Laboratory Report of Analysis

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

Report Number: **1183948**

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: **1183948**
Project Name/Site: **Wasilla WWTP**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

SW1 (1183948001) PS

9222D - Sample received with insufficient time and analyzed past 8 hour hold time.

SW2 (1183948002) PS

9222D - Sample received with insufficient time and analyzed past 8 hour hold time.

1183933010DUP (1462433) 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.

1183962001DUP (1462436) 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.

MB for HBN 1783110 [BTF/16740] (1462168) MB

9222D - Sample batch size (26) is greater than QC maximum of 20 samples per batch

MB for HBN 1783110 [BTF/16740] (1462169) MB

9222D - Sample batch size (26) is greater than QC maximum of 20 samples per batch

MB for HBN 1783140 [BOD/6096] (1462276) MB

5210B – BOD - MB (0.27 mg/L) is greater than the recommended limit of 0.2 mg/L. Samples >10X the MB are not significantly affected. Samples <10X the MB results may be biased high

POS for HBN 1783110 [BTF/16740 (1462167) POS

9222D - Sample batch size (26) is greater than QC maximum of 20 samples per batch

*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. 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 (Provisionally Certified as of 06/11/2018 for Mercury by EPA245.1,Beryllium and Copper by EPA200.8) & 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.

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Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
SW1	1183948001	07/25/2018	07/25/2018	Water (Surface, Eff., Ground)
SW2	1183948002	07/25/2018	07/25/2018	Water (Surface, Eff., Ground)
SW3	1183948003	07/25/2018	07/25/2018	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)
SM21 4500NO3-F	Flow Injection 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: **SW1**
Lab Sample ID: 1183948001

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	57.4	mg/L
	E. Coli	8	MPN/100mL
	Fecal Coliform	36	col/100mL
	Total Coliform	GT2420	MPN/100mL
Waters Department	Ammonia-N	0.0560J	mg/L
	Total Kjeldahl Nitrogen	0.663J	mg/L
	Total Phosphorus	0.0604	mg/L
	Total Suspended Solids	5.20	mg/L

Client Sample ID: **SW2**
Lab Sample ID: 1183948002

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	3.03	mg/L
	E. Coli	16	MPN/100mL
	Fecal Coliform	40	col/100mL
	Total Coliform	GT2420	MPN/100mL
Waters Department	Ammonia-N	0.0508J	mg/L
	Total Kjeldahl Nitrogen	1.04	mg/L
	Total Phosphorus	0.0495	mg/L
	Total Suspended Solids	6.40	mg/L

Client Sample ID: **SW3**
Lab Sample ID: 1183948003

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	4.21	mg/L
	E. Coli	23	MPN/100mL
	Fecal Coliform	24	col/100mL
	Total Coliform	GT2420	MPN/100mL
Waters Department	Ammonia-N	0.0509J	mg/L
	Total Kjeldahl Nitrogen	0.599J	mg/L
	Total Phosphorus	0.0704	mg/L
	Total Suspended Solids	3.38	mg/L

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Results of **SW1**

Client Sample ID: **SW1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183948001
Lab Project ID: 1183948

Collection Date: 07/25/18 11:00
Received Date: 07/25/18 17:25
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	57.4		2.00	2.00	mg/L	1		07/26/18 13:33

Batch Information

Analytical Batch: BOD6096
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/26/18 13:33
Container ID: 1183948001-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	36		9.09	9.09	col/100mL	1		07/25/18 19:57

Batch Information

Analytical Batch: BTF16740
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/25/18 19:57
Container ID: 1183948001-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	8		1	1	MPN/100m	1		07/25/18 19:24
Total Coliform	>2420		1	1	MPN/100m	1		07/25/18 19:24

Batch Information

Analytical Batch: BTF16738
Analytical Method: SM21 9223B
Analyst: NAB
Analytical Date/Time: 07/25/18 19:24
Container ID: 1183948001-D

Results of **SW1**

Client Sample ID: **SW1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183948001
Lab Project ID: 1183948

Collection Date: 07/25/18 11:00
Received Date: 07/25/18 17:25
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	5.20		2.00	0.620	mg/L	1		07/27/18 14:30

Batch Information

Analytical Batch: STS5960
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 14:30
Container ID: 1183948001-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.663 J		1.00	0.310	mg/L	1		07/30/18 09:04

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:04
Container ID: 1183948001-F

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.0560 J		0.100	0.0310	mg/L	1		07/26/18 10:40

Batch Information

Analytical Batch: WDA4351
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/26/18 10:40
Container ID: 1183948001-F

Prep Batch: WXX12446
Prep Method: METHOD
Prep Date/Time: 07/26/18 09:50
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		07/25/18 18:29
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		07/25/18 18:29

Print Date: 08/14/2018 3:24:23PM

J flagging is activated

Results of **SW1**

Client Sample ID: **SW1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183948001
Lab Project ID: 1183948

Collection Date: 07/25/18 11:00
Received Date: 07/25/18 17:25
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2727
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/25/18 18:29
Container ID: 1183948001-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0604		0.0200	0.00500	mg/L	1		08/01/18 15:31

Batch Information

Analytical Batch: WDA4357
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 15:31
Container ID: 1183948001-F

Prep Batch: WXX12457
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 11:39
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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Results of **SW2**

Client Sample ID: **SW2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183948002
Lab Project ID: 1183948

Collection Date: 07/25/18 11:50
Received Date: 07/25/18 17:25
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	3.03		2.00	2.00	mg/L	1		07/26/18 13:33

Batch Information

Analytical Batch: BOD6096
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/26/18 13:33
Container ID: 1183948002-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	40		10.0	10.0	col/100mL	1		07/25/18 19:57

Batch Information

Analytical Batch: BTF16740
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/25/18 19:57
Container ID: 1183948002-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	16		1	1	MPN/100m	1		07/25/18 19:24
Total Coliform	>2420		1	1	MPN/100m	1		07/25/18 19:24

Batch Information

Analytical Batch: BTF16738
Analytical Method: SM21 9223B
Analyst: NAB
Analytical Date/Time: 07/25/18 19:24
Container ID: 1183948002-D

Results of **SW2**

Client Sample ID: **SW2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183948002
Lab Project ID: 1183948

Collection Date: 07/25/18 11:50
Received Date: 07/25/18 17:25
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	6.40		2.00	0.620	mg/L	1		07/27/18 14:30

Batch Information

Analytical Batch: STS5960
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 14:30
Container ID: 1183948002-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.04		1.00	0.310	mg/L	1		07/30/18 09:08

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:08
Container ID: 1183948002-F

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.0508	J	0.100	0.0310	mg/L	1		07/26/18 10:41

Batch Information

Analytical Batch: WDA4351
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/26/18 10:41
Container ID: 1183948002-F

Prep Batch: WXX12446
Prep Method: METHOD
Prep Date/Time: 07/26/18 09:50
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500	U	0.100	0.0250	mg/L	2		07/25/18 18:31
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		07/25/18 18:31

Print Date: 08/14/2018 3:24:23PM

J flagging is activated

Results of **SW2**

Client Sample ID: **SW2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183948002
Lab Project ID: 1183948

Collection Date: 07/25/18 11:50
Received Date: 07/25/18 17:25
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2727
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/25/18 18:31
Container ID: 1183948002-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0495		0.0200	0.00500	mg/L	1		08/01/18 15:32

Batch Information

Analytical Batch: WDA4357
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 15:32
Container ID: 1183948002-F

Prep Batch: WXX12457
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 11:39
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 08/14/2018 3:24:23PM

J flagging is activated

Results of **SW3**

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183948003
Lab Project ID: 1183948

Collection Date: 07/25/18 12:20
Received Date: 07/25/18 17:25
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	4.21		2.00	2.00	mg/L	1		07/26/18 13:33

Batch Information

Analytical Batch: BOD6096
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/26/18 13:33
Container ID: 1183948003-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	24		1.00	1.00	col/100mL	1		07/25/18 19:57

Batch Information

Analytical Batch: BTF16740
Analytical Method: SM21 9222D
Analyst: VDL
Analytical Date/Time: 07/25/18 19:57
Container ID: 1183948003-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	23		1	1	MPN/100m	1		07/25/18 19:24
Total Coliform	>2420		1	1	MPN/100m	1		07/25/18 19:24

Batch Information

Analytical Batch: BTF16738
Analytical Method: SM21 9223B
Analyst: NAB
Analytical Date/Time: 07/25/18 19:24
Container ID: 1183948003-D

Print Date: 08/14/2018 3:24:23PM

J flagging is activated

Results of **SW3**

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183948003
Lab Project ID: 1183948

Collection Date: 07/25/18 12:20
Received Date: 07/25/18 17:25
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	3.38		1.25	0.388	mg/L	1		07/27/18 14:30

Batch Information

Analytical Batch: STS5960
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 14:30
Container ID: 1183948003-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.599 J		1.00	0.310	mg/L	1		07/30/18 09:09

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:09
Container ID: 1183948003-F

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.0509 J		0.100	0.0310	mg/L	1		07/26/18 10:43

Batch Information

Analytical Batch: WDA4351
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/26/18 10:43
Container ID: 1183948003-F

Prep Batch: WXX12446
Prep Method: METHOD
Prep Date/Time: 07/26/18 09:50
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		07/25/18 18:33
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		07/25/18 18:33

Print Date: 08/14/2018 3:24:23PM

J flagging is activated

Results of **SW3**

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183948003
Lab Project ID: 1183948

Collection Date: 07/25/18 12:20
Received Date: 07/25/18 17:25
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2727
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/25/18 18:33
Container ID: 1183948003-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0704		0.0200	0.00500	mg/L	1		08/01/18 15:35

Batch Information

Analytical Batch: WDA4357
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 15:35
Container ID: 1183948003-F

Prep Batch: WXX12457
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 11:39
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Method Blank

Blank ID: MB for HBN 1783140 [BOD/6096]
Blank Lab ID: 1462276

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183948001, 1183948002, 1183948003

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: BOD6096
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 7/26/2018 1:33:38PM

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1183948 [BOD6096]
Blank Spike Lab ID: 1462277
Date Analyzed: 07/26/2018 13:33

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183948001, 1183948002, 1183948003

Results by **SM21 5210B**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	201	102	(84.6-115.4

Batch Information

Analytical Batch: **BOD6096**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **A.L**

Print Date: 08/14/2018 3:24:26PM

Method Blank

Blank ID: MB for HBN 1783107 [BTF/16738]
Blank Lab ID: 1462157

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183948001, 1183948002, 1183948003

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: BTF16738
Analytical Method: SM21 9223B
Instrument:
Analyst: NAB
Analytical Date/Time: 7/25/2018 7:24:00PM

Print Date: 08/14/2018 3:24:27PM

Method Blank

Blank ID: MB for HBN 1783110 [BTF/16740]
Blank Lab ID: 1462168

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183948001, 1183948002, 1183948003

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF16740
Analytical Method: SM21 9222D
Instrument:
Analyst: VDL
Analytical Date/Time: 7/25/2018 6:58:00PM

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Method Blank

Blank ID: MB for HBN 1783110 [BTF/16740]
Blank Lab ID: 1462169

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183948001, 1183948002, 1183948003

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF16740
Analytical Method: SM21 9222D
Instrument:
Analyst: VDL
Analytical Date/Time: 7/25/2018 7:57:00PM

Print Date: 08/14/2018 3:24:29PM

Method Blank

Blank ID: MB for HBN 1783168 [STS/5960]
Blank Lab ID: 1462430

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183948001, 1183948002, 1183948003

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: STS5960
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW
Analytical Date/Time: 7/27/2018 2:30:15PM

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Duplicate Sample Summary

Original Sample ID: 1183933010
Duplicate Sample ID: 1462433
QC for Samples:
1183948001, 1183948002, 1183948003

Analysis Date: 07/27/2018 14:30
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	27.8	29.4	mg/L	5.60*	(< 5)

Batch Information

Analytical Batch: STS5960
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 08/14/2018 3:24:32PM

Duplicate Sample Summary

Original Sample ID: 1183962001
Duplicate Sample ID: 1462436
QC for Samples:
1183948001, 1183948002, 1183948003

Analysis Date: 07/27/2018 14:30
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	148	125	mg/L	16.50*	(< 5)

Batch Information

Analytical Batch: STS5960
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 08/14/2018 3:24:32PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183948 [STS5960]
Blank Spike Lab ID: 1462431
Date Analyzed: 07/27/2018 14:30

Spike Duplicate ID: LCSD for HBN 1183948 [STS5960]
Spike Duplicate Lab ID: 1462432
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183948001, 1183948002, 1183948003

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	24.5	98	25	24.6	98	(75-125)	0.41	(< 5)

Batch Information

Analytical Batch: **STS5960**
Analytical Method: **SM21 2540D**
Instrument:
Analyst: **EWW**

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Method Blank

Blank ID: MB for HBN 1783103 (WFI/2727)
Blank Lab ID: 1462131

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183948001, 1183948002, 1183948003

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.0500U	0.100	0.0250	mg/L
Nitrite-N	0.0500U	0.100	0.0250	mg/L
Total Nitrate/Nitrite-N	0.0500U	0.100	0.0250	mg/L

Batch Information

Analytical Batch: WFI2727
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 7/25/2018 6:12:24PM

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1183948 [WFI2727]
Blank Spike Lab ID: 1462121
Date Analyzed: 07/25/2018 18:10

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183948001, 1183948002, 1183948003

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.58	103	(70-130)
Nitrite-N	2.5	2.64	106	(90-110)
Total Nitrate/Nitrite-N	5	5.22	104	(90-110)

Batch Information

Analytical Batch: **WFI2727**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **AYC**

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Matrix Spike Summary

Original Sample ID: 1183948003
MS Sample ID: 1462119 MS
MSD Sample ID: 1462120 MSD

Analysis Date: 07/25/2018 18:33
Analysis Date: 07/25/2018 18:35
Analysis Date: 07/25/2018 18:36
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183948001, 1183948002, 1183948003

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	0.0500U	2.50	2.79	111	2.50	2.72	109	70-130	2.50	(< 25)
Nitrite-N	0.0500U	2.50	2.49	100	2.50	2.54	102	90-110	2.20	(< 25)

Batch Information

Analytical Batch: WFI2727
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 7/25/2018 6:35:09PM

Print Date: 08/14/2018 3:24:36PM

Method Blank

Blank ID: MB for HBN 1783136 [WXX/12446]
Blank Lab ID: 1462244

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183948001, 1183948002, 1183948003

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: WDA4351
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/26/2018 10:35:11AM

Prep Batch: WXX12446
Prep Method: METHOD
Prep Date/Time: 7/26/2018 9:50:00AM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1183948 [WXX12446]
Blank Spike Lab ID: 1462245
Date Analyzed: 07/26/2018 10:36

Spike Duplicate ID: LCSD for HBN 1183948 [WXX12446]
Spike Duplicate Lab ID: 1462246
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183948001, 1183948002, 1183948003

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	0.969	97	1	1.03	103	(75-125)	6.00	(< 25)

Batch Information

Analytical Batch: **WDA4351**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12446**
Prep Method: **METHOD**
Prep Date/Time: **07/26/2018 09:50**
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: 1183948003
MS Sample ID: 1462247 MS
MSD Sample ID: 1462248 MSD

Analysis Date: 07/26/2018 10:43
Analysis Date: 07/26/2018 10:45
Analysis Date: 07/26/2018 10:46
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183948001, 1183948002, 1183948003

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	0.0509J	1.00	1.21	116	1.00	1.22	117	75-125	0.87	(< 25)

Batch Information

Analytical Batch: WDA4351
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/26/2018 10:45:07AM

Prep Batch: WXX12446
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 7/26/2018 9:50:00AM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 08/14/2018 3:24:40PM

Method Blank

Blank ID: MB for HBN 1783257 [WXX/12451]
Blank Lab ID: 1462797

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183948001, 1183948002, 1183948003

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: WDA4353
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/30/2018 9:00:16AM

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 7/27/2018 11:10:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183948 [WXX12451]
Blank Spike Lab ID: 1462798
Date Analyzed: 07/30/2018 09:01

Spike Duplicate ID: LCSD for HBN 1183948 [WXX12451]
Spike Duplicate Lab ID: 1462799
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183948001, 1183948002, 1183948003

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	3.63	91	4	3.51	88	(75-125)	3.20	(< 25)

Batch Information

Analytical Batch: **WDA4353**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12451**
Prep Method: **METHOD**
Prep Date/Time: **07/27/2018 11:10**
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: 1183948001
MS Sample ID: 1462800 MS
MSD Sample ID: 1462801 MSD

Analysis Date: 07/30/2018 9:04
Analysis Date: 07/30/2018 9:05
Analysis Date: 07/30/2018 9:06
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183948001, 1183948002, 1183948003

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	0.663J	4.00	4.41	94	4.00	4.43	94	75-125	0.27	(< 25)

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/30/2018 9:05:31AM

Prep Batch: WXX12451
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 7/27/2018 11:10:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 08/14/2018 3:24:42PM

Method Blank

Blank ID: MB for HBN 1783471 [WXX/12457]
Blank Lab ID: 1463702

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183948001, 1183948002, 1183948003

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: WDA4357
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 8/1/2018 3:28:16PM

Prep Batch: WXX12457
Prep Method: SM21 4500P-B,E
Prep Date/Time: 8/1/2018 11:39:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1183948 [WXX12457]
Blank Spike Lab ID: 1463703
Date Analyzed: 08/01/2018 15:29

Spike Duplicate ID: LCSD for HBN 1183948 [WXX12457]
Spike Duplicate Lab ID: 1463704
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183948001, 1183948002, 1183948003

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	0.190	95	0.2	0.187	93	(75-125)	1.60	(< 25)

Batch Information

Analytical Batch: **WDA4357**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12457**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **08/01/2018 11:39**
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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Matrix Spike Summary

Original Sample ID: 1183948002
MS Sample ID: 1463705 MS
MSD Sample ID: 1463706 MSD

Analysis Date: 08/01/2018 15:32
Analysis Date: 08/01/2018 15:33
Analysis Date: 08/01/2018 15:34
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183948001, 1183948002, 1183948003

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	0.0495	0.200	.236	93	0.200	0.241	96	75-125	2.20	(< 25)

Batch Information

Analytical Batch: WDA4357
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 8/1/2018 3:33:07PM

Prep Batch: WXX12457
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 8/1/2018 11:39:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 08/14/2018 3:24:46PM

SGS REVIEWED S.D

SGS North America Inc.
CHAIN OF CUSTODY RECORD

1183948

Locations Nationwide

Alaska	Maryland
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: 343-5202

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

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

INVOICE TO: QUOTE #:

P.O. #: 2047 00415

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 Incremental Soils	Preservative: 1	1	$Na_2S_2O_3$	$Na_2S_2O_3$	1	H_2SO_4					REMARKS/ LOC ID
							BOD	TSS	FC	TC (Quant) w/ Index	Nitrate/ Nitrite	TKN/ Ammonia/ TP					
(1) A-F	SW1	7/25/18	11:00		6	G	1	1	1	1	1	1					
(2) A-F	SW2	7/25/18	11:50		6	G	1	1	1	1	1	1					
(3) A-F	SW3	7/25/18	12:20		6	G	1	1	1	1	1	1					

Section 5

	Date	Time	
Relinquished By: (1)	7/25/18	17:25	Received By:
Relinquished By: (2)			Received By:
Relinquished By: (3)			Received By:
Relinquished By: (4)	7/25/18	17:25	Received For Laboratory By: RET

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 4.7 D35

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

e-Sample Receipt Form

SGS Workorder #: **1183948**

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	
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 @ 4.7 °C Therm. ID: D35
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	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	
If samples received without 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.		
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.		
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	yes	
	n/a	***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
1183948001-A	No Preservative Required	OK			
1183948001-B	No Preservative Required	OK			
1183948001-C	Na2S2O3 for Chlorine Redu	OK			
1183948001-D	Na2S2O3 for Chlorine Redu	OK			
1183948001-E	No Preservative Required	OK			
1183948001-F	H2SO4 to pH < 2	OK			
1183948002-A	No Preservative Required	OK			
1183948002-B	No Preservative Required	OK			
1183948002-C	Na2S2O3 for Chlorine Redu	OK			
1183948002-D	Na2S2O3 for Chlorine Redu	OK			
1183948002-E	No Preservative Required	OK			
1183948002-F	H2SO4 to pH < 2	OK			
1183948003-A	No Preservative Required	OK			
1183948003-B	No Preservative Required	OK			
1183948003-C	Na2S2O3 for Chlorine Redu	OK			
1183948003-D	Na2S2O3 for Chlorine Redu	OK			
1183948003-E	No Preservative Required	OK			
1183948003-F	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.
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: **1183990**

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

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**
SGS Project: **1183990**
Project Name/Site: **Wasilla WWTP**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

SW7 (1183990001) PS

9222D - Sample received with insufficient time and analyzed past 8 hour hold time.

MB for HBN 1783148 [BOD/6097] (1462295) MB

5210B – BOD - MB (0.25 mg/L) is greater than the recommended limit of 0.2 mg/L. Samples >10X the MB are not significantly affected.

MB for HBN 1783208 [BOD/6098] (1462592) MB

5210B – BOD - MB (0.37 mg/L) is greater than the recommended limit of 0.2 mg/L. Samples >10X the MB are not significantly affected. Samples <10X the MB results may be biased high.

1183992009(1462685MS) (1462688) MS

6020A - Metals MS recoveries for barium and chromium do not meet QC criteria. The post digestion spike was successful.

1183990023MS (1462787) MS

4500N-D - Total Kjeldahl Nitrogen - MS recovery is outside of QC criteria due to matrix interference. Refer to LCS for accuracy requirements.

1183990023MS (1463159) MS

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

1183990008MSD (1462357) MSD

4500NO3-F - Nitrate/Nitrite - MSD recovery for Total Nitrate/Nitrite is outside of QC criteria. Refer to LCS for accuracy requirements.

1183992009(1462685MSD) (1462689) MSD

6020A - Metals MSD recovery for chromium does not meet QC criteria. The post digestion spike was successful.

1183990023MSD (1462788) MSD

4500N-D - Total Kjeldahl Nitrogen - MSD recovery is outside of QC criteria due to matrix interference. Refer to LCSD for accuracy requirements.

1183990023MSD (1463160) MSD

4500NH3-G - Ammonia - MSD recovery is outside of QC criteria due to matrix interference. Refer to LCSD for accuracy requirements.
4500NH3-G - Ammonia - MS/MSD RPD is outside of QC criteria. Refer to LCS/LCSD for precision.

*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. 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 (Provisionally Certified as of 06/11/2018 for Mercury by EPA245.1,Beryllium and Copper by EPA200.8) & 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
SW7	1183990001	07/26/2018	07/26/2018	Water (Surface, Eff., Ground)
SW6	1183990002	07/26/2018	07/26/2018	Water (Surface, Eff., Ground)
SW4	1183990003	07/26/2018	07/26/2018	Water (Surface, Eff., Ground)
SW5	1183990004	07/26/2018	07/26/2018	Water (Surface, Eff., Ground)
DUP1	1183990005	07/26/2018	07/26/2018	Water (Surface, Eff., Ground)
SW10	1183990006	07/26/2018	07/26/2018	Water (Surface, Eff., Ground)
SW9	1183990007	07/26/2018	07/26/2018	Water (Surface, Eff., Ground)
SW8	1183990008	07/26/2018	07/26/2018	Water (Surface, Eff., Ground)
L1A	1183990009	07/25/2018	07/26/2018	Water (Surface, Eff., Ground)
L1B	1183990010	07/25/2018	07/26/2018	Water (Surface, Eff., Ground)
L2A	1183990011	07/25/2018	07/26/2018	Water (Surface, Eff., Ground)
L2B	1183990012	07/25/2018	07/26/2018	Water (Surface, Eff., Ground)
L3A	1183990013	07/25/2018	07/26/2018	Water (Surface, Eff., Ground)
L3B	1183990014	07/25/2018	07/26/2018	Water (Surface, Eff., Ground)
L4A	1183990015	07/25/2018	07/26/2018	Water (Surface, Eff., Ground)
L4B	1183990016	07/25/2018	07/26/2018	Water (Surface, Eff., Ground)
L1B	1183990017	07/25/2018	07/26/2018	Soil/Solid (dry weight)
L2A	1183990018	07/25/2018	07/26/2018	Soil/Solid (dry weight)
L2B	1183990019	07/25/2018	07/26/2018	Soil/Solid (dry weight)
L3A	1183990020	07/25/2018	07/26/2018	Soil/Solid (dry weight)
L3B	1183990021	07/25/2018	07/26/2018	Soil/Solid (dry weight)
L4A	1183990022	07/25/2018	07/26/2018	Soil/Solid (dry weight)
L4B	1183990023	07/25/2018	07/26/2018	Soil/Solid (dry weight)

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Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
Method	**Method Description**			
SM21 4500-NH3 G	Ammonia-N (S) SM4500-F			
SM21 4500-NH3 G	Ammonia-N (W) SM21 4500-NH3 G			
SM21 5210B	Biochemical Oxygen Demand SM21 5210B			
SM21 9222D	Fecal Coliform (MF)			
SM21 2540G	Fixed/Volatile Solids SM18 2540G			
SM21 4500NO3-F	Flow Injection Analysis			
SW9056A	Ion Chromatographic Analysis Soils/Solid			
SW6020A	Metals by ICP-MS (S)			
SM21 2540G	Percent Solids SM2540G			
SM21 4500-N D	TKN by Phenate (S)			
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: **SW7**
Lab Sample ID: 1183990001

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	2.33	mg/L
	E. Coli	10460	MPN/100mL
	Fecal Coliform	6670	col/100mL
	Total Coliform	GT2420	MPN/100mL
Waters Department	Ammonia-N	0.0768J	mg/L
	Total Kjeldahl Nitrogen	0.680J	mg/L
	Total Phosphorus	0.0482	mg/L
	Total Suspended Solids	3.60	mg/L

Client Sample ID: **SW6**
Lab Sample ID: 1183990002

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	2.43	mg/L
	E. Coli	6	MPN/100mL
	Fecal Coliform	30	col/100mL
	Total Coliform	5790	MPN/100mL
Waters Department	Ammonia-N	0.0653J	mg/L
	Total Kjeldahl Nitrogen	0.565J	mg/L
	Total Phosphorus	0.00790J	mg/L
	Total Suspended Solids	5.80	mg/L

Client Sample ID: **SW4**
Lab Sample ID: 1183990003

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	2.10	mg/L
	E. Coli	10	MPN/100mL
	Fecal Coliform	9.0	col/100mL
	Total Coliform	3450	MPN/100mL
Waters Department	Ammonia-N	0.0566J	mg/L
	Total Kjeldahl Nitrogen	0.334J	mg/L
	Total Phosphorus	0.00950J	mg/L
	Total Suspended Solids	1.39	mg/L

Client Sample ID: **SW5**
Lab Sample ID: 1183990004

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	4.98	mg/L
	E. Coli	50	MPN/100mL
	Fecal Coliform	83	col/100mL
	Total Coliform	6870	MPN/100mL
Waters Department	Ammonia-N	0.217	mg/L
	Total Kjeldahl Nitrogen	0.641J	mg/L
	Total Phosphorus	0.0387	mg/L
	Total Suspended Solids	8.32	mg/L

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Detectable Results Summary

Client Sample ID: **DUP1**
Lab Sample ID: 1183990005

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	4.26	mg/L
	E. Coli	66	MPN/100mL
	Fecal Coliform	148	col/100mL
	Total Coliform	8160	MPN/100mL
Waters Department	Ammonia-N	0.0728J	mg/L
	Total Kjeldahl Nitrogen	0.541J	mg/L
	Total Phosphorus	0.0408	mg/L
	Total Suspended Solids	5.15	mg/L

Client Sample ID: **SW10**
Lab Sample ID: 1183990006

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	3.93	mg/L
	E. Coli	54	MPN/100mL
	Fecal Coliform	58	col/100mL
	Total Coliform	2190	MPN/100mL
Waters Department	Ammonia-N	0.0903J	mg/L
	Total Kjeldahl Nitrogen	0.697J	mg/L
	Total Phosphorus	0.102	mg/L
	Total Suspended Solids	5.00	mg/L

Client Sample ID: **SW9**
Lab Sample ID: 1183990007

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	13.3	mg/L
	E. Coli	80	MPN/100mL
	Fecal Coliform	85	col/100mL
	Total Coliform	6130	MPN/100mL
Waters Department	Total Kjeldahl Nitrogen	0.450J	mg/L
	Total Phosphorus	0.0267	mg/L
	Total Suspended Solids	3.66	mg/L

Client Sample ID: **SW8**
Lab Sample ID: 1183990008

	Parameter	Result	Units
Microbiology Laboratory	E. Coli	36	MPN/100mL
	Fecal Coliform	21	col/100mL
	Total Coliform	GT2420	MPN/100mL
Waters Department	Ammonia-N	0.0737J	mg/L
	Total Kjeldahl Nitrogen	0.705J	mg/L
	Total Phosphorus	0.0619	mg/L
	Total Suspended Solids	3.25	mg/L

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Detectable Results Summary

Client Sample ID: **L1A**
Lab Sample ID: 1183990009
Microbiology Laboratory
Waters Department

Parameter	Result	Units
Biochemical Oxygen Demand	158	mg/L
Ammonia-N	2.01	mg/L
Nitrate-N	21.1	mg/L
Nitrite-N	4.45	mg/L
Total Kjeldahl Nitrogen	11.7	mg/L
Total Suspended Solids	119	mg/L

Client Sample ID: **L1B**
Lab Sample ID: 1183990010
Microbiology Laboratory
Waters Department

Parameter	Result	Units
Biochemical Oxygen Demand	155	mg/L
Ammonia-N	2.09	mg/L
Nitrate-N	23.2	mg/L
Nitrite-N	4.41	mg/L
Total Kjeldahl Nitrogen	10.4	mg/L
Total Suspended Solids	117	mg/L

Client Sample ID: **L2A**
Lab Sample ID: 1183990011
Microbiology Laboratory
Waters Department

Parameter	Result	Units
Biochemical Oxygen Demand	136	mg/L
Ammonia-N	0.183	mg/L
Nitrate-N	26.6	mg/L
Nitrite-N	0.568J	mg/L
Total Kjeldahl Nitrogen	7.25	mg/L
Total Suspended Solids	89.0	mg/L

Client Sample ID: **L2B**
Lab Sample ID: 1183990012
Microbiology Laboratory
Waters Department

Parameter	Result	Units
Biochemical Oxygen Demand	92.7	mg/L
Ammonia-N	0.134	mg/L
Nitrate-N	30.1	mg/L
Nitrite-N	0.648J	mg/L
Total Kjeldahl Nitrogen	6.32	mg/L
Total Suspended Solids	93.0	mg/L

Client Sample ID: **L3A**
Lab Sample ID: 1183990013
Microbiology Laboratory
Waters Department

Parameter	Result	Units
Biochemical Oxygen Demand	65.3	mg/L
Ammonia-N	0.0915J	mg/L
Nitrate-N	30.5	mg/L
Total Kjeldahl Nitrogen	4.29	mg/L
Total Suspended Solids	61.0	mg/L

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Detectable Results Summary

Client Sample ID: **L3B**
Lab Sample ID: 1183990014
Microbiology Laboratory
Waters Department

Parameter	Result	Units
Biochemical Oxygen Demand	58.6	mg/L
Ammonia-N	0.0879J	mg/L
Nitrate-N	32.1	mg/L
Total Kjeldahl Nitrogen	4.47	mg/L
Total Suspended Solids	64.0	mg/L

Client Sample ID: **L4A**
Lab Sample ID: 1183990015
Microbiology Laboratory
Waters Department

Parameter	Result	Units
Biochemical Oxygen Demand	39.7	mg/L
Ammonia-N	0.153	mg/L
Nitrate-N	32.4	mg/L
Nitrite-N	0.562J	mg/L
Total Kjeldahl Nitrogen	4.32	mg/L
Total Suspended Solids	31.5	mg/L

Client Sample ID: **L4B**
Lab Sample ID: 1183990016
Microbiology Laboratory
Waters Department

Parameter	Result	Units
Biochemical Oxygen Demand	37.1	mg/L
Ammonia-N	0.177	mg/L
Nitrate-N	28.2	mg/L
Nitrite-N	0.464J	mg/L
Total Kjeldahl Nitrogen	2.42	mg/L
Total Suspended Solids	33.0	mg/L

Client Sample ID: **L1B**
Lab Sample ID: 1183990017

Parameter	Result	Units
Metals by ICP/MS		
Arsenic	8.07	mg/Kg
Barium	175	mg/Kg
Cadmium	0.593J	mg/Kg
Chromium	41.2	mg/Kg
Copper	406	mg/Kg
Lead	16.6	mg/Kg
Mercury	4.36	mg/Kg
Phosphorus	5280	mg/Kg
Selenium	1.78J	mg/Kg
Silver	6.38	mg/Kg
Zinc	555	mg/Kg
Microbiology Laboratory		
Total Solids	18.9	%
Volatile Solids	16.4	%
Waters Department		
Ammonia-N	407	mg/Kg
Nitrite-N	3.94J	mg/Kg
Total Kjeldahl Nitrogen	6830	mg/Kg

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Detectable Results Summary

Client Sample ID: **L2A**
Lab Sample ID: 1183990018

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	15.2J	mg/Kg
	Barium	321	mg/Kg
	Cadmium	1.35J	mg/Kg
	Chromium	62.1	mg/Kg
	Copper	1150	mg/Kg
	Lead	22.7	mg/Kg
	Mercury	3.37	mg/Kg
	Phosphorus	11800	mg/Kg
	Selenium	6.76J	mg/Kg
	Silver	9.81	mg/Kg
	Zinc	1330	mg/Kg
Microbiology Laboratory	Total Solids	5.69	%
	Volatile Solids	54.7	%
Waters Department	Ammonia-N	9900	mg/Kg
	Nitrate-N	35.7	mg/Kg
	Nitrite-N	49.8	mg/Kg
	Total Kjeldahl Nitrogen	47000	mg/Kg

Client Sample ID: **L2B**
Lab Sample ID: 1183990019

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	11.2	mg/Kg
	Barium	192	mg/Kg
	Cadmium	0.857J	mg/Kg
	Chromium	39.4	mg/Kg
	Copper	720	mg/Kg
	Lead	15.3	mg/Kg
	Mercury	2.26	mg/Kg
	Phosphorus	5290	mg/Kg
	Selenium	3.19J	mg/Kg
	Silver	6.68	mg/Kg
	Zinc	827	mg/Kg
Microbiology Laboratory	Total Solids	6.82	%
	Volatile Solids	50.5	%
Waters Department	Ammonia-N	4170	mg/Kg
	Nitrite-N	11.4J	mg/Kg
	Total Kjeldahl Nitrogen	29500	mg/Kg

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Detectable Results Summary

Client Sample ID: **L3A**
Lab Sample ID: 1183990020

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	5.69J	mg/Kg
	Barium	230	mg/Kg
	Cadmium	1.32J	mg/Kg
	Chromium	37.2	mg/Kg
	Copper	550	mg/Kg
	Lead	18.9	mg/Kg
	Mercury	1.18	mg/Kg
	Phosphorus	7350	mg/Kg
	Selenium	3.42J	mg/Kg
	Silver	19.2	mg/Kg
	Zinc	616	mg/Kg
Microbiology Laboratory	Total Solids	5.68	%
	Volatile Solids	42.1	%
Waters Department	Ammonia-N	933	mg/Kg
	Nitrite-N	10.7J	mg/Kg
	Total Kjeldahl Nitrogen	10600	mg/Kg

Client Sample ID: **L3B**
Lab Sample ID: 1183990021

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	13.6J	mg/Kg
	Barium	372	mg/Kg
	Cadmium	1.54J	mg/Kg
	Chromium	76.0	mg/Kg
	Copper	1410	mg/Kg
	Lead	24.2	mg/Kg
	Mercury	1.38	mg/Kg
	Phosphorus	9380	mg/Kg
	Selenium	7.36J	mg/Kg
	Silver	8.38	mg/Kg
	Zinc	1130	mg/Kg
Microbiology Laboratory	Total Solids	4.98	%
	Volatile Solids	47.1	%
Waters Department	Ammonia-N	3190	mg/Kg
	Nitrate-N	10.7J	mg/Kg
	Nitrite-N	10.9J	mg/Kg
	Total Kjeldahl Nitrogen	18500	mg/Kg

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Detectable Results Summary

Client Sample ID: **L4A**
Lab Sample ID: 1183990022

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	8.51J	mg/Kg
	Barium	445	mg/Kg
	Chromium	80.8	mg/Kg
	Copper	1750	mg/Kg
	Lead	28.4	mg/Kg
	Mercury	1.90	mg/Kg
	Phosphorus	11900	mg/Kg
	Selenium	8.45J	mg/Kg
	Silver	11.7	mg/Kg
	Zinc	1110	mg/Kg
Microbiology Laboratory	Total Solids	3.91	%
	Volatile Solids	53.0	%
Waters Department	Ammonia-N	6200	mg/Kg
	Nitrate-N	44.6J	mg/Kg
	Total Kjeldahl Nitrogen	33300	mg/Kg

Client Sample ID: **L4B**
Lab Sample ID: 1183990023

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	7.69J	mg/Kg
	Barium	199	mg/Kg
	Cadmium	0.789J	mg/Kg
	Chromium	35.0	mg/Kg
	Copper	606	mg/Kg
	Lead	11.9	mg/Kg
	Mercury	0.647	mg/Kg
	Phosphorus	6210	mg/Kg
	Selenium	3.80J	mg/Kg
	Silver	3.57	mg/Kg
	Zinc	628	mg/Kg
Microbiology Laboratory	Total Solids	4.43	%
	Volatile Solids	57.0	%
Waters Department	Ammonia-N	4420	mg/Kg
	Nitrate-N	44.6	mg/Kg
	Nitrite-N	15.9J	mg/Kg
	Total Kjeldahl Nitrogen	28000	mg/Kg

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Results of **SW7**

Client Sample ID: **SW7**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990001
Lab Project ID: 1183990

Collection Date: 07/26/18 10:25
Received Date: 07/26/18 16:48
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	2.33		2.00	2.00	mg/L	1		07/27/18 15:52

Batch Information

Analytical Batch: BOD6098
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/27/18 15:52
Container ID: 1183990001-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	6670		10.0	10.0	col/100mL	1		07/26/18 18:28

Batch Information

Analytical Batch: BTF16745
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/26/18 18:28
Container ID: 1183990001-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	10460		10	10	MPN/100m	10		07/26/18 20:54
Total Coliform	>2420		10	10	MPN/100m	10		07/26/18 20:54

Batch Information

Analytical Batch: BTF16748
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/26/18 20:54
Container ID: 1183990001-B

Results of **SW7**

Client Sample ID: **SW7**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990001
Lab Project ID: 1183990

Collection Date: 07/26/18 10:25
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	3.60		2.00	0.620	mg/L	1		07/27/18 17:31

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 17:31
Container ID: 1183990001-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.680 J		1.00	0.310	mg/L	1		07/30/18 09:10

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:10
Container ID: 1183990001-F

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.0768 J		0.100	0.0310	mg/L	1		07/27/18 12:36

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/27/18 12:36
Container ID: 1183990001-F

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		07/26/18 18:59
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		07/26/18 18:59

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **SW7**

Client Sample ID: **SW7**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990001
Lab Project ID: 1183990

Collection Date: 07/26/18 10:25
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/26/18 18:59
Container ID: 1183990001-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0482		0.0200	0.00500	mg/L	1		08/01/18 15:36

Batch Information

Analytical Batch: WDA4357
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 15:36
Container ID: 1183990001-F

Prep Batch: WXX12457
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 11:39
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW6**

Client Sample ID: **SW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990002
Lab Project ID: 1183990

Collection Date: 07/26/18 10:53
Received Date: 07/26/18 16:48
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	2.43		2.00	2.00	mg/L	1		07/27/18 15:52

Batch Information

Analytical Batch: BOD6098
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/27/18 15:52
Container ID: 1183990002-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	30		1.00	1.00	col/100mL	1		07/26/18 18:28

Batch Information

Analytical Batch: BTF16745
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/26/18 18:28
Container ID: 1183990002-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	6		1	1	MPN/100m	1		07/26/18 20:54
Total Coliform	5790		10	10	MPN/100m	10		07/26/18 20:54

Batch Information

Analytical Batch: BTF16748
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/26/18 20:54
Container ID: 1183990002-B

Results of **SW6**

Client Sample ID: **SW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990002
Lab Project ID: 1183990

Collection Date: 07/26/18 10:53
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	5.80		2.00	0.620	mg/L	1		07/27/18 17:31

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 17:31
Container ID: 1183990002-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.565 J		1.00	0.310	mg/L	1		07/30/18 09:12

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:12
Container ID: 1183990002-F

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.0653 J		0.100	0.0310	mg/L	1		07/27/18 12:41

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/27/18 12:41
Container ID: 1183990002-F

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		07/26/18 19:01
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		07/26/18 19:01

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **SW6**

Client Sample ID: **SW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990002
Lab Project ID: 1183990

Collection Date: 07/26/18 10:53
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/26/18 19:01
Container ID: 1183990002-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.00790	J	0.0200	0.00500	mg/L	1		08/01/18 15:37

Batch Information

Analytical Batch: WDA4357
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 15:37
Container ID: 1183990002-F

Prep Batch: WXX12457
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 11:39
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW4**

Client Sample ID: **SW4**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990003
Lab Project ID: 1183990

Collection Date: 07/26/18 11:14
Received Date: 07/26/18 16:48
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	2.10		2.00	2.00	mg/L	1		07/27/18 15:52

Batch Information

Analytical Batch: BOD6098
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/27/18 15:52
Container ID: 1183990003-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	9.0		1.00	1.00	col/100mL	1		07/26/18 18:28

Batch Information

Analytical Batch: BTF16745
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/26/18 18:28
Container ID: 1183990003-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	10		1	1	MPN/100m	1		07/26/18 20:54
Total Coliform	3450		10	10	MPN/100m	10		07/26/18 20:54

Batch Information

Analytical Batch: BTF16748
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/26/18 20:54
Container ID: 1183990003-B

Results of **SW4**

Client Sample ID: **SW4**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990003
Lab Project ID: 1183990

Collection Date: 07/26/18 11:14
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	1.39		0.990	0.307	mg/L	1		07/27/18 17:31

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 17:31
Container ID: 1183990003-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.334 J		1.00	0.310	mg/L	1		07/30/18 09:15

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:15
Container ID: 1183990003-F

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.0566 J		0.100	0.0310	mg/L	1		07/27/18 12:43

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/27/18 12:43
Container ID: 1183990003-F

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		07/26/18 19:03
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		07/26/18 19:03

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J flagging is activated

Results of **SW4**

Client Sample ID: **SW4**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990003
Lab Project ID: 1183990

Collection Date: 07/26/18 11:14
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/26/18 19:03
Container ID: 1183990003-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.00950	J	0.0200	0.00500	mg/L	1		08/01/18 15:39

Batch Information

Analytical Batch: WDA4357
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 15:39
Container ID: 1183990003-F

Prep Batch: WXX12457
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 11:39
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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Results of **SW5**

Client Sample ID: **SW5**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990004
Lab Project ID: 1183990

Collection Date: 07/26/18 11:45
Received Date: 07/26/18 16:48
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	4.98		2.00	2.00	mg/L	1		07/27/18 15:52

Batch Information

Analytical Batch: BOD6098
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/27/18 15:52
Container ID: 1183990004-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	83		1.00	1.00	col/100mL	1		07/26/18 18:28

Batch Information

Analytical Batch: BTF16745
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/26/18 18:28
Container ID: 1183990004-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	50		1	1	MPN/100m	1		07/26/18 20:54
Total Coliform	6870		10	10	MPN/100m	10		07/26/18 20:54

Batch Information

Analytical Batch: BTF16748
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/26/18 20:54
Container ID: 1183990004-B

Results of **SW5**

Client Sample ID: **SW5**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990004
Lab Project ID: 1183990

Collection Date: 07/26/18 11:45
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	8.32		0.990	0.307	mg/L	1		07/27/18 17:31

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 17:31
Container ID: 1183990004-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.641	J	1.00	0.310	mg/L	1		07/30/18 09:17

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:17
Container ID: 1183990004-F

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.217		0.100	0.0310	mg/L	1		07/27/18 12:45

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/27/18 12:45
Container ID: 1183990004-F

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500	U	0.100	0.0250	mg/L	2		07/26/18 19:04
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		07/26/18 19:04

Results of **SW5**

Client Sample ID: **SW5**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990004
Lab Project ID: 1183990

Collection Date: 07/26/18 11:45
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/26/18 19:04
Container ID: 1183990004-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0387		0.0200	0.00500	mg/L	1		08/01/18 15:40

Batch Information

Analytical Batch: WDA4357
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 15:40
Container ID: 1183990004-F

Prep Batch: WXX12457
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 11:39
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **DUP1**

Client Sample ID: **DUP1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990005
Lab Project ID: 1183990

Collection Date: 07/26/18 11:45
Received Date: 07/26/18 16:48
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	4.26		2.00	2.00	mg/L	1		07/27/18 15:52

Batch Information

Analytical Batch: BOD6098
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/27/18 15:52
Container ID: 1183990005-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	148		1.00	1.00	col/100mL	1		07/26/18 18:28

Batch Information

Analytical Batch: BTF16745
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/26/18 18:28
Container ID: 1183990005-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	66		1	1	MPN/100m	1		07/26/18 20:54
Total Coliform	8160		10	10	MPN/100m	10		07/26/18 20:54

Batch Information

Analytical Batch: BTF16748
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/26/18 20:54
Container ID: 1183990005-B

Results of **DUP1**

Client Sample ID: **DUP1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990005
Lab Project ID: 1183990

Collection Date: 07/26/18 11:45
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	5.15		0.990	0.307	mg/L	1		07/27/18 17:31

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 17:31
Container ID: 1183990005-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.541 J		1.00	0.310	mg/L	1		07/30/18 09:18

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:18
Container ID: 1183990005-F

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.0728 J		0.100	0.0310	mg/L	1		07/27/18 12:47

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/27/18 12:47
Container ID: 1183990005-F

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		07/26/18 19:06
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		07/26/18 19:06

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J flagging is activated

Results of **DUP1**

Client Sample ID: **DUP1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990005
Lab Project ID: 1183990

Collection Date: 07/26/18 11:45
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/26/18 19:06
Container ID: 1183990005-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0408		0.0200	0.00500	mg/L	1		08/01/18 15:41

Batch Information

Analytical Batch: WDA4357
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 15:41
Container ID: 1183990005-F

Prep Batch: WXX12457
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 11:39
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW10**

Client Sample ID: **SW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990006
Lab Project ID: 1183990

Collection Date: 07/26/18 12:53
Received Date: 07/26/18 16:48
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	3.93		2.00	2.00	mg/L	1		07/27/18 15:52

Batch Information

Analytical Batch: BOD6098
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/27/18 15:52
Container ID: 1183990006-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	58		1.00	1.00	col/100mL	1		07/26/18 18:28

Batch Information

Analytical Batch: BTF16745
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/26/18 18:28
Container ID: 1183990006-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	54		1	1	MPN/100m	1		07/26/18 20:54
Total Coliform	2190		10	10	MPN/100m	10		07/26/18 20:54

Batch Information

Analytical Batch: BTF16748
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/26/18 20:54
Container ID: 1183990006-B

Results of **SW10**

Client Sample ID: **SW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990006
Lab Project ID: 1183990

Collection Date: 07/26/18 12:53
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	5.00		1.00	0.310	mg/L	1		07/27/18 17:31

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 17:31
Container ID: 1183990006-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.697 J		1.00	0.310	mg/L	1		07/30/18 09:19

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:19
Container ID: 1183990006-F

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.0903 J		0.100	0.0310	mg/L	1		07/27/18 12:52

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/27/18 12:52
Container ID: 1183990006-F

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		07/26/18 19:08
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		07/26/18 19:08

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **SW10**

Client Sample ID: **SW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990006
Lab Project ID: 1183990

Collection Date: 07/26/18 12:53
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/26/18 19:08
Container ID: 1183990006-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.102		0.0200	0.00500	mg/L	1		08/01/18 15:42

Batch Information

Analytical Batch: WDA4357
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 15:42
Container ID: 1183990006-F

Prep Batch: WXX12457
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 11:39
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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

Results of **SW9**

Client Sample ID: **SW9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990007
Lab Project ID: 1183990

Collection Date: 07/26/18 13:03
Received Date: 07/26/18 16:48
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	13.3		2.00	2.00	mg/L	1		07/27/18 15:52

Batch Information

Analytical Batch: BOD6098
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/27/18 15:52
Container ID: 1183990007-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	85		1.00	1.00	col/100mL	1		07/26/18 18:28

Batch Information

Analytical Batch: BTF16745
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/26/18 18:28
Container ID: 1183990007-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	80		1	1	MPN/100m	1		07/26/18 20:54
Total Coliform	6130		10	10	MPN/100m	10		07/26/18 20:54

Batch Information

Analytical Batch: BTF16748
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/26/18 20:54
Container ID: 1183990007-B

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **SW9**

Client Sample ID: **SW9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990007
Lab Project ID: 1183990

Collection Date: 07/26/18 13:03
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	3.66		0.990	0.307	mg/L	1		07/27/18 17:31

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 17:31
Container ID: 1183990007-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.450 J		1.00	0.310	mg/L	1		07/30/18 09:21

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:21
Container ID: 1183990007-F

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.0500 U		0.100	0.0310	mg/L	1		07/27/18 12:53

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/27/18 12:53
Container ID: 1183990007-F

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		07/26/18 19:10
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		07/26/18 19:10

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **SW9**

Client Sample ID: **SW9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990007
Lab Project ID: 1183990

Collection Date: 07/26/18 13:03
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/26/18 19:10
Container ID: 1183990007-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0267		0.0200	0.00500	mg/L	1		08/01/18 15:43

Batch Information

Analytical Batch: WDA4357
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 15:43
Container ID: 1183990007-F

Prep Batch: WXX12457
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 11:39
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW8**

Client Sample ID: **SW8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990008
Lab Project ID: 1183990

Collection Date: 07/26/18 13:37
Received Date: 07/26/18 16:48
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		07/27/18 15:52

Batch Information

Analytical Batch: BOD6098
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/27/18 15:52
Container ID: 1183990008-D

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	21		1.00	1.00	col/100mL	1		07/26/18 18:28

Batch Information

Analytical Batch: BTF16745
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/26/18 18:28
Container ID: 1183990008-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	36		1	1	MPN/100m	1		07/26/18 20:54
Total Coliform	>2420		10	10	MPN/100m	10		07/26/18 20:54

Batch Information

Analytical Batch: BTF16748
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/26/18 20:54
Container ID: 1183990008-B

Results of **SW8**

Client Sample ID: **SW8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990008
Lab Project ID: 1183990

Collection Date: 07/26/18 13:37
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	3.25		1.25	0.388	mg/L	1		07/27/18 17:31

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 17:31
Container ID: 1183990008-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.705 J		1.00	0.310	mg/L	1		07/30/18 09:22

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:22
Container ID: 1183990008-F

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.0737 J		0.100	0.0310	mg/L	1		07/27/18 12:55

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/27/18 12:55
Container ID: 1183990008-F

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		07/26/18 19:11
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		07/26/18 19:11

Print Date: 08/14/2018 3:25:49PM

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Results of **SW8**

Client Sample ID: **SW8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990008
Lab Project ID: 1183990

Collection Date: 07/26/18 13:37
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/26/18 19:11
Container ID: 1183990008-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0619		0.0200	0.00500	mg/L	1		08/01/18 15:44

Batch Information

Analytical Batch: WDA4357
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 15:44
Container ID: 1183990008-F

Prep Batch: WXX12457
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 11:39
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **L1A**

Client Sample ID: **L1A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990009
Lab Project ID: 1183990

Collection Date: 07/25/18 13:15
Received Date: 07/26/18 16:48
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	158		2.00	2.00	mg/L	1		07/26/18 20:22

Batch Information

Analytical Batch: BOD6097
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/26/18 20:22
Container ID: 1183990009-B

Results of **L1A**

Client Sample ID: **L1A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990009
Lab Project ID: 1183990

Collection Date: 07/25/18 13:15
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	119		10.0	3.10	mg/L	1		07/27/18 17:31

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 17:31
Container ID: 1183990009-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	11.7		1.00	0.310	mg/L	1		07/30/18 09:23

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:23
Container ID: 1183990009-D

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	2.01		0.100	0.0310	mg/L	1		07/27/18 12:57

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/27/18 12:57
Container ID: 1183990009-D

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	21.1		1.00	0.250	mg/L	20		07/26/18 19:57
Nitrite-N	4.45		1.00	0.250	mg/L	20		07/26/18 19:57

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L1A**

Client Sample ID: **L1A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990009
Lab Project ID: 1183990

Collection Date: 07/25/18 13:15
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/26/18 19:57
Container ID: 1183990009-A

Results of **L1B**

Client Sample ID: **L1B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990010
Lab Project ID: 1183990

Collection Date: 07/25/18 13:00
Received Date: 07/26/18 16:48
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	155		2.00	2.00	mg/L	1		07/26/18 20:22

Batch Information

Analytical Batch: BOD6097
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/26/18 20:22
Container ID: 1183990010-B

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L1B**

Client Sample ID: **L1B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990010
Lab Project ID: 1183990

Collection Date: 07/25/18 13:00
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	117		10.0	3.10	mg/L	1		07/27/18 17:31

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 17:31
Container ID: 1183990010-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	10.4		1.00	0.310	mg/L	1		07/30/18 09:25

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:25
Container ID: 1183990010-D

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	2.09		0.100	0.0310	mg/L	1		07/27/18 12:58

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/27/18 12:58
Container ID: 1183990010-D

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	23.2		1.00	0.250	mg/L	20		07/26/18 19:58
Nitrite-N	4.41		1.00	0.250	mg/L	20		07/26/18 19:58

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L1B**

Client Sample ID: **L1B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990010
Lab Project ID: 1183990

Collection Date: 07/25/18 13:00
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/26/18 19:58
Container ID: 1183990010-A

Results of **L2A**

Client Sample ID: **L2A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990011
Lab Project ID: 1183990

Collection Date: 07/25/18 13:45
Received Date: 07/26/18 16:48
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	136		2.00	2.00	mg/L	1		07/26/18 20:22

Batch Information

Analytical Batch: BOD6097
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/26/18 20:22
Container ID: 1183990011-B

Results of **L2A**

Client Sample ID: **L2A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990011
Lab Project ID: 1183990

Collection Date: 07/25/18 13:45
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	89.0		10.0	3.10	mg/L	1		07/27/18 17:31

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 17:31
Container ID: 1183990011-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	7.25		1.00	0.310	mg/L	1		07/30/18 09:26

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:26
Container ID: 1183990011-D

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.183		0.100	0.0310	mg/L	1		07/27/18 13:00

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/27/18 13:00
Container ID: 1183990011-D

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	26.6		1.00	0.250	mg/L	20		07/26/18 20:00
Nitrite-N	0.568	J	1.00	0.250	mg/L	20		07/26/18 20:00

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L2A**

Client Sample ID: **L2A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990011
Lab Project ID: 1183990

Collection Date: 07/25/18 13:45
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/26/18 20:00
Container ID: 1183990011-A

Results of **L2B**

Client Sample ID: **L2B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990012
Lab Project ID: 1183990

Collection Date: 07/25/18 13:30
Received Date: 07/26/18 16:48
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	92.7		2.00	2.00	mg/L	1		07/26/18 20:22

Batch Information

Analytical Batch: BOD6097
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/26/18 20:22
Container ID: 1183990012-B

Results of **L2B**

Client Sample ID: **L2B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990012
Lab Project ID: 1183990

Collection Date: 07/25/18 13:30
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	93.0		10.0	3.10	mg/L	1		07/27/18 17:31

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 17:31
Container ID: 1183990012-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	6.32		1.00	0.310	mg/L	1		07/30/18 09:27

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:27
Container ID: 1183990012-D

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.134		0.100	0.0310	mg/L	1		07/27/18 13:02

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/27/18 13:02
Container ID: 1183990012-D

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	30.1		1.00	0.250	mg/L	20		07/26/18 20:02
Nitrite-N	0.648	J	1.00	0.250	mg/L	20		07/26/18 20:02

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L2B**

Client Sample ID: **L2B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990012
Lab Project ID: 1183990

Collection Date: 07/25/18 13:30
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/26/18 20:02
Container ID: 1183990012-A

Results of **L3A**

Client Sample ID: **L3A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990013
Lab Project ID: 1183990

Collection Date: 07/25/18 14:15
Received Date: 07/26/18 16:48
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	65.3		2.00	2.00	mg/L	1		07/26/18 20:22

Batch Information

Analytical Batch: BOD6097
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/26/18 20:22
Container ID: 1183990013-B

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L3A**

Client Sample ID: **L3A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990013
Lab Project ID: 1183990

Collection Date: 07/25/18 14:15
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	61.0		10.0	3.10	mg/L	1		07/27/18 17:31

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 17:31
Container ID: 1183990013-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	4.29		1.00	0.310	mg/L	1		07/30/18 09:31

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:31
Container ID: 1183990013-D

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.0915	J	0.100	0.0310	mg/L	1		07/27/18 13:03

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/27/18 13:03
Container ID: 1183990013-D

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	30.5		1.00	0.250	mg/L	20		07/26/18 20:04
Nitrite-N	0.500	U	1.00	0.250	mg/L	20		07/26/18 20:04

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L3A**

Client Sample ID: **L3A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990013
Lab Project ID: 1183990

Collection Date: 07/25/18 14:15
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/26/18 20:04
Container ID: 1183990013-A

Results of **L3B**

Client Sample ID: **L3B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990014
Lab Project ID: 1183990

Collection Date: 07/25/18 14:00
Received Date: 07/26/18 16:48
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	58.6		2.00	2.00	mg/L	1		07/26/18 20:22

Batch Information

Analytical Batch: BOD6097
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/26/18 20:22
Container ID: 1183990014-B

Results of **L3B**

Client Sample ID: **L3B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990014
Lab Project ID: 1183990

Collection Date: 07/25/18 14:00
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	64.0		10.0	3.10	mg/L	1		07/27/18 17:31

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 17:31
Container ID: 1183990014-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	4.47		1.00	0.310	mg/L	1		07/30/18 09:32

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:32
Container ID: 1183990014-D

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.0879	J	0.100	0.0310	mg/L	1		07/27/18 13:05

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/27/18 13:05
Container ID: 1183990014-D

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	32.1		1.00	0.250	mg/L	20		07/26/18 20:05
Nitrite-N	0.500	U	1.00	0.250	mg/L	20		07/26/18 20:05

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L3B**

Client Sample ID: **L3B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990014
Lab Project ID: 1183990

Collection Date: 07/25/18 14:00
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/26/18 20:05
Container ID: 1183990014-A

Results of **L4A**

Client Sample ID: **L4A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990015
Lab Project ID: 1183990

Collection Date: 07/25/18 14:45
Received Date: 07/26/18 16:48
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	39.7		2.00	2.00	mg/L	1		07/26/18 20:22

Batch Information

Analytical Batch: BOD6097
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/26/18 20:22
Container ID: 1183990015-B

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L4A**

Client Sample ID: **L4A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990015
Lab Project ID: 1183990

Collection Date: 07/25/18 14:45
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	31.5		5.00	1.55	mg/L	1		07/27/18 17:31

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 17:31
Container ID: 1183990015-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	4.32		1.00	0.310	mg/L	1		07/30/18 09:34

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:34
Container ID: 1183990015-D

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.153		0.100	0.0310	mg/L	1		07/27/18 13:07

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/27/18 13:07
Container ID: 1183990015-D

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	32.4		1.00	0.250	mg/L	20		07/26/18 20:07
Nitrite-N	0.562	J	1.00	0.250	mg/L	20		07/26/18 20:07

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L4A**

Client Sample ID: **L4A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990015
Lab Project ID: 1183990

Collection Date: 07/25/18 14:45
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/26/18 20:07
Container ID: 1183990015-A

Results of **L4B**

Client Sample ID: **L4B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990016
Lab Project ID: 1183990

Collection Date: 07/25/18 14:30
Received Date: 07/26/18 16:48
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	37.1		2.00	2.00	mg/L	1		07/26/18 20:22

Batch Information

Analytical Batch: BOD6097
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 07/26/18 20:22
Container ID: 1183990016-B

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L4B**

Client Sample ID: **L4B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990016
Lab Project ID: 1183990

Collection Date: 07/25/18 14:30
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	33.0		5.00	1.55	mg/L	1		07/27/18 17:31

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 07/27/18 17:31
Container ID: 1183990016-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	2.42		1.00	0.310	mg/L	1		07/30/18 09:35

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 09:35
Container ID: 1183990016-D

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
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	0.177		0.100	0.0310	mg/L	1		07/27/18 13:11

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/27/18 13:11
Container ID: 1183990016-D

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:45
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	28.2		1.00	0.250	mg/L	20		07/26/18 20:09
Nitrite-N	0.464	J	1.00	0.250	mg/L	20		07/26/18 20:09

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L4B**

Client Sample ID: **L4B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990016
Lab Project ID: 1183990

Collection Date: 07/25/18 14:30
Received Date: 07/26/18 16:48
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/26/18 20:09
Container ID: 1183990016-A

Results of **L1B**

Client Sample ID: **L1B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990017
Lab Project ID: 1183990

Collection Date: 07/25/18 13:00
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):21.0
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	8.07		4.58	1.42	mg/Kg	10		07/30/18 22:26
Barium	175		1.37	0.430	mg/Kg	10		07/30/18 22:26
Cadmium	0.593	J	0.916	0.284	mg/Kg	10		07/30/18 22:26
Chromium	41.2		1.83	0.595	mg/Kg	10		07/30/18 22:26
Copper	406		2.75	0.824	mg/Kg	10		07/30/18 22:26
Lead	16.6		0.916	0.284	mg/Kg	10		07/30/18 22:26
Mercury	4.36		0.183	0.0549	mg/Kg	10		07/30/18 22:26
Phosphorus	5280		91.6	28.4	mg/Kg	10		07/30/18 22:26
Selenium	1.78	J	4.58	1.42	mg/Kg	10		07/30/18 22:26
Silver	6.38		0.916	0.284	mg/Kg	10		07/30/18 22:26
Zinc	555		11.4	3.57	mg/Kg	10		07/30/18 22:26

Batch Information

Analytical Batch: MMS10260
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 07/30/18 22:26
Container ID: 1183990017-A

Prep Batch: MXX31784
Prep Method: SW3050B
Prep Date/Time: 07/30/18 09:55
Prep Initial Wt./Vol.: 1.041 g
Prep Extract Vol: 50 mL

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L1B**

Client Sample ID: **L1B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990017
Lab Project ID: 1183990

Collection Date: 07/25/18 13:00
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):21.0
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Solids	18.9		0.0200	0.0200	%	1		07/30/18 17:19
Volatile Solids	16.4		0.0200	0.0200	%	1		07/30/18 17:19

Batch Information

Analytical Batch: STS5969
Analytical Method: SM21 2540G
Analyst: EWW
Analytical Date/Time: 07/30/18 17:19
Container ID: 1183990017-A

Results of **L1B**

Client Sample ID: **L1B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990017
Lab Project ID: 1183990

Collection Date: 07/25/18 13:00
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):21.0
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	6830		1090	326	mg/Kg	10		07/30/18 10:13

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 10:13
Container ID: 1183990017-A

Prep Batch: WXX12450
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
Prep Initial Wt./Vol.: 1.098 g
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	407		69.7	21.9	mg/Kg	10		07/30/18 16:33

Batch Information

Analytical Batch: WDA4354
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/30/18 16:33
Container ID: 1183990017-A

Prep Batch: WXX12454
Prep Method: METHOD
Prep Date/Time: 07/30/18 11:03
Prep Initial Wt./Vol.: 0.821 g
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	4.69	U	9.38	2.91	mg/Kg	1		07/31/18 01:26
Nitrite-N	3.94	J	9.38	2.91	mg/Kg	1		07/31/18 01:26

Batch Information

Analytical Batch: WIC5803
Analytical Method: SW9056A
Analyst: AYC
Analytical Date/Time: 07/31/18 01:26
Container ID: 1183990017-A

Prep Batch: WXX12453
Prep Method: METHOD
Prep Date/Time: 07/30/18 18:22
Prep Initial Wt./Vol.: 4.0624 g
Prep Extract Vol: 40 mL

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L2A**

Client Sample ID: **L2A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990018
Lab Project ID: 1183990

Collection Date: 07/25/18 13:45
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):5.83
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	15.2	J	17.0	5.26	mg/Kg	10		07/30/18 22:31
Barium	321		5.09	1.59	mg/Kg	10		07/30/18 22:31
Cadmium	1.35	J	3.39	1.05	mg/Kg	10		07/30/18 22:31
Chromium	62.1		6.78	2.20	mg/Kg	10		07/30/18 22:31
Copper	1150		10.2	3.05	mg/Kg	10		07/30/18 22:31
Lead	22.7		3.39	1.05	mg/Kg	10		07/30/18 22:31
Mercury	3.37		0.678	0.204	mg/Kg	10		07/30/18 22:31
Phosphorus	11800		339	105	mg/Kg	10		07/30/18 22:31
Selenium	6.76	J	17.0	5.26	mg/Kg	10		07/30/18 22:31
Silver	9.81		3.39	1.05	mg/Kg	10		07/30/18 22:31
Zinc	1330		42.4	13.2	mg/Kg	10		07/30/18 22:31

Batch Information

Analytical Batch: MMS10260
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 07/30/18 22:31
Container ID: 1183990018-A

Prep Batch: MXX31784
Prep Method: SW3050B
Prep Date/Time: 07/30/18 09:55
Prep Initial Wt./Vol.: 1.012 g
Prep Extract Vol: 50 mL

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L2A**

Client Sample ID: **L2A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990018
Lab Project ID: 1183990

Collection Date: 07/25/18 13:45
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):5.83
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Solids	5.69		0.0200	0.0200	%	1		07/30/18 17:19
Volatile Solids	54.7		0.0200	0.0200	%	1		07/30/18 17:19

Batch Information

Analytical Batch: STS5969
Analytical Method: SM21 2540G
Analyst: EWW
Analytical Date/Time: 07/30/18 17:19
Container ID: 1183990018-A

Results of **L2A**

Client Sample ID: **L2A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990018
Lab Project ID: 1183990

Collection Date: 07/25/18 13:45
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):5.83
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	47000		9910	2970	mg/Kg	25		07/30/18 11:00

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 11:00
Container ID: 1183990018-A

Prep Batch: WXX12450
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
Prep Initial Wt./Vol.: 1.083 g
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	9900		2110	664	mg/Kg	100		07/30/18 17:46

Batch Information

Analytical Batch: WDA4354
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/30/18 17:46
Container ID: 1183990018-A

Prep Batch: WXX12454
Prep Method: METHOD
Prep Date/Time: 07/30/18 11:03
Prep Initial Wt./Vol.: 0.977 g
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	35.7		33.2	10.3	mg/Kg	1		07/31/18 02:22
Nitrite-N	49.8		33.2	10.3	mg/Kg	1		07/31/18 02:22

Batch Information

Analytical Batch: WIC5803
Analytical Method: SW9056A
Analyst: AYC
Analytical Date/Time: 07/31/18 02:22
Container ID: 1183990018-A

Prep Batch: WXX12453
Prep Method: METHOD
Prep Date/Time: 07/30/18 18:22
Prep Initial Wt./Vol.: 4.1392 g
Prep Extract Vol: 40 mL

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L2B**

Client Sample ID: **L2B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990019
Lab Project ID: 1183990

Collection Date: 07/25/18 13:30
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):12.2
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	11.2		7.83	2.43	mg/Kg	10		07/30/18 22:45
Barium	192		2.35	0.736	mg/Kg	10		07/30/18 22:45
Cadmium	0.857	J	1.57	0.485	mg/Kg	10		07/30/18 22:45
Chromium	39.4		3.13	1.02	mg/Kg	10		07/30/18 22:45
Copper	720		4.70	1.41	mg/Kg	10		07/30/18 22:45
Lead	15.3		1.57	0.485	mg/Kg	10		07/30/18 22:45
Mercury	2.26		0.313	0.0940	mg/Kg	10		07/30/18 22:45
Phosphorus	5290		157	48.5	mg/Kg	10		07/30/18 22:45
Selenium	3.19	J	7.83	2.43	mg/Kg	10		07/30/18 22:45
Silver	6.68		1.57	0.485	mg/Kg	10		07/30/18 22:45
Zinc	827		19.6	6.11	mg/Kg	10		07/30/18 22:45

Batch Information

Analytical Batch: MMS10260
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 07/30/18 22:45
Container ID: 1183990019-A

Prep Batch: MXX31784
Prep Method: SW3050B
Prep Date/Time: 07/30/18 09:55
Prep Initial Wt./Vol.: 1.05 g
Prep Extract Vol: 50 mL

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L2B**

Client Sample ID: **L2B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990019
Lab Project ID: 1183990

Collection Date: 07/25/18 13:30
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):12.2
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Solids	6.82		0.0200	0.0200	%	1		07/30/18 17:19
Volatile Solids	50.5		0.0200	0.0200	%	1		07/30/18 17:19

Batch Information

Analytical Batch: STS5969
Analytical Method: SM21 2540G
Analyst: EWW
Analytical Date/Time: 07/30/18 17:19
Container ID: 1183990019-A

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L2B**

Client Sample ID: **L2B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990019
Lab Project ID: 1183990

Collection Date: 07/25/18 13:30
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):12.2
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	29500		5020	1510	mg/Kg	25		07/30/18 11:01

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 11:01
Container ID: 1183990019-A

Prep Batch: WXX12450
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
Prep Initial Wt./Vol.: 1.024 g
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	4170		1320	416	mg/Kg	100		07/30/18 17:48

Batch Information

Analytical Batch: WDA4354
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/30/18 17:48
Container ID: 1183990019-A

Prep Batch: WXX12454
Prep Method: METHOD
Prep Date/Time: 07/30/18 11:03
Prep Initial Wt./Vol.: 0.747 g
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	8.10	U	16.2	5.02	mg/Kg	1		07/31/18 02:41
Nitrite-N	11.4	J	16.2	5.02	mg/Kg	1		07/31/18 02:41

Batch Information

Analytical Batch: WIC5803
Analytical Method: SW9056A
Analyst: AYC
Analytical Date/Time: 07/31/18 02:41
Container ID: 1183990019-A

Prep Batch: WXX12453
Prep Method: METHOD
Prep Date/Time: 07/30/18 18:22
Prep Initial Wt./Vol.: 4.0591 g
Prep Extract Vol: 40 mL

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L3A**

Client Sample ID: **L3A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990020
Lab Project ID: 1183990

Collection Date: 07/25/18 14:15
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):12.3
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	5.69	J	7.50	2.33	mg/Kg	10		07/30/18 22:50
Barium	230		2.25	0.705	mg/Kg	10		07/30/18 22:50
Cadmium	1.32	J	1.50	0.465	mg/Kg	10		07/30/18 22:50
Chromium	37.2		3.00	0.976	mg/Kg	10		07/30/18 22:50
Copper	550		4.50	1.35	mg/Kg	10		07/30/18 22:50
Lead	18.9		1.50	0.465	mg/Kg	10		07/30/18 22:50
Mercury	1.18		0.300	0.0901	mg/Kg	10		07/30/18 22:50
Phosphorus	7350		150	46.5	mg/Kg	10		07/30/18 22:50
Selenium	3.42	J	7.50	2.33	mg/Kg	10		07/30/18 22:50
Silver	19.2		1.50	0.465	mg/Kg	10		07/30/18 22:50
Zinc	616		18.8	5.85	mg/Kg	10		07/30/18 22:50

Batch Information

Analytical Batch: MMS10260
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 07/30/18 22:50
Container ID: 1183990020-A

Prep Batch: MXX31784
Prep Method: SW3050B
Prep Date/Time: 07/30/18 09:55
Prep Initial Wt./Vol.: 1.08 g
Prep Extract Vol: 50 mL

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L3A**

Client Sample ID: **L3A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990020
Lab Project ID: 1183990

Collection Date: 07/25/18 14:15
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):12.3
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Solids	5.68		0.0200	0.0200	%	1		07/30/18 17:19
Volatile Solids	42.1		0.0200	0.0200	%	1		07/30/18 17:19

Batch Information

Analytical Batch: STS5969
Analytical Method: SM21 2540G
Analyst: EWW
Analytical Date/Time: 07/30/18 17:19
Container ID: 1183990020-A

Results of **L3A**

Client Sample ID: **L3A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990020
Lab Project ID: 1183990

Collection Date: 07/25/18 14:15
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):12.3
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	10600		1870	562	mg/Kg	10		07/30/18 10:17

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 10:17
Container ID: 1183990020-A

Prep Batch: WXX12450
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
Prep Initial Wt./Vol.: 1.081 g
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	933		172	54.0	mg/Kg	10		07/30/18 16:38

Batch Information

Analytical Batch: WDA4354
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/30/18 16:38
Container ID: 1183990020-A

Prep Batch: WXX12454
Prep Method: METHOD
Prep Date/Time: 07/30/18 11:03
Prep Initial Wt./Vol.: 0.567 g
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	7.90 U		15.8	4.91	mg/Kg	1		07/31/18 03:00
Nitrite-N	10.7 J		15.8	4.91	mg/Kg	1		07/31/18 03:00

Batch Information

Analytical Batch: WIC5803
Analytical Method: SW9056A
Analyst: AYC
Analytical Date/Time: 07/31/18 03:00
Container ID: 1183990020-A

Prep Batch: WXX12453
Prep Method: METHOD
Prep Date/Time: 07/30/18 18:22
Prep Initial Wt./Vol.: 4.0919 g
Prep Extract Vol: 40 mL

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L3B**

Client Sample ID: **L3B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990021
Lab Project ID: 1183990

Collection Date: 07/25/18 14:00
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):5.82
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	13.6	J	15.9	4.94	mg/Kg	10		07/30/18 22:54
Barium	372		4.78	1.50	mg/Kg	10		07/30/18 22:54
Cadmium	1.54	J	3.19	0.988	mg/Kg	10		07/30/18 22:54
Chromium	76.0		6.37	2.07	mg/Kg	10		07/30/18 22:54
Copper	1410		9.56	2.87	mg/Kg	10		07/30/18 22:54
Lead	24.2		3.19	0.988	mg/Kg	10		07/30/18 22:54
Mercury	1.38		0.637	0.191	mg/Kg	10		07/30/18 22:54
Phosphorus	9380		319	98.8	mg/Kg	10		07/30/18 22:54
Selenium	7.36	J	15.9	4.94	mg/Kg	10		07/30/18 22:54
Silver	8.38		3.19	0.988	mg/Kg	10		07/30/18 22:54
Zinc	1130		39.8	12.4	mg/Kg	10		07/30/18 22:54

Batch Information

Analytical Batch: MMS10260
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 07/30/18 22:54
Container ID: 1183990021-A

Prep Batch: MXX31784
Prep Method: SW3050B
Prep Date/Time: 07/30/18 09:55
Prep Initial Wt./Vol.: 1.079 g
Prep Extract Vol: 50 mL

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L3B**

Client Sample ID: **L3B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990021
Lab Project ID: 1183990

Collection Date: 07/25/18 14:00
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):5.82
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Solids	4.98		0.0200	0.0200	%	1		07/30/18 17:19
Volatile Solids	47.1		0.0200	0.0200	%	1		07/30/18 17:19

Batch Information

Analytical Batch: STS5969
Analytical Method: SM21 2540G
Analyst: EWW
Analytical Date/Time: 07/30/18 17:19
Container ID: 1183990021-A

Results of **L3B**

Client Sample ID: **L3B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990021
Lab Project ID: 1183990

Collection Date: 07/25/18 14:00
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):5.82
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	18500		4030	1210	mg/Kg	10		07/30/18 10:18

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 10:18
Container ID: 1183990021-A

Prep Batch: WXX12450
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
Prep Initial Wt./Vol.: 1.066 g
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	3190		225	70.8	mg/Kg	10		07/30/18 16:40

Batch Information

Analytical Batch: WDA4354
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/30/18 16:40
Container ID: 1183990021-A

Prep Batch: WXX12454
Prep Method: METHOD
Prep Date/Time: 07/30/18 11:03
Prep Initial Wt./Vol.: 0.918 g
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	10.7 J		33.5	10.4	mg/Kg	1		07/31/18 03:19
Nitrite-N	10.9 J		33.5	10.4	mg/Kg	1		07/31/18 03:19

Batch Information

Analytical Batch: WIC5803
Analytical Method: SW9056A
Analyst: AYC
Analytical Date/Time: 07/31/18 03:19
Container ID: 1183990021-A

Prep Batch: WXX12453
Prep Method: METHOD
Prep Date/Time: 07/30/18 18:22
Prep Initial Wt./Vol.: 4.1033 g
Prep Extract Vol: 40 mL

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L4A**

Client Sample ID: **L4A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990022
Lab Project ID: 1183990

Collection Date: 07/25/18 14:45
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):3.70
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	8.51	J	25.3	7.83	mg/Kg	10		07/30/18 22:59
Barium	445		7.58	2.37	mg/Kg	10		07/30/18 22:59
Cadmium	2.52	U	5.05	1.57	mg/Kg	10		07/30/18 22:59
Chromium	80.8		10.1	3.28	mg/Kg	10		07/30/18 22:59
Copper	1750		15.2	4.55	mg/Kg	10		07/30/18 22:59
Lead	28.4		5.05	1.57	mg/Kg	10		07/30/18 22:59
Mercury	1.90		1.01	0.303	mg/Kg	10		07/30/18 22:59
Phosphorus	11900		505	157	mg/Kg	10		07/30/18 22:59
Selenium	8.45	J	25.3	7.83	mg/Kg	10		07/30/18 22:59
Silver	11.7		5.05	1.57	mg/Kg	10		07/30/18 22:59
Zinc	1110		63.1	19.7	mg/Kg	10		07/30/18 22:59

Batch Information

Analytical Batch: MMS10260
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 07/30/18 22:59
Container ID: 1183990022-A

Prep Batch: MXX31784
Prep Method: SW3050B
Prep Date/Time: 07/30/18 09:55
Prep Initial Wt./Vol.: 1.069 g
Prep Extract Vol: 50 mL

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L4A**

Client Sample ID: **L4A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990022
Lab Project ID: 1183990

Collection Date: 07/25/18 14:45
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):3.70
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Solids	3.91		0.0200	0.0200	%	1		07/30/18 17:19
Volatile Solids	53.0		0.0200	0.0200	%	1		07/30/18 17:19

Batch Information

Analytical Batch: STS5969
Analytical Method: SM21 2540G
Analyst: EWW
Analytical Date/Time: 07/30/18 17:19
Container ID: 1183990022-A

Results of **L4A**

Client Sample ID: **L4A**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990022
Lab Project ID: 1183990

Collection Date: 07/25/18 14:45
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):3.70
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	33300		6210	1860	mg/Kg	10		07/30/18 10:19

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 10:19
Container ID: 1183990022-A

Prep Batch: WXX12450
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
Prep Initial Wt./Vol.: 1.086 g
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	6200		374	118	mg/Kg	10		07/30/18 16:42

Batch Information

Analytical Batch: WDA4354
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/30/18 16:42
Container ID: 1183990022-A

Prep Batch: WXX12454
Prep Method: METHOD
Prep Date/Time: 07/30/18 11:03
Prep Initial Wt./Vol.: 0.866 g
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	44.6	J	52.8	16.4	mg/Kg	1		07/31/18 03:38
Nitrite-N	26.4	U	52.8	16.4	mg/Kg	1		07/31/18 03:38

Batch Information

Analytical Batch: WIC5803
Analytical Method: SW9056A
Analyst: AYC
Analytical Date/Time: 07/31/18 03:38
Container ID: 1183990022-A

Prep Batch: WXX12453
Prep Method: METHOD
Prep Date/Time: 07/30/18 18:22
Prep Initial Wt./Vol.: 4.0897 g
Prep Extract Vol: 40 mL

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L4B**

Client Sample ID: **L4B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990023
Lab Project ID: 1183990

Collection Date: 07/25/18 14:30
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):8.37
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	7.69	J	11.2	3.48	mg/Kg	10		07/30/18 23:04
Barium	199		3.37	1.06	mg/Kg	10		07/30/18 23:04
Cadmium	0.789	J	2.25	0.696	mg/Kg	10		07/30/18 23:04
Chromium	35.0		4.49	1.46	mg/Kg	10		07/30/18 23:04
Copper	606		6.74	2.02	mg/Kg	10		07/30/18 23:04
Lead	11.9		2.25	0.696	mg/Kg	10		07/30/18 23:04
Mercury	0.647		0.449	0.135	mg/Kg	10		07/30/18 23:04
Phosphorus	6210		225	69.6	mg/Kg	10		07/30/18 23:04
Selenium	3.80	J	11.2	3.48	mg/Kg	10		07/30/18 23:04
Silver	3.57		2.25	0.696	mg/Kg	10		07/30/18 23:04
Zinc	628		28.1	8.76	mg/Kg	10		07/30/18 23:04

Batch Information

Analytical Batch: MMS10260
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 07/30/18 23:04
Container ID: 1183990023-A

Prep Batch: MXX31784
Prep Method: SW3050B
Prep Date/Time: 07/30/18 09:55
Prep Initial Wt./Vol.: 1.063 g
Prep Extract Vol: 50 mL

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Results of **L4B**

Client Sample ID: **L4B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990023
Lab Project ID: 1183990

Collection Date: 07/25/18 14:30
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):8.37
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Solids	4.43		0.0200	0.0200	%	1		07/30/18 17:19
Volatile Solids	57.0		0.0200	0.0200	%	1		07/30/18 17:19

Batch Information

Analytical Batch: STS5969
Analytical Method: SM21 2540G
Analyst: EWW
Analytical Date/Time: 07/30/18 17:19
Container ID: 1183990023-A

Results of **L4B**

Client Sample ID: **L4B**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1183990023
Lab Project ID: 1183990

Collection Date: 07/25/18 14:30
Received Date: 07/26/18 16:48
Matrix: Soil/Solid (dry weight)
Solids (%):8.37
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	28000		2850	856	mg/Kg	10		07/30/18 10:20

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 07/30/18 10:20
Container ID: 1183990023-A

Prep Batch: WXX12450
Prep Method: METHOD
Prep Date/Time: 07/27/18 11:10
Prep Initial Wt./Vol.: 1.046 g
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	4420		1630	514	mg/Kg	100		07/30/18 17:49

Batch Information

Analytical Batch: WDA4354
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 07/30/18 17:49
Container ID: 1183990023-A

Prep Batch: WXX12454
Prep Method: METHOD
Prep Date/Time: 07/30/18 11:03
Prep Initial Wt./Vol.: 0.879 g
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	44.6		23.1	7.16	mg/Kg	1		07/31/18 03:57
Nitrite-N	15.9	J	23.1	7.16	mg/Kg	1		07/31/18 03:57

Batch Information

Analytical Batch: WIC5803
Analytical Method: SW9056A
Analyst: AYC
Analytical Date/Time: 07/31/18 03:57
Container ID: 1183990023-A

Prep Batch: WXX12453
Prep Method: METHOD
Prep Date/Time: 07/30/18 18:22
Prep Initial Wt./Vol.: 4.1378 g
Prep Extract Vol: 40 mL

Print Date: 08/14/2018 3:25:49PM

J flagging is activated

Method Blank

Blank ID: MB for HBN 1783148 [BOD/6097]
Blank Lab ID: 1462295

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183990009, 1183990010, 1183990011, 1183990012, 1183990013, 1183990014, 1183990015, 1183990016

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: BOD6097
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 7/26/2018 8:22:17PM

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183990 [BOD6097]
Blank Spike Lab ID: 1462296
Date Analyzed: 07/26/2018 20:22

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183990009, 1183990010, 1183990011, 1183990012, 1183990013, 1183990014, 1183990015, 1183990016

Results by **SM21 5210B**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	194	98	(84.6-115.4

Batch Information

Analytical Batch: **BOD6097**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **A.L**

Print Date: 08/14/2018 3:25:57PM

Method Blank

Blank ID: MB for HBN 1783208 [BOD/6098]
Blank Lab ID: 1462592

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008

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: BOD6098
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 7/27/2018 3:52:23PM

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

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183990 [BOD6098]
Blank Spike Lab ID: 1462593
Date Analyzed: 07/27/2018 15:52

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008

Results by **SM21 5210B**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	187	94	(84.6-115.4

Batch Information

Analytical Batch: **BOD6098**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **A.L**

Print Date: 08/14/2018 3:26:00PM

Method Blank

Blank ID: MB for HBN 1783142 [BTF/16745]
Blank Lab ID: 1462285

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF16745
Analytical Method: SM21 9222D
Instrument:
Analyst: K.W
Analytical Date/Time: 7/26/2018 6:28:00PM

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Method Blank

Blank ID: MB for HBN 1783147 [BTF/16748]
Blank Lab ID: 1462293

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008

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: BTF16748
Analytical Method: SM21 9223B
Instrument:
Analyst: K.W
Analytical Date/Time: 7/26/2018 8:54:00PM

Method Blank

Blank ID: MB for HBN 1783236 [MXX/31784]
Blank Lab ID: 1462683

Matrix: Soil/Solid (dry weight)

QC for Samples:
1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SW6020A**

Parameter	Results	LOQ/CL	DL	Units
Arsenic	0.500U	1.00	0.310	mg/Kg
Barium	0.150U	0.300	0.0940	mg/Kg
Cadmium	0.100U	0.200	0.0620	mg/Kg
Chromium	0.200U	0.400	0.130	mg/Kg
Copper	0.300U	0.600	0.180	mg/Kg
Lead	0.100U	0.200	0.0620	mg/Kg
Mercury	0.0200U	0.0400	0.0120	mg/Kg
Selenium	0.500U	1.00	0.310	mg/Kg
Silver	0.100U	0.200	0.0620	mg/Kg
Zinc	1.25U	2.50	0.780	mg/Kg

Batch Information

Analytical Batch: MMS10260
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 7/30/2018 9:25:26PM

Prep Batch: MXX31784
Prep Method: SW3050B
Prep Date/Time: 7/30/2018 9:55:07AM
Prep Initial Wt./Vol.: 1 g
Prep Extract Vol: 50 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1183990 [MXX31784]
Blank Spike Lab ID: 1462684
Date Analyzed: 07/30/2018 21:30

Matrix: Soil/Solid (dry weight)

QC for Samples: 1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SW6020A**

Blank Spike (mg/Kg)

Parameter	Spike	Result	Rec (%)	CL
Arsenic	50	52.4	105	(82-118)
Barium	50	48.5	97	(86-116)
Cadmium	5	5.02	100	(84-116)
Chromium	20	20.4	102	(83-119)
Copper	50	53.1	106	(84-119)
Lead	50	51.4	103	(84-118)
Mercury	0.5	0.532	106	(74-126)
Selenium	50	54.3	109	(80-119)
Silver	5	5.27	105	(83-118)
Zinc	50	53.4	107	(82-119)

Batch Information

Analytical Batch: **MMS10260**
Analytical Method: **SW6020A**
Instrument: **Perkin Elmer Nexlon P5**
Analyst: **DSH**

Prep Batch: **MXX31784**
Prep Method: **SW3050B**
Prep Date/Time: **07/30/2018 09:55**
Spike Init Wt./Vol.: 50 mg/Kg Extract Vol: 50 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1462685
MS Sample ID: 1462688 MS
MSD Sample ID: 1462689 MSD

Analysis Date: 07/30/2018 21:48
Analysis Date: 07/30/2018 21:53
Analysis Date: 07/30/2018 21:58
Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SW6020A**

		Matrix Spike (mg/Kg)			Spike Duplicate (mg/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Arsenic	8.49	48.3	58.3	103	49.0	59.7	105	82-118	2.44	(< 20)
Barium	46.5	48.3	104	119 *	49.0	103	115	86-116	0.97	(< 20)
Cadmium	0.0728J	4.83	4.94	101	4.90	5.05	102	84-116	2.31	(< 20)
Chromium	40.6	19.3	65	126 *	19.6	66.5	132 *	83-119	2.28	(< 20)
Copper	24.9	48.3	72.6	99	49.0	75.6	104	84-119	4.14	(< 20)
Lead	12.3	48.3	58.6	96	49.0	63.7	105	84-118	8.23	(< 20)
Mercury	0.0272J	0.483	.541	107	0.490	0.530	103	74-126	2.12	(< 20)
Selenium	0.495U	48.3	49.5	103	49.0	51.2	104	80-119	3.34	(< 20)
Silver	0.0990U	4.83	4.68	97	4.90	4.81	98	83-118	2.84	(< 20)
Zinc	79.6	48.3	125	95	49.0	131	105	82-119	4.34	(< 20)

Batch Information

Analytical Batch: MMS10260
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 7/30/2018 9:53:38PM

Prep Batch: MXX31784
Prep Method: Soils/Solids Digest for Metals by ICP-MS
Prep Date/Time: 7/30/2018 9:55:07AM
Prep Initial Wt./Vol.: 1.04g
Prep Extract Vol: 50.00mL

Print Date: 08/14/2018 3:26:08PM

Bench Spike Summary

Original Sample ID: 1462685
MS Sample ID: 1462686 BND
MSD Sample ID:

Analysis Date: 07/30/2018 21:48
Analysis Date: 07/30/2018 22:03
Analysis Date:
Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SW6020A**

		Matrix Spike (mg/Kg)			Spike Duplicate (mg/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Barium	46.5	247	297	101				80-120		
Chromium	40.6	124	170	104				80-120		

Batch Information

Analytical Batch: MMS10260
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 7/30/2018 10:03:01PM

Prep Batch: MXX31784
Prep Method: Soils/Solids Digest for Metals by ICP-MS
Prep Date/Time: 7/30/2018 9:55:07AM
Prep Initial Wt./Vol.: 1.01g
Prep Extract Vol: 50.00mL

Print Date: 08/14/2018 3:26:08PM

Method Blank

Blank ID: MB for HBN 1783214 [SPT/10559]
Blank Lab ID: 1462604

Matrix: Soil/Solid (dry weight)

QC for Samples:
1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SM21 2540G**

Parameter	Results	LOQ/CL	DL	Units
Total Solids	100			%

Batch Information

Analytical Batch: SPT10559
Analytical Method: SM21 2540G
Instrument:
Analyst: ZCB
Analytical Date/Time: 7/27/2018 11:41:00PM

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Duplicate Sample Summary

Original Sample ID: 1183990019
Duplicate Sample ID: 1462605

Analysis Date: 07/27/2018 23:41
Matrix: Soil/Solid (dry weight)

QC for Samples:

1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SM21 2540G**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Solids	12.2	6.92	%	54.90*	(< 15)

Batch Information

Analytical Batch: SPT10559
Analytical Method: SM21 2540G
Instrument:
Analyst: ZCB

Print Date: 08/14/2018 3:26:10PM

Duplicate Sample Summary

Original Sample ID: 1184001001
Duplicate Sample ID: 1462606
QC for Samples:
1183990020, 1183990021, 1183990022, 1183990023

Analysis Date: 07/27/2018 23:41
Matrix: Soil/Solid (dry weight)

Results by **SM21 2540G**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Solids	95.6	95.6	%	0.01	(< 15)

Batch Information

Analytical Batch: SPT10559
Analytical Method: SM21 2540G
Instrument:
Analyst: ZCB

Print Date: 08/14/2018 3:26:10PM

Method Blank

Blank ID: MB for HBN 1783187 [STS/5962]
Blank Lab ID: 1462515

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008, 1183990009, 1183990010, 1183990011, 1183990012, 1183990013, 1183990014, 1183990015, 1183990016

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: STS5962
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW
Analytical Date/Time: 7/27/2018 5:31:22PM

Duplicate Sample Summary

Original Sample ID: 1183967001
Duplicate Sample ID: 1462518

Analysis Date: 07/27/2018 17:31
Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008, 1183990009, 1183990010, 1183990011, 1183990012, 1183990013

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	232	238	mg/L	2.60	(< 5)

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 08/14/2018 3:26:13PM

Duplicate Sample Summary

Original Sample ID: 1183990013
Duplicate Sample ID: 1462519

Analysis Date: 07/27/2018 17:31
Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008, 1183990009, 1183990010, 1183990011, 1183990012, 1183990013, 1183990014, 1183990015, 1183990016

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	61.0	62.0	mg/L	1.60	(< 5)

Batch Information

Analytical Batch: STS5962
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 08/14/2018 3:26:13PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183990 [STS5962]
Blank Spike Lab ID: 1462516
Date Analyzed: 07/27/2018 17:31

Spike Duplicate ID: LCSD for HBN 1183990 [STS5962]
Spike Duplicate Lab ID: 1462517
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008, 1183990009, 1183990010, 1183990011, 1183990012, 1183990013, 1183990014, 1183990015, 1183990016

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	24.1	96	25	24.0	96	(75-125)	0.42	(< 5)

Batch Information

Analytical Batch: **STS5962**
Analytical Method: **SM21 2540D**
Instrument:
Analyst: **EWW**

Print Date: 08/14/2018 3:26:14PM

Method Blank

Blank ID: MB for HBN 1783363 [STS/5969]
Blank Lab ID: 1463247

Matrix: Solid/Soil (Wet Weight)

QC for Samples:
1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SM21 2540G**

Parameter	Results	LOQ/CL	DL	Units
Total Solids	100*	0.0200	0.0200	%
Volatile Solids	0.0300*	0.0200	0.0200	%

Batch Information

Analytical Batch: STS5969
Analytical Method: SM21 2540G
Instrument:
Analyst: EWW
Analytical Date/Time: 7/30/2018 5:19:00PM

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Duplicate Sample Summary

Original Sample ID: 1463341
Duplicate Sample ID: 1463248

Analysis Date: 07/30/2018 17:19
Matrix: Soil/Solid (dry weight)

QC for Samples:

1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SM21 2540G**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Solids	5.69	5.66	%	0.53	(< 5)
Volatile Solids	54.7	54.5	%	0.22	(< 5)

Batch Information

Analytical Batch: STS5969
Analytical Method: SM21 2540G
Instrument:
Analyst: EWW

Print Date: 08/14/2018 3:26:18PM

Method Blank

Blank ID: MB for HBN 1783156 (WFI/2728) Matrix: Water (Surface, Eff., Ground)
Blank Lab ID: 1462374

QC for Samples:
1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008, 1183990009, 1183990010, 1183990011, 1183990012, 1183990013, 1183990014, 1183990015, 1183990016

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.0500U	0.100	0.0250	mg/L
Nitrite-N	0.0500U	0.100	0.0250	mg/L
Total Nitrate/Nitrite-N	0.0500U	0.100	0.0250	mg/L

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 7/26/2018 6:54:16PM

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1183990 [WFI2728]
Blank Spike Lab ID: 1462360
Date Analyzed: 07/26/2018 18:52

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008, 1183990009, 1183990010, 1183990011, 1183990012, 1183990013, 1183990014, 1183990015, 1183990016

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.71	108	(70-130)
Nitrite-N	2.5	2.53	101	(90-110)
Total Nitrate/Nitrite-N	5	5.24	105	(90-110)

Batch Information

Analytical Batch: **WFI2728**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **AYC**

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Matrix Spike Summary

Original Sample ID: 1183990008
MS Sample ID: 1462356 MS
MSD Sample ID: 1462357 MSD

Analysis Date: 07/26/2018 19:11
Analysis Date: 07/26/2018 19:13
Analysis Date: 07/26/2018 19:15
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008, 1183990009, 1183990010, 1183990011, 1183990012, 1183990013, 1183990014, 1183990015, 1183990016

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)						
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)		CL	RPD (%)	RPD CL
Nitrate-N	0.0500U	2.50	2.44	98	2.50	2.32	93		70-130	4.90	(< 25)
Nitrite-N	0.0500U	2.50	2.4	96	2.50	2.11	84	*	90-110	12.70	(< 25)

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 7/26/2018 7:13:31PM

Print Date: 08/14/2018 3:26:23PM

Matrix Spike Summary

Original Sample ID: 1183994008
MS Sample ID: 1462358 MS
MSD Sample ID: 1462359 MSD

Analysis Date: 07/26/2018 20:28
Analysis Date: 07/26/2018 20:30
Analysis Date: 07/26/2018 20:32
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183990009, 1183990010, 1183990011, 1183990012, 1183990013, 1183990014, 1183990015, 1183990016

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	0.0500U	2.50	2.48	99	2.50	2.81	113	70-130	12.40	(< 25)

Batch Information

Analytical Batch: WFI2728
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 7/26/2018 8:30:24PM

Print Date: 08/14/2018 3:26:23PM

Method Blank

Blank ID: MB for HBN 1783184 [WXX/12448]
Blank Lab ID: 1462498

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008, 1183990009, 1183990010, 1183990011, 1183990012, 1183990013, 1183990014, 1183990015, 1183990016

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: WDA4352
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/27/2018 12:31:55PM

Prep Batch: WXX12448
Prep Method: METHOD
Prep Date/Time: 7/27/2018 11:45:00AM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183990 [WXX12448]
Blank Spike Lab ID: 1462499
Date Analyzed: 07/27/2018 12:33

Spike Duplicate ID: LCSD for HBN 1183990 [WXX12448]
Spike Duplicate Lab ID: 1462500
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008, 1183990009, 1183990010, 1183990011, 1183990012, 1183990013, 1183990014, 1183990015, 1183990016

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	0.985	99	1	1.05	105	(75-125)	6.20	(< 25)

Batch Information

Analytical Batch: **WDA4352**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12448**
Prep Method: **METHOD**
Prep Date/Time: **07/27/2018 11:45**
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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Matrix Spike Summary

Original Sample ID: 1183990001
MS Sample ID: 1462501 MS
MSD Sample ID: 1462502 MSD

Analysis Date: 07/27/2018 12:36
Analysis Date: 07/27/2018 12:38
Analysis Date: 07/27/2018 12:40
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008, 1183990009, 1183990010, 1183990011, 1183990012, 1183990013, 1183990014, 1183990015, 1183990016

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	0.0768J	1.00	1.01	93	1.00	0.975	90	75-125	3.40	(< 25)

Batch Information

Analytical Batch: WDA4352
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/27/2018 12:38:39PM

Prep Batch: WXX12448
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 7/27/2018 11:45:00AM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 08/14/2018 3:26:28PM

Method Blank

Blank ID: MB for HBN 1783255 [WXX/12450]
Blank Lab ID: 1462784

Matrix: Soil/Solid (dry weight)

QC for Samples:
1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SM21 4500-N D**

Parameter	Results	LOQ/CL	DL	Units
Total Kjeldahl Nitrogen	12.5U	25.0	7.50	mg/Kg

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/30/2018 9:36:55AM

Prep Batch: WXX12450
Prep Method: METHOD
Prep Date/Time: 7/27/2018 11:10:00AM
Prep Initial Wt./Vol.: 1 g
Prep Extract Vol: 25 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1183990 [WXX12450]
Blank Spike Lab ID: 1462785
Date Analyzed: 07/30/2018 09:38

Spike Duplicate ID: LCSD for HBN 1183990 [WXX12450]
Spike Duplicate Lab ID: 1462786
Matrix: Soil/Solid (dry weight)

QC for Samples: 1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SM21 4500-N D**

	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	100	92.2	92	100	88.8	89	(75-125)	3.80	(< 25)

Batch Information

Analytical Batch: **WDA4353**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12450**
Prep Method: **METHOD**
Prep Date/Time: **07/27/2018 11:10**
Spike Init Wt./Vol.: 100 mg/Kg Extract Vol: 25 mL
Dupe Init Wt./Vol.: 100 mg/Kg Extract Vol: 25 mL

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Matrix Spike Summary

Original Sample ID: 1183990023
MS Sample ID: 1462787 MS
MSD Sample ID: 1462788 MSD

Analysis Date: 07/30/2018 10:20
Analysis Date: 07/30/2018 10:21
Analysis Date: 07/30/2018 10:23
Matrix: Soil/Solid (dry weight)

QC for Samples: 1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SM21 4500-N D**

		Matrix Spike (mg/Kg)				Spike Duplicate (mg/Kg)					
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)		CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	28000	1164	28095	13	*	1151	25119	-247	*	75-125	11.30	(< 25)

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/30/2018 10:21:58AM

Prep Batch: WXX12450
Prep Method: Distillation TKN by Phenate (S)
Prep Date/Time: 7/27/2018 11:10:00AM
Prep Initial Wt./Vol.: 1.02g
Prep Extract Vol: 25.00mL

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Method Blank

Blank ID: MB for HBN 1783257 [WXX/12451]
Blank Lab ID: 1462797

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008, 1183990009, 1183990010, 1183990011, 1183990012, 1183990013, 1183990014, 1183990015, 1183990016

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: WDA4353
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/30/2018 9:00:16AM

Prep Batch: WXX12451
Prep Method: METHOD
Prep Date/Time: 7/27/2018 11:10:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1183990 [WXX12451]
Blank Spike Lab ID: 1462798
Date Analyzed: 07/30/2018 09:01

Spike Duplicate ID: LCSD for HBN 1183990 [WXX12451]
Spike Duplicate Lab ID: 1462799
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008, 1183990009, 1183990010, 1183990011, 1183990012, 1183990013, 1183990014, 1183990015, 1183990016

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	3.63	91	4	3.51	88	(75-125)	3.20	(< 25)

Batch Information

Analytical Batch: **WDA4353**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12451**
Prep Method: **METHOD**
Prep Date/Time: **07/27/2018 11:10**
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: 1183948001
MS Sample ID: 1462800 MS
MSD Sample ID: 1462801 MSD

Analysis Date: 07/30/2018 9:04
Analysis Date: 07/30/2018 9:05
Analysis Date: 07/30/2018 9:06
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008, 1183990009, 1183990010, 1183990011, 1183990012, 1183990013, 1183990014, 1183990015, 1183990016

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	0.663J	4.00	4.41	94	4.00	4.43	94	75-125	0.27	(< 25)

Batch Information

Analytical Batch: WDA4353
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/30/2018 9:05:31AM

Prep Batch: WXX12451
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 7/27/2018 11:10:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 08/14/2018 3:26:37PM

Method Blank

Blank ID: MB for HBN 1783321 [WXX/12453]
Blank Lab ID: 1463062

Matrix: Soil/Solid (dry weight)

QC for Samples:
1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SW9056A**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	1.00U	2.00	0.620	mg/Kg
Nitrite-N	1.00U	2.00	0.620	mg/Kg

Batch Information

Analytical Batch: WIC5803
Analytical Method: SW9056A
Instrument: 930 Metrohm compact IC flex
Analyst: AYC
Analytical Date/Time: 7/31/2018 12:10:13AM

Prep Batch: WXX12453
Prep Method: METHOD
Prep Date/Time: 7/30/2018 6:22:00PM
Prep Initial Wt./Vol.: 4 g
Prep Extract Vol: 40 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1183990 [WXX12453]
Blank Spike Lab ID: 1463063
Date Analyzed: 07/31/2018 00:29

Matrix: Soil/Solid (dry weight)

QC for Samples: 1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SW9056A**

Blank Spike (mg/Kg)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	50	49.5	99	(87-111)
Nitrite-N	50	49.1	98	(86-115)

Batch Information

Analytical Batch: **WIC5803**
Analytical Method: **SW9056A**
Instrument: **930 Metrohm compact IC flex**
Analyst: **AYC**

Prep Batch: **WXX12453**
Prep Method: **METHOD**
Prep Date/Time: **07/30/2018 18:22**
Spike Init Wt./Vol.: 50 mg/Kg Extract Vol: 40 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1183990017
MS Sample ID: 1463064 MS
MSD Sample ID: 1463065 MSD

Analysis Date: 07/31/2018 1:26
Analysis Date: 07/31/2018 1:45
Analysis Date: 07/31/2018 2:04
Matrix: Soil/Solid (dry weight)

QC for Samples: 1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SW9056A**

		Matrix Spike (mg/Kg)			Spike Duplicate (mg/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	4.69U	232	230	99	232	231	99	87-111	0.45	(< 15)
Nitrite-N	3.94J	232	231	98	232	232	98	86-115	0.19	(< 15)

Batch Information

Analytical Batch: WIC5803
Analytical Method: SW9056A
Instrument: 930 Metrohm compact IC flex
Analyst: AYC
Analytical Date/Time: 7/31/2018 1:45:06AM

Prep Batch: WXX12453
Prep Method: SW9056 Extraction Soil/Solids
Prep Date/Time: 7/30/2018 6:22:00PM
Prep Initial Wt./Vol.: 4.10g
Prep Extract Vol: 40.00mL

Print Date: 08/14/2018 3:26:41PM

Method Blank

Blank ID: MB for HBN 1783345 [WXX/12454]
Blank Lab ID: 1463156

Matrix: Soil/Solid (dry weight)

QC for Samples:
1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SM21 4500-NH3 G**

Parameter	Results	LOQ/CL	DL	Units
Ammonia-N	0.600U	1.20	0.378	mg/Kg

Batch Information

Analytical Batch: WDA4354
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/30/2018 4:28:42PM

Prep Batch: WXX12454
Prep Method: METHOD
Prep Date/Time: 7/30/2018 11:03:00AM
Prep Initial Wt./Vol.: 1 g
Prep Extract Vol: 6 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1183990 [WXX12454]
Blank Spike Lab ID: 1463157
Date Analyzed: 07/30/2018 16:30

Spike Duplicate ID: LCSD for HBN 1183990 [WXX12454]
Spike Duplicate Lab ID: 1463158
Matrix: Soil/Solid (dry weight)

QC for Samples: 1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SM21 4500-NH3 G**

	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	6	7.01	117	6	6.64	111	(75-125)	5.50	(< 25)

Batch Information

Analytical Batch: **WDA4354**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12454**
Prep Method: **METHOD**
Prep Date/Time: **07/30/2018 11:03**
Spike Init Wt./Vol.: 6 mg/Kg Extract Vol: 6 mL
Dupe Init Wt./Vol.: 6 mg/Kg Extract Vol: 6 mL

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Matrix Spike Summary

Original Sample ID: 1183990023
MS Sample ID: 1463159 MS
MSD Sample ID: 1463160 MSD

Analysis Date: 07/30/2018 17:49
Analysis Date: 07/30/2018 16:48
Analysis Date: 07/30/2018 17:51
Matrix: Soil/Solid (dry weight)

QC for Samples: 1183990017, 1183990018, 1183990019, 1183990020, 1183990021, 1183990022, 1183990023

Results by **SM21 4500-NH3 G**

		Matrix Spike (mg/Kg)				Spike Duplicate (mg/Kg)					
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)		CL	RPD (%)	RPD CL
Ammonia-N	4420	665	3250	-175	*	686	4500	14	*	75-125	32.50	* (< 25)

Batch Information

Analytical Batch: WDA4354
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 7/30/2018 4:48:47PM

Prep Batch: WXX12454
Prep Method: Ammonia by SM20 4500F prep (S)
Prep Date/Time: 7/30/2018 11:03:00AM
Prep Initial Wt./Vol.: 0.90g
Prep Extract Vol: 6.00mL

Print Date: 08/14/2018 3:26:46PM

Method Blank

Blank ID: MB for HBN 1783471 [WXX/12457]
Blank Lab ID: 1463702

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008

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: WDA4357
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 8/1/2018 3:28:16PM

Prep Batch: WXX12457
Prep Method: SM21 4500P-B,E
Prep Date/Time: 8/1/2018 11:39:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1183990 [WXX12457]
Blank Spike Lab ID: 1463703
Date Analyzed: 08/01/2018 15:29

Spike Duplicate ID: LCSD for HBN 1183990 [WXX12457]
Spike Duplicate Lab ID: 1463704
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008

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	0.190	95	0.2	0.187	93	(75-125)	1.60	(< 25)

Batch Information

Analytical Batch: **WDA4357**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12457**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **08/01/2018 11:39**
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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Matrix Spike Summary

Original Sample ID: 1183948002
MS Sample ID: 1463705 MS
MSD Sample ID: 1463706 MSD

Analysis Date: 08/01/2018 15:32
Analysis Date: 08/01/2018 15:33
Analysis Date: 08/01/2018 15:34
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1183990001, 1183990002, 1183990003, 1183990004, 1183990005, 1183990006, 1183990007, 1183990008

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	0.0495	0.200	.236	93	0.200	0.241	96	75-125	2.20	(< 25)

Batch Information

Analytical Batch: WDA4357
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 8/1/2018 3:33:07PM

Prep Batch: WXX12457
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 8/1/2018 11:39:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 08/14/2018 3:26:51PM

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CHAIN OF CUSTODY RECORD

ALT

1183990

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

Section 1

CLIENT:

CONTACT: PHONE NO:

PROJECT NAME: PROJECT/ PWSID/ PERMIT#:

REPORTS TO: E-MAIL:

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

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	Section 3 # CONTAINERS	Type C = COMP G = GRAB MI = Multi Incremental Soils	Preservative: $Na_2S_2O_3$	$Na_2S_2O_3$	—	—	—	H_2SO_4				REMARKS/ LOC ID
							FC	TC (Quanti-Tray) w/ IDEXX	Nitrate/Nitrite	BOD	TSS	Ammonia/TKN/TP				
(1) A-F	SW 7	7/26/18	1025		6	G	1	1	1	1	1	1				
(2) A-F	SW 6		1053				1	1	1	1	1	1				
(3) A-F	SW 4		1114				1	1	1	1	1	1				
(4) A-F	SW5		1145				1	1	1	1	1	1				
(5) A-F	Dup1		1145				1	1	1	1	1	1				
(6) A-F	SW10		1253				1	1	1	1	1	1				
(7) A-F	SW9		1303				1	1	1	1	1	1				
(8) A-F	SW8		1337				1	1	1	1	1	1				

Section 5

	Date	Time	
Relinquished By: (1)	7/25	1647	Received By:
Relinquished By: (2)			Received By:
Relinquished By: (3)			Received By:
Relinquished By: (4)	7/26/18	16:48	Received For Laboratory By: aCtabo

Section 4

DOD Project? Yes No

Cooler ID: _____

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 3.1 D35; 5.1 D35 4.8 D36; 5.7 D26 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

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CHAIN OF CUSTODY RECORD

1183990

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

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. #: 2047700415

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	Section 3 # CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	Preservative: 1	1	1	H_2SO_4						REMARKS/ LOC ID
							Nitrate/Nitrite	BOD	TSS	Ammonia/TKN						
(9) A-D	L1A	7/25/18	1315		4	G	1	1	1	1						
(10) A-D	L1B		1300				1	1	1	1						
(11) A-D	L2A		1345				1	1	1	1						
(12) A-D	L2B		1330				1	1	1	1						
(13) A-D	L3A		1415				1	1	1	1						
(14) A-D	L3B		1400				1	1	1	1						
(15) A-D	L4A		1445				1	1	1	1						
(16) A-D	L4B		1430				1	1	1	1						

Section 5

	Date	Time	Received By:
Relinquished By: (1)	7/26/18	1647	
Relinquished By: (2)			
Relinquished By: (3)			
Relinquished By: (4)	7/26/18	16:48	Received For Laboratory By:

Section 4

DOD Project? Yes No

Data Deliverable Requirements:

Cooler ID:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 3.1035; 5.1035 4.8036; 5.7026 or Ambient [ ]

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

(See attached Sample Receipt Form)

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CHAIN OF CUSTODY RECORD

1183990

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

Section 1

CLIENT: Stantec

CONTACT: PHONE #:

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

REPORTS TO: E-MAIL:

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

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Pres: Type: Comp Grab MI (Multi-incremental)	5210 - BOD	2540 - TSS	9222 - Fecal Coliform	9223 - Total Coliform Quantitray (1x, 10x)	4500 - TKN, Ammonia, T-Phos	4500 - Nitrate/Nitrite	Volatile Solids	Nitrate/Nitrite	Ammonia/TP/TKN	RCRA 8 Cd/Zn	REMARKS/LOC ID
(17) A	L1B	7/25/18	1300	soil	1								1	1	1	1	
(18) A	L2A		1345		1								1	1	1	1	
(19) A	L2B		1330		1								1	1	1	1	
(20) A	L3A		1415		1								1	1	1	1	
(21) A	L3B		1400		1								1	1	1	1	
(22) A	L4A		1445		1								1	1	1	1	
(23) A	L4B		1430		1								1	1	1	1	

Section 5

	Date	Time	
Relinquished By: (1)	7/25	1647	Received By:
Relinquished By: (2)			Received By:
Relinquished By: (3)			Received By:
Relinquished By: (4)	7/26/18	16:48	Received For Laboratory By: ACTabor

Section 4

DOD Project? Yes No

Data Deliverable Requirements:

Cooler ID: _____

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 3.1 D35; 5.1 D35 4.8 D36; 5.7 D26 or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Delivery Method: Hand Delivery[ ] Commerical Delivery [ ]

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e-Sample Receipt Form

SGS Workorder #: **1183990**

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	n/a	
COC accompanied samples?	yes	
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 @ 3.1 °C Therm. ID: D35
	yes	Cooler ID: 2 @ 5.1 °C Therm. ID: D35
	yes	Cooler ID: 3 @ 4.8 °C Therm. ID: D36
	yes	Cooler ID: 4 @ 5.7 °C Therm. ID: D26
	n/a	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	
If samples received without 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.		
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	**Fecal coliform, BOD, Nitrate/Nitrite short holds**
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	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)	yes	
	n/a	***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
1183990001-A	Na2S2O3 for Chlorine Redu	OK
1183990001-B	Na2S2O3 for Chlorine Redu	OK
1183990001-C	No Preservative Required	OK
1183990001-D	No Preservative Required	OK
1183990001-E	No Preservative Required	OK
1183990001-F	H2SO4 to pH < 2	OK
1183990002-A	Na2S2O3 for Chlorine Redu	OK
1183990002-B	Na2S2O3 for Chlorine Redu	OK
1183990002-C	No Preservative Required	OK
1183990002-D	No Preservative Required	OK
1183990002-E	No Preservative Required	OK
1183990002-F	H2SO4 to pH < 2	OK
1183990003-A	Na2S2O3 for Chlorine Redu	OK
1183990003-B	Na2S2O3 for Chlorine Redu	OK
1183990003-C	No Preservative Required	OK
1183990003-D	No Preservative Required	OK
1183990003-E	No Preservative Required	OK
1183990003-F	H2SO4 to pH < 2	OK
1183990004-A	Na2S2O3 for Chlorine Redu	OK
1183990004-B	Na2S2O3 for Chlorine Redu	OK
1183990004-C	No Preservative Required	OK
1183990004-D	No Preservative Required	OK
1183990004-E	No Preservative Required	OK
1183990004-F	H2SO4 to pH < 2	OK
1183990005-A	Na2S2O3 for Chlorine Redu	OK
1183990005-B	Na2S2O3 for Chlorine Redu	OK
1183990005-C	No Preservative Required	OK
1183990005-D	No Preservative Required	OK
1183990005-E	No Preservative Required	OK
1183990005-F	H2SO4 to pH < 2	OK
1183990006-A	Na2S2O3 for Chlorine Redu	OK
1183990006-B	Na2S2O3 for Chlorine Redu	OK
1183990006-C	No Preservative Required	OK
1183990006-D	No Preservative Required	OK
1183990006-E	No Preservative Required	OK
1183990006-F	H2SO4 to pH < 2	OK
1183990007-A	Na2S2O3 for Chlorine Redu	OK
1183990007-B	Na2S2O3 for Chlorine Redu	OK
1183990007-C	No Preservative Required	OK
1183990007-D	No Preservative Required	OK
1183990007-E	No Preservative Required	OK
1183990007-F	H2SO4 to pH < 2	OK
1183990008-A	Na2S2O3 for Chlorine Redu	OK
1183990008-B	Na2S2O3 for Chlorine Redu	OK
1183990008-C	No Preservative Required	OK
1183990008-D	No Preservative Required	OK
1183990008-E	No Preservative Required	OK
1183990008-F	H2SO4 to pH < 2	OK
1183990009-A	No Preservative Required	OK
1183990009-B	No Preservative Required	OK
1183990009-C	No Preservative Required	OK
1183990009-D	H2SO4 to pH < 2	OK
1183990010-A	No Preservative Required	OK
1183990010-B	No Preservative Required	OK
1183990010-C	No Preservative Required	OK
1183990010-D	H2SO4 to pH < 2	OK
1183990011-A	No Preservative Required	OK
1183990011-B	No Preservative Required	OK
1183990011-C	No Preservative Required	OK
1183990011-D	H2SO4 to pH < 2	OK
1183990012-A	No Preservative Required	OK
1183990012-B	No Preservative Required	OK
1183990012-C	No Preservative Required	OK
1183990012-D	H2SO4 to pH < 2	OK
1183990013-A	No Preservative Required	OK
1183990013-B	No Preservative Required	OK
1183990013-C	No Preservative Required	OK
1183990013-D	H2SO4 to pH < 2	OK
1183990014-A	No Preservative Required	OK
1183990014-B	No Preservative Required	OK
1183990014-C	No Preservative Required	OK
1183990014-D	H2SO4 to pH < 2	OK
1183990015-A	No Preservative Required	OK
1183990015-B	No Preservative Required	OK
1183990015-C	No Preservative Required	OK
1183990015-D	H2SO4 to pH < 2	OK
1183990016-A	No Preservative Required	OK
1183990016-B	No Preservative Required	OK
1183990016-C	No Preservative Required	OK
1183990016-D	H2SO4 to pH < 2	OK
1183990017-A	No Preservative Required	OK
1183990018-A	No Preservative Required	OK
1183990019-A	No Preservative Required	OK
1183990020-A	No Preservative Required	OK
1183990021-A	No Preservative Required	OK
1183990022-A	No Preservative Required	OK
1183990023-A	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.
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: **1184094**

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

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**
SGS Project: **1184094**
Project Name/Site: **Wasilla WWTP**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

MB for HBN 1783476 [BOD/6102] (1463718) MB

5210B – BOD - MB (0.32 mg/L) is greater than the recommended limit of 0.2 mg/L. Samples >10X the MB are not significantly affected. Samples <10X the MB results may be biased high.

*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. 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 (Provisionally Certified as of 06/11/2018 for Mercury by EPA245.1,Beryllium and Copper by EPA200.8) & 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.

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Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
SW11	1184094001	07/31/2018	07/31/2018	Water (Surface, Eff., Ground)
SW12	1184094002	07/31/2018	07/31/2018	Water (Surface, Eff., Ground)
SW13	1184094003	07/31/2018	07/31/2018	Water (Surface, Eff., Ground)
SW14	1184094004	07/31/2018	07/31/2018	Water (Surface, Eff., Ground)
SW15	1184094005	07/31/2018	07/31/2018	Water (Surface, Eff., Ground)
SW16	1184094006	07/31/2018	07/31/2018	Water (Surface, Eff., Ground)
SW17	1184094007	07/31/2018	07/31/2018	Water (Surface, Eff., Ground)
SW18	1184094008	07/31/2018	07/31/2018	Water (Surface, Eff., Ground)
DUP2	1184094009	07/31/2018	07/31/2018	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)
SM21 4500NO3-F	Flow Injection 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: **SW11**
Lab Sample ID: 1184094001

	Parameter	Result	Units
Microbiology Laboratory	Total Coliform	579	MPN/100mL
Waters Department	Total Kjeldahl Nitrogen	0.312J	mg/L
	Total Phosphorus	0.315	mg/L
	Total Suspended Solids	6.27	mg/L

Client Sample ID: **SW12**
Lab Sample ID: 1184094002

	Parameter	Result	Units
Microbiology Laboratory	E. Coli	488	MPN/100mL
	Fecal Coliform	270	col/100mL
	Total Coliform	GT2420	MPN/100mL
Waters Department	Ammonia-N	0.0534J	mg/L
	Total Kjeldahl Nitrogen	0.987J	mg/L
	Total Phosphorus	0.248	mg/L
	Total Suspended Solids	10.9	mg/L

Client Sample ID: **SW13**
Lab Sample ID: 1184094003

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	11.6	mg/L
	E. Coli	29	MPN/100mL
	Fecal Coliform	93	col/100mL
	Total Coliform	GT2420	MPN/100mL
Waters Department	Total Kjeldahl Nitrogen	0.620J	mg/L
	Total Phosphorus	0.0249	mg/L
	Total Suspended Solids	2.97	mg/L

Client Sample ID: **SW14**
Lab Sample ID: 1184094004

	Parameter	Result	Units
Microbiology Laboratory	E. Coli	4	MPN/100mL
	Fecal Coliform	4.0	col/100mL
	Total Coliform	921	MPN/100mL
Waters Department	Nitrate-N	0.0308J	mg/L
	Total Phosphorus	0.0794	mg/L
	Total Suspended Solids	4.71	mg/L

Client Sample ID: **SW15**
Lab Sample ID: 1184094005

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	2.07	mg/L
	E. Coli	28	MPN/100mL
	Fecal Coliform	36	col/100mL
	Total Coliform	9800	MPN/100mL
Waters Department	Total Kjeldahl Nitrogen	0.367J	mg/L
	Total Phosphorus	0.0729	mg/L
	Total Suspended Solids	3.90	mg/L

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Detectable Results Summary

Client Sample ID: **SW16**
Lab Sample ID: 1184094006

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	2.81	mg/L
	E. Coli	1300	MPN/100mL
	Fecal Coliform	800	col/100mL
	Total Coliform	GT2420	MPN/100mL
Waters Department	Ammonia-N	0.0409J	mg/L
	Total Kjeldahl Nitrogen	0.796J	mg/L
	Total Phosphorus	0.0735	mg/L
	Total Suspended Solids	24.8	mg/L

Client Sample ID: **SW17**
Lab Sample ID: 1184094007

	Parameter	Result	Units
Microbiology Laboratory	E. Coli	82	MPN/100mL
	Fecal Coliform	55	col/100mL
	Total Coliform	1046	MPN/100mL
Waters Department	Ammonia-N	0.112	mg/L
	Nitrate-N	1.48	mg/L
	Total Kjeldahl Nitrogen	0.415J	mg/L
	Total Phosphorus	0.245	mg/L
	Total Suspended Solids	5.00	mg/L

Client Sample ID: **SW18**
Lab Sample ID: 1184094008

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	3.75	mg/L
	E. Coli	29	MPN/100mL
	Fecal Coliform	29	col/100mL
	Total Coliform	2420	MPN/100mL
Waters Department	Ammonia-N	0.289	mg/L
	Nitrate-N	6.08	mg/L
	Nitrite-N	0.0860J	mg/L
	Total Kjeldahl Nitrogen	0.893J	mg/L
	Total Phosphorus	0.760	mg/L
	Total Suspended Solids	8.54	mg/L

Client Sample ID: **DUP2**
Lab Sample ID: 1184094009

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	3.99	mg/L
	E. Coli	24	MPN/100mL
	Fecal Coliform	37	col/100mL
	Total Coliform	1330	MPN/100mL
Waters Department	Ammonia-N	0.276	mg/L
	Nitrate-N	6.89	mg/L
	Nitrite-N	0.100	mg/L
	Total Kjeldahl Nitrogen	0.964J	mg/L
	Total Phosphorus	0.769	mg/L
	Total Suspended Solids	8.61	mg/L

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Results of **SW11**

Client Sample ID: **SW11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094001
Lab Project ID: 1184094

Collection Date: 07/31/18 11:26
Received Date: 07/31/18 16:04
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		08/01/18 16:47

Batch Information

Analytical Batch: BOD6102
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/18 16:47
Container ID: 1184094001-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.00 U		1.00	1.00	col/100mL	1		07/31/18 17:26

Batch Information

Analytical Batch: BTF16757
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/31/18 17:26
Container ID: 1184094001-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1 U		1	1	MPN/100m	1		07/31/18 17:49
Total Coliform	579		1	1	MPN/100m	1		07/31/18 17:49

Batch Information

Analytical Batch: BTF16760
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/31/18 17:49
Container ID: 1184094001-D

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Results of **SW11**

Client Sample ID: **SW11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094001
Lab Project ID: 1184094

Collection Date: 07/31/18 11:26
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	6.27		0.980	0.304	mg/L	1		08/02/18 16:06

Batch Information

Analytical Batch: STS5972
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 08/02/18 16:06
Container ID: 1184094001-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.312	J	1.00	0.310	mg/L	1		08/07/18 11:48

Batch Information

Analytical Batch: WDA4361
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/07/18 11:48
Container ID: 1184094001-E

Prep Batch: WXX12462
Prep Method: METHOD
Prep Date/Time: 08/06/18 10:50
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	0.0500	U	0.100	0.0310	mg/L	1		08/02/18 12:05

Batch Information

Analytical Batch: WDA4359
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 08/02/18 12:05
Container ID: 1184094001-E

Prep Batch: WXX12460
Prep Method: METHOD
Prep Date/Time: 08/02/18 11:10
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500	U	0.100	0.0250	mg/L	2		07/31/18 17:40
Nitrite-N	0.0500	U	0.100	0.0250	mg/L	2		07/31/18 17:40

Print Date: 08/08/2018 8:44:53AM

J flagging is activated

Results of **SW11**

Client Sample ID: **SW11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094001
Lab Project ID: 1184094

Collection Date: 07/31/18 11:26
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2730
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/31/18 17:40
Container ID: 1184094001-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.315		0.200	0.0500	mg/L	1		08/01/18 17:45

Batch Information

Analytical Batch: WDA4358
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 17:45
Container ID: 1184094001-E

Prep Batch: WXX12458
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 12:31
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL

Results of **SW12**

Client Sample ID: **SW12**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094002
Lab Project ID: 1184094

Collection Date: 07/31/18 11:08
Received Date: 07/31/18 16:04
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		08/01/18 16:47

Batch Information

Analytical Batch: BOD6102
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/18 16:47
Container ID: 1184094002-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	270		10.0	10.0	col/100mL	1		07/31/18 17:26

Batch Information

Analytical Batch: BTF16757
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/31/18 17:26
Container ID: 1184094002-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	488		1	1	MPN/100m	1		07/31/18 17:49
Total Coliform	>2420		10	10	MPN/100m	10		07/31/18 17:49

Batch Information

Analytical Batch: BTF16760
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/31/18 17:49
Container ID: 1184094002-D

Results of **SW12**

Client Sample ID: **SW12**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094002
Lab Project ID: 1184094

Collection Date: 07/31/18 11:08
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	10.9		1.43	0.443	mg/L	1		08/02/18 16:06

Batch Information

Analytical Batch: STS5972
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 08/02/18 16:06
Container ID: 1184094002-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.987 J		1.00	0.310	mg/L	1		08/07/18 11:50

Batch Information

Analytical Batch: WDA4361
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/07/18 11:50
Container ID: 1184094002-E

Prep Batch: WXX12462
Prep Method: METHOD
Prep Date/Time: 08/06/18 10:50
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	0.0534 J		0.100	0.0310	mg/L	1		08/02/18 12:10

Batch Information

Analytical Batch: WDA4359
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 08/02/18 12:10
Container ID: 1184094002-E

Prep Batch: WXX12460
Prep Method: METHOD
Prep Date/Time: 08/02/18 11:10
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		07/31/18 17:42
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		07/31/18 17:42

Print Date: 08/08/2018 8:44:53AM

J flagging is activated

Results of **SW12**

Client Sample ID: **SW12**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094002
Lab Project ID: 1184094

Collection Date: 07/31/18 11:08
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2730
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/31/18 17:42
Container ID: 1184094002-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.248		0.0200	0.00500	mg/L	1		08/01/18 17:28

Batch Information

Analytical Batch: WDA4358
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 17:28
Container ID: 1184094002-E

Prep Batch: WXX12458
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 12:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW13**

Client Sample ID: **SW13**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094003
Lab Project ID: 1184094

Collection Date: 07/31/18 10:40
Received Date: 07/31/18 16:04
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	11.6		2.00	2.00	mg/L	1		08/01/18 16:47

Batch Information

Analytical Batch: BOD6102
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/18 16:47
Container ID: 1184094003-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	93		1.00	1.00	col/100mL	1		07/31/18 17:26

Batch Information

Analytical Batch: BTF16757
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/31/18 17:26
Container ID: 1184094003-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	29		1	1	MPN/100m	1		07/31/18 17:49
Total Coliform	>2420		10	10	MPN/100m	10		07/31/18 17:49

Batch Information

Analytical Batch: BTF16760
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/31/18 17:49
Container ID: 1184094003-D

Print Date: 08/08/2018 8:44:53AM

J flagging is activated

Results of **SW13**

Client Sample ID: **SW13**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094003
Lab Project ID: 1184094

Collection Date: 07/31/18 10:40
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	2.97		0.990	0.307	mg/L	1		08/02/18 16:06

Batch Information

Analytical Batch: STS5972
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 08/02/18 16:06
Container ID: 1184094003-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.620 J		1.00	0.310	mg/L	1		08/07/18 11:51

Batch Information

Analytical Batch: WDA4361
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/07/18 11:51
Container ID: 1184094003-E

Prep Batch: WXX12462
Prep Method: METHOD
Prep Date/Time: 08/06/18 10:50
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	0.0500 U		0.100	0.0310	mg/L	1		08/02/18 12:12

Batch Information

Analytical Batch: WDA4359
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 08/02/18 12:12
Container ID: 1184094003-E

Prep Batch: WXX12460
Prep Method: METHOD
Prep Date/Time: 08/02/18 11:10
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		07/31/18 17:44
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		07/31/18 17:44

Print Date: 08/08/2018 8:44:53AM

J flagging is activated

Results of **SW13**

Client Sample ID: **SW13**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094003
Lab Project ID: 1184094

Collection Date: 07/31/18 10:40
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2730
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/31/18 17:44
Container ID: 1184094003-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0249		0.0200	0.00500	mg/L	1		08/01/18 17:30

Batch Information

Analytical Batch: WDA4358
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 17:30
Container ID: 1184094003-E

Prep Batch: WXX12458
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 12:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW14**

Client Sample ID: **SW14**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094004
Lab Project ID: 1184094

Collection Date: 07/31/18 13:10
Received Date: 07/31/18 16:04
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		08/01/18 16:47

Batch Information

Analytical Batch: BOD6102
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/18 16:47
Container ID: 1184094004-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	4.0		1.00	1.00	col/100mL	1		07/31/18 17:26

Batch Information

Analytical Batch: BTF16757
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/31/18 17:26
Container ID: 1184094004-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	4		1	1	MPN/100m	1		07/31/18 17:49
Total Coliform	921		1	1	MPN/100m	1		07/31/18 17:49

Batch Information

Analytical Batch: BTF16760
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/31/18 17:49
Container ID: 1184094004-D

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Results of **SW14**

Client Sample ID: **SW14**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094004
Lab Project ID: 1184094

Collection Date: 07/31/18 13:10
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	4.71		0.980	0.304	mg/L	1		08/02/18 16:06

Batch Information

Analytical Batch: STS5972
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 08/02/18 16:06
Container ID: 1184094004-B

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		08/07/18 11:52

Batch Information

Analytical Batch: WDA4361
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/07/18 11:52
Container ID: 1184094004-E

Prep Batch: WXX12462
Prep Method: METHOD
Prep Date/Time: 08/06/18 10:50
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	0.0500 U		0.100	0.0310	mg/L	1		08/02/18 12:13

Batch Information

Analytical Batch: WDA4359
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 08/02/18 12:13
Container ID: 1184094004-E

Prep Batch: WXX12460
Prep Method: METHOD
Prep Date/Time: 08/02/18 11:10
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0308 J		0.100	0.0250	mg/L	2		07/31/18 17:46
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		07/31/18 17:46

Print Date: 08/08/2018 8:44:53AM

J flagging is activated

Results of **SW14**

Client Sample ID: **SW14**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094004
Lab Project ID: 1184094

Collection Date: 07/31/18 13:10
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2730
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/31/18 17:46
Container ID: 1184094004-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0794		0.0200	0.00500	mg/L	1		08/01/18 17:31

Batch Information

Analytical Batch: WDA4358
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 17:31
Container ID: 1184094004-E

Prep Batch: WXX12458
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 12:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW15**

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094005
Lab Project ID: 1184094

Collection Date: 07/31/18 12:55
Received Date: 07/31/18 16:04
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	2.07		2.00	2.00	mg/L	1		08/01/18 16:47

Batch Information

Analytical Batch: BOD6102
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/18 16:47
Container ID: 1184094005-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	36		1.00	1.00	col/100mL	1		07/31/18 17:26

Batch Information

Analytical Batch: BTF16757
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/31/18 17:26
Container ID: 1184094005-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	28		1	1	MPN/100m	1		07/31/18 17:49
Total Coliform	9800		10	10	MPN/100m	10		07/31/18 17:49

Batch Information

Analytical Batch: BTF16760
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/31/18 17:49
Container ID: 1184094005-D

Print Date: 08/08/2018 8:44:53AM

J flagging is activated

Results of **SW15**

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094005
Lab Project ID: 1184094

Collection Date: 07/31/18 12:55
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	3.90		1.00	0.310	mg/L	1		08/02/18 16:06

Batch Information

Analytical Batch: STS5972
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 08/02/18 16:06
Container ID: 1184094005-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.367 J		1.00	0.310	mg/L	1		08/07/18 11:56

Batch Information

Analytical Batch: WDA4361
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/07/18 11:56
Container ID: 1184094005-E

Prep Batch: WXX12462
Prep Method: METHOD
Prep Date/Time: 08/06/18 10:50
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	0.0500 U		0.100	0.0310	mg/L	1		08/02/18 12:15

Batch Information

Analytical Batch: WDA4359
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 08/02/18 12:15
Container ID: 1184094005-E

Prep Batch: WXX12460
Prep Method: METHOD
Prep Date/Time: 08/02/18 11:10
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		07/31/18 17:56
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		07/31/18 17:56

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Results of **SW15**

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094005
Lab Project ID: 1184094

Collection Date: 07/31/18 12:55
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2730
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/31/18 17:56
Container ID: 1184094005-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0729		0.0200	0.00500	mg/L	1		08/01/18 17:34

Batch Information

Analytical Batch: WDA4358
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 17:34
Container ID: 1184094005-E

Prep Batch: WXX12458
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 12:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW16**

Client Sample ID: **SW16**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094006
Lab Project ID: 1184094

Collection Date: 07/31/18 12:35
Received Date: 07/31/18 16:04
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	2.81		2.00	2.00	mg/L	1		08/01/18 16:47

Batch Information

Analytical Batch: BOD6102
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/18 16:47
Container ID: 1184094006-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	800		10.0	10.0	col/100mL	1		07/31/18 17:26

Batch Information

Analytical Batch: BTF16757
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/31/18 17:26
Container ID: 1184094006-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1300		1	1	MPN/100m	1		07/31/18 17:49
Total Coliform	>2420		10	10	MPN/100m	10		07/31/18 17:49

Batch Information

Analytical Batch: BTF16760
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/31/18 17:49
Container ID: 1184094006-D

Print Date: 08/08/2018 8:44:53AM

J flagging is activated

Results of **SW16**

Client Sample ID: **SW16**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094006
Lab Project ID: 1184094

Collection Date: 07/31/18 12:35
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	24.8		2.00	0.620	mg/L	1		08/02/18 16:06

Batch Information

Analytical Batch: STS5972
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 08/02/18 16:06
Container ID: 1184094006-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.796 J		1.00	0.310	mg/L	1		08/07/18 11:57

Batch Information

Analytical Batch: WDA4361
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/07/18 11:57
Container ID: 1184094006-E

Prep Batch: WXX12462
Prep Method: METHOD
Prep Date/Time: 08/06/18 10:50
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	0.0409 J		0.100	0.0310	mg/L	1		08/02/18 12:20

Batch Information

Analytical Batch: WDA4359
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 08/02/18 12:20
Container ID: 1184094006-E

Prep Batch: WXX12460
Prep Method: METHOD
Prep Date/Time: 08/02/18 11:10
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.0500 U		0.100	0.0250	mg/L	2		07/31/18 17:58
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		07/31/18 17:58

Print Date: 08/08/2018 8:44:53AM

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Results of **SW16**

Client Sample ID: **SW16**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094006
Lab Project ID: 1184094

Collection Date: 07/31/18 12:35
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2730
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/31/18 17:58
Container ID: 1184094006-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0735		0.0200	0.00500	mg/L	1		08/01/18 17:35

Batch Information

Analytical Batch: WDA4358
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 17:35
Container ID: 1184094006-E

Prep Batch: WXX12458
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 12:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094007
Lab Project ID: 1184094

Collection Date: 07/31/18 13:54
Received Date: 07/31/18 16:04
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		08/01/18 16:47

Batch Information

Analytical Batch: BOD6102
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/18 16:47
Container ID: 1184094007-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	55		1.00	1.00	col/100mL	1		07/31/18 17:26

Batch Information

Analytical Batch: BTF16757
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/31/18 17:26
Container ID: 1184094007-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	82		1	1	MPN/100m	1		07/31/18 17:49
Total Coliform	1046		1	1	MPN/100m	1		07/31/18 17:49

Batch Information

Analytical Batch: BTF16760
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/31/18 17:49
Container ID: 1184094007-D

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Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094007
Lab Project ID: 1184094

Collection Date: 07/31/18 13:54
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	5.00		0.962	0.298	mg/L	1		08/02/18 16:06

Batch Information

Analytical Batch: STS5972
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 08/02/18 16:06
Container ID: 1184094007-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.415 J		1.00	0.310	mg/L	1		08/07/18 11:59

Batch Information

Analytical Batch: WDA4361
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/07/18 11:59
Container ID: 1184094007-E

Prep Batch: WXX12462
Prep Method: METHOD
Prep Date/Time: 08/06/18 10:50
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	0.112		0.100	0.0310	mg/L	1		08/02/18 12:22

Batch Information

Analytical Batch: WDA4359
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 08/02/18 12:22
Container ID: 1184094007-E

Prep Batch: WXX12460
Prep Method: METHOD
Prep Date/Time: 08/02/18 11:10
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	1.48		0.100	0.0250	mg/L	2		07/31/18 18:00
Nitrite-N	0.0500 U		0.100	0.0250	mg/L	2		07/31/18 18:00

Print Date: 08/08/2018 8:44:53AM

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Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094007
Lab Project ID: 1184094

Collection Date: 07/31/18 13:54
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2730
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/31/18 18:00
Container ID: 1184094007-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.245		0.0200	0.00500	mg/L	1		08/01/18 17:36

Batch Information

Analytical Batch: WDA4358
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 17:36
Container ID: 1184094007-E

Prep Batch: WXX12458
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 12:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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Results of **SW18**

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094008
Lab Project ID: 1184094

Collection Date: 07/31/18 14:17
Received Date: 07/31/18 16:04
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	3.75		2.00	2.00	mg/L	1		08/01/18 16:47

Batch Information

Analytical Batch: BOD6102
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/18 16:47
Container ID: 1184094008-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	29		1.00	1.00	col/100mL	1		07/31/18 17:26

Batch Information

Analytical Batch: BTF16757
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/31/18 17:26
Container ID: 1184094008-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	29		1	1	MPN/100m	1		07/31/18 17:49
Total Coliform	2420		1	1	MPN/100m	1		07/31/18 17:49

Batch Information

Analytical Batch: BTF16760
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/31/18 17:49
Container ID: 1184094008-D

Print Date: 08/08/2018 8:44:53AM

J flagging is activated

Results of **SW18**

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094008
Lab Project ID: 1184094

Collection Date: 07/31/18 14:17
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	8.54		0.971	0.301	mg/L	1		08/02/18 16:06

Batch Information

Analytical Batch: STS5972
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 08/02/18 16:06
Container ID: 1184094008-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.893 J		1.00	0.310	mg/L	1		08/07/18 12:00

Batch Information

Analytical Batch: WDA4361
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/07/18 12:00
Container ID: 1184094008-E

Prep Batch: WXX12462
Prep Method: METHOD
Prep Date/Time: 08/06/18 10:50
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	0.289		0.100	0.0310	mg/L	1		08/02/18 12:23

Batch Information

Analytical Batch: WDA4359
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 08/02/18 12:23
Container ID: 1184094008-E

Prep Batch: WXX12460
Prep Method: METHOD
Prep Date/Time: 08/02/18 11:10
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	6.08		0.100	0.0250	mg/L	2		07/31/18 18:01
Nitrite-N	0.0860 J		0.100	0.0250	mg/L	2		07/31/18 18:01

Results of **SW18**

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094008
Lab Project ID: 1184094

Collection Date: 07/31/18 14:17
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2730
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/31/18 18:01
Container ID: 1184094008-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.760		0.200	0.0500	mg/L	1		08/01/18 17:48

Batch Information

Analytical Batch: WDA4358
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 17:48
Container ID: 1184094008-E

Prep Batch: WXX12458
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 12:31
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL

Results of **DUP2**

Client Sample ID: **DUP2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094009
Lab Project ID: 1184094

Collection Date: 07/31/18 14:17
Received Date: 07/31/18 16:04
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	3.99		2.00	2.00	mg/L	1		08/01/18 16:47

Batch Information

Analytical Batch: BOD6102
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 08/01/18 16:47
Container ID: 1184094009-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	37		1.00	1.00	col/100mL	1		07/31/18 17:26

Batch Information

Analytical Batch: BTF16757
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 07/31/18 17:26
Container ID: 1184094009-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	24		1	1	MPN/100m	1		07/31/18 17:49
Total Coliform	1330		10	10	MPN/100m	10		07/31/18 17:49

Batch Information

Analytical Batch: BTF16760
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 07/31/18 17:49
Container ID: 1184094009-D

Print Date: 08/08/2018 8:44:53AM

J flagging is activated

Results of **DUP2**

Client Sample ID: **DUP2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094009
Lab Project ID: 1184094

Collection Date: 07/31/18 14:17
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	8.61		0.990	0.307	mg/L	1		08/02/18 16:06

Batch Information

Analytical Batch: STS5972
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 08/02/18 16:06
Container ID: 1184094009-B

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.964	J	1.00	0.310	mg/L	1		08/07/18 12:01

Batch Information

Analytical Batch: WDA4361
Analytical Method: SM21 4500-N D
Analyst: DMM
Analytical Date/Time: 08/07/18 12:01
Container ID: 1184094009-E

Prep Batch: WXX12462
Prep Method: METHOD
Prep Date/Time: 08/06/18 10:50
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	0.276		0.100	0.0310	mg/L	1		08/02/18 12:25

Batch Information

Analytical Batch: WDA4359
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 08/02/18 12:25
Container ID: 1184094009-E

Prep Batch: WXX12460
Prep Method: METHOD
Prep Date/Time: 08/02/18 11:10
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	6.89		0.100	0.0250	mg/L	2		07/31/18 18:03
Nitrite-N	0.100		0.100	0.0250	mg/L	2		07/31/18 18:03

Print Date: 08/08/2018 8:44:53AM

J flagging is activated

Results of **DUP2**

Client Sample ID: **DUP2**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1184094009
Lab Project ID: 1184094

Collection Date: 07/31/18 14:17
Received Date: 07/31/18 16:04
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WFI2730
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 07/31/18 18:03
Container ID: 1184094009-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.769		0.200	0.0500	mg/L	1		08/01/18 17:49

Batch Information

Analytical Batch: WDA4358
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 08/01/18 17:49
Container ID: 1184094009-E

Prep Batch: WXX12458
Prep Method: SM21 4500P-B,E
Prep Date/Time: 08/01/18 12:31
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL

Print Date: 08/08/2018 8:44:53AM

J flagging is activated

Method Blank

Blank ID: MB for HBN 1783476 [BOD/6102]
Blank Lab ID: 1463718

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

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: BOD6102
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 8/1/2018 4:47:35PM

Print Date: 08/08/2018 8:44:58AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1184094 [BOD6102]
Blank Spike Lab ID: 1463719
Date Analyzed: 08/01/2018 16:47

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

Results by **SM21 5210B**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	201	102	(84.6-115.4

Batch Information

Analytical Batch: **BOD6102**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **A.L**

Print Date: 08/08/2018 8:45:00AM

Method Blank

Blank ID: MB for HBN 1783398 [BTF/16757]
Blank Lab ID: 1463406

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF16757
Analytical Method: SM21 9222D
Instrument:
Analyst: K.W
Analytical Date/Time: 7/31/2018 5:26:00PM

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Method Blank

Blank ID: MB for HBN 1783401 [BTF/16760]
Blank Lab ID: 1463411

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

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: BTF16760
Analytical Method: SM21 9223B
Instrument:
Analyst: K.W
Analytical Date/Time: 7/31/2018 3:50:00PM

Method Blank

Blank ID: MB for HBN 1783521 [STS/5972]
Blank Lab ID: 1463945

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

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: STS5972
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW
Analytical Date/Time: 8/2/2018 4:06:31PM

Print Date: 08/08/2018 8:45:07AM

Duplicate Sample Summary

Original Sample ID: 1184080002
Duplicate Sample ID: 1463948

Analysis Date: 08/02/2018 16:06
Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	2450	2560	mg/L	4.40	(< 5)

Batch Information

Analytical Batch: STS5972
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 08/08/2018 8:45:08AM

Duplicate Sample Summary

Original Sample ID: 1463944
Duplicate Sample ID: 1463949

Analysis Date: 08/02/2018 16:06
Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	2220	2280	mg/L	2.70	(< 5)

Batch Information

Analytical Batch: STS5972
Analytical Method: SM21 2540D
Instrument:
Analyst: EWW

Print Date: 08/08/2018 8:45:08AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1184094 [STS5972]
Blank Spike Lab ID: 1463946
Date Analyzed: 08/02/2018 16:06

Spike Duplicate ID: LCSD for HBN 1184094 [STS5972]
Spike Duplicate Lab ID: 1463947
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

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	24.5	98	25	24.7	99	(75-125)	0.81	(< 5)

Batch Information

Analytical Batch: **STS5972**
Analytical Method: **SM21 2540D**
Instrument:
Analyst: **EWW**

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Method Blank

Blank ID: MB for HBN 1783410 (WFI/2730) Matrix: Water (Surface, Eff., Ground)
Blank Lab ID: 1463454

QC for Samples:
1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

Results by **SM21 4500NO3-F**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.0292J	0.100	0.0250	mg/L
Nitrite-N	0.0500U	0.100	0.0250	mg/L
Total Nitrate/Nitrite-N	0.0422J	0.100	0.0250	mg/L

Batch Information

Analytical Batch: WFI2730
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 7/31/2018 5:35:39PM

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1184094 [WFI2730]
Blank Spike Lab ID: 1463442
Date Analyzed: 07/31/2018 17:33

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.76	110	(70-130)
Nitrite-N	2.5	2.59	104	(90-110)
Total Nitrate/Nitrite-N	5	5.34	107	(90-110)

Batch Information

Analytical Batch: **WFI2730**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **AYC**

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Matrix Spike Summary

Original Sample ID: 1184094004
MS Sample ID: 1463479 MS
MSD Sample ID: 1463480 MSD

Analysis Date: 07/31/2018 17:46
Analysis Date: 07/31/2018 17:47
Analysis Date: 07/31/2018 17:49
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

Results by **SM21 4500NO3-F**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)						
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)		CL	RPD (%)	RPD CL
Nitrate-N	0.0308J	2.50	2.46	97	2.50	2.54	101		70-130	3.30	(< 25)
Nitrite-N	0.0500U	2.50	2.26	91	2.50	2.25	90	*	90-110	0.80	(< 25)

Batch Information

Analytical Batch: WFI2730
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 7/31/2018 5:47:54PM

Print Date: 08/08/2018 8:45:13AM

Method Blank

Blank ID: MB for HBN 1783503 [WXX/12458]
Blank Lab ID: 1463844

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

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: WDA4358
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 8/1/2018 5:23:02PM

Prep Batch: WXX12458
Prep Method: SM21 4500P-B,E
Prep Date/Time: 8/1/2018 12:31:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1184094 [WXX12458]
Blank Spike Lab ID: 1463845
Date Analyzed: 08/01/2018 17:24

Spike Duplicate ID: LCSD for HBN 1184094 [WXX12458]
Spike Duplicate Lab ID: 1463846
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

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	0.203	101	0.2	0.200	100	(75-125)	1.70	(< 25)

Batch Information

Analytical Batch: **WDA4358**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12458**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **08/01/2018 12:31**
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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Matrix Spike Summary

Original Sample ID: 1184094001
MS Sample ID: 1463847 MS
MSD Sample ID: 1463848 MSD

Analysis Date: 08/01/2018 17:45
Analysis Date: 08/01/2018 17:46
Analysis Date: 08/01/2018 17:47
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

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	0.315	2.00	2.32	100	2.00	2.41	105	75-125	3.80	(< 25)

Batch Information

Analytical Batch: WDA4358
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 8/1/2018 5:46:35PM

Prep Batch: WXX12458
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 8/1/2018 12:31:00PM
Prep Initial Wt./Vol.: 2.50mL
Prep Extract Vol: 25.00mL

Print Date: 08/08/2018 8:45:18AM

Method Blank

Blank ID: MB for HBN 1783550 [WXX/12460]
Blank Lab ID: 1464110

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

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: WDA4359
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 8/2/2018 12:00:25PM

Prep Batch: WXX12460
Prep Method: METHOD
Prep Date/Time: 8/2/2018 11:10:00AM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1184094 [WXX12460]
Blank Spike Lab ID: 1464111
Date Analyzed: 08/02/2018 12:02

Spike Duplicate ID: LCSD for HBN 1184094 [WXX12460]
Spike Duplicate Lab ID: 1464112
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

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	1.02	102	1	1.07	107	(75-125)	4.90	(< 25)

Batch Information

Analytical Batch: **WDA4359**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12460**
Prep Method: **METHOD**
Prep Date/Time: **08/02/2018 11:10**
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: 1184094001
MS Sample ID: 1464113 MS
MSD Sample ID: 1464114 MSD

Analysis Date: 08/02/2018 12:05
Analysis Date: 08/02/2018 12:07
Analysis Date: 08/02/2018 12:08
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

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	0.0500U	1.00	.875	88	1.00	0.877	88	75-125	0.24	(< 25)

Batch Information

Analytical Batch: WDA4359
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 8/2/2018 12:07:08PM

Prep Batch: WXX12460
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 8/2/2018 11:10:00AM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

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

Method Blank

Blank ID: MB for HBN 1783785 [WXX/12462]
Blank Lab ID: 1465126

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

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: WDA4361
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 8/7/2018 11:40:57AM

Prep Batch: WXX12462
Prep Method: METHOD
Prep Date/Time: 8/6/2018 10:50:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1184094 [WXX12462]
Blank Spike Lab ID: 1465127
Date Analyzed: 08/07/2018 11:42

Spike Duplicate ID: LCSD for HBN 1184094 [WXX12462]
Spike Duplicate Lab ID: 1465128
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

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	3.49	87	4	3.88	97	(75-125)	10.70	(< 25)

Batch Information

Analytical Batch: **WDA4361**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX12462**
Prep Method: **METHOD**
Prep Date/Time: **08/06/2018 10:50**
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: 1188801008
MS Sample ID: 1465129 MS
MSD Sample ID: 1465130 MSD

Analysis Date: 08/07/2018 11:44
Analysis Date: 08/07/2018 11:46
Analysis Date: 08/07/2018 11:47
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1184094001, 1184094002, 1184094003, 1184094004, 1184094005, 1184094006, 1184094007, 1184094008, 1184094009

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	3.55	89	4.00	3.63	91	75-125	2.10	(< 25)

Batch Information

Analytical Batch: WDA4361
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 8/7/2018 11:46:12AM

Prep Batch: WXX12462
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 8/6/2018 10:50:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 08/08/2018 8:45:26AM

SGS REVIEWED S.D

SGS North America Inc.
CHAIN OF CUSTODY RECORD

1184094

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 #: 343-5202

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

REPORTS TO: — E-MAIL: Jake.alward@stantec.com

INVOICE TO: Stantec — QUOTE #: — P.O. #: 2047004115

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Pres: Type: Comp Grab MI (Multi-incremental)	5210B - BOD	2540D - TSS	9222 - Fecal Coliform	9223 - Total Coliform QT (1x/10x)	4500 - TKN/Ammonia/T-Phos	4500 - Nitrate/Nitrite	6020A - BCRA + Cu/Zn				REMARKS/LOC ID
(1) A-F	SW11	7/31/18	1126		6	G	1	1	1	1	1	1					
(2) A-F	SW12		1108				1	1	1	1	1	1					
(3) A-F	SW13		1040				1	1	1	1	1	1					
(4) A-F	SW14		1310				1	1	1	1	1	1					
(5) A-F	SW15		1255				1	1	1	1	1	1					
(6) A-F	SW16		1235				1	1	1	1	1	1					
(7) A-F	SW17		1354				1	1	1	1	1	1					
(8) A-F	SW18		1419				1	1	1	1	1	1					
(9) A-F	DUP2		1417				1	1	1	1	1	1					

Section 5

	Date	Time	
Relinquished By: (1)	7/31/18	1604	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	7/31/18	16:04	Received For Laboratory By:

Section 4

DOD Project? Yes No

Data Deliverable Requirements:

Cooler ID:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 5.6025; 5.5044 or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Delivery Method: Hand Delivery [X] Commerical Delivery [ ]

HD

http://www.sgs.com/terms-and-conditions

e-Sample Receipt Form

SGS Workorder #: **1184094**

1184094

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	ABSENT
COC accompanied samples?	YES	
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 @ 5.6 °C Therm. ID: D25
	YES	Cooler ID: 2 @ 5.5 °C Therm. ID: D44
	N/A	Cooler ID: @ °C Therm. ID:
	N/A	Cooler ID: @ °C Therm. ID:
	N/A	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	
If samples received without 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.		
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)? **Note: If times differ <1hr, record details & login per COC.	YES	
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	YES	
	N/A	***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
1184094001-A	No Preservative Required	OK
1184094001-B	No Preservative Required	OK
1184094001-C	Na2S2O3 for Chlorine Redu	OK
1184094001-D	Na2S2O3 for Chlorine Redu	OK
1184094001-E	H2SO4 to pH < 2	OK
1184094001-F	No Preservative Required	OK
1184094002-A	No Preservative Required	OK
1184094002-B	No Preservative Required	OK
1184094002-C	Na2S2O3 for Chlorine Redu	OK
1184094002-D	Na2S2O3 for Chlorine Redu	OK
1184094002-E	H2SO4 to pH < 2	OK
1184094002-F	No Preservative Required	OK
1184094003-A	No Preservative Required	OK
1184094003-B	No Preservative Required	OK
1184094003-C	Na2S2O3 for Chlorine Redu	OK
1184094003-D	Na2S2O3 for Chlorine Redu	OK
1184094003-E	H2SO4 to pH < 2	OK
1184094003-F	No Preservative Required	OK
1184094004-A	No Preservative Required	OK
1184094004-B	No Preservative Required	OK
1184094004-C	Na2S2O3 for Chlorine Redu	OK
1184094004-D	Na2S2O3 for Chlorine Redu	OK
1184094004-E	H2SO4 to pH < 2	OK
1184094004-F	No Preservative Required	OK
1184094005-A	No Preservative Required	OK
1184094005-B	No Preservative Required	OK
1184094005-C	Na2S2O3 for Chlorine Redu	OK
1184094005-D	Na2S2O3 for Chlorine Redu	OK
1184094005-E	H2SO4 to pH < 2	OK
1184094005-F	No Preservative Required	OK
1184094006-A	No Preservative Required	OK
1184094006-B	No Preservative Required	OK
1184094006-C	Na2S2O3 for Chlorine Redu	OK
1184094006-D	Na2S2O3 for Chlorine Redu	OK
1184094006-E	H2SO4 to pH < 2	OK
1184094006-F	No Preservative Required	OK
1184094007-A	No Preservative Required	OK
1184094007-B	No Preservative Required	OK
1184094007-C	Na2S2O3 for Chlorine Redu	OK
1184094007-D	Na2S2O3 for Chlorine Redu	OK
1184094007-E	H2SO4 to pH < 2	OK
1184094007-F	No Preservative Required	OK
1184094008-A	No Preservative Required	OK
1184094008-B	No Preservative Required	OK
1184094008-C	Na2S2O3 for Chlorine Redu	OK
1184094008-D	Na2S2O3 for Chlorine Redu	OK
1184094008-E	H2SO4 to pH < 2	OK
1184094008-F	No Preservative Required	OK
1184094009-A	No Preservative Required	OK
1184094009-B	No Preservative Required	OK
1184094009-C	Na2S2O3 for Chlorine Redu	OK
1184094009-D	Na2S2O3 for Chlorine Redu	OK
1184094009-E	H2SO4 to pH < 2	OK
1184094009-F	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.
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.