Laboratory Report of Analysis

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

Report Number: **1191264**

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 Date
Project Manager
Justin.Nelson@sgs.com

SGS North America Inc. 200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**
SGS Project: **1191264**
Project Name/Site: **Wasilla WWTP**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

MW15 (1191264002) PS

9222D- Fecal coliform sample has elevated detection limit due to matrix interference, sample had heavy sediment.

MW13 (1191264007) PS

9222D- Fecal coliform sample has elevated detection limit due to matrix interference, sample had heavy sediment.

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

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Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. The results apply to the samples as received. 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, indenmification 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) & 17-021 (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

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
MW10	1191264001	03/22/2019	03/22/2019	Water (Surface, Eff., Ground)
MW15	1191264002	03/22/2019	03/22/2019	Water (Surface, Eff., Ground)
B1	1191264003	03/22/2019	03/22/2019	Water (Surface, Eff., Ground)
B4	1191264004	03/22/2019	03/22/2019	Water (Surface, Eff., Ground)
MW6	1191264005	03/22/2019	03/22/2019	Water (Surface, Eff., Ground)
MW11	1191264006	03/22/2019	03/22/2019	Water (Surface, Eff., Ground)
MW13	1191264007	03/22/2019	03/22/2019	Water (Surface, Eff., Ground)
D1	1191264008	03/22/2019	03/22/2019	Water (Surface, Eff., Ground)

Method	Method Description
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)

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Detectable Results Summary

Client Sample ID: **MW10**
Lab Sample ID: 1191264001
Waters Department

Parameter	Result	Units
Ammonia-N	0.0655J	mg/L
Nitrate-N	0.246	mg/L
Total Nitrate/Nitrite-N	0.279	mg/L

Client Sample ID: **MW15**
Lab Sample ID: 1191264002
Waters Department

Parameter	Result	Units
Ammonia-N	0.222	mg/L
Total Kjeldahl Nitrogen	0.916J	mg/L

Client Sample ID: **B1**
Lab Sample ID: 1191264003
Waters Department

Parameter	Result	Units
Ammonia-N	0.130	mg/L

Client Sample ID: **B4**
Lab Sample ID: 1191264004
Waters Department

Parameter	Result	Units
Ammonia-N	0.0390J	mg/L
Nitrate-N	1.52	mg/L
Total Nitrate/Nitrite-N	1.52	mg/L

Client Sample ID: **MW6**
Lab Sample ID: 1191264005
Waters Department

Parameter	Result	Units
Ammonia-N	0.149	mg/L

Client Sample ID: **MW11**
Lab Sample ID: 1191264006
Waters Department

Parameter	Result	Units
Ammonia-N	0.132	mg/L

Client Sample ID: **MW13**
Lab Sample ID: 1191264007
Waters Department

Parameter	Result	Units
Ammonia-N	0.364	mg/L
Total Kjeldahl Nitrogen	0.783J	mg/L
Total Nitrate/Nitrite-N	0.0680J	mg/L

Client Sample ID: **D1**
Lab Sample ID: 1191264008
Waters Department

Parameter	Result	Units
Ammonia-N	0.108	mg/L

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Results of **MW10**

Client Sample ID: **MW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191264001
Lab Project ID: 1191264

Collection Date: 03/22/19 09:45
Received Date: 03/22/19 15:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00	U	1.00	1.00	col/100mL	1		03/22/19 17:22

Batch Information

Analytical Batch: BTF17229
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 03/22/19 17:22
Container ID: 1191264001-A

Print Date: 04/03/2019 3:12:56PM

J flagging is activated

Results of **MW10**

Client Sample ID: **MW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191264001
Lab Project ID: 1191264

Collection Date: 03/22/19 09:45
Received Date: 03/22/19 15:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.246		0.200	0.0500	mg/L	1		03/22/19 18:39
Nitrite-N	0.100 U		0.200	0.0500	mg/L	1		03/22/19 18:39
Total Nitrate/Nitrite-N	0.279		0.200	0.0500	mg/L	1		03/22/19 18:39

Batch Information

Analytical Batch: WIC5881
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 03/22/19 18:39
Container ID: 1191264001-B

Prep Batch: WXX12749
Prep Method: METHOD
Prep Date/Time: 03/22/19 16:40
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		03/27/19 13:39

Batch Information

Analytical Batch: WDA4528
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 03/27/19 13:39
Container ID: 1191264001-C

Prep Batch: WXX12751
Prep Method: METHOD
Prep Date/Time: 03/26/19 15:24
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0655 J		0.100	0.0310	mg/L	1		03/25/19 17:46

Batch Information

Analytical Batch: WDA4526
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 03/25/19 17:46
Container ID: 1191264001-C

Prep Batch: WXX12745
Prep Method: METHOD
Prep Date/Time: 03/25/19 16:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Print Date: 04/03/2019 3:12:56PM

J flagging is activated

Results of **MW15**

Client Sample ID: **MW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191264002
Lab Project ID: 1191264

Collection Date: 03/22/19 10:00
Received Date: 03/22/19 15:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	100	U	100	100	col/100mL	1		03/22/19 17:48

Batch Information

Analytical Batch: BTF17229
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 03/22/19 17:48
Container ID: 1191264002-A

Results of **MW15**

Client Sample ID: **MW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191264002
Lab Project ID: 1191264

Collection Date: 03/22/19 10:00
Received Date: 03/22/19 15:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 20:33
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 20:33
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 20:33

Batch Information

Analytical Batch: WIC5881
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 03/22/19 20:33
Container ID: 1191264002-B

Prep Batch: WXX12749
Prep Method: METHOD
Prep Date/Time: 03/22/19 16:40
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.916	J	1.00	0.310	mg/L	1		03/27/19 13:41

Batch Information

Analytical Batch: WDA4528
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 03/27/19 13:41
Container ID: 1191264002-C

Prep Batch: WXX12751
Prep Method: METHOD
Prep Date/Time: 03/26/19 15:24
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.222		0.100	0.0310	mg/L	1		03/25/19 17:51

Batch Information

Analytical Batch: WDA4526
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 03/25/19 17:51
Container ID: 1191264002-C

Prep Batch: WXX12745
Prep Method: METHOD
Prep Date/Time: 03/25/19 16:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Results of **B1**

Client Sample ID: **B1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191264003
Lab Project ID: 1191264

Collection Date: 03/22/19 10:26
Received Date: 03/22/19 15:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00	U	1.00	1.00	col/100mL	1		03/22/19 17:22

Batch Information

Analytical Batch: BTF17229
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 03/22/19 17:22
Container ID: 1191264003-A

Print Date: 04/03/2019 3:12:56PM

J flagging is activated

Results of **B1**

Client Sample ID: **B1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191264003
Lab Project ID: 1191264

Collection Date: 03/22/19 10:26
Received Date: 03/22/19 15:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 18:58
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 18:58
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 18:58

Batch Information

Analytical Batch: WIC5881
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 03/22/19 18:58
Container ID: 1191264003-B

Prep Batch: WXX12749
Prep Method: METHOD
Prep Date/Time: 03/22/19 16:40
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		03/27/19 13:42

Batch Information

Analytical Batch: WDA4528
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 03/27/19 13:42
Container ID: 1191264003-C

Prep Batch: WXX12751
Prep Method: METHOD
Prep Date/Time: 03/26/19 15:24
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.130		0.100	0.0310	mg/L	1		03/25/19 17:56

Batch Information

Analytical Batch: WDA4526
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 03/25/19 17:56
Container ID: 1191264003-C

Prep Batch: WXX12745
Prep Method: METHOD
Prep Date/Time: 03/25/19 16:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Results of **B4**

Client Sample ID: **B4**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191264004
Lab Project ID: 1191264

Collection Date: 03/22/19 11:15
Received Date: 03/22/19 15:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00	U	1.00	1.00	col/100mL	1		03/22/19 17:22

Batch Information

Analytical Batch: BTF17229
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 03/22/19 17:22
Container ID: 1191264004-A

Print Date: 04/03/2019 3:12:56PM

J flagging is activated

Results of **B4**

Client Sample ID: **B4**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191264004
Lab Project ID: 1191264

Collection Date: 03/22/19 11:15
Received Date: 03/22/19 15:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	1.52		0.200	0.0500	mg/L	1		03/22/19 19:17
Nitrite-N	0.100 U		0.200	0.0500	mg/L	1		03/22/19 19:17
Total Nitrate/Nitrite-N	1.52		0.200	0.0500	mg/L	1		03/22/19 19:17

Batch Information

Analytical Batch: WIC5881
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 03/22/19 19:17
Container ID: 1191264004-B

Prep Batch: WXX12749
Prep Method: METHOD
Prep Date/Time: 03/22/19 16:40
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		03/27/19 13:43

Batch Information

Analytical Batch: WDA4528
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 03/27/19 13:43
Container ID: 1191264004-C

Prep Batch: WXX12751
Prep Method: METHOD
Prep Date/Time: 03/26/19 15:24
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0390 J		0.100	0.0310	mg/L	1		03/25/19 17:57

Batch Information

Analytical Batch: WDA4526
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 03/25/19 17:57
Container ID: 1191264004-C

Prep Batch: WXX12745
Prep Method: METHOD
Prep Date/Time: 03/25/19 16:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Results of **MW6**

Client Sample ID: **MW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191264005
Lab Project ID: 1191264

Collection Date: 03/22/19 11:40
Received Date: 03/22/19 15:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00	U	1.00	1.00	col/100mL	1		03/22/19 17:22

Batch Information

Analytical Batch: BTF17229
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 03/22/19 17:22
Container ID: 1191264005-A

Print Date: 04/03/2019 3:12:56PM

J flagging is activated

Results of **MW6**

Client Sample ID: **MW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191264005
Lab Project ID: 1191264

Collection Date: 03/22/19 11:40
Received Date: 03/22/19 15:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 19:36
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 19:36
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 19:36

Batch Information

Analytical Batch: WIC5881
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 03/22/19 19:36
Container ID: 1191264005-B

Prep Batch: WXX12749
Prep Method: METHOD
Prep Date/Time: 03/22/19 16:40
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		03/27/19 13:45

Batch Information

Analytical Batch: WDA4528
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 03/27/19 13:45
Container ID: 1191264005-C

Prep Batch: WXX12751
Prep Method: METHOD
Prep Date/Time: 03/26/19 15:24
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.149		0.100	0.0310	mg/L	1		03/25/19 17:59

Batch Information

Analytical Batch: WDA4526
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 03/25/19 17:59
Container ID: 1191264005-C

Prep Batch: WXX12745
Prep Method: METHOD
Prep Date/Time: 03/25/19 16:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Results of **MW11**

Client Sample ID: **MW11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191264006
Lab Project ID: 1191264

Collection Date: 03/22/19 13:30
Received Date: 03/22/19 15:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00	U	1.00	1.00	col/100mL	1		03/22/19 17:22

Batch Information

Analytical Batch: BTF17229
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 03/22/19 17:22
Container ID: 1191264006-A

Print Date: 04/03/2019 3:12:56PM

J flagging is activated

Results of **MW11**

Client Sample ID: **MW11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191264006
Lab Project ID: 1191264

Collection Date: 03/22/19 13:30
Received Date: 03/22/19 15:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 19:55
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 19:55
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 19:55

Batch Information

Analytical Batch: WIC5881
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 03/22/19 19:55
Container ID: 1191264006-B

Prep Batch: WXX12749
Prep Method: METHOD
Prep Date/Time: 03/22/19 16:40
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		03/27/19 13:46

Batch Information

Analytical Batch: WDA4528
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 03/27/19 13:46
Container ID: 1191264006-C

Prep Batch: WXX12751
Prep Method: METHOD
Prep Date/Time: 03/26/19 15:24
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.132		0.100	0.0310	mg/L	1		03/25/19 18:01

Batch Information

Analytical Batch: WDA4526
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 03/25/19 18:01
Container ID: 1191264006-C

Prep Batch: WXX12745
Prep Method: METHOD
Prep Date/Time: 03/25/19 16:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Results of **MW13**

Client Sample ID: **MW13**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191264007
Lab Project ID: 1191264

Collection Date: 03/22/19 14:19
Received Date: 03/22/19 15:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	100	U	100	100	col/100mL	1		03/22/19 17:48

Batch Information

Analytical Batch: BTF17229
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 03/22/19 17:48
Container ID: 1191264007-A

Print Date: 04/03/2019 3:12:56PM

J flagging is activated

Results of **MW13**

Client Sample ID: **MW13**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191264007
Lab Project ID: 1191264

Collection Date: 03/22/19 14:19
Received Date: 03/22/19 15:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 21:30
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 21:30
Total Nitrate/Nitrite-N	0.0680	J	0.200	0.0500	mg/L	1		03/22/19 21:30

Batch Information

Analytical Batch: WIC5881
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 03/22/19 21:30
Container ID: 1191264007-B

Prep Batch: WXX12749
Prep Method: METHOD
Prep Date/Time: 03/22/19 16:40
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.783	J	1.00	0.310	mg/L	1		03/27/19 13:47

Batch Information

Analytical Batch: WDA4528
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 03/27/19 13:47
Container ID: 1191264007-C

Prep Batch: WXX12751
Prep Method: METHOD
Prep Date/Time: 03/26/19 15:24
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.364		0.100	0.0310	mg/L	1		03/25/19 18:02

Batch Information

Analytical Batch: WDA4526
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 03/25/19 18:02
Container ID: 1191264007-C

Prep Batch: WXX12745
Prep Method: METHOD
Prep Date/Time: 03/25/19 16:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Print Date: 04/03/2019 3:12:56PM

J flagging is activated

Results of **D1**

Client Sample ID: **D1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191264008
Lab Project ID: 1191264

Collection Date: 03/22/19 11:40
Received Date: 03/22/19 15:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00	U	1.00	1.00	col/100mL	1		03/22/19 17:22

Batch Information

Analytical Batch: BTF17229
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 03/22/19 17:22
Container ID: 1191264008-A

Print Date: 04/03/2019 3:12:56PM

J flagging is activated

Results of **D1**

Client Sample ID: **D1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191264008
Lab Project ID: 1191264

Collection Date: 03/22/19 11:40
Received Date: 03/22/19 15:57
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 20:14
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 20:14
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		03/22/19 20:14

Batch Information

Analytical Batch: WIC5881
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 03/22/19 20:14
Container ID: 1191264008-B

Prep Batch: WXX12749
Prep Method: METHOD
Prep Date/Time: 03/22/19 16:40
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		04/03/19 12:15

Batch Information

Analytical Batch: WDA4530
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 04/03/19 12:15
Container ID: 1191264008-C

Prep Batch: WXX12755
Prep Method: METHOD
Prep Date/Time: 04/01/19 09:49
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.108		0.100	0.0310	mg/L	1		03/25/19 18:04

Batch Information

Analytical Batch: WDA4526
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 03/25/19 18:04
Container ID: 1191264008-C

Prep Batch: WXX12745
Prep Method: METHOD
Prep Date/Time: 03/25/19 16:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Method Blank

Blank ID: MB for HBN 1791890 [BTF/17229]
Blank Lab ID: 1499787

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1191264001, 1191264002, 1191264003, 1191264004, 1191264005, 1191264006, 1191264007, 1191264008

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF17229
Analytical Method: SM21 9222D
Instrument:
Analyst: A.L
Analytical Date/Time: 3/22/2019 5:22:45PM

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Method Blank

Blank ID: MB for HBN 1791890 [BTF/17229]
Blank Lab ID: 1499788

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1191264001, 1191264002, 1191264003, 1191264004, 1191264005, 1191264006, 1191264007, 1191264008

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF17229
Analytical Method: SM21 9222D
Instrument:
Analyst: A.L
Analytical Date/Time: 3/22/2019 5:48:45PM

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Method Blank

Blank ID: MB for HBN 1791974 [WXX/12745]
Blank Lab ID: 1500069

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1191264001, 1191264002, 1191264003, 1191264004, 1191264005, 1191264006, 1191264007, 1191264008

Results by **SM21 4500-NH3 G**

Parameter	Results	LOQ/CL	DL	Units
Ammonia-N	0.0573J	0.100	0.0310	mg/L

Batch Information

Analytical Batch: WDA4526
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 3/25/2019 5:41:01PM

Prep Batch: WXX12745
Prep Method: METHOD
Prep Date/Time: 3/25/2019 4:30:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Print Date: 04/03/2019 3:13:01PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1191264 [WXX12745]
Blank Spike Lab ID: 1500070
Date Analyzed: 03/25/2019 17:42

Spike Duplicate ID: LCSD for HBN 1191264 [WXX12745]
Spike Duplicate Lab ID: 1500071
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191264001, 1191264002, 1191264003, 1191264004, 1191264005, 1191264006, 1191264007, 1191264008

Results by **SM21 4500-NH3 G**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	1	1.12	112	1	0.976	98	(75-125)	13.50	(< 25)

Batch Information

Analytical Batch: **WDA4526**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12745**
Prep Method: **METHOD**
Prep Date/Time: **03/25/2019 16:30**
Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

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Matrix Spike Summary

Original Sample ID: 1191264001
MS Sample ID: 1500072 MS
MSD Sample ID: 1500073 MSD

Analysis Date: 03/25/2019 17:46
Analysis Date: 03/25/2019 17:47
Analysis Date: 03/25/2019 17:49
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191264001, 1191264002, 1191264003, 1191264004, 1191264005, 1191264006, 1191264007, 1191264008

Results by **SM21 4500-NH3 G**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	0.0655J	1.00	.968	90	1.00	1.06	100	75-125	9.20	(< 25)

Batch Information

Analytical Batch: WDA4526
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 3/25/2019 5:47:41PM

Prep Batch: WXX12745
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 3/25/2019 4:30:00PM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 04/03/2019 3:13:03PM

Method Blank

Blank ID: MB for HBN 1792019 [WXX/12749]
Blank Lab ID: 1500310

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1191264001, 1191264002, 1191264003, 1191264004, 1191264005, 1191264006, 1191264007, 1191264008

Results by **EPA 300.0**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.100U	0.200	0.0500	mg/L
Nitrite-N	0.100U	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WIC5881
Analytical Method: EPA 300.0
Instrument: 930 Metrohm compact IC flex
Analyst: DMM
Analytical Date/Time: 3/22/2019 6:01:00PM

Prep Batch: WXX12749
Prep Method: METHOD
Prep Date/Time: 3/22/2019 4:40:00PM
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1191264 [WXX12749]
Blank Spike Lab ID: 1500311
Date Analyzed: 03/22/2019 18:20

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191264001, 1191264002, 1191264003, 1191264004, 1191264005, 1191264006, 1191264007, 1191264008

Results by **EPA 300.0**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	5	5.17	103	(90-110)
Nitrite-N	5	5.08	102	(90-110)
Total Nitrate/Nitrite-N	10	10.2	102	(90-110)

Batch Information

Analytical Batch: **WIC5881**
Analytical Method: **EPA 300.0**
Instrument: **930 Metrohm compact IC flex**
Analyst: **DMM**

Prep Batch: **WXX12749**
Prep Method: **METHOD**
Prep Date/Time: **03/22/2019 16:40**
Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1500321
MS Sample ID: 1500312 MS
MSD Sample ID: 1500313 MSD

Analysis Date: 03/23/2019 13:47
Analysis Date: 03/23/2019 14:06
Analysis Date: 03/23/2019 14:25
Matrix: Drinking Water

QC for Samples: 1191264001, 1191264002, 1191264003, 1191264004, 1191264005, 1191264006, 1191264007, 1191264008

Results by **EPA 300.0**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	0.500U	25.0	26.2	105	25.0	26.2	105	90-110	0.02	(< 15)
Nitrite-N	0.500U	25.0	25.8	103	25.0	25.8	103	90-110	0.00	(< 15)

Batch Information

Analytical Batch: WIC5881
Analytical Method: EPA 300.0
Instrument: 930 Metrohm compact IC flex
Analyst: DMM
Analytical Date/Time: 3/23/2019 2:06:00PM

Prep Batch: WXX12749
Prep Method: EPA 300.0 Extraction Waters/Liquids
Prep Date/Time: 3/22/2019 4:40:00PM
Prep Initial Wt./Vol.: 10.00mL
Prep Extract Vol: 10.00mL

Print Date: 04/03/2019 3:13:06PM

Method Blank

Blank ID: MB for HBN 1792040 [WXX/12751]
Blank Lab ID: 1500401

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1191264001, 1191264002, 1191264003, 1191264004, 1191264005, 1191264006, 1191264007

Results by **SM21 4500-N D**

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

Batch Information

Analytical Batch: WDA4528
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: EWW
Analytical Date/Time: 3/27/2019 1:21:35PM

Prep Batch: WXX12751
Prep Method: METHOD
Prep Date/Time: 3/26/2019 3:24:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1191264 [WXX12751]
Blank Spike Lab ID: 1500402
Date Analyzed: 03/27/2019 13:22

Spike Duplicate ID: LCSD for HBN 1191264 [WXX12751]
Spike Duplicate Lab ID: 1500403
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191264001, 1191264002, 1191264003, 1191264004, 1191264005, 1191264006, 1191264007

Results by **SM21 4500-N D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	4	4.26	106	4	3.91	98	(75-125)	8.50	(< 25)

Batch Information

Analytical Batch: **WDA4528**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **EWW**

Prep Batch: **WXX12751**
Prep Method: **METHOD**
Prep Date/Time: **03/26/2019 15:24**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 04/03/2019 3:13:09PM

Matrix Spike Summary

Original Sample ID: 1191211004
MS Sample ID: 1500404 MS
MSD Sample ID: 1500405 MSD

Analysis Date: 03/27/2019 13:32
Analysis Date: 03/27/2019 13:33
Analysis Date: 03/27/2019 13:37
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191264001, 1191264002, 1191264003, 1191264004, 1191264005, 1191264006, 1191264007

Results by **SM21 4500-N D**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	0.500U	4.00	3.97	99	4.00	3.97	99	75-125	0.00	(< 25)

Batch Information

Analytical Batch: WDA4528
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: EWW
Analytical Date/Time: 3/27/2019 1:33:19PM

Prep Batch: WXX12751
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 3/26/2019 3:24:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 04/03/2019 3:13:09PM

Method Blank

Blank ID: MB for HBN 1792252 [WXX/12755]
Blank Lab ID: 1501249

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1191264008

Results by **SM21 4500-N D**

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

Batch Information

Analytical Batch: WDA4530
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 4/3/2019 12:07:32PM

Prep Batch: WXX12755
Prep Method: METHOD
Prep Date/Time: 4/1/2019 9:49:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1191264 [WXX12755]
Blank Spike Lab ID: 1501250
Date Analyzed: 04/03/2019 12:08

Spike Duplicate ID: LCSD for HBN 1191264 [WXX12755]
Spike Duplicate Lab ID: 1501251
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191264008

Results by **SM21 4500-N D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	4	3.75	94	4	3.91	98	(75-125)	4.20	(< 25)

Batch Information

Analytical Batch: **WDA4530**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12755**
Prep Method: **METHOD**
Prep Date/Time: **04/01/2019 09:49**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

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Matrix Spike Summary

Original Sample ID: 1198801004
MS Sample ID: 1501252 MS
MSD Sample ID: 1501253 MSD

QC for Samples: 1191264008

Analysis Date: 04/03/2019 12:11
Analysis Date: 04/03/2019 12:12
Analysis Date: 04/03/2019 12:14
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 4500-N D**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	1.00U	4.00	3.57	89	4.00	3.76	94	75-125	5.30	(< 25)

Batch Information

Analytical Batch: WDA4530
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 4/3/2019 12:12:47PM

Prep Batch: WXX12755
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 4/1/2019 9:49:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 04/03/2019 3:13:14PM

SGS

1191264

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Locations Nationwide
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New Jersey New York
North Carolina Indiana
West Virgina Kentucky
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Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Page 1 of 1

Section 1

CLIENT: Stantec

CONTACT: Jake Alward PHONE NO: 343-5262

PROJECT NAME: Wasilla MWTP PROJECT/ PWSID/ PERMIT#:

REPORTS TO: E-MAIL: Jakealward@stantec.com

INVOICE TO: QUOTE #:

P.O. #: 2047004 15

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	Preservative: None	1	H2SO4							REMARKS/ LOC ID
							Total Coliform	Nitrate/Nitrite	TKN/Ammonia							
1	A-C	MW10	3/22/19	9:45	WWTP	3	G	1	1	1						
2	A-C	MW15		10:00				1	1	1						
3	A-C	B1		10:26				1	1	1						
4	A-C	B4		11:15				1	1	1						
5	A-C	MW6		11:40				1	1	1						
6	A-C	MW11		13:30				1	1	1						
7	A-C	MW13		14:19				1	1	1						
8	A-C	D1		11:40				1	1	1						

Section 5

	Date	Time	
Relinquished By: (1)	3/22/19	15:57	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date 3/22/19	Time 15:57	Received For Laboratory By: DMM

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: DMM 3/22/19 ~~4.7°C~~ 3.2°C DM

or Ambient [ ]

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT HD

(See attached Sample Receipt Form)

[ ] 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

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F083-Kit_Request_and_COC_Templates-Blank
Revised 2013-03-24

e-Sample Receipt Form

SGS Workorder #: **1191264**

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		Yes — Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	N/A	
COC accompanied samples?	Yes	
DOD: Were samples received in COC corresponding coolers?	N/A	
☐ **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)?	Yes	Cooler ID: 1 @ 3.2 °C Therm. ID: D12
If samples received without a temperature blank, the "cooler temperature" will be documented instead & "COOLER TEMP" will be noted to the right. "ambient" or "chilled" will be noted if neither is available.		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	N/A	
If <0°C, were sample containers ice free?	N/A	
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	Yes	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	Yes	
**Note: If times differ <1hr, record details & login per COC.		
***Note: If sample information on containers differs from COC, SGS will default to COC informatio		
Were analytical requests clear? (i.e., method is specified for analyses with multiple option for analysis (Ex: BTEX, Metals)	Yes	
		☐ ***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	Yes	
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	N/A	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	N/A	
Were all soil VOAs field extracted with MeOH+BFB?	N/A	

Note to Client: Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1191264001-A	No Preservative Required	OK			
1191264001-B	No Preservative Required	OK			
1191264001-C	No Preservative Required	OK			
1191264002-A	No Preservative Required	OK			
1191264002-B	No Preservative Required	OK			
1191264002-C	No Preservative Required	OK			
1191264003-A	No Preservative Required	OK			
1191264003-B	No Preservative Required	OK			
1191264003-C	No Preservative Required	OK			
1191264004-A	No Preservative Required	OK			
1191264004-B	No Preservative Required	OK			
1191264004-C	No Preservative Required	OK			
1191264005-A	No Preservative Required	OK			
1191264005-B	No Preservative Required	OK			
1191264005-C	No Preservative Required	OK			
1191264006-A	No Preservative Required	OK			
1191264006-B	No Preservative Required	OK			
1191264006-C	No Preservative Required	OK			
1191264007-A	No Preservative Required	OK			
1191264007-B	No Preservative Required	OK			
1191264007-C	No Preservative Required	OK			
1191264008-A	No Preservative Required	OK			
1191264008-B	No Preservative Required	OK			
1191264008-C	No Preservative Required	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.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
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: **1191289**

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 Date
Project Manager
Justin.Nelson@sgs.com

SGS North America Inc. 200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**
SGS Project: **1191289**
Project Name/Site: **Wasilla WWTP**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

MW20 (1191289001) PS

9222D- Fecal coliform sample has elevated detection limit due to matrix interference, sample had very heavy sediment.

MW14B (1191289003) PS

9222D- Fecal coliform sample has elevated detection limit due to matrix interference, sample had very heavy sediment.

1191267001MSD (1500883) MSD

4500NH3-G - Ammonia - MSD recovery is outside of QC criteria. Refer to LCSD 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.

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Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. The results apply to the samples as received. 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, indenmification 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) & 17-021 (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

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
MW20	1191289001	03/25/2019	03/25/2019	Water (Surface, Eff., Ground)
MW14A	1191289002	03/25/2019	03/25/2019	Water (Surface, Eff., Ground)
MW14B	1191289003	03/25/2019	03/25/2019	Water (Surface, Eff., Ground)
SW17	1191289004	03/25/2019	03/25/2019	Water (Surface, Eff., Ground)
SW18	1191289005	03/25/2019	03/25/2019	Water (Surface, Eff., Ground)
D2	1191289006	03/25/2019	03/25/2019	Water (Surface, Eff., Ground)

Method	Method Description
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
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

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Detectable Results Summary

Client Sample ID: **MW20**
Lab Sample ID: 1191289001
Waters Department

Parameter	Result	Units
Ammonia-N	0.717	mg/L
Nitrate-N	0.241	mg/L
Total Kjeldahl Nitrogen	1.05	mg/L
Total Nitrate/Nitrite-N	0.241	mg/L

Client Sample ID: **MW14A**
Lab Sample ID: 1191289002
Microbiology Laboratory
Waters Department

Parameter	Result	Units
Fecal Coliform	1.0	col/100mL
Ammonia-N	0.0809J	mg/L
Nitrate-N	0.0600J	mg/L
Total Nitrate/Nitrite-N	0.0600J	mg/L

Client Sample ID: **MW14B**
Lab Sample ID: 1191289003
Waters Department

Parameter	Result	Units
Nitrate-N	0.0610J	mg/L
Total Nitrate/Nitrite-N	0.0800J	mg/L

Client Sample ID: **SW17**
Lab Sample ID: 1191289004
Microbiology Laboratory

Parameter	Result	Units
E. Coli	35	MPN/100mL
Fecal Coliform	31	col/100mL
Total Coliform	96	MPN/100mL

Waters Department

Parameter	Result	Units
Ammonia-N	0.252	mg/L
Nitrate-N	1.28	mg/L
Total Kjeldahl Nitrogen	0.451J	mg/L
Total Nitrate/Nitrite-N	1.30	mg/L
Total Phosphorus	0.0753	mg/L
Total Suspended Solids	1.44	mg/L

Client Sample ID: **SW18**
Lab Sample ID: 1191289005
Microbiology Laboratory

Parameter	Result	Units
Biochemical Oxygen Demand	3.45	mg/L
E. Coli	10	MPN/100mL
Fecal Coliform	8.0	col/100mL
Total Coliform	109	MPN/100mL

Waters Department

Parameter	Result	Units
Ammonia-N	1.89	mg/L
Nitrate-N	2.17	mg/L
Total Kjeldahl Nitrogen	3.20	mg/L
Total Nitrate/Nitrite-N	2.20	mg/L
Total Phosphorus	1.91	mg/L
Total Suspended Solids	16.0	mg/L

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Detectable Results Summary

Client Sample ID: **D2**
Lab Sample ID: 1191289006

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	2.45	mg/L
	E. Coli	16	MPN/100mL
	Fecal Coliform	3.0	col/100mL
	Total Coliform	115	MPN/100mL
Waters Department	Ammonia-N	2.37	mg/L
	Nitrate-N	2.08	mg/L
	Total Nitrate/Nitrite-N	2.11	mg/L
	Total Phosphorus	1.78	mg/L
	Total Suspended Solids	12.7	mg/L

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Results of **MW20**

Client Sample ID: **MW20**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191289001
Lab Project ID: 1191289

Collection Date: 03/25/19 12:19
Received Date: 03/25/19 16:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	100	U	100	100	col/100mL	1		03/25/19 17:40

Batch Information

Analytical Batch: BTF17234
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 03/25/19 17:40
Container ID: 1191289001-B

Print Date: 04/15/2019 3:58:08PM

J flagging is activated

Results of **MW20**

Client Sample ID: **MW20**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191289001
Lab Project ID: 1191289

Collection Date: 03/25/19 12:19
Received Date: 03/25/19 16:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.241		0.200	0.0500	mg/L	1		03/25/19 22:01
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		03/25/19 22:01
Total Nitrate/Nitrite-N	0.241		0.200	0.0500	mg/L	1		03/25/19 22:01

Batch Information

Analytical Batch: WIC5882
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 03/25/19 22:01
Container ID: 1191289001-A

Prep Batch: WXX12750
Prep Method: METHOD
Prep Date/Time: 03/25/19 15:05
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.05		1.00	0.310	mg/L	1		03/27/19 13:52

Batch Information

Analytical Batch: WDA4528
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 03/27/19 13:52
Container ID: 1191289001-C

Prep Batch: WXX12751
Prep Method: METHOD
Prep Date/Time: 03/26/19 15:24
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.717		0.100	0.0310	mg/L	1		04/01/19 14:53

Batch Information

Analytical Batch: WDA4529
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 04/01/19 14:53
Container ID: 1191289001-C

Prep Batch: WXX12752
Prep Method: METHOD
Prep Date/Time: 04/01/19 12:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Print Date: 04/15/2019 3:58:08PM

J flagging is activated

Results of **MW14A**

Client Sample ID: **MW14A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191289002
Lab Project ID: 1191289

Collection Date: 03/25/19 13:12
Received Date: 03/25/19 16:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.0		1.00	1.00	col/100mL	1		03/25/19 17:40

Batch Information

Analytical Batch: BTF17234
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 03/25/19 17:40
Container ID: 1191289002-B

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Results of **MW14A**

Client Sample ID: **MW14A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191289002
Lab Project ID: 1191289

Collection Date: 03/25/19 13:12
Received Date: 03/25/19 16:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0600	J	0.200	0.0500	mg/L	1		03/25/19 20:26
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		03/25/19 20:26
Total Nitrate/Nitrite-N	0.0600	J	0.200	0.0500	mg/L	1		03/25/19 20:26

Batch Information

Analytical Batch: WIC5882
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 03/25/19 20:26
Container ID: 1191289002-A

Prep Batch: WXX12750
Prep Method: METHOD
Prep Date/Time: 03/25/19 15:05
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		03/27/19 13:53

Batch Information

Analytical Batch: WDA4528
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 03/27/19 13:53
Container ID: 1191289002-C

Prep Batch: WXX12751
Prep Method: METHOD
Prep Date/Time: 03/26/19 15:24
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0809	J	0.100	0.0310	mg/L	1		03/25/19 18:17

Batch Information

Analytical Batch: WDA4526
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 03/25/19 18:17
Container ID: 1191289002-C

Prep Batch: WXX12745
Prep Method: METHOD
Prep Date/Time: 03/25/19 16:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Results of **MW14B**

Client Sample ID: **MW14B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191289003
Lab Project ID: 1191289

Collection Date: 03/25/19 13:33
Received Date: 03/25/19 16:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	200	U	200	200	col/100mL	1		03/25/19 17:40

Batch Information

Analytical Batch: BTF17234
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 03/25/19 17:40
Container ID: 1191289003-B

Print Date: 04/15/2019 3:58:08PM

J flagging is activated

Results of **MW14B**

Client Sample ID: **MW14B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191289003
Lab Project ID: 1191289

Collection Date: 03/25/19 13:33
Received Date: 03/25/19 16:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0610	J	0.200	0.0500	mg/L	1		03/25/19 20:45
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		03/25/19 20:45
Total Nitrate/Nitrite-N	0.0800	J	0.200	0.0500	mg/L	1		03/25/19 20:45

Batch Information

Analytical Batch: WIC5882
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 03/25/19 20:45
Container ID: 1191289003-A

Prep Batch: WXX12750
Prep Method: METHOD
Prep Date/Time: 03/25/19 15:05
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Print Date: 04/15/2019 3:58:08PM

J flagging is activated

Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191289004
Lab Project ID: 1191289

Collection Date: 03/25/19 14:03
Received Date: 03/25/19 16:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.00 U		2.00	2.00	mg/L	1		03/26/19 13:10

Batch Information

Analytical Batch: BOD6266
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 03/26/19 13:10
Container ID: 1191289004-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	31		1.00	1.00	col/100mL	1		03/25/19 17:40

Batch Information

Analytical Batch: BTF17234
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 03/25/19 17:40
Container ID: 1191289004-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	35		1	1	MPN/100m	1		03/25/19 17:37
Total Coliform	96		1	1	MPN/100m	1		03/25/19 17:37

Batch Information

Analytical Batch: BTF17232
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 03/25/19 17:37
Container ID: 1191289004-C

Print Date: 04/15/2019 3:58:08PM

J flagging is activated

Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191289004
Lab Project ID: 1191289

Collection Date: 03/25/19 14:03
Received Date: 03/25/19 16:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	1.28		0.200	0.0500	mg/L	1		03/25/19 21:04
Nitrite-N	0.100 U		0.200	0.0500	mg/L	1		03/25/19 21:04
Total Nitrate/Nitrite-N	1.30		0.200	0.0500	mg/L	1		03/25/19 21:04

Batch Information

Analytical Batch: WIC5882
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 03/25/19 21:04
Container ID: 1191289004-A

Prep Batch: WXX12750
Prep Method: METHOD
Prep Date/Time: 03/25/19 15:05
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	1.44		1.03	0.320	mg/L	1		03/26/19 16:46

Batch Information

Analytical Batch: STS6203
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 03/26/19 16:46
Container ID: 1191289004-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.451 J		1.00	0.310	mg/L	1		03/27/19 13:55

Batch Information

Analytical Batch: WDA4528
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 03/27/19 13:55
Container ID: 1191289004-D

Prep Batch: WXX12751
Prep Method: METHOD
Prep Date/Time: 03/26/19 15:24
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.252		0.100	0.0310	mg/L	1		04/01/19 14:55

Print Date: 04/15/2019 3:58:08PM

J flagging is activated

Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191289004
Lab Project ID: 1191289

Collection Date: 03/25/19 14:03
Received Date: 03/25/19 16:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4529
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 04/01/19 14:55
Container ID: 1191289004-D

Prep Batch: WXX12752
Prep Method: METHOD
Prep Date/Time: 04/01/19 12:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0753		0.0200	0.00500	mg/L	1		04/04/19 13:12

Batch Information

Analytical Batch: WDA4532
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 04/04/19 13:12
Container ID: 1191289004-D

Prep Batch: WXX12757
Prep Method: SM21 4500P-B,E
Prep Date/Time: 04/04/19 10:35
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW18**

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191289005
Lab Project ID: 1191289

Collection Date: 03/25/19 14:23
Received Date: 03/25/19 16:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	3.45		2.00	2.00	mg/L	1		03/26/19 13:10

Batch Information

Analytical Batch: BOD6266
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 03/26/19 13:10
Container ID: 1191289005-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	8.0		1.00	1.00	col/100mL	1		03/25/19 17:40

Batch Information

Analytical Batch: BTF17234
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 03/25/19 17:40
Container ID: 1191289005-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	10		1	1	MPN/100m	1		03/25/19 17:37
Total Coliform	109		1	1	MPN/100m	1		03/25/19 17:37

Batch Information

Analytical Batch: BTF17232
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 03/25/19 17:37
Container ID: 1191289005-C

Results of **SW18**

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191289005
Lab Project ID: 1191289

Collection Date: 03/25/19 14:23
Received Date: 03/25/19 16:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	2.17		0.200	0.0500	mg/L	1		03/25/19 21:23
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		03/25/19 21:23
Total Nitrate/Nitrite-N	2.20		0.200	0.0500	mg/L	1		03/25/19 21:23

Batch Information

Analytical Batch: WIC5882
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 03/25/19 21:23
Container ID: 1191289005-A

Prep Batch: WXX12750
Prep Method: METHOD
Prep Date/Time: 03/25/19 15:05
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	16.0		1.10	0.341	mg/L	1		03/26/19 16:46

Batch Information

Analytical Batch: STS6203
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 03/26/19 16:46
Container ID: 1191289005-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	3.20		1.00	0.310	mg/L	1		03/27/19 13:56

Batch Information

Analytical Batch: WDA4528
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 03/27/19 13:56
Container ID: 1191289005-D

Prep Batch: WXX12751
Prep Method: METHOD
Prep Date/Time: 03/26/19 15:24
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	1.89		0.100	0.0310	mg/L	1		03/25/19 18:21

Print Date: 04/15/2019 3:58:08PM

J flagging is activated

Results of **SW18**

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191289005
Lab Project ID: 1191289

Collection Date: 03/25/19 14:23
Received Date: 03/25/19 16:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4526
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 03/25/19 18:21
Container ID: 1191289005-D

Prep Batch: WXX12745
Prep Method: METHOD
Prep Date/Time: 03/25/19 16:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	1.91		0.200	0.0500	mg/L	1		04/04/19 14:29

Batch Information

Analytical Batch: WDA4532
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 04/04/19 14:29
Container ID: 1191289005-D

Prep Batch: WXX12757
Prep Method: SM21 4500P-B,E
Prep Date/Time: 04/04/19 13:31
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL

Results of **D2**

Client Sample ID: **D2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191289006
Lab Project ID: 1191289

Collection Date: 03/25/19 14:23
Received Date: 03/25/19 16:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.45		2.00	2.00	mg/L	1		03/26/19 13:10

Batch Information

Analytical Batch: BOD6266
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 03/26/19 13:10
Container ID: 1191289006-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	3.0		1.00	1.00	col/100mL	1		03/25/19 17:40

Batch Information

Analytical Batch: BTF17234
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 03/25/19 17:40
Container ID: 1191289006-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	16		1	1	MPN/100m	1		03/25/19 17:37
Total Coliform	115		1	1	MPN/100m	1		03/25/19 17:37

Batch Information

Analytical Batch: BTF17232
Analytical Method: SM21 9223B
Analyst: DSH
Analytical Date/Time: 03/25/19 17:37
Container ID: 1191289006-C

Print Date: 04/15/2019 3:58:08PM

J flagging is activated

Results of **D2**

Client Sample ID: **D2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191289006
Lab Project ID: 1191289

Collection Date: 03/25/19 14:23
Received Date: 03/25/19 16:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	2.08		0.200	0.0500	mg/L	1		03/25/19 21:42
Nitrite-N	0.100 U		0.200	0.0500	mg/L	1		03/25/19 21:42
Total Nitrate/Nitrite-N	2.11		0.200	0.0500	mg/L	1		03/25/19 21:42

Batch Information

Analytical Batch: WIC5882
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 03/25/19 21:42
Container ID: 1191289006-A

Prep Batch: WXX12750
Prep Method: METHOD
Prep Date/Time: 03/25/19 15:05
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	12.7		1.05	0.326	mg/L	1		03/26/19 16:46

Batch Information

Analytical Batch: STS6203
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 03/26/19 16:46
Container ID: 1191289006-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		03/27/19 13:57

Batch Information

Analytical Batch: WDA4528
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 03/27/19 13:57
Container ID: 1191289006-D

Prep Batch: WXX12751
Prep Method: METHOD
Prep Date/Time: 03/26/19 15:24
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	2.37		0.100	0.0310	mg/L	1		03/25/19 18:22

Print Date: 04/15/2019 3:58:08PM

J flagging is activated

Results of **D2**

Client Sample ID: **D2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1191289006
Lab Project ID: 1191289

Collection Date: 03/25/19 14:23
Received Date: 03/25/19 16:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4526
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 03/25/19 18:22
Container ID: 1191289006-D

Prep Batch: WXX12745
Prep Method: METHOD
Prep Date/Time: 03/25/19 16:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	1.78		0.200	0.0500	mg/L	1		04/04/19 14:29

Batch Information

Analytical Batch: WDA4532
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 04/04/19 14:29
Container ID: 1191289006-D

Prep Batch: WXX12757
Prep Method: SM21 4500P-B,E
Prep Date/Time: 04/04/19 13:31
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL

Method Blank

Blank ID: MB for HBN 1791978 [BOD/6266]
Blank Lab ID: 1500116

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1191289004, 1191289005, 1191289006

Results by **SM21 5210B**

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

Batch Information

Analytical Batch: BOD6266
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 3/26/2019 1:10:00PM

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1191289 [BOD6266]
Blank Spike Lab ID: 1500117
Date Analyzed: 03/26/2019 13:10

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191289004, 1191289005, 1191289006

Results by **SM21 5210B**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	210	106	(84.6-115.4

Batch Information

Analytical Batch: **BOD6266**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **A.L**

Print Date: 04/15/2019 3:58:12PM

Method Blank

Blank ID: MB for HBN 1791946 [BTF/17232]
Blank Lab ID: 1499964

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1191289004, 1191289005, 1191289006

Results by **SM21 9223B**

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

Batch Information

Analytical Batch: BTF17232
Analytical Method: SM21 9223B
Instrument:
Analyst: DSH
Analytical Date/Time: 3/25/2019 5:37:17PM

Print Date: 04/15/2019 3:58:14PM

Method Blank

Blank ID: MB for HBN 1791948 [BTF/17234]
Blank Lab ID: 1499970

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1191289001, 1191289002, 1191289003, 1191289004, 1191289005, 1191289006

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF17234
Analytical Method: SM21 9222D
Instrument:
Analyst: VDL
Analytical Date/Time: 3/25/2019 5:40:56PM

Print Date: 04/15/2019 3:58:15PM

Method Blank

Blank ID: MB for HBN 1791976 [STS/6203]
Blank Lab ID: 1500109

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1191289004, 1191289005, 1191289006

Results by **SM21 2540D**

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

Batch Information

Analytical Batch: STS6203
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW
Analytical Date/Time: 3/26/2019 4:46:52PM

Duplicate Sample Summary

Original Sample ID: 1191288003
Duplicate Sample ID: 1500113
QC for Samples:
1191289004, 1191289005, 1191289006

Analysis Date: 03/26/2019 16:46
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	117	111	mg/L	4.90	(< 5)

Batch Information

Analytical Batch: STS6203
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 04/15/2019 3:58:20PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1191289 [STS6203]
Blank Spike Lab ID: 1500110
Date Analyzed: 03/26/2019 16:46

Spike Duplicate ID: LCSD for HBN 1191289 [STS6203]
Spike Duplicate Lab ID: 1500111
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191289004, 1191289005, 1191289006

Results by **SM21 2540D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Suspended Solids	25	25.2	101	25	25.6	102	(75-125)	1.60	(< 5)

Batch Information

Analytical Batch: **STS6203**
Analytical Method: **SM21 2540D**
Instrument:
Analyst: **EWW**

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Method Blank

Blank ID: MB for HBN 1791974 [WXX/12745]
Blank Lab ID: 1500069

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1191289002, 1191289005, 1191289006

Results by **SM21 4500-NH3 G**

Parameter	Results	LOQ/CL	DL	Units
Ammonia-N	0.0573J	0.100	0.0310	mg/L

Batch Information

Analytical Batch: WDA4526
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 3/25/2019 5:41:01PM

Prep Batch: WXX12745
Prep Method: METHOD
Prep Date/Time: 3/25/2019 4:30:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Print Date: 04/15/2019 3:58:22PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1191289 [WXX12745]
Blank Spike Lab ID: 1500070
Date Analyzed: 03/25/2019 17:42

Spike Duplicate ID: LCSD for HBN 1191289 [WXX12745]
Spike Duplicate Lab ID: 1500071
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191289002, 1191289005, 1191289006

Results by **SM21 4500-NH3 G**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	1	1.12	112	1	0.976	98	(75-125)	13.50	(< 25)

Batch Information

Analytical Batch: **WDA4526**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12745**
Prep Method: **METHOD**
Prep Date/Time: **03/25/2019 16:30**
Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

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Matrix Spike Summary

Original Sample ID: 1191264001
MS Sample ID: 1500072 MS
MSD Sample ID: 1500073 MSD

Analysis Date: 03/25/2019 17:46
Analysis Date: 03/25/2019 17:47
Analysis Date: 03/25/2019 17:49
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191289002, 1191289005, 1191289006

Results by **SM21 4500-NH3 G**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	0.0655J	1.00	.968	90	1.00	1.06	100	75-125	9.20	(< 25)

Batch Information

Analytical Batch: WDA4526
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 3/25/2019 5:47:41PM

Prep Batch: WXX12745
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 3/25/2019 4:30:00PM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 04/15/2019 3:58:25PM

Method Blank

Blank ID: MB for HBN 1792021 [WXX/12750]
Blank Lab ID: 1500325

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1191289001, 1191289002, 1191289003, 1191289004, 1191289005, 1191289006

Results by **EPA 300.0**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.100U	0.200	0.0500	mg/L
Nitrite-N	0.100U	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WIC5882
Analytical Method: EPA 300.0
Instrument: 930 Metrohm compact IC flex
Analyst: DMM
Analytical Date/Time: 3/25/2019 7:48:00PM

Prep Batch: WXX12750
Prep Method: METHOD
Prep Date/Time: 3/25/2019 3:05:00PM
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1191289 [WXX12750]
Blank Spike Lab ID: 1500326
Date Analyzed: 03/25/2019 20:07

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191289001, 1191289002, 1191289003, 1191289004, 1191289005, 1191289006

Results by **EPA 300.0**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	5	4.95	99	(90-110)
Nitrite-N	5	5.03	101	(90-110)
Total Nitrate/Nitrite-N	10	9.98	100	(90-110)

Batch Information

Analytical Batch: **WIC5882**
Analytical Method: **EPA 300.0**
Instrument: **930 Metrohm compact IC flex**
Analyst: **DMM**

Prep Batch: **WXX12750**
Prep Method: **METHOD**
Prep Date/Time: **03/25/2019 15:05**
Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1500330
MS Sample ID: 1500327 MS
MSD Sample ID: 1500328 MSD

Analysis Date: 03/25/2019 22:58
Analysis Date: 03/26/2019 9:11
Analysis Date: 03/26/2019 9:30
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191289001, 1191289002, 1191289003, 1191289004, 1191289005, 1191289006

Results by **EPA 300.0**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	0.518	5.00	5.46	99	5.00	5.50	100	90-110	0.73	(< 15)
Nitrite-N	0.100U	5.00	5.05	101	5.00	4.99	100	90-110	1.20	(< 15)

Batch Information

Analytical Batch: WIC5882
Analytical Method: EPA 300.0
Instrument: 930 Metrohm compact IC flex
Analyst: DMM
Analytical Date/Time: 3/26/2019 9:11:00AM

Prep Batch: WXX12750
Prep Method: EPA 300.0 Extraction Waters/Liquids
Prep Date/Time: 3/25/2019 3:05:00PM
Prep Initial Wt./Vol.: 10.00mL
Prep Extract Vol: 10.00mL

Print Date: 04/15/2019 3:58:28PM

Method Blank

Blank ID: MB for HBN 1792040 [WXX/12751]
Blank Lab ID: 1500401

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1191289001, 1191289002, 1191289004, 1191289005, 1191289006

Results by **SM21 4500-N D**

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

Batch Information

Analytical Batch: WDA4528
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: EWW
Analytical Date/Time: 3/27/2019 1:21:35PM

Prep Batch: WXX12751
Prep Method: METHOD
Prep Date/Time: 3/26/2019 3:24:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1191289 [WXX12751]
Blank Spike Lab ID: 1500402
Date Analyzed: 03/27/2019 13:22

Spike Duplicate ID: LCSD for HBN 1191289 [WXX12751]
Spike Duplicate Lab ID: 1500403
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191289001, 1191289002, 1191289004, 1191289005, 1191289006

Results by **SM21 4500-N D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	4	4.26	106	4	3.91	98	(75-125)	8.50	(< 25)

Batch Information

Analytical Batch: **WDA4528**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **EWW**

Prep Batch: **WXX12751**
Prep Method: **METHOD**
Prep Date/Time: **03/26/2019 15:24**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 04/15/2019 3:58:31PM

Matrix Spike Summary

Original Sample ID: 1191211004
MS Sample ID: 1500404 MS
MSD Sample ID: 1500405 MSD

Analysis Date: 03/27/2019 13:32
Analysis Date: 03/27/2019 13:33
Analysis Date: 03/27/2019 13:37
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191289001, 1191289002, 1191289004, 1191289005, 1191289006

Results by **SM21 4500-N D**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	0.500U	4.00	3.97	99	4.00	3.97	99	75-125	0.00	(< 25)

Batch Information

Analytical Batch: WDA4528
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: EWW
Analytical Date/Time: 3/27/2019 1:33:19PM

Prep Batch: WXX12751
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 3/26/2019 3:24:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 04/15/2019 3:58:31PM

Method Blank

Blank ID: MB for HBN 1792173 [WXX/12752]
Blank Lab ID: 1500879

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1191289001, 1191289004

Results by **SM21 4500-NH3 G**

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

Batch Information

Analytical Batch: WDA4529
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 4/1/2019 2:41:44PM

Prep Batch: WXX12752
Prep Method: METHOD
Prep Date/Time: 4/1/2019 12:45:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1191289 [WXX12752]
Blank Spike Lab ID: 1500880
Date Analyzed: 04/01/2019 14:43

Spike Duplicate ID: LCSD for HBN 1191289 [WXX12752]
Spike Duplicate Lab ID: 1500881
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191289001, 1191289004

Results by **SM21 4500-NH3 G**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	1	1.01	101	1	1.11	111	(75-125)	10.00	(< 25)

Batch Information

Analytical Batch: **WDA4529**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12752**
Prep Method: **METHOD**
Prep Date/Time: **04/01/2019 12:45**
Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

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200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 **f** 907.561.5301 www.us.sgs.com

Matrix Spike Summary

Original Sample ID: 1191267001
MS Sample ID: 1500882 MS
MSD Sample ID: 1500883 MSD

Analysis Date: 04/01/2019 14:46
Analysis Date: 04/01/2019 14:48
Analysis Date: 04/01/2019 14:50
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191289001, 1191289004

Results by **SM21 4500-NH3 G**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	1.55	1.00	2.65	111	1.00	2.10	56 *	75-125	23.10	(< 25)

Batch Information

Analytical Batch: WDA4529
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 4/1/2019 2:48:28PM

Prep Batch: WXX12752
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 4/1/2019 12:45:00PM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 04/15/2019 3:58:34PM

Method Blank

Blank ID: MB for HBN 1792322 [WXX/12757]
Blank Lab ID: 1501545

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1191289004, 1191289005, 1191289006

Results by **SM21 4500P-B,E**

Parameter	Results	LOQ/CL	DL	Units
Total Phosphorus	0.0100U	0.0200	0.00500	mg/L

Batch Information

Analytical Batch: WDA4532
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 4/4/2019 12:57:44PM

Prep Batch: WXX12757
Prep Method: SM21 4500P-B,E
Prep Date/Time: 4/4/2019 10:35:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1191289 [WXX12757]
Blank Spike Lab ID: 1501546
Date Analyzed: 04/04/2019 12:58

Spike Duplicate ID: LCSD for HBN 1191289 [WXX12757]
Spike Duplicate Lab ID: 1501547
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191289004, 1191289005, 1191289006

Results by **SM21 4500P-B,E**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.2	0.189	94	0.2	0.189	94	(75-125)	0.00	(< 25)

Batch Information

Analytical Batch: **WDA4532**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12757**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **04/04/2019 10:35**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

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t 907.562.2343 f 907.561.5301 www.us.sgs.com

Matrix Spike Summary

Original Sample ID: 1199148001
MS Sample ID: 1501548 MS
MSD Sample ID: 1501549 MSD

Analysis Date: 04/04/2019 13:00
Analysis Date: 04/04/2019 13:01
Analysis Date: 04/04/2019 13:02
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1191289004, 1191289005, 1191289006

Results by **SM21 4500P-B,E**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.0100U	0.200	.194	97	0.200	0.206	103	75-125	6.30	(< 25)

Batch Information

Analytical Batch: WDA4532
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 4/4/2019 1:01:36PM

Prep Batch: WXX12757
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 4/4/2019 10:35:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 04/15/2019 3:58:36PM

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECOR

1191289

Locations Nationwide

Alaska	Maryland
New Jersey	New York
North Carolina	Indiana
West Virgina	Kentucky

www.us.sgs.com

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

Page 1 of 1

Section 1

CLIENT: Stantec

CONTACT: Jake Alward PHONE NO: 343-5202

PROJECT NAME: Wasilla WWTP PROJECT/ PWSID/ PERMIT#:

REPORTS TO: E-MAIL: jake.alward@stantec.com

INVOICE TO: QUOTE #: P.O. #:

Section 2

Section 3 — Preservative

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incremental Soils	BOD	TSS	Nitrate/Nitrite	Fecal Caliform 1+/10x TC Quant		TKN/Ammonia	TKN/Ammonia/TP			REMARKS/ LOC ID
							1	1	1	Na2SO4	Na2SO4	H2SO4	H2SO4			
1 AC	MW20	3/25/19	1019	water	3	G			1	1		1				
2 AC	MW14A		1312		3				1	1		1				
3 AD	MW14B		1333		2				1	1						
4 AF	SW17		1403		6		1	1	1	1	1		1			
5 AF	SW18		1423		6		1	1	1	1	1		1			
6 AF	D2		1423		6		1	1	1	1	1		1			

Section 5

	Date	Time	
Relinquished By: (1)	3/25/19	16:11	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date 3.25.19	Time 16:11	Received For Laboratory By:

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Profile # 348183

Temp Blank °C: 5.9 D12

or Ambient [ ]

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT

(See attached Sample Receipt Form)

[ ] 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

REVIEWED

F083-Kit_Request_and_COC_Templates-Blank
Revised 2013-03-24

e-Sample Receipt Form

SGS Workorder #: **1191289**

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		Yes — Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	N/A	HD
COC accompanied samples?	Yes	
DOD: Were samples received in COC corresponding coolers?	N/A	
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)?	Yes	Cooler ID: 1 @ 5.9 °C Therm. ID: D12
If samples received without a temperature blank, the "cooler temperature" will be documented instead & "COOLER TEMP" will be noted to the right. "ambient" or "chilled" will be noted if neither is available.		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	N/A	
If <0°C, were sample containers ice free?	N/A	
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	Yes	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	Yes	
**Note: If times differ <1hr, record details & login per COC.		
***Note: If sample information on containers differs from COC, SGS will default to COC informatic		
Were analytical requests clear? (i.e., method is specified for analyses with multiple option for analysis (Ex: BTEX, Metals)	Yes	
		***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	Yes	
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	N/A	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	N/A	
Were all soil VOAs field extracted with MeOH+BFB?	N/A	

Note to Client: Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1191289001-A	No Preservative Required	OK			
1191289001-B	Na2S2O3 for Chlorine Redu	OK			
1191289001-C	H2SO4 to pH < 2	OK			
1191289002-A	No Preservative Required	OK			
1191289002-B	Na2S2O3 for Chlorine Redu	OK			
1191289002-C	H2SO4 to pH < 2	OK			
1191289003-A	No Preservative Required	OK			
1191289003-B	Na2S2O3 for Chlorine Redu	OK			
1191289004-A	No Preservative Required	OK			
1191289004-B	Na2S2O3 for Chlorine Redu	OK			
1191289004-C	Na2S2O3 for Chlorine Redu	OK			
1191289004-D	H2SO4 to pH < 2	OK			
1191289004-E	No Preservative Required	OK			
1191289004-F	No Preservative Required	OK			
1191289005-A	No Preservative Required	OK			
1191289005-B	Na2S2O3 for Chlorine Redu	OK			
1191289005-C	Na2S2O3 for Chlorine Redu	OK			
1191289005-D	H2SO4 to pH < 2	OK			
1191289005-E	No Preservative Required	OK			
1191289005-F	No Preservative Required	OK			
1191289006-A	No Preservative Required	OK			
1191289006-B	Na2S2O3 for Chlorine Redu	OK			
1191289006-C	Na2S2O3 for Chlorine Redu	OK			
1191289006-D	H2SO4 to pH < 2	OK			
1191289006-E	No Preservative Required	OK			
1191289006-F	No Preservative Required	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.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
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.