

Government of Newfoundland and Labrador Department of Environment and Climate Change Water Resources Management Division

PERMIT TO CONSTRUCT A NON-DOMESTIC WELL

Pursuant to the Water Resources Act, SNL 2002 cW-4.01, specifically Section(s) 58

Date: APRIL 18, 2024 File No: NDOM24-007
Permit No: GW13593-2024

Permit Holder: LSD of Bay St. George South

PO Box 183 McKays, NL A0N 1G0

lsdbsgs@eastlink.ca

Attention: Joanie Barry

Re: LDS of Bay St. Georges South - aquifer pump test on an existing municipal well

Permission is hereby given for: Step test and a 24 hour pump test on the existing municipal well.

- This Permit does not release the Permit Holder from the obligation to obtain appropriate approvals from other concerned municipal, provincial and federal agencies.
- The Permit Holder must obtain the approval of the Crown Lands Administration Division if the project is being carried out on Crown Land.
- This Permit is subject to the terms and conditions indicated in Appendices A and B (attached).
- It should be noted that prior to any significant changes in the design or installation of the proposed works, or in event of changes in ownership or management of the project, an amendment to this Permit must be obtained from the Department of Environment and Climate Change under Section 49 of the *Water Resources Act*.

(for) MINISTER

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR

Department of Environment and Climate Change

File No: **NDOM24-007**Permit No: **GW13593-2024**

APPENDIX A

Terms and Conditions for Permit

Special Conditions

1. This permit allows for the completion of a step test and 24 hour pump test on the existing municipal well in Bay St. George South.

Non-Domestic (Pumping Test)

- 2. A 24 hour aquifer pumping test is required for the well in accordance with the Water Resources Management Division document Guidelines for Aquifer Pumping Tests. A final report, written by a hydrogeologist or qualified person and providing the information as stated in the guidelines, including chemical analyses of the water, must be forwarded to this department. This report must be submitted with the completion report.
- 3. Prior to commencing a long-term aquifer test, a step drawdown test must be conducted to estimate the rate that can be maintained by the well for extended periods of time. The step drawdown test should consist of at least 4 steps and each step should be of at least 30 minutes duration. The pumping rates that are used for this test are determined from the driller's estimate of the well yield. If four steps are used, the first should be conducted at a rate of about one-quarter of the well yield estimate provided by the driller. This rate is maintained for 30 to 60 minutes and then the next step is begun without stopping for recovery. Each successive step should be run at a rate that is approximately double the rate of the step prior. The step drawdown test must be evaluated by a qualified professional prior to the constant rate pumping test to evaluate a sustainable pumping rate.

Non-Domestic (Water Quality)

- 4. A minimum of two water samples must be collected from the well at the wellhead during the aquifer pumping test utilizing proper sampling protocol. The first water sample must be collected not less than 30 minutes or more than two hours into the pumping period, and the second or last water sample must be collected during the last hour of the pumping period. Water samples must be submitted to an accredited water analysis laboratory for testing as per the attached parameter list. As a part of the completion report, a copy of the analytical results must be sent to this department.
- 5. After the well has been completed as a source water supply, a bacteriological water sample must be collected from the well before chlorination and/or treatment is applied, utilizing proper sampling protocol, and submitted to Service NL for analysis between 10-15 days after well disinfection. As a part of the completion report, a copy of the bacteriological results must be submitted to this department.
- 6. The completed well must not be utilized as a source water supply until all required water quality analytical results have been received and approved by this department.

Non-Domestic (Completion)

- 7. The signed completion report must include: all completed Drilled Water Well Records for each water well or borehole constructed; aquifer pumping test results (including calculations); water quality results; and any other reports related to the construction or abandonment of water wells or boreholes.
- 8. All non-domestic wells and boreholes are subject to inspections to ensure compliance with the terms and conditions of this permit. Upon completion of the inspection, a wellhead inspection report will be sent to the well owner.

Non-domestic (GPS Coordinates)

9.	The well and/or borehole must be constructed at or near the given coordinate as provided in the non-domestic well application: N 48.223650, W 58.841946. Any additional information on well or borehole locations can be acquired by contacting the groundwater environmental scientist at (709) 729-2539 or GroundwaterSection@gov.nl.ca.

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APPENDIX B

Special Terms and Conditions for Permit

- 1. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall keep all systems and works in good condition and repair and in accordance with all laws, by-laws, directions, rules and regulations of any governmental authority. The Permit Holder or its agent(s), subcontractor(s), or consultant(s) shall immediately notify the Minister if any problem arises which may threaten the structural stability of the systems and works, endanger public safety and/or the environment or adversely affect others and/or any body of water either in or outside the said Project areas. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall be responsible for all damages suffered by the Minister and Government resulting from any defect in the systems and works, operational deficiencies/inadequacies, or structural failure.
- 2. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall operate the said Project and its systems and works in a manner which does not cause any water related and/or environmental problems, including but not limited to problems of erosion, deposition, flooding, and deterioration of water quality and groundwater depletion, in or outside the said Project areas. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall be responsible for any and all damages associated with these problems caused as a result of changes, deficiencies, and inadequacies in the operational procedures by the Permit Holder or its agent(s), subcontractor(s), or consultant(s).
- 3. If the Permit Holder or its agent(s), subcontractor(s), or consultant(s) fails to perform, fulfil, or observe any of the terms and conditions, or provisions of this Permit, as determined by this Department, the Minister may, without notice, amend, modify, suspend or cancel this Permit in accordance with the *Water Resources Act*.
- 4. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) indemnify and hold the Minister and Government harmless against any and all liabilities, losses, claims, demands, damages or expenses including legal expenses of any nature whatsoever whether arising in tort, contract, statute, trust or otherwise resulting directly or indirectly from granting this Permit, systems and works in or outside the said Project areas, or any act or omission of the Permit Holder or its agent(s), subcontractor(s), or consultant(s) in or outside the said Project areas, or arising out of a breach or non-performance of any of the terms and conditions, or provisions of this Permit by the Permit Holder or its agent(s), subcontractor(s), or consultant(s).
- 5. This Permit is subject to all provisions of the *Water Resources Act* and any regulations in effect either at the date of this Permit or hereafter made pursuant thereto or any other relevant legislation enacted by the Province of Newfoundland and Labrador in the future.
- This Permit shall be construed and interpreted in accordance with the laws of the Province of Newfoundland and Labrador.

File No: <u>NDOM24-007</u> Permit No: <u>GW13593-2024</u>

cc: Groundwater Section File Copy Groundwater Section Water Resources Management Dept. Environment and Climate Change groundwatersection@gov.nl.ca

cc: Richard Harvey, Ph.D., P.Eng.
Program - Lead - Drinking Water, Drinking Water & Wastewater Section
Water Resources Management Division
Department of Environment and Climate Change
RHarvey@gov.nl.ca



Government of Newfoundland and Labrador Department of Environment and Climate Change Water Resources Management Division

Appendix C - Completion Report

	Appendix	- Completion Report			
Pursuant to the V	rursuant to the Water Resources Act, SNL 2002 cW-4.01, specifically Section(s) 58				
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Permit Holder:	LSD of Bay St. George South	1 stant () () () () () () () () () (
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	McKays, NL				
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	lsdbsgs@eastlink.ca				
Attention:	Joanie Barry				
Re:	LDS of Bay St. Georges South - aquifer pump test on an existing municipal well				
Permission was g	given for: Step test and a 24 hour pum	p test on the existing municipal well.			
that the p	project described above was completed in	orized to represent the Permit Holder) do hereby certify a accordance with the plans and specifications submitted Change and that the work was carried out in strict Permit issued for this project.			
Date:		Signature:			

This completion report must be completed and forwarded to the following address upon completion of the approved work.

Department of Environment and Climate Change Water Resources Management Division PO Box 8700 St. John's NL A1B 4J6

General Water Quality Parameter List for Groundwater

Alkalinity Aluminum Ammonia Antimony Arsenic Barium Boron **Bromide** Cadmium Calcium Chloride Chromium Colour (true) Conductivity Copper Dissolved Organic Carbon Fluoride Hardness Iron Kjeldahl Nitrogen Lead Magnesium Manganese Mercury Nickel Nitrate/Nitrite pН Potassium Selenium Sodium Sulphate **Total Dissolved Solids Total Phosphorus Turbidity** Uranium Zinc