs. Vanessa N Badman
Project Coordinator

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Generated by ALS

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/
SAMPLER. INSTRUCTIONS ON THE BACK.



34 Dogwood Lane • Middletown, PA 17057 • T: 717.944.5541 • Fax: 717.944.1430

Client Name: LCSWMA - Nelson L. Smith
Address: 3044 River Road
 Conestoga, PA 17516
Contact: Nelson L. Smith
Phone#: (717) 872-2888
Project Name#: LCSWMA - Quarterly
Bill To: Lancaster County Solid Waste MA

TAT
 Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.

Date Required: _____ **Approved By:** _____
Email? -Y -N
Fax? -Y -N

Sample Description/Location (as it will appear on the lab report)

Sample No.	Sample Date	Time	Matrix	TOC	TOX	O-H	VOC	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, Spc	Alkalinity, HCO3
1	8-19-15	10:50	G DW	2	2	1	2	X	1	1	1	1	1	1
2														
3														
4														
5														
6														
7														
8														
9														
10														

Enter Number of Containers Per Sample or Field Results Below.

Project Comments:
 Relinquished By / Company Name: ALS
 Date: 8/15/15 Time: 11:00
 Received By / Company Name: [Signature]
 Date: 8/19/15 Time: 8:19 AM

LOGGED BY (signature): _____
REVIEWED BY (signature): _____

ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other:

Special Processing: USACE Navy
 State Samples Collected In: NY NJ PA NC

Special Disposal: Lab Special

Reportable to PADEP? Yes No
PWSID # _____
EDDS: Format Type _____



September 4, 2015

Mr. Daniel Brown
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name:	Mr. Brian Sensenich	Workorder:	2090354
Purchase Order:		Workorder ID:	Mr. Brian Sensenich

Dear Mr. Brown:

Enclosed are the analytical results for samples received by the laboratory on Wednesday, August 19, 2015.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vanessa N Badman (Project Coordinator) at (717) 944-5541.

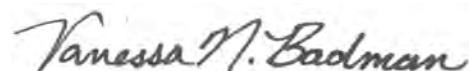
Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Mark Reider , Mr. Brian Sensenich , Mr. Jeff Musser , Mr. Brooks Norris

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Mrs. Vanessa N Badman
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2090354 Mr. Brian Sensenich

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2090354001	3076 River Road, Conestoga, PA	Water	8/19/2015 10:49	8/19/2015 12:32	Mr. Brian G Shade

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 2090354 Mr. Brian Sensenich

Lab ID: **2090354001**

Date Collected: 8/19/2015 10:49

Matrix: Water

Sample ID: **3076 River Road, Conestoga, PA**

Date Received: 8/19/2015 12:32

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY									
Alkalinity, Bicarbonate	11		mg/L	5	S2320B-97		8/20/15 15:35	MBW	C
Alkalinity, Total	11		mg/L	5	S2320B-97		8/20/15 15:35	MBW	C
Ammonia-N	ND		mg/L	0.100	D6919-09		8/21/15 09:38	JAM	B
Chemical Oxygen Demand (COD)	ND		mg/L	5	EPA 410.4		8/20/15 01:00	JAM	B
Chloride	62.1		mg/L	2.0	EPA 300.0		8/20/15 10:31	JP	C
Fluoride	ND		mg/L	0.20	EPA 300.0		8/20/15 10:31	JP	C
Halogen, Total Organic (TOX)	ND		ug/L	20.0	SW846 9020B		8/27/15 15:36	PAG	K
Nitrate-N	13.8		mg/L	0.20	EPA 300.0		8/20/15 10:31	JP	C
Nitrite-N	ND		mg/L	0.20	EPA 300.0		8/20/15 10:31	JP	C
pH	6.06		pH_Units		S4500HB-00		8/20/15 15:35	MBW	C
Phenolics	ND		mg/L	0.005	EPA 420.4	8/26/15 AMH	8/28/15 10:19	SYB	H
Specific Conductance	322		umhos/cm	1	EPA 120.1		8/20/15 15:35	MBW	C
Sulfate	8.2		mg/L	2.0	EPA 300.0		8/20/15 10:31	JP	C
Total Dissolved Solids	257		mg/L	5	S2540C-11		8/24/15 09:49	ML	C
Total Organic Carbon (TOC)	ND		mg/L	1.0	S5310B-00		8/20/15 11:10	PAG	F
Turbidity	0.17		NTU	0.10	S2130B-01		8/27/15 13:40	NK	C
VOLATILE ORGANICS									
Acetone	ND		ug/L	5.0	EPA 524.2		8/28/15 17:26	CPK	J
Acrylonitrile	ND		ug/L	2.5	EPA 524.2		8/28/15 17:26	CPK	J
Benzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Bromochloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Bromodichloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Bromoform	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Bromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
2-Butanone	ND		ug/L	2.5	EPA 524.2		8/28/15 17:26	CPK	J
Carbon Disulfide	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Carbon Tetrachloride	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Chlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Chlorodibromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Chloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Chloroform	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Chloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
3-Chloro-1-propene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J

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ANALYTICAL RESULTS

Workorder: 2090354 Mr. Brian Sensenich

Lab ID: **2090354001**

Date Collected: 8/19/2015 10:49

Matrix: Water

Sample ID: **3076 River Road, Conestoga, PA**

Date Received: 8/19/2015 12:32

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,2-Dibromoethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Dibromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	EPA 524.2		8/28/15 17:26	CPK	J
1,2-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
1,3-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
1,4-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Dichlorodifluoromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
1,1-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
1,2-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
1,1-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
cis-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
trans-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
1,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
cis-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
trans-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Ethylbenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
2-Hexanone	ND		ug/L	2.5	EPA 524.2		8/28/15 17:26	CPK	J
Iodomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	EPA 524.2		8/28/15 17:26	CPK	J
Methylene Chloride	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Styrene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Tetrachloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Toluene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Total Xylenes	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
1,2,4-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
1,1,1-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
1,1,2-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Trichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Trichlorofluoromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
1,2,3-Trichloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
Vinyl Chloride	ND		ug/L	0.50	EPA 524.2		8/28/15 17:26	CPK	J
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichlorobenzene-d4 (S)	74.1		%	70 - 130	EPA 524.2		8/28/15 17:26	CPK	J
4-Bromofluorobenzene (S)	79.5		%	70 - 130	EPA 524.2		8/28/15 17:26	CPK	J

METALS

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ANALYTICAL RESULTS

Workorder: 2090354 Mr. Brian Sensenich

Lab ID: **2090354001**

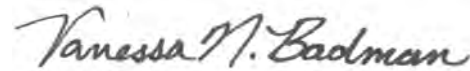
Date Collected: 8/19/2015 10:49

Matrix: Water

Sample ID: **3076 River Road, Conestoga, PA**

Date Received: 8/19/2015 12:32

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Calcium, Total	20.1		mg/L	0.050	EPA 200.7	8/20/15 JPS	8/21/15 08:39	TSS	D1
Calcium, Dissolved	18.5		mg/L	0.10	EPA 200.7	8/20/15 TSS	8/28/15 09:31	TSS	E
Iron, Total	ND		mg/L	0.030	EPA 200.7	8/20/15 JPS	8/21/15 08:39	TSS	D1
Iron, Dissolved	ND		mg/L	0.060	EPA 200.7	8/20/15 TSS	8/28/15 09:31	TSS	E
Magnesium, Total	10.0		mg/L	0.050	EPA 200.7	8/20/15 JPS	8/21/15 08:39	TSS	D1
Magnesium, Dissolved	9.3		mg/L	0.10	EPA 200.7	8/20/15 TSS	8/28/15 09:31	TSS	E
Manganese, Total	0.16		mg/L	0.0025	EPA 200.7	8/20/15 JPS	8/21/15 08:39	TSS	D1
Manganese, Dissolved	0.14		mg/L	0.0050	EPA 200.7	8/20/15 TSS	8/28/15 09:31	TSS	E
Potassium, Total	2.8		mg/L	0.25	EPA 200.7	8/20/15 JPS	8/21/15 08:39	TSS	D1
Potassium, Dissolved	2.6		mg/L	0.50	EPA 200.7	8/20/15 TSS	8/28/15 09:31	TSS	E
Sodium, Total	27.0		mg/L	0.25	EPA 200.7	8/20/15 JPS	8/21/15 08:39	TSS	D1
Sodium, Dissolved	25.4		mg/L	0.50	EPA 200.7	8/20/15 TSS	8/28/15 09:31	TSS	E
FIELD PARAMETERS									
pH, Field (SM4500B)	5.80		pH_Units		Field		8/19/15 10:49	BGS	M
Specific Conductance, Field	377		umhos/cm	1	Field		8/19/15 10:49	BGS	M
Temperature	18.30		Deg. C		Field		8/19/15 10:49	BGS	M



Mrs. Vanessa N Badman
Project Coordinator

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2090354

Receiving Lab

Cooler Temp: 102 Therm ID: PH-309

No. of Coolers: Y N Initial

Custody Seals Present? (if present) Seals Intact? Received on ice? COC Labels Complete/Accurate? Cont. in Good Cond.? Correct Containers? Correct Sample Volumes? Correct Preservation? Headspace/Volatiles?

Courier/Tracking #: Sample/COC Comments

ALS Field Services: Pickup Labor Composite_Sampling Rental_Equipment Other:

Special Processing: USACE Navy State Samples Collected in NY NJ PA NC

Standard Deliverables: Standard CLP-like USACE

Reportable to PADEP? Yes No PWSID # EDDS: Formal Type-

Container Type: 500 ml PL

Container Size: 500 ml PL

Preservative: HCl H2SO4 HNO3 HNO3 H2SO4 HNO3 HNO3

AG AN AN AN AN AN AN

CG 40 ml HCl H2SO4 HNO3 HNO3 H2SO4 HNO3

FM VOC OOH TOX TOC

Matrix: G DW

Enter Number of Containers Per Sample or Field Results Below.

Alkalinity, HCO3
pH, TDS, NO2, NO3, Cl, SO4, F, TB, SPC
Metals: Ca, Fe, Mg, Mn, K, Na
Dissolved Metals: Ca, Fe, Mg, Mn, K, Na
NH3-N, COD

ANALYSES/METHOD REQUESTED

Client Name: LCSWMA - Esther A. Schopf

Address: 3076 Rover Road

Contact: Esther A. Schopf

Phone#: (717) 872-2559

Project Name#: LCSWMA - Quarterly

Bill To: Lancaster County Solid Waste MA

TAT Normal-Standard TAT is 10-12 business days. Rush-Subject to ALS approval and surcharges.

Date Required: Approved By:

Email? -Y -N

Fax? -Y -N

Sample Date Time

1 CWCGSCHW 08-19-15 10:49

2

3

4

5

6

7

8

9

LOGGED BY (signature):

REVIEWED BY (signature):

Date Time

8-19-15 12:32

4

6

8

10

Relinquished By / Company Name

ALS

Received By / Company Name

8/19/15

Date Time

8/19/15 12:28

Reproducible to PADEP? Yes No

PWSID #

EDDS: Formal Type-

ALS Environmental

34 Dogwood Lane, Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

Matrix: -At=Air; DW=Drinking Water; GW=Groundwater; Oil=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater



September 4, 2015

Mr. Daniel Brown
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name:	Mr. & Mrs. Gerald E. Miller Sr.	Workorder:	2091341
Purchase Order:		Workorder ID:	Mr. & Mrs. Gerald E. Miller Sr

Dear Mr. Brown:

Enclosed are the analytical results for samples received by the laboratory on Monday, August 24, 2015.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vanessa N Badman (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Mark Reider , Mr. and Mrs. Gerald E Miller, Sr. , Mr. Jeff Musser , Mr. Brooks Norris

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Mrs. Vanessa N Badman
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2091341 Mr. & Mrs. Gerald E. Miller Sr

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2091341001	CWCGMILW	Water	8/24/2015 15:17	8/24/2015 16:42	Mr. Brian G Shade

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 2091341 Mr. & Mrs. Gerald E. Miller Sr

Lab ID: **2091341001**
Sample ID: **CWCGMILW**

Date Collected: 8/24/2015 15:17 Matrix: Water
Date Received: 8/24/2015 16:42

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS									
Acetone	ND		ug/L	5.0	EPA 524.2		8/29/15 02:41	TMP	I
Acrylonitrile	ND		ug/L	2.5	EPA 524.2		8/29/15 02:41	TMP	I
Benzene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Bromochloromethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Bromodichloromethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Bromoform	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Bromomethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
2-Butanone	ND		ug/L	2.5	EPA 524.2		8/29/15 02:41	TMP	I
Carbon Disulfide	ND	1	ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Carbon Tetrachloride	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Chlorobenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Chlorodibromomethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Chloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Chloroform	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Chloromethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
3-Chloro-1-propene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
1,2-Dibromoethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Dibromomethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	EPA 524.2		8/29/15 02:41	TMP	I
1,2-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
1,3-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
1,4-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Dichlorodifluoromethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
1,1-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
1,2-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
1,1-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
cis-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
trans-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
1,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
cis-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
trans-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Ethylbenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
2-Hexanone	ND		ug/L	2.5	EPA 524.2		8/29/15 02:41	TMP	I
Iodomethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	EPA 524.2		8/29/15 02:41	TMP	I

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ANALYTICAL RESULTS

Workorder: 2091341 Mr. & Mrs. Gerald E. Miller Sr

Lab ID: **2091341001**
Sample ID: **CWCGMILW**

Date Collected: 8/24/2015 15:17 Matrix: Water
Date Received: 8/24/2015 16:42

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Styrene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Tetrachloroethene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Toluene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Total Xylenes	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
1,2,4-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
1,1,1-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
1,1,2-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Trichloroethene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Trichlorofluoromethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
1,2,3-Trichloropropane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
Vinyl Chloride	ND		ug/L	0.50	EPA 524.2		8/29/15 02:41	TMP	I
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichlorobenzene-d4 (S)	76.9		%	70 - 130	EPA 524.2		8/29/15 02:41	TMP	I
4-Bromofluorobenzene (S)	106		%	70 - 130	EPA 524.2		8/29/15 02:41	TMP	I
WET CHEMISTRY									
Alkalinity, Bicarbonate	7		mg/L	5	S2320B-97		8/25/15 12:41	MBW	C
Alkalinity, Total	7		mg/L	5	S2320B-97		8/25/15 12:41	MBW	C
Ammonia-N	ND		mg/L	0.100	D6919-09		8/25/15 00:46	JAM	B
Chemical Oxygen Demand (COD)	ND		mg/L	5	EPA 410.4		8/25/15 00:00	JAM	B
Chloride	19.8		mg/L	2.0	EPA 300.0		8/25/15 13:24	JP	C
Fluoride	ND		mg/L	0.20	EPA 300.0		8/25/15 13:24	JP	C
Halogen, Total Organic (TOX)	ND		ug/L	20.0	SW846 9020B		9/1/15 15:38	PAG	K
Nitrate-N	18.7		mg/L	0.20	EPA 300.0		8/25/15 13:24	JP	C
Nitrite-N	ND		mg/L	0.20	EPA 300.0		8/25/15 13:24	JP	C
pH	5.94		pH_Units		S4500HB-00		8/25/15 12:41	MBW	C
Phenolics	ND		mg/L	0.005	EPA 420.4	8/27/15 SYB	8/28/15 15:02	SYB	H
Specific Conductance	208		umhos/cm	1	EPA 120.1		8/25/15 12:41	MBW	C
Sulfate	ND		mg/L	2.0	EPA 300.0		8/25/15 13:24	JP	C
Total Dissolved Solids	173		mg/L	5	S2540C-11		8/30/15 13:53	ML	C
Total Organic Carbon (TOC)	ND		mg/L	1.0	S5310B-00		8/25/15 17:54	PAG	F
Turbidity	0.47		NTU	0.10	S2130B-01		8/25/15 11:19	NK	C

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ANALYTICAL RESULTS

Workorder: 2091341 Mr. & Mrs. Gerald E. Miller Sr

Lab ID: **2091341001**
Sample ID: **CWCGMILW**

Date Collected: 8/24/2015 15:17 Matrix: Water
Date Received: 8/24/2015 16:42

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Calcium, Total	13.4		mg/L	0.050	EPA 200.7	8/25/15 JPS	8/26/15 11:35	TSS	D1
Calcium, Dissolved	13.9		mg/L	0.10	EPA 200.7	8/25/15 TSS	8/29/15 08:44	TSS	E
Iron, Total	ND		mg/L	0.030	EPA 200.7	8/25/15 JPS	8/26/15 11:35	TSS	D1
Iron, Dissolved	ND		mg/L	0.060	EPA 200.7	8/25/15 TSS	8/29/15 08:44	TSS	E
Magnesium, Total	10.4		mg/L	0.050	EPA 200.7	8/25/15 JPS	8/26/15 11:35	TSS	D1
Magnesium, Dissolved	10.5		mg/L	0.10	EPA 200.7	8/25/15 TSS	8/29/15 08:44	TSS	E
Manganese, Total	0.059		mg/L	0.0025	EPA 200.7	8/25/15 JPS	8/26/15 11:35	TSS	D1
Manganese, Dissolved	0.058		mg/L	0.0050	EPA 200.7	8/25/15 TSS	8/29/15 08:44	TSS	E
Potassium, Total	3.0		mg/L	0.25	EPA 200.7	8/25/15 JPS	8/26/15 11:35	TSS	D1
Potassium, Dissolved	1.9		mg/L	0.50	EPA 200.7	8/25/15 TSS	8/29/15 08:44	TSS	E
Sodium, Total	8.1		mg/L	0.25	EPA 200.7	8/25/15 JPS	8/26/15 11:35	TSS	D1
Sodium, Dissolved	6.7		mg/L	0.50	EPA 200.7	8/25/15 TSS	8/29/15 08:44	TSS	E
FIELD PARAMETERS									
pH, Field (SM4500B)	6.10		pH_Units		Field		8/24/15 15:17	BGS	M
Specific Conductance, Field	219		umhos/cm	1	Field		8/24/15 15:17	BGS	M
Temperature	17.90		Deg. C		Field		8/24/15 15:17	BGS	M



Mrs. Vanessa N Badman
Project Coordinator

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PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2091341001	1	CWCGMILW	EPA 524.2	Carbon Disulfide

The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Carbon Disulfide. The % Recovery was reported as 60.2 and the control limits were 70 to 130.

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September 4, 2015

Mr. Daniel Brown
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name:	Larry and Ann Kirchner	Workorder:	2091340
Purchase Order:		Workorder ID:	Larry and Ann Kirchner

Dear Mr. Brown:

Enclosed are the analytical results for samples received by the laboratory on Monday, August 24, 2015.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vanessa N Badman (Project Coordinator) at (717) 944-5541.

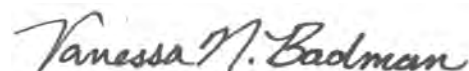
Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

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ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Mark Reider , Mr. and Mrs. Larry Kirchner , Mr. Jeff Musser ,
Mr. Brooks Norris

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Mrs. Vanessa N Badman
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2091340 Larry and Ann Kirchner

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2091340001	CWCGKIRW	Water	8/24/2015 14:44	8/24/2015 16:42	Mr. Brian G Shade

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 2091340 Larry and Ann Kirchner

Lab ID: **2091340001**
Sample ID: **CWCGKIRW**

Date Collected: 8/24/2015 14:44 Matrix: Water
Date Received: 8/24/2015 16:42

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS									
Acetone	ND		ug/L	5.0	EPA 524.2		8/29/15 02:19	TMP	I
Acrylonitrile	ND		ug/L	2.5	EPA 524.2		8/29/15 02:19	TMP	I
Benzene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Bromochloromethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Bromodichloromethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Bromoform	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Bromomethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
2-Butanone	ND		ug/L	2.5	EPA 524.2		8/29/15 02:19	TMP	I
Carbon Disulfide	ND	1	ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Carbon Tetrachloride	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Chlorobenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Chlorodibromomethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Chloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Chloroform	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Chloromethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
3-Chloro-1-propene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
1,2-Dibromoethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Dibromomethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	EPA 524.2		8/29/15 02:19	TMP	I
1,2-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
1,3-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
1,4-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Dichlorodifluoromethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
1,1-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
1,2-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
1,1-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
cis-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
trans-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
1,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
cis-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
trans-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Ethylbenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
2-Hexanone	ND		ug/L	2.5	EPA 524.2		8/29/15 02:19	TMP	I
Iodomethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	EPA 524.2		8/29/15 02:19	TMP	I

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ANALYTICAL RESULTS

Workorder: 2091340 Larry and Ann Kirchner

Lab ID: **2091340001**
Sample ID: **CWCGKIRW**

Date Collected: 8/24/2015 14:44 Matrix: Water
Date Received: 8/24/2015 16:42

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Styrene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Tetrachloroethene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Toluene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Total Xylenes	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
1,2,4-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
1,1,1-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
1,1,2-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Trichloroethene	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Trichlorofluoromethane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
1,2,3-Trichloropropane	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
Vinyl Chloride	ND		ug/L	0.50	EPA 524.2		8/29/15 02:19	TMP	I
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichlorobenzene-d4 (S)	82.4		%	70 - 130	EPA 524.2		8/29/15 02:19	TMP	I
4-Bromofluorobenzene (S)	107		%	70 - 130	EPA 524.2		8/29/15 02:19	TMP	I
WET CHEMISTRY									
Alkalinity, Bicarbonate	24		mg/L	5	S2320B-97		8/25/15 12:30	MBW	C
Alkalinity, Total	24		mg/L	5	S2320B-97		8/25/15 12:30	MBW	C
Ammonia-N	ND		mg/L	0.100	D6919-09		8/24/15 23:50	JAM	B
Chemical Oxygen Demand (COD)	ND		mg/L	5	EPA 410.4		8/25/15 00:00	JAM	B
Chloride	54.0		mg/L	2.0	EPA 300.0		8/25/15 13:11	JP	C
Fluoride	ND		mg/L	0.20	EPA 300.0		8/25/15 13:11	JP	C
Halogen, Total Organic (TOX)	ND		ug/L	20.0	SW846 9020B		9/1/15 15:14	PAG	K
Nitrate-N	6.7		mg/L	0.20	EPA 300.0		8/25/15 13:11	JP	C
Nitrite-N	ND		mg/L	0.20	EPA 300.0		8/25/15 13:11	JP	C
pH	6.37		pH_Units		S4500HB-00		8/25/15 12:30	MBW	C
Phenolics	ND		mg/L	0.005	EPA 420.4	8/27/15 SYB	8/28/15 15:01	SYB	H
Specific Conductance	249		umhos/cm	1	EPA 120.1		8/25/15 12:30	MBW	C
Sulfate	6.8		mg/L	2.0	EPA 300.0		8/25/15 13:11	JP	C
Total Dissolved Solids	213		mg/L	5	S2540C-11		8/30/15 13:53	ML	C
Total Organic Carbon (TOC)	ND		mg/L	1.0	S5310B-00		8/25/15 17:54	PAG	F
Turbidity	0.11		NTU	0.10	S2130B-01		8/25/15 11:19	NK	C

METALS
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ANALYTICAL RESULTS

Workorder: 2091340 Larry and Ann Kirchner

Lab ID: **2091340001**
Sample ID: **CWCGKIRW**

Date Collected: 8/24/2015 14:44 Matrix: Water
Date Received: 8/24/2015 16:42

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Calcium, Total	16.4		mg/L	0.050	EPA 200.7	8/25/15 JPS	8/26/15 11:31	TSS	D1
Calcium, Dissolved	17.4		mg/L	0.10	EPA 200.7	8/25/15 TSS	8/29/15 08:40	TSS	E
Iron, Total	ND		mg/L	0.030	EPA 200.7	8/25/15 JPS	8/26/15 11:31	TSS	D1
Iron, Dissolved	ND		mg/L	0.060	EPA 200.7	8/25/15 TSS	8/29/15 08:40	TSS	E
Magnesium, Total	7.7		mg/L	0.050	EPA 200.7	8/25/15 JPS	8/26/15 11:31	TSS	D1
Magnesium, Dissolved	7.9		mg/L	0.10	EPA 200.7	8/25/15 TSS	8/29/15 08:40	TSS	E
Manganese, Total	0.0081		mg/L	0.0025	EPA 200.7	8/25/15 JPS	8/26/15 11:31	TSS	D1
Manganese, Dissolved	0.0085		mg/L	0.0050	EPA 200.7	8/25/15 TSS	8/29/15 08:40	TSS	E
Potassium, Total	3.5		mg/L	0.25	EPA 200.7	8/25/15 JPS	8/26/15 11:31	TSS	D1
Potassium, Dissolved	1.6		mg/L	0.50	EPA 200.7	8/25/15 TSS	8/29/15 08:40	TSS	E
Sodium, Total	15.3		mg/L	0.25	EPA 200.7	8/25/15 JPS	8/26/15 11:31	TSS	D1
Sodium, Dissolved	14.3		mg/L	0.50	EPA 200.7	8/25/15 TSS	8/29/15 08:40	TSS	E
FIELD PARAMETERS									
pH, Field (SM4500B)	6.43		pH_Units		Field		8/24/15 14:44	BGS	M
Specific Conductance, Field	256		umhos/cm	1	Field		8/24/15 14:44	BGS	M
Temperature	18.10		Deg. C		Field		8/24/15 14:44	BGS	M



Mrs. Vanessa N Badman
Project Coordinator

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PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2091340001	1	CWCGKIRW	EPA 524.2	Carbon Disulfide

The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Carbon Disulfide. The % Recovery was reported as 60.2 and the control limits were 70 to 130.

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September 4, 2015

Mr. Daniel Brown
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name: Patricia S. Hill	Workorder: 2090353
Purchase Order:	Workorder ID: Patricia S. Hill

Dear Mr. Brown:

Enclosed are the analytical results for samples received by the laboratory on Wednesday, August 19, 2015.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vanessa N Badman (Project Coordinator) at (717) 944-5541.

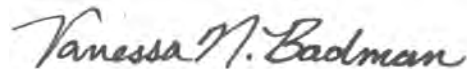
Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

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ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Mark Reider , Mrs. Patricia S. Hill , Mr. Jeff Musser , Mr. Brooks Norris

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Mrs. Vanessa N Badman
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2090353 Patricia S. Hill

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2090353001	3106 River Road, Conestoga, PA	Water	8/19/2015 10:33	8/19/2015 12:32	Mr. Brian G Shade

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
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U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 2090353 Patricia S. Hill

Lab ID: **2090353001**

Date Collected: 8/19/2015 10:33

Matrix: Water

Sample ID: **3106 River Road, Conestoga, PA**

Date Received: 8/19/2015 12:32

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS									
Acetone	ND		ug/L	5.0	EPA 524.2		8/28/15 17:00	CPK	J
Acrylonitrile	ND		ug/L	2.5	EPA 524.2		8/28/15 17:00	CPK	J
Benzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Bromochloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Bromodichloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Bromoform	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Bromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
2-Butanone	ND		ug/L	2.5	EPA 524.2		8/28/15 17:00	CPK	J
Carbon Disulfide	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Carbon Tetrachloride	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Chlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Chlorodibromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Chloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Chloroform	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Chloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
3-Chloro-1-propene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
1,2-Dibromoethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Dibromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	EPA 524.2		8/28/15 17:00	CPK	J
1,2-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
1,3-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
1,4-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Dichlorodifluoromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
1,1-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
1,2-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
1,1-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
cis-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
trans-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
1,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
cis-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
trans-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Ethylbenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
2-Hexanone	ND		ug/L	2.5	EPA 524.2		8/28/15 17:00	CPK	J
Iodomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	EPA 524.2		8/28/15 17:00	CPK	J

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ANALYTICAL RESULTS

Workorder: 2090353 Patricia S. Hill

Lab ID: **2090353001**

Date Collected: 8/19/2015 10:33

Matrix: Water

Sample ID: **3106 River Road, Conestoga, PA**

Date Received: 8/19/2015 12:32

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Styrene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Tetrachloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Toluene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Total Xylenes	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
1,2,4-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
1,1,1-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
1,1,2-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Trichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Trichlorofluoromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
1,2,3-Trichloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
Vinyl Chloride	ND		ug/L	0.50	EPA 524.2		8/28/15 17:00	CPK	J
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichlorobenzene-d4 (S)	78.4		%	70 - 130	EPA 524.2		8/28/15 17:00	CPK	J
4-Bromofluorobenzene (S)	79.4		%	70 - 130	EPA 524.2		8/28/15 17:00	CPK	J
WET CHEMISTRY									
Alkalinity, Bicarbonate	118		mg/L	5	S2320B-97		8/20/15 15:25	MBW	C
Alkalinity, Total	118		mg/L	5	S2320B-97		8/20/15 15:25	MBW	C
Ammonia-N	ND		mg/L	0.100	D6919-09		8/21/15 06:59	JAM	B
Chemical Oxygen Demand (COD)	ND		mg/L	5	EPA 410.4		8/20/15 01:00	JAM	B
Chloride	39.1		mg/L	2.0	EPA 300.0		8/20/15 10:05	JP	C
Fluoride	ND		mg/L	0.20	EPA 300.0		8/20/15 10:05	JP	C
Halogen, Total Organic (TOX)	ND		ug/L	20.0	SW846 9020B		8/27/15 15:09	PAG	K
Nitrate-N	8.8		mg/L	0.20	EPA 300.0		8/20/15 10:05	JP	C
Nitrite-N	ND		mg/L	0.20	EPA 300.0		8/20/15 10:05	JP	C
pH	7.73		pH_Units		S4500HB-00		8/20/15 15:25	MBW	C
Phenolics	ND		mg/L	0.005	EPA 420.4	8/26/15 AMH	8/28/15 10:18	SYB	H
Specific Conductance	415		umhos/cm	1	EPA 120.1		8/20/15 15:25	MBW	C
Sulfate	3.3		mg/L	2.0	EPA 300.0		8/20/15 10:05	JP	C
Total Dissolved Solids	249		mg/L	5	S2540C-11		8/24/15 09:49	ML	C
Total Organic Carbon (TOC)	ND		mg/L	1.0	S5310B-00		8/20/15 11:10	PAG	F
Turbidity	0.27		NTU	0.10	S2130B-01		8/20/15 07:30	NK	C

METALS
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ANALYTICAL RESULTS

Workorder: 2090353 Patricia S. Hill

Lab ID: **2090353001**

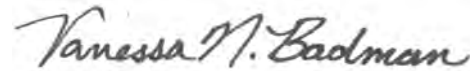
Date Collected: 8/19/2015 10:33

Matrix: Water

Sample ID: **3106 River Road, Conestoga, PA**

Date Received: 8/19/2015 12:32

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Calcium, Total	33.0		mg/L	0.050	EPA 200.7	8/20/15 JPS	8/21/15 08:27	TSS	D1
Calcium, Dissolved	33.4		mg/L	0.10	EPA 200.7	8/20/15 TSS	8/28/15 09:27	TSS	E
Iron, Total	0.20		mg/L	0.030	EPA 200.7	8/20/15 JPS	8/21/15 08:27	TSS	D1
Iron, Dissolved	ND		mg/L	0.060	EPA 200.7	8/20/15 TSS	8/28/15 09:27	TSS	E
Magnesium, Total	18.4		mg/L	0.050	EPA 200.7	8/20/15 JPS	8/21/15 08:27	TSS	D1
Magnesium, Dissolved	18.1		mg/L	0.10	EPA 200.7	8/20/15 TSS	8/28/15 09:27	TSS	E
Manganese, Total	0.013		mg/L	0.0025	EPA 200.7	8/20/15 JPS	8/21/15 08:27	TSS	D1
Manganese, Dissolved	0.0075		mg/L	0.0050	EPA 200.7	8/20/15 TSS	8/28/15 09:27	TSS	E
Potassium, Total	1.4		mg/L	0.25	EPA 200.7	8/20/15 JPS	8/21/15 08:27	TSS	D1
Potassium, Dissolved	1.4		mg/L	0.50	EPA 200.7	8/20/15 TSS	8/28/15 09:27	TSS	E
Sodium, Total	20.8		mg/L	0.25	EPA 200.7	8/20/15 JPS	8/21/15 08:27	TSS	D1
Sodium, Dissolved	20.0		mg/L	0.50	EPA 200.7	8/20/15 TSS	8/28/15 09:27	TSS	E
FIELD PARAMETERS									
pH, Field (SM4500B)	6.79		pH_Units		Field		8/19/15 10:33	BGS	M
Specific Conductance, Field	423		umhos/cm	1	Field		8/19/15 10:33	BGS	M
Temperature	17.50		Deg. C		Field		8/19/15 10:33	BGS	M



Mrs. Vanessa N Badman
Project Coordinator

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September 4, 2015

Mr. Daniel Brown
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name:	Brian Byers	Workorder:	2090352
Purchase Order:		Workorder ID:	Brian Byers

Dear Mr. Brown:

Enclosed are the analytical results for samples received by the laboratory on Wednesday, August 19, 2015.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vanessa N Badman (Project Coordinator) at (717) 944-5541.

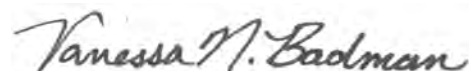
Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Mark Reider , Mr. Hans Weber , Mr. Jeff Musser , Mr. Brooks Norris

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Mrs. Vanessa N Badman
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2090352 Brian Byers

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2090352001	CWCGFELW	Water	8/19/2015 10:41	8/19/2015 12:32	Mr. Brian G Shade
2090352002	Field Blank	Water	8/19/2015 11:00	8/19/2015 12:32	Mr. Brian G Shade
2090352003	Trip Blank	Water	8/19/2015 12:32	8/19/2015 12:32	Mr. Brian G Shade

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 2090352 Brian Byers

Lab ID: **2090352001**
Sample ID: **CWCGFELW**

Date Collected: 8/19/2015 10:41 Matrix: Water
Date Received: 8/19/2015 12:32

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS									
Acetone	15.6		ug/L	5.0	EPA 524.2		8/28/15 05:56	CPK	I
Acrylonitrile	ND		ug/L	2.5	EPA 524.2		8/28/15 05:56	CPK	I
Benzene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Bromochloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Bromodichloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Bromoform	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Bromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
2-Butanone	ND		ug/L	2.5	EPA 524.2		8/28/15 05:56	CPK	I
Carbon Disulfide	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Carbon Tetrachloride	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Chlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Chlorodibromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Chloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Chloroform	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Chloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
3-Chloro-1-propene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
1,2-Dibromoethane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Dibromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	EPA 524.2		8/28/15 05:56	CPK	I
1,2-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
1,3-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
1,4-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Dichlorodifluoromethane	ND	12	ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
1,1-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
1,2-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
1,1-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
cis-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
trans-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
1,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
cis-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
trans-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Ethylbenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
2-Hexanone	ND		ug/L	2.5	EPA 524.2		8/28/15 05:56	CPK	I
Iodomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	EPA 524.2		8/28/15 05:56	CPK	I

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ANALYTICAL RESULTS

Workorder: 2090352 Brian Byers

Lab ID: **2090352001**
Sample ID: **CWCGFELW**

Date Collected: 8/19/2015 10:41 Matrix: Water
Date Received: 8/19/2015 12:32

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Styrene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Tetrachloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Toluene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Total Xylenes	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
1,2,4-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
1,1,1-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
1,1,2-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Trichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Trichlorofluoromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
1,2,3-Trichloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
Vinyl Chloride	ND		ug/L	0.50	EPA 524.2		8/28/15 05:56	CPK	I
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichlorobenzene-d4 (S)	74		%	70 - 130	EPA 524.2		8/28/15 05:56	CPK	I
4-Bromofluorobenzene (S)	71.9		%	70 - 130	EPA 524.2		8/28/15 05:56	CPK	I
WET CHEMISTRY									
Alkalinity, Bicarbonate	121		mg/L	5	S2320B-97		8/20/15 15:13	MBW	C
Alkalinity, Total	121		mg/L	5	S2320B-97		8/20/15 15:13	MBW	C
Ammonia-N	ND		mg/L	0.100	D6919-09		8/21/15 06:38	JAM	B
Chemical Oxygen Demand (COD)	ND		mg/L	5	EPA 410.4		8/20/15 01:00	JAM	B
Chloride	186		mg/L	5.0	EPA 300.0		8/20/15 09:51	JP	C
Fluoride	ND		mg/L	0.50	EPA 300.0		8/20/15 09:51	JP	C
Halogen, Total Organic (TOX)	ND		ug/L	20.0	SW846 9020B		8/27/15 13:54	PAG	K
Nitrate-N	9.9		mg/L	0.50	EPA 300.0		8/20/15 09:51	JP	C
Nitrite-N	ND		mg/L	0.50	EPA 300.0		8/20/15 09:51	JP	C
pH	7.46		pH_Units		S4500HB-00		8/20/15 15:13	MBW	C
Phenolics	ND		mg/L	0.005	EPA 420.4	8/26/15 AMH	8/28/15 10:17	SYB	H
Specific Conductance	915		umhos/cm	1	EPA 120.1		8/20/15 15:13	MBW	C
Sulfate	ND		mg/L	5.0	EPA 300.0		8/20/15 09:51	JP	C
Total Dissolved Solids	521		mg/L	5	S2540C-11		8/24/15 09:49	ML	C
Total Organic Carbon (TOC)	ND		mg/L	1.0	S5310B-00		8/20/15 11:10	PAG	F
Turbidity	ND		NTU	0.10	S2130B-01		8/27/15 13:40	NK	C

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ANALYTICAL RESULTS

Workorder: 2090352 Brian Byers

Lab ID: **2090352001**
Sample ID: **CWCGFELW**

Date Collected: 8/19/2015 10:41 Matrix: Water
Date Received: 8/19/2015 12:32

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Calcium, Total	0.36		mg/L	0.050	EPA 200.7	8/20/15 JPS	8/21/15 08:23	TSS	D1
Calcium, Dissolved	0.36		mg/L	0.10	EPA 200.7	8/20/15 TSS	8/28/15 09:23	TSS	E
Iron, Total	ND		mg/L	0.030	EPA 200.7	8/20/15 JPS	8/21/15 08:23	TSS	D1
Iron, Dissolved	ND		mg/L	0.060	EPA 200.7	8/20/15 TSS	8/28/15 09:23	TSS	E
Magnesium, Total	0.12		mg/L	0.050	EPA 200.7	8/20/15 JPS	8/21/15 08:23	TSS	D1
Magnesium, Dissolved	0.12		mg/L	0.10	EPA 200.7	8/20/15 TSS	8/28/15 09:23	TSS	E
Manganese, Total	ND		mg/L	0.0025	EPA 200.7	8/20/15 JPS	8/21/15 08:23	TSS	D1
Manganese, Dissolved	ND		mg/L	0.0050	EPA 200.7	8/20/15 TSS	8/28/15 09:23	TSS	E
Potassium, Total	3.5		mg/L	0.25	EPA 200.7	8/20/15 JPS	8/21/15 08:23	TSS	D1
Potassium, Dissolved	3.5		mg/L	0.50	EPA 200.7	8/20/15 TSS	8/28/15 09:23	TSS	E
Sodium, Total	167		mg/L	0.25	EPA 200.7	8/20/15 JPS	8/21/15 08:23	TSS	D1
Sodium, Dissolved	167		mg/L	0.50	EPA 200.7	8/20/15 TSS	8/28/15 09:23	TSS	E
FIELD PARAMETERS									
pH, Field (SM4500B)	6.82		pH_Units		Field		8/19/15 10:41	BGS	M
Specific Conductance, Field	951		umhos/cm	1	Field		8/19/15 10:41	BGS	M
Temperature	18.60		Deg. C		Field		8/19/15 10:41	BGS	M



Mrs. Vanessa N Badman
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2090352 Brian Byers

Lab ID: **2090352002**

Date Collected: 8/19/2015 11:00

Matrix: Water

Sample ID: **Field Blank**

Date Received: 8/19/2015 12:32

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS									
Acetone	ND		ug/L	5.0	EPA 524.2		8/28/15 02:30	CPK	A
Acrylonitrile	ND		ug/L	2.5	EPA 524.2		8/28/15 02:30	CPK	A
Benzene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Bromochloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Bromodichloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Bromoform	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Bromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
2-Butanone	ND		ug/L	2.5	EPA 524.2		8/28/15 02:30	CPK	A
Carbon Disulfide	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Carbon Tetrachloride	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Chlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Chlorodibromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Chloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Chloroform	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Chloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
3-Chloro-1-propene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
1,2-Dibromoethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Dibromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	EPA 524.2		8/28/15 02:30	CPK	A
1,2-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
1,3-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
1,4-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Dichlorodifluoromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
1,1-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
1,2-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
1,1-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
1,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Ethylbenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
2-Hexanone	ND		ug/L	2.5	EPA 524.2		8/28/15 02:30	CPK	A
Iodomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	EPA 524.2		8/28/15 02:30	CPK	A

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ANALYTICAL RESULTS

Workorder: 2090352 Brian Byers

Lab ID: **2090352002**

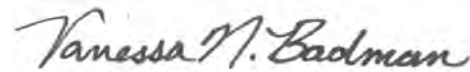
Date Collected: 8/19/2015 11:00

Matrix: Water

Sample ID: **Field Blank**

Date Received: 8/19/2015 12:32

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Styrene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Tetrachloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Toluene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Total Xylenes	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
1,1,1-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
1,1,2-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Trichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Trichlorofluoromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
1,2,3-Trichloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
Vinyl Chloride	ND		ug/L	0.50	EPA 524.2		8/28/15 02:30	CPK	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichlorobenzene-d4 (S)	74.6		%	70 - 130	EPA 524.2		8/28/15 02:30	CPK	A
4-Bromofluorobenzene (S)	74.2		%	70 - 130	EPA 524.2		8/28/15 02:30	CPK	A



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Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2090352 Brian Byers

Lab ID: **2090352003**

Date Collected: 8/19/2015 12:32

Matrix: Water

Sample ID: **Trip Blank**

Date Received: 8/19/2015 12:32

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS									
Acetone	ND		ug/L	5.0	EPA 524.2		8/28/15 02:55	CPK	A
Acrylonitrile	ND		ug/L	2.5	EPA 524.2		8/28/15 02:55	CPK	A
Benzene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Bromochloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Bromodichloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Bromoform	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Bromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
2-Butanone	ND		ug/L	2.5	EPA 524.2		8/28/15 02:55	CPK	A
Carbon Disulfide	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Carbon Tetrachloride	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Chlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Chlorodibromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Chloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Chloroform	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Chloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
3-Chloro-1-propene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
1,2-Dibromoethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Dibromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	EPA 524.2		8/28/15 02:55	CPK	A
1,2-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
1,3-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
1,4-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Dichlorodifluoromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
1,1-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
1,2-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
1,1-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
1,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Ethylbenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
2-Hexanone	ND		ug/L	2.5	EPA 524.2		8/28/15 02:55	CPK	A
Iodomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	EPA 524.2		8/28/15 02:55	CPK	A

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ANALYTICAL RESULTS

Workorder: 2090352 Brian Byers

Lab ID: **2090352003**

Date Collected: 8/19/2015 12:32

Matrix: Water

Sample ID: **Trip Blank**

Date Received: 8/19/2015 12:32

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Styrene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Tetrachloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Toluene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Total Xylenes	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
1,1,1-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
1,1,2-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Trichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Trichlorofluoromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
1,2,3-Trichloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
Vinyl Chloride	ND		ug/L	0.50	EPA 524.2		8/28/15 02:55	CPK	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichlorobenzene-d4 (S)	70.2		%	70 - 130	EPA 524.2		8/28/15 02:55	CPK	A
4-Bromofluorobenzene (S)	82		%	70 - 130	EPA 524.2		8/28/15 02:55	CPK	A



Mrs. Vanessa N Badman
Project Coordinator

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PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2090352001	1	CWCGFELW	EPA 524.2	Dichlorodifluoromethane
The QC sample type MS for method EPA 524.2 was outside the control limits for the analyte Dichlorodifluoromethane. The % Recovery was reported as 62.3 and the control limits were 70 to 130.				
2090352001	2	CWCGFELW	EPA 524.2	Dichlorodifluoromethane
The QC sample type MSD for method EPA 524.2 was outside the control limits for the analyte Dichlorodifluoromethane. The % Recovery was reported as 57.4 and the control limits were 70 to 130.				

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2090352

102 Therm ID: PA-309

No. of Coolers: Y N Initial

Cooler Temp: 102

Receiving Lab

ALS Environmental

34 Dogwood Lane • Middletown, PA 17057 • 717.964.5541 • Fax: 717.944.1430

Client Name: LCSWMA - Brian Byers

Address: 3088 River Road

Conestoga, PA 17516

Contact: Brian Byers

Phone#: (717) 555-1212

Project Name#: LCSWMA - Quarterly

Bill To: LCSWMA - Brian Byers

TAT Normal-Standard TAT is 10-12 business days.

Date Required: Rush-Subject to ALS approval and surcharges.

Approved By: _____

Email? -Y

Fax? -Y No.:

Sample Description/Location

Sample Date

Time

1 CWCGFELW

2 Field Blank

3 T+P Blank

4

5

6

7

8

9

10

Container Type	AG	AN	AN	CG	PL	PL	PL	PL	PL	PL
40 ml	250 ml	500 ml	500 ml	40 ml	500 ml	500 ml	500 ml	500 ml	500 ml	500 ml
HCl	H2SO4	H2SO4	HCl	H2SO4	HNO3	HNO3	HNO3	HNO3	HNO3	HNO3

Enter Number of Containers Per Sample or Field Results Below:	TOC	TOX	O-OH	VOC	FM	NH3-N COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	PH, TDS, NO2, NO3, Cl, SO4, F, Pb, Spc	Alkalinity, HCO3
2	2	1	1	2	1	1	1	1	1	1
G DW	G DW									

Sample Date	Time	Matrix
8-19-15	1041	G DW
8-19-15	1100	L ↓
8-19-15	1232	L ↓

Container	AG	AN	AN	CG	PL	PL	PL	PL	PL
40 ml	250 ml	500 ml	500 ml	40 ml	500 ml	500 ml	500 ml	500 ml	500 ml
HCl	H2SO4	H2SO4	HCl	H2SO4	HNO3	HNO3	HNO3	HNO3	HNO3

Sample Date	Time	Matrix
8-19-15	1041	G DW
8-19-15	1100	L ↓
8-19-15	1232	L ↓

Sample Date	Time	Matrix
8-19-15	1041	G DW
8-19-15	1100	L ↓
8-19-15	1232	L ↓

Sample Date	Time	Matrix
8-19-15	1041	G DW
8-19-15	1100	L ↓
8-19-15	1232	L ↓

Sample Date	Time	Matrix
8-19-15	1041	G DW
8-19-15	1100	L ↓
8-19-15	1232	L ↓

Project Comments: Relinquished By Company Name ALS

LOGGED BY (signature): [Signature]

REVIEWED BY (signature): [Signature]

Date: 8-19-15 1232

Time: 4

Received By / Company Name: [Signature]

Date: 8/19/15

Time: 1232

Reportable to PADEP? Yes No

Sample Disposal: Lab Special

State Samples Collected In: USACE Navy NY NJ PA NC

PWSID #: _____

EDDS: Format Type: _____

September 11, 2015

Mr. Daniel Brown
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name:	Christian C & Elizabeth Beck	Workorder:	2091342
Purchase Order:		Workorder ID:	Christian C & Elizabeth Beck

Dear Mr. Brown:

Enclosed are the analytical results for samples received by the laboratory on Monday, August 24, 2015.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

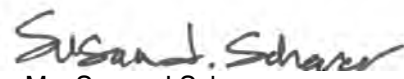
Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Mark Reider , Mr. Christian C Beck , Mr. Jeff Musser , Mr. Brooks Norris

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.


Ms. Susan J Scherer
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2091342 Christian C & Elizabeth Beck

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2091342001	CWCGBCKW	Water	8/24/2015 14:55	8/24/2015 16:42	Mr. Brian G Shade
2091342002	Contiguous Field Blank	Water	8/24/2015 15:15	8/24/2015 16:42	Mr. Brian G Shade
2091342003	Trip Blank	Water	8/24/2015 16:42	8/24/2015 16:42	Mr. Brian G Shade

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 2091342 Christian C & Elizabeth Beck

Lab ID: **2091342001**
Sample ID: **CWCGBCKW**

Date Collected: 8/24/2015 14:55 Matrix: Water
Date Received: 8/24/2015 16:42

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY									
Alkalinity, Bicarbonate	82		mg/L	5	S2320B-97		8/25/15 12:52	MBW	C
Alkalinity, Total	82		mg/L	5	S2320B-97		8/25/15 12:52	MBW	C
Ammonia-N	ND		mg/L	0.100	D6919-09		8/25/15 00:08	JAM	B
Chemical Oxygen Demand (COD)	ND		mg/L	5	EPA 410.4		8/25/15 00:00	JAM	B
Chloride	78.3		mg/L	2.0	EPA 300.0		8/25/15 14:03	JP	C
Fluoride	ND		mg/L	0.20	EPA 300.0		8/25/15 14:03	JP	C
Halogen, Total Organic (TOX)	ND		ug/L	20.0	SW846 9020B		9/2/15 13:46	PAG	K
Nitrate-N	8.7		mg/L	0.20	EPA 300.0		8/25/15 14:03	JP	C
Nitrite-N	ND		mg/L	0.20	EPA 300.0		8/25/15 14:03	JP	C
pH	7.11		pH_Units		S4500HB-00		8/25/15 12:52	MBW	C
Phenolics	ND	1	mg/L	0.005	EPA 420.4	8/27/15 NV	8/28/15 13:41	SYB	H
Specific Conductance	477		umhos/cm	1	EPA 120.1		8/25/15 12:52	MBW	C
Sulfate	7.5		mg/L	2.0	EPA 300.0		8/25/15 14:03	JP	C
Total Dissolved Solids	277		mg/L	5	S2540C-11		8/31/15 09:00	ML	C
Total Organic Carbon (TOC)	ND		mg/L	1.0	S5310B-00		8/25/15 17:54	PAG	F
Turbidity	0.11		NTU	0.10	S2130B-01		8/25/15 11:19	NK	C
VOLATILE ORGANICS									
Acetone	ND		ug/L	5.0	EPA 524.2		8/29/15 03:03	TMP	I
Acrylonitrile	ND		ug/L	2.5	EPA 524.2		8/29/15 03:03	TMP	I
Benzene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Bromochloromethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Bromodichloromethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Bromoform	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Bromomethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
2-Butanone	ND		ug/L	2.5	EPA 524.2		8/29/15 03:03	TMP	I
Carbon Disulfide	ND	2	ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Carbon Tetrachloride	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Chlorobenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Chlorodibromomethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Chloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Chloroform	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Chloromethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
3-Chloro-1-propene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I

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ANALYTICAL RESULTS

Workorder: 2091342 Christian C & Elizabeth Beck

Lab ID: **2091342001**
Sample ID: **CWCGBCKW**

Date Collected: 8/24/2015 14:55 Matrix: Water
Date Received: 8/24/2015 16:42

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
1,2-Dibromoethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Dibromomethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	EPA 524.2		8/29/15 03:03	TMP	I
1,2-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
1,3-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
1,4-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Dichlorodifluoromethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
1,1-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
1,2-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
1,1-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
cis-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
trans-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
1,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
cis-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
trans-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Ethylbenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
2-Hexanone	ND		ug/L	2.5	EPA 524.2		8/29/15 03:03	TMP	I
Iodomethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	EPA 524.2		8/29/15 03:03	TMP	I
Methylene Chloride	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Styrene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Tetrachloroethene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Toluene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Total Xylenes	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
1,2,4-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
1,1,1-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
1,1,2-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Trichloroethene	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Trichlorofluoromethane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
1,2,3-Trichloropropane	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
Vinyl Chloride	ND		ug/L	0.50	EPA 524.2		8/29/15 03:03	TMP	I
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichlorobenzene-d4 (S)	78		%	70 - 130	EPA 524.2		8/29/15 03:03	TMP	I
4-Bromofluorobenzene (S)	109		%	70 - 130	EPA 524.2		8/29/15 03:03	TMP	I

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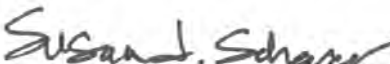
ANALYTICAL RESULTS

Workorder: 2091342 Christian C & Elizabeth Beck

Lab ID: **2091342001**
Sample ID: **CWCGBCKW**

Date Collected: 8/24/2015 14:55 Matrix: Water
Date Received: 8/24/2015 16:42

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Calcium, Total	0.12		mg/L	0.050	EPA 200.7	8/25/15 JPS	8/26/15 11:39	TSS	D1
Calcium, Dissolved	0.16		mg/L	0.10	EPA 200.7	8/25/15 TSS	8/29/15 08:48	TSS	E
Iron, Total	ND		mg/L	0.030	EPA 200.7	8/25/15 JPS	8/26/15 11:39	TSS	D1
Iron, Dissolved	ND		mg/L	0.060	EPA 200.7	8/25/15 TSS	8/29/15 08:48	TSS	E
Magnesium, Total	ND		mg/L	0.050	EPA 200.7	8/25/15 JPS	8/26/15 11:39	TSS	D1
Magnesium, Dissolved	ND		mg/L	0.10	EPA 200.7	8/25/15 TSS	8/29/15 08:48	TSS	E
Manganese, Total	ND		mg/L	0.0025	EPA 200.7	8/25/15 JPS	8/26/15 11:39	TSS	D1
Manganese, Dissolved	ND		mg/L	0.0050	EPA 200.7	8/25/15 TSS	8/29/15 08:48	TSS	E
Potassium, Total	2.0		mg/L	0.25	EPA 200.7	8/25/15 JPS	8/26/15 11:39	TSS	D1
Potassium, Dissolved	1.2		mg/L	0.50	EPA 200.7	8/25/15 TSS	8/29/15 08:48	TSS	E
Sodium, Total	90.1		mg/L	0.25	EPA 200.7	8/25/15 JPS	8/26/15 11:39	TSS	D1
Sodium, Dissolved	97.1		mg/L	0.50	EPA 200.7	8/25/15 TSS	8/29/15 08:48	TSS	E
FIELD PARAMETERS									
pH, Field (SM4500B)	7.15		pH_Units		Field		8/24/15 14:55	BGS	M
Specific Conductance, Field	483		umhos/cm	1	Field		8/24/15 14:55	BGS	M
Temperature	18.40		Deg. C		Field		8/24/15 14:55	BGS	M


Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2091342 Christian C & Elizabeth Beck

Lab ID: **2091342002**
Sample ID: **Contiguous Field Blank**

Date Collected: 8/24/2015 15:15 Matrix: Water
Date Received: 8/24/2015 16:42

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS									
Acetone	ND		ug/L	5.0	EPA 524.2		8/28/15 22:35	TMP	I
Acrylonitrile	ND		ug/L	2.5	EPA 524.2		8/28/15 22:35	TMP	I
Benzene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Bromochloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Bromodichloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Bromoform	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Bromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
2-Butanone	ND		ug/L	2.5	EPA 524.2		8/28/15 22:35	TMP	I
Carbon Disulfide	ND	1	ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Carbon Tetrachloride	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Chlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Chlorodibromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Chloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Chloroform	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Chloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
3-Chloro-1-propene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
1,2-Dibromoethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Dibromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	EPA 524.2		8/28/15 22:35	TMP	I
1,2-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
1,3-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
1,4-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Dichlorodifluoromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
1,1-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
1,2-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
1,1-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
cis-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
trans-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
1,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
cis-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
trans-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Ethylbenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
2-Hexanone	ND		ug/L	2.5	EPA 524.2		8/28/15 22:35	TMP	I
Iodomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	EPA 524.2		8/28/15 22:35	TMP	I

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ANALYTICAL RESULTS

Workorder: 2091342 Christian C & Elizabeth Beck

Lab ID: **2091342002**
Sample ID: **Contiguous Field Blank**

Date Collected: 8/24/2015 15:15 Matrix: Water
Date Received: 8/24/2015 16:42

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Styrene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Tetrachloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Toluene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Total Xylenes	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
1,2,4-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
1,1,1-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
1,1,2-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Trichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Trichlorofluoromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
1,2,3-Trichloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Vinyl Chloride	ND		ug/L	0.50	EPA 524.2		8/28/15 22:35	TMP	I
Surrogate Recoveries	Results	Flag	Units	Limits	Method	Prepared By	Analyzed	By	Cntr
1,2-Dichlorobenzene-d4 (S)	82.4		%	70 - 130	EPA 524.2		8/28/15 22:35	TMP	I
4-Bromofluorobenzene (S)	111		%	70 - 130	EPA 524.2		8/28/15 22:35	TMP	I
WET CHEMISTRY									
Alkalinity, Bicarbonate	ND		mg/L	5	S2320B-97		8/25/15 13:04	MBW	C
Alkalinity, Total	ND		mg/L	5	S2320B-97		8/25/15 13:04	MBW	C
Ammonia-N	ND		mg/L	0.010	D6919-09		8/25/15 00:27	JAM	B
Chemical Oxygen Demand (COD)	ND		mg/L	5	EPA 410.4		8/25/15 00:00	JAM	B
Chloride	ND		mg/L	1.0	EPA 300.0		8/25/15 14:16	JP	C
Fluoride	ND		mg/L	0.10	EPA 300.0		8/25/15 14:16	JP	C
Halogen, Total Organic (TOX)	ND		ug/L	20.0	SW846 9020B		9/2/15 15:02	PAG	K
Nitrate-N	ND		mg/L	0.10	EPA 300.0		8/25/15 14:16	JP	C
Nitrite-N	ND		mg/L	0.10	EPA 300.0		8/25/15 14:16	JP	C
pH	6.87		pH_Units		S4500HB-00		8/25/15 13:04	MBW	C
Phenolics	ND		mg/L	0.005	EPA 420.4	8/27/15 NV	8/28/15 13:45	SYB	H
Specific Conductance	ND		umhos/cm	1	EPA 120.1		8/25/15 13:04	MBW	C
Sulfate	ND		mg/L	1.0	EPA 300.0		8/25/15 14:16	JP	C
Total Dissolved Solids	ND		mg/L	5	S2540C-11		8/31/15 09:00	ML	C
Total Organic Carbon (TOC)	ND		mg/L	1.0	S5310B-00		8/25/15 17:54	PAG	F
Turbidity	ND	2	NTU	0.10	S2130B-01		8/27/15 07:59	NK	C

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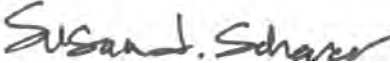
ANALYTICAL RESULTS

Workorder: 2091342 Christian C & Elizabeth Beck

Lab ID: **2091342002**
Sample ID: **Contiguous Field Blank**

Date Collected: 8/24/2015 15:15 Matrix: Water
Date Received: 8/24/2015 16:42

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Calcium, Total	ND		mg/L	0.050	EPA 200.7	8/25/15 JPS	8/26/15 11:43	TSS	D1
Calcium, Dissolved	ND		mg/L	0.10	EPA 200.7	8/25/15 TSS	8/29/15 08:52	TSS	E
Iron, Total	ND		mg/L	0.030	EPA 200.7	8/25/15 JPS	8/26/15 11:43	TSS	D1
Iron, Dissolved	ND		mg/L	0.060	EPA 200.7	8/25/15 TSS	8/29/15 08:52	TSS	E
Magnesium, Total	ND		mg/L	0.050	EPA 200.7	8/25/15 JPS	8/26/15 11:43	TSS	D1
Magnesium, Dissolved	ND		mg/L	0.10	EPA 200.7	8/25/15 TSS	8/29/15 08:52	TSS	E
Manganese, Total	ND		mg/L	0.0025	EPA 200.7	8/25/15 JPS	8/26/15 11:43	TSS	D1
Manganese, Dissolved	ND		mg/L	0.0050	EPA 200.7	8/25/15 TSS	8/29/15 08:52	TSS	E
Potassium, Total	0.53		mg/L	0.25	EPA 200.7	8/25/15 JPS	8/26/15 11:43	TSS	D1
Potassium, Dissolved	ND		mg/L	0.50	EPA 200.7	8/25/15 TSS	8/29/15 08:52	TSS	E
Sodium, Total	0.78		mg/L	0.25	EPA 200.7	8/25/15 JPS	8/26/15 11:43	TSS	D1
Sodium, Dissolved	ND		mg/L	0.50	EPA 200.7	8/25/15 TSS	8/29/15 08:52	TSS	E


Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2091342 Christian C & Elizabeth Beck

Lab ID: **2091342003**

Date Collected: 8/24/2015 16:42

Matrix: Water

Sample ID: **Trip Blank**

Date Received: 8/24/2015 16:42

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS									
Acetone	ND		ug/L	5.0	EPA 524.2		8/28/15 22:57	TMP	A
Acrylonitrile	ND		ug/L	2.5	EPA 524.2		8/28/15 22:57	TMP	A
Benzene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Bromochloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Bromodichloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Bromoform	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Bromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
2-Butanone	ND		ug/L	2.5	EPA 524.2		8/28/15 22:57	TMP	A
Carbon Disulfide	ND	1	ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Carbon Tetrachloride	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Chlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Chlorodibromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Chloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Chloroform	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Chloromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
3-Chloro-1-propene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
1,2-Dibromoethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Dibromomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
trans-1,4-Dichloro-2-butene	ND		ug/L	1.0	EPA 524.2		8/28/15 22:57	TMP	A
1,2-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
1,3-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
1,4-Dichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Dichlorodifluoromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
1,1-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
1,2-Dichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
1,1-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
trans-1,2-Dichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
1,2-Dichloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Ethylbenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
2-Hexanone	ND		ug/L	2.5	EPA 524.2		8/28/15 22:57	TMP	A
Iodomethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	2.5	EPA 524.2		8/28/15 22:57	TMP	A

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ANALYTICAL RESULTS

Workorder: 2091342 Christian C & Elizabeth Beck

Lab ID: **2091342003**

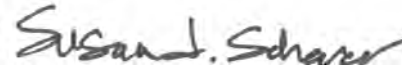
Date Collected: 8/24/2015 16:42

Matrix: Water

Sample ID: **Trip Blank**

Date Received: 8/24/2015 16:42

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	Cntr
Methylene Chloride	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Styrene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Tetrachloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Toluene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Total Xylenes	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
1,1,1-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
1,1,2-Trichloroethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Trichloroethene	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Trichlorofluoromethane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
1,2,3-Trichloropropane	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
Vinyl Chloride	ND		ug/L	0.50	EPA 524.2		8/28/15 22:57	TMP	A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared By</i>	<i>Analyzed</i>	<i>By</i>	<i>Cntr</i>
1,2-Dichlorobenzene-d4 (S)	80.1		%	70 - 130	EPA 524.2		8/28/15 22:57	TMP	A
4-Bromofluorobenzene (S)	102		%	70 - 130	EPA 524.2		8/28/15 22:57	TMP	A



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PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2091342001	1	CWCGBCKW	EPA 420.4	Phenolics
The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits.				
2091342001	2	CWCGBCKW	EPA 524.2	Carbon Disulfide
The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Carbon Disulfide. The % Recovery was reported as 60.2 and the control limits were 70 to 130.				
2091342002	1	Contiguous Field Blank	EPA 524.2	Carbon Disulfide
The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Carbon Disulfide. The % Recovery was reported as 60.2 and the control limits were 70 to 130.				
2091342002	2	Contiguous Field Blank	S2130B-01	Turbidity
The sample was originally run within hold time, but required further analysis that exceeded hold time.				
2091342003	1	Trip Blank	EPA 524.2	Carbon Disulfide
The QC sample type LCS for method EPA 524.2 was outside the control limits for the analyte Carbon Disulfide. The % Recovery was reported as 60.2 and the control limits were 70 to 130.				

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**CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS**
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /
SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: _____
ALS Quote _____



Client Name: LCSWMA - Christian C. Beck
Address: 3125 River Road
Conestoga, PA 17516
Contact: Christian C. Beck
Phone#: (717) 871-0448
Project Name#: LCSWMA - Quarterly
Bill To: Lancaster County Solid Waste MA

TAT: Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
Date Required: _____ Approved By: _____
Email? -Y -N
Fax? -Y -N

Sample No.	Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	Enter Number of Containers Per Sample or Field Results Below.										Matrix	G or C	Cooler Temp: _____ Therm ID: _____	No. of Coolers: _____	Recall#		
				TOC	TOX	O-OH	VOC	FM	MH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	PH, TDS, NO2, NO3, Cl, SO4, F, TB, SPC	Alkalinity, HCO3							
1	CWGBCKW	8-24-15	1455	2	2	1	2	1	2	1	1	1	1	1	DW	G	60°L	1		
2	Conestoga Field Blank	8-24-15	1515	1	1	1	1	1	1	1	1	1	1	1	DW	G	60°L	1		
3	Trip Blank	8-24-15	1602	1	1	1	1	1	1	1	1	1	1	1	DW	G	60°L	1		
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Project Comments: _____
Relinquished By / Company Name: _____
Date: 8-24-15 Time: 1642
Received By / Company Name: _____
Date: 8/24/15 Time: 1647

LOGGED BY (signature): _____
REVIEWED BY (signature): _____

ALS Field Services: Pickup Labor
 Composite Sampling Rental Equipment
 Other: _____

Special Processing: USACE Navy
State Samples Collected In: NY NJ PA NC

Reportable to PADEP? Yes No
PWSID # _____
EDDS: Formal Type: _____

* G=Grab; C=Composite ** Matrix - A=Air; DW=Drinking Water; GW=Groundwater; O=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
ALS ENVIRONMENTAL SHIPPING ADDRESS: 34 DOGWOOD LANE, MIDDLETOWN, PA 17057
Rev 8/04

