2024 ANNUAL REPORT
FOR THE MUNICIPALITY OF SANIKILUAQ

YEAR BEING REPORTED: 2024

The following information is compiled pursuant to the requirements of Part B, Item 1 of Water Licence No. **3BM-SAN2025** issued to the **Municipality of Sanikiluaq**.

I – III. Tabular summaries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are the quantities of water used and the estimated discharge of waste. The water consumption volume is considered equal to the sewage discharge volume because there is no meter at the end of the discharge pipe.

2024 ANNUAL REPORT
FOR THE MUNICIPALITY OF SANIKILUAQ

Month Reported	Quantity of Water Obtained from all sources (m^3)	Quantity of Sewage Waste Discharged (m^3)	Quantity of Waste Accepted (m^3)
January	3,865.83	Same	993.69
February	3,470.93	Same	993.69
March	3,862.07	Same	993.69
April	3,844.52	Same	993.69
May	3,871.27	Same	993.69
June	3,352.01	Same	993.69
July	3,309.67	Same	993.69
August	3,410.29	Same	993.69
September	3,407.39	Same	993.69
October	3,512.09	Same	993.69
November	3,479.11	Same	993.69
December	3,494.33	Same	993.69
ANNUAL TOTAL	40,184.38	Same	11,924.28

2024 ANNUAL REPORT
FOR THE MUNICIPALITY OF SANIKILUAQ

IV. A summary of modifications and/or major maintenance work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures and facilities:

No modifications or major maintenance work carried out in 2024.

V. A list of unauthorized discharges and summary of follow-up action taken:

No spills to report in 2024.

VI. A summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year:

There was no abandonment and restoration work completed during 2024. There is no abandonment and restoration work anticipated for 2025.

VII. A summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned:

Water
A detailed design is being developed for the WTP upgrade currently at 25%. Construction contract to be tendered December 2025 and on-site construction works anticipated to begin Summer 2027.

Wastewater
Design of an improved wastewater facility consisting of a new sewage lagoon and increase of wetland treatment area is ongoing. Design is currently at 25% and expected to be completed and tendered in Fall/Winter 2025.

Solid Waste
The initial planning study was completed in 2020/21. The cost estimates have indicated that the current funding cannot support the construction of a new state-of-the-art 20-year landfill. The focus of the project will shift to making improvements to the current site. A second planning contract to assess and prioritize the improvements to the current site is expected to be completed in 2025.

VIII. Any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and

No other details on water use or waste disposal requested by the Board by November 1st of 2024.

IX. Updates or revisions to the approved Operation and Maintenance Plans:

Updated Operation and Maintenance Plan for the Solid Waste Disposal Facility, and updated Environmental Emergency Spill Contingency and Environmental Monitoring and QA/QC Plans will be provided within the 2025 Application for Amendment and Renewal of the Water Licence for approval.

The changes to the Plans will ensure that all information is up to date for the infrastructure, personnel, and procedures for handling regulatory requirements.

X. ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

- No open burning was undertaken in 2024
- No sludge has been removed from the Wastewater Treatment Facility
- No modifications to the Monitoring Program
- Monitoring station SAN-5 was not sampled at due to it being dry
    - See **Appendix C** for photos

XI. FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

A CIRNAC Inspection did not take place during 2024.

An updated Compliance Plan will be submitted with the 2025 Application for Water Licence Amendment and Renewal.

APPENDICES:

Appendix A: Summary and Interpretation of Monitoring Data
Appendix B: Certificate of Analyses
Appendix C: SAN-5 Photos from Sampling

Appendix A

Tabular Summary of Monitoring Data

Parameter	**Maximum Concentration of any Grab Sample for *SAN-4***	**Units**	**July 4, 2024 *SAN-4***	**Aug. 11, 2024 *SAN-4***
BOD_5	120	mg/L	<2	<2
Total Suspended Solids	180	mg/L	<3	<3
Fecal Coliform	$1x10^6$	CFU/ 100 mL	8	16
Oil and Grease	No visible sheen	N/A	<5.0 mg/L	<5.0 mg/L
pH	Between 6 and 9	N/A	8.07	7.79

Based on the results, compliance with the effluent quality limits at SAN-4 was achieved.

Appendix B

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CERTIFICATE OF ANALYSIS (GUIDELINE EVALUATION)

Work Order	: **WP2416744**	Page	: 1 of 6
Client	: **Municipality of Sanikiluaq**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Sanikiluaq Mike Rowan	Account Manager	: Craig Riddell
Address	: PO Box 157 Sanikiluaq NU Canada X0A 0W0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 867 266 8308	Telephone	: +1 204 255 9720
Project	: Hamlet of Sanikiluaq - Waste Water	Date Samples Received	: 05-Jul-2024 12:15
PO	: ----	Date Analysis Commenced	: 05-Jul-2024
C-O-C number	: ----	Issue Date	: 19-Jul-2024 15:55
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Analytical Testing		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Guideline Comparison

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Ana Srzic		Organics, Winnipeg, Manitoba
Jade Soliman		Microbiology, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba

No Breaches Found

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.
Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information. Guidelines are not adjusted for the hardness, pH or temperature of the sample (the most conservative values are used). Measurement uncertainty is not applied to test results prior to comparison with specified criteria values.

Key : LOR: Limit of Reporting (detection limit).

Unit	*Description*
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
MPN/100mL	most probable number per hundred millilitres
pH units	pH units

>: greater than.
<: less than.
Red shading is applied where the result or the LOR is greater than the Guideline Upper Limit (or lower than the Guideline Lower Limit, if applicable).
For drinking water samples, Red shading is applied where the result for E.coli, fecal or total coliforms is greater than or equal to the Guideline Upper Limit.

Qualifiers

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
MBHT	The APHA 30 hour holding time was exceeded for microbiological testing. Samples processed within 48 hours from time of sampling may be valid in some cases (refer to Health Canada guidance).

Analytical Results Evaluation

Matrix: **Effluent**

Analyte	CAS Number	Method/Lab	Unit	Client sample ID	SAN-2	SAN-4	----	----	----	----	----
				Sampling date/time	04-Jul-2024 10:15	04-Jul-2024 10:30	----	----	----	----	----
				Sub-Matrix	Effluent	Effluent	----	----	----	----	----
					WP2416744-001	WP2416744-002	--------	--------	--------	--------	--------
Physical Tests											
Alkalinity, bicarbonate (as HCO3)	71-52-3	E290/WP	mg/L		233	202	----	----	----	----	----
Alkalinity, carbonate (as CO3)	3812-32-6	E290/WP	mg/L		<1.0	<1.0	----	----	----	----	----
Alkalinity, hydroxide (as OH)	14280-30-9	E290/WP	mg/L		<1.0	<1.0	----	----	----	----	----
Conductivity	----	E100/WP	µS/cm		738	2550	----	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	mg/L		268	476	----	----	----	----	----
pH	----	E108/WP	pH units		8.18	8.07	----	----	----	----	----
Solids, total suspended [TSS]	----	E160/WP	mg/L		<3.0	<3.0	----	----	----	----	----
Anions and Nutrients											
Ammonia, total (as N)	7664-41-7	E298/WP	mg/L		0.0088	0.0197	----	----	----	----	----
Chloride	16887-00-6	E235.Cl/WP	mg/L		62.6	649	----	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/WP	mg/L		0.407	<0.400 DLM	----	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	mg/L		0.407	<0.447	----	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/WP	mg/L		<0.010	<0.200 DLM	----	----	----	----	----
Phosphorus, total	7723-14-0	E372/WP	mg/L		<0.020	0.910	----	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	mg/L		110	109	----	----	----	----	----
Organic / Inorganic Carbon											
Carbon, total organic [TOC]	----	E355-L/WP	mg/L		4.86	9.97	----	----	----	----	----
Microbiological Tests											
Coliforms, thermotolerant [fecal]	----	E010.FC/WP	MPN/10 0mL		22 MBHT	8 MBHT	----	----	----	----	----
Coliforms, total	----	E010.QT97/WP	MPN/100 mL		>2420 MBHT	1410 MBHT	----	----	----	----	----
Coliforms, Escherichia coli [E. coli]	----	E010.QT97/WP	MPN/10 0mL		62 MBHT	13 MBHT	----	----	----	----	----
Total Metals											
Aluminum, total	7429-90-5	E420/WP	mg/L		0.0041	0.0082	----	----	----	----	----
Antimony, total	7440-36-0	E420/WP	mg/L		0.00093	0.00011	----	----	----	----	----
Arsenic, total	7440-38-2	E420/WP	mg/L		0.00020	0.00144	----	----	----	----	----
Barium, total	7440-39-3	E420/WP	mg/L		0.0227	0.0138	----	----	----	----	----

Analytical Results Evaluation

Matrix: **Effluent**

Analyte	CAS Number	Method/Lab	Unit	Client sample ID	SAN-2	SAN-4	----	----	----	----	----
				Sampling date/time	04-Jul-2024 10:15	04-Jul-2024 10:30	----	----	----	----	----
				Sub-Matrix	Effluent	Effluent	----	----	----	----	----
					WP2416744-001	WP2416744-002	--------	--------	--------	--------	--------
Total Metals											
Beryllium, total	7440-41-7	E420/WP	mg/L		<0.000020	<0.000020	----	----	----	----	----
Bismuth, total	7440-69-9	E420/WP	mg/L		Not Detected	<0.000050	----	----	----	----	----
Boron, total	7440-42-8	E420/WP	mg/L		0.135	0.216	----	----	----	----	----
Cadmium, total	7440-43-9	E420/WP	mg/L		0.0000112	0.0000179	----	----	----	----	----
Calcium, total	7440-70-2	E420/WP	mg/L		68.3	96.1	----	----	----	----	----
Cesium, total	7440-46-2	E420/WP	mg/L		0.000020	<0.000010	----	----	----	----	----
Chromium, total	7440-47-3	E420/WP	mg/L		<0.00050	<0.00050	----	----	----	----	----
Cobalt, total	7440-48-4	E420/WP	mg/L		0.00014	0.00018	----	----	----	----	----
Copper, total	7440-50-8	E420/WP	mg/L		0.00437	0.00181	----	----	----	----	----
Iron, total	7439-89-6	E420/WP	mg/L		<0.010	0.059	----	----	----	----	----
Lead, total	7439-92-1	E420/WP	mg/L		<0.000050	<0.000050	----	----	----	----	----
Lithium, total	7439-93-2	E420/WP	mg/L		0.0084	0.0125	----	----	----	----	----
Magnesium, total	7439-95-4	E420/WP	mg/L		23.6	57.2	----	----	----	----	----
Manganese, total	7439-96-5	E420/WP	mg/L		0.00028	0.0286	----	----	----	----	----
Mercury, total	7439-97-6	E508/WP	mg/L		<0.0000050	<0.0000050	----	----	----	----	----
Molybdenum, total	7439-98-7	E420/WP	mg/L		0.000579	0.000671	----	----	----	----	----
Nickel, total	7440-02-0	E420/WP	mg/L		0.00062	0.00102	----	----	----	----	----
Phosphorus, total	7723-14-0	E420/WP	mg/L		<0.050	1.05	----	----	----	----	----
Potassium, total	7440-09-7	E420/WP	mg/L		5.84	10.4	----	----	----	----	----
Rubidium, total	7440-17-7	E420/WP	mg/L		0.00230	0.00256	----	----	----	----	----
Selenium, total	7782-49-2	E420/WP	mg/L		0.000173	0.000116	----	----	----	----	----
Silicon, total	7440-21-3	E420/WP	mg/L		1.58	2.43	----	----	----	----	----
Silver, total	7440-22-4	E420/WP	mg/L		<0.000010	<0.000010	----	----	----	----	----
Sodium, total	7440-23-5	E420/WP	mg/L		50.5	353	----	----	----	----	----
Strontium, total	7440-24-6	E420/WP	mg/L		0.221	0.609	----	----	----	----	----
Sulfur, total	7704-34-9	E420/WP	mg/L		39.4	55.0	----	----	----	----	----
Tellurium, total	13494-80-9	E420/WP	mg/L		<0.00020	<0.00020	----	----	----	----	----
Thallium, total	7440-28-0	E420/WP	mg/L		<0.000010	0.000014	----	----	----	----	----
Thorium, total	7440-29-1	E420/WP	mg/L		Not Detected	Not Detected	----	----	----	----	----

Analytical Results Evaluation

Matrix: **Effluent**

Analyte	CAS Number	Method/Lab	Unit	Client sample ID	SAN-2	SAN-4	----	----	----	----	----
				Sampling date/time	04-Jul-2024 10:15	04-Jul-2024 10:30	----	----	----	----	----
				Sub-Matrix	Effluent	Effluent	----	----	----	----	----
				WP2416744-001	WP2416744-002	--------	--------	--------	--------	--------	
Total Metals											
Tin, total	7440-31-5	E420/WP	mg/L	<0.00010	0.00010	----	----	----	----	----	
Titanium, total	7440-32-6	E420/WP	mg/L	<0.00030	0.00036	----	----	----	----	----	
Tungsten, total	7440-33-7	E420/WP	mg/L	Not Detected	Not Detected	----	----	----	----	----	
Uranium, total	7440-61-1	E420/WP	mg/L	0.00308	0.00277	----	----	----	----	----	
Vanadium, total	7440-62-2	E420/WP	mg/L	<0.00050	<0.00050	----	----	----	----	----	
Zinc, total	7440-66-6	E420/WP	mg/L	<0.0030	<0.0030	----	----	----	----	----	
Zirconium, total	7440-67-7	E420/WP	mg/L	<0.00020	<0.00020	----	----	----	----	----	
Aggregate Organics											
Biochemical oxygen demand [BOD]	----	E550/WP	mg/L	<2.0	<2.0	----	----	----	----	----	
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/WP	mg/L	<2.0	<2.0	----	----	----	----	----	
Oil & grease (gravimetric)	----	E567/WP	mg/L	5.2	<5.0	----	----	----	----	----	
Phenols, total (4AAP)	----	E562/WT	mg/L	0.0027	0.0028	----	----	----	----	----	

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Key:

Chain of Custody (COC) / Analytical Request Form

ALS Environmental

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 15 -

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Hamlet of Sanikiluaq
Contact:	MIKE ROWAN (SAO)
Phone:	867-266-7900
	Company address below will appear on the final report
Street:	PO Box 157
City/Province:	Sanikiluaq, NU
Postal Code:	X0A 0W0

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Quality Control (QC) Report with Report ☐ YES ☐ NO

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: sao@sanikiluaq.ca

Email 2: rkum@gov.nu.ca

Email 3: mlusty@gov.nu.ca

Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4] ☐ | 3 day [P3] ☐ | 2 day [P2] ☐

EMERGENCY: 1 Business day [E1] ☐ | Same Day, Weekend or Statutory holiday [E0] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	Hamlet of Sanikiluaq - Waste Water	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only)		ALS Contact:	Sampler: Nuiliat

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	BOD	Routine	Bacteria	Total Metals	Total Mercury	Nutrients	Oil and Grease	PAH (x2)	BTEX-F1 (x3)	F2-F4 (x2)				Number of Containers
								P	P	P	P	P	P	P	P			
	SAN-2	04-07-24	10:15 AM	Effluent	R	R	R	R	R	R	R	R	R	R				
	SAN-4	04-07-24	10:30 AM	Effluent	R	R	R	R	R	R	R							
	SAN-5 No Run Off	04-07-24	10:35 AM	Effluent	R	R	R	R	R	R	R	R	R	R				

Environmental Division Winnipeg
Work Order Reference
WP2416744

Telephone : +1 204 255 9720

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	NUNAVUT-WW-GRP1-WP, BTEX, F1-F4, PAH
Are samples for human drinking water use? ☐ YES ☑ NO	

SAMPLE C

Frozen ☐

Ice Packs ☐ Ice Cube ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by: AM	Date: JUL 05 2024	Time: 12:15	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

OCTOBER 2015 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Sample Intake

Client: Hamlet of Kanjklyaq					**Temp:**	
Express TAT?	no	same day	1 day	yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	yes: 2 days	3 days	4 days
Cooling method	none	Loose ice	Ice packs		**Cooling initiated** ☐	
Matrix	Water	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions: 18/2

Green/white	4 x 500	Orange/black	
Purple/white	4 x 100	Dark blue/white	
Red/white	4 2 x 100	Black/white	
Dark green/white		Brown/white	
Grey/black		Pink/white	
Yellow/black	2 x 40, 4 x 25	Beige/white	
Light blue/white	2 x 250	Other (specify)	

Comments:

Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			**Client Contacts**	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			**Post-committing**	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			**Action Required?**	**Yes**	**No**
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

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CERTIFICATE OF ANALYSIS (GUIDELINE EVALUATION)

Work Order	: **WP2418870**	Page	: 1 of 6
Client	: **Municipality of Sanikiluaq**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Sanikiluaq Mike Rowan	Account Manager	: Craig Riddell
Address	: PO Box 157 Sanikiluaq NU Canada X0A 0W0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 867 266 8308	Telephone	: +1 204 255 9720
Project	: Hamlet of Sanikiluaq - Waste Water	Date Samples Received	: 02-Aug-2024 13:53
PO	: ----	Date Analysis Commenced	: 02-Aug-2024
C-O-C number	: ----	Issue Date	: 16-Aug-2024 10:19
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Analytical Testing		
No. of samples received	: 2		
No. of samples analysed	: 2		

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Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Brennan Dugas	Analyst	Microbiology, Winnipeg, Manitoba
Brooke Miller	Laboratory Analyst	Inorganics, Edmonton, Alberta
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Michelle Michalchuk	Analyst	Organics, Winnipeg, Manitoba

No Breaches Found

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.
Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information. Guidelines are not adjusted for the hardness, pH or temperature of the sample (the most conservative values are used). Measurement uncertainty is not applied to test results prior to comparison with specified criteria values.

Key : LOR: Limit of Reporting (detection limit).

Unit	*Description*
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
MPN/100mL	most probable number per hundred millilitres
pH units	pH units

>: greater than.
<: less than.
Red shading is applied where the result or the LOR is greater than the Guideline Upper Limit (or lower than the Guideline Lower Limit, if applicable).
For drinking water samples, Red shading is applied where the result for E.coli, fecal or total coliforms is greater than or equal to the Guideline Upper Limit.

Qualifiers

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
HTA	Analytical holding time was exceeded.
MBHT	The APHA 30 hour holding time was exceeded for microbiological testing. Samples processed within 48 hours from time of sampling may be valid in some cases (refer to Health Canada guidance).

Analytical Results Evaluation

Matrix: **Effluent**

Analyte	CAS Number	Method/Lab	Unit	Client sample ID	SAN-2	SAN-4	----	----	----	----	----
				Sampling date/time	01-Aug-2024 10:00	01-Aug-2024 10:07	----	----	----	----	----
				Sub-Matrix	Effluent	Effluent	----	----	----	----	----
					WP2418870-001	WP2418870-002	--------	--------	--------	--------	--------
Physical Tests											
Alkalinity, bicarbonate (as HCO3)	71-52-3	E290/WP	mg/L		308	246	----	----	----	----	----
Alkalinity, carbonate (as CO3)	3812-32-6	E290/WP	mg/L		<1.0	<1.0	----	----	----	----	----
Alkalinity, hydroxide (as OH)	14280-30-9	E290/WP	mg/L		<1.0	<1.0	----	----	----	----	----
Conductivity	----	E100/WP	µS/cm		959	4840	----	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	mg/L		333	836	----	----	----	----	----
pH	----	E108/WP	pH units		7.64	7.79	----	----	----	----	----
Solids, total suspended [TSS]	----	E160/WP	mg/L		25.3 HTA	<3.0 HTA	----	----	----	----	----
Anions and Nutrients											
Ammonia, total (as N)	7664-41-7	E298/WP	mg/L		0.0201	0.0310	----	----	----	----	----
Chloride	16887-00-6	E235.Cl/WP	mg/L		85.9	1340	----	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/WP	mg/L		<0.040 DLM	<0.400 DLM	----	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	mg/L		<0.0447	<0.447	----	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/WP	mg/L		<0.020 DLM	<0.200 DLM	----	----	----	----	----
Phosphorus, total	7723-14-0	E372/WP	mg/L		<0.020	0.473	----	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	mg/L		135	251	----	----	----	----	----
Organic / Inorganic Carbon											
Carbon, total organic [TOC]	----	E355-L/WP	mg/L		6.03	10.4	----	----	----	----	----
Microbiological Tests											
Coliforms, thermotolerant [fecal]	----	E010.FC/WP	MPN/10 0mL		73 MBHT	16 MBHT	----	----	----	----	----
Coliforms, total	----	E010.QT97/WP	MPN/100 mL		>2420 MBHT	>2420 MBHT	----	----	----	----	----
Coliforms, Escherichia coli [E. coli]	----	E010.QT97/WP	MPN/10 0mL		50 MBHT	99 MBHT	----	----	----	----	----
Total Metals											
Aluminum, total	7429-90-5	E420/WP	mg/L		0.0067	0.0177	----	----	----	----	----
Antimony, total	7440-36-0	E420/WP	mg/L		0.00086	0.00015	----	----	----	----	----
Arsenic, total	7440-38-2	E420/WP	mg/L		0.00028	0.00154	----	----	----	----	----

Analytical Results Evaluation

Matrix: **Effluent**

Analyte	CAS Number	Method/Lab	Unit	Client sample ID	SAN-2	SAN-4	----	----	----	----	----
				Sampling date/time	01-Aug-2024 10:00	01-Aug-2024 10:07	----	----	----	----	----
				Sub-Matrix	Effluent	Effluent	----	----	----	----	----
					WP2418870-001	WP2418870-002	--------	--------	--------	--------	--------
Total Metals											
Barium, total	7440-39-3	E420/WP	mg/L		0.0296	0.0284	----	----	----	----	----
Beryllium, total	7440-41-7	E420/WP	mg/L		<0.000020	<0.000020	----	----	----	----	----
Bismuth, total	7440-69-9	E420/WP	mg/L		<0.000050	<0.000050	----	----	----	----	----
Boron, total	7440-42-8	E420/WP	mg/L		0.202	0.485	----	----	----	----	----
Cadmium, total	7440-43-9	E420/WP	mg/L		0.0000172	0.0000540	----	----	----	----	----
Calcium, total	7440-70-2	E420/WP	mg/L		83.8	160	----	----	----	----	----
Cesium, total	7440-46-2	E420/WP	mg/L		0.000034	0.000015	----	----	----	----	----
Chromium, total	7440-47-3	E420/WP	mg/L		<0.00050	<0.00050	----	----	----	----	----
Cobalt, total	7440-48-4	E420/WP	mg/L		0.00023	0.00028	----	----	----	----	----
Copper, total	7440-50-8	E420/WP	mg/L		0.00328	0.00243	----	----	----	----	----
Iron, total	7439-89-6	E420/WP	mg/L		0.054	0.142	----	----	----	----	----
Lead, total	7439-92-1	E420/WP	mg/L		0.000051	0.000067	----	----	----	----	----
Lithium, total	7439-93-2	E420/WP	mg/L		0.0136	0.0288	----	----	----	----	----
Magnesium, total	7439-95-4	E420/WP	mg/L		30.0	106	----	----	----	----	----
Manganese, total	7439-96-5	E420/WP	mg/L		0.0180	0.128	----	----	----	----	----
Mercury, total	7439-97-6	E508/WP	mg/L		0.0000074	<0.0000050	----	----	----	----	----
Molybdenum, total	7439-98-7	E420/WP	mg/L		0.000971	0.00166	----	----	----	----	----
Nickel, total	7440-02-0	E420/WP	mg/L		0.00072	0.00160	----	----	----	----	----
Phosphorus, total	7723-14-0	E420/WP	mg/L		<0.050	0.566	----	----	----	----	----
Potassium, total	7440-09-7	E420/WP	mg/L		6.30	23.8	----	----	----	----	----
Rubidium, total	7440-17-7	E420/WP	mg/L		0.00280	0.00343	----	----	----	----	----
Selenium, total	7782-49-2	E420/WP	mg/L		0.000212	0.000250	----	----	----	----	----
Silicon, total	7440-21-3	E420/WP	mg/L		2.23	3.92	----	----	----	----	----
Silver, total	7440-22-4	E420/WP	mg/L		<0.000010	<0.000010	----	----	----	----	----
Sodium, total	7440-23-5	E420/WP	mg/L		78.1	705	----	----	----	----	----
Strontium, total	7440-24-6	E420/WP	mg/L		0.279	1.43	----	----	----	----	----
Sulfur, total	7704-34-9	E420/WP	mg/L		52.5	107	----	----	----	----	----
Tellurium, total	13494-80-9	E420/WP	mg/L		<0.00020	<0.00020	----	----	----	----	----
Thallium, total	7440-28-0	E420/WP	mg/L		<0.000010	0.000038	----	----	----	----	----

Analytical Results Evaluation

Matrix: **Effluent**

Analyte	CAS Number	Method/Lab	Unit	Client sample ID: SAN-2	SAN-4	----	----	----	----	----
Sampling date/time				01-Aug-2024 10:00	01-Aug-2024 10:07	----	----	----	----	----
Sub-Matrix				Effluent	Effluent	----	----	----	----	----
				WP2418870-001	WP2418870-002	--------	--------	--------	--------	--------
Total Metals										
Thorium, total	7440-29-1	E420/WP	mg/L	Not Detected	Not Detected	----	----	----	----	----
Tin, total	7440-31-5	E420/WP	mg/L	<0.00010	<0.00010	----	----	----	----	----
Titanium, total	7440-32-6	E420/WP	mg/L	0.00034	0.00064	----	----	----	----	----
Tungsten, total	7440-33-7	E420/WP	mg/L	Not Detected	Not Detected	----	----	----	----	----
Uranium, total	7440-61-1	E420/WP	mg/L	0.00562	0.00421	----	----	----	----	----
Vanadium, total	7440-62-2	E420/WP	mg/L	<0.00050	<0.00050	----	----	----	----	----
Zinc, total	7440-66-6	E420/WP	mg/L	<0.0030	<0.0030	----	----	----	----	----
Zirconium, total	7440-67-7	E420/WP	mg/L	0.00022	0.00025	----	----	----	----	----
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WP	mg/L	2.2	<2.0	----	----	----	----	----
Carbonaceous biochemical oxygen demand [CBOD]	----	E555/WP	mg/L	<2.0	<2.0	----	----	----	----	----
Oil & grease (gravimetric)	----	E567/WP	mg/L	<5.0	<5.0	----	----	----	----	----
Phenols, total (4AAP)	----	E562/EO	mg/L	0.0029	<0.0010	----	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Key:

Chain of Custody (COC) / Analytical Request Form

ALS Environmental

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

COC Number: 15 -

Affix ALS barcode label here
(lab use only)

Environmental Division Winnipeg
Work Order Reference
WP2418870

Telephone : +1 204 255 9720

Report To	Contact and company name below will appear on the final report
Company:	Hamlet of Sanikiluaq
Contact:	MIKE ROWAN (SAO)
Phone:	867-266-7900
	Company address below will appear on the final report
Street:	PO Box 157
City/Province:	Sanikiluaq, NU
Postal Code:	X0A 0W0
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Report Format / Distribution

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Quality Control (QC) Report with Report ☐ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: sao@sanikiluaq.ca
Email 2: rkum@gov.nu.ca
Email 3: mlusty@gov.nu.ca

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax:
Email 2:

Project Information

ALS Account # / Quote #:
Job #: Hamlet of Sanikiluaq - Waste Water
PO / AFE:
LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#
Major/Minor Code: Routing Code:
Requisitioner:
Location:

ALS Lab Work Order # (lab use only)

ALS Contact: **Sampler:** Noah O.

Select Service Level Below - Please confirm all E&P TATs

Regular [R] ☑ Standard TAT if rec

PRIORITY (Business Days): 4 day [P4] ☐ | 3 day [P3] ☐ | 2 day [P2] ☐ — EMERGENCY

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the se

Anal

Indicate Filtered (F), Preserved (P) or F

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	BOD	Routine	Bacteria	Total Metals (P)	Total Mercury (P)	Nutrients (P)	Oil and Grease (P)	PAH (x2)	BTEX-F1 (x3)	F2-F4 (x2)				Number of Containers
	SAN-2	01-08-24	10:00 AM	Effluent	R	R	R	R	R	R	R	R	R	R				
	SAN-4	01-08-24	10:07 AM	Effluent	R	R	R	R	R	R	R							
	SAN-5 No Run Off	01-08-24	10:15 AM	Effluent	R	R	R	R	R	R	R	R	R	R				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO
Are samples for human drinking water use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

NUNAVUT-WW-GRP1-WP, BTEX, F1-F4, PAH 10.30

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐
Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐
Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time: 1530	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

OCTOBER 2015 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Sample Intake

Client:	Hamlet of Sanikiaq				**COC receipt info complete**	☐
Express TAT?	no	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	~~no~~	<24 hrs	1 day	Yes: 2 days	3 days	4 days
Matrix	Water	Soil/solid	Air	~~Biota~~	Food/micro	Other
Total number of bottles/fractions:		20				

Green/white	6x500	Orange/black	
Purple/white	4x125	Dark blue/white	
Red/white	2x125	Black/white	
Dark green/white		Brown/white	
Grey/white		Pink/white	
Yellow/black	4x250	Beige/white	
Light blue/white	2x250	Other (specify)	2x40ml yellow vial

Comments:

10.3°, ice packs, cooling initiated

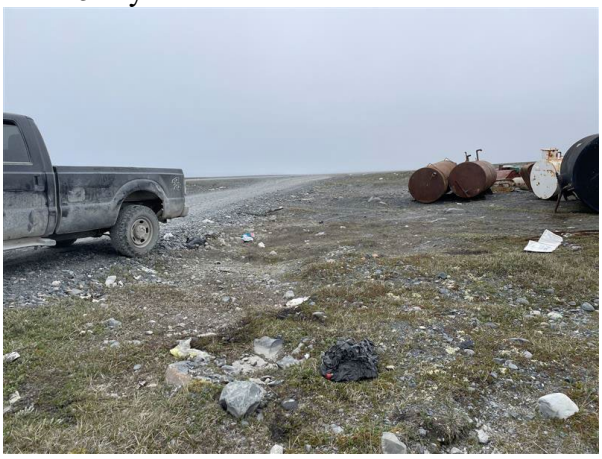
Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			**Client Contacts**	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			**Post-committing**	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			**Action Required?**	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

Appendix C

SAN-5 dry in June:



SAN-5 dry in August: