



AGNICO EAGLE

ANNUAL REPORT 2021: WATER LICENCE 2BB-MEA1828

**PRESENTED TO
NUNAVUT WATER BOARD**

MARCH 2022

Contact:

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Water licence 2BB-MEA1828, Part B item 6:

6. The Licencee shall file an Annual Report on the Appurtenant Undertaking with the Board no later than March 31st of the year following the calendar year being reported, containing the following information:

- a. A summary report of Water use and Waste disposal activities;
 - *Under the water licence 2BB-MEA1828 water was used only for drilling, from February to the end of November.*

Table 1, Water use in 2021

Month	Water usage m ³ /day
January	0.0
February	15.2
March	34.7
April	33.5
May	33.6
June	14.6
July	50.1
August	62.8
September	68.6
October	61.3
November	86.7
December	0.0

- *All the waste generated during the exploration activities conducted under this water licence was transported to the mine site where it was segregated and treated along with the waste generated by the mine site. Only the cutting generated by the drilling was disposed of near the drill sites with locations described in Table 4.*
- b. Quantity of Water (in cubic metres/day) obtained for domestic and other purposes from sources on, in or flowing through Inuit-owned lands for the reporting period;
 - *Water used on Inuit-owned Lands was for diamond drilling from February to June then in October and November. The daily average usage was 44.1m³/day.*

c. Quantity of Water (in cubic metres/day) obtained for domestic and other purposes from sources on, in or flowing through Crown Lands for the reporting period;

- *Water used on Crown Lands was for diamond drilling from July to October 2021. The daily average usage was 63.8m³/day.*

d. Quantity of Waste disposed of on on-site Waste disposal facility;

- *All the waste generated during the exploration activity under this water licence was transported to the mine site where it was segregated and treated along with the waste generated by the mine site. No other disposal method was undertaken in 2021.*

e. Quantity of Waste Backhauled to approved facility for disposal;

- *All the waste generated during the exploration activities conducted under this water licence was transported to the mine site where it was segregated and treated along with the waste generated by the mine site. Only the cutting generated by the drilling was disposed of near the drill sites with locations described in Table 4.*

f. A list of unauthorized discharges and a summary of follow-up actions taken;

- *3 reportable unauthorized discharges occurred in 2021. Two diesel fuel spills occurred during drilling activities on Mammoth Lake at the Amaruq project in May 2021. One spill of 40 litres and one of 55 litres occurred on the iced lake. The ice was scrapped to ensure diesel recovery and contaminated material was transported to the mine site for segregation before disposal. The other reportable spill occurred approximately 14 km northwest of the Meadowbank mine site. A 150-litre diesel fuel spill on land occurred during drilling activities. The contaminated soil was excavated then transported to the mine site for segregation before disposal.*

g. Any revisions to the Spill Contingency Plan, Water Management Plan, Waste Management Plan, Quarry Management Plan, and Abandonment and Restoration Plan as required by Part B, Item 7, submitted in the form of an Addendum;

Part B, item 12. The Licencee shall review the Plans referred to in this Licence, as required by changes in operation and/or technology, and modify the Plan

accordingly. Revisions to the Plans shall be submitted in the form of an Addendum to be included with the Annual Report.

- *The updated Spill Contingency Plan was submitted to the Board on September 29th, 2020, and the Quarry Management Plan, the Waste Management Plan, and the Conceptual Closure and Reclamation Plan were submitted to the Board on October 28th, 2020. No other updates are proposed at this time.*

i. Report all artesian flow occurrences as required under Part F, Item4;

- *No artesian flow occurrences encountered in 2021.*

j. A summary of all information requested and results of the Monitoring Program;

PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM

1. The Licencee shall measure and record, in cubic metres, the daily quantities of water that is used from sources located on, in or flowing through Crown Land, utilized for camp at Monitoring Program Station MEA-1, drilling and other purposes.

- *Described in part B items 6-a,b,c*

2. The Licencee shall, at a minimum, maintain Monitoring Stations at the following locations:

Table 2. Monitoring stations

Monitoring Station	Description	Status
MEA-1	Amaruq Camp Water Intake	Volume
MEA-2	Effluent discharged from the Wastewater Treatment System (WWTS)	Volume and Effluent Quality
MEA-3	Effluent discharged from the Fuel Storage Facility	Volume and Effluent Quality

- *Since the Amaruq exploration camp was not relocated in 2021, this monitoring is not active yet.*

3. The Licencee shall sample the effluent discharging from the WWTS at Monitoring Station MEA-2 prior to its release into environment in order to provide confirmation of effluent quality as required by Part D, Item 11, for the following parameters: pH, Fecal Coliform, Biochemical Oxygen Demand (BOD5), Oil and Grease, Total Suspended Solids (TSS).

- *Since the Amaruq exploration camp was not relocated in 2021, this monitoring is not active yet.*

4. The licensee shall sample the effluent discharging from the WWTS at Monitoring Station MEA-3 prior to its release into environment in order to provide confirmation of effluent quality as requires by Part D, item 14.

- *Since the Amaruq exploration camp was not relocated in 2021, this monitoring is not active yet.*

5. The Licencee shall sample the effluent discharging from Trench Water Containment prior to its release into environment in order to provide confirmation of effluent quality as required by part D, item 15.

- *No trench dug in 2021.*

6. The Licencee shall provide the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where sources of Water are utilized for all purposes.

Table 3, Water intake locations 2021

Details	Latitude	Longitude
Water intake for drilling	65° 4' 38.400" N	96° 1' 50.829" W
Water intake for drilling	65° 5' 6.516" N	96° 2' 4.940" W
Water intake for drilling	65° 5' 28.779" N	96° 2' 5.986" W
Water intake for drilling	65° 5' 6.232" N	96° 2' 3.669" W
Water intake for drilling	64° 37' 11.568" N	96° 18' 35.418" W
Water intake for drilling	64° 39' 7.274" N	96° 16' 57.003" W
Water intake for drilling	64° 38' 58.277" N	96° 17' 10.572" W
Water intake for drilling	64° 38' 44.466" N	96° 17' 24.241" W
Water intake for drilling	64° 38' 54.411" N	96° 17' 11.260" W
Water intake for drilling	64° 38' 44.601" N	96° 17' 22.795" W
Water intake for drilling	65° 5' 32.688" N	96° 24' 10.005" W
Water intake for drilling	65° 5' 41.086" N	96° 23' 43.580" W
Water intake for drilling	65° 5' 37.102" N	96° 23' 7.863" W
Water intake for drilling	65° 5' 41.536" N	96° 22' 34.921" W
Water intake for drilling	65° 5' 21.900" N	96° 2' 14.496" W
Water intake for drilling	65° 5' 50.301" N	96° 17' 26.672" W
Water intake for drilling	65° 6' 27.045" N	96° 17' 27.916" W
Water intake for drilling	65° 6' 10.758" N	96° 18' 9.377" W
Water intake for drilling	65° 6' 29.284" N	96° 14' 33.024" W
Water intake for drilling	65° 6' 24.346" N	96° 15' 15.724" W
Water intake for drilling	65° 6' 8.339" N	96° 15' 54.264" W
Water intake for drilling	65° 6' 12.394" N	96° 18' 8.674" W
Water intake for drilling	65° 6' 21.930" N	96° 16' 37.584" W
Water intake for drilling	65° 6' 24.410" N	96° 17' 32.403" W
Water intake for drilling	65° 3' 47.667" N	96° 0' 0.297" W
Water intake for drilling	65° 4' 12.767" N	96° 0' 10.570" W
Water intake for drilling	65° 23' 46.091" N	96° 45' 16.211" W
Water intake for drilling	65° 24' 3.100" N	96° 44' 16.210" W
Water intake for drilling	65° 24' 0.052" N	96° 43' 36.553" W

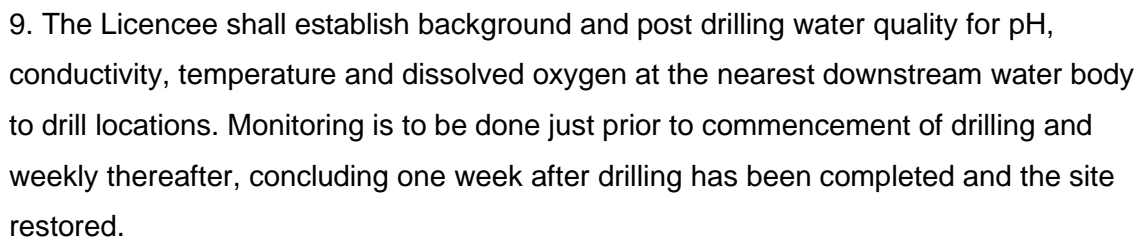
7. The Licencee shall determine the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where Wastes associated with camp operations and drilling operations are deposited.

- *No waste was generated by exploration camp as it was not in operation in 2021 under this water licence. Drilling cutting was disposed of at the following locations:*

Table 4, Cutting disposal locations 2021

Details	Latitude	Longitude
Cutting Disposal	65° 5' 30.882" N	96° 24' 13.938" W
Cutting Disposal	65° 5' 35.262" N	96° 23' 41.390" W
Cutting Disposal	65° 5' 39.558" N	96° 23' 11.531" W
Cutting Disposal	65° 5' 15.523" N	96° 2' 20.648" W
Cutting Disposal	65° 6' 10.737" N	96° 17' 39.546" W
Cutting Disposal	65° 6' 6.237" N	96° 17' 26.660" W
Cutting Disposal	65° 6' 10.276" N	96° 16' 49.130" W
Cutting Disposal	65° 6' 12.674" N	96° 17' 26.925" W
Cutting Disposal	65° 6' 7.718" N	96° 17' 40.620" W
Cutting Disposal	65° 6' 8.740" N	96° 17' 38.139" W
Cutting Disposal	65° 6' 9.296" N	96° 17' 43.911" W
Cutting Disposal	65° 6' 14.559" N	96° 17' 18.527" W
Cutting Disposal	65° 6' 14.296" N	96° 17' 2.217" W
Cutting Disposal	65° 6' 7.382" N	96° 18' 1.437" W
Cutting Disposal	65° 6' 35.397" N	96° 14' 47.273" W
Cutting Disposal	65° 6' 21.464" N	96° 15' 17.172" W
Cutting Disposal	65° 6' 8.365" N	96° 15' 55.642" W
Cutting Disposal	65° 6' 11.919" N	96° 17' 22.707" W
Cutting Disposal	65° 6' 11.919" N	96° 17' 22.707" W
Cutting Disposal	65° 6' 19.128" N	96° 17' 17.370" W
Cutting Disposal	65° 6' 19.375" N	96° 17' 5.994" W
Cutting Disposal	65° 6' 22.022" N	96° 16' 37.344" W
Cutting Disposal	65° 6' 22.103" N	96° 16' 52.446" W
Cutting Disposal	65° 6' 23.952" N	96° 16' 58.163" W
Cutting Disposal	65° 6' 11.827" N	96° 17' 33.683" W
Cutting Disposal	65° 6' 12.838" N	96° 17' 28.825" W
Cutting Disposal	65° 6' 14.453" N	96° 17' 23.369" W
Cutting Disposal	65° 6' 13.866" N	96° 17' 24.886" W
Cutting Disposal	65° 3' 52.124" N	96° 0' 6.535" W
Cutting Disposal	65° 4' 4.608" N	96° 0' 13.173" W
Cutting Disposal	65° 4' 8.526" N	96° 0' 15.108" W

- One hole was drilled within thirty-one metres from the High Water Mark in 2021. It was drilled on the Meadowbank property, at following location: 65° 4' 55.387" N; 95° 58' 32.957" W



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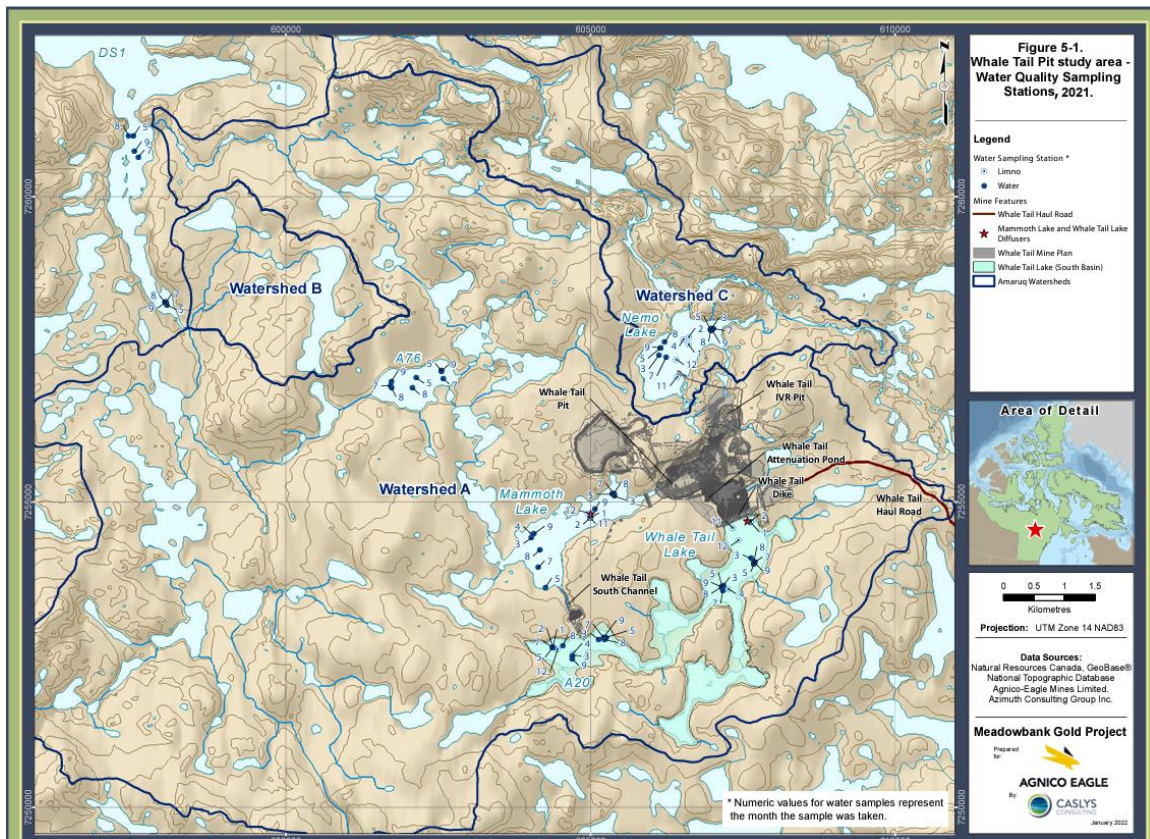
10. The Licensee shall obtain representative samples of the Water column below any ice where required under Part F, Item 9 and 10. Monitoring shall include but not limited to the following

Table 5, Monitoring required when drilling on ice

Group	Parameters
Physical Parameters	pH, electrical conductivity, total suspended solids.
Major Ions	Calcium, chloride, magnesium, potassium, sodium, sulphate.
Total Metals	Aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, iron, lead, lithium, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, tin, titanium, uranium, vanadium and zinc.

- *No drilling on ice was conducted in 2021 under this water licence, except on the Mammoth Lake which is the receiving environment for the Whale Tail operation mining effluent. This lake is thus monitored all the year long under the CREMP which includes monthly water sampling. The data of this monitoring is included within the annual report for water licence 2AM-WTP1830.*

Figure 1, Location of water quality sampling stations 2021, under CREMP



- Water samples were taken on the Mammoth Lake in the on ice drilling area to provide additional information regarding the water quality. Samples were taken at following location: 65° 23' 47.937" N; 96° 44' 22.247" W, before, during and after the drilling.

Table 6, Monitoring when drilling on ice

Sample date Sample name Sample type		2021-02-14	2021-03-25	2021-05-12
		ST-WT-Drill M200-M204	ST-WT-Drill M200M204	ST-WT-Drill M200M204
		N	N	N
Parameter	Unit			
WQ01- Field Measured				
Temperature	°C	0.3	1.31	1.3
pH	pH units	6.87	6.83	6.71
Conductivity	uS/cm	241	236.8	330.8
Dissolved oxygen	mg/L	13.14	12.68	12.86
Dissolved oxygen	%	101	93	95.1
Turbidity	NTU	0.45	0	1.35
WQ02- Conventional Parameters				
Turbidity	NTU	0.2	< 0.1	-
Hardness, as CaCO3	mg/L	91.0	79.6	-
TSS	mg/L	< 1	< 1	< 1
WQ03- Major Ions				
Chloride	mg/L	40	35	51.9
Sulfate	mg/L	24	20	30.5
WQ06- Total Metals				
Aluminum	mg/L	< 0.0030	< 0.0030	< 0.005
Antimony	mg/L	0.00071	0.00060	< 0.0001
Arsenic	mg/L	0.00074	0.00073	0.0007
Barium	mg/L	0.0420	0.0374	0.0607
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.0005
Boron	mg/L	< 0.050	< 0.050	< 0.002
Cadmium	mg/L	< 0.000010	< 0.000010	< 0.00002
Calcium (total)	mg/L	27.1	23.7	36.0
Chromium	mg/L	< 0.0010	< 0.0010	< 0.0006
Copper	mg/L	0.00067	0.00056	0.0009
Iron	mg/L	< 0.010	< 0.010	< 0.01
Lead	mg/L	< 0.00020	< 0.00020	< 0.00017
Lithium	mg/L	0.0039	0.0034	< 0.005
Magnesium (total)	mg/L	5.65	4.94	7.44
Manganese	mg/L	0.0206	0.0043	0.0054
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0010	< 0.0010	0.0008
Nickel	mg/L	0.0025	0.0017	0.0025
Potassium (total)	mg/L	4.95	4.51	6.52
Selenium	mg/L	0.00010	< 0.00010	0.0005
Silver	mg/L	< 0.000020	< 0.000020	< 0.0001
Sodium (total)	mg/L	3.22	2.93	4.34
Strontium	mg/L	0.203	0.176	0.218
Thallium	mg/L	-	-	< 0.0002
Tin	mg/L	< 0.0050	< 0.0050	< 0.001
Titanium	mg/L	< 0.0050	< 0.0050	< 0.01
Uranium	mg/L	0.00012	< 0.00010	< 0.001
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0005
Zinc	mg/L	< 0.0050	< 0.0050	0.001

11. The Licensee shall establish baseline water quality conditions prior to drilling within thirty-one (31) metres of the ordinary High Water Mark as per Part F, Items 2 and 3. Monitoring shall include the following.

Table 7, Monitoring when drilling within thirty-one (31) meters from water

Group	Parameters
Physical Parameters	pH, electrical conductivity, total suspended solids, turbidity.
Major Ions	Calcium, chloride, magnesium, potassium, sodium, sulphate.
Total Metals	Aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, iron, lead, lithium, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, tin, titanium, uranium, vanadium and zinc.

Table 8, Water sample results, drilling within 31m from water

		Sample date	2021-05-24	2021-05-31
		Sample name	ST-DRILL-7001-21-014	ST-MBK-Drill-7001-21-014
		Sample type	N	N
Parameter	Unit			
WQ01- Field Measured				
pH	pH units		6.51	6.56
Conductivity	uS/cm		99.1	101
Dissolved oxygen	mg/L		9.35	7.73
Dissolved oxygen	%		82.8	78.5
Turbidity	NTU		0.57	0.25
WQ02- Conventional Parameters				
TSS	mg/L		< 1	1
WQ03- Major Ions				
Chloride	mg/L		1.5	1.6
Sulfate (H2Lab)	mg/L		9.8	9.6
WQ06- Total Metals				
Aluminum	mg/L		< 0.005	< 0.005
Antimony	mg/L		< 0.0001	< 0.0001
Arsenic	mg/L		< 0.0005	< 0.0005
Barium	mg/L		0.0088	0.0111
Beryllium	mg/L		< 0.0005	< 0.0005
Boron	mg/L		< 0.002	< 0.002
Cadmium	mg/L		< 0.00002	< 0.00002
Calcium (total)	mg/L		13.7	14.4
Chromium	mg/L		< 0.0006	< 0.0006
Copper	mg/L		0.0013	0.0010
Iron	mg/L		0.05	0.01
Lead	mg/L		< 0.00017	< 0.00017
Lithium	mg/L		< 0.005	< 0.005
Magnesium (total)	mg/L		4.16	4.68
Manganese	mg/L		0.0036	0.0023
Mercury	mg/L		0.00001	< 0.00001
Molybdenum	mg/L		< 0.0005	< 0.0005
Nickel	mg/L		0.0010	0.0006
Potassium (total)	mg/L		1.42	1.33
Selenium	mg/L		< 0.0005	< 0.0005
Silver	mg/L		< 0.0001	< 0.0001
Sodium (total)	mg/L		1.69	1.86
Strontium	mg/L		0.057	0.067
Thallium	mg/L		< 0.0002	< 0.0002
Tin	mg/L		< 0.001	< 0.001
Titanium	mg/L		< 0.01	< 0.01
Uranium	mg/L		< 0.001	< 0.001
Vanadium	mg/L		< 0.0005	< 0.0005
Zinc	mg/L		< 0.001	< 0.001

k. Any other details on Water use or Waste.

- *No other details to provide.*

l. GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) for the locations of all temporary camps established in support of the project if the actual coordinates differ from that provided in the application;

- *No temporary camps installed under this water licence in 2021.*

m. A summary, including photographic records before, during and after any relevant construction activities or Modifications and/or major maintenance work carried out on facilities under this Licence and an outline of any work anticipated for the next year;

- *No relevant construction activities or modification or major maintenance work were carried out in 2021 under this water licence and no relevant construction activities or modifications or major maintenance work are planned for 2022 either.*

n. Detailed discussion on the performance, installation, and evaluation, including the use of photographic record, of the primary and secondary containment functions used in fuel storage to safeguard impacts to freshwaters;

- *Since the Amaruq Exploration Camp site has not been relocated yet, fuel tanks under the water licence 2BB-MEA1828 are only the 3 double-wall fuel tanks located at the Meadowbank exploration camp site.*

o. An updated estimate of the current restoration liability required under Part B, Item 2, based upon the results of restoration assessment, project development monitoring and any changes or Modifications to the project;

- *An update of the Conceptual Closure and Reclamation Plan was submitted to the Board on October 28th, 2020, including an updated restoration estimate.*

p. A summary of public consultation/participation in relation to Water use and/or Waste deposit, describing consultation with local organizations and residents of the nearby communities, if any were conducted.

- *April 7th, 2021, meetings with Baker Lake HTO and Hamlet Council of Baker Lake were conducted to share information concerning exploration activities near Meadowbank, Amaruq and Upper Amer Lake and discuss of the Whale Cove exploration activities situation.*
- *May 11th, 2021, meetings with Baker Lake Elders and Baker Lake HTO were conducted to validate/discuss traditional place names (IQ).*
- *May 18th, 2021, Meeting with Baker Lake HTO and exploration team to present an update on the 2021 exploration activities.*

q. Any other details on Water use or Waste disposal requested by the Board by the 1st November of the year being reported.

- *No other details requested by the Board by the 1st November 2021.*