



## Laboratory Report of Analysis

To: Stantec Consulting Services Inc.  
725 East Fireweed Lane Suite 200  
Anchorage, AK 99503  
(907)248-8883

Report Number: **1176148**

Client Project: **Wasilla WWTP Surface**

Dear John Marshall,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Justin at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,  
SGS North America Inc.

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Justin Nelson  
Project Manager  
Justin.Nelson@sgs.com

Date

Print Date: 09/07/2017 9:05:45AM

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Member of SGS Group

### Case Narrative

SGS Client: **Stantec Consulting Services Inc.**  
SGS Project: **1176148**  
Project Name/Site: **Wasilla WWTP Surface**  
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

**1176049001DUP (1408970) DUP**

2540D - Total Suspended Solids - Sample duplicate RPD was outside of acceptance limits. The difference between sample and duplicate results is less than the LOQ.

**1178293001DUP (1408988) DUP**

2540D - Total Suspended Solids - Sample duplicate RPD was outside of acceptance limits. The difference between sample and duplicate results is less than the LOQ.

**1175889001MS (1409200) MS**

4500NH3-G - Ammonia - MS recovery is outside of QC criteria. Refer to LCS for accuracy requirements.

**1176131001MS (1410417) MS**

300.0 - Anions - MS recovery for Sulfate is outside of QC criteria. Refer to LCS for accuracy requirements.

**1175889001MSD (1409201) MSD**

4500NH3-G - Ammonia - MSD recovery is outside of QC criteria. Refer to LCS for accuracy requirements.

**1176131001MSD (1410418) MSD**

300.0 - Anions - MSD recovery for Sulfate is outside of QC criteria. Refer to LCS for accuracy requirements.

\*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

Print Date: 09/07/2017 9:05:47AM

## Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the context or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & UST-005 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8015C, 8021B, 8082A, 8260C, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.

**Note:** Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

### Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
SW-1	1176148001	08/29/2017	08/29/2017	Water (Surface, Eff., Ground)
SW-2	1176148002	08/29/2017	08/29/2017	Water (Surface, Eff., Ground)
SW-3	1176148003	08/29/2017	08/29/2017	Water (Surface, Eff., Ground)
SW-4	1176148004	08/29/2017	08/29/2017	Water (Surface, Eff., Ground)
SW-5	1176148005	08/29/2017	08/29/2017	Water (Surface, Eff., Ground)
SW-6	1176148006	08/29/2017	08/29/2017	Water (Surface, Eff., Ground)
SW-7	1176148007	08/29/2017	08/29/2017	Water (Surface, Eff., Ground)
SW-8	1176148008	08/29/2017	08/29/2017	Water (Surface, Eff., Ground)
SW-9	1176148009	08/29/2017	08/29/2017	Water (Surface, Eff., Ground)
SW-10	1176148010	08/29/2017	08/29/2017	Water (Surface, Eff., Ground)
SW-11	1176148011	08/29/2017	08/29/2017	Water (Surface, Eff., Ground)
SW-12	1176148012	08/29/2017	08/29/2017	Water (Surface, Eff., Ground)
SW-13	1176148013	08/29/2017	08/29/2017	Water (Surface, Eff., Ground)
Duplicate 1	1176148014	08/29/2017	08/29/2017	Water (Surface, Eff., Ground)

Method

SM21 4500-NH3 G  
 SM21 5210B  
 SM21 9222D  
 EPA 300.0  
 SM21 4500-N D  
 SM21 9223B  
 SM21 4500P-B,E  
 SM21 2540D

Method Description

Ammonia-N (W) SM21 4500-NH3 G  
 Biochemical Oxygen Demand SM21 5210B  
 Fecal Coliform (MF)  
 Ion Chromatographic Analysis  
 TKN by Phenate (W)  
 Total Coliform P/A Quant Tray  
 Total Phosphorus (W)  
 Total Suspended Solids SM20 2540D

### Detectable Results Summary

Client Sample ID: **SW-1**  
 Lab Sample ID: 1176148001  
**Microbiology Laboratory**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	9.48	mg/L
E. Coli	1733	MPN/100mL
Fecal Coliform	1110	col/100mL
Total Coliform	2420	MPN/100mL
Total Kjeldahl Nitrogen	0.564J	mg/L
Total Phosphorus	0.0700	mg/L
Total Suspended Solids	19.0	mg/L

**Waters Department**

Client Sample ID: **SW-2**  
 Lab Sample ID: 1176148002  
**Microbiology Laboratory**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	12.3	mg/L
E. Coli	46	MPN/100mL
Fecal Coliform	10	col/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	1.78	mg/L
Total Phosphorus	0.144	mg/L
Total Suspended Solids	265	mg/L

**Waters Department**

Client Sample ID: **SW-3**  
 Lab Sample ID: 1176148003  
**Microbiology Laboratory**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	6.06	mg/L
E. Coli	2	MPN/100mL
Fecal Coliform	30	col/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	0.609J	mg/L
Total Phosphorus	0.132	mg/L
Total Suspended Solids	195	mg/L

**Waters Department**

Client Sample ID: **SW-4**  
 Lab Sample ID: 1176148004  
**Microbiology Laboratory**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	13.8	mg/L
E. Coli	8	MPN/100mL
Fecal Coliform	10	col/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	1.33	mg/L
Total Phosphorus	0.0874	mg/L
Total Suspended Solids	109	mg/L

**Waters Department**

### Detectable Results Summary

Client Sample ID: **SW-5**  
 Lab Sample ID: 1176148005  
**Microbiology Laboratory**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	8.25	mg/L
E. Coli	12	MPN/100mL
Fecal Coliform	18	col/100mL
Total Coliform	2420	MPN/100mL
Ammonia-N	0.0328J	mg/L
Total Kjeldahl Nitrogen	0.844J	mg/L
Total Phosphorus	0.0603	mg/L
Total Suspended Solids	70.3	mg/L

**Waters Department**

Client Sample ID: **SW-6**  
 Lab Sample ID: 1176148006  
**Microbiology Laboratory**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	4.62	mg/L
E. Coli	6	MPN/100mL
Fecal Coliform	2.0	col/100mL
Total Coliform	GT2420	MPN/100mL
Ammonia-N	0.0595J	mg/L
Total Kjeldahl Nitrogen	2.87	mg/L
Total Phosphorus	0.300	mg/L
Total Suspended Solids	226	mg/L

**Waters Department**

Client Sample ID: **SW-7**  
 Lab Sample ID: 1176148007  
**Microbiology Laboratory**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.98	mg/L
E. Coli	7	MPN/100mL
Fecal Coliform	5.0	col/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	0.624J	mg/L
Total Phosphorus	0.0967	mg/L
Total Suspended Solids	52.0	mg/L

**Waters Department**

Client Sample ID: **SW-8**  
 Lab Sample ID: 1176148008  
**Microbiology Laboratory**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	8.37	mg/L
E. Coli	2	MPN/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	2.78	mg/L
Total Phosphorus	0.270	mg/L
Total Suspended Solids	240	mg/L

**Waters Department**

### Detectable Results Summary

Client Sample ID: **SW-9**  
 Lab Sample ID: 1176148009  
**Microbiology Laboratory**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	6.38	mg/L
Fecal Coliform	5.0	col/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	0.802J	mg/L
Total Phosphorus	0.163	mg/L
Total Suspended Solids	85.5	mg/L

**Waters Department**

Client Sample ID: **SW-10**  
 Lab Sample ID: 1176148010  
**Microbiology Laboratory**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	7.50	mg/L
E. Coli	12	MPN/100mL
Fecal Coliform	16	col/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	0.860J	mg/L
Total Phosphorus	0.0938	mg/L
Total Suspended Solids	72.0	mg/L

**Waters Department**

Client Sample ID: **SW-11**  
 Lab Sample ID: 1176148011  
**Microbiology Laboratory**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	8.58	mg/L
E. Coli	2	MPN/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	1.44	mg/L
Total Phosphorus	0.333	mg/L
Total Suspended Solids	173	mg/L

**Waters Department**

Client Sample ID: **SW-12**  
 Lab Sample ID: 1176148012  
**Microbiology Laboratory**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	7.08	mg/L
E. Coli	30	MPN/100mL
Fecal Coliform	330	col/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	3.04	mg/L
Total Phosphorus	0.439	mg/L
Total Suspended Solids	244	mg/L

**Waters Department**

Client Sample ID: **SW-13**  
 Lab Sample ID: 1176148013  
**Microbiology Laboratory**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	2.49	mg/L
E. Coli	187	MPN/100mL
Fecal Coliform	160	col/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	1.36	mg/L
Total Phosphorus	0.190	mg/L
Total Suspended Solids	81.3	mg/L

**Waters Department**

## Detectable Results Summary

Client Sample ID: **Duplicate 1**

Lab Sample ID: 1176148014

**Microbiology Laboratory**

**Waters Department**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	9.72	mg/L
E. Coli	18	MPN/100mL
Fecal Coliform	600	col/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	3.51	mg/L
Total Phosphorus	0.489	mg/L
Total Suspended Solids	240	mg/L

Print Date: 09/07/2017 9:05:52AM





**Results of SW-1**

Client Sample ID: **SW-1**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148001  
Lab Project ID: 1176148

Collection Date: 08/29/17 09:22  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	9.48	2.00	2.00	mg/L	1		08/29/17 19:03

**Batch Information**

Analytical Batch: BOD5842  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/29/17 19:03  
Container ID: 1176148001-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1110	10.0	10.0	col/100mL	1		08/29/17 17:21

**Batch Information**

Analytical Batch: BTF15941  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/29/17 17:21  
Container ID: 1176148001-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	1733	1	1	MPN/100r	1		08/29/17 17:10
Total Coliform	2420	1	1	MPN/100r	1		08/29/17 17:10

**Batch Information**

Analytical Batch: BTF15940  
Analytical Method: SM21 9223B  
Analyst: DSH  
Analytical Date/Time: 08/29/17 17:10  
Container ID: 1176148001-E



Results of SW-1

Client Sample ID: SW-1
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176148001
Lab Project ID: 1176148

Collection Date: 08/29/17 09:22
Received Date: 08/29/17 16:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5682
Analytical Method: EPA 300.0
Analyst: NEG
Analytical Date/Time: 08/30/17 04:53
Container ID: 1176148001-D
Prep Batch: WXX11979
Prep Method: METHOD
Prep Date/Time: 08/30/17 01:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS5614
Analytical Method: SM21 2540D
Analyst: AYC
Analytical Date/Time: 08/29/17 19:18
Container ID: 1176148001-B

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4052
Analytical Method: SM21 4500-N D
Analyst: NEG
Analytical Date/Time: 09/06/17 14:34
Container ID: 1176148001-C
Prep Batch: WXX11982
Prep Method: METHOD
Prep Date/Time: 09/05/17 18:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.



Results of **SW-1**

Client Sample ID: **SW-1**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148001  
Lab Project ID: 1176148

Collection Date: 08/29/17 09:22  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

**Batch Information**

Analytical Batch: WDA4045  
Analytical Method: SM21 4500-NH3 G  
Analyst: NEG  
Analytical Date/Time: 08/30/17 13:36  
Container ID: 1176148001-C

Prep Batch: WXX11970  
Prep Method: METHOD  
Prep Date/Time: 08/30/17 13:00  
Prep Initial Wt./Vol.: 6 mL  
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0700	0.0200	0.00620	mg/L	1		08/30/17 15:46

**Batch Information**

Analytical Batch: WDA4046  
Analytical Method: SM21 4500P-B,E  
Analyst: NEG  
Analytical Date/Time: 08/30/17 15:46  
Container ID: 1176148001-C

Prep Batch: WXX11971  
Prep Method: SM21 4500P-B,E  
Prep Date/Time: 08/30/17 12:15  
Prep Initial Wt./Vol.: 25 mL  
Prep Extract Vol: 25 mL



Results of **SW-2**

Client Sample ID: **SW-2**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148002  
Lab Project ID: 1176148

Collection Date: 08/29/17 09:43  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	12.3	2.00	2.00	mg/L	1		08/29/17 19:03

**Batch Information**

Analytical Batch: BOD5842  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/29/17 19:03  
Container ID: 1176148002-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	10	10.0	10.0	col/100mL	1		08/29/17 17:21

**Batch Information**

Analytical Batch: BTF15941  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/29/17 17:21  
Container ID: 1176148002-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	46	1	1	MPN/100r	1		08/29/17 17:10
Total Coliform	>2420	1	1	MPN/100r	1		08/29/17 17:10

**Batch Information**

Analytical Batch: BTF15940  
Analytical Method: SM21 9223B  
Analyst: DSH  
Analytical Date/Time: 08/29/17 17:10  
Container ID: 1176148002-E



Results of **SW-2**

Client Sample ID: **SW-2**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148002  
Lab Project ID: 1176148

Collection Date: 08/29/17 09:43  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 05:11
Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 05:11
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 05:11

Batch Information

Analytical Batch: WIC5682  
Analytical Method: EPA 300.0  
Analyst: NEG  
Analytical Date/Time: 08/30/17 05:11  
Container ID: 1176148002-D

Prep Batch: WXX11979  
Prep Method: METHOD  
Prep Date/Time: 08/30/17 01:00  
Prep Initial Wt./Vol.: 10 mL  
Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	265	10.0	3.10	mg/L	1		08/29/17 19:18

Batch Information

Analytical Batch: STS5614  
Analytical Method: SM21 2540D  
Analyst: AYC  
Analytical Date/Time: 08/29/17 19:18  
Container ID: 1176148002-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	1.78	1.00	0.310	mg/L	1		09/06/17 14:36

Batch Information

Analytical Batch: WDA4052  
Analytical Method: SM21 4500-N D  
Analyst: NEG  
Analytical Date/Time: 09/06/17 14:36  
Container ID: 1176148002-C

Prep Batch: WXX11982  
Prep Method: METHOD  
Prep Date/Time: 09/05/17 18:50  
Prep Initial Wt./Vol.: 25 mL  
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0500 U	0.100	0.0310	mg/L	1		08/30/17 13:37

## Results of SW-2

Client Sample ID: **SW-2**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176148002  
 Lab Project ID: 1176148

Collection Date: 08/29/17 09:43  
 Received Date: 08/29/17 16:05  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4045  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 13:37  
 Container ID: 1176148002-C

Prep Batch: WXX11970  
 Prep Method: METHOD  
 Prep Date/Time: 08/30/17 13:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.144	0.0200	0.00620	mg/L	1		08/30/17 15:47

### Batch Information

Analytical Batch: WDA4046  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 15:47  
 Container ID: 1176148002-C

Prep Batch: WXX11971  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 08/30/17 12:15  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL



**Results of SW-3**

Client Sample ID: **SW-3**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148003  
Lab Project ID: 1176148

Collection Date: 08/29/17 10:02  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	6.06	2.00	2.00	mg/L	1		08/29/17 19:03

**Batch Information**

Analytical Batch: BOD5842  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/29/17 19:03  
Container ID: 1176148003-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	30	1.00	1.00	col/100mL	1		08/29/17 17:21

**Batch Information**

Analytical Batch: BTF15941  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/29/17 17:21  
Container ID: 1176148003-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	2	1	1	MPN/100r	1		08/29/17 17:10
Total Coliform	>2420	1	1	MPN/100r	1		08/29/17 17:10

**Batch Information**

Analytical Batch: BTF15940  
Analytical Method: SM21 9223B  
Analyst: DSH  
Analytical Date/Time: 08/29/17 17:10  
Container ID: 1176148003-E



Results of SW-3

Client Sample ID: SW-3
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176148003
Lab Project ID: 1176148

Collection Date: 08/29/17 10:02
Received Date: 08/29/17 16:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5682
Analytical Method: EPA 300.0
Analyst: NEG
Analytical Date/Time: 08/30/17 06:05
Container ID: 1176148003-D
Prep Batch: WXX11979
Prep Method: METHOD
Prep Date/Time: 08/30/17 01:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS5614
Analytical Method: SM21 2540D
Analyst: AYC
Analytical Date/Time: 08/29/17 19:18
Container ID: 1176148003-B

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4052
Analytical Method: SM21 4500-N D
Analyst: NEG
Analytical Date/Time: 09/06/17 14:37
Container ID: 1176148003-C
Prep Batch: WXX11982
Prep Method: METHOD
Prep Date/Time: 09/05/17 18:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.



## Results of SW-3

Client Sample ID: **SW-3**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176148003  
 Lab Project ID: 1176148

Collection Date: 08/29/17 10:02  
 Received Date: 08/29/17 16:05  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4045  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 13:39  
 Container ID: 1176148003-C

Prep Batch: WXX11970  
 Prep Method: METHOD  
 Prep Date/Time: 08/30/17 13:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.132	0.0200	0.00620	mg/L	1		08/30/17 15:50

### Batch Information

Analytical Batch: WDA4046  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 15:50  
 Container ID: 1176148003-C

Prep Batch: WXX11971  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 08/30/17 12:15  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL



**Results of SW-4**

Client Sample ID: **SW-4**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148004  
Lab Project ID: 1176148

Collection Date: 08/29/17 10:15  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	13.8	2.00	2.00	mg/L	1		08/29/17 19:03

**Batch Information**

Analytical Batch: BOD5842  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/29/17 19:03  
Container ID: 1176148004-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	10	10.0	10.0	col/100mL	1		08/29/17 17:21

**Batch Information**

Analytical Batch: BTF15941  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/29/17 17:21  
Container ID: 1176148004-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	8	1	1	MPN/100r	1		08/29/17 17:10
Total Coliform	>2420	1	1	MPN/100r	1		08/29/17 17:10

**Batch Information**

Analytical Batch: BTF15940  
Analytical Method: SM21 9223B  
Analyst: DSH  
Analytical Date/Time: 08/29/17 17:10  
Container ID: 1176148004-E



### Results of SW-4

Client Sample ID: **SW-4**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176148004  
 Lab Project ID: 1176148

Collection Date: 08/29/17 10:15  
 Received Date: 08/29/17 16:05  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

### Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 06:23
Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 06:23
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 06:23

### Batch Information

Analytical Batch: WIC5682  
 Analytical Method: EPA 300.0  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 06:23  
 Container ID: 1176148004-D

Prep Batch: WXX11979  
 Prep Method: METHOD  
 Prep Date/Time: 08/30/17 01:00  
 Prep Initial Wt./Vol.: 10 mL  
 Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	109	5.00	1.55	mg/L	1		08/29/17 19:18

### Batch Information

Analytical Batch: STS5614  
 Analytical Method: SM21 2540D  
 Analyst: AYC  
 Analytical Date/Time: 08/29/17 19:18  
 Container ID: 1176148004-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	1.33	1.00	0.310	mg/L	1		09/06/17 14:38

### Batch Information

Analytical Batch: WDA4052  
 Analytical Method: SM21 4500-N D  
 Analyst: NEG  
 Analytical Date/Time: 09/06/17 14:38  
 Container ID: 1176148004-C

Prep Batch: WXX11982  
 Prep Method: METHOD  
 Prep Date/Time: 09/05/17 18:50  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0500 U	0.100	0.0310	mg/L	1		08/30/17 13:41

## Results of SW-4

Client Sample ID: **SW-4**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176148004  
 Lab Project ID: 1176148

Collection Date: 08/29/17 10:15  
 Received Date: 08/29/17 16:05  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4045  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 13:41  
 Container ID: 1176148004-C

Prep Batch: WXX11970  
 Prep Method: METHOD  
 Prep Date/Time: 08/30/17 13:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0874	0.0200	0.00620	mg/L	1		08/30/17 15:51

### Batch Information

Analytical Batch: WDA4046  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 15:51  
 Container ID: 1176148004-C

Prep Batch: WXX11971  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 08/30/17 12:15  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL



**Results of SW-5**

Client Sample ID: **SW-5**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148005  
Lab Project ID: 1176148

Collection Date: 08/29/17 10:23  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	8.25	2.00	2.00	mg/L	1		08/29/17 19:03

**Batch Information**

Analytical Batch: BOD5842  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/29/17 19:03  
Container ID: 1176148005-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	18	1.00	1.00	col/100mL	1		08/29/17 17:21

**Batch Information**

Analytical Batch: BTF15941  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/29/17 17:21  
Container ID: 1176148005-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	12	1	1	MPN/100r	1		08/29/17 17:10
Total Coliform	2420	1	1	MPN/100r	1		08/29/17 17:10

**Batch Information**

Analytical Batch: BTF15940  
Analytical Method: SM21 9223B  
Analyst: DSH  
Analytical Date/Time: 08/29/17 17:10  
Container ID: 1176148005-E



Results of SW-5

Client Sample ID: SW-5
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176148005
Lab Project ID: 1176148

Collection Date: 08/29/17 10:23
Received Date: 08/29/17 16:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5682
Analytical Method: EPA 300.0
Analyst: NEG
Analytical Date/Time: 08/30/17 06:41
Container ID: 1176148005-D
Prep Batch: WXX11979
Prep Method: METHOD
Prep Date/Time: 08/30/17 01:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS5614
Analytical Method: SM21 2540D
Analyst: AYC
Analytical Date/Time: 08/29/17 19:18
Container ID: 1176148005-B

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4052
Analytical Method: SM21 4500-N D
Analyst: NEG
Analytical Date/Time: 09/06/17 14:42
Container ID: 1176148005-C
Prep Batch: WXX11982
Prep Method: METHOD
Prep Date/Time: 09/05/17 18:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

## Results of SW-5

Client Sample ID: **SW-5**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176148005  
 Lab Project ID: 1176148

Collection Date: 08/29/17 10:23  
 Received Date: 08/29/17 16:05  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4045  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 13:46  
 Container ID: 1176148005-C

Prep Batch: WXX11970  
 Prep Method: METHOD  
 Prep Date/Time: 08/30/17 13:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0603	0.0200	0.00620	mg/L	1		08/30/17 15:52

### Batch Information

Analytical Batch: WDA4046  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 15:52  
 Container ID: 1176148005-C

Prep Batch: WXX11971  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 08/30/17 12:15  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL



**Results of SW-6**

Client Sample ID: **SW-6**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148006  
Lab Project ID: 1176148

Collection Date: 08/29/17 11:24  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	4.62	2.00	2.00	mg/L	1		08/29/17 19:03

**Batch Information**

Analytical Batch: BOD5842  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/29/17 19:03  
Container ID: 1176148006-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	2.0	1.00	1.00	col/100mL	1		08/29/17 18:15

**Batch Information**

Analytical Batch: BTF15941  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:15  
Container ID: 1176148006-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	6	1	1	MPN/100r	1		08/29/17 18:35
Total Coliform	>2420	1	1	MPN/100r	1		08/29/17 18:35

**Batch Information**

Analytical Batch: BTF15940  
Analytical Method: SM21 9223B  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:35  
Container ID: 1176148006-E





Results of SW-6

Client Sample ID: SW-6
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176148006
Lab Project ID: 1176148

Collection Date: 08/29/17 11:24
Received Date: 08/29/17 16:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5682
Analytical Method: EPA 300.0
Analyst: NEG
Analytical Date/Time: 08/30/17 06:59
Container ID: 1176148006-D
Prep Batch: WXX11979
Prep Method: METHOD
Prep Date/Time: 08/30/17 01:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS5614
Analytical Method: SM21 2540D
Analyst: AYC
Analytical Date/Time: 08/29/17 19:18
Container ID: 1176148006-B

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4052
Analytical Method: SM21 4500-N D
Analyst: NEG
Analytical Date/Time: 09/06/17 14:43
Container ID: 1176148006-C
Prep Batch: WXX11982
Prep Method: METHOD
Prep Date/Time: 09/05/17 18:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

## Results of SW-6

Client Sample ID: **SW-6**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176148006  
 Lab Project ID: 1176148

Collection Date: 08/29/17 11:24  
 Received Date: 08/29/17 16:05  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4045  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 13:47  
 Container ID: 1176148006-C

Prep Batch: WXX11970  
 Prep Method: METHOD  
 Prep Date/Time: 08/30/17 13:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.300	0.0200	0.00620	mg/L	1		08/30/17 15:53

### Batch Information

Analytical Batch: WDA4046  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 15:53  
 Container ID: 1176148006-C

Prep Batch: WXX11971  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 08/30/17 12:15  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL



**Results of SW-7**

Client Sample ID: **SW-7**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148007  
Lab Project ID: 1176148

Collection Date: 08/29/17 11:35  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	3.98	2.00	2.00	mg/L	1		08/29/17 19:03

**Batch Information**

Analytical Batch: BOD5842  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/29/17 19:03  
Container ID: 1176148007-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	5.0	1.00	1.00	col/100mL	1		08/29/17 18:15

**Batch Information**

Analytical Batch: BTF15941  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:15  
Container ID: 1176148007-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	7	1	1	MPN/100r	1		08/29/17 18:35
Total Coliform	>2420	1	1	MPN/100r	1		08/29/17 18:35

**Batch Information**

Analytical Batch: BTF15940  
Analytical Method: SM21 9223B  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:35  
Container ID: 1176148007-E



### Results of SW-7

Client Sample ID: **SW-7**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176148007  
 Lab Project ID: 1176148

Collection Date: 08/29/17 11:35  
 Received Date: 08/29/17 16:05  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

### Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 07:17
Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 07:17
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 07:17

### Batch Information

Analytical Batch: WIC5682  
 Analytical Method: EPA 300.0  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 07:17  
 Container ID: 1176148007-D

Prep Batch: WXX11979  
 Prep Method: METHOD  
 Prep Date/Time: 08/30/17 01:00  
 Prep Initial Wt./Vol.: 10 mL  
 Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	52.0	3.33	1.03	mg/L	1		08/29/17 19:18

### Batch Information

Analytical Batch: STS5614  
 Analytical Method: SM21 2540D  
 Analyst: AYC  
 Analytical Date/Time: 08/29/17 19:18  
 Container ID: 1176148007-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.624 J	1.00	0.310	mg/L	1		09/06/17 14:45

### Batch Information

Analytical Batch: WDA4052  
 Analytical Method: SM21 4500-N D  
 Analyst: NEG  
 Analytical Date/Time: 09/06/17 14:45  
 Container ID: 1176148007-C

Prep Batch: WXX11982  
 Prep Method: METHOD  
 Prep Date/Time: 09/05/17 18:50  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0500 U	0.100	0.0310	mg/L	1		08/30/17 13:49



Results of **SW-7**

Client Sample ID: **SW-7**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148007  
Lab Project ID: 1176148

Collection Date: 08/29/17 11:35  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

**Batch Information**

Analytical Batch: WDA4045  
Analytical Method: SM21 4500-NH3 G  
Analyst: NEG  
Analytical Date/Time: 08/30/17 13:49  
Container ID: 1176148007-C

Prep Batch: WXX11970  
Prep Method: METHOD  
Prep Date/Time: 08/30/17 13:00  
Prep Initial Wt./Vol.: 6 mL  
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0967	0.0200	0.00620	mg/L	1		08/30/17 15:54

**Batch Information**

Analytical Batch: WDA4046  
Analytical Method: SM21 4500P-B,E  
Analyst: NEG  
Analytical Date/Time: 08/30/17 15:54  
Container ID: 1176148007-C

Prep Batch: WXX11971  
Prep Method: SM21 4500P-B,E  
Prep Date/Time: 08/30/17 12:15  
Prep Initial Wt./Vol.: 25 mL  
Prep Extract Vol: 25 mL



**Results of SW-8**

Client Sample ID: **SW-8**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148008  
Lab Project ID: 1176148

Collection Date: 08/29/17 12:20  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	8.37	2.00	2.00	mg/L	1		08/29/17 19:03

**Batch Information**

Analytical Batch: BOD5842  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/29/17 19:03  
Container ID: 1176148008-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		08/29/17 18:15

**Batch Information**

Analytical Batch: BTF15941  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:15  
Container ID: 1176148008-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	2	1	1	MPN/100r	1		08/29/17 18:35
Total Coliform	>2420	1	1	MPN/100r	1		08/29/17 18:35

**Batch Information**

Analytical Batch: BTF15940  
Analytical Method: SM21 9223B  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:35  
Container ID: 1176148008-E



### Results of SW-8

Client Sample ID: **SW-8**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176148008  
 Lab Project ID: 1176148

Collection Date: 08/29/17 12:20  
 Received Date: 08/29/17 16:05  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

### Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 07:35
Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 07:35
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 07:35

### Batch Information

Analytical Batch: WIC5682  
 Analytical Method: EPA 300.0  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 07:35  
 Container ID: 1176148008-D

Prep Batch: WXX11979  
 Prep Method: METHOD  
 Prep Date/Time: 08/30/17 01:00  
 Prep Initial Wt./Vol.: 10 mL  
 Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	240	5.00	1.55	mg/L	1		08/29/17 19:18

### Batch Information

Analytical Batch: STS5614  
 Analytical Method: SM21 2540D  
 Analyst: AYC  
 Analytical Date/Time: 08/29/17 19:18  
 Container ID: 1176148008-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	2.78	1.00	0.310	mg/L	1		09/06/17 14:46

### Batch Information

Analytical Batch: WDA4052  
 Analytical Method: SM21 4500-N D  
 Analyst: NEG  
 Analytical Date/Time: 09/06/17 14:46  
 Container ID: 1176148008-C

Prep Batch: WXX11982  
 Prep Method: METHOD  
 Prep Date/Time: 09/05/17 18:50  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0500 U	0.100	0.0310	mg/L	1		08/30/17 13:51

## Results of SW-8

Client Sample ID: **SW-8**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176148008  
 Lab Project ID: 1176148

Collection Date: 08/29/17 12:20  
 Received Date: 08/29/17 16:05  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4045  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 13:51  
 Container ID: 1176148008-C

Prep Batch: WXX11970  
 Prep Method: METHOD  
 Prep Date/Time: 08/30/17 13:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.270	0.0200	0.00620	mg/L	1		08/30/17 15:55

### Batch Information

Analytical Batch: WDA4046  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 15:55  
 Container ID: 1176148008-C

Prep Batch: WXX11971  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 08/30/17 12:15  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL





Results of **SW-9**

Client Sample ID: **SW-9**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148009  
Lab Project ID: 1176148

Collection Date: 08/29/17 12:04  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	6.38	2.00	2.00	mg/L	1		08/29/17 19:03

**Batch Information**

Analytical Batch: BOD5842  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/29/17 19:03  
Container ID: 1176148009-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	5.0	1.00	1.00	col/100mL	1		08/29/17 18:15

**Batch Information**

Analytical Batch: BTF15941  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:15  
Container ID: 1176148009-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	1 U	1	1	MPN/100r	1		08/29/17 18:35
Total Coliform	>2420	1	1	MPN/100r	1		08/29/17 18:35

**Batch Information**

Analytical Batch: BTF15940  
Analytical Method: SM21 9223B  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:35  
Container ID: 1176148009-E



Results of SW-9

Client Sample ID: SW-9
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176148009
Lab Project ID: 1176148

Collection Date: 08/29/17 12:04
Received Date: 08/29/17 16:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5682
Analytical Method: EPA 300.0
Analyst: NEG
Analytical Date/Time: 08/30/17 07:53
Container ID: 1176148009-D
Prep Batch: WXX11979
Prep Method: METHOD
Prep Date/Time: 08/30/17 01:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS5614
Analytical Method: SM21 2540D
Analyst: AYC
Analytical Date/Time: 08/29/17 19:18
Container ID: 1176148009-B

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4052
Analytical Method: SM21 4500-N D
Analyst: NEG
Analytical Date/Time: 09/06/17 14:47
Container ID: 1176148009-C
Prep Batch: WXX11982
Prep Method: METHOD
Prep Date/Time: 09/05/17 18:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

## Results of SW-9

Client Sample ID: **SW-9**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176148009  
 Lab Project ID: 1176148

Collection Date: 08/29/17 12:04  
 Received Date: 08/29/17 16:05  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4045  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 13:52  
 Container ID: 1176148009-C

Prep Batch: WXX11970  
 Prep Method: METHOD  
 Prep Date/Time: 08/30/17 13:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.163	0.0200	0.00620	mg/L	1		08/30/17 15:56

### Batch Information

Analytical Batch: WDA4046  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 15:56  
 Container ID: 1176148009-C

Prep Batch: WXX11971  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 08/30/17 12:15  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL



Results of **SW-10**

Client Sample ID: **SW-10**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148010  
Lab Project ID: 1176148

Collection Date: 08/29/17 11:54  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	7.50	2.00	2.00	mg/L	1		08/29/17 19:03

**Batch Information**

Analytical Batch: BOD5842  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/29/17 19:03  
Container ID: 1176148010-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	16	1.00	1.00	col/100mL	1		08/29/17 18:15

**Batch Information**

Analytical Batch: BTF15941  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:15  
Container ID: 1176148010-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	12	1	1	MPN/100r	1		08/29/17 18:35
Total Coliform	>2420	1	1	MPN/100r	1		08/29/17 18:35

**Batch Information**

Analytical Batch: BTF15940  
Analytical Method: SM21 9223B  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:35  
Container ID: 1176148010-E



Results of **SW-10**

Client Sample ID: **SW-10**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148010  
Lab Project ID: 1176148

Collection Date: 08/29/17 11:54  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 08:10
Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 08:10
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 08:10

Batch Information

Analytical Batch: WIC5682  
Analytical Method: EPA 300.0  
Analyst: NEG  
Analytical Date/Time: 08/30/17 08:10  
Container ID: 1176148010-D

Prep Batch: WXX11979  
Prep Method: METHOD  
Prep Date/Time: 08/30/17 01:00  
Prep Initial Wt./Vol.: 10 mL  
Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	72.0	3.33	1.03	mg/L	1		08/29/17 19:18

Batch Information

Analytical Batch: STS5614  
Analytical Method: SM21 2540D  
Analyst: AYC  
Analytical Date/Time: 08/29/17 19:18  
Container ID: 1176148010-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.860 J	1.00	0.310	mg/L	1		09/06/17 14:49

Batch Information

Analytical Batch: WDA4052  
Analytical Method: SM21 4500-N D  
Analyst: NEG  
Analytical Date/Time: 09/06/17 14:49  
Container ID: 1176148010-C

Prep Batch: WXX11982  
Prep Method: METHOD  
Prep Date/Time: 09/05/17 18:50  
Prep Initial Wt./Vol.: 25 mL  
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0500 U	0.100	0.0310	mg/L	1		08/30/17 13:54

## Results of SW-10

Client Sample ID: **SW-10**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176148010  
 Lab Project ID: 1176148

Collection Date: 08/29/17 11:54  
 Received Date: 08/29/17 16:05  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4045  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 13:54  
 Container ID: 1176148010-C

Prep Batch: WXX11970  
 Prep Method: METHOD  
 Prep Date/Time: 08/30/17 13:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0938	0.0200	0.00620	mg/L	1		08/30/17 15:57

### Batch Information

Analytical Batch: WDA4046  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 15:57  
 Container ID: 1176148010-C

Prep Batch: WXX11971  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 08/30/17 12:15  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL



Results of **SW-11**

Client Sample ID: **SW-11**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148011  
Lab Project ID: 1176148

Collection Date: 08/29/17 13:15  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	8.58	2.00	2.00	mg/L	1		08/29/17 19:03

**Batch Information**

Analytical Batch: BOD5842  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/29/17 19:03  
Container ID: 1176148011-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		08/29/17 18:15

**Batch Information**

Analytical Batch: BTF15941  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:15  
Container ID: 1176148011-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	2	1	1	MPN/100r	1		08/29/17 18:35
Total Coliform	>2420	1	1	MPN/100r	1		08/29/17 18:35

**Batch Information**

Analytical Batch: BTF15940  
Analytical Method: SM21 9223B  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:35  
Container ID: 1176148011-E



Results of SW-11

Client Sample ID: SW-11
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176148011
Lab Project ID: 1176148

Collection Date: 08/29/17 13:15
Received Date: 08/29/17 16:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5682
Analytical Method: EPA 300.0
Analyst: NEG
Analytical Date/Time: 08/30/17 08:28
Container ID: 1176148011-D
Prep Batch: WXX11979
Prep Method: METHOD
Prep Date/Time: 08/30/17 01:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS5616
Analytical Method: SM21 2540D
Analyst: AYC
Analytical Date/Time: 08/29/17 22:17
Container ID: 1176148011-B

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4052
Analytical Method: SM21 4500-N D
Analyst: NEG
Analytical Date/Time: 09/06/17 14:50
Container ID: 1176148011-C
Prep Batch: WXX11982
Prep Method: METHOD
Prep Date/Time: 09/05/17 18:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.





Results of **SW-11**

Client Sample ID: **SW-11**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148011  
Lab Project ID: 1176148

Collection Date: 08/29/17 13:15  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

**Batch Information**

Analytical Batch: WDA4045  
Analytical Method: SM21 4500-NH3 G  
Analyst: NEG  
Analytical Date/Time: 08/30/17 13:56  
Container ID: 1176148011-C

Prep Batch: WXX11970  
Prep Method: METHOD  
Prep Date/Time: 08/30/17 13:00  
Prep Initial Wt./Vol.: 6 mL  
Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.333	0.0200	0.00620	mg/L	1		08/30/17 15:57

**Batch Information**

Analytical Batch: WDA4046  
Analytical Method: SM21 4500P-B,E  
Analyst: NEG  
Analytical Date/Time: 08/30/17 15:57  
Container ID: 1176148011-C

Prep Batch: WXX11971  
Prep Method: SM21 4500P-B,E  
Prep Date/Time: 08/30/17 12:15  
Prep Initial Wt./Vol.: 25 mL  
Prep Extract Vol: 25 mL



Results of **SW-12**

Client Sample ID: **SW-12**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148012  
Lab Project ID: 1176148

Collection Date: 08/29/17 13:33  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	7.08	2.00	2.00	mg/L	1		08/29/17 19:03

**Batch Information**

Analytical Batch: BOD5842  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/29/17 19:03  
Container ID: 1176148012-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	330	10.0	10.0	col/100mL	1		08/29/17 18:15

**Batch Information**

Analytical Batch: BTF15941  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:15  
Container ID: 1176148012-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	30	1	1	MPN/100r	1		08/29/17 18:35
Total Coliform	>2420	1	1	MPN/100r	1		08/29/17 18:35

**Batch Information**

Analytical Batch: BTF15940  
Analytical Method: SM21 9223B  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:35  
Container ID: 1176148012-E



Results of SW-12

Client Sample ID: SW-12
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176148012
Lab Project ID: 1176148

Collection Date: 08/29/17 13:33
Received Date: 08/29/17 16:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5682
Analytical Method: EPA 300.0
Analyst: NEG
Analytical Date/Time: 08/30/17 08:46
Container ID: 1176148012-D
Prep Batch: WXX11979
Prep Method: METHOD
Prep Date/Time: 08/30/17 01:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS5616
Analytical Method: SM21 2540D
Analyst: AYC
Analytical Date/Time: 08/29/17 22:17
Container ID: 1176148012-B

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4052
Analytical Method: SM21 4500-N D
Analyst: NEG
Analytical Date/Time: 09/06/17 14:51
Container ID: 1176148012-C
Prep Batch: WXX11982
Prep Method: METHOD
Prep Date/Time: 09/05/17 18:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

## Results of SW-12

Client Sample ID: **SW-12**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176148012  
 Lab Project ID: 1176148

Collection Date: 08/29/17 13:33  
 Received Date: 08/29/17 16:05  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4045  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 13:58  
 Container ID: 1176148012-C

Prep Batch: WXX11970  
 Prep Method: METHOD  
 Prep Date/Time: 08/30/17 13:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.439	0.0200	0.00620	mg/L	1		08/30/17 15:58

### Batch Information

Analytical Batch: WDA4046  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 15:58  
 Container ID: 1176148012-C

Prep Batch: WXX11971  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 08/30/17 12:15  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL



Results of **SW-13**

Client Sample ID: **SW-13**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148013  
Lab Project ID: 1176148

Collection Date: 08/29/17 13:47  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.49	2.00	2.00	mg/L	1		08/29/17 19:03

**Batch Information**

Analytical Batch: BOD5842  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/29/17 19:03  
Container ID: 1176148013-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	160	10.0	10.0	col/100mL	1		08/29/17 18:15

**Batch Information**

Analytical Batch: BTF15941  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:15  
Container ID: 1176148013-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	187	1	1	MPN/100r	1		08/29/17 18:35
Total Coliform	>2420	1	1	MPN/100r	1		08/29/17 18:35

**Batch Information**

Analytical Batch: BTF15940  
Analytical Method: SM21 9223B  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:35  
Container ID: 1176148013-E



Results of SW-13

Client Sample ID: SW-13
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176148013
Lab Project ID: 1176148

Collection Date: 08/29/17 13:47
Received Date: 08/29/17 16:05
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5682
Analytical Method: EPA 300.0
Analyst: NEG
Analytical Date/Time: 08/30/17 11:12
Container ID: 1176148013-D
Prep Batch: WXX11979
Prep Method: METHOD
Prep Date/Time: 08/30/17 01:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS5616
Analytical Method: SM21 2540D
Analyst: AYC
Analytical Date/Time: 08/29/17 22:17
Container ID: 1176148013-B

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4052
Analytical Method: SM21 4500-N D
Analyst: NEG
Analytical Date/Time: 09/06/17 14:52
Container ID: 1176148013-C
Prep Batch: WXX11982
Prep Method: METHOD
Prep Date/Time: 09/05/17 18:50
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

## Results of SW-13

Client Sample ID: **SW-13**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176148013  
 Lab Project ID: 1176148

Collection Date: 08/29/17 13:47  
 Received Date: 08/29/17 16:05  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4045  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 13:59  
 Container ID: 1176148013-C

Prep Batch: WXX11970  
 Prep Method: METHOD  
 Prep Date/Time: 08/30/17 13:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.190	0.0200	0.00620	mg/L	1		08/30/17 16:01

### Batch Information

Analytical Batch: WDA4046  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 16:01  
 Container ID: 1176148013-C

Prep Batch: WXX11971  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 08/30/17 12:15  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL



**Results of Duplicate 1**

Client Sample ID: **Duplicate 1**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176148014  
Lab Project ID: 1176148

Collection Date: 08/29/17 13:33  
Received Date: 08/29/17 16:05  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	9.72	2.00	2.00	mg/L	1		08/29/17 19:03

**Batch Information**

Analytical Batch: BOD5842  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/29/17 19:03  
Container ID: 1176148014-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	600	10.0	10.0	col/100mL	1		08/29/17 18:15

**Batch Information**

Analytical Batch: BTF15941  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:15  
Container ID: 1176148014-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	18	1	1	MPN/100r	1		08/29/17 18:35
Total Coliform	>2420	1	1	MPN/100r	1		08/29/17 18:35

**Batch Information**

Analytical Batch: BTF15940  
Analytical Method: SM21 9223B  
Analyst: K.W  
Analytical Date/Time: 08/29/17 18:35  
Container ID: 1176148014-E





### Results of Duplicate 1

Client Sample ID: **Duplicate 1**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176148014  
 Lab Project ID: 1176148

Collection Date: 08/29/17 13:33  
 Received Date: 08/29/17 16:05  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

### Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 11:29
Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 11:29
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/30/17 11:29

### Batch Information

Analytical Batch: WIC5682  
 Analytical Method: EPA 300.0  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 11:29  
 Container ID: 1176148014-D

Prep Batch: WXX11979  
 Prep Method: METHOD  
 Prep Date/Time: 08/30/17 01:00  
 Prep Initial Wt./Vol.: 10 mL  
 Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	240	10.0	3.10	mg/L	1		08/29/17 22:17

### Batch Information

Analytical Batch: STS5616  
 Analytical Method: SM21 2540D  
 Analyst: AYC  
 Analytical Date/Time: 08/29/17 22:17  
 Container ID: 1176148014-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	3.51	1.00	0.310	mg/L	1		09/06/17 14:54

### Batch Information

Analytical Batch: WDA4052  
 Analytical Method: SM21 4500-N D  
 Analyst: NEG  
 Analytical Date/Time: 09/06/17 14:54  
 Container ID: 1176148014-C

Prep Batch: WXX11982  
 Prep Method: METHOD  
 Prep Date/Time: 09/05/17 18:50  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0500 U	0.100	0.0310	mg/L	1		08/30/17 14:01

## Results of Duplicate 1

Client Sample ID: **Duplicate 1**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176148014  
 Lab Project ID: 1176148

Collection Date: 08/29/17 13:33  
 Received Date: 08/29/17 16:05  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4045  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 14:01  
 Container ID: 1176148014-C

Prep Batch: WXX11970  
 Prep Method: METHOD  
 Prep Date/Time: 08/30/17 13:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.489	0.0200	0.00620	mg/L	1		08/30/17 16:02

### Batch Information

Analytical Batch: WDA4046  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 08/30/17 16:02  
 Container ID: 1176148014-C

Prep Batch: WXX11971  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 08/30/17 12:15  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL

## Method Blank

Blank ID: MB for HBN 1767146 [BOD/5842]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1408974

QC for Samples:

1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010, 1176148011, 1176148012, 1176148013, 1176148014

## Results by SM21 5210B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Biochemical Oxygen Demand	2.00U	2.00	2.00	mg/L

## Batch Information

Analytical Batch: BOD5842

Analytical Method: SM21 5210B

Instrument:

Analyst: AKD

Analytical Date/Time: 8/29/2017 7:03:00PM

Print Date: 09/07/2017 9:05:58AM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176148 [BOD5842]

Blank Spike Lab ID: 1408975

Date Analyzed: 08/29/2017 19:03

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010, 1176148011, 1176148012, 1176148013, 1176148014

## Results by SM21 5210B

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Biochemical Oxygen Demand	198	193	98	( 84.6-115.4

## Batch Information

Analytical Batch: **BOD5842**  
 Analytical Method: **SM21 5210B**  
 Instrument:  
 Analyst: **AKD**

Print Date: 09/07/2017 9:06:01AM



### Method Blank

Blank ID: MB for HBN 1767149 [BTF/15940]  
Blank Lab ID: 1408981

Matrix: Water (Surface, Eff., Ground)

#### QC for Samples:

1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010, 1176148011, 1176148012, 1176148013, 1176148014

### Results by SM21 9223B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Coliform	1U	1	1	MPN/100m
E. Coli	1U	1	1	MPN/100m

### Batch Information

Analytical Batch: BTF15940  
Analytical Method: SM21 9223B  
Instrument:  
Analyst: DSH  
Analytical Date/Time: 8/29/2017 5:10:00PM

Print Date: 09/07/2017 9:06:03AM



### Method Blank

Blank ID: MB for HBN 1767150 [BTF/15941]  
Blank Lab ID: 1408983

Matrix: Water (Surface, Eff., Ground)

QC for Samples:  
1176148001, 1176148002, 1176148003, 1176148004, 1176148005

### Results by SM21 9222D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Fecal Coliform	1.00U	1.00	1.00	col/100mL

### Batch Information

Analytical Batch: BTF15941  
Analytical Method: SM21 9222D  
Instrument:  
Analyst: K.W  
Analytical Date/Time: 8/29/2017 5:21:00PM

Print Date: 09/07/2017 9:06:06AM



**Method Blank**

Blank ID: MB for HBN 1767150 [BTF/15941]  
Blank Lab ID: 1409705

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010, 1176148011, 1176148012, 1176148013, 1176148014

**Results by SM21 9222D**

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Fecal Coliform	1.00U	1.00	1.00	col/100mL

**Batch Information**

Analytical Batch: BTF15941  
Analytical Method: SM21 9222D  
Instrument:  
Analyst: K.W  
Analytical Date/Time: 8/29/2017 6:15:00PM

Print Date: 09/07/2017 9:06:06AM

## Method Blank

Blank ID: MB for HBN 1767144 [STS/5614]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1408967

QC for Samples:

1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010

## Results by SM21 2540D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Suspended Solids	0.500U	1.00	0.310	mg/L

## Batch Information

Analytical Batch: STS5614

Analytical Method: SM21 2540D

Instrument:

Analyst: AYC

Analytical Date/Time: 8/29/2017 7:18:42PM

Print Date: 09/07/2017 9:06:10AM



## Duplicate Sample Summary

Original Sample ID: 1176049001

Duplicate Sample ID: 1408970

QC for Samples:

Analysis Date: 08/29/2017 19:18

Matrix: Water (Surface, Eff., Ground)

## Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	6.00	6.60	mg/L	9.50*	(< 5 )

## Batch Information

Analytical Batch: STS5614

Analytical Method: SM21 2540D

Instrument:

Analyst: AYC

Print Date: 09/07/2017 9:06:11AM

## Duplicate Sample Summary

Original Sample ID: 1176122001

Duplicate Sample ID: 1408971

QC for Samples:

1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010

Analysis Date: 08/29/2017 19:18

Matrix: Water (Surface, Eff., Ground)

## Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	553	580	mg/L	4.70	(< 5 )

## Batch Information

Analytical Batch: STS5614

Analytical Method: SM21 2540D

Instrument:

Analyst: AYC

Print Date: 09/07/2017 9:06:11AM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176148 [STS5614]  
 Blank Spike Lab ID: 1408968  
 Date Analyzed: 08/29/2017 19:18

Spike Duplicate ID: LCSD for HBN 1176148 [STS5614]  
 Spike Duplicate Lab ID: 1408969  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010

## Results by SM21 2540D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Suspended Solids	50	50.8	102	50	50.4	101	( 75-125 )	0.79	(< 5 )

## Batch Information

Analytical Batch: STS5614  
 Analytical Method: SM21 2540D  
 Instrument:  
 Analyst: AYC

Print Date: 09/07/2017 9:06:12AM

## Method Blank

Blank ID: MB for HBN 1767151 [STS/5616]

Blank Lab ID: 1408985

QC for Samples:

1176148011, 1176148012, 1176148013, 1176148014

Matrix: Water (Surface, Eff., Ground)

## Results by SM21 2540D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Suspended Solids	0.500U	1.00	0.310	mg/L

## Batch Information

Analytical Batch: STS5616

Analytical Method: SM21 2540D

Instrument:

Analyst: AYC

Analytical Date/Time: 8/29/2017 10:17:13PM

Print Date: 09/07/2017 9:06:14AM

## Duplicate Sample Summary

Original Sample ID: 1178293001

Duplicate Sample ID: 1408988

QC for Samples:

1176148011, 1176148012, 1176148013, 1176148014

Analysis Date: 08/29/2017 22:17

Matrix: Water (Surface, Eff., Ground)

## Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	2.40	2.60	mg/L	8.00*	(< 5 )

## Batch Information

Analytical Batch: STS5616

Analytical Method: SM21 2540D

Instrument:

Analyst: AYC

Print Date: 09/07/2017 9:06:15AM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176148 [STS5616]  
 Blank Spike Lab ID: 1408986  
 Date Analyzed: 08/29/2017 22:17

Spike Duplicate ID: LCSD for HBN 1176148 [STS5616]  
 Spike Duplicate Lab ID: 1408987  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176148011, 1176148012, 1176148013, 1176148014

## Results by SM21 2540D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Suspended Solids	50	50.5	101	50	51.1	102	( 75-125 )	1.20	(< 5 )

## Batch Information

Analytical Batch: STS5616  
 Analytical Method: SM21 2540D  
 Instrument:  
 Analyst: AYC

Print Date: 09/07/2017 9:06:17AM

## Method Blank

Blank ID: MB for HBN 1767199 [WXX/11970]  
Blank Lab ID: 1409197

Matrix: Water (Surface, Eff., Ground)

### QC for Samples:

1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010, 1176148011, 1176148012, 1176148013, 1176148014

## Results by SM21 4500-NH3 G

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Ammonia-N	0.0500U	0.100	0.0310	mg/L

## Batch Information

Analytical Batch: WDA4045  
Analytical Method: SM21 4500-NH3 G  
Instrument: Discrete Analyzer 2  
Analyst: NEG  
Analytical Date/Time: 8/30/2017 1:26:14PM

Prep Batch: WXX11970  
Prep Method: METHOD  
Prep Date/Time: 8/30/2017 1:00:00PM  
Prep Initial Wt./Vol.: 6 mL  
Prep Extract Vol: 6 mL

Print Date: 09/07/2017 9:06:19AM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176148 [WXX11970]  
 Blank Spike Lab ID: 1409198  
 Date Analyzed: 08/30/2017 13:27

Spike Duplicate ID: LCSD for HBN 1176148 [WXX11970]  
 Spike Duplicate Lab ID: 1409199  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010, 1176148011, 1176148012, 1176148013, 1176148014

## Results by SM21 4500-NH3 G

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	1	1.00	100	1	1.01	101	( 75-125 )	1.00	(< 25 )

## Batch Information

Analytical Batch: **WDA4045**  
 Analytical Method: **SM21 4500-NH3 G**  
 Instrument: **Discrete Analyzer 2**  
 Analyst: **NEG**

Prep Batch: **WXX11970**  
 Prep Method: **METHOD**  
 Prep Date/Time: **08/30/2017 13:00**  
 Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL  
 Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

Print Date: 09/07/2017 9:06:21AM



## Matrix Spike Summary

Original Sample ID: 1175889001  
 MS Sample ID: 1409200 MS  
 MSD Sample ID: 1409201 MSD

Analysis Date: 08/30/2017 14:57  
 Analysis Date: 08/30/2017 14:58  
 Analysis Date: 08/30/2017 15:00  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010, 1176148011, 1176148012, 1176148013, 1176148014

## Results by SM21 4500-NH3 G

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	103	1.00	96.1	-660 *	1.00	97.4	-534 *	75-125	1.30	(< 25 )

## Batch Information

Analytical Batch: WDA4045  
 Analytical Method: SM21 4500-NH3 G  
 Instrument: Discrete Analyzer 2  
 Analyst: NEG  
 Analytical Date/Time: 8/30/2017 2:58:55PM

Prep Batch: WXX11970  
 Prep Method: Ammonia by SM21 4500F prep (W)  
 Prep Date/Time: 8/30/2017 1:00:00PM  
 Prep Initial Wt./Vol.: 6.00mL  
 Prep Extract Vol: 6.00mL

## Method Blank

Blank ID: MB for HBN 1767202 [WXX/11971]  
 Blank Lab ID: 1409226

Matrix: Water (Surface, Eff., Ground)

### QC for Samples:

1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010, 1176148011, 1176148012, 1176148013, 1176148014

## Results by SM21 4500P-B,E

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Phosphorus	0.0100U	0.0200	0.00620	mg/L

## Batch Information

Analytical Batch: WDA4046  
 Analytical Method: SM21 4500P-B,E  
 Instrument: Discrete Analyzer 2  
 Analyst: NEG  
 Analytical Date/Time: 8/30/2017 3:38:57PM

Prep Batch: WXX11971  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 8/30/2017 12:15:00PM  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL

Print Date: 09/07/2017 9:06:24AM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176148 [WXX11971]  
 Blank Spike Lab ID: 1409227  
 Date Analyzed: 08/30/2017 15:39

Spike Duplicate ID: LCSD for HBN 1176148 [WXX11971]  
 Spike Duplicate Lab ID: 1409228  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010, 1176148011, 1176148012, 1176148013, 1176148014

## Results by SM21 4500P-B,E

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.2	0.191	96	0.2	0.187	94	( 85-115 )	2.10	(< 25 )

## Batch Information

Analytical Batch: WDA4046  
 Analytical Method: SM21 4500P-B,E  
 Instrument: Discrete Analyzer 2  
 Analyst: NEG

Prep Batch: WXX11971  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 08/30/2017 12:15  
 Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL  
 Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

Print Date: 09/07/2017 9:06:26AM

## Matrix Spike Summary

Original Sample ID: 1175903001  
 MS Sample ID: 1409229 MS  
 MSD Sample ID: 1409230 MSD

Analysis Date: 08/30/2017 15:42  
 Analysis Date: 08/30/2017 15:43  
 Analysis Date: 08/30/2017 15:44  
 Matrix: Drinking Water

QC for Samples: 1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007,  
 1176148008, 1176148009, 1176148010, 1176148011, 1176148012, 1176148013, 1176148014

## Results by SM21 4500P-B,E

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.0100U	0.200	.186	93	0.200	0.185	93	75-125	0.81	(< 25)

## Batch Information

Analytical Batch: WDA4046  
 Analytical Method: SM21 4500P-B,E  
 Instrument: Discrete Analyzer 2  
 Analyst: NEG  
 Analytical Date/Time: 8/30/2017 3:43:48PM

Prep Batch: WXX11971  
 Prep Method: Total Phosphorus (W) Ext.  
 Prep Date/Time: 8/30/2017 12:15:00PM  
 Prep Initial Wt./Vol.: 25.00mL  
 Prep Extract Vol: 25.00mL

Print Date: 09/07/2017 9:06:29AM

## Method Blank

Blank ID: MB for HBN 1767647 [WXX/11979]  
 Blank Lab ID: 1410415

Matrix: Water (Surface, Eff., Ground)

### QC for Samples:

1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010, 1176148011, 1176148012, 1176148013, 1176148014

## Results by EPA 300.0

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Nitrate-N	0.100U	0.200	0.0620	mg/L
Nitrite-N	0.100U	0.200	0.0620	mg/L
Total Nitrate/Nitrite-N	0.100U	0.200	0.0620	mg/L

## Batch Information

Analytical Batch: WIC5682  
 Analytical Method: EPA 300.0  
 Instrument: 930 Metrohm compact IC flex  
 Analyst: NEG  
 Analytical Date/Time: 8/30/2017 2:30:32AM

Prep Batch: WXX11979  
 Prep Method: METHOD  
 Prep Date/Time: 8/30/2017 1:00:00AM  
 Prep Initial Wt./Vol.: 10 mL  
 Prep Extract Vol: 10 mL

Print Date: 09/07/2017 9:06:31AM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176148 [WXX11979]  
 Blank Spike Lab ID: 1410416  
 Date Analyzed: 08/30/2017 02:48

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007,  
 1176148008, 1176148009, 1176148010, 1176148011, 1176148012, 1176148013, 1176148014

## Results by EPA 300.0

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	5	5.08	102	( 90-110 )
Nitrite-N	5	5.03	101	( 90-110 )
Total Nitrate/Nitrite-N	10	10.1	101	( 90-110 )

## Batch Information

Analytical Batch: **WIC5682**  
 Analytical Method: **EPA 300.0**  
 Instrument: **930 Metrohm compact IC flex**  
 Analyst: **NEG**

Prep Batch: **WXX11979**  
 Prep Method: **METHOD**  
 Prep Date/Time: **08/30/2017 01:00**  
 Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL  
 Dupe Init Wt./Vol.: Extract Vol:

## Matrix Spike Summary

Original Sample ID: 1176131001  
 MS Sample ID: 1410417 MS  
 MSD Sample ID: 1410418 MSD

Analysis Date: 08/30/2017 3:06  
 Analysis Date: 08/30/2017 3:24  
 Analysis Date: 08/30/2017 3:42  
 Matrix: Drinking Water

QC for Samples: 1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010, 1176148011, 1176148012, 1176148013, 1176148014

## Results by EPA 300.0

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Nitrite-N	0.100U	5.00	4.92	98	5.00	4.98	100	90-110	1.20	

## Batch Information

Analytical Batch: WIC5682  
 Analytical Method: EPA 300.0  
 Instrument: 930 Metrohm compact IC flex  
 Analyst: NEG  
 Analytical Date/Time: 8/30/2017 3:24:22AM

Prep Batch: WXX11979  
 Prep Method: EPA 300.0 Extraction Waters/Liquids  
 Prep Date/Time: 8/30/2017 1:00:00AM  
 Prep Initial Wt./Vol.: 10.00mL  
 Prep Extract Vol: 10.00mL

## Method Blank

Blank ID: MB for HBN 1767733 [WXX/11982]  
 Blank Lab ID: 1410727

Matrix: Water (Surface, Eff., Ground)

### QC for Samples:

1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010, 1176148011, 1176148012, 1176148013, 1176148014

## Results by SM21 4500-N D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Kjeldahl Nitrogen	0.500U	1.00	0.310	mg/L

## Batch Information

Analytical Batch: WDA4052  
 Analytical Method: SM21 4500-N D  
 Instrument: Discrete Analyzer 2  
 Analyst: NEG  
 Analytical Date/Time: 9/6/2017 2:27:03PM

Prep Batch: WXX11982  
 Prep Method: METHOD  
 Prep Date/Time: 9/5/2017 6:50:00PM  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL

Print Date: 09/07/2017 9:06:36AM



## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176148 [WXX11982]  
 Blank Spike Lab ID: 1410728  
 Date Analyzed: 09/06/2017 14:28

Spike Duplicate ID: LCSD for HBN 1176148 [WXX11982]  
 Spike Duplicate Lab ID: 1410729  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010, 1176148011, 1176148012, 1176148013, 1176148014

## Results by SM21 4500-N D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	4	3.91	98	4	3.87	97	( 75-125 )	1.10	(< 25 )

## Batch Information

Analytical Batch: **WDA4052**  
 Analytical Method: **SM21 4500-N D**  
 Instrument: **Discrete Analyzer 2**  
 Analyst: **NEG**

Prep Batch: **WXX11982**  
 Prep Method: **METHOD**  
 Prep Date/Time: **09/05/2017 18:50**  
 Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL  
 Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 09/07/2017 9:06:38AM

## Matrix Spike Summary

Original Sample ID: 1175669001  
 MS Sample ID: 1410730 MS  
 MSD Sample ID: 1410731 MSD

Analysis Date: 09/06/2017 14:30  
 Analysis Date: 09/06/2017 14:32  
 Analysis Date: 09/06/2017 14:33  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176148001, 1176148002, 1176148003, 1176148004, 1176148005, 1176148006, 1176148007, 1176148008, 1176148009, 1176148010, 1176148011, 1176148012, 1176148013, 1176148014

## Results by SM21 4500-N D

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	0.500U	4.00	3.77	94	4.00	3.92	98	75-125	3.70	(< 25 )

## Batch Information

Analytical Batch: WDA4052  
 Analytical Method: SM21 4500-N D  
 Instrument: Discrete Analyzer 2  
 Analyst: NEG  
 Analytical Date/Time: 9/6/2017 2:32:17PM

Prep Batch: WXX11982  
 Prep Method: Distillation TKN by Phenate (W)  
 Prep Date/Time: 9/5/2017 6:50:00PM  
 Prep Initial Wt./Vol.: 25.00mL  
 Prep Extract Vol: 25.00mL

Print Date: 09/07/2017 9:06:39AM



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**CLIENT:** *Stantec*

**CONTACT:** *John Marshall* PHONE NO: (907) 266-1108

**PROJECT NAME:** *Wesleyville WLP Surface* PROJECT PWSID/ PERMIT#: E-MAIL: *John.Marshall@stantec.com*

**REPORTS TO:** QUOTE #: P.O. #:

**INVOICE TO:**

**Section 1**

**Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.**

Page 1 of 1

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX CODE	Section 3		Section 4					REMARKS/ LOC ID	
					Type	#	TO/TKN/Amount	Wt/ak/Nitric	Nitrog	Preservative	DOD Project?		Yes
①	A-F Sw-1	08/29/17	0922	W	U	6	1	1	1	1	1		
②	A-F Sw-2	08/29/17	0943	W	U	6	1	1	1	1	1		
③	A-F Sw-3	08/29/17	1002	W	U	6	1	1	1	1	1		
④	A-F Sw-4	08/29/17	1015	W	U	6	1	1	1	1	1		
⑤	A-F Sw-5	08/29/17	1023	W	U	6	1	1	1	1	1		

**Section 2**

Relinquished By: (1) *[Signature]* Received By: Time 4:20

Relinquished By: (2) Received By: Time

Relinquished By: (3) Received By: Time

Relinquished By: (4) Received For Laboratory By: *[Signature]* Time 8/29/17 16:05

**Section 5**

Temp Blank °C: *2.4 DAI* or Ambient [ ]

Chain of Custody Seal: (Circle) **INTACT** **BROKEN** **ABSENT**

Requested Turnaround Time and/or Special Instructions: *Hand deliv*

Data Deliverable Requirements:

Section 4 DOD Project? Yes No

Cooler ID:



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Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

CLIENT: <b>Stantec</b>		PHONE NO: (907) 266-1108						
CONTACT: <b>John Marshall</b>		PROJECT/ PWSID/ PERMIT#: [ ]						
PROJECT NAME: <b>N. Stille WWP Surface</b>		E-MAIL: <b>Sohn.Marshall@stantec.com</b>						
REPORTS TO:		QUOTE #:	P.O. #:					
INVOICE TO:								
RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX CODE	Section 3 # C O N T A I N E R S Type C = COMP G = GRAB M = Multi Incremental S = Soils	Section 4 DOD Project? Yes No Cooler ID: Requested Turnaround Time and/or Special Instructions:	Section 5 Data Deliverable Requirements: Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT (See attached Sample Receipt Form)	
	①A-F Sw-6	8/29/17	1124	W				1
②A-F Sw-7	8/29/17	1135	W		1	1		
③A-F Sw-8	8/29/17	1200	W		1	1		
④A-F Sw-9	8/29/17	1204	W		1	1		
⑤A-F Sw-10	8/29/17	1154	W		1	1		
Relinquished By: (1) [Signature]		Date: 8/29/17	Time: 4:00	Received By:				
Relinquished By: (2) [Signature]		Date:	Time:	Received By:				
Relinquished By: (3)		Date:	Time:	Received By:				
Relinquished By: (4) [Signature]		Date: 8/29/17	Time: 16:05	Received For Laboratory By: [Signature]				

Temp Blank °C: 3-6020  
or Ambient [ ]  
(See attached Sample Receipt Form)

Page 1 of 1



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**Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.**

Page 1 of 1

CLIENT: <i>Stentec</i> CONTACT: <i>John Marshall</i> PROJECT: <i>US Silk WWP Surface</i> NAME: <i>US Silk WWP Surface</i> REPORTS TO: INVOICE TO:		PHONE NO: (907) 266-1108 PROJECT/ PWSID/ PERMIT#: E-MAIL: <i>John.Marshall@stentec.com</i> QUOTE #: P.O. #:		Section 3 # CONTAINERS Type C = COMP G = GRAB M = Multi-Incre-mental S = Soils		Section 4 DOD Project? Yes No Cooler ID:		Data Deliverable Requirements:	
Section 1 RESERVED for lab use		Section 2 SAMPLE IDENTIFICATION DATE mm/dd/yy TIME HH:MM MATRIX/MATRIX CODE		Section 3 # CONTAINERS Type C = COMP G = GRAB M = Multi-Incre-mental S = Soils		Section 4 DOD Project? Yes No Cooler ID:		Data Deliverable Requirements:	
Section 5 Relinquished By: (1) Relinquished By: (2) Relinquished By: (3) Relinquished By: (4)		Section 6 Date Time Received By:		Section 7 Date Time Received By:		Section 8 Date Time Received By:		Section 9 Date Time Received For Laboratory By:	
Section 10 Temp Blank °C: <u>3.6 D 24</u> or Ambient [ ] Chain of Custody Seal: (Circle) INTACT <b>BROKEN</b> <b>ABSENT</b>		Section 11 Requested Turnaround Time and/or Special Instructions:		Section 12 Requested Turnaround Time and/or Special Instructions:		Section 13 Requested Turnaround Time and/or Special Instructions:		Section 14 Requested Turnaround Time and/or Special Instructions:	

<http://www.sgs.com/terms-and-conditions>  
 F083-Kit\_Request\_and\_COC\_Templates-Blank  
 Revised 2013-03-24  
 MD

[ ] 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301  
 [ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557



e-Sample Receipt Form

SGS Workorder #:

1176148



1 1 7 6 1 4 8

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
<b>Chain of Custody / Temperature Requirements</b>		<input checked="" type="checkbox"/> Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	<input type="checkbox"/> N/A	Absent
COC accompanied samples?	<input checked="" type="checkbox"/> Yes	
<input checked="" type="checkbox"/> **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	<input checked="" type="checkbox"/> Yes	Cooler ID: 1 @ 2.4 °C Therm. ID: D41
	<input checked="" type="checkbox"/> Yes	Cooler ID: 2 @ 3.6 °C Therm. ID: D20
	<input checked="" type="checkbox"/> Yes	Cooler ID: 3 @ 3.6 °C Therm. ID: D24
	<input type="checkbox"/> N/A	Cooler ID: @ °C Therm. ID:
	<input type="checkbox"/> N/A	Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	<input type="checkbox"/> N/A	
If <0°C, were sample containers ice free?	<input type="checkbox"/> N/A	
If samples received <u>without</u> a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "COOLER TEMP" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
<b>Holding Time / Documentation / Sample Condition Requirements</b>		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	<input checked="" type="checkbox"/> Yes	
Do samples <b>match COC**</b> (i.e., sample IDs, dates/times collected)?	<input checked="" type="checkbox"/> Yes	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	<input checked="" type="checkbox"/> Yes	
Were proper containers (type/mass/volume/preservative***) used?	<input type="checkbox"/> N/A	***Exemption permitted for metals (e.g.200.8/6020A).
<b>Volatile / LL-Hg Requirements</b>		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	<input type="checkbox"/> N/A	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	<input type="checkbox"/> N/A	
Were all soil VOAs field extracted with MeOH+BFB?	<input type="checkbox"/> N/A	
<b>Note to Client:</b> Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.		
Additional notes (if applicable):		



### Sample Containers and Preservatives

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1176148001-A	No Preservative Required	OK	1176148008-A	No Preservative Required	OK
1176148001-B	No Preservative Required	OK	1176148008-B	No Preservative Required	OK
1176148001-C	H2SO4 to pH < 2	OK	1176148008-C	H2SO4 to pH < 2	OK
1176148001-D	No Preservative Required	OK	1176148008-D	No Preservative Required	OK
1176148001-E	Na2S2O3 for Chlorine Redu	OK	1176148008-E	Na2S2O3 for Chlorine Redu	OK
1176148001-F	Na2S2O3 for Chlorine Redu	OK	1176148008-F	Na2S2O3 for Chlorine Redu	OK
1176148002-A	No Preservative Required	OK	1176148009-A	No Preservative Required	OK
1176148002-B	No Preservative Required	OK	1176148009-B	No Preservative Required	OK
1176148002-C	H2SO4 to pH < 2	OK	1176148009-C	H2SO4 to pH < 2	OK
1176148002-D	No Preservative Required	OK	1176148009-D	No Preservative Required	OK
1176148002-E	Na2S2O3 for Chlorine Redu	OK	1176148009-E	Na2S2O3 for Chlorine Redu	OK
1176148002-F	Na2S2O3 for Chlorine Redu	OK	1176148009-F	Na2S2O3 for Chlorine Redu	OK
1176148003-A	No Preservative Required	OK	1176148010-A	No Preservative Required	OK
1176148003-B	No Preservative Required	OK	1176148010-B	No Preservative Required	OK
1176148003-C	H2SO4 to pH < 2	OK	1176148010-C	H2SO4 to pH < 2	OK
1176148003-D	No Preservative Required	OK	1176148010-D	No Preservative Required	OK
1176148003-E	Na2S2O3 for Chlorine Redu	OK	1176148010-E	Na2S2O3 for Chlorine Redu	OK
1176148003-F	Na2S2O3 for Chlorine Redu	OK	1176148010-F	Na2S2O3 for Chlorine Redu	OK
1176148004-A	No Preservative Required	OK	1176148011-A	No Preservative Required	OK
1176148004-B	No Preservative Required	OK	1176148011-B	No Preservative Required	OK
1176148004-C	H2SO4 to pH < 2	OK	1176148011-C	H2SO4 to pH < 2	OK
1176148004-D	No Preservative Required	OK	1176148011-D	No Preservative Required	OK
1176148004-E	Na2S2O3 for Chlorine Redu	OK	1176148011-E	Na2S2O3 for Chlorine Redu	OK
1176148004-F	Na2S2O3 for Chlorine Redu	OK	1176148011-F	Na2S2O3 for Chlorine Redu	OK
1176148005-A	No Preservative Required	OK	1176148012-A	No Preservative Required	OK
1176148005-B	No Preservative Required	OK	1176148012-B	No Preservative Required	OK
1176148005-C	H2SO4 to pH < 2	OK	1176148012-C	H2SO4 to pH < 2	OK
1176148005-D	No Preservative Required	OK	1176148012-D	No Preservative Required	OK
1176148005-E	Na2S2O3 for Chlorine Redu	OK	1176148012-E	Na2S2O3 for Chlorine Redu	OK
1176148005-F	Na2S2O3 for Chlorine Redu	OK	1176148012-F	Na2S2O3 for Chlorine Redu	OK
1176148006-A	No Preservative Required	OK	1176148013-A	No Preservative Required	OK
1176148006-B	No Preservative Required	OK	1176148013-B	No Preservative Required	OK
1176148006-C	H2SO4 to pH < 2	OK	1176148013-C	H2SO4 to pH < 2	OK
1176148006-D	No Preservative Required	OK	1176148013-D	No Preservative Required	OK
1176148006-E	Na2S2O3 for Chlorine Redu	OK	1176148013-E	Na2S2O3 for Chlorine Redu	OK
1176148006-F	Na2S2O3 for Chlorine Redu	OK	1176148013-F	Na2S2O3 for Chlorine Redu	OK
1176148007-A	No Preservative Required	OK	1176148014-A	No Preservative Required	OK
1176148007-B	No Preservative Required	OK	1176148014-B	No Preservative Required	OK
1176148007-C	H2SO4 to pH < 2	OK	1176148014-C	H2SO4 to pH < 2	OK
1176148007-D	No Preservative Required	OK	1176148014-D	No Preservative Required	OK
1176148007-E	Na2S2O3 for Chlorine Redu	OK	1176148014-E	Na2S2O3 for Chlorine Redu	OK
1176148007-F	Na2S2O3 for Chlorine Redu	OK	1176148014-F	Na2S2O3 for Chlorine Redu	OK

Container Id

Preservative

Container  
Condition

Container Id

Preservative

Container  
Condition

#### Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.

BU - The container was received with headspace greater than 6mm.

DM- The container was received damaged.

FR- The container was received frozen and not usable for Bacteria or BOD analyses.

PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.



## Laboratory Report of Analysis

To: Stantec Consulting Services Inc.  
725 East Fireweed Lane Suite 200  
Anchorage, AK 99503  
(907)248-8883

Report Number: **1176190**

Client Project: **Wasilla WWTP Surface**

Dear John Marshall,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Justin at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,  
SGS North America Inc.

---

Justin Nelson  
Project Manager  
Justin.Nelson@sgs.com

Date

## Case Narrative

SGS Client: **Stantec Consulting Services Inc.**

SGS Project: **1176190**

Project Name/Site: **Wasilla WWTP Surface**

Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

**1176150001DUP (1409589) DUP**

2540D - Total Suspended Solids - Sample duplicate RPD was outside of acceptance limits. The difference between sample and duplicate results is less than the LOQ.

**1176233001(1409745MS) (1409746) MS**

6020A - Metals MS recovery for silver (121%) does not meet QC criteria. The post digestion spike was successful.

**1178298001MS (1410919) MS**

4500NH3-G - Ammonia - MS recovery is outside of QC criteria. Refer to LCS for accuracy requirements.

**1176199001MS (1411834) MS**

300.0 - Anions - MS recoveries for Chloride and Sulfate are outside of QC criteria. Refer to LCS for accuracy requirements.

**1176233001(1409745MSD) (1409747) MSD**

6020A - Metals MSD recovery for silver (117%) does not meet QC criteria. The post digestion spike was successful.

**1176199001MSD (1411835) MSD**

300.0 - Anions - MSD recoveries for Chloride and Sulfate are outside of QC criteria. Refer to LCS for accuracy requirements.

\*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

Print Date: 09/19/2017 4:06:37PM

## Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the context or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & UST-005 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8015C, 8021B, 8082A, 8260C, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.

**Note:** Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

### Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
SW-14	1176190001	08/30/2017	08/30/2017	Water (Surface, Eff., Ground)
SW-15	1176190002	08/30/2017	08/30/2017	Water (Surface, Eff., Ground)
SW-16	1176190003	08/30/2017	08/30/2017	Water (Surface, Eff., Ground)
Duplicate 2	1176190004	08/30/2017	08/30/2017	Water (Surface, Eff., Ground)
SW-17	1176190005	08/30/2017	08/30/2017	Water (Surface, Eff., Ground)
SW-18	1176190006	08/30/2017	08/30/2017	Water (Surface, Eff., Ground)
B1	1176190007	08/30/2017	08/30/2017	Water (Surface, Eff., Ground)
B3	1176190008	08/30/2017	08/30/2017	Water (Surface, Eff., Ground)
B4	1176190009	08/30/2017	08/30/2017	Water (Surface, Eff., Ground)
B11	1176190010	08/30/2017	08/30/2017	Water (Surface, Eff., Ground)
Duplicate 3	1176190011	08/30/2017	08/30/2017	Water (Surface, Eff., Ground)

<u>Method</u>	<u>Method Description</u>
SM21 4500-NH3 G	Ammonia-N (W) SM21 4500-NH3 G
SM21 5210B	Biochemical Oxygen Demand SM21 5210B
SM21 9222D	Fecal Coliform (MF)
EPA 300.0	Ion Chromatographic Analysis
SW6020A	Metals by ICP-MS
SM21 4500-N D	TKN by Phenate (W)
SM21 9223B	Total Coliform P/A Quant Tray
SM21 4500P-B,E	Total Phosphorus (W)
SM21 2540D	Total Suspended Solids SM20 2540D

Print Date: 09/19/2017 4:06:40PM

### Detectable Results Summary

Client Sample ID: **SW-14**  
 Lab Sample ID: 1176190001

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	11.0	ug/L
Barium	46.2	ug/L
Copper	1.90J	ug/L
Zinc	12.8J	ug/L

**Microbiology Laboratory**

Biochemical Oxygen Demand	3.14	mg/L
E. Coli	613	MPN/100mL
Fecal Coliform	280	col/100mL
Total Coliform	2420	MPN/100mL

**Waters Department**

Ammonia-N	0.0336J	mg/L
Total Kjeldahl Nitrogen	2.15	mg/L
Total Phosphorus	0.580	mg/L
Total Suspended Solids	370	mg/L

Client Sample ID: **SW-15**  
 Lab Sample ID: 1176190002

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Arsenic	2.49J	ug/L
Barium	23.9	ug/L

**Microbiology Laboratory**

Biochemical Oxygen Demand	3.51	mg/L
E. Coli	326	MPN/100mL
Fecal Coliform	160	col/100mL
Total Coliform	GT2420	MPN/100mL

**Waters Department**

Total Kjeldahl Nitrogen	1.72	mg/L
Total Phosphorus	0.154	mg/L
Total Suspended Solids	58.0	mg/L

Client Sample ID: **SW-16**  
 Lab Sample ID: 1176190003

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Barium	31.9	ug/L
Copper	3.16J	ug/L
Lead	0.424J	ug/L
Zinc	8.35J	ug/L

**Microbiology Laboratory**

Biochemical Oxygen Demand	6.12	mg/L
E. Coli	1	MPN/100mL
Total Coliform	GT2420	MPN/100mL

**Waters Department**

Ammonia-N	0.0538J	mg/L
Total Kjeldahl Nitrogen	8.56	mg/L
Total Phosphorus	0.529	mg/L
Total Suspended Solids	805	mg/L

### Detectable Results Summary

Client Sample ID: **Duplicate 2**

Lab Sample ID: 1176190004

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Barium	36.9	ug/L
Copper	4.88J	ug/L
Lead	0.692J	ug/L
Zinc	9.41J	ug/L

**Microbiology Laboratory**

Biochemical Oxygen Demand	6.75	mg/L
E. Coli	3	MPN/100mL
Total Coliform	GT2420	MPN/100mL

**Waters Department**

Ammonia-N	0.0703J	mg/L
Total Kjeldahl Nitrogen	14.5	mg/L
Total Phosphorus	0.671	mg/L
Total Suspended Solids	859	mg/L

Client Sample ID: **SW-17**

Lab Sample ID: 1176190005

**Microbiology Laboratory**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	236	MPN/100mL
Fecal Coliform	120	col/100mL
Total Coliform	1203	MPN/100mL

**Waters Department**

Ammonia-N	0.122	mg/L
Nitrate-N	2.15	mg/L
Total Kjeldahl Nitrogen	0.620J	mg/L
Total Nitrate/Nitrite-N	2.18	mg/L
Total Phosphorus	0.264	mg/L
Total Suspended Solids	5.77	mg/L

Client Sample ID: **SW-18**

Lab Sample ID: 1176190006

**Microbiology Laboratory**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	2.64	mg/L
E. Coli	140	MPN/100mL
Fecal Coliform	55	col/100mL
Total Coliform	GT2420	MPN/100mL

**Waters Department**

Ammonia-N	0.131	mg/L
Nitrate-N	4.83	mg/L
Total Kjeldahl Nitrogen	0.856J	mg/L
Total Nitrate/Nitrite-N	4.88	mg/L
Total Phosphorus	0.910	mg/L
Total Suspended Solids	6.84	mg/L

Client Sample ID: **B1**

Lab Sample ID: 1176190007

**Waters Department**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Ammonia-N	0.0614J	mg/L

Client Sample ID: **B3**

Lab Sample ID: 1176190008

**Waters Department**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Ammonia-N	0.298	mg/L
Total Kjeldahl Nitrogen	2.01	mg/L

### Detectable Results Summary

Client Sample ID: **B4**  
 Lab Sample ID: 1176190009  
**Waters Department**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Ammonia-N	0.0926J	mg/L
Nitrate-N	1.47	mg/L
Total Kjeldahl Nitrogen	0.375J	mg/L
Total Nitrate/Nitrite-N	1.49	mg/L

Client Sample ID: **B11**  
 Lab Sample ID: 1176190010  
**Microbiology Laboratory**  
**Waters Department**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Fecal Coliform	10	col/100mL
Ammonia-N	0.166	mg/L
Total Kjeldahl Nitrogen	0.367J	mg/L

Client Sample ID: **Duplicate 3**  
 Lab Sample ID: 1176190011  
**Waters Department**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Ammonia-N	0.0625J	mg/L

## Results of SW-14

Client Sample ID: **SW-14**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176190001  
 Lab Project ID: 1176190

Collection Date: 08/30/17 09:45  
 Received Date: 08/30/17 16:54  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Arsenic	11.0	5.00	1.50	ug/L	5		09/16/17 00:47
Barium	46.2	3.00	0.940	ug/L	5		09/16/17 00:47
Cadmium	1.00 U	2.00	0.620	ug/L	5		09/16/17 00:47
Chromium	2.00 U	4.00	1.30	ug/L	5		09/16/17 00:47
Copper	1.90 J	6.00	1.80	ug/L	5		09/16/17 00:47
Lead	0.500 U	1.00	0.310	ug/L	5		09/16/17 00:47
Mercury	0.100 U	0.200	0.0620	ug/L	5		09/16/17 00:47
Selenium	10.0 U	20.0	6.20	ug/L	5		09/16/17 00:47
Silver	1.00 U	2.00	0.620	ug/L	5		09/16/17 00:47
Zinc	12.8 J	25.0	7.80	ug/L	5		09/16/17 00:47

## Batch Information

Analytical Batch: MMS9937  
 Analytical Method: SW6020A  
 Analyst: ACF  
 Analytical Date/Time: 09/16/17 00:47  
 Container ID: 1176190001-E

Prep Batch: MXX31001  
 Prep Method: SW3010A  
 Prep Date/Time: 09/01/17 13:30  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL





Results of **SW-14**

Client Sample ID: **SW-14**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176190001  
Lab Project ID: 1176190

Collection Date: 08/30/17 09:45  
Received Date: 08/30/17 16:54  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	3.14	2.00	2.00	mg/L	1		08/31/17 16:34

**Batch Information**

Analytical Batch: BOD5844  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/31/17 16:34  
Container ID: 1176190001-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	280	10.0	10.0	col/100mL	1		08/30/17 17:33

**Batch Information**

Analytical Batch: BTF15944  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/30/17 17:33  
Container ID: 1176190001-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	613	1	1	MPN/100r	1		08/30/17 18:28
Total Coliform	2420	1	1	MPN/100r	1		08/30/17 18:28

**Batch Information**

Analytical Batch: BTF15948  
Analytical Method: SM21 9223B  
Analyst: K.W  
Analytical Date/Time: 08/30/17 18:28  
Container ID: 1176190001-F



Results of **SW-14**

Client Sample ID: **SW-14**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176190001  
Lab Project ID: 1176190

Collection Date: 08/30/17 09:45  
Received Date: 08/30/17 16:54  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0620	mg/L	1		08/31/17 17:18
Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/31/17 17:18
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/31/17 17:18

Batch Information

Analytical Batch: WIC5683  
Analytical Method: EPA 300.0  
Analyst: NEG  
Analytical Date/Time: 08/31/17 17:18  
Container ID: 1176190001-G

Prep Batch: WXX11989  
Prep Method: METHOD  
Prep Date/Time: 08/31/17 15:00  
Prep Initial Wt./Vol.: 10 mL  
Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	370	10.0	3.10	mg/L	1		08/31/17 18:57

Batch Information

Analytical Batch: STS5620  
Analytical Method: SM21 2540D  
Analyst: AYC  
Analytical Date/Time: 08/31/17 18:57  
Container ID: 1176190001-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	2.15	1.00	0.310	mg/L	1		09/07/17 12:43

Batch Information

Analytical Batch: WDA4055  
Analytical Method: SM21 4500-N D  
Analyst: NEG  
Analytical Date/Time: 09/07/17 12:43  
Container ID: 1176190001-D

Prep Batch: WXX11985  
Prep Method: METHOD  
Prep Date/Time: 09/06/17 19:00  
Prep Initial Wt./Vol.: 25 mL  
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0336 J	0.100	0.0310	mg/L	1		09/06/17 16:47

## Results of SW-14

Client Sample ID: **SW-14**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176190001  
 Lab Project ID: 1176190

Collection Date: 08/30/17 09:45  
 Received Date: 08/30/17 16:54  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4053  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 09/06/17 16:47  
 Container ID: 1176190001-D

Prep Batch: WXX11983  
 Prep Method: METHOD  
 Prep Date/Time: 09/06/17 16:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.580	0.200	0.0620	mg/L	10		09/08/17 17:35

### Batch Information

Analytical Batch: WDA4057  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 09/08/17 17:35  
 Container ID: 1176190001-D

Prep Batch: WXX11988  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 09/08/17 14:00  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL

## Results of SW-15

Client Sample ID: **SW-15**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176190002  
 Lab Project ID: 1176190

Collection Date: 08/30/17 09:30  
 Received Date: 08/30/17 16:54  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Arsenic	2.49 J	5.00	1.50	ug/L	5		09/16/17 00:52
Barium	23.9	3.00	0.940	ug/L	5		09/16/17 00:52
Cadmium	1.00 U	2.00	0.620	ug/L	5		09/16/17 00:52
Chromium	2.00 U	4.00	1.30	ug/L	5		09/16/17 00:52
Copper	3.00 U	6.00	1.80	ug/L	5		09/16/17 00:52
Lead	0.500 U	1.00	0.310	ug/L	5		09/16/17 00:52
Mercury	0.100 U	0.200	0.0620	ug/L	5		09/16/17 00:52
Selenium	10.0 U	20.0	6.20	ug/L	5		09/16/17 00:52
Silver	1.00 U	2.00	0.620	ug/L	5		09/16/17 00:52
Zinc	12.5 U	25.0	7.80	ug/L	5		09/16/17 00:52

## Batch Information

Analytical Batch: MMS9937  
 Analytical Method: SW6020A  
 Analyst: ACF  
 Analytical Date/Time: 09/16/17 00:52  
 Container ID: 1176190002-E

Prep Batch: MXX31001  
 Prep Method: SW3010A  
 Prep Date/Time: 09/01/17 13:30  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL



**Results of SW-15**

Client Sample ID: **SW-15**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176190002  
Lab Project ID: 1176190

Collection Date: 08/30/17 09:30  
Received Date: 08/30/17 16:54  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	3.51	2.00	2.00	mg/L	1		08/31/17 16:34

**Batch Information**

Analytical Batch: BOD5844  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/31/17 16:34  
Container ID: 1176190002-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	160	10.0	10.0	col/100mL	1		08/30/17 17:19

**Batch Information**

Analytical Batch: BTF15944  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/30/17 17:19  
Container ID: 1176190002-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	326	1	1	MPN/100r	1		08/30/17 18:28
Total Coliform	>2420	1	1	MPN/100r	1		08/30/17 18:28

**Batch Information**

Analytical Batch: BTF15948  
Analytical Method: SM21 9223B  
Analyst: K.W  
Analytical Date/Time: 08/30/17 18:28  
Container ID: 1176190002-F



Results of SW-15

Client Sample ID: SW-15
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176190002
Lab Project ID: 1176190

Collection Date: 08/30/17 09:30
Received Date: 08/30/17 16:54
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5683
Analytical Method: EPA 300.0
Analyst: NEG
Analytical Date/Time: 08/31/17 17:36
Container ID: 1176190002-G
Prep Batch: WXX11989
Prep Method: METHOD
Prep Date/Time: 08/31/17 15:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS5620
Analytical Method: SM21 2540D
Analyst: AYC
Analytical Date/Time: 08/31/17 18:57
Container ID: 1176190002-C

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4055
Analytical Method: SM21 4500-N D
Analyst: NEG
Analytical Date/Time: 09/07/17 12:47
Container ID: 1176190002-D
Prep Batch: WXX11985
Prep Method: METHOD
Prep Date/Time: 09/06/17 19:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

## Results of SW-15

Client Sample ID: **SW-15**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176190002  
 Lab Project ID: 1176190

Collection Date: 08/30/17 09:30  
 Received Date: 08/30/17 16:54  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4053  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 09/06/17 16:48  
 Container ID: 1176190002-D

Prep Batch: WXX11983  
 Prep Method: METHOD  
 Prep Date/Time: 09/06/17 16:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.154	0.0200	0.00620	mg/L	1		09/08/17 16:48

### Batch Information

Analytical Batch: WDA4057  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 09/08/17 16:48  
 Container ID: 1176190002-D

Prep Batch: WXX11988  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 09/08/17 14:00  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL



Results of **SW-16**

Client Sample ID: **SW-16**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176190003  
Lab Project ID: 1176190

Collection Date: 08/30/17 09:20  
Received Date: 08/30/17 16:54  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Arsenic	2.50 U	5.00	1.50	ug/L	5		09/16/17 00:56
Barium	31.9	3.00	0.940	ug/L	5		09/16/17 00:56
Cadmium	1.00 U	2.00	0.620	ug/L	5		09/16/17 00:56
Chromium	2.00 U	4.00	1.30	ug/L	5		09/16/17 00:56
Copper	3.16 J	6.00	1.80	ug/L	5		09/16/17 00:56
Lead	0.424 J	1.00	0.310	ug/L	5		09/16/17 00:56
Mercury	0.100 U	0.200	0.0620	ug/L	5		09/16/17 00:56
Selenium	10.0 U	20.0	6.20	ug/L	5		09/16/17 00:56
Silver	1.00 U	2.00	0.620	ug/L	5		09/16/17 00:56
Zinc	8.35 J	25.0	7.80	ug/L	5		09/16/17 00:56

Batch Information

Analytical Batch: MMS9937  
Analytical Method: SW6020A  
Analyst: ACF  
Analytical Date/Time: 09/16/17 00:56  
Container ID: 1176190003-E

Prep Batch: MXX31001  
Prep Method: SW3010A  
Prep Date/Time: 09/01/17 13:30  
Prep Initial Wt./Vol.: 25 mL  
Prep Extract Vol: 25 mL





**Results of SW-16**

Client Sample ID: **SW-16**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176190003  
Lab Project ID: 1176190

Collection Date: 08/30/17 09:20  
Received Date: 08/30/17 16:54  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	6.12	2.00	2.00	mg/L	1		08/31/17 16:34

**Batch Information**

Analytical Batch: BOD5844  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/31/17 16:34  
Container ID: 1176190003-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		08/30/17 17:19

**Batch Information**

Analytical Batch: BTF15944  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/30/17 17:19  
Container ID: 1176190003-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	1	1	1	MPN/100r	1		08/30/17 18:28
Total Coliform	>2420	1	1	MPN/100r	1		08/30/17 18:28

**Batch Information**

Analytical Batch: BTF15948  
Analytical Method: SM21 9223B  
Analyst: K.W  
Analytical Date/Time: 08/30/17 18:28  
Container ID: 1176190003-F



Results of SW-16

Client Sample ID: SW-16
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176190003
Lab Project ID: 1176190

Collection Date: 08/30/17 09:20
Received Date: 08/30/17 16:54
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5683
Analytical Method: EPA 300.0
Analyst: NEG
Analytical Date/Time: 08/31/17 17:54
Container ID: 1176190003-G
Prep Batch: WXX11989
Prep Method: METHOD
Prep Date/Time: 08/31/17 15:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS5620
Analytical Method: SM21 2540D
Analyst: AYC
Analytical Date/Time: 08/31/17 18:57
Container ID: 1176190003-C

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4055
Analytical Method: SM21 4500-N D
Analyst: NEG
Analytical Date/Time: 09/07/17 12:48
Container ID: 1176190003-D
Prep Batch: WXX11985
Prep Method: METHOD
Prep Date/Time: 09/06/17 19:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

## Results of SW-16

Client Sample ID: **SW-16**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176190003  
 Lab Project ID: 1176190

Collection Date: 08/30/17 09:20  
 Received Date: 08/30/17 16:54  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4053  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 09/06/17 16:50  
 Container ID: 1176190003-D

Prep Batch: WXX11983  
 Prep Method: METHOD  
 Prep Date/Time: 09/06/17 16:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.529	0.200	0.0620	mg/L	1		09/08/17 16:51

### Batch Information

Analytical Batch: WDA4057  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 09/08/17 16:51  
 Container ID: 1176190003-D

Prep Batch: WXX11988  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 09/08/17 14:00  
 Prep Initial Wt./Vol.: 2.5 mL  
 Prep Extract Vol: 25 mL

## Results of Duplicate 2

Client Sample ID: **Duplicate 2**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176190004  
 Lab Project ID: 1176190

Collection Date: 08/30/17 09:20  
 Received Date: 08/30/17 16:54  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Arsenic	2.50 U	5.00	1.50	ug/L	5		09/16/17 01:01
Barium	36.9	3.00	0.940	ug/L	5		09/16/17 01:01
Cadmium	1.00 U	2.00	0.620	ug/L	5		09/16/17 01:01
Chromium	2.00 U	4.00	1.30	ug/L	5		09/16/17 01:01
Copper	4.88 J	6.00	1.80	ug/L	5		09/16/17 01:01
Lead	0.692 J	1.00	0.310	ug/L	5		09/16/17 01:01
Mercury	0.100 U	0.200	0.0620	ug/L	5		09/16/17 01:01
Selenium	10.0 U	20.0	6.20	ug/L	5		09/16/17 01:01
Silver	1.00 U	2.00	0.620	ug/L	5		09/16/17 01:01
Zinc	9.41 J	25.0	7.80	ug/L	5		09/16/17 01:01

## Batch Information

Analytical Batch: MMS9937  
 Analytical Method: SW6020A  
 Analyst: ACF  
 Analytical Date/Time: 09/16/17 01:01  
 Container ID: 1176190004-E

Prep Batch: MXX31001  
 Prep Method: SW3010A  
 Prep Date/Time: 09/01/17 13:30  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL



**Results of Duplicate 2**

Client Sample ID: **Duplicate 2**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176190004  
Lab Project ID: 1176190

Collection Date: 08/30/17 09:20  
Received Date: 08/30/17 16:54  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	6.75	2.00	2.00	mg/L	1		08/31/17 16:34

**Batch Information**

Analytical Batch: BOD5844  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/31/17 16:34  
Container ID: 1176190004-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		08/30/17 17:19

**Batch Information**

Analytical Batch: BTF15944  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/30/17 17:19  
Container ID: 1176190004-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	3	1	1	MPN/100r	1		08/30/17 18:28
Total Coliform	>2420	1	1	MPN/100r	1		08/30/17 18:28

**Batch Information**

Analytical Batch: BTF15948  
Analytical Method: SM21 9223B  
Analyst: K.W  
Analytical Date/Time: 08/30/17 18:28  
Container ID: 1176190004-F



**Results of Duplicate 2**

Client Sample ID: **Duplicate 2**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176190004  
Lab Project ID: 1176190

Collection Date: 08/30/17 09:20  
Received Date: 08/30/17 16:54  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0620	mg/L	1		08/31/17 18:12
Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/31/17 18:12
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/31/17 18:12

**Batch Information**

Analytical Batch: WIC5683  
Analytical Method: EPA 300.0  
Analyst: NEG  
Analytical Date/Time: 08/31/17 18:12  
Container ID: 1176190004-G

Prep Batch: WXX11989  
Prep Method: METHOD  
Prep Date/Time: 08/31/17 15:00  
Prep Initial Wt./Vol.: 10 mL  
Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	859	10.0	3.10	mg/L	1		08/31/17 18:57

**Batch Information**

Analytical Batch: STS5620  
Analytical Method: SM21 2540D  
Analyst: AYC  
Analytical Date/Time: 08/31/17 18:57  
Container ID: 1176190004-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	14.5	10.0	3.10	mg/L	10		09/07/17 13:29

**Batch Information**

Analytical Batch: WDA4055  
Analytical Method: SM21 4500-N D  
Analyst: NEG  
Analytical Date/Time: 09/07/17 13:29  
Container ID: 1176190004-D

Prep Batch: WXX11985  
Prep Method: METHOD  
Prep Date/Time: 09/06/17 19:00  
Prep Initial Wt./Vol.: 25 mL  
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0703 J	0.100	0.0310	mg/L	1		09/06/17 16:52

## Results of Duplicate 2

Client Sample ID: **Duplicate 2**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176190004  
 Lab Project ID: 1176190

Collection Date: 08/30/17 09:20  
 Received Date: 08/30/17 16:54  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4053  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 09/06/17 16:52  
 Container ID: 1176190004-D

Prep Batch: WXX11983  
 Prep Method: METHOD  
 Prep Date/Time: 09/06/17 16:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.671	0.200	0.0620	mg/L	1		09/08/17 16:53

### Batch Information

Analytical Batch: WDA4057  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 09/08/17 16:53  
 Container ID: 1176190004-D

Prep Batch: WXX11988  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 09/08/17 14:00  
 Prep Initial Wt./Vol.: 2.5 mL  
 Prep Extract Vol: 25 mL



Results of **SW-17**

Client Sample ID: **SW-17**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176190005  
Lab Project ID: 1176190

Collection Date: 08/30/17 11:23  
Received Date: 08/30/17 16:54  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.00 U	2.00	2.00	mg/L	1		08/31/17 16:34

**Batch Information**

Analytical Batch: BOD5844  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/31/17 16:34  
Container ID: 1176190005-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	120	2.00	2.00	col/100mL	1		08/30/17 18:15

**Batch Information**

Analytical Batch: BTF15944  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/30/17 18:15  
Container ID: 1176190005-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	236	1	1	MPN/100r	1		08/30/17 18:28
Total Coliform	1203	1	1	MPN/100r	1		08/30/17 18:28

**Batch Information**

Analytical Batch: BTF15948  
Analytical Method: SM21 9223B  
Analyst: K.W  
Analytical Date/Time: 08/30/17 18:28  
Container ID: 1176190005-E





Results of SW-17

Client Sample ID: SW-17
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176190005
Lab Project ID: 1176190

Collection Date: 08/30/17 11:23
Received Date: 08/30/17 16:54
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5683
Analytical Method: EPA 300.0
Analyst: NEG
Analytical Date/Time: 08/31/17 18:30
Container ID: 1176190005-F
Prep Batch: WXX11989
Prep Method: METHOD
Prep Date/Time: 08/31/17 15:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Suspended Solids.

Batch Information

Analytical Batch: STS5620
Analytical Method: SM21 2540D
Analyst: AYC
Analytical Date/Time: 08/31/17 18:57
Container ID: 1176190005-C

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4055
Analytical Method: SM21 4500-N D
Analyst: NEG
Analytical Date/Time: 09/07/17 12:50
Container ID: 1176190005-D
Prep Batch: WXX11985
Prep Method: METHOD
Prep Date/Time: 09/06/17 19:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

## Results of SW-17

Client Sample ID: **SW-17**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176190005  
 Lab Project ID: 1176190

Collection Date: 08/30/17 11:23  
 Received Date: 08/30/17 16:54  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4053  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 09/06/17 16:56  
 Container ID: 1176190005-D

Prep Batch: WXX11983  
 Prep Method: METHOD  
 Prep Date/Time: 09/06/17 16:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.264	0.0200	0.00620	mg/L	1		09/08/17 16:54

### Batch Information

Analytical Batch: WDA4057  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 09/08/17 16:54  
 Container ID: 1176190005-D

Prep Batch: WXX11988  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 09/08/17 14:00  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL



**Results of SW-18**

Client Sample ID: **SW-18**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176190006  
Lab Project ID: 1176190

Collection Date: 08/30/17 11:00  
Received Date: 08/30/17 16:54  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	2.64	2.00	2.00	mg/L	1		08/31/17 16:34

**Batch Information**

Analytical Batch: BOD5844  
Analytical Method: SM21 5210B  
Analyst: AKD  
Analytical Date/Time: 08/31/17 16:34  
Container ID: 1176190006-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	55	1.00	1.00	col/100mL	1		08/30/17 18:15

**Batch Information**

Analytical Batch: BTF15944  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/30/17 18:15  
Container ID: 1176190006-A

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	140	1	1	MPN/100r	1		08/30/17 18:28
Total Coliform	>2420	1	1	MPN/100r	1		08/30/17 18:28

**Batch Information**

Analytical Batch: BTF15948  
Analytical Method: SM21 9223B  
Analyst: K.W  
Analytical Date/Time: 08/30/17 18:28  
Container ID: 1176190006-E



### Results of SW-18

Client Sample ID: **SW-18**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176190006  
 Lab Project ID: 1176190

Collection Date: 08/30/17 11:00  
 Received Date: 08/30/17 16:54  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

### Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	4.83	0.200	0.0620	mg/L	1		08/31/17 18:48
Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		08/31/17 18:48
Total Nitrate/Nitrite-N	4.88	0.200	0.0620	mg/L	1		08/31/17 18:48

### Batch Information

Analytical Batch: WIC5683  
 Analytical Method: EPA 300.0  
 Analyst: NEG  
 Analytical Date/Time: 08/31/17 18:48  
 Container ID: 1176190006-F

Prep Batch: WXX11989  
 Prep Method: METHOD  
 Prep Date/Time: 08/31/17 15:00  
 Prep Initial Wt./Vol.: 10 mL  
 Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	6.84	1.02	0.316	mg/L	1		08/31/17 18:57

### Batch Information

Analytical Batch: STS5620  
 Analytical Method: SM21 2540D  
 Analyst: AYC  
 Analytical Date/Time: 08/31/17 18:57  
 Container ID: 1176190006-C

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.856 J	1.00	0.310	mg/L	1		09/07/17 12:54

### Batch Information

Analytical Batch: WDA4055  
 Analytical Method: SM21 4500-N D  
 Analyst: NEG  
 Analytical Date/Time: 09/07/17 12:54  
 Container ID: 1176190006-D

Prep Batch: WXX11985  
 Prep Method: METHOD  
 Prep Date/Time: 09/06/17 19:00  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.131	0.100	0.0310	mg/L	1		09/06/17 16:58

## Results of SW-18

Client Sample ID: **SW-18**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176190006  
 Lab Project ID: 1176190

Collection Date: 08/30/17 11:00  
 Received Date: 08/30/17 16:54  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

### Batch Information

Analytical Batch: WDA4053  
 Analytical Method: SM21 4500-NH3 G  
 Analyst: NEG  
 Analytical Date/Time: 09/06/17 16:58  
 Container ID: 1176190006-D

Prep Batch: WXX11983  
 Prep Method: METHOD  
 Prep Date/Time: 09/06/17 16:00  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.910	0.200	0.0620	mg/L	10		09/08/17 17:36

### Batch Information

Analytical Batch: WDA4057  
 Analytical Method: SM21 4500P-B,E  
 Analyst: NEG  
 Analytical Date/Time: 09/08/17 17:36  
 Container ID: 1176190006-D

Prep Batch: WXX11988  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 09/08/17 14:00  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL

## Results of B1

Client Sample ID: **B1**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176190007  
 Lab Project ID: 1176190

Collection Date: 08/30/17 13:45  
 Received Date: 08/30/17 16:54  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		08/30/17 18:15

## Batch Information

Analytical Batch: BTF15944  
 Analytical Method: SM21 9222D  
 Analyst: K.W  
 Analytical Date/Time: 08/30/17 18:15  
 Container ID: 1176190007-A



Results of B1

Client Sample ID: B1
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176190007
Lab Project ID: 1176190

Collection Date: 08/30/17 13:45
Received Date: 08/30/17 16:54
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5683
Analytical Method: EPA 300.0
Analyst: NEG
Analytical Date/Time: 08/31/17 19:05
Container ID: 1176190007-B
Prep Batch: WXX11989
Prep Method: METHOD
Prep Date/Time: 08/31/17 15:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4055
Analytical Method: SM21 4500-N D
Analyst: NEG
Analytical Date/Time: 09/07/17 12:56
Container ID: 1176190007-C
Prep Batch: WXX11985
Prep Method: METHOD
Prep Date/Time: 09/06/17 19:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

Batch Information

Analytical Batch: WDA4053
Analytical Method: SM21 4500-NH3 G
Analyst: NEG
Analytical Date/Time: 09/06/17 17:00
Container ID: 1176190007-C
Prep Batch: WXX11983
Prep Method: METHOD
Prep Date/Time: 09/06/17 16:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

## Results of B3

Client Sample ID: **B3**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176190008  
 Lab Project ID: 1176190

Collection Date: 08/30/17 14:15  
 Received Date: 08/30/17 16:54  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		08/30/17 18:15

## Batch Information

Analytical Batch: BTF15944  
 Analytical Method: SM21 9222D  
 Analyst: K.W  
 Analytical Date/Time: 08/30/17 18:15  
 Container ID: 1176190008-A





Results of B3

Client Sample ID: B3
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176190008
Lab Project ID: 1176190

Collection Date: 08/30/17 14:15
Received Date: 08/30/17 16:54
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5683
Analytical Method: EPA 300.0
Analyst: NEG
Analytical Date/Time: 08/31/17 19:23
Container ID: 1176190008-B
Prep Batch: WXX11989
Prep Method: METHOD
Prep Date/Time: 08/31/17 15:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4055
Analytical Method: SM21 4500-N D
Analyst: NEG
Analytical Date/Time: 09/07/17 12:57
Container ID: 1176190008-C
Prep Batch: WXX11985
Prep Method: METHOD
Prep Date/Time: 09/06/17 19:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

Batch Information

Analytical Batch: WDA4053
Analytical Method: SM21 4500-NH3 G
Analyst: NEG
Analytical Date/Time: 09/06/17 17:02
Container ID: 1176190008-C
Prep Batch: WXX11983
Prep Method: METHOD
Prep Date/Time: 09/06/17 16:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

## Results of B4

Client Sample ID: **B4**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176190009  
 Lab Project ID: 1176190

Collection Date: 08/30/17 12:38  
 Received Date: 08/30/17 16:54  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		08/30/17 18:15

## Batch Information

Analytical Batch: BTF15944  
 Analytical Method: SM21 9222D  
 Analyst: K.W  
 Analytical Date/Time: 08/30/17 18:15  
 Container ID: 1176190009-A



Results of B4

Client Sample ID: B4
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176190009
Lab Project ID: 1176190

Collection Date: 08/30/17 12:38
Received Date: 08/30/17 16:54
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5683
Analytical Method: EPA 300.0
Analyst: NEG
Analytical Date/Time: 08/31/17 20:24
Container ID: 1176190009-B
Prep Batch: WXX11989
Prep Method: METHOD
Prep Date/Time: 08/31/17 15:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4055
Analytical Method: SM21 4500-N D
Analyst: NEG
Analytical Date/Time: 09/07/17 12:58
Container ID: 1176190009-C
Prep Batch: WXX11985
Prep Method: METHOD
Prep Date/Time: 09/06/17 19:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

Batch Information

Analytical Batch: WDA4053
Analytical Method: SM21 4500-NH3 G
Analyst: NEG
Analytical Date/Time: 09/06/17 17:03
Container ID: 1176190009-C
Prep Batch: WXX11983
Prep Method: METHOD
Prep Date/Time: 09/06/17 16:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL



**Results of B11**

Client Sample ID: **B11**  
Client Project ID: **Wasilla WWTP Surface**  
Lab Sample ID: 1176190010  
Lab Project ID: 1176190

Collection Date: 08/30/17 14:53  
Received Date: 08/30/17 16:54  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Microbiology Laboratory**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	10	1.00	1.00	col/100mL	1		08/30/17 18:15

**Batch Information**

Analytical Batch: BTF15944  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/30/17 18:15  
Container ID: 1176190010-A



Results of B11

Client Sample ID: B11
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176190010
Lab Project ID: 1176190

Collection Date: 08/30/17 14:53
Received Date: 08/30/17 16:54
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5683
Analytical Method: EPA 300.0
Analyst: NEG
Analytical Date/Time: 08/31/17 20:42
Container ID: 1176190010-B
Prep Batch: WXX11989
Prep Method: METHOD
Prep Date/Time: 08/31/17 15:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4055
Analytical Method: SM21 4500-N D
Analyst: NEG
Analytical Date/Time: 09/07/17 13:00
Container ID: 1176190010-C
Prep Batch: WXX11985
Prep Method: METHOD
Prep Date/Time: 09/06/17 19:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

Batch Information

Analytical Batch: WDA4053
Analytical Method: SM21 4500-NH3 G
Analyst: NEG
Analytical Date/Time: 09/06/17 17:05
Container ID: 1176190010-C
Prep Batch: WXX11983
Prep Method: METHOD
Prep Date/Time: 09/06/17 16:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

## Results of Duplicate 3

Client Sample ID: **Duplicate 3**  
 Client Project ID: **Wasilla WWTP Surface**  
 Lab Sample ID: 1176190011  
 Lab Project ID: 1176190

Collection Date: 08/30/17 13:45  
 Received Date: 08/30/17 16:54  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		08/30/17 18:15

## Batch Information

Analytical Batch: BTF15944  
 Analytical Method: SM21 9222D  
 Analyst: K.W  
 Analytical Date/Time: 08/30/17 18:15  
 Container ID: 1176190011-A



Results of Duplicate 3

Client Sample ID: Duplicate 3
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176190011
Lab Project ID: 1176190

Collection Date: 08/30/17 13:45
Received Date: 08/30/17 16:54
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Nitrate-N, Nitrite-N, and Total Nitrate/Nitrite-N.

Batch Information

Analytical Batch: WIC5683
Analytical Method: EPA 300.0
Analyst: NEG
Analytical Date/Time: 08/31/17 21:00
Container ID: 1176190011-B
Prep Batch: WXX11989
Prep Method: METHOD
Prep Date/Time: 08/31/17 15:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Total Kjeldahl Nitrogen.

Batch Information

Analytical Batch: WDA4055
Analytical Method: SM21 4500-N D
Analyst: NEG
Analytical Date/Time: 09/07/17 13:01
Container ID: 1176190011-C
Prep Batch: WXX11985
Prep Method: METHOD
Prep Date/Time: 09/06/17 19:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Ammonia-N.

Batch Information

Analytical Batch: WDA4053
Analytical Method: SM21 4500-NH3 G
Analyst: NEG
Analytical Date/Time: 09/06/17 17:07
Container ID: 1176190011-C
Prep Batch: WXX11983
Prep Method: METHOD
Prep Date/Time: 09/06/17 16:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

## Method Blank

Blank ID: MB for HBN 1767281 [BOD/5844]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1409555

QC for Samples:

1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006

## Results by SM21 5210B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Biochemical Oxygen Demand	2.00U	2.00	2.00	mg/L

## Batch Information

Analytical Batch: BOD5844

Analytical Method: SM21 5210B

Instrument:

Analyst: AKD

Analytical Date/Time: 8/31/2017 4:34:00PM

Print Date: 09/19/2017 4:06:47PM



## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176190 [BOD5844]

Blank Spike Lab ID: 1409556

Date Analyzed: 08/31/2017 16:34

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006

## Results by SM21 5210B

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Biochemical Oxygen Demand	198	190	96	( 84.6-115.4

## Batch Information

Analytical Batch: **BOD5844**

Analytical Method: **SM21 5210B**

Instrument:

Analyst: **AKD**

Print Date: 09/19/2017 4:06:50PM

## Method Blank

Blank ID: MB for HBN 1767184 [BTF/15944]

Blank Lab ID: 1409295

QC for Samples:

1176190001, 1176190002, 1176190003, 1176190004

Matrix: Water (Surface, Eff., Ground)

## Results by SM21 9222D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Fecal Coliform	1.00U	1.00	1.00	col/100mL

## Batch Information

Analytical Batch: BTF15944

Analytical Method: SM21 9222D

Instrument:

Analyst: K.W

Analytical Date/Time: 8/30/2017 5:19:00PM

Print Date: 09/19/2017 4:06:52PM



### Method Blank

Blank ID: MB for HBN 1767184 [BTF/15944]  
Blank Lab ID: 1409296

Matrix: Water (Surface, Eff., Ground)

#### QC for Samples:

1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006, 1176190007, 1176190008, 1176190009, 1176190010, 1176190011

### Results by SM21 9222D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Fecal Coliform	1.00U	1.00	1.00	col/100mL

### Batch Information

Analytical Batch: BTF15944  
Analytical Method: SM21 9222D  
Instrument:  
Analyst: K.W  
Analytical Date/Time: 8/30/2017 6:15:00PM

Print Date: 09/19/2017 4:06:52PM

## Method Blank

Blank ID: MB for HBN 1767222 [BTF/15948]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1409291

QC for Samples:

1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006

## Results by SM21 9223B

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Coliform	1U	1	1	MPN/100m
E. Coli	1U	1	1	MPN/100m

## Batch Information

Analytical Batch: BTF15948

Analytical Method: SM21 9223B

Instrument:

Analyst: K.W

Analytical Date/Time: 8/30/2017 3:50:00PM

Print Date: 09/19/2017 4:06:56PM

## Method Blank

Blank ID: MB for HBN 1767332 [MXX/31001]  
 Blank Lab ID: 1409743

Matrix: Water (Surface, Eff., Ground)

QC for Samples:  
 1176190001, 1176190002, 1176190003, 1176190004

## Results by SW6020A

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Arsenic	2.50U	5.00	1.50	ug/L
Barium	1.50U	3.00	0.940	ug/L
Cadmium	1.00U	2.00	0.620	ug/L
Chromium	2.00U	4.00	1.30	ug/L
Copper	3.00U	6.00	1.80	ug/L
Lead	0.500U	1.00	0.310	ug/L
Mercury	0.100U	0.200	0.0620	ug/L
Selenium	10.0U	20.0	6.20	ug/L
Silver	1.00U	2.00	0.620	ug/L
Zinc	12.5U	25.0	7.80	ug/L

## Batch Information

Analytical Batch: MMS9937  
 Analytical Method: SW6020A  
 Instrument: Perkin Elmer Nexlon P5  
 Analyst: ACF  
 Analytical Date/Time: 9/15/2017 11:35:25PM

Prep Batch: MXX31001  
 Prep Method: SW3010A  
 Prep Date/Time: 9/1/2017 1:30:45PM  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL

Print Date: 09/19/2017 4:06:58PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176190 [MXX31001]  
 Blank Spike Lab ID: 1409744  
 Date Analyzed: 09/15/2017 23:39

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176190001, 1176190002, 1176190003, 1176190004

## Results by SW6020A

Parameter	Blank Spike (ug/L)			CL
	Spike	Result	Rec (%)	
Arsenic	1000	987	99	( 84-116 )
Barium	1000	994	99	( 86-114 )
Cadmium	100	98.8	99	( 87-115 )
Chromium	400	394	99	( 85-116 )
Copper	1000	1020	102	( 85-118 )
Lead	1000	1050	105	( 88-115 )
Mercury	10	10.3	103	( 70-124 )
Selenium	1000	971	97	( 80-120 )
Silver	100	105	105	( 85-116 )
Zinc	1000	988	99	( 83-119 )

## Batch Information

Analytical Batch: **MMS9937**  
 Analytical Method: **SW6020A**  
 Instrument: **Perkin Elmer Nexlon P5**  
 Analyst: **ACF**

Prep Batch: **MXX31001**  
 Prep Method: **SW3010A**  
 Prep Date/Time: **09/01/2017 13:30**  
 Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 25 mL  
 Dupe Init Wt./Vol.: Extract Vol:

## Matrix Spike Summary

Original Sample ID: 1409745  
 MS Sample ID: 1409746 MS  
 MSD Sample ID: 1409747 MSD

Analysis Date: 09/15/2017 23:44  
 Analysis Date: 09/15/2017 23:48  
 Analysis Date: 09/15/2017 23:53  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176190001, 1176190002, 1176190003, 1176190004

## Results by SW6020A

Parameter	Sample	Matrix Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Arsenic	2.50U	1000	1040	104	1000	1010	101	84-116	2.92	(< 20 )
Barium	22.7	1000	1040	102	1000	998	98	86-114	4.08	(< 20 )
Cadmium	1.00U	100	100	100	100	96.6	97	87-115	3.63	(< 20 )
Chromium	2.00U	400	411	103	400	377	94	85-116	8.67	(< 20 )
Copper	3.00U	1000	1030	103	1000	967	97	85-118	6.00	(< 20 )
Lead	0.500U	1000	1100	110	1000	1050	105	88-115	4.51	(< 20 )
Mercury	0.100U	10.0	10.7	107	10.0	10.0	100	70-124	6.54	(< 20 )
Selenium	10.0U	1000	1010	101	1000	999	100	80-120	1.37	(< 20 )
Silver	1.00U	100	121	121 *	100	117	117 *	85-116	3.76	(< 20 )
Zinc	12.5U	1000	987	99	1000	966	97	83-119	2.12	(< 20 )

## Batch Information

Analytical Batch: MMS9937  
 Analytical Method: SW6020A  
 Instrument: Perkin Elmer Nexlon P5  
 Analyst: ACF  
 Analytical Date/Time: 9/15/2017 11:48:59PM

Prep Batch: MXX31001  
 Prep Method: 3010 H2O Digest for Metals ICP-MS  
 Prep Date/Time: 9/1/2017 1:30:45PM  
 Prep Initial Wt./Vol.: 25.00mL  
 Prep Extract Vol: 25.00mL

## Bench Spike Summary

Original Sample ID: 1409745  
 MS Sample ID: 1409748 BND  
 MSD Sample ID:

Analysis Date: 09/15/2017 23:44  
 Analysis Date: 09/15/2017 23:58  
 Analysis Date:  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176190001, 1176190002, 1176190003, 1176190004

## Results by SW6020A

Parameter	Sample	Matrix Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Silver	1.00U	25.0	28.4	114				80-120		

## Batch Information

Analytical Batch: MMS9937  
 Analytical Method: SW6020A  
 Instrument: Perkin Elmer Nexlon P5  
 Analyst: ACF  
 Analytical Date/Time: 9/15/2017 11:58:03PM

Prep Batch: MXX31001  
 Prep Method: 3010 H2O Digest for Metals ICP-MS  
 Prep Date/Time: 9/1/2017 1:30:45PM  
 Prep Initial Wt./Vol.: 25.00mL  
 Prep Extract Vol: 25.00mL

Print Date: 09/19/2017 4:07:01PM



## Method Blank

Blank ID: MB for HBN 1767286 [STS/5620]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1409586

QC for Samples:

1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006

## Results by SM21 2540D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Suspended Solids	0.500U	1.00	0.310	mg/L

## Batch Information

Analytical Batch: STS5620

Analytical Method: SM21 2540D

Instrument:

Analyst: AYC

Analytical Date/Time: 8/31/2017 6:57:47PM

Print Date: 09/19/2017 4:07:03PM

## Duplicate Sample Summary

Original Sample ID: 1176150001  
Duplicate Sample ID: 1409589  
QC for Samples:

Analysis Date: 08/31/2017 18:57  
Matrix: Water (Surface, Eff., Ground)

## Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	410	340	mg/L	18.70*	(< 5 )

## Batch Information

Analytical Batch: STS5620  
Analytical Method: SM21 2540D  
Instrument:  
Analyst: AYC

Print Date: 09/19/2017 4:07:03PM

## Duplicate Sample Summary

Original Sample ID: 1176152001

Duplicate Sample ID: 1409590

QC for Samples:

1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006

Analysis Date: 08/31/2017 18:57

Matrix: Water (Surface, Eff., Ground)

## Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	21.2	22.0	mg/L	3.70	(< 5 )

## Batch Information

Analytical Batch: STS5620

Analytical Method: SM21 2540D

Instrument:

Analyst: AYC

Print Date: 09/19/2017 4:07:03PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176190 [STS5620]  
 Blank Spike Lab ID: 1409587  
 Date Analyzed: 08/31/2017 18:57

Spike Duplicate ID: LCSD for HBN 1176190 [STS5620]  
 Spike Duplicate Lab ID: 1409588  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006

## Results by SM21 2540D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Suspended Solids	50	50.2	100	50	50.5	101	( 75-125 )	0.60	(< 5 )

## Batch Information

Analytical Batch: STS5620  
 Analytical Method: SM21 2540D  
 Instrument:  
 Analyst: AYC

Print Date: 09/19/2017 4:07:04PM

## Method Blank

Blank ID: MB for HBN 1767771 [WXX/11983]  
 Blank Lab ID: 1410916

Matrix: Water (Surface, Eff., Ground)

### QC for Samples:

1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006, 1176190007, 1176190008, 1176190009, 1176190010, 1176190011

## Results by SM21 4500-NH3 G

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Ammonia-N	0.0500U	0.100	0.0310	mg/L

## Batch Information

Analytical Batch: WDA4053  
 Analytical Method: SM21 4500-NH3 G  
 Instrument: Discrete Analyzer 2  
 Analyst: NEG  
 Analytical Date/Time: 9/6/2017 4:36:57PM

Prep Batch: WXX11983  
 Prep Method: METHOD  
 Prep Date/Time: 9/6/2017 4:00:00PM  
 Prep Initial Wt./Vol.: 6 mL  
 Prep Extract Vol: 6 mL

Print Date: 09/19/2017 4:07:06PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176190 [WXX11983]  
 Blank Spike Lab ID: 1410917  
 Date Analyzed: 09/06/2017 16:38

Spike Duplicate ID: LCSD for HBN 1176190 [WXX11983]  
 Spike Duplicate Lab ID: 1410918  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006, 1176190007, 1176190008, 1176190009, 1176190010, 1176190011

## Results by SM21 4500-NH3 G

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	1	0.986	99	1	0.980	98	( 75-125 )	0.60	(< 25 )

## Batch Information

Analytical Batch: **WDA4053**  
 Analytical Method: **SM21 4500-NH3 G**  
 Instrument: **Discrete Analyzer 2**  
 Analyst: **NEG**

Prep Batch: **WXX11983**  
 Prep Method: **METHOD**  
 Prep Date/Time: **09/06/2017 16:00**  
 Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL  
 Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

Print Date: 09/19/2017 4:07:08PM

## Matrix Spike Summary

Original Sample ID: 1178298001  
 MS Sample ID: 1410919 MS  
 MSD Sample ID: 1410920 MSD

Analysis Date: 09/06/2017 18:15  
 Analysis Date: 09/06/2017 18:17  
 Analysis Date: 09/06/2017 18:19  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006, 1176190007,  
 1176190008, 1176190009, 1176190010, 1176190011

## Results by SM21 4500-NH3 G

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	58.0	1.00	62.5	447 *	1.00	59.0	97	75-125	5.80	(< 25 )

## Batch Information

Analytical Batch: WDA4053  
 Analytical Method: SM21 4500-NH3 G  
 Instrument: Discrete Analyzer 2  
 Analyst: NEG  
 Analytical Date/Time: 9/6/2017 6:17:27PM

Prep Batch: WXX11983  
 Prep Method: Ammonia by SM21 4500F prep (W)  
 Prep Date/Time: 9/6/2017 4:00:00PM  
 Prep Initial Wt./Vol.: 6.00mL  
 Prep Extract Vol: 6.00mL

Print Date: 09/19/2017 4:07:10PM

## Method Blank

Blank ID: MB for HBN 1767823 [WXX/11985]  
 Blank Lab ID: 1411144

Matrix: Water (Surface, Eff., Ground)

### QC for Samples:

1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006, 1176190007, 1176190008, 1176190009, 1176190010, 1176190011

## Results by SM21 4500-N D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Kjeldahl Nitrogen	0.500U	1.00	0.310	mg/L

## Batch Information

Analytical Batch: WDA4055  
 Analytical Method: SM21 4500-N D  
 Instrument: Discrete Analyzer 2  
 Analyst: NEG  
 Analytical Date/Time: 9/7/2017 12:39:15PM

Prep Batch: WXX11985  
 Prep Method: METHOD  
 Prep Date/Time: 9/6/2017 7:00:00PM  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL

Print Date: 09/19/2017 4:07:11PM



## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176190 [WXX11985]  
 Blank Spike Lab ID: 1411145  
 Date Analyzed: 09/07/2017 12:40

Spike Duplicate ID: LCSD for HBN 1176190 [WXX11985]  
 Spike Duplicate Lab ID: 1411146  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006, 1176190007, 1176190008, 1176190009, 1176190010, 1176190011

## Results by SM21 4500-N D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	4	3.88	97	4	3.95	99	( 75-125 )	1.60	(< 25 )

## Batch Information

Analytical Batch: **WDA4055**  
 Analytical Method: **SM21 4500-N D**  
 Instrument: **Discrete Analyzer 2**  
 Analyst: **NEG**

Prep Batch: **WXX11985**  
 Prep Method: **METHOD**  
 Prep Date/Time: **09/06/2017 19:00**  
 Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL  
 Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 09/19/2017 4:07:12PM

## Matrix Spike Summary

Original Sample ID: 1176190001  
 MS Sample ID: 1411147 MS  
 MSD Sample ID: 1411148 MSD

Analysis Date: 09/07/2017 12:43  
 Analysis Date: 09/07/2017 12:44  
 Analysis Date: 09/07/2017 12:45  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006, 1176190007,  
 1176190008, 1176190009, 1176190010, 1176190011

## Results by SM21 4500-N D

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	2.15	4.00	5.27	78	4.00	5.36	80	75-125	1.80	(< 25 )

## Batch Information

Analytical Batch: WDA4055  
 Analytical Method: SM21 4500-N D  
 Instrument: Discrete Analyzer 2  
 Analyst: NEG  
 Analytical Date/Time: 9/7/2017 12:44:30PM

Prep Batch: WXX11985  
 Prep Method: Distillation TKN by Phenate (W)  
 Prep Date/Time: 9/6/2017 7:00:00PM  
 Prep Initial Wt./Vol.: 25.00mL  
 Prep Extract Vol: 25.00mL

## Method Blank

Blank ID: MB for HBN 1768050 [WXX/11988]  
 Blank Lab ID: 1411795

Matrix: Water (Surface, Eff., Ground)

QC for Samples:  
 1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006

## Results by SM21 4500P-B,E

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Phosphorus	0.0137J	0.0200	0.00620	mg/L

## Batch Information

Analytical Batch: WDA4057  
 Analytical Method: SM21 4500P-B,E  
 Instrument: Discrete Analyzer 2  
 Analyst: NEG  
 Analytical Date/Time: 9/8/2017 4:40:21PM

Prep Batch: WXX11988  
 Prep Method: SM21 4500P-B,E  
 Prep Date/Time: 9/8/2017 2:00:00PM  
 Prep Initial Wt./Vol.: 25 mL  
 Prep Extract Vol: 25 mL

Print Date: 09/19/2017 4:07:14PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176190 [WXX11988]  
 Blank Spike Lab ID: 1411796  
 Date Analyzed: 09/08/2017 16:41

Spike Duplicate ID: LCSD for HBN 1176190 [WXX11988]  
 Spike Duplicate Lab ID: 1411797  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006

## Results by SM21 4500P-B,E

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.2	0.196	98	0.2	0.204	102	( 85-115 )	3.90	(< 25 )

## Batch Information

Analytical Batch: **WDA4057**  
 Analytical Method: **SM21 4500P-B,E**  
 Instrument: **Discrete Analyzer 2**  
 Analyst: **NEG**

Prep Batch: **WXX11988**  
 Prep Method: **SM21 4500P-B,E**  
 Prep Date/Time: **09/08/2017 14:00**  
 Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL  
 Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

## Matrix Spike Summary

Original Sample ID: 1178295043  
 MS Sample ID: 1411798 MS  
 MSD Sample ID: 1411799 MSD

Analysis Date: 09/08/2017 16:43  
 Analysis Date: 09/08/2017 16:44  
 Analysis Date: 09/08/2017 16:45  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006

## Results by SM21 4500P-B,E

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.00970J	0.200	.201	96	0.200	0.203	97	75-125	0.89	(< 25 )

## Batch Information

Analytical Batch: WDA4057  
 Analytical Method: SM21 4500P-B,E  
 Instrument: Discrete Analyzer 2  
 Analyst: NEG  
 Analytical Date/Time: 9/8/2017 4:44:17PM

Prep Batch: WXX11988  
 Prep Method: Total Phosphorus (W) Ext.  
 Prep Date/Time: 9/8/2017 2:00:00PM  
 Prep Initial Wt./Vol.: 25.00mL  
 Prep Extract Vol: 25.00mL

Print Date: 09/19/2017 4:07:17PM

## Method Blank

Blank ID: MB for HBN 1768058 [WXX/11989]  
 Blank Lab ID: 1411832

Matrix: Water (Surface, Eff., Ground)

### QC for Samples:

1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006, 1176190007, 1176190008, 1176190009, 1176190010, 1176190011

## Results by EPA 300.0

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Nitrate-N	0.100U	0.200	0.0620	mg/L
Nitrite-N	0.100U	0.200	0.0620	mg/L
Total Nitrate/Nitrite-N	0.100U	0.200	0.0620	mg/L

## Batch Information

Analytical Batch: WIC5683  
 Analytical Method: EPA 300.0  
 Instrument: 930 Metrohm compact IC flex  
 Analyst: NEG  
 Analytical Date/Time: 8/31/2017 4:42:23PM

Prep Batch: WXX11989  
 Prep Method: METHOD  
 Prep Date/Time: 8/31/2017 3:00:00PM  
 Prep Initial Wt./Vol.: 10 mL  
 Prep Extract Vol: 10 mL

Print Date: 09/19/2017 4:07:19PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176190 [WXX11989]  
 Blank Spike Lab ID: 1411833  
 Date Analyzed: 08/31/2017 17:00

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006, 1176190007,  
 1176190008, 1176190009, 1176190010, 1176190011

## Results by EPA 300.0

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	5	5.06	101	( 90-110 )
Nitrite-N	5	5.06	101	( 90-110 )
Total Nitrate/Nitrite-N	10	10.1	101	( 90-110 )

## Batch Information

Analytical Batch: **WIC5683**  
 Analytical Method: **EPA 300.0**  
 Instrument: **930 Metrohm compact IC flex**  
 Analyst: **NEG**

Prep Batch: **WXX11989**  
 Prep Method: **METHOD**  
 Prep Date/Time: **08/31/2017 15:00**  
 Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL  
 Dupe Init Wt./Vol.: Extract Vol:

## Matrix Spike Summary

Original Sample ID: 1176199001  
 MS Sample ID: 1411834 MS  
 MSD Sample ID: 1411835 MSD

Analysis Date: 08/31/2017 21:18  
 Analysis Date: 08/31/2017 21:36  
 Analysis Date: 08/31/2017 21:54  
 Matrix: Drinking Water

QC for Samples: 1176190001, 1176190002, 1176190003, 1176190004, 1176190005, 1176190006, 1176190007, 1176190008, 1176190009, 1176190010, 1176190011

## Results by EPA 300.0

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Nitrite-N	0.100U	5.00	5.19	104	5.00	5.26	105	90-110	1.30	

## Batch Information

Analytical Batch: WIC5683  
 Analytical Method: EPA 300.0  
 Instrument: 930 Metrohm compact IC flex  
 Analyst: NEG  
 Analytical Date/Time: 8/31/2017 9:36:41PM

Prep Batch: WXX11989  
 Prep Method: EPA 300.0 Extraction Waters/Liquids  
 Prep Date/Time: 8/31/2017 3:00:00PM  
 Prep Initial Wt./Vol.: 10.00mL  
 Prep Extract Vol: 10.00mL





**Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.**

<b>CLIENT:</b> Startec <b>CONTACT:</b> John Marshall <b>PROJECT NAME:</b> WISLKA WWT2 <b>REPORTS TO:</b> Sw LACE <b>PHONE NO.:</b> (907) 266-1108 <b>E-MAIL:</b> John.Marshall@startec.com		<b>Section 3</b> <b>CONTAINER #</b> Type: C=COMP, G=GRAB, M=Multi-Incremental, S=Soils 1 - TSS 1 - BOD <sub>5</sub>		<b>Section 4</b> <b>DOD Project?</b> Yes No H2SO4 TRH/America/TP RCR4 Modis w/CO2 HNO3 RDI Col Quant H2SO4 Nitrade/Nitrak FC		<b>Section 5</b> <b>REMARKS/LOC ID</b>	
<b>RESERVED for lab use</b> ① A-G Sw-14 ② A-G Sw-15 ③ A-G Sw-16 ④ A-G Duplicate 2	<b>DATE</b> mm/dd/yy 8/30/17 8/30/17 8/30/17 8/30/17	<b>TIME</b> HH:MM 0945 0930 0920 0920	<b>MATRIX CODE</b> W W W W	<b>Section 4</b> Cooler ID: Requested Turnaround Time and/or Special Instructions:	<b>Section 5</b> Chain of Custody Seal: (Circle) INTACT <input checked="" type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT Temp Blank °C: 12.0 or Ambient [ ] (See attached Sample Receipt Form)	<b>Section 5</b> Relinquished By: (1) [Signature] Relinquished By: (2) [Signature] Relinquished By: (3) [Signature] Relinquished By: (4) [Signature]	



SGS North America Inc.  
CHAIN OF CUSTODY RECORD

1176190



CLIENT: Sfantec		PHONE NO: (907) 266 1108		Section 3 # CONTAINERS Type C = COMP G = GRAB M = Multi I = Incre-mental S = Soils				Preservative			REMARKS/ LOC ID				
CONTACT: Schm Marshall		PROJECT/ PWSID/ PERMIT#: WS-119, WS-RP						E-MAIL: Schm.marshall@staftec.com			-			-	
INVOICE TO:				QUOTE #:		P.O. #:		TKN/Ammonia			TKN/Ammonia				
RESERVED for lab use				SAMPLE IDENTIFICATION		DATE mm/dd/yy		TIME HH:MM		MATRIX CODE		TKN/Ammonia			
5 A-F Sw-17				8/30/17		1123		W		W		TKN/Ammonia			
6 A-F Sw-18				8/30/17		1100		W		W		TKN/Ammonia			
7 A-C B1				8/30/17		1345		W		W		TKN/Ammonia			
8 A-C B3				8/30/17		1415		W		W		TKN/Ammonia			
9 A-C B4				8/30/17		1238		W		W		TKN/Ammonia			
10 A-C B11				8/30/17		1453		W		W		TKN/Ammonia			
11 A-C Duplicate 3				8/30/17		1345		W		W		TKN/Ammonia			
Relinquished By: (1)				Date 8/30/17		Time 4:51		Received By:		Section 4		DOD Project? Yes No		Data Deliverable Requirements:	
Relinquished By: (2)				Date		Time		Received By:		Cooler ID:		Requested Turnaround Time and/or Special Instructions:		Chain of Custody Seal: (Circle)	
Relinquished By: (3)				Date		Time		Received By:		Temp Blank °C: 3.0		DAI		INTACT BROKEN ABSENT	
Relinquished By: (4)				Date 8/30/17		Time 1054		Received For Laboratory By:		(See attached Sample Receipt Form)		(See attached Sample Receipt Form)		Temp Blank °C: 3.0	



e-Sample Receipt Form

SGS Workorder #:

1176190



1 1 7 6 1 9 0

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
<b>Chain of Custody / Temperature Requirements</b>	<input checked="" type="checkbox"/> Yes	Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	<input type="checkbox"/> N/A	Absent
COC accompanied samples?	<input checked="" type="checkbox"/> Yes	
<input checked="" type="checkbox"/> Yes **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	<input checked="" type="checkbox"/> Yes	Cooler ID: 1 @ 1.2 °C Therm. ID: D40
	<input checked="" type="checkbox"/> Yes	Cooler ID: 2 @ 3.6 °C Therm. ID: D41
	<input type="checkbox"/> N/A	Cooler ID: @ °C Therm. ID:
	<input type="checkbox"/> N/A	Cooler ID: @ °C Therm. ID:
	<input type="checkbox"/> N/A	Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	<input type="checkbox"/> N/A	
If <0°C, were sample containers ice free?	<input type="checkbox"/> N/A	
If samples received <u>without</u> a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "COOLER TEMP" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
<b>Holding Time / Documentation / Sample Condition Requirements</b>		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	<input checked="" type="checkbox"/> Yes	
Do samples <b>match COC**</b> (i.e., sample IDs, dates/times collected)?	<input checked="" type="checkbox"/> Yes	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	<input checked="" type="checkbox"/> Yes	
Were proper containers (type/mass/volume/preservative***) used?	<input type="checkbox"/> N/A	***Exemption permitted for metals (e.g.200.8/6020A).
<b>Volatile / LL-Hg Requirements</b>		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	<input type="checkbox"/> N/A	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	<input type="checkbox"/> N/A	
Were all soil VOAs field extracted with MeOH+BFB?	<input type="checkbox"/> N/A	
<b>Note to Client:</b> Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.		
Additional notes (if applicable):		



### Sample Containers and Preservatives

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1176190001-A	Na2S2O3 for Chlorine Redu	OK	1176190007-C	H2SO4 to pH < 2	OK
1176190001-B	No Preservative Required	OK	1176190008-A	Na2S2O3 for Chlorine Redu	OK
1176190001-C	No Preservative Required	OK	1176190008-B	No Preservative Required	OK
1176190001-D	H2SO4 to pH < 2	OK	1176190008-C	H2SO4 to pH < 2	OK
1176190001-E	HNO3 to pH < 2	OK	1176190009-A	Na2S2O3 for Chlorine Redu	OK
1176190001-F	Na2S2O3 for Chlorine Redu	OK	1176190009-B	No Preservative Required	OK
1176190001-G	No Preservative Required	OK	1176190009-C	H2SO4 to pH < 2	OK
1176190002-A	Na2S2O3 for Chlorine Redu	OK	1176190010-A	Na2S2O3 for Chlorine Redu	OK
1176190002-B	No Preservative Required	OK	1176190010-B	No Preservative Required	OK
1176190002-C	No Preservative Required	OK	1176190010-C	H2SO4 to pH < 2	OK
1176190002-D	H2SO4 to pH < 2	OK	1176190011-A	Na2S2O3 for Chlorine Redu	OK
1176190002-E	HNO3 to pH < 2	OK	1176190011-B	No Preservative Required	OK
1176190002-F	Na2S2O3 for Chlorine Redu	OK	1176190011-C	H2SO4 to pH < 2	OK
1176190002-G	No Preservative Required	OK			
1176190003-A	Na2S2O3 for Chlorine Redu	OK			
1176190003-B	No Preservative Required	OK			
1176190003-C	No Preservative Required	OK			
1176190003-D	H2SO4 to pH < 2	OK			
1176190003-E	HNO3 to pH < 2	OK			
1176190003-F	Na2S2O3 for Chlorine Redu	OK			
1176190003-G	No Preservative Required	OK			
1176190004-A	Na2S2O3 for Chlorine Redu	OK			
1176190004-B	No Preservative Required	OK			
1176190004-C	No Preservative Required	OK			
1176190004-D	H2SO4 to pH < 2	OK			
1176190004-E	HNO3 to pH < 2	OK			
1176190004-F	Na2S2O3 for Chlorine Redu	OK			
1176190004-G	No Preservative Required	OK			
1176190005-A	Na2S2O3 for Chlorine Redu	OK			
1176190005-B	No Preservative Required	OK			
1176190005-C	No Preservative Required	OK			
1176190005-D	H2SO4 to pH < 2	OK			
1176190005-E	Na2S2O3 for Chlorine Redu	OK			
1176190005-F	No Preservative Required	OK			
1176190006-A	Na2S2O3 for Chlorine Redu	OK			
1176190006-B	No Preservative Required	OK			
1176190006-C	No Preservative Required	OK			
1176190006-D	H2SO4 to pH < 2	OK			
1176190006-E	Na2S2O3 for Chlorine Redu	OK			
1176190006-F	No Preservative Required	OK			
1176190007-A	Na2S2O3 for Chlorine Redu	OK			
1176190007-B	No Preservative Required	OK			

Container Id

Preservative

Container  
Condition

Container Id

Preservative

Container  
Condition

#### Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.

BU - The container was received with headspace greater than 6mm.

DM- The container was received damaged.

FR- The container was received frozen and not usable for Bacteria or BOD analyses.

PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

## Laboratory Report of Analysis

To: Stantec Consulting Services Inc.  
725 East Fireweed Lane Suite 200  
Anchorage, AK 99503  
(907)248-8883

Report Number: **1176221**

Client Project: **Wasilla WWTP**

Dear John Marshall,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Justin at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,  
SGS North America Inc.

---

Justin Nelson  
Project Manager  
Justin.Nelson@sgs.com

Date

## Case Narrative

SGS Client: **Stantec Consulting Services Inc.**

SGS Project: **1176221**

Project Name/Site: **Wasilla WWTP**

Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

**MW6 (1176221001) PS**

300.0 - Anions - Sample analyzed past hold time

**MW8 (1176221002) PS**

300.0 - Anions - Sample analyzed past hold time

**MW14 (1176221003) PS**

300.0 - Anions - Sample analyzed past hold time

**1178298001MS (1410919) MS**

4500NH3-G - Ammonia - MS recovery is outside of QC criteria. Refer to LCS for accuracy requirements.

**1176218012MS (1412005) MS**

300.0 - Anions - MS recovery for Chloride is outside of QC criteria. Refer to LCS for accuracy requirements.

**1176218012MSD (1412006) MSD**

300.0 - Anions - MSD recovery for Chloride is outside of QC criteria. Refer to LCS for accuracy requirements.

\*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

Print Date: 09/14/2017 4:13:50PM

## Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the context or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & UST-005 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8015C, 8021B, 8082A, 8260C, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.

**Note:** Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.



### Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
MW6	1176221001	08/31/2017	08/31/2017	Water (Surface, Eff., Ground)
MW8	1176221002	08/31/2017	08/31/2017	Water (Surface, Eff., Ground)
MW14	1176221003	08/31/2017	08/31/2017	Water (Surface, Eff., Ground)

<u>Method</u>	<u>Method Description</u>
SM21 4500-NH3 G	Ammonia-N (W) SM21 4500-NH3 G
SM21 9222D	Fecal Coliform (MF)
EPA 300.0	Ion Chromatographic Analysis
SM21 4500-N D	TKN by Phenate (W)

Print Date: 09/14/2017 4:13:53PM

### Detectable Results Summary

Client Sample ID: **MW6**  
 Lab Sample ID: 1176221001  
**Waters Department**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Ammonia-N	0.0685J	mg/L

Client Sample ID: **MW8**  
 Lab Sample ID: 1176221002  
**Waters Department**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Ammonia-N	0.131	mg/L
Total Kjeldahl Nitrogen	0.763J	mg/L

Client Sample ID: **MW14**  
 Lab Sample ID: 1176221003  
**Waters Department**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Ammonia-N	0.122	mg/L
Nitrite-N	0.104J	mg/L
Total Kjeldahl Nitrogen	1.45	mg/L
Total Nitrate/Nitrite-N	0.141J	mg/L

## Results of MW6

Client Sample ID: **MW6**  
Client Project ID: **Wasilla WWTP**  
Lab Sample ID: 1176221001  
Lab Project ID: 1176221

Collection Date: 08/31/17 09:44  
Received Date: 08/31/17 16:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

## Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		08/31/17 17:10

## Batch Information

Analytical Batch: BTF15952  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/31/17 17:10  
Container ID: 1176221001-A



**Results of MW6**

Client Sample ID: **MW6**  
Client Project ID: **Wasilla WWTP**  
Lab Sample ID: 1176221001  
Lab Project ID: 1176221

Collection Date: 08/31/17 09:44  
Received Date: 08/31/17 16:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0620	mg/L	1		09/08/17 13:02
Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		09/08/17 13:02
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		09/08/17 13:02

**Batch Information**

Analytical Batch: WIC5684  
Analytical Method: EPA 300.0  
Analyst: NEG  
Analytical Date/Time: 09/08/17 13:02  
Container ID: 1176221001-B

Prep Batch: WXX11990  
Prep Method: METHOD  
Prep Date/Time: 09/07/17 15:00  
Prep Initial Wt./Vol.: 10 mL  
Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.500 U	1.00	0.310	mg/L	1		09/07/17 13:02

**Batch Information**

Analytical Batch: WDA4055  
Analytical Method: SM21 4500-N D  
Analyst: NEG  
Analytical Date/Time: 09/07/17 13:02  
Container ID: 1176221001-C

Prep Batch: WXX11985  
Prep Method: METHOD  
Prep Date/Time: 09/06/17 19:00  
Prep Initial Wt./Vol.: 25 mL  
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.0685 J	0.100	0.0310	mg/L	1		09/06/17 17:10

**Batch Information**

Analytical Batch: WDA4053  
Analytical Method: SM21 4500-NH3 G  
Analyst: NEG  
Analytical Date/Time: 09/06/17 17:10  
Container ID: 1176221001-C

Prep Batch: WXX11983  
Prep Method: METHOD  
Prep Date/Time: 09/06/17 16:00  
Prep Initial Wt./Vol.: 6 mL  
Prep Extract Vol: 6 mL

## Results of MW8

Client Sample ID: **MW8**  
 Client Project ID: **Wasilla WWTP**  
 Lab Sample ID: 1176221002  
 Lab Project ID: 1176221

Collection Date: 08/31/17 10:49  
 Received Date: 08/31/17 16:34  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		08/31/17 17:10

## Batch Information

Analytical Batch: BTF15952  
 Analytical Method: SM21 9222D  
 Analyst: K.W  
 Analytical Date/Time: 08/31/17 17:10  
 Container ID: 1176221002-A



**Results of MW8**

Client Sample ID: **MW8**  
Client Project ID: **Wasilla WWTP**  
Lab Sample ID: 1176221002  
Lab Project ID: 1176221

Collection Date: 08/31/17 10:49  
Received Date: 08/31/17 16:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0620	mg/L	1		09/08/17 13:20
Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		09/08/17 13:20
Total Nitrate/Nitrite-N	0.100 U	0.200	0.0620	mg/L	1		09/08/17 13:20

**Batch Information**

Analytical Batch: WIC5684  
Analytical Method: EPA 300.0  
Analyst: NEG  
Analytical Date/Time: 09/08/17 13:20  
Container ID: 1176221002-B

Prep Batch: WXX11990  
Prep Method: METHOD  
Prep Date/Time: 09/07/17 15:00  
Prep Initial Wt./Vol.: 10 mL  
Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.763 J	1.00	0.310	mg/L	1		09/07/17 13:04

**Batch Information**

Analytical Batch: WDA4055  
Analytical Method: SM21 4500-N D  
Analyst: NEG  
Analytical Date/Time: 09/07/17 13:04  
Container ID: 1176221002-C

Prep Batch: WXX11985  
Prep Method: METHOD  
Prep Date/Time: 09/06/17 19:00  
Prep Initial Wt./Vol.: 25 mL  
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.131	0.100	0.0310	mg/L	1		09/06/17 17:12

**Batch Information**

Analytical Batch: WDA4053  
Analytical Method: SM21 4500-NH3 G  
Analyst: NEG  
Analytical Date/Time: 09/06/17 17:12  
Container ID: 1176221002-C

Prep Batch: WXX11983  
Prep Method: METHOD  
Prep Date/Time: 09/06/17 16:00  
Prep Initial Wt./Vol.: 6 mL  
Prep Extract Vol: 6 mL

## Results of MW14

Client Sample ID: **MW14**  
Client Project ID: **Wasilla WWTP**  
Lab Sample ID: 1176221003  
Lab Project ID: 1176221

Collection Date: 08/31/17 11:37  
Received Date: 08/31/17 16:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

## Results by Microbiology Laboratory

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		08/31/17 17:10

## Batch Information

Analytical Batch: BTF15952  
Analytical Method: SM21 9222D  
Analyst: K.W  
Analytical Date/Time: 08/31/17 17:10  
Container ID: 1176221003-A



**Results of MW14**

Client Sample ID: **MW14**  
Client Project ID: **Wasilla WWTP**  
Lab Sample ID: 1176221003  
Lab Project ID: 1176221

Collection Date: 08/31/17 11:37  
Received Date: 08/31/17 16:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.100 U	0.200	0.0620	mg/L	1		09/08/17 13:38
Nitrite-N	0.104 J	0.200	0.0620	mg/L	1		09/08/17 13:38
Total Nitrate/Nitrite-N	0.141 J	0.200	0.0620	mg/L	1		09/08/17 13:38

**Batch Information**

Analytical Batch: WIC5684  
Analytical Method: EPA 300.0  
Analyst: NEG  
Analytical Date/Time: 09/08/17 13:38  
Container ID: 1176221003-B

Prep Batch: WXX11990  
Prep Method: METHOD  
Prep Date/Time: 09/07/17 15:00  
Prep Initial Wt./Vol.: 10 mL  
Prep Extract Vol: 10 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	1.45	1.00	0.310	mg/L	1		09/07/17 13:05

**Batch Information**

Analytical Batch: WDA4055  
Analytical Method: SM21 4500-N D  
Analyst: NEG  
Analytical Date/Time: 09/07/17 13:05  
Container ID: 1176221003-C

Prep Batch: WXX11985  
Prep Method: METHOD  
Prep Date/Time: 09/06/17 19:00  
Prep Initial Wt./Vol.: 25 mL  
Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Ammonia-N	0.122	0.100	0.0310	mg/L	1		09/06/17 17:17

**Batch Information**

Analytical Batch: WDA4053  
Analytical Method: SM21 4500-NH3 G  
Analyst: NEG  
Analytical Date/Time: 09/06/17 17:17  
Container ID: 1176221003-C

Prep Batch: WXX11983  
Prep Method: METHOD  
Prep Date/Time: 09/06/17 16:00  
Prep Initial Wt./Vol.: 6 mL  
Prep Extract Vol: 6 mL





**Method Blank**

Blank ID: MB for HBN 1767295 [BTF/15952]  
Blank Lab ID: 1409612

Matrix: Water (Surface, Eff., Ground)

QC for Samples:  
1176221001, 1176221002, 1176221003

**Results by SM21 9222D**

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Fecal Coliform	1.00U	1.00	1.00	col/100mL

**Batch Information**

Analytical Batch: BTF15952  
Analytical Method: SM21 9222D  
Instrument:  
Analyst: K.W  
Analytical Date/Time: 8/31/2017 5:10:00PM

Print Date: 09/14/2017 4:13:56PM

## Method Blank

Blank ID: MB for HBN 1767771 [WXX/11983]  
Blank Lab ID: 1410916

Matrix: Water (Surface, Eff., Ground)

QC for Samples:  
1176221001, 1176221002, 1176221003

## Results by SM21 4500-NH3 G

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Ammonia-N	0.0500U	0.100	0.0310	mg/L

## Batch Information

Analytical Batch: WDA4053  
Analytical Method: SM21 4500-NH3 G  
Instrument: Discrete Analyzer 2  
Analyst: NEG  
Analytical Date/Time: 9/6/2017 4:36:57PM

Prep Batch: WXX11983  
Prep Method: METHOD  
Prep Date/Time: 9/6/2017 4:00:00PM  
Prep Initial Wt./Vol.: 6 mL  
Prep Extract Vol: 6 mL

Print Date: 09/14/2017 4:13:58PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176221 [WXX11983]  
 Blank Spike Lab ID: 1410917  
 Date Analyzed: 09/06/2017 16:38

Spike Duplicate ID: LCSD for HBN 1176221 [WXX11983]  
 Spike Duplicate Lab ID: 1410918  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176221001, 1176221002, 1176221003

## Results by SM21 4500-NH3 G

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	1	0.986	99	1	0.980	98	( 75-125 )	0.60	(< 25 )

## Batch Information

Analytical Batch: **WDA4053**  
 Analytical Method: **SM21 4500-NH3 G**  
 Instrument: **Discrete Analyzer 2**  
 Analyst: **NEG**

Prep Batch: **WXX11983**  
 Prep Method: **METHOD**  
 Prep Date/Time: **09/06/2017 16:00**  
 Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL  
 Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

## Matrix Spike Summary

Original Sample ID: 1178298001  
 MS Sample ID: 1410919 MS  
 MSD Sample ID: 1410920 MSD

Analysis Date: 09/06/2017 18:15  
 Analysis Date: 09/06/2017 18:17  
 Analysis Date: 09/06/2017 18:19  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176221001, 1176221002, 1176221003

## Results by SM21 4500-NH3 G

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Ammonia-N	58.0	1.00	62.5	447 *	1.00	59.0	97	75-125	5.80	(< 25 )

## Batch Information

Analytical Batch: WDA4053  
 Analytical Method: SM21 4500-NH3 G  
 Instrument: Discrete Analyzer 2  
 Analyst: NEG  
 Analytical Date/Time: 9/6/2017 6:17:27PM

Prep Batch: WXX11983  
 Prep Method: Ammonia by SM21 4500F prep (W)  
 Prep Date/Time: 9/6/2017 4:00:00PM  
 Prep Initial Wt./Vol.: 6.00mL  
 Prep Extract Vol: 6.00mL

Print Date: 09/14/2017 4:14:00PM

## Method Blank

Blank ID: MB for HBN 1767823 [WXX/11985]

Blank Lab ID: 1411144

QC for Samples:

1176221001, 1176221002, 1176221003

Matrix: Water (Surface, Eff., Ground)

## Results by SM21 4500-N D

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Kjeldahl Nitrogen	0.500U	1.00	0.310	mg/L

## Batch Information

Analytical Batch: WDA4055  
Analytical Method: SM21 4500-N D  
Instrument: Discrete Analyzer 2  
Analyst: NEG  
Analytical Date/Time: 9/7/2017 12:39:15PM

Prep Batch: WXX11985  
Prep Method: METHOD  
Prep Date/Time: 9/6/2017 7:00:00PM  
Prep Initial Wt./Vol.: 25 mL  
Prep Extract Vol: 25 mL

Print Date: 09/14/2017 4:14:01PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176221 [WXX11985]  
 Blank Spike Lab ID: 1411145  
 Date Analyzed: 09/07/2017 12:40

Spike Duplicate ID: LCSD for HBN 1176221 [WXX11985]  
 Spike Duplicate Lab ID: 1411146  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176221001, 1176221002, 1176221003

## Results by SM21 4500-N D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	4	3.88	97	4	3.95	99	( 75-125 )	1.60	(< 25 )

## Batch Information

Analytical Batch: **WDA4055**  
 Analytical Method: **SM21 4500-N D**  
 Instrument: **Discrete Analyzer 2**  
 Analyst: **NEG**

Prep Batch: **WXX11985**  
 Prep Method: **METHOD**  
 Prep Date/Time: **09/06/2017 19:00**  
 Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL  
 Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 09/14/2017 4:14:02PM

## Matrix Spike Summary

Original Sample ID: 1176190001  
 MS Sample ID: 1411147 MS  
 MSD Sample ID: 1411148 MSD

Analysis Date: 09/07/2017 12:43  
 Analysis Date: 09/07/2017 12:44  
 Analysis Date: 09/07/2017 12:45  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176221001, 1176221002, 1176221003

## Results by SM21 4500-N D

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	2.15	4.00	5.27	78	4.00	5.36	80	75-125	1.80	(< 25 )

## Batch Information

Analytical Batch: WDA4055  
 Analytical Method: SM21 4500-N D  
 Instrument: Discrete Analyzer 2  
 Analyst: NEG  
 Analytical Date/Time: 9/7/2017 12:44:30PM

Prep Batch: WXX11985  
 Prep Method: Distillation TKN by Phenate (W)  
 Prep Date/Time: 9/6/2017 7:00:00PM  
 Prep Initial Wt./Vol.: 25.00mL  
 Prep Extract Vol: 25.00mL

Print Date: 09/14/2017 4:14:04PM

## Method Blank

Blank ID: MB for HBN 1768094 [WXX/11990]  
 Blank Lab ID: 1412003

Matrix: Water (Surface, Eff., Ground)

QC for Samples:  
 1176221001, 1176221002, 1176221003

## Results by EPA 300.0

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Nitrate-N	0.100U	0.200	0.0620	mg/L
Nitrite-N	0.100U	0.200	0.0620	mg/L
Total Nitrate/Nitrite-N	0.100U	0.200	0.0620	mg/L

## Batch Information

Analytical Batch: WIC5684  
 Analytical Method: EPA 300.0  
 Instrument: 930 Metrohm compact IC flex  
 Analyst: NEG  
 Analytical Date/Time: 9/7/2017 4:49:43PM

Prep Batch: WXX11990  
 Prep Method: METHOD  
 Prep Date/Time: 9/7/2017 3:00:00PM  
 Prep Initial Wt./Vol.: 10 mL  
 Prep Extract Vol: 10 mL

Print Date: 09/14/2017 4:14:04PM



## Blank Spike Summary

Blank Spike ID: LCS for HBN 1176221 [WXX11990]  
 Blank Spike Lab ID: 1412004  
 Date Analyzed: 09/07/2017 17:07

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176221001, 1176221002, 1176221003

## Results by EPA 300.0

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	5	5.16	103	( 90-110 )
Nitrite-N	5	5.14	103	( 90-110 )
Total Nitrate/Nitrite-N	10	10.3	103	( 90-110 )

## Batch Information

Analytical Batch: **WIC5684**  
 Analytical Method: **EPA 300.0**  
 Instrument: **930 Metrohm compact IC flex**  
 Analyst: **NEG**

Prep Batch: **WXX11990**  
 Prep Method: **METHOD**  
 Prep Date/Time: **09/07/2017 15:00**  
 Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL  
 Dupe Init Wt./Vol.: Extract Vol:

Print Date: 09/14/2017 4:14:06PM



SGS North America Inc.  
CHAIN OF CUSTODY RECORD

1176221



Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Page \_\_\_ of \_\_\_

**Section 1**

CLIENT: **Stantec**

CONTACT: **John Marshall**

PROJECT NAME: **Wasilla WWT-P**

REPORTS TO: **JMM - marshall@stantec.com**

PHONE NO: **907-231-0600**

E-MAIL: **JMM - marshall@stantec.com**

INVOICE TO: **QUOTE #:**

P.O. #:

**Section 2**

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX CODE	#	Type	CONTAINER	NEERS	Preservative	REMARKS/LOC ID
	DA-C	08/31/17	0944		3	G	1	1		
	DA-C	08/31/17	1049		3	G	1	1		
	DA-C	08/31/17	1137		3	G	1	1		

**Section 3**

Temp Blank °C: **3.0** or Ambient [ ]

Chain of Custody Seal: (Circle) **HAND DEL. INTACT** **BROKEN** **ABSENT**

**Section 4**

Section 4 DOD Project? Yes No

Cooler ID:

Requested Turnaround Time and/or Special Instructions:

**Section 5**

Relinquished By: (1) **[Signature]** Received By: **[Signature]**

Relinquished By: (2) **[Signature]** Received By: **[Signature]**

Relinquished By: (3) **[Signature]** Received By: **[Signature]**

Relinquished By: (4) **[Signature]** Received By: **[Signature]**

Date: **8/31/17** Time: **1634**

Date: **8/31/17** Time: **1634**

Date: **8/31/17** Time: **1634**

Date: **8/31/17** Time: **1634**

Received For Laboratory By: **[Signature]**

21 of 23



e-Sample Receipt Form

SGS Workorder #:

1176221



1 1 7 6 2 2 1

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
<b>Chain of Custody / Temperature Requirements</b>	<input checked="" type="checkbox"/> Yes	Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	<input type="checkbox"/> N/A	Hand Delivered
COC accompanied samples?	<input checked="" type="checkbox"/> Yes	
<input checked="" type="checkbox"/> Yes **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	<input checked="" type="checkbox"/> Yes	Cooler ID: 1 @ 3.0 °C Therm. ID: D41
	<input type="checkbox"/>	Cooler ID: @ °C Therm. ID:
	<input type="checkbox"/>	Cooler ID: @ °C Therm. ID:
	<input type="checkbox"/>	Cooler ID: @ °C Therm. ID:
	<input type="checkbox"/>	Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	<input type="checkbox"/> N/A	
If <0°C, were sample containers ice free?	<input type="checkbox"/> N/A	
If samples received <u>without</u> a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "COOLER TEMP" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
<b>Holding Time / Documentation / Sample Condition Requirements</b>		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	<input checked="" type="checkbox"/> Yes	
Do samples <b>match COC**</b> (i.e., sample IDs, dates/times collected)?	<input checked="" type="checkbox"/> Yes	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	<input checked="" type="checkbox"/> Yes	
Were proper containers (type/mass/volume/preservative***) used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> N/A ***Exemption permitted for metals (e.g.200.8/6020A).
<b>Volatile / LL-Hg Requirements</b>		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	<input type="checkbox"/> N/A	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	<input type="checkbox"/> N/A	
Were all soil VOAs field extracted with MeOH+BFB?	<input type="checkbox"/> N/A	
<b>Note to Client:</b> Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.		
Additional notes (if applicable):		



### Sample Containers and Preservatives

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1176221001-A	Na2S2O3 for Chlorine Redu	OK			
1176221001-B	No Preservative Required	OK			
1176221001-C	H2SO4 to pH < 2	OK			
1176221002-A	Na2S2O3 for Chlorine Redu	OK			
1176221002-B	No Preservative Required	OK			
1176221002-C	H2SO4 to pH < 2	OK			
1176221003-A	Na2S2O3 for Chlorine Redu	OK			
1176221003-B	No Preservative Required	OK			
1176221003-C	H2SO4 to pH < 2	OK			

#### Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.

BU - The container was received with headspace greater than 6mm.

DM- The container was received damaged.

FR- The container was received frozen and not usable for Bacteria or BOD analyses.

PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.