

LEGEND:

- APPROVED WATER STATION
- PROPOSED WATER STATION
- MILNE INLET TOTE ROAD
- PROPOSED NORTH RAILWAY
- POTENTIAL DEVELOPMENT AREA
- CATCHMENT BOUNDARY

NOTES:

1. COORDINATE GRID IS IN METRES.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N.
2. BASE MAP IMAGERY: © 2020 DIGITAL GLOBE, INC.

BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

**WATER STATION
WS52.9 CATCHMENT**

**KP Knight Piésold
CONSULTING**

P/A NO.
NB102-181/65

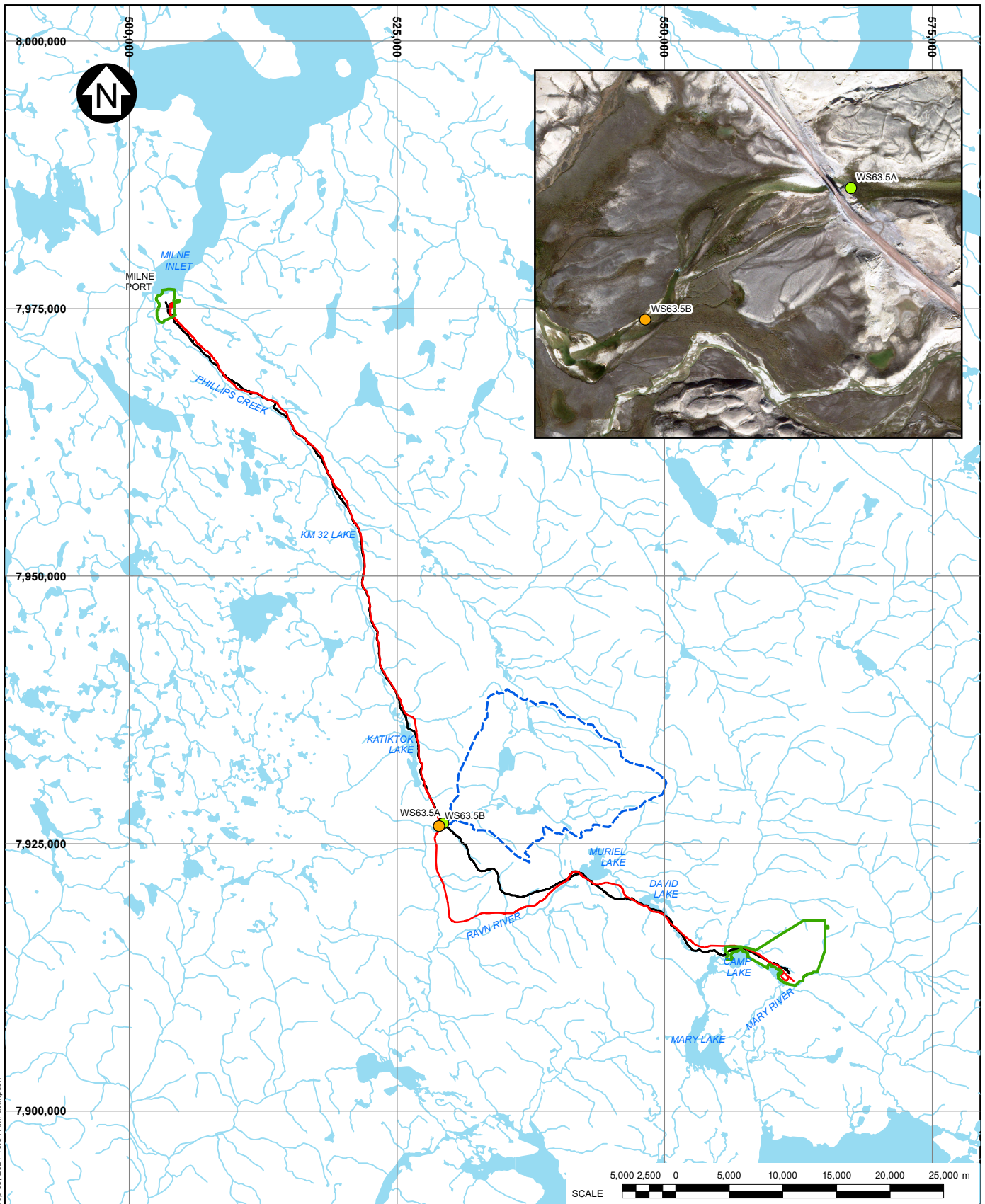
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FIGURE A.13

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0	03SEP'21	ISSUED WITH REPORT			



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BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

**WATER STATION
WS63.5A and WS63.5B CATCHMENTS**



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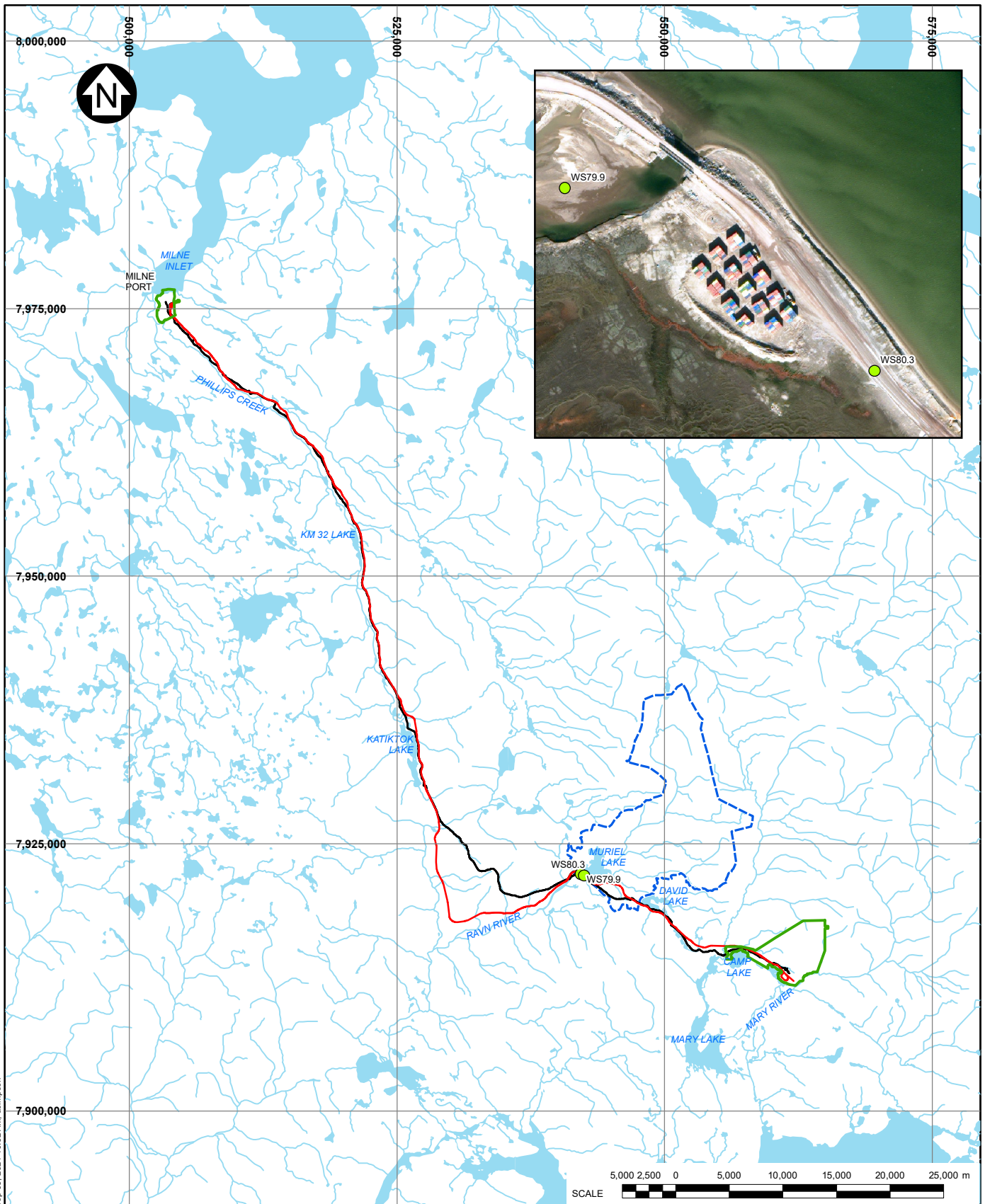
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FIGURE A.14

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BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

**WATER STATION
WS79.9 AND WS80.3 CATCHMENTS**

Knight Piésold
CONSULTING

P/A NO.
NB102-181/65

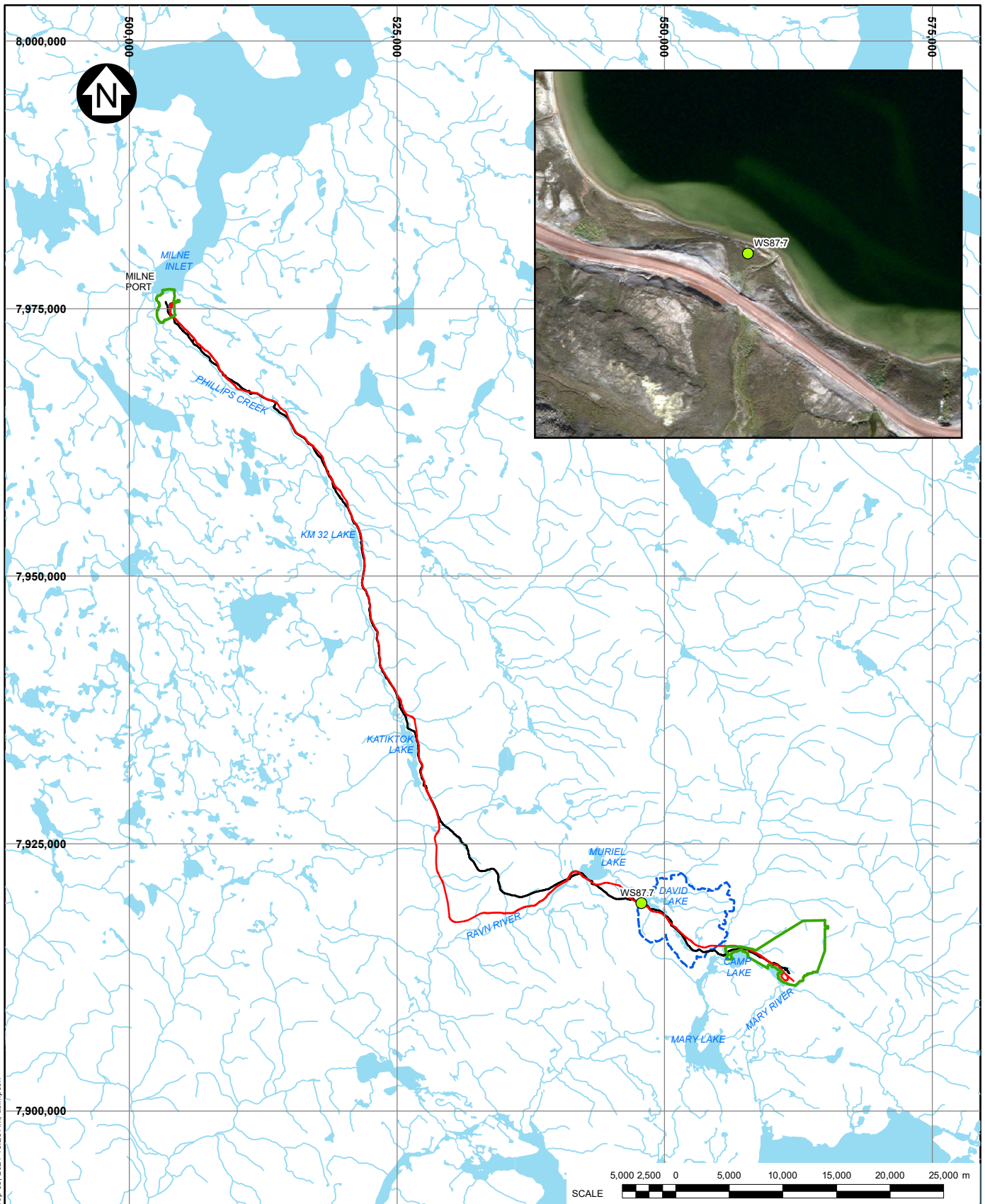
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FIGURE A.15

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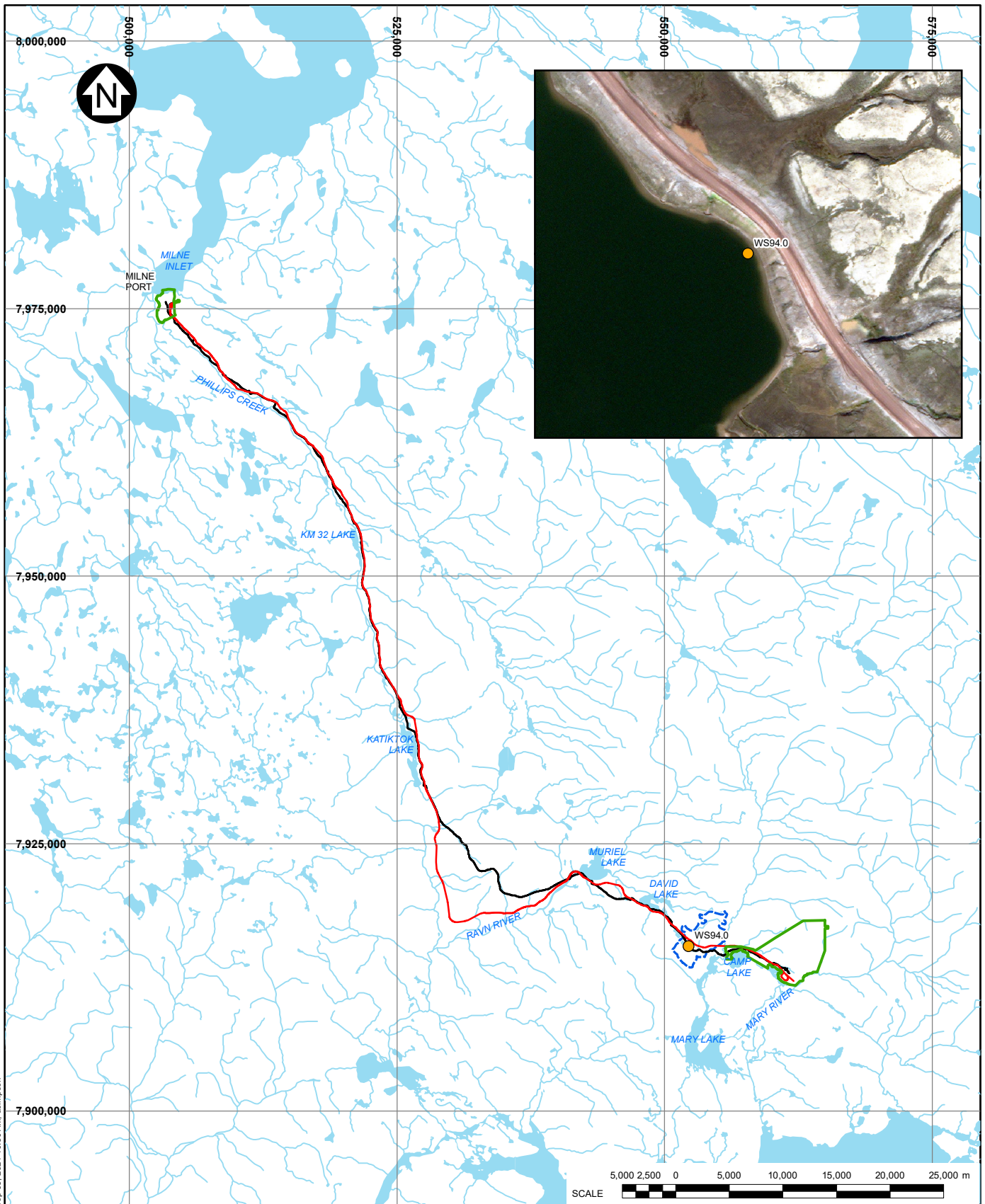
- APPROVED WATER STATION
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BAFFINLAND IRON MINES CORPORATION			
MARY RIVER PROJECT			
WATER STATION WS87.7 CATCHMENT			
		P/A NO. NB102-181/65	REF NO. 1
Knight Piésold CONSULTING		FIGURE A.16	
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BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

**WATER STATION
WS94.0 CATCHMENT**

**KP Knight Piésold
CONSULTING**

P/A NO.
NB102-181/65

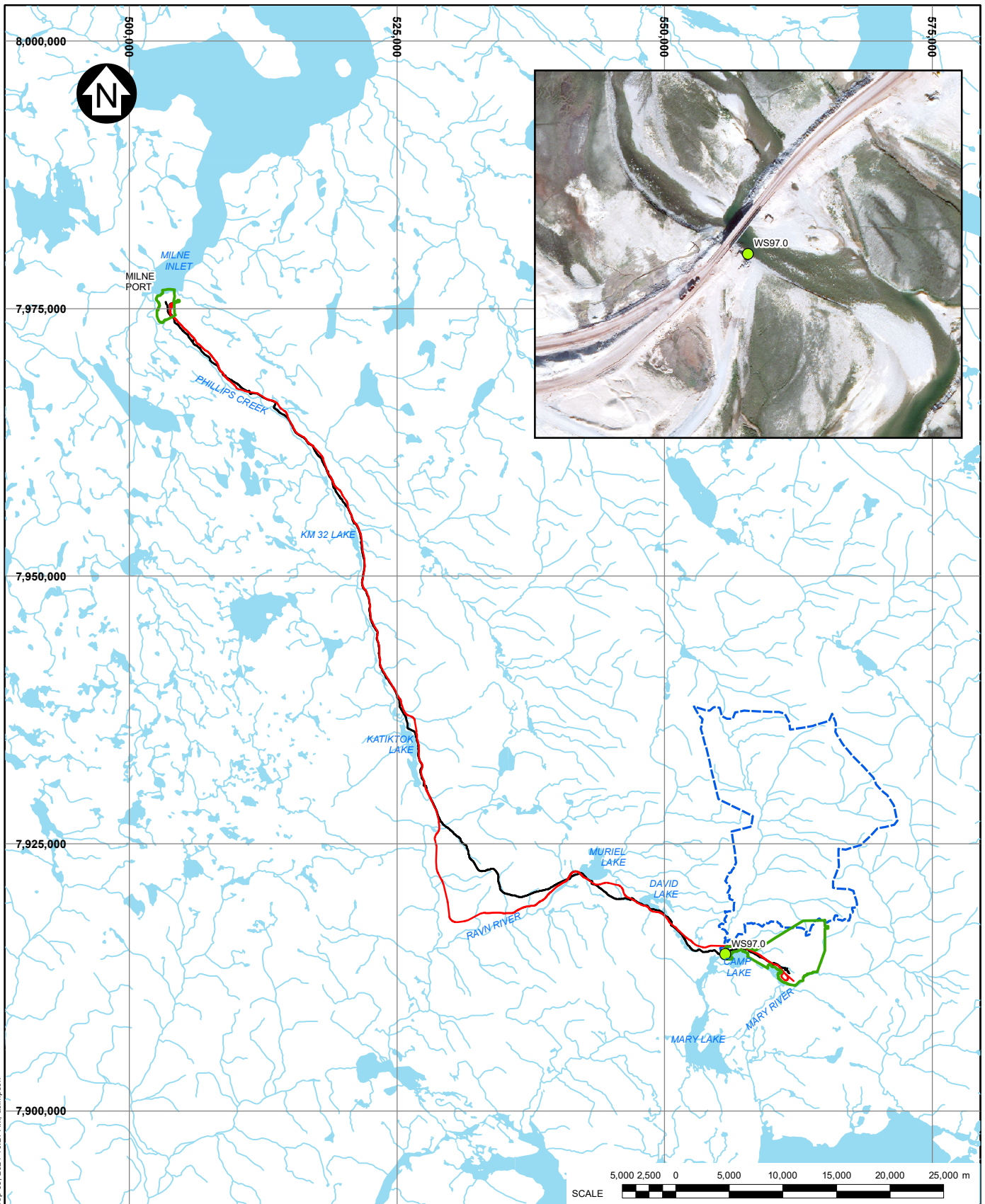
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FIGURE A.17

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BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

**WATER STATION
WS97.0 CATCHMENT**

**KP Knight Piésold
CONSULTING**

P/A NO.
NB102-181/65

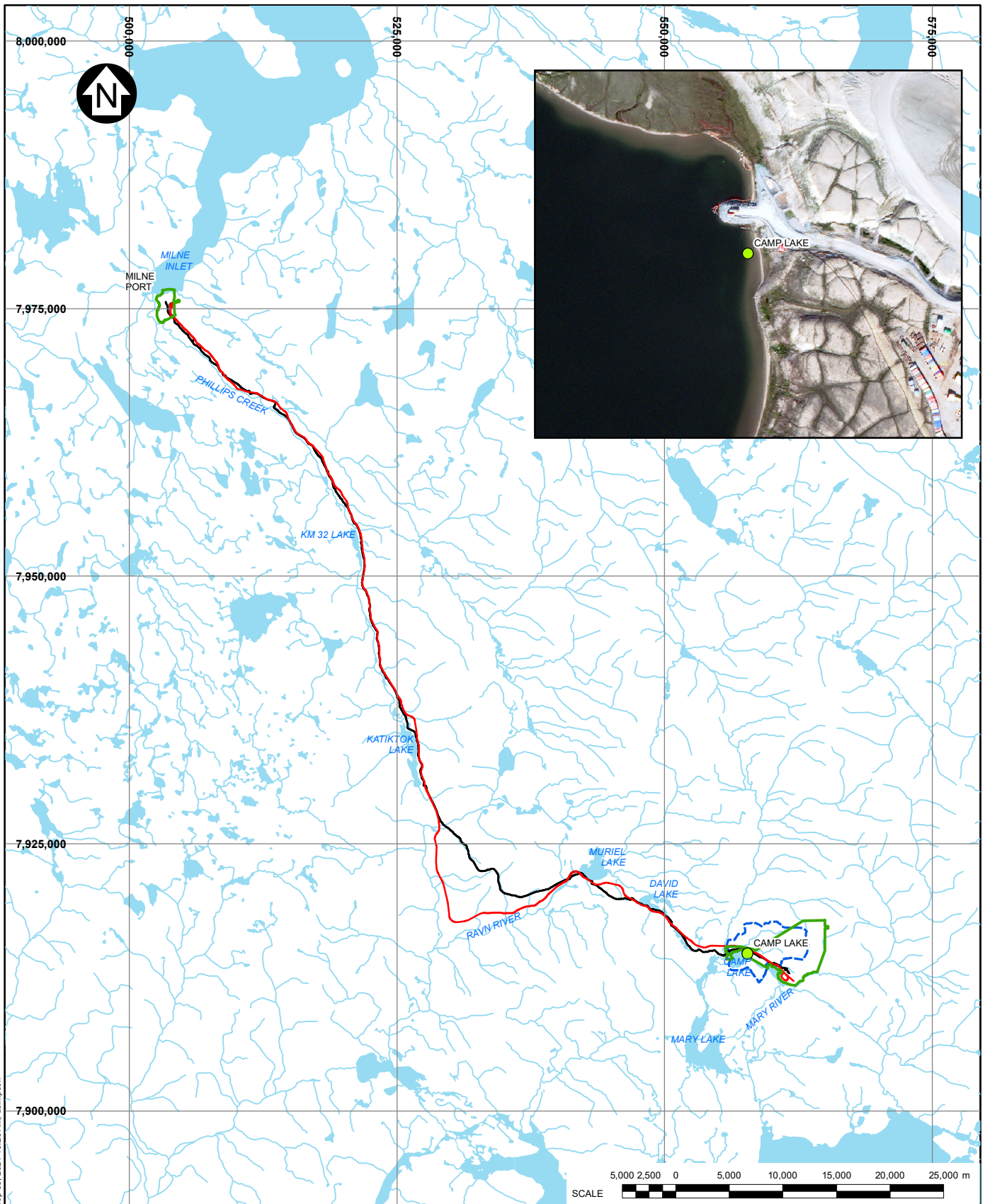
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FIGURE A.18

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SCALE 5,000 2,500 0 5,000 10,000 15,000 20,000 25,000 m

BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

**WATER STATION
CAMP LAKE CATCHMENT**

**KP Knight Piésold
CONSULTING**

PIA NO.
NB102-181/65

REF NO.
1

FIGURE A.19

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APPENDIX B

Hydrology Assessment Summary

(Page B-1)

Table B.1 Rev 0

Hydrology Assessment Summary

TABLE B.1

BAFFINLAND IRON MINES CORPORATION

MARY RIVER PROJECT

DETAILED WATER WITHDRAWAL PLAN

HYDROLOGY ASSESSMENT SUMMARY

Print Sep/07/21 11:49:11

Site ID	Former Site ID	Waterbody Name	Waterbody Type	Approved Water Station (A)	Coordinates		Catchment Area	Mean Annual Discharge	Reference Flow Duration Curve	Mean Annul Unit Runoff	Approved Water Use (m³/day)			Proposed Withdrawals During Open Water (m³/day)			Proposed Withdrawals During Ice Cover (m³/day)			Reduction in Mean Monthly Discharge During Open Water (%)					Winter Drawdown	Maximum Pumping Rate
					Northing	Easting					km²	m³/year	L/s/km²	Domest/ Indust	Dust Suppr	Total	Domest/ Indust	Dust Suppr	Total	Domest/ Indust	Winter Road	Total	June	July		
MP-MRY-2	MP-MRY-2	Phillips Creek mainstem	Stream	A	7,975,254	502,829	1,192.6	274,551,785	H01 - 249 km²	7.3	367.5	212	579.5	750	880	1630										5.7
WS9.2	CWP1	Phillips Creek mainstem	Stream		7,970,255	507,506	1,166.5	268,543,231.2	H01 - 249 km²	7.3					880	880										5.7
WS13.3	CWP2	Phillips Creek mainstem	Stream		7,967,146	510,978	1,143.1	263,156,251.7	H01 - 249 km²	7.3					880	880										5.7
WS17.4	CV-128	Phillips Creek northern tributary	Stream	A	7,965,895	513,545	543.9	125,212,741.9	H01 - 249 km²	7.3		579.5	579.5		1870	1870										5.7
WS20.5	CWP3	Phillips Creek mainstem	Stream		7,963,837	515,248	572.9	131,888,913.1	H01 - 249 km²	7.3					880	880										5.7
WS23.3	CWP4	Phillips Creek	Stream		7,962,497	516,439	567.6	130,668,785.3	H01 - 249 km²	7.3					880	880										5.7
WS27.1a	CWP5	Pond next to KM27 Lake, Phillips Creek mainstem	Lake		7,958,644	518,956	540.4	124,406,997.1	H01 - 249 km²	7.3				750	1540	2290										None
WS27.1b		KM27 Lake, Phillips Creek mainstem	Lake		7,959,186	518,514											None									
WS271.c					7,958,668	518,616												750		750	0.5%	0.2%	0.3%	0.4%	0.6%	2.7%
WS32.8	MP-MRY-3	KM32 Lake, Phillips Creek mainstem	Lake	A	7,953,730	521,543	456.0	104,977,036.8	H01 - 249 km²	7.3	367.5	318	685.5	750	2000	2750	750	see Note 2	750	0.6%	0.2%	0.5%	0.5%	0.7%	0.4%	None
WS37.0	CV099	Pond on Phillips Creek mainstem	Stream		7,949,681	521,736	411.8	94,801,631.0	H01 - 249 km²	7.3					880	880										5.7
WS42.0	CWP6	Phillips Creek mainstem	Stream		7,944,964	522,956	187.5	43,164,900.0	H01 - 249 km²	7.3					880	880										2.6
WS45.0	CWP7	Phillips Creek mainstem	Stream		7,942,167	523,240	180.3	41,507,367.8	H01 - 249 km²	7.3					880	880										2.5
WS47.1		Phillips Creek mainstem	Stream		7,940,242	523,994	163.9	37,731,877.9	H01 - 249 km²	7.3					880	880										2.3
WS52.9	Katiktok Lake	Katiktok Lake	Lake		7,935,964	525,838	91.1	20,972,386.1	H01 - 249 km²	7.3					1500	1500		see Note 2		0.3%	0.6%	1.3%	1.4%	1.1%	n/a	None
WS63.5A	BG50	Ravn River	Stream	A	7,926,846	529,334	181.1	41,691,538.1	H01 - 249 km²	7.3		150	150		880	880										2.5
WS63.5B		Ravn River	Stream		7,926,600	528,950	181.1	41,691,538.1	H01 - 249 km²	7.3					1000	1000										2.5
WS79.9	CV217	Muriel Lake	Lake	A	7,922,158	542,219	169.5	39,021,069.6	H01 - 249 km²	7.3		130	130		1870	1870				Considered together with WS80.3 Muriel Lake						None
WS80.3	Muriel Lake	Muriel Lake	Lake	A	7,922,158	542,219	169.5	39,021,069.6	H01 - 249 km²	7.3		212	212		880	880		see Note 2		0.2%	0.5%	1.1%	1.2%	0.9%	n/a	None
WS87.7	David Lake	David Lake	Lake	A	7,919,396	547,885	49.6	12,357,066.2	H05 - 5.3 km²	7.9		132	132		1540	1540				0.4%	1.1%	1.7%	2.3%	1.7%	n/a	None
WS94.0	CWP12	Unnamed Lake	Lake		7,915,383	552,300	14.0	3,487,881.6	H05 - 5.3 km²	7.9					400	400				0.4%	1.1%	1.8%	2.3%	1.8%	n/a	None
WS97.0	CV223	Tom River	Stream	A	7,914,691	555,818	246.8	56,816,519.0	H01 - 249 km²	7.3		135	132		2200	2200										3.4
Camp Lake	Camp Lake	Camp Lake	Lake	A	7,914,684	557,793	26.5	6,602,061.6	H05 - 5.3 km²	7.9	657.5	86	743.5	657.5	1000	1657.5	657.5	see Note 2	657.5	7.7%	2.4%	3.9%	5.1%	8.4%	0.8%	None

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- NOTES:
1. OPEN WATER WITHDRAWALS MAY OCCUR BETWEEN 15 JUNE AND 15 SEPTEMBER.
2. ONE-TIME WINTER WATER WITHDRAWALS OF 2,000 M³ FOR WINTER ROAD CONSTRUCTION ASSOCIATED WITH BRIDGE CONSTRUCTION. THESE VOLUMES HAVE NOT BEEN INCORPORATED INTO THE ASSESSMENT.

0	03SEP'21	ISSUED WITH REPORT NB102-181/65-1	RAC	TP
REV	DATE	DESCRIPTION	PREPD	RVWD