

## ANNUAL REPORT FOR THE HAMLET OF CORAL HARBOUR

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**YEAR BEING REPORTED: 2021**

The following information is compiled pursuant to the requirements of Part B, Item 1 of Water Licence No. **3BM-COR1521** issued to the **Hamlet of Coral Harbour**.

Below are tabular summaries of all data generated under the “Monitoring Program”.

- I. Monthly and annual quantities of freshwater obtained by daily logs for all freshwater sources and estimated sewage waste discharged.

**Table 1: Summary of water obtained from three the reservoir and estimated sewage water discharge in m<sup>3</sup>**

<b>Month Reported</b>	<b>Quantity of Water Obtained from all sources (m<sup>3</sup>)</b>	<b>Quantity of Sewage Waste Discharged (m<sup>3</sup>)</b>
<b>January</b>	3,048.520	Same
<b>February</b>	2,905.832	Same
<b>March</b>	3,550.135	Same
<b>April</b>	3,196.777	Same
<b>May</b>	3,327.260	Same
<b>June</b>	3,001.668	Same
<b>July</b>	3,610.214	Same
<b>August</b>	3,824.988	Same
<b>September</b>	3,645.351	Same
<b>October</b>	3,734.116	Same
<b>November</b>	3,729.156	Same
<b>December</b>	3,727.203	Same
<b>ANNUAL TOTAL</b>	41,301.220	Same

**Note:** No meter exists to measure the sewage discharge volumes, therefore Sewage discharge volumes are considered equal to the water consumption volumes.

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**Table 2: Summary of water obtained from Post River and the Reservoir in m<sup>3</sup>**

<b>Month Reported</b>	<b>Estimated Water Transferred from Wolf Creek to Raw Water Cells (m<sup>3</sup>)</b>
<b>September</b>	26,000
<b>October</b>	2,000
<b>TOTAL</b>	<b>28,000</b>

Pumping from Post River began on September 14, 2021 and ended on October 29, 2021. An estimated total of 28,000 m<sup>3</sup> was pumped to the reservoir in 2021.

- II. 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:
- None

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- III. A list of unauthorized discharges and summary of follow-up action taken:
- No unauthorized discharges for the infrastructure under licence 3BM-COR1521 occurred in 2021.
- IV. A summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year:
- None
- V. 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:
- None
- VI. Any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and
- None
- VII. updates or revisions to the approved Operation and Maintenance Plans:
- An update to the Water Supply, Sewage Disposal Facility and Solid Waste Facility O&M Plans were submitted as part of the licence renewal and amendment process, along with the updated QA/QC Plan and Environmental Emergency Spill Contingency Plan.

### **ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:**

- On September 21, 2021, a Type A amendment and renewal application was submitted to the NWB to replace the existing Type B Licence 3BM-COR1521. The Technical Meeting and Pre-Hearing Conference was held on December 7 and 8, 2021. Following a written Public Hearing, the Hearing Record was closed on February 25, 2022.

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### Water Licensing Sampling Points:



- COR-3: Effluent from Sewage Containment Cell
- COR-4: Station within Wetland
- COR-5: Discharge from Wetland
- COR-6: Run-off from the Solid Waste Disposal Facility
- COR-7: Run-off Below Waste metals area



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### **FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:**

- Coral Harbour's sewage lagoon was designed to be permeable and passively exfiltrate. The treatment is intended to be attributed to the wetland treatment area. This wetland has been assessed several times and demonstrated its ability to reduce contaminants, with a summary of the studies and findings included in the 2021 Sewage Disposal Facility OM Plan. Therefore the lagoon is operating as intended. CGS requested that NWB provide a justification as to why the effluent quality limits at COR-5 have been set to BOD/TSS 30/30 mg/L during the licence renewal technical meeting and has not received this information. These limits are inconsistent with all other municipal water licences in Nunavut and are set too low. Based on extensive research completed by CGS in partnership with the University of Dalhousie, achievable effluent parameter limits at the end of lagoon and wetland wastewater systems are cBOD/TSS of 100/120 mg/L.

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**Appendix A: COR-5 Effluent Quality Limits**

**Appendix B: Weekly Inspections at Monitoring Program Station**

**Appendix C: Certificate of Analysis**

**Appendix D: Hazardous Materials Spill Database, Coral Harbour 2021**

**Appendix E: Coral Harbour Sampling Summary**

**Appendix F: Coral Harbour CIRNAC Inspection Report**

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## **Appendix A**

**No COR-5 Effluent Quality Limit values were received by CGS**

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## **Appendix B**

**No Weekly Inspections at Monitoring Stations Document was received by CGS**

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## **Appendix C**

**No Certificate of Analysis were received by CGS**

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## Appendix D

**List of spills reported to the NT-NU Spill Report Line and are listed on the Hazardous Materials Spills Database of Coral Harbour in 2021**

<b>Spill</b>	<b>Occurrence Date</b>	<b>Location Description</b>	<b>Product Spilled</b>	<b>Quantity</b>
2021230	3- June- 2021	House 200, Coral Harbour NU X0C 0C0	Petroleum- fuel oil (jet A, diesel, turbo A, heat)	Unknown Quantity
2021173	7- May- 2021	Coral Harbour - QEC Transient - Lot 272 Plan 3629 Heating Fuel Spill occurred at the QEC transient located at Lot 272 Plan 3629 (64°8'23" N 83°10'15" W)	Petroleum- fuel oil (jet A, diesel, turbo A, heat)	1000.00 L

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## **Appendix E**

**No Sampling Summary were received by CGS**





WATER LICENCE INSPECTION FORM

☒ Original

☐ Follow-Up Report

Licensee	Licensee Representative
Hamlet of Coral Harbour	Leonie Pameolik
Licence No. / Expiry	Representative's Title
3BM-COR1521/ April 23 <sup>rd</sup> 2021	Senior Administrative Officer
Date of Inspection	Inspector
September 16 <sup>th</sup> 2021	Atuat Shouldice
Activities Inspected	
<div><input type="checkbox"/> Camp<input type="checkbox"/> Drilling<input type="checkbox"/> Mining<input type="checkbox"/> Construction<input type="checkbox"/> Reclamation<input type="checkbox"/> Fuel Storage</div> <div><input type="checkbox"/> Roads/Hauling<input checked="" type="checkbox"/> Other: Sewage Disposal Facility<input checked="" type="checkbox"/> Other: Water Treatment Facility</div>	

SECTION 1	<input checked="" type="checkbox"/> Comments (s. 1_)	<input type="checkbox"/> Non-Compliance with Act or Licence (s. __)	<input type="checkbox"/> Action Required (s. __)
<p><b>BACKGROUND</b></p> <p>On September 16<sup>th</sup> , 2021, a regularly scheduled inspection was conducted of the Nunavut Water Board (NWB) water licence no. 3BM-COR1521 issued to the Hamlet of Coral Harbour. The inspection was conducted by RMO Atuat Shouldice of Crown Indigenous Relations and Northern Affairs Canada hereafter referred as the “ Inspector”. The purpose of the inspection was to ensure compliance with the applicable terms and conditions of the licence. Community and Government Services representatives Matthew Hewey accompanied the Inspector on the inspection.</p> <p>The Hamlet is currently working under an expired licence. Renewal application was submitted to the Nunavut water board on May 18<sup>th</sup> 2021.</p> <div><div>1. The 2020 annual report was available for review as required by PART B item 1.</div><div>2. The supporting documents required for renewal application were submitted June 28<sup>th</sup> 2021.</div><div>3. Appropriate signage was observed at all monitoring stations, as required by PART B item 6.</div><div>4. During the inspection, water was being resupplied from the Post River (photo 1).</div><div>5. The total water used in 2020, according to the Annual Report, was 39,973m<sup>3</sup> which is below the approved annual allotment of 40,000m<sup>3</sup>.</div><div>6. Sewage is trucked from the community and discharged into the Sewage Lagoon. Issues noted in the 2020 inspection report [2020-KIV01-AS 3BM-COR1621] were not addressed (photo 2) regarding the breach in the berm wall of the Lagoon. The 2020 annual report noted that effluent leaching out of the Lagoon did not met licensed criteria at monitoring station no. COR-5.</div><div>7. Fencing at the Landfill was replaced following the 2020 inspection.</div><div>8. The segregation and collection of hazardous waste (e.g.: chemicals, batteries, waste oil and propane) is on going (Photo 3).</div><div>9. The Hamlet has been working on segregating bulky items within the Landfill (photo 4).</div></div>			

SECTION 2	<input type="checkbox"/> Comments	<input checked="" type="checkbox"/> Non-Compliance with Act or Licence	<input type="checkbox"/> Action Required
<p><b>Failures to comply or concerns related to the conditions of Water Licence no. 3BM-COR1521;</b></p> <p>PART D item 5: Concerns related to the structural integrity of the Sewage Disposal Facility.</p> <div><div>— The Licensee is required to improve the berm wall directly adjacent to monitoring station no. COR-3 at the Sewage Disposal Facility prior to the next inspection.</div></div> <p>PART D item 2: Failure to meet discharge criteria for monitoring station no. COR-5</p> <div><div>— The Licensee is required to improve the berm walls in the Sewage Disposal Facility to increase hold time of the effluent prior to discharge, with the intention to improve quality.</div></div>			

SECTION 3	<input type="checkbox"/> Comments	<input type="checkbox"/> Non-Compliance with Act or Licence	<input checked="" type="checkbox"/> Action Required
<p><b>Actions Required</b></p> <p>- The Licensee shall submit, no later than January 1<sup>st</sup>, 2022, a letter to the Inspector summarizing the improvements to be made to the Sewage Disposal Facility to improve effluent qualities at monitoring station no. COR-5. This letter will include but not be limited to; how the facility will be improved, when the work will be completed and how this information will be reported to the Inspector once completed.</p> <p>Failure to comply with the actions required, detailed above, will result in further enforcement actions from this office. Compliance with this matter is fully expected.</p>			

Licensee or Representative	Inspector's Name
Leonie Pameolik	Atuat Shouldice
Signature	Signature
	Sent Electronically
Date	Date



November 16<sup>th</sup> 2021

CC:           Licensing Department, NWB.  
              Manager of Field Operations, CIRNAC  
              Megan Lusty, Municipal Works, CGS





Date:	Licence No.:	Camera/Model:	Inspector:
September 16 <sup>th</sup> 2021	3BM-COR1521	Samsung S9	RMO Shouldice
Photo #:		Location:	
1		Post River, re-supply	
			
Description:			
Post river resupply.			

Date:	Licence No.:	Camera/Model:	Inspector:
September 16 <sup>th</sup> 2021	3BM-COR1521	Samsung S9	RMO Shouldice
Photo #:		Location:	
2		Sewage Lagoon	
			
Description:			
Sewage discharge location in to lagoon			





Date:	Licence No.:	Camera/Model:	Inspector:
September 16 <sup>th</sup> 2021	3BM-COR1521	Samsung S9	RMO Shouldice
Photo #:		Location:	
3		Hazardous waste storage	
			
Description:			
Hazardous waste storage area.			

Date:	Licence No.:	Camera/Model:	Inspector:
September 16 <sup>th</sup> 2021	3BM-COR1521	Samsung S9	RMO Shouldice
Photo #:		Location:	
4		Bulk waste storage	
			
Description:			
Bulk waste segregation area.			



