March 24, 2021

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Crown Indigenous Relations and Northern
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Assol Kubeisinova
Technical Advisor
Nunavut Water Board
P.O. Box 119
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X0B 1J0

Re: 2021 Geotechnical Drilling Program – Mine Site Long-Term Water Management Plan
Type 'B' Water Licence 2BE-MRY1421
Commercial Lease No. Q13C301

Baffinland Iron Mines Corporation (Baffinland) is planning to undertake a geotechnical drilling program between April and May 2021 at the Mary River Mine Site to support engineering designs for water management infrastructure for the proposed Mine Site Long-Term Water Management Plan. Up to twenty-three (23) shallow drill holes, advanced to an average depth of 15 m, will be drilled during the Program. Of the twenty-three (23) proposed drilling locations, seven (7) locations may encroach within 30 m of the high water mark of local water bodies or seasonal drainages. The drilling program is being managed by Knight Piésold Consulting and performed by Cyr Drilling Ltd. The Program is scheduled to commence on April 15, 2021 and is expected to require approximately 32 days to complete.

Proposed drilling locations are outlined in Table 1 and the proximity of the proposed locations to surrounding water bodies are shown in Attachment 1. Cry Drilling Lt. will be using a refrigerated drilling technique using an HQ3 diamond drill, requiring the use of water and a calcium chloride solution to prevent the drill holes from freezing while coring samples. Two feet of casing will be used per drill hole to prevent return water from infiltrating holes. Casings will be removed or cut below grade at the completion of the drilling program.

Seven (7) of the proposed drilling locations may encroach within 30 m of the high water mark of local water bodies or seasonal drainages, as noted in Table 1. There will be no on-ice drilling conducted as part of the program.

The geotechnical drill program and its associated water use will be undertaken in accordance with Baffinland's Type B Water Licence for exploration (Licence No. 2BE-MRY1421; Nunavut Water Board, 2014). Water will be withdrawn from Camp Lake, which is a large water body that will provide the required water volumes with negligible impact. The location of Camp Lake is presented in Table 2.

Table 1: Proposed 2021 Geotechnical Drilling Locations – Long-Term Water Management Plan

Borehole ID	UTM Coordinates (NAD83, Zone 17N)	
	Easting	Northing
PROP-DH21-01*	563880	7913098
PROP-DH21-02	563748	7913054
PROP-DH21-03*	563754	7913183
PROP-DH21-04	562117	7913107
PROP-DH21-05	561954	7913100
PROP-DH21-06	561853	7913127
PROP-DH21-07*	561778	7913211
PROP-DH21-08	561739	7913289
PROP-DH21-09	561761	7913475
PROP-DH21-10	561234	7912913
PROP-DH21-11	561145	7913032
PROP-DH21-12*	561060	7913144
PROP-DH21-13	560955	7913275
PROP-DH21-14	560833	7913423
PROP-DH21-15*	560884	7913454
PROP-DH21-16	558196	7914315
PROP-DH21-17	558082	7914410
PROP-DH21-18	557960	7914579
PROP-DH21-19	557887	7914786
PROP-DH21-20*	563710	7913090
PROP-DH21-21	561709	7913339
PROP-DH21-22*	560945	7913389
PROP-DH21-23	558294	7914264

*Locations where drilling may encroach within 30 m of the high water mark.

Table 2: Proposed Water Source for Drilling Water

Water Source	Easting	Northing
Camp Lake	557793	7914684

Notes: Coordinates in UTM, NAD 83, Zone 17N.

The estimated water usage rate for the drilling program is 0.25 m^3 per linear metre drilled. Assuming 345 m drilled in total, the total water volume requirements for drilling operations is estimated to be 86.25 m^3. Water use will be tracked using inline flowmeters to ensure compliance with daily water withdrawal limits for drilling activities (250 m^3/day), stipulated in Part C, Item 1 of the Type B Water Licence.

Support vehicles and equipment trailers include pickup trucks and a float trailer. An excavator, grader, and dozer will be used to prepare temporary winter access roads to the drilling locations. Winter access routes will be cleaned of any debris and inspected following use for any potential impacts to tundra. Boreholes will be advanced to an average depth of 15 m deep below ground surface (mbgs). However, longer drill holes may be necessary depending on the foundation conditions encountered.

Environmental monitoring will be performed, including pre, during, and post drilling inspections. Drill cuttings will be disposed of in sumps or natural depressions or used for backfill of boreholes, consistent with Part F, Item 4 of Baffinland's Type B Water Licence. An estimated total volume of 11.5 m^3 of drilling spoils will be generated and disposed in local depressions at a minimum distance of 31 m away from any water body.

Despite best planning, it should be noted that unforeseen circumstances may necessitate some changes in planning as the program proceeds. Baffinland will endeavor to inform the Inspector and other relevant parties in such circumstances.

In accordance with the conditions of the Type B Water Licence, this letter and attachment provides Baffinland's notification for the drilling of a total of seven (7) boreholes within proximity to nearby water bodies.

We trust that this information meets the various notification requirements for geotechnical drilling at the Project. Please do not hesitate to contact the undersigned, should you have any questions or comments.

Regards,

Aaron MacDonell
Environmental Superintendent

Attachments:
Attachment 1: Proposed Geotechnical Drillholes

Cc: Timothy Ray Sewell, Shawn Stevens, Connor Devereaux, Megan Lord-Hoyle, Lou Kamermans, Christopher Murray, Amanda McKenzie (Baffinland)
Karén Kharatyan (NWB)
Bridget Campbell, Godwin Okonkwo, Justin Hack (CIRNAC)
Chris Spencer (QIA)

Baffinland

Attachment 1

Proposed Long-Term Water Management Plan Geotechnical Drilling Locations

2275 Upper Middle Road East, Suite 300 | Oakville, ON, Canada L6H 0C3
Main: 416.364.8820 | Fax: 416.364.0193 | www.baffinland.com

SAVED: I:\1\02\00181\70\P\Acad\FIGS\B02 R0, 3/10/2021 3:49:13 PM , ASIMPSON PRINTED: 3/10/2021 4:08:04 PM, FIG 1, ASIMPSON ACAD VERSION: 23.1S (LMS TECH) ACAD VERSION: 23.1S (LMS TECH)
XREF FILE(S): C-TOPO-CNTR-WATR-MINE-SITE; C-PH02-YR21-MINE-SITE; C-TOPO-MINE-BASE-EXST-APPR-NOTx-CONS-DRAI-ARRW; X-C-TOPO-DRAI-DIRECTION-AROW; x-c-topo-infra-des; C-IMAG-MINE-AUG2020; X-C-TOPO-FISH-BARRIER; C-TOPO-CONF-ARCTIC-CHAR-HABITAT; C-TOPO-SNOW-STPL-2020; X-C-TOPO-INFR-YR05; C-TOPO-CONF-ARCTIC-CHAR-HABITAT-clippedpiece; X-C-CTCH-LONG-MINE-TERM-MGNT; X-C-TOPO-WMPx - OPTIONS; 2021 re-alignme

561 500 E
562 250 E
563 000 E
563 750 E
564 500 E
565 250 E
7 917 000 N
7 916 250 N
7 915 500 N
7 914 750 N
7 914 000 N
7 913 250 N
7 912 500 N

CURRENT MS-08 FINAL DISCHARGE POINT
WASTE ROCK FACILITY WATER TREATMENT PLANT
WASTE ROCK FACILITY POND
FORMER MS-08 EFFLUENT OUTFLOW POINT (END OF PIPE)
WASTE ROCK FACILITY
WASTE ROCK FACILITY (END OF YEAR 2021)
CULVERT #1
KM109
CULVERT #2
MINE HAUL ROAD
CULVERT #3
KM108
CULVERT #4/5
HILLSIDE ROAD
ACTIVE MINING AREA
ACTIVE MINE AREA (END OF YEAR 2025)
CULVERT #8
CULVERT #6/7
KM107
CULVERT #9/10
CULVERT #11
CULVERT #12/13
CULVERT #14/15
KM106 STOCKPILE AND RUNOFF MANAGEMENT MEASURES
KM106
CULVERT #16
PROP-DH21-09 7 913 475 N 561 761 E
PROP-DH21-21 (PROVISIONAL) 7 913 339 N 561 709 E
PROP-DH21-08 7 913 289 N 561 739 E
PROP-DH21-04 7 913 107 N 562 117 E
PROP-DH21-05 7 913 100 N 561 954 E
PROP-DH21-07 7 913 211 N 561 778 E
KM104
PROP-DH21-06 7 913 127 N 561 853 E
KM105
CULVERT #18/19
PROP-DH21-20 (PROVISIONAL) 7 913 090 N 563 710 E
PROP-DH21-03 7 913 183 N 563 754 E
PROP-DH21-01 7 913 098 N 563 880 E
CULVERT #17 (TO BE REMOVED)
PROP-DH21-02 7 913 054 N 563 748 E
MS-07 EFFLUENT OUTFALL LOCATION
KM106 SEDIMENTATION POND
MARY RIVER (MAINSTEM)

FOR INFORMATION ONLY

LEGEND:

- CURRENT
- ULTIMATE
- WATER
- PROPOSED SITE INVESTIGATION LOCATION
- EFFLUENT OUTFLOW POINT (END OF PIPE)
- ULTIMATE DEPOSIT NO. 1 PIT LIMITS
- ULTIMATE WASTE ROCK STOCKPILE LIMITS
- CULVERT (APPROXIMATE)

NOTES:

1. COORDINATE GRID IS UTM NAD83, ZONE 17.
2. DETAILED WATER FROM EAGLE MAPPING (2019). CONTOUR PROVIDED BY BAFFINLAND (2019) INTERVAL IS 5 m.
3. CURRENT MINE AREA FROM THE WASTE DUMP TO THE CRUSHER PAD, AND DITCHES ALONG THE HAUL ROAD PROVIDED BY BIM (MARCH 12, 2018).
4. MINE HAUL ROAD AS-BUILT PROVIDED BY BAFFINLAND IRON MINES CORP. (AUGUST 28, 2020).
5. ALL OTHER SITE INFRASTRUCTURE PROVIDED BY HATCH (AUGUST 2, 2016) AND SIMPLIFIED BY KP STAFF (JAN, 2018).

SCALE A 150 75 0 250 500 750 m

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	10MAR'21	ISSUED WITH TRANSMITTAL	DMMD	AS	RAC

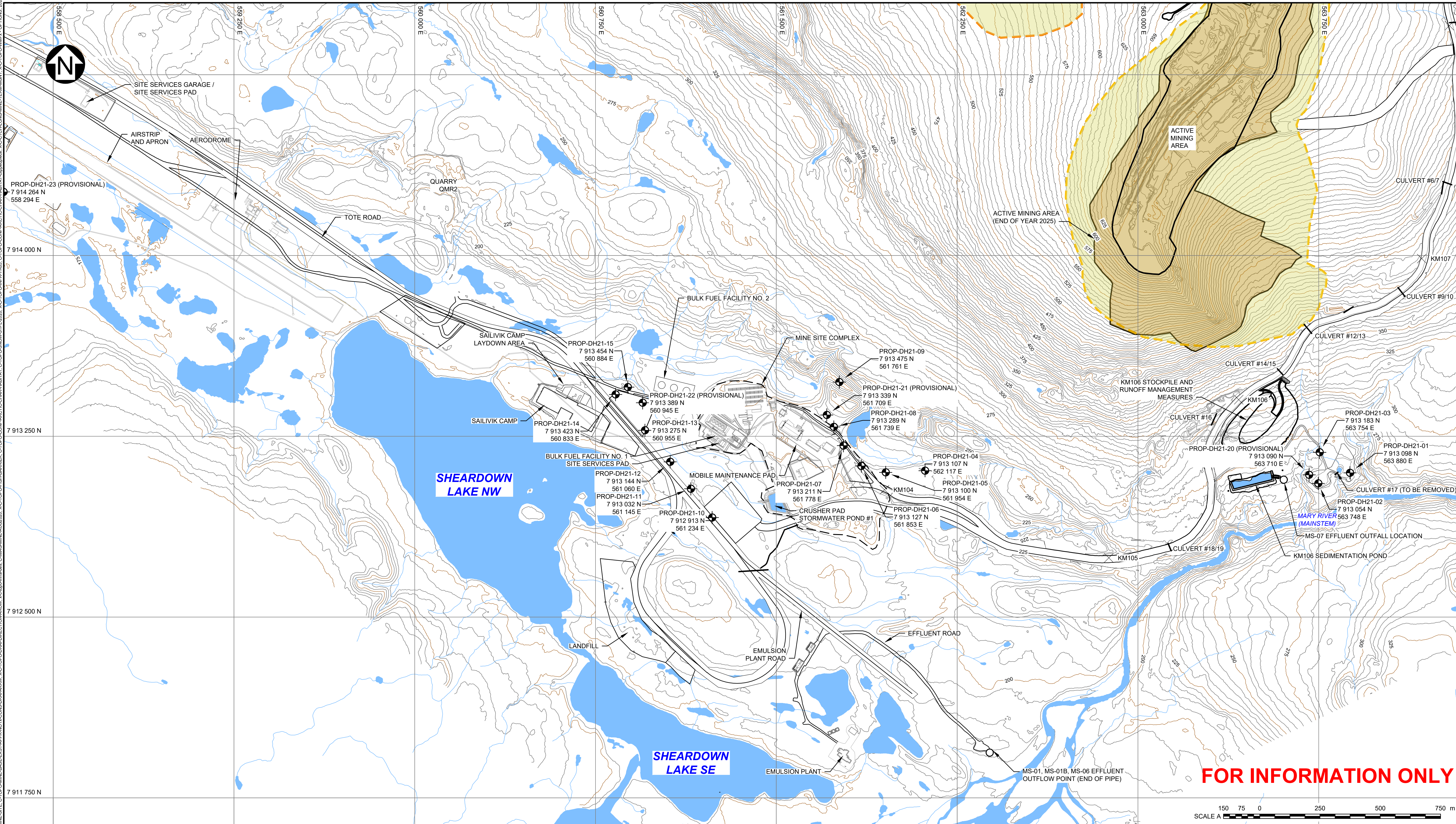
BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

MARY RIVER CATCHMENT
PROPOSED GEOTECHNICAL DRILLHOLES

Knight Piésold CONSULTING

P/A NO. NB102-181/70
REF NO. NB21-00250
FIGURE 1
REV 0



LEGEND:

CURRENT	ULTIMATE DEPOSIT NO. 1 PIT LIMITS
ULTIMATE	ULTIMATE WASTE ROCK STOCKPILE LIMITS
WATER	CULVERT (APPROXIMATE)
	EFFLUENT OUTFLOW POINT (END OF PIPE)
	PROPOSED SITE INVESTIGATION LOCATION

NOTES:

1. COORDINATE GRID IS UTM NAD83, ZONE 17.
2. DETAILED WATER FROM EAGLE MAPPING (2019). CONTOUR PROVIDED BY BAFFINLAND (2019) INTERVAL IS 5 m.
3. CURRENT MINE AREA FROM THE WASTE DUMP TO THE CRUSHER PAD, AND DITCHES ALONG THE HAUL ROAD PROVIDED BY BIM (MARCH 12, 2018).
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REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	10MAR'21	ISSUED WITH TRANSMITTAL	DMMD	AS	RAC

BAFFINLAND IRON MINES CORPORATION

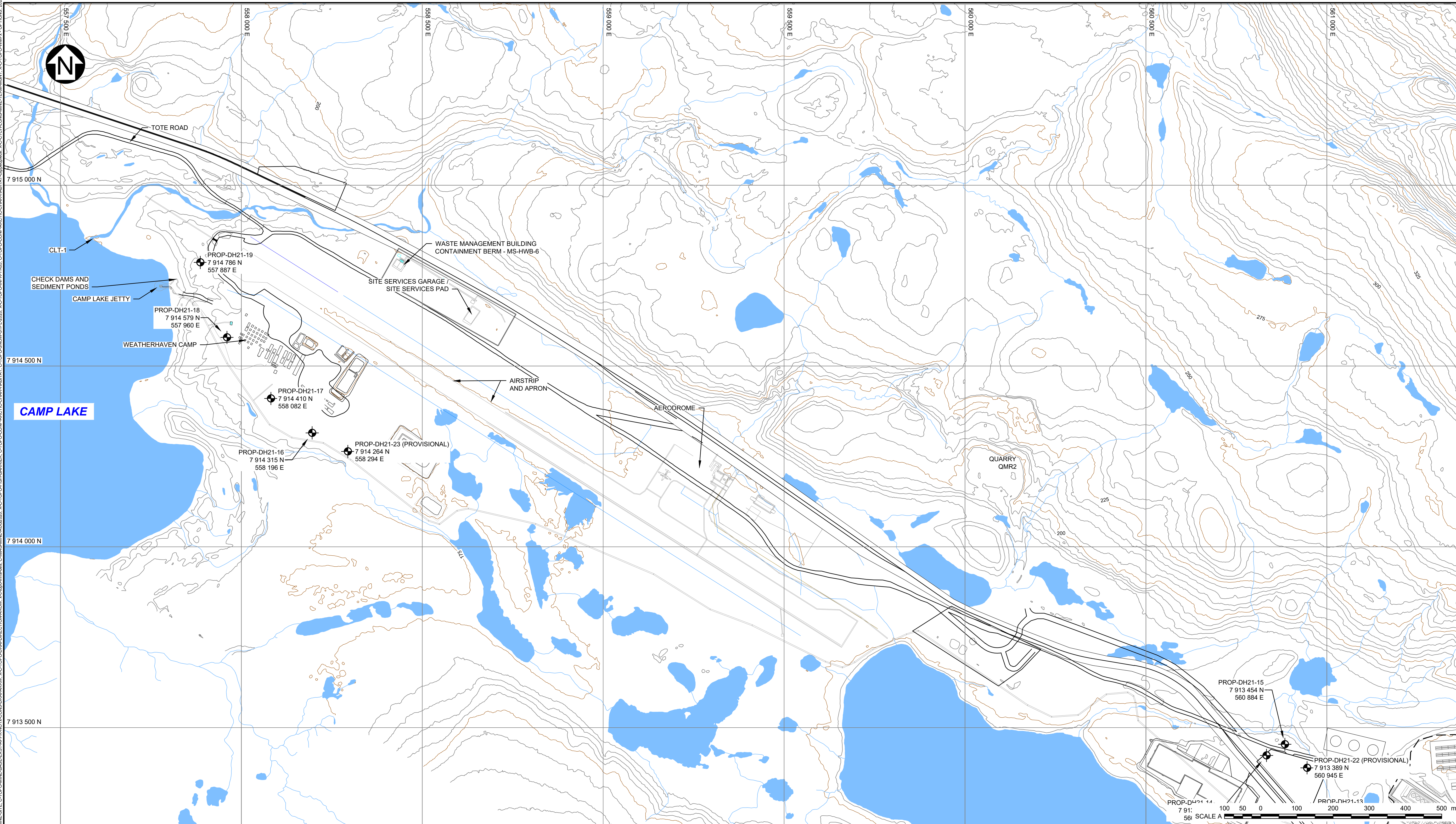
MARY RIVER PROJECT

SHEARDOWN LAKE CATCHMENT PROPOSED GEOTECHNICAL DRILLHOLES

Knight Piésold CONSULTING

P/A NO.	REF NO.
NB102-181/70	NB21-00250

FIGURE 2 REV 0



LEGEND:

- CURRENT
- ULTIMATE
- WATER
- ULTIMATE DEPOSIT NO. 1 PIT LIMITS
- ULTIMATE WASTE ROCK STOCKPILE LIMITS
- CULVERT (APPROXIMATE)
- EFFLUENT OUTFLOW POINT (END OF PIPE)
- PROPOSED SITE INVESTIGATION LOCATION

FOR INFORMATION ONLY

NOTES:

1. COORDINATE GRID IS UTM NAD83, ZONE 17.
2. DETAILED WATER FROM EAGLE MAPPING (2019). CONTOUR PROVIDED BY BAFFINLAND (2019) INTERVAL IS 5 m.
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BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

CAMP LAKE CATCHMENT
PROPOSED GEOTECHNICAL DRILLHOLES

Knight Piésold CONSULTING

P/A NO.	REF NO.
NB102-181/70	NB21-00250

FIGURE 3 REV 0

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	10MAR'21	ISSUED WITH TRANSMITTAL	DMMD	AS	RAC

SAVED: I:\1\02\00181\70\P\Acad\FIGS\B02 R0, 3/10/2021 3:33:55 PM, ASIMPSON PRINTED: 3/10/2021 3:42:02 PM, FIG 3, ASIMPSON ACAD VERSION: 23.1S (LMS TECH)