

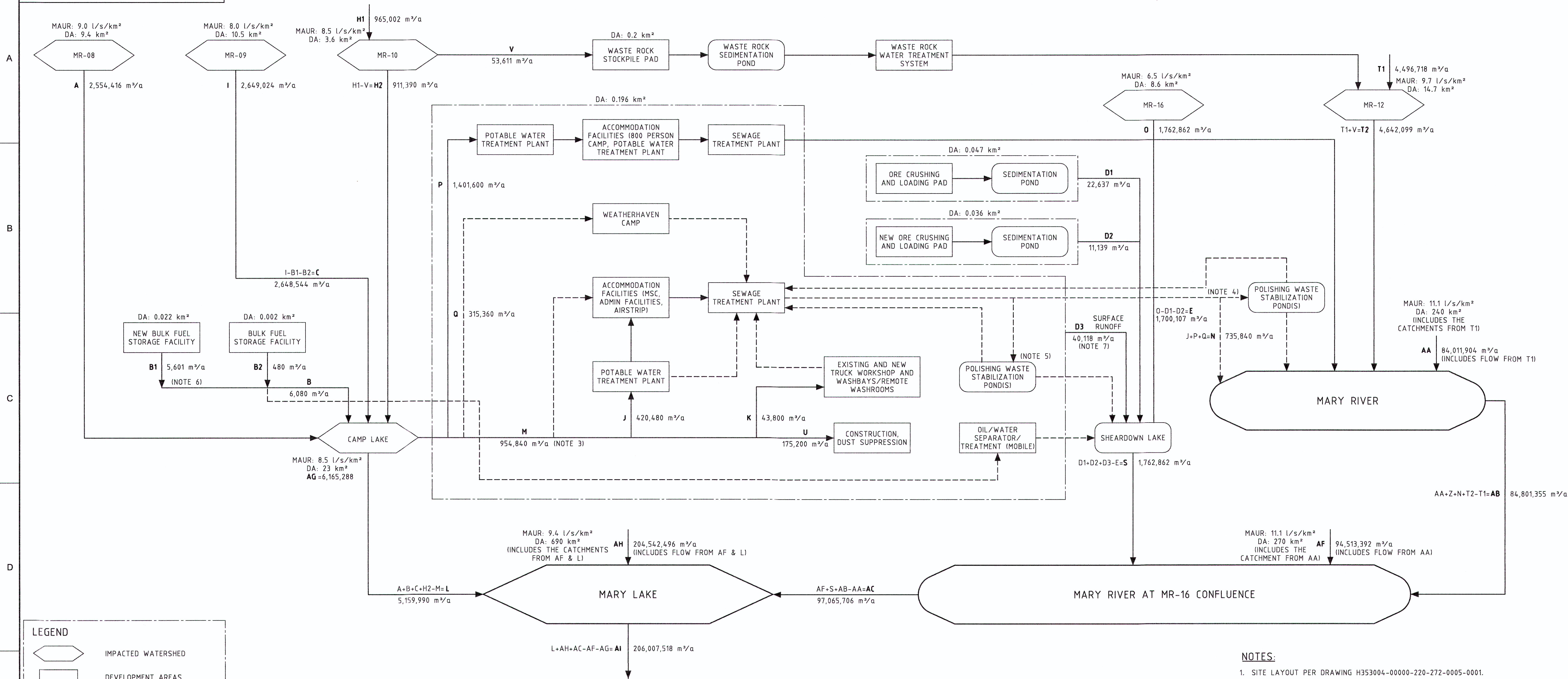
ATTACHMENT 11

UPDATED BLOCK FLOW DIAGRAMS

- 11.1 Mine Site Water Balance
- 11.2 Mine Site Water and Sewage Process Flow Diagram
- 11.3 Port Site Water Balance
- 11.4 Port Site Water and Sewage Process Flow Diagram
- 11.5 Ore Staging Water Balance

ATTACHMENT 11.1

MINE SITE WATER BALANCE



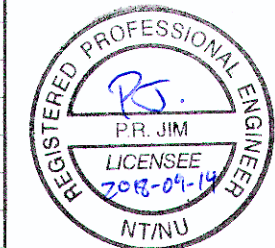
LEGEND

- IMPACTED WATERSHED
- DEVELOPMENT AREAS
- DEVELOPMENT AREAS SUBJECT TO APPROVAL
- STORMWATER PONDS
- CONTINUOUS OR WATERSHED FLOW
- INTERMITTENT FLOW
- A/AA 100,000 ANNUAL VOLUME (m³/a)
- MAUR MEAN ANNUAL UNIT RUNOFF (l/s/km²)
- MSC MINE SITE COMPLEX

- NOTES:**
- SITE LAYOUT PER DRAWING H353004-00000-220-272-0005-0001.
 - REFER TO PROCESS FLOW DIAGRAM H353004-00000-270-282-0001-0001, FOR MORE DETAILED WATER SUPPLY AND WASTE WATER TREATMENT.
 - RAW WATER SUPPLY FLOW RATE CAMP LAKE IS EQUAL TO OR LESS THAN TYPE A WATER LICENCE 2AM-MRY1325 FLOW RATE LIMIT OF 657.5m³/day (240,000m³/year) TOTAL.
 - USE OF POLISHING WASTE STABILIZATION POND PRIOR TO MARY RIVER DISCHARGE WILL OCCUR ON A CONTINGENCY BASIS ONLY, IN THE EVENT OF OFF-SPEC TREATED SEWAGE EFFLUENT.
 - USE OF POLISHING WASTE STABILIZATION POND AND SHEARDOWN LAKE DISCHARGE WILL OCCUR ON A CONTINGENCY BASIS ONLY, SHOULD CAPACITY BE EXCEEDED THROUGH THE SEWAGE TREATMENT SYSTEM DISCHARGING TO MARY RIVER.
 - BULK FUEL STORAGE AREA RUNOFF DRAINED TO ENVIRONMENT IF QUALITY SATISFIES DISCHARGE REQUIREMENTS; OTHERWISE IS CONVEYED TO MOBILE OIL/WATER SEPARATOR FOR TREATMENT PRIOR TO DISCHARGE.
 - PLANT SITE RECEIVES ONLY PRECIPITATION-RUNOFF AND NO SURFACE WATER RUNOFF FROM SURROUNDING AREAS.
 - REFER ERP SURFACE WATER AND AQUATIC ECOSYSTEM MANAGEMENT FROM H349000-1000-07-126-0005, REV 1.

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HATCH LTD.**
Signature: *PR*
Date: 2018-09-14
PERMIT NUMBER: P 512
The Association of Professional Engineers,
Geologists and Geophysicists of NWT/NU

H349000-4000-10-002-0002	MINE SITE - WATER BALANCE - BLOCK FLOW DIAGRAM
DRAWING No.	DRAWING TITLE
REFERENCE DRAWINGS	



REG. PROFESSIONAL

FOR USE

0 APPROVED FOR USE

No.	DESCRIPTION	HV	PC	12-09-2018
REVISIONS				

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DESIGN COORD.	R GOOSEN		2018-09-14
RESP. ENG.	P JIM		2018-09-14
LEAD DISC. ENG.	P CHERRY		2018-09-13
AREA LEAD	T ATIBA		
ENG. MANAGER	D STANGER		2018-09-14
AREA MANAGER	T ATIBA		2018-09-13
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DRAWING APPROVAL STATUS: Approved for Use			

HATCH

Baffinland

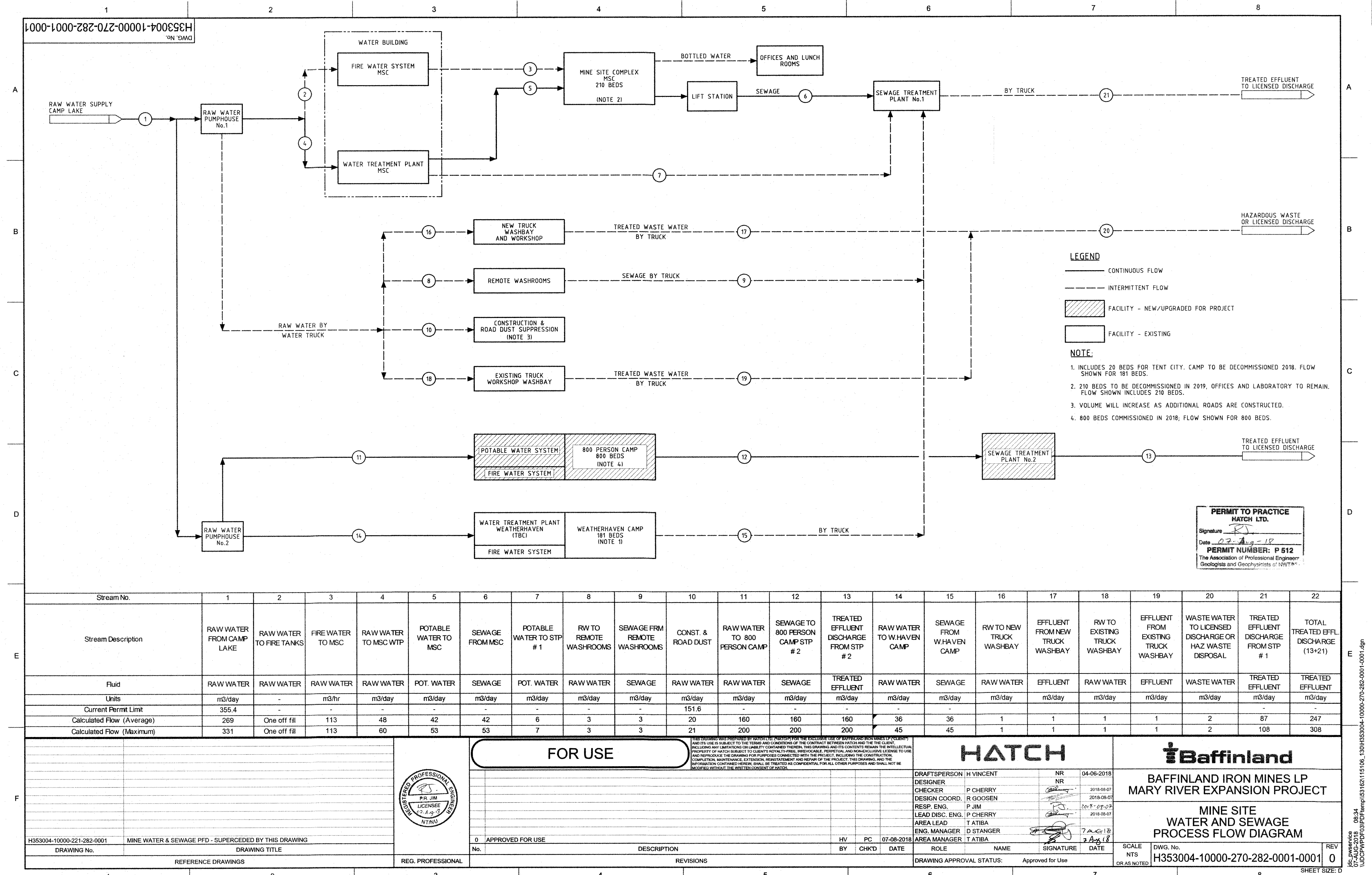
**BAFFINLAND IRON MINES LP
MARY RIVER EXPANSION PROJECT**

**MINE SITE
AREA WATER BALANCE
BLOCK FLOW DIAGRAM**

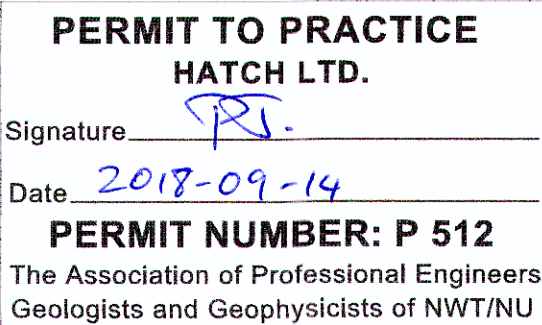
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ATTACHMENT 11.2

MINE SITE WATER AND SEWAGE PROCESS FLOW DIAGRAM






ATTACHMENT 11.3
PORT SITE WATER BALANCE



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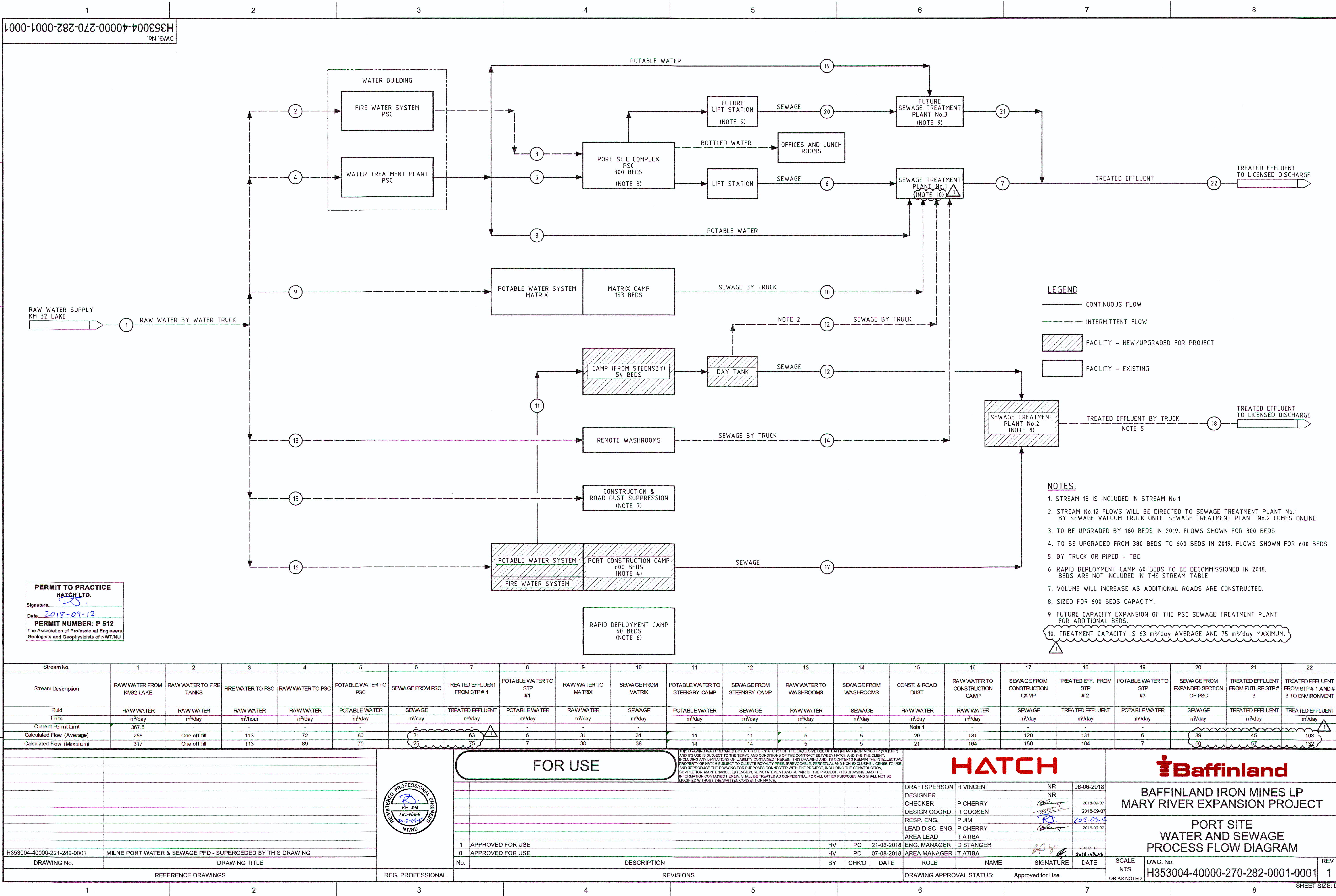


PORT SITE AREA WATER BALANCE BLOCK FLOW DIAGRAM

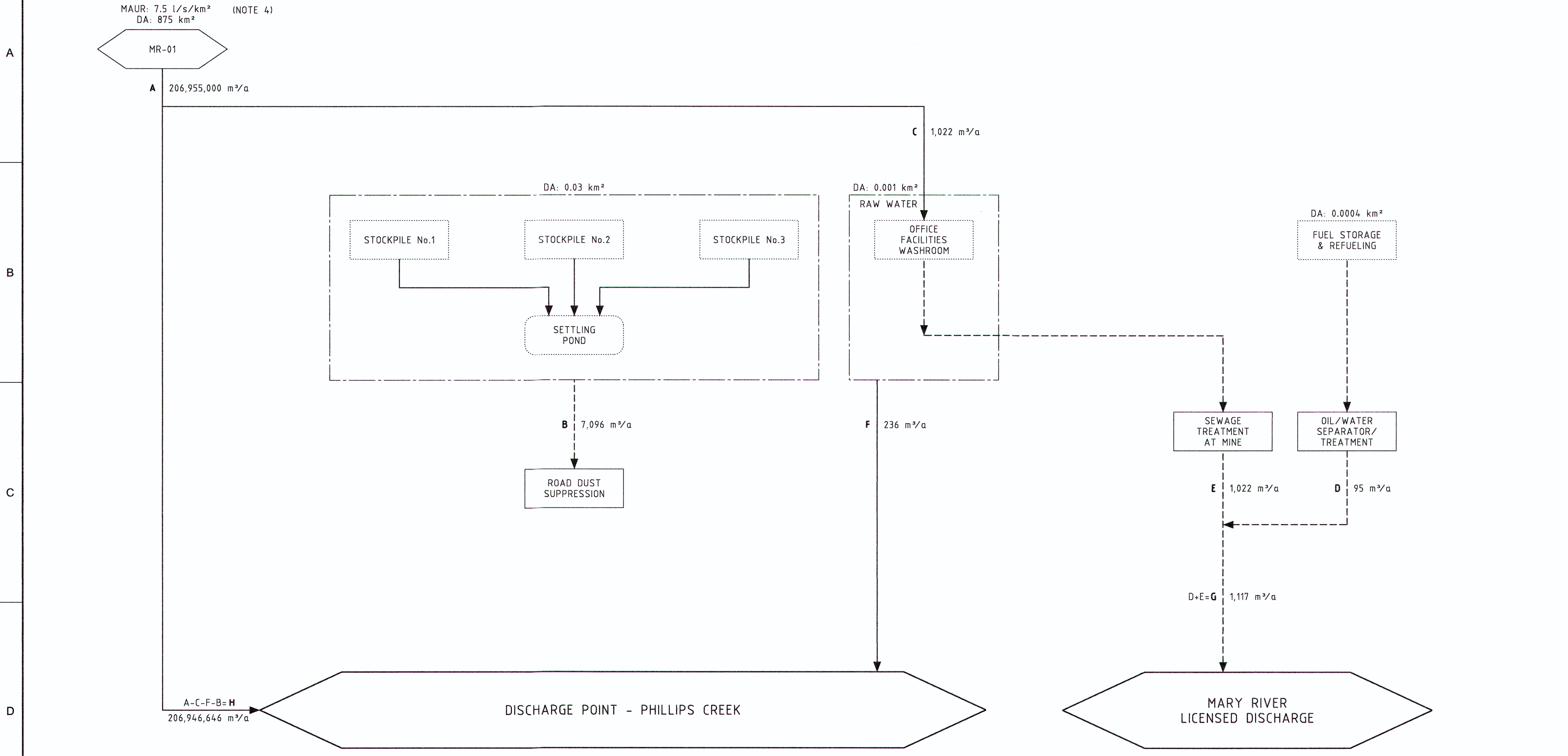
				<div>FOR USE</div>				<div>THIS DRAWING WAS PREPARED BY HATCH LTD. ("HATCH") FOR THE EXCLUSIVE USE OF BAFFINLAND IRON MINES LP ("CLIENT") AND ITS USE IS SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT BETWEEN HATCH AND THE CLIENT, INCLUDING ANY LIMITATIONS ON LIABILITY CONTAINED THEREIN. THIS DRAWING AND ITS CONTENTS REMAIN THE INTELLECTUAL PROPERTY OF HATCH SUBJECT TO CLIENTS ROYALTY/FEE, IRREVOCABLE, PERPETUAL AND NON-EXCLUSIVE LICENSE TO USE AND REPRODUCE THE DRAWING FOR PURPOSES CONNECTED WITH THE PROJECT, INCLUDING THE CONSTRUCTION, COMPLETION, MAINTENANCE, EXTENSION, REINSTATEMENT AND REPAIR OF THE PROJECT. THIS DRAWING, AND THE INFORMATION CONTAINED HEREIN, SHALL BE TREATED AS CONFIDENTIAL FOR ALL OTHER PURPOSES AND SHALL NOT BE MODIFIED WITHOUT THE WRITTEN CONSENT OF HATCH.</div>							
								DRAFTSPERSON DESIGNER CHECKER DESIGN COORD. RESP. ENG. LEAD DISC. ENG. AREA LEAD ENG. MANAGER AREA MANAGER		H VINCENT NR P CHERRY R GOOSEN P JIM P CHERRY T ATIBA D STANGER T ATIBA		NR 24-08-2018 2018-09-13 2018-09-14 2018-09-14 2018-09-13 2018-09-14 2018-09-13 2018-09-14		BAFFINLAND IRON MINES LP MARY RIVER EXPANSION PROJECT	
H349000-2000-10-002-0002		PORT SITE - WATER BALANCE - BLOCK FLOW DIAGRAM										PORT SITE AREA WATER BALANCE BLOCK FLOW DIAGRAM			
DRAWING No.		DRAWING TITLE		0 APPROVED FOR USE				HV PC 12-09-2018							
				No.				DESCRIPTION				BY CHK'D DATE		ROLE NAME SIGNATURE DATE	
														DRAWING APPROVAL STATUS: Approved for Use	
REFERENCE DRAWINGS		REG. PROFESSIONAL		REVISIONS								SCALE NTS OR AS NOTED		DWG. No. H353004-40000-270-252-0002-0001	

ATTACHMENT 11.4

PORT SITE WATER AND SEWAGE PROCESS FLOW DIAGRAM



ATTACHMENT 11.5
ORE STAGING WATER BALANCE



LEGEND

IMPACTED WATERSHED

DEVELOPMENT AREAS

DEVELOPMENT AREAS SUBJECT TO APPROVAL

STORMWATER PONDS

CONTINUOUS OR WATERSHED FLOW

INTERMITTENT FLOW

A/AA 100,000

MAUR

ANNUAL VOLUME (m³/a)

MEAN ANNUAL UNIT RUNOFF (l/s/km²)

- NOTES:
- SITE LAYOUT PER DRAWING H353004-30000-224-271-0029-0001, REV 0.
 - FLOW 'C' IS BASED ON 6 PERSONS/DAY AT THE OFFICE FACILITIES USING 50 l/day AND 250 trucks/day OF ORE USING 10 l PER TRUCK LOAD PER DAY.
 - MAUR IN WATERSHED MR-01 IS LIKELY IN THE RANGE BETWEEN 5 AND 7.5 l/s/km².
 - ORE STOCKPILE AND SETTLING POND CONSTRUCTION SUBJECT TO APPROVAL. ORE STOCKPILES RECEIVE ONLY PRECIPITATION AND NO SURFACE WATER RUNOFF FROM SURROUNDING AREAS.
 - PLANT SITE RECEIVES ONLY PRECIPITATION-RUNOFF AND NO SURFACE WATER RUNOFF FROM SURROUNDING AREAS.
 - REFER ERP SURFACE WATER AND AQUATIC ECOSYSTEM MANAGEMENT FROM H349000-1000-07-126-0005, REV 1 FOR CATCHMENT AREA INFORMATION.

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HATCH LTD.

Signature *RT*

Date 2018-09-14

PERMIT NUMBER: P 512

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			FOR USE			HATCH				Baffinland			
						BAFFINLAND IRON MINES LP MARY RIVER EXPANSION PROJECT				ORE STAGING RAIL SITE AREA WATER BALANCE BLOCK FLOW DIAGRAM			
DRAFTSPERSON			H VINCENT			NR				24-08-2018			
DESIGNER			P CHERRY			2018-09-13							
CHECKER			R GOOSEN			2018-09-14							
DESIGN COORD.			P JIM			2018-09-14							
RESP. ENG.			F v BILJON			2018-09-13							
AREA LEAD			D STANGER			2018-09-17							
ENG. MANAGER			F PITTMAN										
AREA MANAGER													
ROLE			NAME			SIGNATURE				DATE			
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REV			0										
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