

Laboratory Report of Analysis

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

Report Number: **1190367**

Client Project: Wasilla WWTP

Dear John Marshall,

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

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

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

Sincerely, SGS North America Inc.

Justin Nelson Project Manager Justin.Nelson@sgs.com Date

Print Date: 01/30/2019 12:45:31PM

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Case Narrative

SGS Client: Stantec Consulting Services Inc. SGS Project: 1190367 Project Name/Site: Wasilla WWTP Project Contact: John Marshall

Refer to sample receipt form for information on sample condition.

1190367001MSD (1495264) MSD

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

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

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Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. The results apply to the samples as received. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <<u>http://www.sgs.com/en/Terms-and-Conditions.aspx></u>. 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 12/06/2018 for Uranium by EPA200.8, TDS by SM 2540C and Nitrate by SM 4500-NO3-F) & 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.
В	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.
Sample summaries which in All DRO/RRO analyses are	nclude a result for "Total Solids" have already been adjusted for moisture content. integrated per SOP.

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Note:

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	:	Sample Summary	,	
Client Sample ID	Lab Sample ID	Collected	Received	Matrix
SW5	1190367001	01/23/2019	01/23/2019	Water (Surface, Eff., Ground)
DUP1	1190367002	01/23/2019	01/23/2019	Water (Surface, Eff., Ground)
SW17	1190367003	01/23/2019	01/23/2019	Water (Surface, Eff., Ground)
SW18	1190367004	01/23/2019	01/23/2019	Water (Surface, Eff., Ground)
Method	Method Des	<u>scription</u>		
SM21 4500-NH3 G	Ammonia-N	(W) SM21 4500-N	NH3 G	
SM21 5210B	Biochemica	l Oxygen Demand	SM21 5210B	
SM21 9222D	Fecal Colifo	rm (MF)		
EPA 300.0	Ion Chroma	tographic Analysis	6	
SM21 4500-N D	TKN by Phe	enate (W)		
SM21 9223B	Total Colifor	rm P/A Quant Tray	/	
SM21 4500P-B,E	Total Phosp	horus (W)		
SM21 2540D	Total Suspe	ended Solids SM20) 2540D	

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Detectable Results Summary

_ab Sample ID: 1190367001	Parameter	Result	<u>Units</u>
Microbiology Laboratory	Biochemical Oxygen Demand	15.9	mg/L
	E. Coli	1	MPN/100mL
	Total Coliform	21	MPN/100mL
Waters Department	Ammonia-N	1.15	mg/L
	Total Kjeldahl Nitrogen	2.24	mg/L
	Total Phosphorus	0.120	mg/L
	Total Suspended Solids	5.54	mg/L
Client Sample ID: DUP1			
Lab Sample ID: 1190367002	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	14.7	mg/L
merosiology Laboratory	Total Coliform	16	MPN/100mL
Waters Department	Ammonia-N	1.26	mg/L
waters Department	Total Kjeldahl Nitrogen	2.13	mg/L
	Total Phosphorus	0.127	mg/L
	Total Suspended Solids	7.33	mg/L
		1.00	mg/∟
Client Sample ID: SW17			
Lab Sample ID: 1190367003	Parameter	Result	<u>Units</u>
crobiology Laboratory	E. Coli	5	MPN/100mL
	Fecal Coliform	1.0	col/100mL
	Total Coliform	77	MPN/100mL
Waters Department	Ammonia-N	0.537	mg/L
	Nitrate-N	3.08	mg/L
	Total Kjeldahl Nitrogen	1.34	mg/L
	Total Nitrate/Nitrite-N	3.08	mg/L
	Total Phosphorus	0.138	mg/L
	Total Suspended Solids	2.18	mg/L
Client Sample ID: SW18			
Lab Sample ID: 1190367004	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	2.54	mg/L
and shorey Euroratory	E. Coli	3	MPN/100mL
	Total Coliform	238	MPN/100mL
Waters Department	Ammonia-N	0.759	mg/L
waters Department	Nitrate-N	3.28	mg/L
	Total Kjeldahl Nitrogen	1.68	mg/L
	Total Nitrate/Nitrite-N	3.28	mg/L
	Total Phosphorus	3.28 0.797	0
	·		mg/L
	Total Suspended Solids	1.00	mg/L

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Results of SW5 Client Sample ID: SW5		С	ollection D	ate: 01/23/	19 11:35	5	
Client Project ID: Wasilla WWTP ab Sample ID: 1190367001 ab Project ID: 1190367		Received Date: 01/23/19 15:17 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:					
Results by Microbiology Laboratory							
Parameter iochemical Oxygen Demand	<u>Result Qual</u> 15.9	<u>LOQ/CL</u> 2.00	<u>DL</u> 2.00	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	Date Analyze 01/24/19 14:4
Batch Information							
Analytical Batch: BOD6221 Analytical Method: SM21 5210B Analyst: J.N Analytical Date/Time: 01/24/19 14:45 Container ID: 1190367001-A							
'arameter	Result Qual	LOQ/CL	DL	Units	DF	<u>Allowable</u> <u>Limits</u>	Date Analyze
ecal Coliform	1.00 U	1.00	1.00	col/100m		<u></u>	01/23/19 16:
Analytical Method: SM21 9222D Analyst: A.L Analytical Date/Time: 01/23/19 16:18 Container ID: 1190367001-D							
arameter	Result Qual	LOQ/CL	DL	<u>Units</u>	DF	Allowable Limits	Date Analyze
. Coli otal Coliform	1 21	1 1	1 1	MPN/100 MPN/100			01/23/19 16:4 01/23/19 16:4
		·	·				0 1120/10 10.
Analytical Batch: BTF17119 Analytical Method: SM21 9223B Analyst: A.L Analytical Date/Time: 01/23/19 16:41 Container ID: 1190367001-E							

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Results of SW5							
Client Sample ID: SW5 Client Project ID: Wasilla WWTP Lab Sample ID: 1190367001 Lab Project ID: 1190367		Collection Date: 01/23/19 11:35 Received Date: 01/23/19 15:17 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:					
Results by Waters Department							
<u>Parameter</u> Nitrate-N Nitrite-N Total Nitrate/Nitrite-N	<u>Result Qual</u> 0.100 U 0.100 U 0.100 U	LOQ/CL 0.200 0.200 0.200	<u>DL</u> 0.0500 0.0500 0.0500	<u>Units</u> mg/L mg/L mg/L	<u>DF</u> 1 1 1	<u>Allowable</u> Limits	<u>Date Analyz</u> 01/23/19 17 01/23/19 17 01/23/19 17
Batch Information							
Analytical Batch: WIC5866 Analytical Method: EPA 300.0 Analyst: DMM Analytical Date/Time: 01/23/19 17:26 Container ID: 1190367001-C		F	Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	METHOD me: 01/23/1 t./Vol.: 10 r			
Parameter Total Suspended Solids	<u>Result Qual</u> 5.54	<u>LOQ/CL</u> 0.990	<u>DL</u> 0.307	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> Limits	<u>Date Analyz</u> 01/25/19 12
Batch Information Analytical Batch: STS6141 Analytical Method: SM21 2540D Analyst: EWW Analytical Date/Time: 01/25/19 12:33 Container ID: 1190367001-B							
<u>Parameter</u> Total Kjeldahl Nitrogen	<u>Result Qual</u> 2.24	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyz</u> 01/28/19 11
Batch Information							
Analytical Batch: WDA4494 Analytical Method: SM21 4500-N D Analyst: DMM Analytical Date/Time: 01/28/19 11:53 Container ID: 1190367001-F		F	Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	METHOD me: 01/25/1 t./Vol.: 25 r			
<u>Parameter</u> Ammonia-N	<u>Result Qual</u> 1.15	<u>LOQ/CL</u> 0.100	<u>DL</u> 0.0310	<u>Units</u> mg/L	<u>DF</u> 1	Allowable Limits	<u>Date Analyz</u> 01/28/19 14

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SG Results of SW5 Client Sample ID: SW5 Collection Date: 01/23/19 11:35 Received Date: 01/23/19 15:17 Client Project ID: Wasilla WWTP Lab Sample ID: 1190367001 Matrix: Water (Surface, Eff., Ground) Lab Project ID: 1190367 Solids (%): Location: Results by Waters Department **Batch Information** Analytical Batch: WDA4495 Prep Batch: WXX12697 Analytical Method: SM21 4500-NH3 G Prep Method: METHOD Analyst: DMM Prep Date/Time: 01/28/19 13:30 Analytical Date/Time: 01/28/19 14:55 Prep Initial Wt./Vol.: 6 mL Container ID: 1190367001-F Prep Extract Vol: 6 mL Allowable Parameter Result Qual LOQ/CL Units DF Date Analyzed DL <u>Limits</u> Total Phosphorus 0.120 0.0200 0.00500 mg/L 1 01/25/19 16:59 **Batch Information** Analytical Batch: WDA4493 Prep Batch: WXX12695 Prep Method: SM21 4500P-B,E Analytical Method: SM21 4500P-B,E Analyst: DMM Prep Date/Time: 01/25/19 10:25 Analytical Date/Time: 01/25/19 16:59 Prep Initial Wt./Vol.: 25 mL Container ID: 1190367001-F Prep Extract Vol: 25 mL

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Results of DUP1 Client Sample ID: DUP1 Client Project ID: Wasilla WWTP ab Sample ID: 1190367002 ab Project ID: 1190367		Collection Date: 01/23/19 11:35 Received Date: 01/23/19 15:17 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:						
Results by Microbiology Laboratory								
Parameter Niochemical Oxygen Demand	<u>Result Qual</u> 14.7	<u>LOQ/CL</u> 2.00	<u>DL</u> 2.00	<u>Units</u> mg/L	<u>DF</u> 1	Allowable Limits	Date Analyze 01/24/19 14:4	
Batch Information								
Analytical Batch: BOD6221 Analytical Method: SM21 5210B Analyst: J.N Analytical Date/Time: 01/24/19 14:45 Container ID: 1190367002-A								
Parameter	Result Qual	LOQ/CL	DL	<u>Units</u>	DF	<u>Allowable</u> <u>Limits</u>	Date Analyze	
ecal Coliform	1.00 U	1.00	1.00	col/100mL			01/23/19 16:1	
Analytical Method: SM21 9222D Analyst: A.L Analytical Date/Time: 01/23/19 16:18 Container ID: 1190367002-D								
<u>Parameter</u> Coli	<u>Result Qual</u> 1 U	LOQ/CL 1	<u>DL</u> 1	<u>Units</u> MPN/100r	<u>DF</u> ז 1	Allowable Limits	Date Analyze 01/23/19 16:4	
otal Coliform	16	1	1	MPN/100r	т 1		01/23/19 16:4	
Batch Information								
Analytical Batch: BTF17119 Analytical Method: SM21 9223B Analyst: A.L Analytical Date/Time: 01/23/19 16:41 Container ID: 1190367002-E								

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Results of DUP1								
Client Sample ID: DUP1 Client Project ID: Wasilla WWTP Lab Sample ID: 1190367002 Lab Project ID: 1190367		Collection Date: 01/23/19 11:35 Received Date: 01/23/19 15:17 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:						
Results by Waters Department) — —					
<u>Parameter</u> Nitrate-N Nitrite-N Total Nitrate/Nitrite-N	<u>Result Qual</u> 0.100 U 0.100 U 0.100 U	<u>LOQ/CL</u> 0.200 0.200 0.200	<u>DL</u> 0.0500 0.0500 0.0500	<u>Units</u> mg/L mg/L mg/L	<u>DF</u> 1 1 1	<u>Allowable</u> Limits	<u>Date Analyz</u> 01/23/19 17 01/23/19 17 01/23/19 17	
Batch Information								
Analytical Batch: WIC5866 Analytical Method: EPA 300.0 Analyst: DMM Analytical Date/Time: 01/23/19 17:45 Container ID: 1190367002-C		F F F	Prep Batch: N Prep Method: Prep Date/Tir Prep Initial W Prep Extract N	: METHOD me: 01/23/1 't./Vol.: 10 r	9 17:00			
<u>Parameter</u> Total Suspended Solids	<u>Result Qual</u> 7.33	<u>LOQ/CL</u> 0.952	<u>DL</u> 0.295	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyz</u> 01/25/19 12	
Batch Information								
Analytical Batch: STS6141 Analytical Method: SM21 2540D Analyst: EWW Analytical Date/Time: 01/25/19 12:33 Container ID: 1190367002-B								
						Allowable		
<u>Parameter</u> Total Kjeldahl Nitrogen	<u>Result Qual</u> 2.13	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Limits</u>	<u>Date Analyz</u> 01/28/19 11	
Batch Information								
Analytical Batch: WDA4494 Analytical Method: SM21 4500-N D Analyst: DMM Analytical Date/Time: 01/28/19 11:57 Container ID: 1190367002-F		F F F	Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	: METHOD me: 01/25/1 't./Vol.: 25 r	9 09:40			
						Allowable		
Parameter	<u>Result Qual</u> 1.26	<u>LOQ/CL</u> 0.100	<u>DL</u> 0.0310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Limits</u>	Date Analyz 01/28/19 14	

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SG: Results of **DUP1** Client Sample ID: DUP1 Collection Date: 01/23/19 11:35 Client Project ID: Wasilla WWTP Lab Sample ID: 1190367002 Lab Project ID: 1190367 Solids (%):

Received Date: 01/23/19 15:17 Matrix: Water (Surface, Eff., Ground) Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4495 Analytical Method: SM21 4500-NH3 G Analyst: DMM Analytical Date/Time: 01/28/19 14:57 Container ID: 1190367002-F

Prep Batch: WXX12697 Prep Method: METHOD Prep Date/Time: 01/28/19 13:30 Prep Initial Wt./Vol.: 6 mL Prep Extract Vol: 6 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable</u>	Date Analyzed
Total Phosphorus	0.127	0.0200	0.00500	mg/L	1	<u>Limits</u>	01/25/19 17:00
Batch Information Analytical Batch: WDA4493 Analytical Method: SM21 4500P Analyst: DMM Analytical Date/Time: 01/25/19 1 Container ID: 1190367002-F	,	1	Prep Batch: V Prep Method: Prep Date/Tim Prep Initial Wt Prep Extract V	SM21 450 ne: 01/25/ ./Vol.: 25	00P-B,E 19 10:25 mL		

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	-					
	M	atrix: Wate olids (%):				
/]				
<u>Result Qual</u> 2.00 U	<u>LOQ/CL</u> 2.00	<u>DL</u> 2.00	<u>Units</u> mg/L	<u>DF</u> 1	Allowable Limits	Date Analyzed 01/24/19 14:45
Result Qual	100/01	וח	Linits	DE	Allowable	Date Analyzed
1.0	1.00	<u>1.00</u>			Linito	01/23/19 16:18
<u>Result Qual</u> 5	LOQ/CL 1	<u>DL</u> 1	<u>Units</u> MPN/100	<u>DF</u> r 1	<u>Allowable</u> <u>Limits</u>	Date Analyzed 01/23/19 16:41
77	1	1				01/23/19 16:41
	2.00 U Result Qual 1.0 Result Qual 5	Y Result Qual LOQ/CL 2.00 U 2.00 Result Qual LOQ/CL 1.0 1.00 Result Qual LOQ/CL 1.0 1.00 Result Qual LOQ/CL 77 1	Received Da Matrix: Wate Solids (%): Location: Result Qual LOQ/CL DL 2.00 U 2.00 2.00 Result Qual LOQ/CL DL 1.0 1.00 1.00 Result Qual LOQ/CL DL 1.0 1.00 1.00 Result Qual LOQ/CL DL 1.0 1.01 1.00	Received Date: 01/23/19 Matrix: Water (Surface, E Solids (%): Location: Location: Units Result Qual LOQ/CL DL Units 2.00 U 2.00 2.00 mg/L Result Qual LOQ/CL DL Units 1.0 1.00 1.00 col/100mL Result Qual LOQ/CL DL Units 1.0 1.00 1.00 col/100mL 77 1 1 MPN/1000 77 1 1 MPN/1000	Received Date: 01/23/19 15:17 Matrix: Water (Surface, Eff., Grocsolids (%): Location: Result Qual LOQ/CL DL Units DF 2.00 U 2.00 2.00 mg/L 1 Result Qual LOQ/CL DL Units DF 1.0 1.00 1.00 col/100mL 1 Result Qual LOQ/CL DL Units DF 1.0 1.00 1.00 col/100mL 1 Result Qual LOQ/CL DL Units DF 77 1 1 MPN/100r 1 MPN/100r 1	Location: Result Qual LOQ/CL DL Units DE Allowable 2.00 U 2.00 2.00 mg/L 1 Allowable Result Qual LOQ/CL DL Units DE Allowable 1.0 1.00 1.00 col/100mL 1 Allowable Result Qual LOQ/CL DL Units DE Limits Result Qual LOQ/CL DL Units DE Limits Result Qual LOQ/CL DL Units DE Limits 77 1 1 MPN/100rr 1 Minits Allowable 77 1 1 MPN/100rr 1 Minits Minits

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Results of SW17								
Client Sample ID: SW17 Client Project ID: Wasilla WWTP Lab Sample ID: 1190367003 Lab Project ID: 1190367		Collection Date: 01/23/19 13:06 Received Date: 01/23/19 15:17 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:						
Results by Waters Department								
<u>Parameter</u> Nitrate-N Nitrite-N Total Nitrate/Nitrite-N	<u>Result Qual</u> 3.08 0.100 U 3.08	LOQ/CL 0.200 0.200 0.200	<u>DL</u> 0.0500 0.0500 0.0500	<u>Units</u> mg/L mg/L mg/L	<u>DF</u> 1 1 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyz</u> 01/23/19 18 01/23/19 18 01/23/19 18	
Batch Information								
Analytical Batch: WIC5866 Analytical Method: EPA 300.0 Analyst: DMM Analytical Date/Time: 01/23/19 18:04 Container ID: 1190367003-C		F F F	Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	METHOD me: 01/23/1 t./Vol.: 10 r				
<u>Parameter</u> Total Suspended Solids	<u>Result Qual</u> 2.18	<u>LOQ/CL</u> 0.990	<u>DL</u> 0.307	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyz</u> 01/25/19 12	
Batch Information Analytical Batch: STS6141 Analytical Method: SM21 2540D Analyst: EWW Analytical Date/Time: 01/25/19 12:33 Container ID: 1190367003-B								
P <u>arameter</u> Total Kjeldahl Nitrogen	<u>Result Qual</u> 1.34	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyz</u> 01/28/19 11	
Batch Information								
Analytical Batch: WDA4494 Analytical Method: SM21 4500-N D Analyst: DMM Analytical Date/Time: 01/28/19 11:58 Container ID: 1190367003-F		F F F	Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	METHOD me: 01/25/1 t./Vol.: 25 r				
<u>Parameter</u> Ammonia-N	<u>Result Qual</u> 0.537	<u>LOQ/CL</u> 0.100	<u>DL</u> 0.0310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyz</u> 01/28/19 14	

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SG Results of SW17 Client Sample ID: SW17 Collection Date: 01/23/19 13:06 Received Date: 01/23/19 15:17 Client Project ID: Wasilla WWTP Lab Sample ID: 1190367003 Matrix: Water (Surface, Eff., Ground) Lab Project ID: 1190367 Solids (%): Location: Results by Waters Department **Batch Information** Analytical Batch: WDA4495 Prep Batch: WXX12697 Analytical Method: SM21 4500-NH3 G Prep Method: METHOD Analyst: DMM Prep Date/Time: 01/28/19 13:30 Analytical Date/Time: 01/28/19 14:59 Prep Initial Wt./Vol.: 6 mL Container ID: 1190367003-F Prep Extract Vol: 6 mL Allowable Parameter Result Qual LOQ/CL Units DF Date Analyzed DL <u>Limits</u> Total Phosphorus 0.138 0.0200 0.00500 mg/L 1 01/25/19 17:03 **Batch Information** Analytical Batch: WDA4493 Prep Batch: WXX12695 Prep Method: SM21 4500P-B,E Analytical Method: SM21 4500P-B,E Analyst: DMM Prep Date/Time: 01/25/19 10:25 Analytical Date/Time: 01/25/19 17:03 Prep Initial Wt./Vol.: 25 mL Container ID: 1190367003-F Prep Extract Vol: 25 mL

Print Date: 01/30/2019 12:45:36PM

J flagging is activated

Results of SW18		0	alla atian D	ata: 01/22/11	10.05		
Client Sample ID: SW18 Client Project ID: Wasilla WWTP .ab Sample ID: 1190367004 .ab Project ID: 1190367		Collection Date: 01/23/19 13:35 Received Date: 01/23/19 15:17 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:					
Results by Microbiology Laboratory							
Parameter Biochemical Oxygen Demand	<u>Result Qual</u> 2.54	<u>LOQ/CL</u> 2.00	<u>DL</u> 2.00	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	Date Analyze 01/24/19 14:4
Batch Information							
Analytical Batch: BOD6221 Analytical Method: SM21 5210B Analyst: J.N Analytical Date/Time: 01/24/19 14:45 Container ID: 1190367004-A							
Parameter	Result Qual	LOQ/CL	DL	Units	DF	<u>Allowable</u> <u>Limits</u>	Date Analyze
Fecal Coliform	1.00 U	1.00	1.00	col/100mL			01/23/19 16:1
Analytical Method: SM21 9222D Analyst: A.L Analytical Date/Time: 01/23/19 16:18 Container ID: 1190367004-D							
Parameter	Result Qual	LOQ/CL	DL	<u>Units</u>	<u>DF</u>	<u>Allowable</u> <u>Limits</u>	Date Analyze
E. Coli	3	1	1	MPN/100r	r 1	<u></u>	01/23/19 16:4
Fotal Coliform	238	1	1	MPN/100r	r 1		01/23/19 16:4
Analytical Batch: BTF17119 Analytical Method: SM21 9223B Analyst: A.L Analytical Date/Time: 01/23/19 16:41 Container ID: 1190367004-E							

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Results of SW18							
Client Sample ID: SW18 Client Project ID: Wasilla WWTP Lab Sample ID: 1190367004 Lab Project ID: 1190367		Collection Date: 01/23/19 13:35 Received Date: 01/23/19 15:17 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:					
Results by Waters Department							
<u>Parameter</u> Nitrate-N Nitrite-N Total Nitrate/Nitrite-N	<u>Result Qual</u> 3.28 0.100 U 3.28	LOQ/CL 0.200 0.200 0.200	<u>DL</u> 0.0500 0.0500 0.0500	<u>Units</u> mg/L mg/L mg/L	<u>DF</u> 1 1 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyz</u> 01/23/19 18 01/23/19 18 01/23/19 18
Batch Information							
Analytical Batch: WIC5866 Analytical Method: EPA 300.0 Analyst: DMM Analytical Date/Time: 01/23/19 18:23 Container ID: 1190367004-C		F	Prep Batch: N Prep Method: Prep Date/Tir Prep Initial W Prep Extract N	METHOD me: 01/23/1 t./Vol.: 10 r			
Parameter Total Suspended Solids	<u>Result Qual</u> 1.00	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> Limits	<u>Date Analyz</u> 01/25/19 12
Batch Information Analytical Batch: STS6141 Analytical Method: SM21 2540D Analyst: EWW Analytical Date/Time: 01/25/19 12:33 Container ID: 1190367004-B							
<u>Parameter</u> Total Kjeldahl Nitrogen	<u>Result Qual</u> 1.68	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyz</u> 01/28/19 12
Batch Information							
Analytical Batch: WDA4494 Analytical Method: SM21 4500-N D Analyst: DMM Analytical Date/Time: 01/28/19 12:02 Container ID: 1190367004-F		F	Prep Batch: N Prep Method: Prep Date/Tir Prep Initial W Prep Extract N	METHOD me: 01/25/1 t./Vol.: 25 r			
<u>Parameter</u> Ammonia-N	<u>Result Qual</u> 0.759	<u>LOQ/CL</u> 0.100	<u>DL</u> 0.0310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyz</u> 01/28/19 15

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SG Results of SW18 Client Sample ID: SW18 Collection Date: 01/23/19 13:35 Received Date: 01/23/19 15:17 Client Project ID: Wasilla WWTP Lab Sample ID: 1190367004 Matrix: Water (Surface, Eff., Ground) Lab Project ID: 1190367 Solids (%): Location: Results by Waters Department **Batch Information** Analytical Batch: WDA4495 Prep Batch: WXX12697 Analytical Method: SM21 4500-NH3 G Prep Method: METHOD Analyst: DMM Prep Date/Time: 01/28/19 13:30 Analytical Date/Time: 01/28/19 15:01 Prep Initial Wt./Vol.: 6 mL Container ID: 1190367004-F Prep Extract Vol: 6 mL Allowable Parameter Result Qual LOQ/CL Units DF Date Analyzed DL <u>Limits</u> Total Phosphorus 0.797 0.100 0.0250 mg/L 1 01/25/19 16:57 **Batch Information** Analytical Batch: WDA4493 Prep Batch: WXX12695 Prep Method: SM21 4500P-B,E Analytical Method: SM21 4500P-B,E Analyst: DMM Prep Date/Time: 01/25/19 15:48 Analytical Date/Time: 01/25/19 16:57 Prep Initial Wt./Vol.: 5 mL Container ID: 1190367004-F Prep Extract Vol: 25 mL

Print Date: 01/30/2019 12:45:36PM

J flagging is activated

Method Blank		
Blank ID: MB for HBN 1790651 [BOD/6221] Blank Lab ID: 1495056	Matrix: Water (Surface	e, Eff., Ground)
QC for Samples: 1190367001, 1190367002, 1190367003, 1190367004		
Results by SM21 5210B		
ParameterResultsBiochemical Oxygen Demand2.00U	LOQ/CL DL 2.00 2.00	<u>Units</u> mg/L
Batch Information		
Analytical Batch: BOD6221 Analytical Method: SM21 5210B Instrument: Analyst: J.N Analytical Date/Time: 1/24/2019 2:45:00PM		

Print Date: 01/30/2019 12:45:39PM

Blank Spike Summary					
Blank Spike ID: LCS for HBN Blank Spike Lab ID: 1495057 Date Analyzed: 01/24/2019	,	[BOD6221		Water (Surface, Eff., Ground)	
QC for Samples: 1190367(001, 11903	67002, 1190	0367003, 1190367004		
Results by SM21 5210B					
		Blank Spike	e (mg/L)		
<u>Parameter</u> Biochemical Oxygen Demand	<u>Spike</u> 198	<u>Result</u> 216	<u>Rec (%)</u> 109	<u>CL</u> (84.6-115.4	
Batch Information					
Analytical Batch: BOD6221 Analytical Method: SM21 5210 Instrument: Analyst: J.N)B				

-

Method Blank]			
Blank ID: MB for HBN Blank Lab ID: 1494948		Matri	x: Water (Sur	face, Eff., Ground)	
QC for Samples: 1190367001, 119036700	02, 1190367003, 1190367004				
_ Results by SM21 9222	D				
Parameter	<u>Results</u>	LOQ/CL	DL	<u>Units</u>	
Fecal Coliform	1.00U	1.00	1.00	col/100mL	
Batch Information Analytical Batch: BTF					
Analytical Method: Sl Instrument: Analyst: A.L	M21 9222D				
	1/23/2019 4:18:39PM				

Print Date: 01/30/2019 12:45:43PM

Blank ID: MB for HBN 1790623 [BTF/17119] Blank Lab ID: 1494946 QC for Samples: 190367001, 1190367002, 1190367003, 1190367004		Matri	x: Water (Sur	face, Eff., Ground)
Results by SM21 9223	B –			
Parameter	Results	LOQ/CL	<u>DL</u>	<u>Units</u>
Total Coliform	1U	1	1	MPN/100m
E. Coli	1U	1	1	MPN/100m
Analytical Batch: BTF Analytical Method: SI Instrument: Analyst: A.L				

Print Date: 01/30/2019 12:45:45PM

Method Blank		<u> </u>				
Blank ID: MB for HBN 179 Blank Lab ID: 1495127	0665 [STS/6141]		Matrix	: Water (Surfa	ace, Eff., Ground)	
QC for Samples: 1190367001, 1190367002, 1 ⁻	190367003, 1190367004					
Results by SM21 2540D)—				
Parameter_	<u>Results</u>		LOQ/CL	<u>DL</u>	<u>Units</u>	
Total Suspended Solids	0.500U		1.00	0.310	mg/L	
Batch Information						
Analytical Batch: STS614 Analytical Method: SM21 Instrument:						
Analyst: EWW Analytical Date/Time: 1/2	5/2019 12:33:23PM					

Print Date: 01/30/2019 12:45:47PM

Duplicate Sample Summary	/				
Driginal Sample ID: 119038 Duplicate Sample ID: 14951				01/25/2019 12:33 Surface, Eff., Grou	nd)
C for Samples:					
190367001, 1190367002, 1	190367003, 1190	367004			
Results by SM21 2540D					
JAME_	<u>Original</u>	Duplicate	<u>Units</u>	<u>RPD (%)</u>	RPD CL
otal Suspended Solids	466	463	mg/L	0.65	(< 5)
Batch Information					
Analytical Batch: STS6141 Analytical Method: SM21 254 Instrument: Analyst: EWW	40D				

Print Date: 01/30/2019 12:45:48PM

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Plank Snika Summary									
Blank Spike Summary Blank Spike ID: LCS for HB Blank Spike Lab ID: 149512 Date Analyzed: 01/25/2019	28	S6141]	I] Spike Duplicate ID: LCSD for HBN 1190367 [STS6141] Spike Duplicate Lab ID: 1495129 Matrix: Water (Surface, Eff., Ground)						
QC for Samples: 119036	7001, 119036700	367002, 1190367003, 1190367004							
Results by SM21 2540D									
	Blar	nk Spike (mg/L)	Spi	ke Duplicate (r	ng/L)				
Parameter		Result Rec (%)			<u>:(%)</u> <u>CL</u>	<u>RPD (%)</u>	RPD CL		
Total Suspended Solids	25 2	98	25	24.7 99	(75-125)	1.20	(< 5)		
Batch Information									
Analytical Batch: STS6141 Analytical Method: SM21 25 Instrument: Analyst: EWW	40D								

Print Date: 01/30/2019 12:45:49PM

C for Samples: 190367001, 1190367002, [.]	1190367003, 1190367004				
esults by EPA 300.0					
arameter	Results	LOQ/CL	<u>DL</u>	<u>Units</u>	
itrate-N itrite-N	0.100U 0.100U	0.200 0.200	0.0500 0.0500	mg/L mg/L	
otal Nitrate/Nitrite-N	0.100U	0.200	0.0500	mg/L	
tch Information Analytical Batch: WIC58 Analytical Method: EPA Instrument: 930 Metrohn Analyst: DMM Analytical Date/Time: 1/2	300.0 n compact IC flex	Prep Me Prep Da Prep Ini	tch: WXX12693 ethod: METHOD ite/Time: 1/23/20 tial Wt./Vol.: 10 r tract Vol: 10 mL		

Print Date: 01/30/2019 12:45:51PM



Blank Spike Summary

Blank Spike ID: LCS for HBN 1190367 [WXX12693] Blank Spike Lab ID: 1495103 Date Analyzed: 01/23/2019 16:48

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1190367001, 1190367002, 1190367003, 1190367004

E <u>Spike</u> 5 5 10	Blank Spike <u>Result</u> 4.93 4.72 9.65	(mg/L) <u>Rec (%)</u> 99 95	<u>CL</u> (90-110) (90-110)
5	4.93 4.72	99	(90-110)
5	4.72		
-		95	(90-110)
10	0.65		
	9.00	97	(90-110)
ct IC flex	(Prep Batch: WXX12693 Prep Method: METHOD Prep Date/Time: 01/23/2019 14:45 Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL
10	ct IC flex	ct IC flex	ct IC flex

Print Date: 01/30/2019 12:45:52PM



Matrix Spike Summary

Original Sample ID: 1495124 MS Sample ID: 1495125 MS MSD Sample ID: 1495126 MSD Analysis Date: 01/23/2019 19:58 Analysis Date: 01/23/2019 20:17 Analysis Date: 01/23/2019 20:36 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1190367001, 1190367002, 1190367003, 1190367004

	Matrix Spike (mg/L)			Spike Duplicate (mg/L)						
Parameter	Sample	Spike	Result	<u>Rec (%)</u>	Spike	Result	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD CL
Nitrate-N	0.100U	5.00	4.96	99	5.00	5.07	101	90-110	2.20	(< 15)
Nitrite-N	0.100U	5.00	4.7	94	5.00	4.81	96	90-110	2.30	(< 15)
Analytical Batch: WIC58 Analytical Method: EPA Instrument: 930 Metrohn Analyst: DMM	300.0			Prep Prep	Method: Date/Tim	ne: 1/23/2	0 Extractior 019 2:45:0		iquids	
Analytical Method: EPA Instrument: 930 Metrohn	300.0			Prep Prep	Method: Date/Tim	E ne:	PA 300. 1/23/2	PA 300.0 Extraction	PA 300.0 Extraction Waters/L 1/23/2019 2:45:00PM	PA 300.0 Extraction Waters/Liquids 1/23/2019 2:45:00PM

Print Date: 01/30/2019 12:45:54PM

Blank ID: MB for HBN 1790687 [WXX/12695] Blank Lab ID: 1495197 QC for Samples: 190367001, 1190367002, 1190367003, 1190367004		Matri	x: Water (Surfac	e, Eff., Ground)	
Results by SM21 4500P-B,E					
P <u>arameter</u> Total Phosphorus	<u>Results</u> 0.0100U	<u>LOQ/CL</u> 0.0200	<u>DL</u> 0.00500	<u>Units</u> mg/L	
Analytical Batch: WDA44 Analytical Batch: WDA44 Analytical Method: SM27 Instrument: Discrete Ana Analyst: DMM Analytical Date/Time: 1/2	1 4500P-B,E alyzer 2	Prep Me Prep Da Prep Ini	atch: WXX12695 ethod: SM21 450 ate/Time: 1/25/20 tial Wt./Vol.: 25 n «tract Vol: 25 mL	19 10:25:00AM	

Print Date: 01/30/2019 12:45:55PM



Blank Spike Summary

Blank Spike ID: LCS for HBN 1190367 [WXX12695] Blank Spike Lab ID: 1495198 Date Analyzed: 01/25/2019 16:53 Spike Duplicate ID: LCSD for HBN 1190367 [WXX12695] Spike Duplicate Lab ID: 1495199 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1190367001, 1190367002, 1190367003, 1190367004

<u>Result</u> 0.181	<u>Rec (%)</u> 90	<u>Spike</u> 0.2	<u>Result</u> 0.179	<u>Rec (%)</u> 89	<u>CL</u> (75-125)	<u>RPD (%)</u> 1.10	<u>RPD CL</u> (< 25)
0.181	90	0.2	0.179	89	(75-125)	1.10	(< 25)
							(~ 20)
		Pre	p Date/Tim	e: 01/25/201	9 10:25		
		Spil	ke Init Wt./\	/ol.: 0.2 mg	I/L Extract V	ol: 25 mL	
			Pre Pre	Prep Method: Prep Date/Tim	Prep Date/Time: 01/25/201	Prep Method: SM21 4500P-B,E Prep Date/Time: 01/25/2019 10:25	Prep Method: SM21 4500P-B,E

Print Date: 01/30/2019 12:45:56PM



Batch Information

Analyst: DMM

Analytical Batch: WDA4493

Instrument: Discrete Analyzer 2

Analytical Method: SM21 4500P-B,E

Analytical Date/Time: 1/25/2019 4:58:06PM

Matrix Spike Summary Original Sample ID: 1190367004 Analysis Date: 01/25/2019 16:57 MS Sample ID: 1495200 MS Analysis Date: 01/25/2019 16:58 MSD Sample ID: 1495201 MSD Analysis Date: 01/25/2019 16:58 Matrix: Water (Surface, Eff., Ground) 1190367001, 1190367002, 1190367003, 1190367004 QC for Samples: Results by SM21 4500P-B,E Matrix Spike (mg/L) Spike Duplicate (mg/L) Parameter Sample Spike Result Rec (%) <u>Spike</u> Result <u>Rec (%)</u> CL **Total Phosphorus** 0.797 75-125 1.00 1.78 99 1.00 1.78 99

Prep Batch: WXX12695

Prep Initial Wt./Vol.: 5.00mL

Prep Extract Vol: 25.00mL

Prep Method: Total Phosphorus (W) Ext.

Prep Date/Time: 1/25/2019 3:48:00PM

Print Date: 01/30/2019 12:45:58PM

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RPD (%) RPD CL

(< 25)

0.08

Method Blank					
Blank ID: MB for HBN 179 Blank Lab ID: 1495260	90703 [WXX/12696]	Matrix	: Water (Surfa	ice, Eff., Ground)	
QC for Samples: 1190367001, 1190367002, 1	190367003, 1190367004				
Results by SM21 4500-N	D —				
<u>Parameter</u> Total Kjeldahl Nitrogen	<u>Results</u> 0.593J	<u>LOQ/CL</u> 1.00	<u>DL</u> 0.310	<u>Units</u> mg/L	
atch Information					
Analytical Batch: WDA44 Analytical Method: SM21 Instrument: Discrete Ana Analyst: DMM Analytical Date/Time: 1/2	4500-N D Ilyzer 2	Prep Init) 019 9:40:00AM mL		
Analytical Date/Time: 1/2	28/2019 11:46:40AM	Prep Ext	tract Vol: 25 ml	-	

Print Date: 01/30/2019 12:45:59PM



Blank Spike Summary

Blank Spike ID: LCS for HBN 1190367 [WXX12696] Blank Spike Lab ID: 1495261 Date Analyzed: 01/28/2019 11:47 Spike Duplicate ID: LCSD for HBN 1190367 [WXX12696] Spike Duplicate Lab ID: 1495262 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1190367001, 1190367002, 1190367003, 1190367004

		Blank Spike	e (mg/L)	S	pike Duplic	ate (mg/L)			
Parameter	<u>Spike</u>	Result	<u>Rec (%)</u>	Spike	Result	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD CL
Total Kjeldahl Nitrogen	4	3.66	92	4	3.59	90	(75-125)	2.00	(< 25)
Batch Information									
Batch Information Analytical Batch: WDA4494	4			Pre	o Batch: W	XX12696			
					o Batch: W				
Analytical Batch: WDA4494	500-N D			Pre	o Method:		9 09:40		
Analytical Batch: WDA4494 Analytical Method: SM21 4	500-N D			Pre Pre	o Method: o Date/Time	METHOD e: 01/25/201	9 09:40 Extract Vol:	25 mL	

Print Date: 01/30/2019 12:46:01PM



Matrix Spike Summary												
Original Sample ID: 1190 MS Sample ID: 1495263 MSD Sample ID: 149520			Analysis Analysis	Date: 0 ² Date: 0 ²	1/28/2019 1/28/2019 1/28/2019 urface, Eff.	11:54 11:55)					
QC for Samples: 119036	67001, 11903670	02, 119036	37003, 119	0367004								
		Ma	trix Spike (mg/L)	Spike	e Duplicate	e (mg/L)					
<u>Parameter</u> Total Kjeldahl Nitrogen	<u>Sample</u> 2.24	<u>Spike</u> 4.00	<u>Result</u> 5.68	<u>Rec (%)</u> 86	<u>Spike</u> 4.00	<u>Result</u> 5.15	<u>Rec (%)</u> 73 *		<u>RPD (%)</u> 9.80	<u>RPD CL</u> (< 25)		
Batch Information												
Analytical Batch: WDA4				- 1-		VXX12696			\ \			
Analytical Method: SM2							n TKN by Pl 019 9:40:0	· ·)			
Instrument: Discrete Analyzer 2								/0/ (IVI				
Analyst: DMM	Analytical Date/Time: 1/28/2019 11:54:34AM					Prep Initial Wt./Vol.: 25.00mL Prep Extract Vol: 25.00mL						

Print Date: 01/30/2019 12:46:02PM

Blank Lab ID: 149528 QC for Samples:	1790707 [WXX/12697] 4 02, 1190367003, 1190367004	Matrix: Water (Surface, Eff., Ground)								
Results by SM21 4500	-NH3 G									
<u>Parameter</u> Ammonia-N	<u>Results</u> 0.0500U	<u>LOQ/CL</u> 0.100	<u>DL</u> 0.0310	<u>Units</u> mg/L						
Batch Information										
Analytical Batch: WE Analytical Method: S Instrument: Discrete Analyst: DMM Analytical Date/Time:	M21 4500-NH3 G	Prep Me Prep Da Prep Init	tch: WXX12697 ethod: METHOD ite/Time: 1/28/20 tial Wt./Vol.: 6 m tract Vol: 6 mL) 019 1:30:00PM						

Print Date: 01/30/2019 12:46:04PM



Blank	Spike	Summary
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Blank Spike ID: LCS for HBN 1190367 [WXX12697] Blank Spike Lab ID: 1495285 Date Analyzed: 01/28/2019 14:47 Spike Duplicate ID: LCSD for HBN 1190367 [WXX12697] Spike Duplicate Lab ID: 1495286 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1190367001, 1190367002, 1190367003, 1190367004

		Blank Spike	e (mg/L)	5	Spike Duplic	cate (mg/L)			
<u>Parameter</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	Spike	Result	<u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD CL
Ammonia-N	1	1.00	100	1	0.943	94	(75-125)	6.20	(< 25)
Analytical Batch: WDA4495									
Applytical Mathad: SM24 4500 I									
Analytical Method: SM21 4500-I				Pre	n Date/Tim	e [.] 01/28/201	9 13:30		
Analytical Method: SM21 4500-I Instrument: Discrete Analyzer 2 Analyst: DMM						e: 01/28/20 1 /ol.: 1 mg/L	IS 13:30 Extract Vol:	6 mL	

Print Date: 01/30/2019 12:46:04PM



Matrix Spike Summary

Original Sample ID: 1190400010 MS Sample ID: 1495287 MS MSD Sample ID: 1495288 MSD Analysis Date: 01/28/2019 14:50 Analysis Date: 01/28/2019 14:52 Analysis Date: 01/28/2019 14:54 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1190367001, 1190367002, 1190367003, 1190367004

		Ma	trix Spike (mg/L)	Spike	e Duplicate	e (mg/L)			
<u>Parameter</u> Ammonia-N	<u>Sample</u> 0.115	<u>Spike</u> 1.00	<u>Result</u> .889	<u>Rec (%)</u> 78	<u>Spike</u> 1.00	<u>Result</u> 0.960	<u>Rec (%)</u> 85	<u>CL</u> 75-125	<u>RPD (%)</u> 7.70	<u>RPD CI</u> (< 25)
Batch Information Analytical Batch: WDA4 Analytical Method: SM2 Instrument: Discrete Ana Analyst: DMM Analytical Date/Time: 1/	1 4500-NH3 G alyzer 2	PM		Prep Prep Prep	Method: Date/Tim Initial Wt		1 by SM21 4 019 1:30:0 0mL) (W)	

Print Date: 01/30/2019 12:46:06PM



SG: CHAIN



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Section 1		usilla UYUUTP PRO PWS PERI	JECT/ ID/ MIT#:			# C		I	١	١	Need	Marth	HUSCH					
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	INVOICE TO:	QUO P.O	эте#: .#: 21	1470641	nantec.con		G = GRAB MI = Multi Incre-	Q		Nitrate Nitrite		() th	THAN GAMMARING MP					
	RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	E R S	mental Soils	200	TSS	U.F.	\mathcal{L}	L.	THN					REMARKS/ LOC ID
	(DA-F	SU5	01/23/19	1135	Water	d	6		(l	l	1					
	2)A-F	DUP 1		1135	<u>\</u>			1)	1	1	1	1					
N	(3)A-F	SWIT		13:06					1		<u>\</u>)					
<u>io</u>	(4) H-F	SW18	¥	1335	V	¥	¢,		1)		1						
Section 2					a													
ľ	?																	
		A																
		H_{n}																
	Relinquished	/ By: (1)	Date	Time	Received By	:				Secti	ion 4	DOD) Projec	ct? Yes	s No	Data	a Delive	erable Requirements:
			1/23/19	1517			/			Coole								
Section 5	Relinquished	By: (2)	Date/	Time	Received By					Reques	sted Tu	urnarou	ind Tim	e and/o	or Spec	cial Instr	ruction	s:
Ğ	Relinquished	By: (3)	Date	Time	Received By	:												
Ň										Temp	Blank [°]	°c: _2	2.2 2	>53		Cha	in of C	ustody Seal: (Circle) 서도
	Relinquished	By: (4)	Date 1 (23/19	Time ISぴ	Received Fo	r Labora	atory By: イントレート			(See		or Ami ied Sam	_	-	orm)			BROKEN ABSENT

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http://www.sgs.com/terms-and-conditions

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e-Sample Receipt Form

SGS Workorder #:	
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1190367



Review Criteria	tion (Yes,	No, N/A	Excep	tions Not	ed below
Chain of Custody / Temperature Requiremen	<u>nts</u>	ye	es Exemption perm	itted if samp	ler hand carries/delivers.
Were Custody Seals intact? Note # & location	n n/a	handdelive	ered		
COC accompanied samples	? yes				
n/a **Exemption permitted if chilled	& colle	cted <8 hou	irs ago, or for sampl	es where ch	illing is not required
	yes	Cooler ID:	1	@	2.2 °C Therm. ID: D53
	n/a	Cooler ID:		@	°C Therm. ID:
Temperature blank compliant* (i.e., 0-6 °C after CF)?	? 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 "coole					
temperature" will be documented in lieu of the temperature blank 8 "COOLER TEMP" will be noted to the right. In cases where neither a					
temp blank nor cooler temp can be obtained, note "ambient" of					
"chilled"					
Note: Identify containers received at non-compliant temperature					
Note: Identify containers received at non-compliant temperature Use form FS-0029 if more space is needed					
Holding Time / Documentation / Sample Condition Require		Nata: Dafa:		anla Oridallu	for on esilie helding times
Were samples received within holding time?		NULE. REIEI	10101111 F-003 Sal		for specific holding times.
Do samples match COC** (i.e.,sample IDs,dates/times collected)?	ves				
**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					
		n	/a ***Exemption pe	rmitted for n	netals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?					
Volatile / LL-Hg Requirem					
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?					
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?					
Were all soil VOAs field extracted with MeOH+BFB?	n/a				
Note to Client: Any "No", answer above indicates non-comp	liance	with standar	rd procedures and m	nay impact d	ata quality.
Additional note	s (if a	pplicable)):		



Sample Containers and Preservatives

<u>Container Id</u>	<u>Preservative</u>	<u>Container</u> Condition	<u>Container Id</u>	Preservative	<u>Container</u> Condition
1190367001-A	No Preservative Required	ОК			
1190367001-B	No Preservative Required	ОК			
1190367001-C	No Preservative Required	OK			
1190367001-D	Na2S2O3 for Chlorine Redu	ОК			
1190367001-E	Na2S2O3 for Chlorine Redu	ОК			
1190367001-F	H2SO4 to pH < 2	OK			
1190367002-A	No Preservative Required	ОК			
1190367002-B	No Preservative Required	OK			
1190367002-C	No Preservative Required	OK			
1190367002-D	Na2S2O3 for Chlorine Redu	OK			
1190367002-E	Na2S2O3 for Chlorine Redu	OK			
1190367002-F	H2SO4 to pH < 2	OK			
1190367003-A	No Preservative Required	OK			
1190367003-B	No Preservative Required	OK			
1190367003-C	No Preservative Required	OK			
1190367003-D	Na2S2O3 for Chlorine Redu	OK			
1190367003-E	Na2S2O3 for Chlorine Redu	OK			
1190367003-F	H2SO4 to pH < 2	OK			
1190367004-A	No Preservative Required	OK			
1190367004-B	No Preservative Required	OK			
1190367004-C	No Preservative Required	OK			
1190367004-D	Na2S2O3 for Chlorine Redu	ОК			
1190367004-E	Na2S2O3 for Chlorine Redu	ОК			
1190367004-F	H2SO4 to pH < 2	ОК			

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.