

TABLES

Table 2.1: Summary of Project Activities, Modifications and Infrastructure Changes - 2021

Work Plan Item No.	Property Section	Land Use Area	ID (Area m ²)	Approximate Location (UTM NAD83 Zone 17W)		Description	Annual Work Plan Comparison	Supporting Documentation
				Easting	Northing			
2021-1-A	Mine Site	Impact Area	500 m	561233	7913234	Installation of power distribution cabling at the Mine Site and Milne Port facilities, including; a) Mary River Powerhouse to Dyno Nobel explosives facility (500 m) b) Mary River E-House 3 to KM 104 laydown (300 m) c) Milne Port 'Steensby Camp' power line (100 m)	Not constructed in 2021, deferred to 2022.	N/A
2021-1-B	Mine Site	Impact Area	300 m	561547	7913358		Not constructed in 2021, deferred to 2022.	N/A
2021-1-C	Milne Port	Impact Area	100 m	-	-		Installation completed.	N/A
2021-2	Milne Port	Impact Area	1,127 m ²	503630	7975847	Construction of new warehouse facility (seacan tent structure) on laydown LP2 x 1127 m2	Not constructed in 2021, deferred to 2022.	N/A
2021-3	Milne Port	Impact Area	208 m ²	503313	7976579	Construction of offices and workshops at the stockpile and shiploader (x 208 m2)	Not constructed in 2021, deferred to 2022.	N/A
2021-4	Mine Site	Impact Area	400 m ²	560270	7913787	Construction of new offices and trailers at the OHT Laydown, and expansion of the OHT laydown (400 m2)	Cancelled	N/A
2021-5-A	Mine Site	Impact Area	Aerodrome - 100 m ²	559146	7914254	Construction of one (1) quonset hut structure at the aerodrome, and one (1) quonset hut structure adjacent to the Milne Port Fire Hall for emergency equipment storage. (assumed each 100 m2)	Construction in progress.	N/A
2021-5-B	Milne Port	Impact Area	Milne Port - 100 m ²	503795	7975987		Not constructed in 2021, deferred to 2022.	N/A
2021-6	Mine Site	Impact Area	1,020 m ²	561491	7913203	Construction of concrete pad apron exterior to the HD Shop. Total footprint of 1,020 m ² .	Construction completed	N/A
2021-7	Mine Site	Impact Area	-	563241	7915503	Additional maintenance facilities at the KM110 laydown to support maintenance of Deposit 1 equipment. Facilities include two heated structures for mobile equipment storage (60 m ² and 120 m ²), a concrete pad for tire maintenance (60 m ²), and welding shop (540 m ²).	Construction in progress.	N/A
2021-8	Milne Port	Impact Area	1,250 m ²	503420	7975343	New thaw and wash bay facility for mobile vehicle maintenance. Footprint of 1,250 m ² .	Not constructed in 2021, deferred to 2022.	N/A
2021-9	Milne Port	Impact Area	540 m ²	503506	7976186	Warehouse/parts staging area facility upgrades, including a new seacan tent building with a footprint of 540 m ² .	Construction in progress.	N/A
2021-10	Mine Site	Impact Area	-	560965	7912392	Development of Landfill Cell #4	Not constructed in 2021, deferred to 2022.	N/A
2021-11	Mine Site	Impact Area	1,127 m ²	559601	7914033	Construction of seacan tent structure at the aerodrome for freight and equipment sorting and storage (1127 m2)	Construction in progress.	N/A
2021-12	Mine Site	Impact Area	-	560832	7913305	Relocation of the Mine Site Complex (MSC) sewage treatment plant to be in line with the Sailiivik Camp sewage treatment plant.	Not constructed in 2021, deferred to 2022.	N/A
2021-13	Milne Port	Impact Area	-	504126	7976464	Desalination Plant	Not constructed in 2021, deferred to 2022.	N/A
2021-14-A	Mine Site	Impact Area	-	562938	7914430	Modification to roadways within the ultimate pit limit of Deposit 1, including pit perimeter road and expansion of the cross cut road. All ground disturbance and road construction within the ultimate Deposit 1 pit limits.	Construction in progress.	N/A
2021-14-B	Mine Site	Impact Area	-	563497	7914454		Construction in progress.	N/A
2021-15-A	Mine Site	Impact Area	104 to MSC - 19,424 m ²	561706	7913312	Expansion of the area east of the Mine Site workshops and crushing area for improved traffic management - 104 to MSC (19,424 m2), 104.5 to Crusher (18,308 m2).	Construction in progress.	N/A
2021-15-B	Mine Site	Impact Area	104.5 to Crusher - 18,308 m ²	562191	7912874		Construction in progress.	N/A
2021-16	Mine Site	Impact Area	5,243 m ²	561406	7913479	Expansion of MSC laydown for vehicle parking (5,243 m2).	Not constructed in 2021, deferred to 2022.	N/A
2021-17-A	Mine Site	Impact Area	KM 106 - 4,843 m ²	563838	7913688	Construction of three (3) laydown areas for road aggregate storage on the mine haul road 106 Km (4,843 m2), 107 Km (2,159 m2), 108 Km (3,703 m2).	Not constructed in 2021, deferred to 2022.	N/A
2021-17-B	Mine Site	Impact Area	KM 107 - 2,159 m ²	564237	7914037		Not constructed in 2021, deferred to 2022.	N/A
2021-17-C	Mine Site	Impact Area	KM 108 - 3,703 m ²	564377	7914863		Installation completed.	N/A
2021-18	Mine Site	Impact Area	265,000 m ²	563132	7915782	WRF Expansion to approved footprint (265,000 m2)	Construction completed.	N/A
2021-19	Mine Site	Impact Area	20,000 m ²	564180	7915574	Explosives plant secondary storage location TBD (20,000m2 - laydown grade and recontour)	Not constructed in 2021, deferred to 2022.	N/A

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				Easting	Northing			
2020-1	Mine Site	Impact Area	250 m	561121	7913348	Installation of fuel line and associated piping between the mine site fuel storage areas and gensets.	Construction completed.	N/A
2020-2	Mine Site	Impact Area	-	560631	7913321	Installation of a mine dry facility at the Sailiivik Camp.	Not constructed in 2021, deferred to 2022.	N/A
2020-3-A	Mine Site	Impact Area	-	558420	7914780	Installation of two (2) new waste incineration units; one (1) at the Mine Site, one (1) at Milne Port	Not constructed in 2021, deferred to 2022.	N/A
2020-3-B	Milne Port	Impact Area	-	503774	7975973		Not constructed in 2021, deferred to 2022.	
2020-4	Mine Site	Impact Area	3,000 m ²	563228	7916744	Expansion of the Waste Rock Facility Water Treatment Plant to include an additional geotube settling containment area. Total footprint of new lined area is 3,000 m ³ .	Not constructed in 2021, deferred to 2022.	N/A
2020-5	Mine Site	Impact Area	3,500 m	563348	7915730	Installation of a hard line for transfer of water from Deposit 1 to the Waste Rock Facility sedimentation pond. Hard line will replace current use of layflat hose. Total length of line is 3,500 m.	Installation completed.	
2020-6	Mine Site	Impact Area	10,000 m ²	564028	7915529	Construction of a sedimentation pond at the Mine Haul Road to manage surface water runoff. Pond will be lined and have an approximate footprint of 10,000 m ² .	Construction in progress.	N/A
2020-7	Mine Site	Impact Area	-	563192	7914428	Implementation of a water management plan for Deposit 1, including berms and ditching to manage surface water.	Construction in progress.	N/A
2020-8-A	Mine Site	Impact Area	72 m ²	561467	7913209	Construction of a waste containment cells exterior to workshop facilities, for temporary storage of materials prior to longer term storage in the Hazardous Waste Berms and eventual backhaul. HD Shop - 72 m2 MR Shop - 120 m2 Wash Bay - 120 m2 110 Laydown - 144 m2	Not constructed in 2021, deferred to 2022.	N/A
2020-8-B	Mine Site	Impact Area	120 m ²	5612525	7913295		Not constructed in 2021, deferred to 2022.	N/A
2020-8-C	Mine Site	Impact Area	120 m ²	561645	7913213		Not constructed in 2021, deferred to 2022.	N/A
2020-8-D	Mine Site	Impact Area	144 m ²	563454	7915177		Not constructed in 2021, deferred to 2022.	N/A
2020-10	Mine Site	Impact Area	3,200 m ²	559584	7914047	Expansion of the warehouse laydown area for additional storage of seacans and equipment. Total area of 3,200 m ² .	Not constructed in 2021, deferred to 2022.	N/A
2020-11	Mine Site	Impact Area	600 M	559330	7914137	Installation of permanent lighting for port and logistics. Total of 600 m of electrical cabling.	Construction in progress.	N/A
2020-13	Northern Transportation Corridor	Impact Area	-	-	-	Continued work to repair and replace culverts along the Tote Road, including those with identified fish passage issues. All culverts will be repaired or replaced to the 2013 Hatch design.	Construction in progress.	N/A
2020-14-A	Northern Transportation Corridor	Impact Area	KM 26	518576	7959689	Addition of washroom facilities/refuge stations at KM26 and KM80 IT Towers.	Not constructed in 2021, deferred to 2022.	N/A
2020-14-B	Northern Transportation Corridor	Impact Area	KM 80	542130	7922308		Not constructed in 2021, deferred to 2022.	N/A
2019-3-A	Tote Road	Impact Area	KM 8	506250	7971100	Grade adjustments at KM8 and KM97 to improve safety and drainage. No new culvert installations required.	Grade adjustments at KM8 and KM97 were not completed in 2021 as TRAN process is yet to be finalized with QIA.	N/A
2019-3-B	Tote Road	Impact Area	KM 97	554750	7914750			
2019-6	Milne Port	Impact Area	155,000 m ²	502984	7975763	Expansion of the Milne Port Ore Stockpile and water management facilities to optimize stockpiling and shiploading operations, resulting in additional 140,000 m2 of stockpile area and 15,000 m2 lined sedimentation pond.	Milne Ore Stockpile expansion initiated in 2019 following approval of a modification request. Earthworks yet to be completed and will be ongoing in 2022.	Modification Request No. 12
2019-7	Milne Port	Impact Area	6,000 m ²	503109	7974938	Construction of berm and linear steel support structure on laydown LP3 for receipt and storage of stacker/reclaimer equipment. Berm dimensions are 200m x 30m x 2m, constructed on existing disturbed area.	Not constructed in 2021, deferred to 2022.	N/A
2019-8	Milne Port	Impact Area	4,180 m ²	503590	7976033	Construction of new polishing waste stabilization pond (PWSP) at 380 Person camp to manage off-spec effluent from the 380p camp waste water treatment plant	Not constructed in 2021, deferred to 2022.	N/A

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				Easting	Northing			
2019-9	Milne Port	Impact Area	2,700 m ²	503779	7975481	New contaminated water/snow containment pond adjacent to existing pond at Milne Port	Not constructed in 2021, deferred to 2022.	N/A
2019-11-A	Milne Port	Impact Area	360 m ²	558503	7914691	Construction of new hazardous waste berm at the Mine site and at Milne Port. Decommissioning of select existing berms to consolidate waste management.	Not constructed in 2021, deferred to 2022.	N/A
2019-11-B	Mine Site	Impact Area	360 m ²	503874	7976251		Not constructed in 2021, deferred to 2022.	
2019-12	Mine Site	Impact Area	91,000 m ²	564007	7914015	Laydown area for parking and equipment storage at Km 107.5.	Not constructed in 2021, deferred to 2022.	N/A
2019-13	Mine Site	Impact Area	180,000 m ²	563181	7915590	New KM110.5 Laydown for additional equipment storage and maintenance shop installation	Installation completed.	N/A
2019-14	Mine Site	Impact Area	1,500 m ²	563181	7915590	Heated maintenance shop for pit equipment at Km 110.5 Laydown. Tent structure with lined floor. Footprint is approximately 1,500 m ² .	Construction in progress.	N/A
2019-15	Mine Site	Impact Area	-	558150	7914500	Decommissioning and repurposing of Weatherhaven structures for storage and workspace.	Construction in progress.	N/A
2019-16	Mine Site	Impact Area	12,000 m ²	560450	7913450	Expansion of the 800 person camp pad to the north by approximately 12,000 m ² to accommodate additional support offices and buildings.	Not constructed in 2021, deferred to 2022.	N/A
2019-17	Mine Site	Impact Area	925 m ²	560450	7913450	Addition of offices/trailers/buildings at the 800p Camp. Total footprint is 925 m ² , including approximately 500 m ² for a new fire hall and emergency response building.	Not constructed in 2021, deferred to 2022.	N/A
2019-18	Mine Site	Impact Area	9,000 m ²	561111	7912328	Construction of a landfarm at the Mine Site landfill facility, with an estimated footprint of 9,000 m ² . Disturbed area included in 2018 Addendum, new lined area requires security allocation.	Construction in progress.	N/A
2019-20	Mine Site	Impact Area	-	561080	7913446	Construction of one (1) arctic diesel fuel tank (Tk6) with 15ML capacity, and associated fuel piping. The fuel tank will be constructed on a pad within the existing Mine Site fuel storage facility.	Not constructed in 2021, deferred to 2022.	N/A
2019-23	Mine Site	Impact Area	133,400 m ²	563431	7913284	Construction of a Run of Mine (ROM) Stockpile at KM 106 (previously KM107) (76,600 m ²) and sedimentation pond (10,600 m ² disturbed, 7,500 m ² lined).	Construction completed.	N/A
2019-25	Milne Port	Impact Area	4,400 m ²	503422	7976389	Installation of East Sedimentation Pond Expansion (2a) approved with Modification No. 9, but for which security has not been allocated.	Not constructed in 2021, deferred to 2022.	N/A
2018-A1	Mine Site	Impact Area	-	563904	7914560	Construction of the Mine Haul Road Cross Cut, and widening of the existing Mine Haul Road for safety purposes and to permit larger truck traffic	Construction in progress.	N/A
2018-27	Milne Port	Impact Area	-	504119	7976483	Relocation of effluent discharge point to barge offload area	Not constructed in 2021, deferred to 2022.	N/A
2018-28	Milne Port	Impact Area	-	504122	7976491	Marine manifold building relocation - moving from current location north of fuel tank farm to upgraded freight dock location	Not constructed in 2021, deferred to 2022.	N/A

Table 2.2: Type 'A' Water Licence Modifications Summary and Approvals Status

Modification No. ^a	Description of Modification	Approvals Status
1	Expansion of the Mine Site Crusher Facility's footprint to increase ore stockpile capacity.	Approved by the NWB on May 26, 2017 (Motion No. 2017-A1-007).
2	Expansion of the Milne Port Bulk Fuel Storage Facility's fuel capacity by installing three additional fuel tanks (0.75 ML, 3 ML and 15 ML) within the Facility's existing secondary containment berm.	Approval for the construction and installation of the 0.75 ML and 3 ML tanks issued by the NWB on September 14, 2017 (Motion No. 2017-10-02). ^a
3a	Construction of a surface water diversion ditch around the 380-Person Camp pad, as per CIRNAC Inspection Direction issued to Baffinland on June 9, 2017.	Approved by the NWB on September 8, 2017 (Motion No. 2017-10-01).
3b	Construction of a new 380-Person Camp and associated support infrastructure to upgrade and expand accommodations at Milne Port.	Approved by the NWB on January 18, 2019 (Motion No. 2018-A1-024).
4	Construction of a new 800-Person Camp and associated support infrastructure to upgrade and expand accommodations at the Mine Site.	Approved by the NWB on September 20, 2017 (Motion No. 2017-10-03).
5	Expansion of the Mine Site Crusher Facility Pond to accommodate the Facility's previous pad expansion (Modification No. 1).	Approved by the NWB on August 16, 2018 (Motion No. 2018-A1-013).
6	Construction of a new 280-Person Camp and associated support infrastructure to upgrade and expand accommodations at Milne Port, install an additional 15 ML fuel tank at the Milne Port Bulk Fuel Storage Facility and implement upgrades to the Tote Road to address road safety and operational concerns.	Not approved by the NWB. Application withdrawn by Baffinland on December 15, 2018.
7	Construction of new infrastructure at the Mine Site and Milne Port, included in the 2018 Work Plan and 2018 Work Plan Addendum, to improve site water management and operational capabilities. Key activities within the application included the Waste Rock Facility Water Treatment Plant, Mine Haul Road upgrades, the addition of new Milne Port laydowns, and new maintenance shops at the Mine Site and Milne Port.	Approved by the NWB on August 10, 2018 (Motion No. 2018-A1-010).
8	Expansion of the Waste Rock Facility to address operational requirements and concerns identified in 2017 regarding the Facility's Pond.	Approved by the NWB on September 12, 2018 (Motion No. 2018-A1- 015).
9	Expansion of the Milne Port Ore Stockpile Facility's footprint and associated surface water management ponds.	Approved by the NWB on September 5, 2018 (Motion No. 2018-A1-014).
10	Upgrades to Mine Site infrastructure, including the installation of a direct effluent discharge line from the new 800-Person Camp (Sailiivik Camp) STP and the expansion of the Landfill Facility.	Approved by the NWB on October 16, 2018 (Motion No. 2018-13- P4-03).
11	Installation of an Incineration Unit at Milne Port's 380-Person Camp	Approved by the NWB on April 3, 2019.
12	Milne Port Ore Stockpile #1 and Water Management Expansion	Approved by the NWB on August 2, 2019 (Motion No. 2019-A1-005).
13	Construction of water management structures at the Mine Site including sedimentation ponds and conveyance/ diversion ditches and berms.	Approved by the NWB on August 16, 2021. (Motion No. 2021-A1-04).

Notes

^a As defined by the Nunavut Water Board (NWB).

Table 2.3: Equipment and Materials Shipped off the Property - 2021

Property Section	Equipment/ Material Item	Owner	Annual Amount of Equipment and Material (metric tonnes) ^e	Annual Revenue Tonnes ^f
Project-Wide	Non-Hazardous Waste Materials ^{a,b,c,d}	Baffinland	0	0
Project-Wide	Hazardous Waste Materials ^{a,c,d}	Baffinland	2,770.7	2,770.7
Project-Wide	Miscellaneous Equipment and Materials	Baffinland & Third Party	10,381.3	10,381.3
TOTAL			13,152.0	13,152.0

Notes
^a Assumes tare weight of a 20' shipping container to be 2.3 metric tonnes.

^b Assumes tare weight of a 40' shipping container to be 3.75 metric tonnes.

^c Assumes external volume of a 20' shipping container to be 38.5 m³.

^d Assumes external volume of a 40' shipping container to be 77 m³.

^e Includes weight of shipping containers/materials.

^f A revenue tonne is a shipping term describing the measurement on which the shipment is freighted. If cargo is rated as weight or measure, whichever produces the highest revenue will be considered the revenue ton. Weights are based on metric tonnes and measures are based on cubic meters.

Table 2.4: Equipment and Materials Shipped to and Stored on the Property - 2021

Property Section	Equipment/Material Item	Owner	Annual Amount of Equipment and Material (metric tonnes) ^f	Annual Revenue Tonnes ^g
Project-Wide	Arctic Diesel ^a	Baffinland	41,600	41,600
Project-Wide	Jet-A1 ^b	Baffinland	2,412	2,412
Project-Wide	Pre-Packaged Explosives ^{c,d}	Explosives Contractor	0	0
Project-Wide	Explosives ^e	Explosives Contractor	9,900	9,900
Project-Wide	Food Stuffs	Baffinland	918	5,243
Project-Wide	Miscellaneous Equipment and Materials	Baffinland & Third Party	1,584	1,584
TOTAL			56,414	60,739

Notes

^a Assumes a density for Arctic Diesel of 0.832 kg/L.

^b Assumes a density of Jet-A1 of 0.804 kg/L.

^c Includes detonators and other explosives accessories.

^d Assumes external volume of a 20' shipping container to be 38.5 m³.

^e Includes ammonia nitrate prill as well as materials required for on site explosives/emulsion manufacturing.

^f Includes weight of shipping containers/materials.

^g A revenue tonne is a shipping term describing the measurement on which the shipment is freighted. If cargo is rated as weight or measure, whichever produces the highest revenue will be considered the revenue ton. Weights are based on metric tonnes and measures are based on cubic meters.

Table 3.1: Monthly and Annual Quantities of Ore Generated by the Project - 2021

Month	Quantity of Ore Generated (Wet Metric Tonnes)		
	Lump	BHL ¹	Fines
January	60,364	104,285	398,425
February	88,782	39,514	252,232
March	151,218	-	342,604
April	69,816	90,765	378,839
May	13,377	8,772	58,111
June	99,088	55,921	416,419
July	192,793	-	378,049
August	60,397	7,375	459,394
September	140,615	2,330	449,633
October	64,892	-	272,580
November	139,560	-	244,740
December	74,854	-	360,659
SUB-TOTAL	1,155,756	308,962	4,011,686
TOTAL	5,476,403		

Notes

¹ BHL = Baffinland Hematite Lump.

Table 3.2: Monthly and Annual Quantities of Ore Shipped by the Project - 2021

Month	Lump Shipped (Wet Metric Tonnes)		BHL ¹ Shipped (Wet Metric Tonnes)		Fines Shipped (Wet Metric Tonnes)		Total Shipped (Wet Metric Tonnes)	
	Milne Inlet	Steensby Inlet	Milne Inlet	Steensby Inlet	Milne Inlet	Steensby Inlet	Milne Inlet	Steensby Inlet
January	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-	-
April	-	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-	-
June	-	-	-	-	-	-	-	-
July	0	-	0	-	358,742	-	358,742	-
August	761,336	-	0	-	1,552,106	-	2,313,442	-
September	273,997	-	495,516	-	1,058,407	-	1,827,920	-
October	238,381	-	0	-	872,410	-	1,110,791	-
November	-	-	-	-	-	-	-	-
December	-	-	-	-	-	-	-	-
SUB-TOTAL	1,273,714	0	495,516	0	3,841,665	0	5,610,895	0
TOTAL	1,273,714		495,516		3,841,665		5,610,895	

Notes

¹ BHL = Baffinland Hematite Lump.

Table 3.3: Quantities of Specified Substances Removed from Borrowes and Quarries (BCMs) by Quarter and Calendar Year - 2021

Quarter	Quarry - QMR2			Survey Dates		Notes
	Rock	Unconsolidated Material	Organics	Start	End	
Jan-March 2021	-	-	-	January 1, 2021	March 31, 2021	No activity in the quarry.
April-June 2021	-	-	-	April 1, 2021	June 30, 2021	No activity in the quarry.
July-Sept 2021	-	-	-	July 1, 2021	September 30, 2021	No activity in the quarry.
Oct-Dec 2021	-	-	-	October 1, 2021	December 31, 2021	No activity in the quarry.
TOTAL	0	0	0			
Quarter	Quarry - Q01			Survey Dates		Notes
	Rock	Unconsolidated Material	Organics	Start	End	
Jan-March 2021	-	-	-	January 1, 2021	March 31, 2021	No activity in the quarry.
April-June 2021	94,050	-	-	April 1, 2021	June 30, 2021	Survey performed with RTK drone.
July-Sept 2021	96,350	-	-	July 1, 2021	September 30, 2021	Survey performed with RTK drone.
Oct-Dec 2021	38,457	-	-	October 1, 2021	December 31, 2021	Survey performed with RTK drone.
TOTAL	228,857	0	0			
Quarter	Borrow Source - Km 97			Survey Dates		Notes
	Rock	Unconsolidated Material	Organics	Start	End	
Jan-March 2021	-	-	-	January 1, 2021	March 31, 2021	No activity in the borrow source.
April-June 2021	-	3,931	-	April 1, 2021	June 30, 2021	Survey performed with RTK drone.
July-Sept 2021	-	20,570	-	July 1, 2021	September 30, 2021	Survey performed with RTK drone.
Oct-Dec 2021	-	1,813	-	October 1, 2021	December 31, 2021	Survey performed with GPS.
TOTAL	0	26,314	0			

Notes

BCM - Banked Cubic Metres.

Table 3.4: Quantities of Specified Substances Removed from Borrows and Quarries (BCMs) October 1, 2020 to September 30, 2021 Reporting Period

Specified Substances	Quarry - QMR2	Quarry - Q01	Borrow Source - Km 97	Total - All Quarry and Borrow Sources
Rock	0	190,400	0	190,400
Unconsolidated Material	0	0	24,501	24,501
Organics	0	0	0	0
TOTAL	0	190,400	24,501	214,901

Notes

Annual volumes calculated using the following equation:

Annual Volume Removed (Oct. 1, 2020 to Sept. 30, 2021) = 2020 Q4 + 2021 Q1 + 2021 Q2 + 2021 Q3.

BCM - Banked Cubic Metres.

Table 4.1: Annual Volumes of Water Used for Project Activities on Inuit-Owned and Crowns Lands by Source - 2021

Property Section	Water Source ID	Water Source Location (UTM NAD83 Zone 17W)		Annual Volume Used (m ³) ^a	Percent of Total Annual Volume Used (%)
		Easting	Northing		
Mine Site	Camp Lake (MS-MRY-1) ^b	557793	7914684	51,479	59.5%
Milne Inlet	Phillips Creek (MP-MRY-2)	514503	7964579	0	0.0%
Milne Inlet	Km 32 Lake (MP-MRY-3) ^c	521547	7953735	27,767	32.1%
Tote Road	CV128 (Km 17)	513568	7965904	1,423	1.6%
Tote Road	CV099 (Km 37)	521862	7948844	0	0.0%
Tote Road	Katiktok Lake (Km 52 - 58)	527492	7930716	0	0.0%
Tote Road	BG50 (Km 62)	529302	7926860	1,393	1.6%
Tote Road	BG32 (Km 78)	540738	7921595	151	0.2%
Tote Road	CV217 (Km 80)	542323	7922178	1,120	1.3%
Tote Road	Muriel Lake	542343	7922224	3,089	3.6%
Tote Road	BG17 (Km 90)	550715	7917654	0	0.0%
Tote Road	CV233 (Km 97)	555712	7914680	121	0.1%
TOTAL				86,543	100%

Notes

^a Refer to Tables 4.2 and 4.3 for the 2021 daily and monthly volumes withdrawn by water source.

^b Includes all volumes withdrawn from Camp Lake during 2021 for domestic, industrial and dust suppression purposes.

^c Includes all volumes withdrawn from Km 32 Lake during 2021 for domestic, industrial and dust suppression purposes.

Table 4.2 Daily, Monthly, and Annual Volumes of Water Used for Domestic and Industrial Purposes on Inuit-Owned Land and Crown Lands - 2021

Day	January						February						March					
	MS-MRY-1		TOTAL	MP-MRY-3		TOTAL	MS-MRY-1		TOTAL	MP-MRY-3		TOTAL	MS-MRY-1		TOTAL	MP-MRY-3		TOTAL
	D	I		D	I		D	I		D	I		D	I		D	I	
1	133.5	7.7	141	68.5	0.0	69	112.1	7.6	120	32.3	0.0	32	137.4	3.4	141	45.2	0.0	45
2	113.2	0.0	113	70.4	1.0	71	87.8	8.4	96	50.0	0.0	50	102.1	35.8	138	49.3	1.0	50
3	109.0	21.4	130	64.2	7.0	71	77.9	15.5	93	37.3	0.0	37	142.5	8.6	151	47.1	0.0	47
4	122.7	14.4	137	58.7	11.0	70	78.2	17.0	95	28.5	0.0	28	119.9	0.0	120	43.2	0.0	43
5	118.4	4.3	123	57.6	22.0	80	123.9	10.7	135	25.3	0.0	25	115.6	8.6	124	50.1	0.0	50
6	102.2	17.7	120	76.5	0.0	77	148.9	1.7	151	52.1	0.0	52	119.2	16.2	135	37.3	0.0	37
7	155.7	0.0	156	47.0	0.0	47	89.8	1.7	92	62.3	0.0	62	95.2	2.6	98	54.3	1.0	55
8	118.8	0.0	119	83.7	0.0	84	113.2	0.0	113	41.8	0.0	42	130.6	4.3	135	41.7	0.0	42
9	150.6	8.1	159	50.0	0.0	50	119.4	0.0	119	55.7	2.0	58	122.7	13.8	136	51.6	0.0	52
10	122.1	17.5	140	46.1	0.0	46	92.7	6.9	100	44.1	0.0	44	134.1	16.8	151	53.5	0.0	53
11	115.4	0.0	115	57.2	0.0	57	81.7	0.0	82	44.5	0.0	45	157.8	6.9	165	51.6	0.0	52
12	133.8	17.5	151	53.3	2.0	55	131.6	3.4	135	43.5	0.0	43	143.9	9.5	153	43.2	0.0	43
13	121.8	11.2	133	55.6	0.0	56	101.3	0.0	101	52.0	0.0	52	107.6	27.3	135	36.3	0.0	36
14	128.7	10.6	139	68.1	0.0	68	89.4	0.0	89	51.8	0.0	52	121.9	27.2	149	54.9	0.0	55
15	89.8	4.4	94	75.8	0.0	76	124.7	9.7	134	36.7	0.0	37	123.0	20.8	144	30.5	0.0	31
16	135.4	4.3	140	75.3	0.0	75	106.3	15.1	121	40.2	0.0	40	106.0	43.0	149	40.3	1.0	41
17	108.2	4.3	113	48.4	1.0	49	107.3	4.3	112	48.5	0.0	48	143.9	26.7	171	45.0	1.0	46
18	125.4	1.7	127	57.5	0.0	58	129.3	0.0	129	63.3	0.0	63	114.0	17.1	131	40.0	0.0	40
19	108.2	0.0	108	55.0	0.0	55	89.6	24.7	114	36.7	0.0	37	127.1	7.7	135	44.9	0.0	45
20	112.9	12.7	126	67.0	0.0	67	156.6	0.0	157	38.0	0.0	38	54.6	14.2	69	54.6	0.0	55
21	100.4	5.4	106	61.2	0.0	61	137.4	9.2	147	49.3	0.0	49	129.6	16.8	146	45.9	0.0	46
22	106.2	0.0	106	69.0	0.0	69	150.2	5.2	155	43.7	0.0	44	107.6	5.2	113	43.5	6.0	50
23	123.0	18.1	141	57.4	0.0	57	157.0	16.8	174	43.6	2.0	46	155.2	10.5	166	57.7	0.0	58
24	94.1	0.0	94	72.9	0.0	73	111.5	17.3	129	45.9	0.0	46	133.5	6.0	139	37.1	0.0	37
25	110.3	15.5	126	66.9	0.0	67	104.1	13.7	118	48.9	0.0	49	117.7	24.3	142	63.6	0.0	64
26	103.5	18.5	122	68.3	0.0	68	148.1	0.0	148	42.3	0.0	42	133.0	0.0	133	35.9	0.0	36
27	121.6	4.3	126	53.0	0.0	53	154.8	4.3	159	46.8	0.0	47	135.0	5.2	140	47.5	0.0	48
28	103.0	6.0	109	95.6	0.0	96	153.8	0.0	154	47.6	0.0	48	108.3	20.1	128	50.4	0.0	50
29	104.4	0.0	104	68.8	0.0	69	-	-	-	-	-	-	121.1	0.0	121	44.6	0.0	45
30	137.5	6.0	143	48.6	0.0	49	-	-	-	-	-	-	134.0	11.2	145	46.4	0.0	46
31	98.9	17.6	117	54.5	0.0	54	-	-	-	-	-	-	133.6	0.0	134	45.5	0.0	46
TOTAL	3,629	249	3,878	1,952	44	1,996	3,278	193	3,472	1,253	4	1,257	3,828	410	4,238	1,433	10	1,443

Notes:
All volumes in cubic metres (m³).
MS-MRY-1 - Camp Lake; MP-MRY-3 - Km 32 Lake.
D - Domestic/Camp Purposes; I - Industrial Purposes.
Bold and highlighted values indicate daily volumes that exceeded the source, use specific daily withdrawal limit stipulated by Table 3 of the Type 'A' Water Licence.

Table 4.2 Daily, Monthly, and Annual Volumes of Water Used for Domestic and Industrial Purposes on Inuit-Owned Land and Crown Lands - 2021

Day	April						May						June					
	MS-MRY-1		TOTAL	MP-MRY-3		TOTAL	MS-MRY-1		TOTAL	MP-MRY-3		TOTAL	MS-MRY-1		TOTAL	MP-MRY-3		TOTAL
	D	I		D	I		D	I		D	I		D	I		D	I	
1	111.9	12.9	125	68.5	0.0	69	94.2	33.2	127	45.6	0.0	46	123.9	7.7	132	78.4	6.0	84
2	129.3	8.6	138	43.2	2.0	45	106.5	24.2	131	47.6	4.0	52	101.3	6.0	107	69.1	6.0	75
3	150.0	8.6	159	47.0	0.0	47	134.2	23.3	157	34.6	8.0	43	86.6	8.6	95	62.5	0.0	63
4	152.9	8.6	161	37.6	0.0	38	118.6	27.0	146	55.5	4.0	60	87.1	5.2	92	78.6	0.0	79
5	194.7	8.6	203	45.1	0.0	45	111.0	20.8	132	36.0	8.0	44	93.8	14.9	109	37.0	0.0	37
6	172.8	8.6	181	37.5	0.0	38	171.7	22.8	194	54.1	0.0	54	130.0	10.3	140	72.8	6.0	79
7	118.4	20.0	138	45.1	0.0	45	102.5	22.6	125	99.0	0.0	99	109.0	0.0	109	81.2	0.0	81
8	131.9	17.8	150	49.7	0.0	50	116.6	31.6	148	63.5	4.0	68	106.2	25.4	132	59.9	0.0	60
9	138.0	24.4	162	33.4	0.0	33	99.8	0.0	100	83.1	4.0	87	136.2	0.0	136	56.7	1.5	58
10	114.5	8.6	123	37.3	0.0	37	90.5	23.9	114	81.1	6.0	87	133.5	7.7	141	70.0	0.0	70
11	155.8	36.9	193	47.3	0.0	47	135.8	0.0	136	61.5	0.0	62	121.6	5.2	127	77.1	0.0	77
12	118.8	28.2	147	47.9	0.0	48	99.5	0.0	99	55.7	0.0	56	119.4	2.2	122	69.0	0.0	69
13	145.6	28.9	175	52.4	1.0	53	59.8	0.0	60	57.1	0.0	57	87.3	0.9	88	77.3	0.0	77
14	141.4	18.4	160	45.9	0.0	46	70.9	0.0	71	37.7	0.0	38	129.7	7.7	137	68.5	0.0	68
15	135.7	31.3	167	54.6	0.0	55	69.8	4.3	74	32.4	0.0	32	121.1	4.3	125	65.0	6.0	71
16	129.6	23.6	153	32.4	2.0	34	64.6	20.3	85	52.3	0.0	52	139.4	8.6	148	73.9	0.0	74
17	137.1	68.6	206	54.0	0.0	54	99.3	18.7	118	48.6	0.0	49	112.8	0.0	113	90.0	0.0	90
18	128.3	52.2	181	50.2	2.0	52	70.1	0.0	70	37.0	0.0	37	118.4	0.0	118	74.9	0.0	75
19	132.5	57.6	190	42.8	0.0	43	52.0	0.0	52	27.4	0.0	27	154.6	0.0	155	66.5	0.0	67
20	157.9	36.6	194	44.2	0.0	44	101.0	0.0	101	30.0	0.0	30	165.5	0.0	166	58.3	0.0	58
21	141.3	47.9	189	47.2	1.0	48	68.1	0.0	68	38.9	0.0	39	124.3	18.1	142	53.0	1.5	55
22	171.6	49.2	221	59.3	0.0	59	66.6	4.3	71	48.1	0.0	48	111.5	6.9	118	82.5	0.0	82
23	103.5	65.6	169	34.2	2.0	36	58.4	0.0	58	49.5	0.0	50	140.7	4.3	145	54.1	0.0	54
24	139.5	75.2	215	56.1	0.0	56	60.4	13.5	74	42.1	7.0	49	126.3	12.2	138	57.9	0.0	58
25	124.3	50.9	175	53.9	0.0	54	94.1	0.0	94	36.7	5.0	42	112.5	0.0	113	42.5	0.0	43
26	156.6	44.2	201	34.2	0.0	34	60.3	0.0	60	32.3	6.0	38	136.0	1.7	138	38.5	0.0	38
27	124.8	40.7	166	49.6	0.0	50	57.1	0.0	57	92.6	0.0	93	135.4	4.3	140	51.7	0.0	52
28	129.4	32.3	162	36.9	0.0	37	65.4	0.0	65	72.0	12.0	84	146.9	6.0	153	39.5	6.0	46
29	139.3	40.7	180	55.4	0.0	55	75.1	0.0	75	37.8	6.0	44	131.1	34.3	165	47.2	0.0	47
30	140.6	4.3	145	29.9	0.0	30	110.5	0.0	110	80.1	6.0	86	111.8	17.3	129	64.0	0.0	64
31	-	-	-	-	-	-	111.9	0.0	112	44.2	0.0	44	-	-	-	-	-	-
TOTAL	4,168	960	5,128	1,373	10	1,383	2,796	290	3,086	1,614	80	1,694	3,654	220	3,874	1,918	33	1,951

Notes:
All volumes in cubic metres (m³).
MS-MRY-1 - Camp Lake; MP-MRY-3 - Km 32 Lake.
D - Domestic/Camp Purposes; I - Industrial Purposes.
Bold and highlighted values indicate daily volumes that exceeded the source, use specific daily withdrawal limit stipulated by Table 3 of the Type 'A' Water Licence.

Table 4.2 Daily, Monthly, and Annual Volumes of Water Used for Domestic and Industrial Purposes on Inuit-Owned Land and Crown Lands - 2021

Day	July						August						September					
	MS-MRY-1		TOTAL	MP-MRY-3		TOTAL	MS-MRY-1		TOTAL	MP-MRY-3		TOTAL	MS-MRY-1		TOTAL	MP-MRY-3		TOTAL
	D	I		D	I		D	I		D	I		D	I		D	I	
1	132.8	20.3	153	46.8	2.0	49	201.6	10.3	212	87.6	1.0	89	111.9	0.0	112	84.9	0.0	85
2	128.3	53.0	181	55.4	0.0	55	143.8	6.9	151	43.2	0.0	43	148.3	6.9	155	82.6	0.0	83
3	133.1	16.6	150	48.4	2.0	50	178.3	5.2	183	62.6	0.0	63	128.8	0.0	129	94.9	0.0	95
4	142.1	6.0	148	64.9	0.0	65	163.9	0.0	164	89.2	0.0	89	133.0	8.6	142	99.4	1.5	101
5	112.0	1.0	113	38.2	13.3	51	168.7	4.3	173	45.5	0.0	46	133.8	8.6	142	92.6	1.5	94
6	166.3	4.7	171	69.6	4.0	74	177.2	4.3	182	95.3	0.0	95	166.1	5.2	171	93.4	0.0	93
7	129.1	6.0	135	59.6	2.0	62	203.5	4.3	208	73.6	0.0	74	160.3	0.0	160	107.4	0.0	107
8	174.7	7.7	182	56.1	2.0	58	177.9	6.0	184	59.4	0.0	59	182.0	0.0	182	96.2	0.0	96
9	144.2	4.3	149	58.8	0.0	59	188.3	4.3	193	68.2	0.0	68	170.1	6.5	177	135.4	0.0	135
10	161.6	4.3	166	47.5	0.0	48	185.6	4.7	190	52.3	0.0	52	115.0	0.0	115	117.7	0.0	118
11	140.2	4.3	144	40.6	0.0	41	179.5	6.0	186	94.3	0.0	94	162.2	7.7	170	67.7	0.0	68
12	161.3	8.6	170	58.0	1.0	59	53.8	4.7	58	39.4	0.0	39	144.3	9.5	154	128.0	0.0	128
13	176.9	4.3	181	49.1	0.0	49	179.1	5.6	185	54.4	0.0	54	168.1	3.4	172	117.5	6.0	123
14	153.7	0.0	154	63.4	0.0	63	175.8	3.4	179	53.4	0.0	53	140.3	4.3	145	137.9	0.0	138
15	192.3	8.6	201	22.6	0.0	23	141.3	4.3	146	95.2	0.0	95	144.2	0.0	144	96.3	0.0	96
16	158.5	0.0	158	52.8	0.0	53	128.0	4.3	132	68.4	0.0	68	159.3	8.6	168	91.5	0.0	92
17	200.0	0.0	200	74.0	1.5	75	168.0	4.7	173	41.5	0.0	42	131.8	6.5	138	100.6	0.0	101
18	169.3	3.3	173	78.0	6.0	84	134.9	0.0	135	85.7	1.0	87	139.6	0.0	140	87.5	0.0	88
19	148.8	0.0	149	70.9	6.0	77	150.2	0.0	150	96.1	0.0	96	163.9	6.0	170	67.0	0.0	67
20	142.6	3.4	146	66.4	0.0	66	124.8	4.3	129	124.3	0.0	124	127.5	5.2	133	142.5	0.0	142
21	155.1	0.0	155	50.9	6.0	57	151.2	1.7	153	84.3	0.0	84	174.0	2.6	177	96.8	0.0	97
22	160.6	2.6	163	58.6	6.0	65	138.7	0.0	139	94.7	0.0	95	146.4	4.3	151	98.1	0.0	98
23	139.6	0.0	140	57.9	0.0	58	159.8	6.9	167	89.5	0.0	90	198.5	4.3	203	84.2	0.0	84
24	159.8	0.0	160	41.7	0.0	42	147.4	6.0	153	99.6	0.0	100	137.5	4.3	142	114.9	0.0	115
25	137.4	0.0	137	65.7	0.0	66	131.6	4.3	136	92.8	0.0	93	154.3	6.0	160	76.6	0.0	77
26	112.4	12.9	125	57.1	0.0	57	127.7	4.3	132	104.5	1.0	106	164.8	4.3	169	137.2	0.0	137
27	140.5	0.0	140	64.5	0.0	65	141.4	0.0	141	89.1	0.0	89	178.5	12.0	191	108.0	6.0	114
28	130.4	0.0	130	88.4	0.0	88	145.4	0.0	145	52.7	0.0	53	129.8	10.3	140	82.1	0.0	82
29	159.4	0.0	159	74.6	0.0	75	143.8	0.0	144	114.9	0.0	115	153.2	0.0	153	117.6	0.0	118
30	160.2	6.9	167	63.4	0.0	63	139.7	0.0	140	97.8	0.0	98	139.6	8.6	148	119.6	0.0	120
31	135.3	0.0	135	76.9	0.0	77	176.8	0.0	177	115.3	0.0	115	-	-	-	-	-	-
TOTAL	4,658	179	4,837	1,821	52	1,873	4,828	111	4,939	2,465	3	2,468	4,507	144	4,651	3,076	15	3,091

Notes:
All volumes in cubic metres (m³).
MS-MRY-1 - Camp Lake; MP-MRY-3 - Km 32 Lake.
D - Domestic/Camp Purposes; I - Industrial Purposes.
Bold and highlighted values indicate daily volumes that exceeded the source, use specific daily withdrawal limit stipulated by Table 3 of the Type 'A' Water Licence.

Table 4.2 Daily, Monthly, and Annual Volumes of Water Used for Domestic and Industrial Purposes on Inuit-Owned Land and Crown Lands - 2021

Day	October						November						December					
	MS-MRY-1		TOTAL	MP-MRY-3		TOTAL	MS-MRY-1		TOTAL	MP-MRY-3		TOTAL	MS-MRY-1		TOTAL	MP-MRY-3		TOTAL
	D	I		D	I		D	I		D	I		D	I		D	I	
1	147.0	0.0	147	108.2	0.0	108	134.6	3.4	138	65.7	0.0	66	158.6	9.9	168	71.8	0.0	72
2	141.1	12.9	154	88.2	6.0	94	164.6	5.2	170	128.0	0.0	128	138.7	0.0	139	92.9	0.0	93
3	159.8	10.3	170	75.9	0.0	76	154.0	4.3	158	78.3	0.0	78	158.6	3.0	162	79.8	0.0	80
4	158.6	9.5	168	124.5	0.0	124	154.8	0.0	155	108.0	0.0	108	150.0	0.0	150	76.3	0.0	76
5	163.1	7.7	171	85.2	0.0	85	123.0	6.0	129	58.0	0.0	58	133.6	11.6	145	83.6	0.0	84
6	146.2	0.0	146	156.7	0.0	157	145.9	6.0	152	90.8	0.0	91	149.3	3.9	153	81.1	0.0	81
7	131.0	8.6	140	55.4	0.0	55	128.5	9.5	138	69.8	0.0	70	159.0	10.3	169	84.0	0.0	84
8	142.9	10.3	153	124.2	0.0	124	142.7	6.0	149	74.2	0.0	74	165.4	3.9	169	78.6	0.0	79
9	123.7	0.0	124	103.7	0.0	104	163.1	4.3	167	95.4	0.0	95	144.8	5.2	150	98.6	0.0	99
10	151.3	0.0	151	90.2	1.5	92	140.0	12.0	152	55.5	0.0	55	126.8	0.0	127	89.1	0.0	89
11	128.1	12.9	141	127.1	0.0	127	180.2	6.9	187	100.6	0.0	101	174.1	0.0	174	73.7	0.0	74
12	105.5	0.0	106	86.6	0.0	87	153.3	4.3	158	103.6	0.0	104	148.0	10.3	158	87.9	0.0	88
13	126.5	0.0	127	84.8	0.0	85	146.1	8.6	155	56.9	0.0	57	156.9	5.2	162	65.9	0.0	66
14	108.5	0.0	109	79.1	0.0	79	134.4	4.3	139	85.5	0.0	85	138.2	6.9	145	75.3	0.0	75
15	132.7	2.2	135	93.2	0.0	93	141.2	12.0	153	99.5	0.0	99	148.1	0.0	148	79.2	0.0	79
16	117.9	14.6	132	81.6	1.5	83	146.3	10.3	157	88.1	0.0	88	128.6	4.3	133	69.8	0.0	70
17	125.3	3.4	129	106.8	0.0	107	139.8	8.6	148	76.2	0.0	76	105.5	8.6	114	81.3	0.0	81
18	133.9	0.0	134	93.7	0.0	94	143.6	3.4	147	61.4	0.0	61	157.2	6.9	164	51.6	0.0	52
19	150.6	8.6	159	83.8	6.0	90	145.5	5.2	151	79.5	0.0	80	116.9	6.5	123	75.0	0.0	75
20	147.1	0.0	147	62.4	0.0	62	143.5	4.3	148	45.1	0.0	45	131.3	10.8	142	97.7	0.0	98
21	168.1	3.4	172	98.0	0.0	98	125.9	4.7	131	85.6	0.0	86	109.6	0.0	110	74.5	0.0	74
22	137.1	0.0	137	93.1	6.0	99	147.8	5.2	153	100.4	0.0	100	142.0	4.3	146	72.2	0.0	72
23	111.5	6.5	118	99.7	0.0	100	143.3	4.3	148	104.3	0.0	104	123.4	6.5	130	54.9	0.0	55
24	117.6	5.2	123	61.0	0.0	61	146.5	5.6	152	105.2	0.0	105	123.9	4.3	128	111.7	0.0	112
25	131.3	7.7	139	88.2	0.0	88	123.9	6.0	130	114.6	0.0	115	133.9	4.3	138	82.0	0.0	82
26	146.8	10.3	157	108.7	0.0	109	158.4	7.3	166	64.7	0.0	65	111.9	6.5	118	64.1	0.0	64
27	143.5	0.0	143	114.3	0.0	114	153.4	0.0	153	66.8	0.0	67	114.6	4.7	119	71.3	0.0	71
28	135.5	4.3	140	99.0	0.0	99	152.9	10.8	164	81.2	0.0	81	126.0	6.0	132	63.6	0.0	64
29	139.4	4.3	144	70.0	0.0	70	181.8	6.9	189	104.8	0.0	105	139.2	0.0	139	68.9	0.0	69
30	137.9	4.7	143	46.3	0.0	46	158.5	4.7	163	78.0	0.0	78	141.8	0.0	142	74.0	0.0	74
31	133.4	6.0	139	130.3	0.0	130	-	-	-	-	-	-	77.4	5.6	83	60.4	0.0	60
TOTAL	4,243	154	4,397	2,920	21	2,941	4,417	180	4,597	2,526	0	2,526	4,234	149	4,383	2,391	0	2,391

Notes:
All volumes in cubic metres (m³).
MS-MRY-1 - Camp Lake; MP-MRY-3 - Km 32 Lake.
D - Domestic/Camp Purposes; I - Industrial Purposes.
Bold and highlighted values indicate daily volumes that exceeded the source, use specific daily withdrawal limit stipulated by Table 3 of the Type 'A' Water Licence.

Table 4.3: Daily, Monthly, and Annual Volumes of Water Used for Dust Suppression Purposes on Inuit-Owned and Crown Lands - 2021

Date ^a									Recycled Water ^c					
	CV128 (Km 17)	Km 32 Lake	BG50 (Km 62)	BG32 (Km 78)	CV217 (Km 80)	Muriel Lake (Km 81)	CV233 (Tom River Km 97)	Daily Total	KM 97 Borrow Pond (TR-BP-01)	KM 57 Borrow Pond (TR-BP-02)	Q1 Quarry (MP-Q1-P1)	Flight Ops Pond (MS-RW-01)	Warehouse Pond (MS-RW-02)	Q1 Ditch
Daily Limit (m ³)	579.5	364	150	120	130	212	135	1,500	N/A	N/A	N/A	N/A	N/A	N/A
29-May-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-May-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-May-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-Jun-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-Jun-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-Jun-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-Jun-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-Jun-21	0	0	0	0	0	0	0	0	0	0	0	91	0	0
06-Jun-21	0	0	0	0	0	0	0	0	0	0	0	303	0	0
07-Jun-21	0	0	0	0	0	0	0	0	0	0	0	333	212	0
08-Jun-21	0	0	0	0	0	0	0	0	0	0	0	61	363	0
09-Jun-21	0	0	0	0	0	0	0	0	0	0	0	0	454	0
10-Jun-21	0	0	0	0	0	0	0	0	0	0	0	0	485	0
11-Jun-21	0	0	0	0	0	61	0	61	0	0	0	0	61	0
12-Jun-21	0	0	0	0	0	151	0	151	212	0	0	0	0	0
13-Jun-21	0	0	0	0	0	242	0	242	424	0	0	0	0	0
14-Jun-21	0	0	0	0	0	61	0	61	363	0	0	0	0	0
15-Jun-21	0	0	0	0	0	61	0	61	363	0	0	0	0	0
16-Jun-21	0	0	0	0	0	0	0	0	242	0	0	0	0	0
17-Jun-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Jun-21	0	0	30	0	61	0	0	91	30	0	0	0	0	0
19-Jun-21	0	0	0	0	61	0	0	61	182	0	0	0	0	0
20-Jun-21	0	0	61	0	30	121	0	212	303	0	0	0	0	0
21-Jun-21	0	0	0	0	0	30	0	30	333	0	0	0	0	0
22-Jun-21	0	0	0	0	0	0	0	0	30	0	0	0	0	0
23-Jun-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Jun-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Jun-21	0	0	30	0	30	121	0	182	182	0	0	0	0	0
26-Jun-21	61	61	0	0	0	0	0	121	121	0	61	0	0	0

Notes:

All volumes in cubic metres (m³).^a No volumes withdrawn during dates not listed.^b Dust suppression water sources as shown in Table 2-3 of the Type 'A' Water Licence.^c Pooling road runoff along length of the Tote Road.

Bold and highlighted values indicate daily volumes that exceeded the source specific daily withdrawal limit stipulated by Table 2.4 of the Type 'A' Water Licence.

Table 4.3: Daily, Monthly, and Annual Volumes of Water Used for Dust Suppression Purposes on Inuit-Owned and Crown Lands - 2021

Date ^a									Recycled Water ^c					
	CV128 (Km 17)	Km 32 Lake	BG50 (Km 62)	BG32 (Km 78)	CV217 (Km 80)	Muriel Lake (Km 81)	CV233 (Tom River Km 97)	Daily Total	KM 97 Borrow Pond (TR-BP-01)	KM 57 Borrow Pond (TR-BP-02)	Q1 Quarry (MP-Q1-P1)	Flight Ops Pond (MS-RW-01)	Warehouse Pond (MS-RW-02)	Q1 Ditch
Daily Limit (m ³)	579.5	364	150	120	130	212	135	1,500	N/A	N/A	N/A	N/A	N/A	N/A
27-Jun-21	0	0	91	0	91	91	0	273	333	61	15	0	0	0
28-Jun-21	30	61	30	61	121	61	0	363	182	0	61	0	0	0
29-Jun-21	0	30	121	61	91	121	0	424	363	30	61	0	0	0
30-Jun-21	0	30	30	0	0	0	0	61	30	0	0	0	0	0
01-Jul-21	0	0	121	30	121	0	0	273	121	30	0	0	0	0
02-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-Jul-21	0	0	0	0	0	0	0	0	303	0	0	0	0	0
08-Jul-21	0	0	0	0	0	0	0	0	333	0	0	0	0	0
09-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Jul-21	0	0	0	0	0	0	0	0	91	0	0	0	0	0
11-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Jul-21	0	0	0	0	0	0	0	0	30	0	0	0	0	0
13-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Jul-21	0	0	0	0	0	61	0	61	151	0	0	0	0	0
17-Jul-21	0	0	30	0	0	182	0	212	273	0	0	0	0	0
18-Jul-21	0	0	61	0	0	182	0	242	363	151	0	0	0	0
19-Jul-21	0	0	0	0	0	91	0	91	242	61	0	0	0	0
20-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Jul-21	0	0	30	0	0	0	0	30	0	30	0	0	0	0
23-Jul-21	0	61	0	0	0	30	0	91	182	30	0	0	0	0
24-Jul-21	0	0	0	0	0	151	0	151	273	0	0	0	0	0
25-Jul-21	0	0	0	0	0	0	0	0	182	0	0	0	0	0

Notes:

All volumes in cubic metres (m³).

^a No volumes withdrawn during dates not listed.

^b Dust suppression water sources as shown in Table 2-3 of the Type 'A' Water Licence.

^c Pooling road runoff along length of the Tote Road.

Bold and highlighted values indicate daily volumes that exceeded the source specific daily withdrawal limit stipulated by Table 2.4 of the Type 'A' Water Licence.

Table 4.3: Daily, Monthly, and Annual Volumes of Water Used for Dust Suppression Purposes on Inuit-Owned and Crown Lands - 2021

Date ^a									Recycled Water ^c					
	CV128 (Km 17)	Km 32 Lake	BG50 (Km 62)	BG32 (Km 78)	CV217 (Km 80)	Muriel Lake (Km 81)	CV233 (Tom River Km 97)	Daily Total	KM 97 Borrow Pond (TR-BP-01)	KM 57 Borrow Pond (TR-BP-02)	Q1 Quarry (MP-Q1-P1)	Flight Ops Pond (MS-RW-01)	Warehouse Pond (MS-RW-02)	Q1 Ditch
Daily Limit (m ³)	579.5	364	150	120	130	212	135	1,500	N/A	N/A	N/A	N/A	N/A	N/A
26-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-Jul-21	0	91	30	0	0	61	0	182	30	121	0	0	0	0
01-Aug-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-Aug-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-Aug-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-Aug-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-Aug-21	121	30	0	0	0	91	0	242	121	91	0	0	0	0
06-Aug-21	212	182	91	0	30	91	0	606	151	121	121	0	0	0
07-Aug-21	182	242	61	0	0	61	0	545	212	242	61	0	0	61
08-Aug-21	91	121	0	0	0	0	0	212	0	30	0	0	0	30
09-Aug-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Aug-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Aug-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Aug-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Aug-21	91	30	0	0	0	0	0	121	0	0	0	0	0	0
14-Aug-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Aug-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Aug-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Aug-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Aug-21	91	30	0	0	0	0	0	121	0	0	0	0	0	0
19-Aug-21	121	121	0	0	0	0	0	242	0	61	0	0	0	0
20-Aug-21	30	0	61	0	0	182	0	273	303	91	0	0	0	0
21-Aug-21	0	0	0	0	0	0	0	0	0	61	0	0	0	0
22-Aug-21	0	30	30	0	61	182	0	303	0	30	0	0	0	0
23-Aug-21	0	0	61	0	0	91	0	151	61	0	0	0	0	0

Notes:

All volumes in cubic metres (m³).

^a No volumes withdrawn during dates not listed.

^b Dust suppression water sources as shown in Table 2-3 of the Type 'A' Water Licence.

^c Pooling road runoff along length of the Tote Road.

Bold and highlighted values indicate daily volumes that exceeded the source specific daily withdrawal limit stipulated by Table 2.4 of the Type 'A' Water Licence.

Table 4.3: Daily, Monthly, and Annual Volumes of Water Used for Dust Suppression Purposes on Inuit-Owned and Crown Lands - 2021

Date ^a									Recycled Water ^c					
	CV128 (Km 17)	Km 32 Lake	BG50 (Km 62)	BG32 (Km 78)	CV217 (Km 80)	Muriel Lake (Km 81)	CV233 (Tom River Km 97)	Daily Total	KM 97 Borrow Pond (TR-BP-01)	KM 57 Borrow Pond (TR-BP-02)	Q1 Quarry (MP-Q1-P1)	Flight Ops Pond (MS-RW-01)	Warehouse Pond (MS-RW-02)	Q1 Ditch
Daily Limit (m ³)	579.5	364	150	120	130	212	135	1,500	N/A	N/A	N/A	N/A	N/A	N/A
24-Aug-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Aug-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Aug-21	121	0	0	0	0	0	0	121	0	0	0	0	0	0
27-Aug-21	151	212	61	0	61	121	0	606	0	91	0	0	0	0
28-Aug-21	121	273	121	0	121	151	0	787	0	212	0	0	0	0
29-Aug-21	0	333	61	0	121	91	0	606	121	151	0	0	0	0
30-Aug-21	0	424	91	0	61	61	121	757	212	151	0	0	0	0
31-Aug-21	0	303	91	0	30	91	0	515	303	212	0	0	0	0
1-Sep-21	0	91	0	0	30	0	0	121	0	0	0	0	0	0
2-Sep-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Sep-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Sep-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-Sep-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-Sep-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-Sep-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Totals														
May 2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0
June 2021	91	182	394	121	485	1,120	0	2,392	3,695	91	197	787	1,575	0
July 2021	0	151	273	30	121	757	0	1,332	2,574	424	0	0	0	0
August 2021	1,332	2,332	727	0	485	1,211	121	6,208	1,484	1,544	182	0	0	91
September 2021	0	91	0	0	30	0	0	121	0	0	0	0	0	0
Annual Totals	1,423	2,756	1,393	151	1,120	3,089	121	10,054	7,753	2,059	379	787	1,575	91

Notes:

All volumes in cubic metres (m³).^a No volumes withdrawn during dates not listed.^b Dust suppression water sources as shown in Table 2-3 of the Type 'A' Water Licence.^c Pooling road runoff along length of the Tote Road.

Bold and highlighted values indicate daily volumes that exceeded the source specific daily withdrawal limit stipulated by Table 2.4 of the Type 'A' Water Licence.

Table 5.1: Daily and Monthly Quantities - Sewage Management - 2021

Day	Treated Sewage Effluent														
	January					February					March				
	MS-01 ^a	MS-01B ^a	MP-01 ^b	MP-01B ^b	MP-01A ^c	MS-01 ^a	MS-01B ^a	MP-01 ^b	MP-01B ^b	MP-01A ^c	MS-01 ^a	MS-01B ^a	MP-01 ^b	MP-01B ^b	MP-01A ^c
1	33.0	111.6	47.0	0.0	0.0	33.0	56.3	26.0	14.0	0.0	32.0	119.2	24.0	18.4	0.0
2	31.0	78.8	45.0	0.0	0.0	32.0	67.1	24.0	21.5	0.0	32.0	100.2	24.0	18.4	0.0
3	34.0	89.0	42.0	0.0	0.0	37.0	64.5	17.0	15.2	0.0	8.0	110.0	31.0	20.0	0.0
4	27.0	89.5	39.0	0.0	0.0	31.0	58.9	21.0	20.6	0.0	22.0	111.5	27.0	20.4	0.0
5	26.0	98.0	43.0	0.0	0.0	31.0	87.0	24.0	13.5	0.0	35.0	84.2	26.0	15.8	0.0
6	27.0	98.2	46.0	0.0	0.0	34.0	71.6	22.0	14.8	0.0	36.0	82.1	26.0	19.3	0.0
7	29.0	90.5	47.0	0.0	0.0	35.0	72.3	19.0	21.8	0.0	36.0	86.7	15.0	18.5	0.0
8	27.0	97.3	45.0	0.0	0.0	36.0	67.2	28.0	24.0	0.0	32.0	87.8	27.0	20.5	0.0
9	32.0	108.7	29.0	0.0	0.0	36.0	67.2	25.0	18.4	0.0	36.0	91.4	28.0	19.8	0.0
10	25.0	100.1	41.0	0.0	0.0	36.0	64.3	22.0	19.3	0.0	36.0	111.6	16.0	20.5	0.0
11	16.0	112.2	40.0	0.0	0.0	36.0	67.0	23.0	17.8	0.0	36.0	120.7	21.0	28.9	0.0
12	21.0	114.3	33.0	0.0	0.0	34.0	80.6	24.0	13.8	0.0	32.0	116.5	26.0	25.7	0.0
13	32.0	81.6	34.0	0.0	0.0	27.0	92.4	25.0	25.5	0.0	28.0	102.3	24.0	19.8	0.0
14	35.0	110.7	30.0	0.0	0.0	22.0	77.5	23.0	26.1	0.0	36.0	89.0	20.0	19.4	0.0
15	35.0	85.9	58.0	0.0	0.0	30.0	74.0	17.0	11.5	0.0	27.0	81.2	18.0	18.5	0.0
16	24.0	92.1	48.0	0.0	0.0	30.0	79.0	22.0	16.3	0.0	28.0	86.0	21.0	20.3	0.0
17	29.0	84.7	32.0	0.0	0.0	16.0	99.0	26.0	20.6	0.0	23.0	88.0	23.0	18.2	0.0
18	32.0	83.3	41.0	0.0	0.0	24.0	88.5	30.0	20.0	0.0	22.0	101.9	26.0	25.7	0.0
19	35.0	70.0	41.0	0.0	0.0	34.0	75.1	27.0	16.1	0.0	23.0	85.0	22.0	20.0	0.0
20	27.0	90.0	46.0	0.0	0.0	36.0	102.8	22.0	18.6	0.0	29.0	97.5	20.0	22.4	0.0
21	30.0	70.6	46.0	0.0	0.0	36.0	107.5	20.0	16.2	0.0	25.0	91.6	21.0	19.1	0.0
22	34.0	60.0	43.0	0.0	0.0	33.0	110.8	22.0	16.2	0.0	24.0	85.5	22.0	20.9	0.0
23	34.0	75.4	39.0	0.0	0.0	35.0	112.0	24.0	16.4	0.0	26.0	91.4	20.0	23.8	0.0
24	35.0	72.7	45.0	0.0	0.0	29.0	100.8	24.0	17.0	0.0	19.0	122.2	22.0	29.5	0.0
25	36.0	77.8	44.0	0.0	0.0	31.0	89.6	24.0	18.2	0.0	31.0	111.9	27.0	23.9	0.0
26	36.0	83.3	48.0	0.0	0.0	30.0	106.7	21.0	18.7	0.0	31.0	109.6	27.0	23.7	0.0
27	35.0	86.4	53.0	0.0	0.0	26.0	136.3	24.0	17.8	0.0	25.0	116.4	22.0	18.9	0.0
28	34.0	72.6	55.0	10.2	0.0	32.0	124.1	24.0	16.5	0.0	21.0	117.8	20.0	14.4	0.0
29	34.0	75.9	58.0	14.4	0.0	-	-	-	-	-	28.0	100.4	24.0	19.1	0.0
30	34.0	78.7	27.0	28.6	0.0	-	-	-	-	-	27.0	109.9	28.0	16.2	0.0
31	34.0	80.0	24.0	18.4	0.0	-	-	-	-	-	30.0	118.4	25.0	28.8	0.0
Monthly Total	953.0	2,719.9	1,309.0	71.5	0.0	882.0	2,400.1	650.0	506.5	0.0	876.0	3,127.9	723.0	648.6	0.0

Notes:

All volumes in cubic metres (m³).

^a Compliant treated effluent from MS-01 and MS-01B (Mine Site STPs) discharged to approved location near the Mary River.

^b Compliant treated effluent from MP-01 and MP-01B (Milne Port STPs) discharged to approved location near Milne Inlet.

^c Compliant treated effluent from MP-01A (Milne Port PWSP) discharged to approved location near Milne Inlet.

Table 5.1: Daily and Monthly Quantities - Sewage Management - 2021

Day	Treated Sewage Effluent														
	April					May					June				
	MS-01 ^a	MS-01B ^a	MP-01 ^b	MP-01B ^b	MP-01A ^c	MS-01 ^a	MS-01B ^a	MP-01 ^b	MP-01B ^b	MP-01A ^c	MS-01 ^a	MS-01B ^a	MP-01 ^b	MP-01B ^b	MP-01A ^c
1	26.0	99.1	31.0	21.8	0.0	31.0	98.8	20.0	14.5	0.0	27.0	91.3	22.0	14.8	0.0
2	27.0	108.5	24.0	22.5	0.0	31.0	89.9	18.0	19.2	0.0	20.0	87.2	23.0	15.5	0.0
3	21.0	113.6	22.0	23.4	0.0	31.0	87.0	17.0	24.2	0.0	19.0	85.2	27.0	22.2	0.0
4	21.0	116.4	22.0	22.6	0.0	29.0	99.3	19.0	21.9	0.0	22.0	79.1	26.0	16.8	0.0
5	36.0	124.4	22.0	18.6	0.0	23.0	99.6	26.0	15.8	0.0	20.0	71.1	15.0	14.5	0.0
6	31.0	124.6	23.0	18.4	0.0	24.0	109.1	25.0	21.2	0.0	25.0	89.7	21.0	15.8	0.0
7	30.0	120.4	24.0	20.9	0.0	33.0	93.0	23.0	18.0	0.0	20.0	91.1	19.0	15.7	0.0
8	30.0	116.3	23.0	19.0	0.0	23.0	97.3	22.0	18.2	0.0	20.0	97.7	21.0	19.8	0.0
9	36.0	104.1	23.0	28.6	0.0	27.0	87.6	22.0	26.7	0.0	28.0	100.0	14.0	19.1	0.0
10	27.0	104.4	23.0	18.9	0.0	29.0	83.1	22.0	16.3	0.0	24.0	93.8	20.0	19.6	0.0
11	27.0	123.0	22.0	19.5	0.0	24.0	88.8	24.0	16.3	0.0	27.0	95.0	22.0	20.1	0.0
12	30.0	109.6	24.0	19.9	0.0	27.0	83.7	22.0	11.7	0.0	27.0	87.7	19.0	19.9	0.0
13	35.0	106.1	25.0	21.8	0.0	22.0	48.1	25.0	12.6	0.0	31.0	83.3	18.0	21.7	0.0
14	35.0	109.2	26.0	21.0	0.0	22.0	37.8	25.0	9.0	0.0	29.0	92.3	20.0	18.9	0.0
15	29.0	110.2	26.0	19.2	0.0	26.0	69.7	20.0	12.2	0.0	24.0	102.3	21.0	21.1	0.0
16	21.0	106.3	26.0	20.2	0.0	13.0	63.6	14.0	15.0	0.0	23.0	97.2	23.0	24.3	0.0
17	37.0	112.2	23.0	20.9	0.0	21.0	64.9	16.0	6.8	0.0	31.0	97.4	22.0	26.8	0.0
18	36.0	116.5	20.0	19.1	0.0	21.0	51.6	17.0	6.3	0.0	32.0	109.4	24.0	22.1	0.0
19	26.0	115.8	19.0	20.1	0.0	14.0	46.9	20.0	10.2	0.0	30.0	102.1	20.0	21.2	0.0
20	24.0	112.4	18.0	20.6	0.0	15.0	54.5	16.0	4.7	0.0	31.0	99.3	20.0	15.6	0.0
21	32.0	108.7	27.0	21.9	0.0	2.0	51.7	14.0	6.4	0.0	27.0	98.0	22.0	22.2	0.0
22	29.0	113.0	23.0	22.0	0.0	17.0	49.7	19.0	9.9	0.0	31.0	103.6	23.0	20.6	0.0
23	36.0	77.1	21.0	21.9	0.0	14.0	53.2	20.0	10.4	0.0	32.0	99.9	22.0	28.1	0.0
24	35.0	102.0	20.0	24.6	0.0	21.0	32.7	18.0	5.6	0.0	23.0	95.9	25.0	22.6	0.0
25	24.0	104.1	21.0	16.7	0.0	10.0	52.7	13.0	4.3	0.0	22.0	102.7	25.0	21.3	0.0
26	20.0	112.6	25.0	31.7	0.0	12.0	53.2	24.0	8.2	0.0	32.0	109.1	13.0	21.4	0.0
27	30.0	85.9	19.0	22.1	0.0	11.0	56.9	33.0	16.8	0.0	29.0	107.3	23.0	23.2	0.0
28	29.0	91.6	19.0	18.5	0.0	12.0	58.6	20.0	12.9	0.0	32.0	112.8	25.0	18.8	0.0
29	27.0	110.1	19.0	29.1	0.0	16.0	59.0	16.0	13.3	0.0	21.0	109.5	25.0	13.8	0.0
30	35.0	93.8	20.0	22.7	0.0	21.0	79.7	18.0	9.6	0.0	17.0	108.2	20.0	21.6	0.0
31	-	-	-	-	-	25.0	90.8	25.0	13.5	0.0	-	-	-	-	-
Monthly Total	882.0	3,252.0	680.0	648.1	0.0	647.0	2,192.5	633.0	411.6	0.0	776.0	2,899.2	640.0	599.0	0.0

Notes:
All volumes in cubic metres (m³).
^a Compliant treated effluent from MS-01 and MS-01B (Mine Site STPs) discharged to approved location near the Mary River.
^b Compliant treated effluent from MP-01 and MP-01B (Milne Port STPs) discharged to approved location near Milne Inlet.
^c Compliant treated effluent from MP-01A (Milne Port PWSP) discharged to approved location near Milne Inlet.

Table 5.1: Daily and Monthly Quantities - Sewage Management - 2021

Day	Treated Sewage Effluent														
	July					August					September				
	MS-01 ^a	MS-01B ^a	MP-01 ^b	MP-01B ^b	MP-01A ^c	MS-01 ^a	MS-01B ^a	MP-01 ^b	MP-01B ^b	MP-01A ^c	MS-01 ^a	MS-01B ^a	MP-01 ^b	MP-01B ^b	MP-01A ^c
1	22.0	118.1	22.0	31.3	0.0	40.0	117.7	25.0	40.4	0.0	44.0	94.6	25.0	36.8	30.9
2	31.0	116.3	21.0	21.6	0.0	41.0	113.1	26.0	37.4	0.0	44.0	90.6	29.0	32.4	47.9
3	31.0	101.9	25.0	13.9	0.0	38.0	109.8	27.0	35.3	0.0	31.0	89.7	26.0	28.5	45.4
4	22.0	97.7	23.0	26.1	0.0	36.0	103.1	33.0	37.4	0.0	41.0	102.1	25.0	32.5	47.6
5	22.0	113.4	22.0	19.3	0.0	34.0	95.5	34.0	30.6	0.0	44.0	102.0	27.0	31.1	0.0
6	28.0	112.7	24.0	28.1	0.0	34.0	104.2	30.0	36.9	0.0	42.0	110.6	27.0	30.1	0.0
7	32.0	129.7	23.0	16.2	0.0	59.0	122.4	25.0	33.0	0.0	40.0	135.1	27.0	34.5	0.0
8	30.0	125.0	25.0	28.4	0.0	38.0	112.8	25.0	39.2	0.0	40.0	110.0	24.0	36.0	0.0
9	29.0	121.4	25.0	19.6	0.0	53.0	125.8	26.0	31.5	0.0	41.0	105.3	33.0	40.1	0.0
10	30.0	125.6	25.0	16.4	0.0	48.0	105.5	32.0	35.5	0.0	41.0	115.7	33.0	38.6	0.0
11	28.0	127.6	23.0	32.9	0.0	36.0	111.3	26.0	36.7	0.0	42.0	104.9	26.0	39.7	0.0
12	23.0	135.4	22.0	17.6	0.0	44.0	103.2	29.0	36.5	0.0	43.0	108.8	37.0	34.5	0.0
13	32.0	130.0	21.0	28.7	0.0	41.0	109.4	25.0	29.7	0.0	43.0	114.0	33.0	29.5	0.0
14	32.0	126.5	26.0	25.6	0.0	49.0	113.2	26.0	36.9	0.0	42.0	119.2	25.0	35.4	0.0
15	32.0	141.6	27.0	35.1	0.0	38.0	86.5	30.0	37.6	0.0	37.0	116.8	24.0	37.8	0.0
16	32.0	119.8	26.0	23.9	0.0	39.0	98.0	31.0	34.6	0.0	32.0	106.6	31.0	42.2	0.0
17	30.0	136.0	25.0	32.1	0.0	26.0	90.0	27.0	32.4	0.0	37.0	96.4	30.0	41.1	0.0
18	32.0	139.8	25.0	25.6	0.0	21.0	98.9	31.0	31.8	0.0	44.0	93.3	26.0	31.7	0.0
19	31.0	132.5	25.0	32.5	0.0	26.0	108.1	31.0	46.0	0.0	29.0	96.9	29.0	35.9	0.0
20	32.0	114.4	28.0	33.7	0.0	41.0	96.5	29.0	35.4	0.0	28.0	106.6	29.0	33.1	0.0
21	33.0	104.2	30.0	26.6	0.0	40.0	108.1	26.0	24.9	0.0	27.0	99.8	30.0	32.8	0.0
22	31.0	107.9	28.0	23.5	0.0	33.0	103.7	22.0	29.5	0.0	37.0	99.6	27.0	34.3	0.0
23	33.0	101.0	31.0	34.8	0.0	41.0	72.4	25.0	33.7	0.0	45.0	136.3	30.0	33.8	0.0
24	34.0	106.4	29.0	23.3	0.0	39.0	93.9	24.0	35.1	0.0	35.0	121.6	30.0	33.3	0.0
25	34.0	97.7	27.0	30.1	0.0	41.0	97.9	25.0	25.4	0.0	33.0	105.8	28.0	30.0	0.0
26	34.0	99.4	23.0	30.3	0.0	41.0	84.3	26.0	32.0	20.8	37.0	107.4	28.0	40.0	0.0
27	36.0	103.2	26.0	30.9	0.0	41.0	88.3	29.0	33.8	34.6	20.0	126.6	30.0	30.7	0.0
28	33.0	112.1	27.0	28.3	0.0	39.0	93.6	27.0	31.8	39.9	37.0	121.5	29.0	32.6	0.0
29	37.0	111.8	30.0	36.8	0.0	42.0	106.7	26.0	37.5	44.5	36.0	112.2	30.0	40.2	0.0
30	37.0	109.4	31.0	33.7	0.0	44.0	110.7	25.0	24.1	45.5	32.0	109.9	31.0	43.9	0.0
31	36.0	108.3	28.0	38.2	0.0	44.0	98.4	24.0	29.6	44.2	-	-	-	-	-
Monthly Total	959.0	3,626.8	793.0	845.0	0.0	1,227.0	3,183.0	847.0	1,051.9	229.5	1,124.0	3,259.9	859.0	1,053.1	171.8

Notes:
All volumes in cubic metres (m³).
^a Compliant treated effluent from MS-01 and MS-01B (Mine Site STPs) discharged to approved location near the Mary River.
^b Compliant treated effluent from MP-01 and MP-01B (Milne Port STPs) discharged to approved location near Milne Inlet.
^c Compliant treated effluent from MP-01A (Milne Port PWSP) discharged to approved location near Milne Inlet.

Table 5.1: Daily and Monthly Quantities - Sewage Management - 2021

Day	Treated Sewage Effluent														
	October					November					December				
	MS-01 ^a	MS-01B ^a	MP-01 ^b	MP-01B ^b	MP-01A ^c	MS-01 ^a	MS-01B ^a	MP-01 ^b	MP-01B ^b	MP-01A ^c	MS-01 ^a	MS-01B ^a	MP-01 ^b	MP-01B ^b	MP-01A ^c
1	34.0	112.2	31.0	34.0	0.0	17.0	117.5	21.0	28.1	0.0	49.0	133.4	28.0	26.6	0.0
2	34.0	122.6	26.0	31.6	0.0	32.0	132.9	25.0	29.0	0.0	37.0	122.0	27.0	22.2	0.0
3	33.0	77.0	26.0	37.1	0.0	28.0	124.0	25.0	31.8	0.0	33.0	111.6	34.0	22.6	0.0
4	35.0	80.8	22.0	31.7	0.0	28.0	120.9	29.0	26.6	0.0	37.0	117.8	27.0	26.0	0.0
5	38.0	83.7	51.0	32.8	0.0	31.0	114.8	26.0	31.6	0.0	32.0	118.2	24.0	30.6	0.0
6	38.0	67.2	54.0	33.4	0.0	35.0	90.4	23.0	26.0	0.0	38.0	118.6	31.0	33.2	0.0
7	35.0	67.2	38.0	32.3	0.0	40.0	106.7	24.0	30.9	0.0	38.0	115.7	27.0	23.9	0.0
8	40.0	73.9	28.0	28.6	0.0	37.0	109.4	24.0	18.3	0.0	38.0	112.0	25.0	24.4	0.0
9	43.0	91.5	29.0	24.0	0.0	37.0	98.3	24.0	22.9	0.0	27.0	113.3	29.0	26.5	0.0
10	30.0	92.7	29.0	24.7	0.0	38.0	111.2	26.0	24.7	0.0	29.0	114.1	30.0	23.2	0.0
11	29.0	103.0	25.0	24.5	0.0	39.0	110.5	28.0	32.3	0.0	31.0	128.7	25.0	32.2	0.0
12	37.0	98.6	25.0	38.1	0.0	38.0	116.2	32.0	22.9	0.0	23.0	125.2	23.0	25.2	0.0
13	37.0	104.2	27.0	24.7	0.0	41.0	108.2	26.0	21.8	0.0	25.0	132.8	26.0	19.3	0.0
14	37.0	98.6	28.0	34.5	0.0	43.0	112.0	24.0	26.3	0.0	31.0	103.4	24.0	26.3	0.0
15	36.0	86.4	25.0	31.0	0.0	37.0	102.9	24.0	18.1	0.0	37.0	120.8	19.0	29.1	0.0
16	34.0	83.7	28.0	32.0	0.0	42.0	106.3	24.0	26.6	0.0	41.0	73.9	27.0	20.2	0.0
17	30.0	91.9	26.0	25.3	0.0	39.0	115.9	25.0	27.5	0.0	39.0	80.1	27.0	25.3	0.0
18	36.0	101.1	31.0	33.6	0.0	26.0	111.5	29.0	29.8	0.0	34.0	98.3	30.0	12.1	0.0
19	36.0	96.7	26.0	36.6	0.0	25.0	113.6	28.0	19.7	0.0	37.0	102.3	26.0	21.9	0.0
20	35.0	115.2	27.0	34.7	0.0	43.0	108.4	27.0	31.9	0.0	31.0	126.5	26.0	17.5	0.0
21	36.0	123.4	37.0	24.2	0.0	44.0	112.3	21.0	20.0	0.0	29.0	128.6	29.0	31.6	0.0
22	34.0	112.2	33.0	32.3	0.0	29.0	99.8	25.0	23.9	0.0	15.0	118.6	26.0	22.1	0.0
23	47.0	108.7	25.0	34.1	0.0	37.0	107.9	24.0	29.6	0.0	18.0	127.0	26.0	28.5	0.0
24	34.0	101.3	24.0	35.0	0.0	35.0	127.9	26.0	31.0	0.0	11.0	120.4	18.0	16.8	0.0
25	31.0	105.0	29.0	37.9	0.0	35.0	116.6	29.0	30.5	0.0	33.0	124.9	28.0	21.3	0.0
26	36.0	110.2	29.0	24.2	0.0	35.0	121.6	28.0	26.6	0.0	21.0	124.1	25.0	15.1	0.0
27	20.0	110.6	34.0	30.5	0.0	44.0	124.9	28.0	25.5	0.0	18.0	122.5	23.0	17.8	0.0
28	35.0	96.0	36.0	48.0	0.0	37.0	133.3	28.0	21.1	0.0	29.0	104.2	22.0	13.4	0.0
29	37.0	94.4	38.0	43.0	0.0	39.0	131.5	27.0	22.2	0.0	15.0	110.5	23.0	18.8	0.0
30	32.0	123.7	30.0	20.1	0.0	40.0	122.9	27.0	15.9	0.0	38.0	110.6	22.0	15.1	0.0
31	21.0	111.0	23.0	31.2	0.0	-	-	-	-	-	37.0	109.6	25.0	13.5	0.0
Monthly Total	1,070.0	3,044.7	940.0	985.4	0.0	1,071.0	3,430.3	777.0	773.1	0.0	951.0	3,569.7	802.0	702.2	0.0

2021	Treated Sewage Effluent				
	MS-01 ^a	MS-01B ^a	MP-01 ^b	MP-01B ^b	MP-01A ^c
Annual Total	11,418	36,706	9,653	8,296	401

Notes:

All volumes in cubic metres (m³).

^a Compliant treated effluent from MS-01 and MS-01B (Mine Site STPs) discharged to approved location near the Mary River.

^b Compliant treated effluent from MP-01 and MP-01B (Milne Port STPs) discharged to approved location near Milne Inlet.

^c Compliant treated effluent from MP-01A (Milne Port PWSP) discharged to approved location near Milne Inlet.

Table 5.2: Monthly and Annual Quantities - Sewage Sludge Management - 2021

Month	Sludge Cake from MS-01 STP ^a	Sludge Cake from MS-01B STP ^a	Sludge from MS-01 STP to PWSPs ^b	Sludge from MS-01B STP to PWSPs ^c	Sludge from Mine Site Lift Stations to PWSPs ^d	Sludge Cake from MP-01 STP ^a	Sludge Cake from MP-01B STP ^a	Sludge from MP-01 STP to PWSP (m ³) ^e	Sludge from MP-01B STP to PWSP (m ³) ^f	Sludge from Milne Port Lift Stations to PWSP ^g
January	10.2	22.5	0.0	0.0	0.0	7.7	0.0	2.5	0.0	6.8
February	10.9	11.0	0.0	0.0	0.0	5.9	5.0	2.5	0.0	0.0
March	9.2	14.4	0.0	0.0	0.0	4.8	9.0	3.0	0.0	4.3
April	13.4	20.5	0.0	0.0	16.0	9.1	7.0	1.0	0.0	8.5
May	9.2	19.5	0.0	0.0	0.0	6.7	16.0	1.0	0.0	5.7
June	8.1	12.8	4.0	2.0	0.0	9.9	6.0	0.5	0.0	4.3
July	10.5	16.8	0.0	0.0	0.0	7.8	6.0	1.0	0.0	0.0
August	16.4	24.0	2.0	0.0	0.0	8.8	10.0	1.0	0.0	0.0
September	13.2	27.5	0.0	0.0	0.0	9.7	19.5	3.0	10.0	2.8
October	11.3	19.6	0.0	0.0	12.0	9.2	10.0	3.0	0.0	25.6
November	10.1	23.4	0.0	0.0	0.0	10.2	29.0	0.0	0.2	5.7
December	12.7	24.9	0.0	0.0	0.0	6.7	22.0	0.0	0.0	5.7
TOTAL	135.2	236.9	6.0	2.0	28.0	96.5	139.5	18.5	10.2	69.4

Notes:
All volumes in cubic metres (m³).
^a Sludge generated by STPs pressed into cake and disposed using site incinerators or backhauled for off-site disposal.
^b Sewage sludge removed from MS-01 STP to Mine Site PWSP.
^c Sewage sludge removed from MS-01B STP to Mine Site PWSP.
^d Sewage sludge removed from Mine Site lift stations to Mine Site PWSP.
^e Sewage sludge removed from MP-01 STP to Milne Port PWSP.
^f Sewage sludge removed from MP-01B STP to Milne Port PWSP.
^g Sewage sludge removed from Milne Port lift stations to Milne Port PWSP.

Table 5.3: Daily, Monthly, and Annual Quantities of Discharge Stormwater - Containment Areas - 2021

Day	July			August					September
	MS-MRY-6 ^a	MP-03 ^b	MP-04 ^c	MS-03B ^d	MS-MRY-6 ^a	MP-03 ^b	MP-04 ^c	MP-04A ^c	MP-04 ^c
1	0	0.0	0.0	0.0	58.4	0.0	0.0	0.0	14.4
2	0	0.0	0.0	0.0	0.0	0.0	0.0	20.4	26.5
3	0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	24.6
4	0	0.0	0.0	0.0	0.0	0.0	0.0	10.6	25.0
5	0	0.0	0.0	0.0	0.0	0.0	0.0	20.1	0.0
6	0	0.0	0.0	0.0	0.0	0.0	0.0	22.3	0.0
7	0	0.0	0.0	0.0	0.0	0.0	0.0	17.8	0.0
8	0	0.0	0.0	50.8	0.0	0.0	0.0	21.2	0.0
9	0	98.9	0.0	111.1	0.0	0.0	0.0	17.0	0.0
10	0	116.6	0.0	247.5	0.0	0.0	0.0	0.0	0.0
11	0	88.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0	118.8	0.2	16.2	0.0	0.0	0.0	0.0	0.0
13	0	168.2	0.0	59.0	0.0	0.0	0.0	0.0	0.0
14	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0	0.0	1.3	99.5	0.0	0.0	0.0	0.0	0.0
16	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0	0.0	12.4	16.4	0.0	0.0	0.0	0.0	0.0
18	0	0.0	0.0	30.7	0.0	0.0	0.0	0.0	0.0
19	0	0.0	0.0	56.1	0.0	0.0	0.0	0.0	0.0
20	0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0
21	0	0.0	79.0	0.0	0.0	0.0	0.0	10.2	0.0
22	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	51.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	49.0	0.0	0.0	0.0	0.0	222.5	0.0	0.0	0.0
25	29.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	41.5	0.0	0.0	0.0	0.0	0.0	20.8	0.0	0.0
27	39.5	0.0	0.0	0.0	0.0	115.7	6.4	0.0	0.0
28	42.4	0.0	0.0	0.0	0.0	53.4	0.0	0.0	0.0
29	5.2	0.0	0.0	0.0	0.0	0.0	26.9	0.0	0.0
30	0	0.0	0.0	0.0	0.0	0.0	26.1	0.0	0.0
31	0	0.0	0.0	0.0	0.0	0.0	29.1	0.0	-
Sub-Total	277.8	591.3	93.0	687.4	58.4	391.5	109.4	159.0	90.5
Monthly Total	962			1,406					91

2021	MS-MRY-6 ^a	MS-03B ^d	MP-03 ^b	MP-04 ^c	MP-04A ^c	MS Total	MP Total
Annual Total	336	687	983	293	159	1,024	1,435

Notes:

All volumes in cubic metres (m³).

^a Effluent from MS-MRY-6 (Exploration Camp Bulk Fuel Storage Facility) discharged to adjacent tundra.

^b Effluent from MP-03 (Milne Port Bulk Fuel Storage Facility) discharged to ditch near Milne Inlet.

^c Effluent from MP-04 (Milne Port Soil Landfarm) and MP-04A (Milne Port Contaminated Snow Pond) discharged to adjacent tundra.

^d Effluent from MS-03B (Mine Site Bulk Fuel Storage Facility) discharged to adjacent tundra near Sheardown Lake NW.

Table 5.4: Daily, Monthly, and Annual Quantities of Discharge Stormwater - Surface Water Management Ponds - 2021

Day	May	June			July					August				
	MS-06 ^b	MS-06 ^b	MS-08 ^a	MP-05 ^c	MS-06 ^b	MS-07 ^d	MS-08 ^a	MP-05 ^c	MP-06 ^c	MS-06 ^b	MS-07 ^d	MS-08 ^a	MP-05 ^c	MP-06 ^c
1	0.0	93.0	0.0	0.0	0.0	0.0	5,094.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	4,066.0	88.3	0.0	0.0	0.0	882.0	664.8	711.8
3	0.0	0.0	0.0	0.0	0.0	0.0	4,774.6	0.0	0.0	0.0	0.0	2,527.0	0.0	0.0
4	0.0	95.0	0.0	0.0	0.0	0.0	4,674.1	0.0	0.0	5.8	0.0	3,024.0	0.0	0.0
5	0.0	116.2	0.0	0.0	0.0	0.0	4,567.9	94.4	18.7	0.0	0.0	3,628.0	0.0	0.0
6	0.0	64.9	0.0	0.0	0.0	0.0	4,441.3	566.8	705.8	0.0	0.0	3,738.0	0.0	0.0
7	0.0	74.1	0.0	0.0	0.0	0.0	4,631.3	47.5	7.8	0.0	0.0	3,108.0	0.0	0.0
8	0.0	182.6	0.0	0.0	4.1	1,314.5	4,405.9	0.0	0.0	29.4	0.0	858.0	1,102.1	609.5
9	0.0	149.1	0.0	0.0	0.0	2,207.7	8,112.1	0.0	0.0	0.0	0.0	2,564.0	3.4	0.0
10	0.0	176.6	0.0	0.0	0.0	719.5	0.0	0.0	0.0	0.0	0.0	3,142.0	0.0	0.0
11	0.0	165.0	0.0	0.0	0.0	0.0	1,540.6	0.0	0.0	0.0	0.0	3,903.0	0.0	0.0
12	0.0	156.2	0.0	0.0	0.0	0.0	521.2	0.0	0.0	25.6	0.0	3,137.0	0.0	0.0
13	0.0	170.4	0.0	0.0	0.0	0.0	3,780.9	0.0	0.0	22.8	0.0	3,888.0	0.0	0.0
14	0.0	166.6	0.0	0.0	0.0	0.0	3,376.7	0.0	0.0	47.0	0.0	3,976.0	0.0	0.0
15	0.0	163.6	0.0	0.0	0.0	0.0	1,457.5	0.0	0.0	32.3	0.0	4,010.0	0.0	0.0
16	0.0	171.5	0.0	0.0	0.0	0.0	3,741.5	0.0	0.0	27.9	1,102.5	4,029.0	0.0	0.0
17	0.0	179.5	0.0	0.0	0.0	0.0	3,429.1	0.0	0.0	54.0	2,520.0	3,576.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	3,211.5	0.0	0.0	0.0	472.5	4,170.0	0.0	0.0
19	0.0	40.1	0.0	0.0	0.0	0.0	3,763.2	0.0	0.0	0.0	0.0	4,015.0	0.0	0.0
20	0.0	24.5	0.0	0.0	0.0	0.0	3,851.0	0.0	0.0	0.0	0.0	4,360.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	4,422.0	943.9	534.6	0.0	0.0	2,692.0	0.0	0.0
22	0.0	41.6	0.0	0.0	0.0	0.0	2,167.0	0.0	0.0	0.0	0.0	3,407.0	0.0	0.0
23	0.0	6.7	151.0	0.0	0.0	0.0	1,757.0	0.0	0.0	38.4	0.0	1,419.0	0.0	0.0
24	0.0	104.8	111.0	637.1	0.0	0.0	1,443.0	0.0	0.0	7.1	0.0	792.0	997.6	0.0
25	0.0	49.8	2,867.0	485.5	0.0	0.0	3,342.0	0.0	0.0	0.0	0.0	797.0	161.8	0.0
26	0.0	15.9	3,117.3	19.2	0.0	0.0	2,511.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	43.7	5,762.6	119.6	0.0	0.0	3,414.0	0.0	0.0	96.4	0.0	1,103.0	299.9	515.2
28	0.0	45.1	4,038.5	0.0	0.0	0.0	3,272.0	0.0	0.0	88.8	267.2	3,310.0	114.2	732.6
29	0.0	54.0	4,376.4	0.0	0.0	0.0	720.0	0.0	0.0	96.4	1,035.4	3,506.0	0.0	129.4
30	0.0	0.0	4,749.2	3.9	0.0	0.0	227.0	0.0	0.0	99.3	646.9	2,836.0	0.0	1,472.2
31	93.0	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,664.0	0.0	357.0
Sub-Total	93	2,550	25,173	1,265	4	4,242	96,716	1,741	1,267	671	6,044	86,061	3,344	4,528
Monthly Total	93	28,988			103,970					100,648				

2021	MS-08 ^a	MS-07 ^a	MS-06 ^b	MP-05 ^c	MP-06 ^c	MS Total	MP Total	Combined Total
Annual Total	207,950	10,286	3,636	6,945	7,452	221,872	14,397	236,268

Notes:

All volumes in cubic meters (m³).

^a Effluent from MS-08 (Mine Site Waste Rock Facility Pond) was treated using a water treatment plant and discharged to the catchment of Mary River Tributary F.

^b Effluent from MS-06 (Crusher Facility Pond) was discharged at a location near the Mary River.

^c Effluent from MP-05 and MP-06 (East and West Milne Port Ore Stockpile Ponds) was discharged to Milne Inlet.

^d Effluent from MS-07 (KM106 ROM Ore Stockpile Pond) was discharged at a location near the Mary River.

Table 5.4: Daily, Monthly, and Annual Quantities of Discharge Stormwater - Surface Water Management Ponds - 2021

Day	September			October
	MS-06 ^b	MP-05 ^c	MP-06 ^c	MP-06 ^c
1	47.1	0.0	127.9	0.0
2	72.7	0.0	759.6	0.0
3	78.3	0.0	0.0	0.0
4	61.7	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0
8	0.0	101.1	0.0	0.0
9	0.0	0.0	0.0	0.0
10	57.2	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0
20	0.0	493.6	0.0	0.0
21	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	769.7
25	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0
31	-	-	-	0.0
Sub-Total	317	595	887	770
Monthly Total	1,799			770

Notes:
All volumes in cubic meters (m³).
^a Effluent from MS-08 (Mine Site Waste Rock Facility Pond) was treated using a water treatment plant and discharged to the catchment of Mary River Tributary F.
^b Effluent from MS-06 (Crusher Facility Pond) was discharged at a location near the Mary River.
^c Effluent from MP-05 and MP-06 (East and West Milne Port Ore Stockpile Ponds) was discharged to Milne Inlet.
^d Effluent from MS-07 (KM106 ROM Ore Stockpile Pond) was discharged at a location near the Mary River.

Table 5.5: Locations of Temporary and Permanent Storage Areas for Wastes - 2021

Description	Location (UTM NAD83 Zone 17 W)		Location	
	Easting	Northing	Latitude	Longitude
Milne Port				
MP-HWB-1	503869	7976308	71° 53' 12.4"	80° 53' 18.6"
MP-HWB-2	503730	7975972	71° 53' 01.6"	80° 53' 33.1"
MP-HWB-3	503543	7975959	71° 53' 01.2"	80° 53' 52.5"
MP-HWB-4	503569	7975954	71° 53' 01.0"	80° 53' 49.8"
Milne Port Landfarm Facility (MP-04; including Contaminated Snow Containment Berm; MP-04A)	503751	7975570	71° 52' 48.6"	80° 53' 30.9"
Milne Port Polishing Waste Stabilization Pond (PWSP - MP-01A)	503625	7976015	71° 53' 03.0"	80° 53' 44.0"
Milne Port Open Burn Location	504455	7973669	71° 51' 47.2"	80° 52' 18.4"
Milne Port Waste Management Building	503760	7976014	71° 53' 02.9"	80° 53' 30.0"
Mine Site				
MS-HWB-1	558170	7914598	71° 19' 35.5"	79° 22' 19.2"
MS-HWB-2	558200	7914585	71° 19' 35.1"	79° 22' 16.2"
MS-HWB-3	558283	7914563	71° 19' 34.3"	79° 22' 08.0"
MS-HWB-4	558295	7914551	71° 19' 33.9"	79° 22' 06.8"
MS-HWB-5	558161	7914580	71° 19' 34.9"	79° 22' 20.1"
MS-HWB-6	558512	7914710	71° 19' 38.8"	79° 21' 44.5"
MS-HWB-7	558284	7914449	71° 19' 30.6"	79° 22' 08.1"
Mine Site Landfarm Facility (MS-05)	560819	7912715	71° 18' 32.4"	79° 17' 57.8"
Mine Site Non-Hazardous Waste Landfill Facility	560879	7912513	71° 18' 25.9"	79° 17' 51.8"
Mine Site Polishing Waste Stabilization Ponds (PWSP - MS-MRY-4A, 4B, 4C)	558470	7914237	71° 19' 23.6"	79° 21' 50"
Mine Site Open Burn Location	556815	7915193	71° 19' 55.9"	79° 24' 34.1"
Mine Site Waste Management Building	558430	7914773	71° 19' 40.9"	79° 21' 52.6"
Mid-Rail				
Temporary hazardous waste and barrel fuel storage area	595660	7876369	70° 58' 19"	78° 22' 13"
Steensby Port				
Temporary hazardous waste and barrel fuel storage area	594679	7800514	70° 17' 35"	78° 29' 01"

Note:

Refer to Figures 3, 5, 6 and 7 for locations of waste storage areas at Milne Port, the Mine Site, Mid-Rail Camp and Steensby Port.

Table 5.6: Monthly and Annual Quantities of Waste Deposited - Landfill Facility - 2021

Quarter	Month	Volume of Waste Deposited in Landfill	Comments
Q1	January	706	Quarterly survey conducted on March 31, 2021.
	February	706	
	March	706	
Q2	April	152	Quarterly survey conducted on June 30, 2021.
	May	152	
	June	152	
Q3	July	407	Quarterly survey conducted on September 30, 2021.
	August	407	
	September	407	
Q4	October	1,198	Quarterly survey conducted on December 31, 2021.
	November	1,198	
	December	1,198	
TOTAL (BCMs)		7,389	

Notes:

All volumes in BCMs.

BCMs - banked cubic metres.

Table 5.7: Monthly and Annual Quantities of Hydrocarbon Impacted Soil, Water, and Snow Deposited - Milne Port Landfarm Facility - 2021

Quarter	Month	Soil Deposited in Landfarm (m ³)	Water Deposited in Contaminated Snow Containment Berm (m ³)	Comments
Q1	January	0	16	-
	February	0	13	-
	March	0	0	-
Q2	April	0	22	-
	May	0	8	-
	June	0	0	-
Q3	July	0	0	-
	August	0	0	-
	September	0	0	-
Q4	October	0	26	-
	November	0	27	-
	December	0	27	-
TOTAL		0	139	-

Notes:

There was no contaminated soil deposited in the landfarm in 2021, all contaminated soil was shipped offsite.

Table 5.8: Monthly and Annual Quantities - Deposit No. 1 Waste Rock Management - 2021

Month	Total Non-AG Waste Rock Used for Construction Purposes	Total Non-AG Waste Rock Deposited in Waste Rock Facility	Total PAG Waste Rock Deposited in Waste Rock Facility	Total Waste Rock Generated
January	15,591	439,882	7,864	463,337
February	850	305,618	50,570	357,039
March	10,269	550,260	41,374	601,904
April	6,198	257,263	8,351	271,812
May	17,850	184,071	358	202,279
June	138,142	376,722	2,862	517,726
July	150,818	513,762	50,736	715,316
August	59,037	469,361	72,682	601,080
September	12,864	642,687	22,483	678,034
October	807	282,369	753	283,929
November	4,972	529,493	123,387	657,853
December	16,713	497,151	170,025	683,889
TOTAL	434,111	5,048,641	551,445	6,034,197

Notes:

All quantities in wet metric tonnes.

Non-AG - Non-Acid Generating Waste Rock, PAG - Potentially Acid Generating Waste Rock.

Table 6.1: Summary of Unauthorized Discharge by Area and Product - 2021

Product ²	Number of 2021 Reported Spills by Location		
	Mine Site	Tote Road	Milne Port
Diesel Exhaust Fluid (DEF)	0	0	1
Arctic Diesel (P50)	0	1	0
Jet A Fuel	0	0	1
Gasoline	0	0	0
Glycol ¹	1	0	0
Sediment	2	1	0
Sewage (Untreated)	1	0	1
Oil (Transmission Fluid/Hydraulic Oil)	2	0	0
Sub-Total	6	2	3
ANNUAL TOTAL	11		

Note

¹ Release on January 22, 2021 at Mine Site classified as glycol but includes 0.967 m³ glycol and 0.247 m³ hydraulic fluid.

² Unauthorized release at three (3) facilities (Mine Site KM106 ROM Ore Stockpile Facility, and Crusher Pad Facility; Milne Port Ore Stockpile Facility not included in product table.

Table 6.2: List of Reported Spills and Unauthorized Discharges - 2021

Date	NT-NU Spill Reporting Number	Quantity (m ³)	Material Spilled	Approximate Location (UTM NAD83 Zone 17W)		Project Area	Specific Location	Proximity to Water Body	Occurred within a Engineered Lined Facility?	Clean-up Details	Corrective Actions
				Easting	Northing						
22-Jan-21	2021-021	0.967/0.247	Glycol/Hydraulic Oil	563295	7913059	Mine Site	KM 105.4 Mine Haul Road (MHR)	>100 m	No	Mobile equipment was used to scrape contaminated gravel and roadbed material from the affected area. The contaminated material was placed in sealed containers in the Hazardous Waste Berm (HWB) to be transported for offsite disposal.	Braking systems on the remainder of the 793 fleet were inspected to verify that all systems were operating properly prior to the trucks resuming haulage on the MHR. Additional actions were implemented to improve road maintenance on the MHR for haulage including: smoothing out peak gradients at locations where the mine haul truck lost control, and implementing a scheduled road survey review to identify and remediate peak gradient variances along the MHR.
23-Jan-21	2021-022	2	Sewage	560599	7913409	Mine Site	Sailiivik Complex Between E Wing and F Wing	90 m	No	Contaminated snow and ground was collected using a skid steer and shovels and placed in sealed containment in the HWB to be transported for offsite disposal.	Scheduling of daily checks of all lift stations was implemented, snow was removed from lift station covers to provide access for inspections, and warning labels on all lift station electrical panels were installed advising personnel not to open the electrical panels without an electrician present.
16-Mar-21	2021-099	1	Sewage	503827	7975954	Milne Port	Port Site Complex (PSC) Waste Water Treatment Plant (WWTP)	100 m	No	A skid-steer was used to scrape the released sewage from the frozen ground and place it into Quatrex bags for storage in the HWB to be transported for offsite disposal.	The fastening mechanisms on the Vacuum Truck were inspected to verify that they were functioning properly, and pins were subsequently installed on the fastening mechanisms of the Vacuum Truck as a secondary guard to prevent the primary locking mechanism from releasing. A Standard Operating Procedure (SOP) for Vacuum Truck operations, which instructs operators to remain at the discharge area and to continuously monitor hoses and fittings during sewage transfers was developed. All Site Services Vacuum Truck operators were trained in the Vacuum Truck operating procedures described in the SOP.
2-May-21	2021-146	Unquantified	Sediment-laden Water	557805	7914795	Mine Site	Camp Lake and Sheardown Lake	0 m	No	Implemented sedimentation mitigation measures including silt fences, coir logs and sand bags, in areas around the CLT, SDLT and LDFG outfalls and upstream tributaries to slow the flow and settle sediments prior to the water entering the streams. Water diversion and pumping strategies were also implemented to reduce potential erosion and sedimentation.	In preparation for freshet, permanent erosion and sediment control measures were reinforced and maintained as needed, including berm reinforcement upslope of the SDLT outfall and riprap armouring of the ditch at CLT upstream tributary BG-01, to stabilize the bank and reduce erosion. Excess snow was relocated from areas around the Camp Lake Settling Ponds, including from up-gradient runoff check dams, to reduce the amount of surface water runoff from snowmelt. Additional excess snow around the inlets and outlets of select culvert locations was removed, including at the CLT, SDLT and LDFG water crossings, and relocated to approved snow stockpile locations, to further reduce the volume of snowmelt and subsequent amount of overland flow present to mobilize sediment. The development and implementation of the long-term surface water management plan is ongoing with support from a third party consultant.
6-May-21	2021-164	Unquantified	Sediment-laden Water	561018	7912968	Mine Site	Sheardown Lake	0 m	No		
26-May-21	21-247	Unquantified	Sediment-laden Water	NA	NA	Tote Road	Six (6) Downstream Culvert Crossings along Tote Road	0 m	No	Field investigations of the affected culvert crossings were completed. Erosion and sediment control measures were subsequently implemented where possible. Culverts CV-115 and CV-093 have had riprap placed at the inlet and outlet culvert embankments to slow runoff water flow and settle sediments prior to the water entering the streams.	Permanent erosion and sediment control measures were implemented in 2020 including a culvert replacement at KM58 to improve water flow, and the construction of turbidity check dams at KM33 to reduce runoff water flow and sediment transport. Prior to the start of freshet, excess snow along the Tote Road was removed and relocated to approved snow stockpile locations to reduce the amount of surface water runoff from snowmelt. Additional excess snow around the inlets and outlets of select culvert locations was removed to further reduce the volume of snowmelt and subsequent amount of overland flow present to mobilize sediment. Steam was applied to culverts as necessary to remove ice and snow blockages to ensure the effective movement of water during freshet conditions. A plan is being developed for Road Maintenance work to complete the permanent corrective actions at the remaining identified culverts and embankments in 2022; additional permitting may be required. Routine freshet preparation activities and maintenance of ESC measures will be performed prior to freshet 2022 as necessary to reduce snow and ensure effective operation of ESC measures.

Table 6.2: List of Reported Spills and Unauthorized Discharges - 2021

Date	NT-NU Spill Reporting Number	Quantity (m ³)	Material Spilled	Approximate Location (UTM NAD83 Zone 17W)		Project Area	Specific Location	Proximity to Water Body	Occurred within a Engineered Lined Facility?	Clean-up Details	Corrective Actions
				Easting	Northing						
28-Jun-21	21-268	Unquantified	Contact Water	563431	7913131	Mine Site	KM106 Run of Mine (ROM) Ore Stockpile Facility	300 m	No	Temporary diversion swales and a diversion berm/sump system were constructed to capture the seepage. Seepage water intercepted by the diversion swales was diverted to the KM106 ROM Ore Stockpile Facility Pond (MS-07). Seepage water collected in the sump was pumped to MS-07.	A third party consultant was retained to investigate the seepage. Interim contingency measures remain in place to manage water at the KM106 ROM Ore Stockpile Facility. All contact water will continue to be diverted/captured and conveyed to the surface water management pond via the interim measures until permanent corrective actions are implemented. The interim contingency measures continue to be inspected on a regular basis and are functioning as intended to convey all water to MS-07.
2-Jul-21	21-280	6.3	Contact Water	502957	7976179	Milne Port	West Ore Pad Ditch	200 m	No	The pump transferring water through the west ore pad ditch was shut off, preventing further release. Modifications were implemented to the pond-to-pond transfer process configuration to ensure water is not routed through the west ore pad ditch until corrective actions are implemented to address the seepage. A temporary diversion berm was constructed to prevent runoff water from the ore pad from reporting to the ditch.	Ore pad runoff water will be redirected to surface water management ponds until the ditch is repaired. The temporary diversion berm is inspected on a regular basis to ensure it is functioning as intended and diverting water away from the affected ditch and to surface water management ponds.
27-Jul-21	21-349	1	Hydraulic Oil	559448	7914059	Mine Site	Warehouse Laydown	100 m	No	Absorbent pads and booms were used to contain free product. Spilled material and pooled water was removed from the area with a vacuum truck. Contaminated ground was subsequently collected from the affected area with an excavator and placed in sealed containers within the HWB to be transported for offsite disposal.	Staging of hazardous waste areas to remove other obstacles in vicinity. If required the use of a spotter must be present when picking up hazardous items from the warehouse.
27-Jul-21	21-322	Unquantified	Contact Water	561496	7912981	Mine Site	Crusher Facility	> 1km	No	At the time of the seepage event, the contingency plan previously established to manage water at the Crusher Facility until remediation of the compromised ditch system is completed was in place. The contingency plan involves monitoring contact water, capturing contact water runoff with a diversion berm and active pumping of contact water from the pad directly to the MS-06 pond. An additional collection sump was constructed to capture the newly identified seepage.	Interim contingency measures remain in place to manage water at the Crusher Facility. All contact water will continue to be captured and conveyed to the surface water management pond via the interim measures to prevent potential seepage to the tundra until construction of permanent corrective actions. The interim contingency measures continue to be inspected on a regular basis and are functioning as intended to convey all water into MS-06. Water management measures for the Crusher Facility are being addressed as part of the ongoing implementation of Baffinland's Long Term Water Management Plan. Baffinland continues to implement the Ore Crusher pad Regrading Strategy to prevent the pooling of water on and around the Crusher Facility pad.
9-Aug-21	21-338	0.8	Diesel Exhaust Fluid	503524	7976139	Milne Port	Warehouse Laydown	> 100 m	No	A berm was constructed and absorbent materials deployed to contain the spilled material. Contaminated gravel was collected from the affected area using mobile equipment and placed in sealed containers within the HWB to be transported for offsite disposal.	A procedure was created for loading and offloading trailers and the use of spotters. Spotter training and competency was reviewed to ensure crews are trained and instructed to maintain a line of sight on the cargo being offloaded, including repositioning as necessary. All crews involved in loading and offloading trailers and spotting will review the new procedure, and spotter competency assessments will be completed on all spotters.
30-Sep-21	21-421	0.145	Transmission Fluid	562357	7912893	Mine Site	KM104.5 Dam Construction Site	> 60 m	No	Absorbent pads were deployed to remove visible product that was ponding on the ground surface. Contaminated material on the ground surface was removed with a shovel and placed into a drum. The remaining contaminated material was removed with a track-hoe and placed into Quatrex bags. All contaminated product was subsequently transferred to the HWB to be transported for offsite disposal.	The amount and size of material being pushed by the D6T Dozer was minimized when access road development resumed to ensure avoidance of large rocks or other large objects that could potentially damage the dozer undercarriage. Subsequently, a larger D8 Dozer was obtained for pushing rocks and materials to provide greater clearance during road development activities in this area.

Table 6.2: List of Reported Spills and Unauthorized Discharges - 2021

Date	NT-NU Spill Reporting Number	Quantity (m ³)	Material Spilled	Approximate Location (UTM NAD83 Zone 17W)		Project Area	Specific Location	Proximity to Water Body	Occurred within a Engineered Lined Facility?	Clean-up Details	Corrective Actions
				Easting	Northing						
2-Oct-21	21-423	0.005	Diesel Fuel	521761	7949510	Tote Road	Tote Road KM37	> 90	No	Containment was situated beneath the fuel cap to prevent further release and absorbent materials were applied to contain the spilled diesel fuel. A berm was subsequently constructed within the drainage ditch from road aggregate material to prevent migration of diesel fuel from the drainage ditch. Contaminated water was hydro-vacuumed from the affected area of the drainage ditch and deposited in containment for treatment onsite. Contaminated gravel was collected from the affected area using mobile equipment and placed in sealed containers within the HWB to be transported for offsite disposal.	Extra delineators were added to the road shoulder along this section to increase attention to the inner corner for northbound traffic. Routine maintenance of the delineators is completed as necessary to ensure continued effectiveness.
4-Nov-21	2021-465	0.205	Jet-A Fuel	504008	7976180	Milne Port	B1 Pad	> 100	No	Absorbent materials were deployed to contain the spilled material and remove product from the frozen ground surface. Contaminated snow was subsequently removed from the affected area using mobile equipment and deposited in the Contaminated Snow Containment Facility for treatment onsite. Used absorbent materials were collected and placed in a Quatrex bag within the HWB to be transported offsite for disposal.	A procedure is in place for loading and offloading trailers and the use of spotters. Spotter training and competency was reviewed following this incident to ensure all crews are trained and instructed to maintain a line of sight on the cargo being loaded or offloaded, including repositioning as necessary. All crews involved in loading and offloading trailers and spotting are required to review the procedure, and spotter competency assessments are conducted on all spotters.

Table 6.3: List of Reported Health & Safety Incidents - 2021

Incident Report Description	Incident Type	Date of Incident
Skid Steer SKD009 Fire	Dangerous Occurrence	1-Jan-21
345 Excavator upset	Dangerous Occurrence	22-Jan-21
MHT021 loss of control	Dangerous Occurrence	22-Jan-21
Injured thumb on left hand	Injury- MAI ¹	24-Feb-21
Left wrist injury	Injury- LTI ²	8-Mar-21
Hotbox electrical box fire	Dangerous Occurrence	23-Mar-21
Lube truck FLT010 Fire in Cab	Dangerous Occurrence	23-Apr-21
Left ankle injury	Injury- MAI ¹	25-Apr-21
Left elbow injury ³	Injury- MAI ¹	26-Apr-21
Cut finger on right hand	Injury- MAI ¹	29-May-21
988 Loader contacts OHT pup trailer	Dangerous Occurrence	9-Jul-21
Right ankle injury	Injury- MAI ¹	11-Jul-21
Cut thumb on right hand	Injury- MAI ¹	17-Jul-21
Right ankle injury ³	Injury- LTI ²	10-Aug-21
OHT020 engine compartment fire	Dangerous Occurrence	11-Aug-21
Injured finger on left hand	Injury- MAI ¹	13-Aug-21
Cut finger on right hand	Injury- MAI ¹	2-Sep-21
OHT021 drove into the ditch	Dangerous Occurrence	2-Oct-21
Cut finger on right hand	Injury- MAI ¹	5-Oct-21
745 haul truck caught fire	Dangerous Occurrence	18-Oct-21
OHT019 drives into ditch	Dangerous Occurrence	22-Oct-21
OHT050 drive tire fire	Dangerous Occurrence	13-Nov-21
Injured thumb on right hand	Injury- LTI ²	28-Nov-21
Snowmobile engine compartment fire	Dangerous Occurrence	21-Dec-21

Notes:

¹ Medical Aid Incident.

² Loss Time Incident.

³ Covered under scope of Type B 2BE-MRY2131 Water Licence.

Table 7.1: Water Quality Monitoring Locations - 2021

Monitoring Program	Monitoring Station	Description	Location (UTM NAD83 Zone 17 W)		Location		Status in 2021
			Easting	Northing	Latitude	Longitude	
Milne Port							
SNP	MP-01	Milne Port Sewage Treatment Plant (STP)	530810	7975970	71° 52' 56.3" N	-80° 06' 44.3" W	Active
SNP	MP-01A	Milne Port Polishing Waste Stabilization Pond (PWSP)	503625	7976015	71° 53' 02.9" N	-80° 53' 43.9" W	Active
SNP	MP-01B	Milne Port 380 Person Sewage Treatment Plant (STP)	503375	7975184	71° 52' 36.1" N	-80° 54' 10.0" W	Active
SNP	MP-02	Milne Port Maintenance Shop (Oily Water)	503785	7976209	71° 53' 09.2" N	-80° 53' 27.3" W	Inactive ²
SNP	MP-03	Milne Port Bulk Fuel Storage Facility (Stormwater)	503638	7976272	71° 53' 11.2" N	-80° 53' 42.5" W	Active
SNP	MP-04	Milne Port Landfarm Facility	503710	7975574	71° 52' 48.7" N	-80° 53' 35.2" W	Active
SNP	MP-04A	Milne Port Landfarm Facility (Contaminated Snow Containment Berm)	503862	7975482	71° 52' 45.7" N	-80° 53' 19.4" W	Active
SNP	MP-05	Milne Port Ore Stockpile Facility - East Surface Water Management Pond	503469	7976383	71° 53' 14.8" N	-80° 54' 00.0" W	Active
SNP	MP-06	Milne Port Ore Stockpile Facility - West Surface Water Management Pond	503125	7976364	71° 53' 14.2" N	-80° 54' 35.7" W	Active
SNP	MP-C-A	Surface Water Drainage Downstream of Milne Port Infrastructure	503214	7976483	71° 53' 18.1" N	-80° 54' 26.5" W	Inactive ²
SNP	MP-C-B		502836	7975732	71° 52' 53.8" N	-80° 55' 05.8" W	Active
SNP	MP-C-K		502979	7975333	71° 52' 41.0" N	-80° 54' 51.0" W	Active
SNP	MP-C-C		503436	7975427	71° 52' 44.0" N	-80° 54' 03.6" W	Inactive ²
SNP	MP-C-D		503651	7976363	71° 53' 14.2" N	-80° 53' 41.2" W	Inactive ²
SNP	MP-C-E		503736	7976346	71° 53' 13.6" N	-80° 53' 32.3" W	Inactive ²
SNP	MP-C-F		503922	7976304	71° 53' 12.2" N	-80° 53' 13.1" W	Inactive ²
SNP	MP-C-H		504114	7976417	71° 53' 15.9" N	-80° 52' 53.1" W	Active
SNP	MP-C-J		502940	7974760	71° 52' 22.5" N	-80° 54' 55.2" W	Active
SNP	MP-MRY-2	Fresh Water Intake at Phillips Creek	514503	7964579	71° 46' 52.3" N	-80° 35' 03.7" W	Inactive ²
SNP	MP-MRY-3	Fresh Water Intake at Km 32 Lake	521547	7953735	71° 41' 00.4" N	-80° 23' 08.5" W	Active
SNP	MP-Q1-01	Surface Water Drainage Downstream of the Q1 Quarry	503839	7974467	71° 52' 13.0" N	-80° 53' 22.0" W	Active
SNP	MP-Q1-02		503828	7975396	71° 52' 42.9" N	-80° 53' 23.0" W	Active
Recycled Water	MP-Q1-P1	Milne Port Q1 Quarry Recycled Water for Dust Suppression	503822	7974661	71° 52' 19.3" N	-80° 53' 23.8" W	Active
Mine Site							
SNP	MQ-C-A	Surface Water Drainage Downstream of QMR2 Quarry	559489	7914408	71° 19' 28.2" N	-79° 20' 06.9" W	Active
SNP	MQ-C-B		560076	7913888	71° 19' 10.9" N	-79° 19' 09.2" W	Active
SNP	MQ-C-D		559422	7914223	71° 19' 22.3" N	-79° 20' 14.1" W	Active
SNP	MQ-C-E		563351	7912902	71° 18' 36.0" N	-79° 13' 42.5" W	Inactive ²
SNP	MS-01	Mine Site Sewage Treatment Plant No. 1	561322	7913257	71° 18' 49.4" N	-79° 17' 05.6" W	Active
SNP	MS-01A	Mine Site Polishing Waste Stabilization Pond (PWSP)	-	-	-	-	Not Constructed ³
SNP	MS-01B	Mine Site Sewage Treatment Plant No. 2	560794	7913235	71° 18' 49.1" N	-79° 17' 58.8" W	Active
SNP	MS-02	Mine Site Mobile Maintenance Buildings (Meltwater)	561638	7913222	71° 18' 48.0" N	-79° 16' 33.9" W	Not Constructed ³
SNP	MS-03	Mine Site Bulk Fuel Storage Facility (Stormwater)	561258	7913304	71° 18' 51.0" N	-79° 17' 11.9" W	Active

Notes:

¹ Exploration Phase infrastructure decommissioned.² No surface water flows at location in 2021.³ Not constructed.⁴ Tote Road Water Crossings CV-154-A and CV-072-C are replacements for CV-162 and CV-071, respectively, that were originally listed in the Roads Management Plan (BAF-PH1-830-P16-0023), that are still representative of the appropriate watershed.

SNP - Surveillance Network Program ; TRMP - Tote Road Monitoring Program ; SSPM - Snow Stockpile Program Monitoring

Table 7.1: Water Quality Monitoring Locations - 2021

Monitoring Program	Monitoring Station	Description	Location (UTM NAD83 Zone 17 W)		Location		Status in 2021
			Easting	Northing	Latitude	Longitude	
SNP	MS-03B	Mine Site Bulk Fuel Storage Facility (Stormwater)	560993	7913601	71° 19' 00.8" N	-79° 17' 37.8" W	Active
SNP	MS-04	Mine Site Fuel Unloading Station (Stormwater)	-	-	-	-	Inactive ²
SNP	MS-05	Mine Site Landfarm Facility (Stormwater)	560828	7912726	71° 18' 32.7" N	-79° 17' 56.8" W	Active
SNP	MS-06	Mine Site Crusher Facility - Surface Water Management Pond	561475	7913000	71° 18' 40.9" N	-79° 16' 50.9" W	Active
SNP	MS-07	Mine Site Run of Mine (ROM) Ore Stockpile Pond - Surface Water Management Pond	563583	7913074	71° 18' 41.4" N	-79° 13' 18.6" W	Active
SNP	MS-08	Mine Site Waste Rock Facility (WRF) - Surface Water Management Pond	563218	7916802	71° 20' 24.7" N	-79° 13' 18.3" W	Active
SNP	MS-09	Waste Rock Stockpile - East Pond	-	-	-	-	Not Constructed ³
SNP	MS-10	Mine Site SDLT-1 Pond Ore Stockpile (Stormwater)	-	-	-	-	Not Constructed ³
SNP	MS-11	Mine Site KM105 Pond (Stormwater)	-	-	-	-	Inactive ²
SNP	MS-12	Mine Site Weatherhaven Camp (Stormwater)	-	-	-	-	Not Constructed ³
SNP	MS-13	Mine Site Explosives Magazine Pond	-	-	-	-	Not Constructed ³
SNP	MS-14	Mine Site Quarry QMR2 Pond/Sump	-	-	-	-	Not Constructed ³
SNP	MS-C-A	Surface Water Drainage Downstream of Mine Site Infrastructure	561263	7913571	71° 18' 59.6" N	-79° 17' 10.6" W	Active
SNP	MS-C-B		561454	7913537	71° 18' 58.3" N	-79° 16' 51.5" W	Active
SNP	MS-C-C		561110	7913199	71° 18' 47.7" N	-79° 17' 27.1" W	Active
SNP	MS-C-D		561008	7913280	71° 18' 50.4" N	-79° 17' 37.1" W	Active
SNP	MS-C-E		560980	7913388	71° 18' 53.9" N	-79° 17' 39.6" W	Active
SNP	MS-C-F		561797	7913278	71° 18' 49.6" N	-79° 16' 17.7" W	Active
SNP	MS-C-G		561813	7911830	71° 18' 02.9" N	-79° 16' 20.3" W	Active
SNP	MS-C-H		561162	7912067	71° 18' 11.1" N	-79° 17' 25.1" W	Active
Recycled Water	HR-CD-05	Mine Site Haul Road KM105 Pond Recycled Water for Dust Suppression	563812	7913140	71° 18' 43.3" N	79° 12' 55.4" W	Inactive ²
Recycled Water	MS-RW-01	Mine Site Flight Ops Pond (Pond 1) Recycled Water for Dust Suppression	559348	7914222	71° 19' 22.3" N	79° 20' 21.6" W	Active
Recycled Water	MS-RW-02	Mine Site Warehouse Pond (Pond 2) Recycled Water for Dust Suppression	559555	7913950	71° 19' 13.4" N	79° 20' 01.6" W	Active
SNP	MS-MRY-1	Fresh Water Intake at Camp Lake	557779	7914722	71° 19' 39.8" N	-79° 22' 58.2" W	Active
SNP	MS-MRY-04	Mine Site Exploration Camp Sewage Treatment Plant	558134	7914459	71° 19' 31.0" N	-79° 22' 23.2" W	Inactive ¹
SNP	MS-MRY-04A	Mine Site Polishing Waste Stabilization Pond (PWSP)	558549	7914112	71° 19' 19.4" N	-79° 21' 42.3" W	Active
SNP	MS-MRY-04B	Mine Site Polishing Waste Stabilization Pond (PWSP)	558438	7914310	71° 19' 25.9" N	-79° 21' 53.0" W	Active
SNP	MS-MRY-04C	Mine Site Polishing Waste Stabilization Pond (PWSP)	558508	7914264	71° 19' 24.4" N	-79° 21' 46.1" W	Active
SNP	MS-MRY-6	Hazardous Materials Storage Area (MS-HWB-7) (Stormwater)	558341	7914508	71° 19' 32.4" N	-79° 22' 02.2" W	Active
SNP	MS-MRY-09	Mine Site Deposit No.1 - Surface Water Drainage	561083	7915084	71° 19' 48.5" N	-79° 17' 24.5" W	Active
SNP	MS-MRY-10	Mine Site Deposit No. 1 - Surface Water Drainage	563820	7914620	71° 19' 31.0" N	-79° 12' 50.2" W	Active
SNP	MS-MRY-13A	Mine Site Non-Hazardous Waste Landfill Facility (Surface Water Drainage)	560754	7912484	71° 18' 25.0" N	-79° 18' 04.9" W	Active
SNP	MS-MRY-13B	Mine Site Non-Hazardous Waste Landfill Facility (Surface Water Drainage)	560642	7912527	71° 18' 26.4" N	-79° 18' 16.1" W	Active
SSPM	MS-SN-01	Mine Site Weatherhaven Snow Stockpile	558052	7914303	71° 19' 26.1" N	79° 22' 31.9" W	Active

Notes:

¹ Exploration Phase infrastructure decommissioned.

² No surface water flows at location in 2021.

³ Not constructed.

⁴ Tote Road Water Crossings CV-154-A and CV-072-C are replacements for CV-162 and CV-071, respectively, that were originally listed in the Roads Management Plan (BAF-PH1-830-P16-0023), that are still representative of the appropriate watershed.

SNP - Surveillance Network Program ; TRMP - Tote Road Monitoring Program ; SSPM - Snow Stockpile Program Monitoring

Table 7.1: Water Quality Monitoring Locations - 2021

Monitoring Program	Monitoring Station	Description	Location (UTM NAD83 Zone 17 W)		Location		Status in 2021
			Easting	Northing	Latitude	Longitude	
SSPM	MS-SN-02	Mine Site Landfill Access Road Snow Stockpile	561097	7912884	71° 18' 37.6" N	79° 17' 29.4" W	Active
SSPM	MS-SN-03	Mine Site Warehouse Snow Stockpile	559803	7913756	71° 19' 06.9" N	79° 19' 37.1" W	Active
Tote Road							
SSPM	TR-SN-01	Tote Road Snow Stockpile KM37	521756	7948884	71° 38' 23.8" N	80° 22' 52.2" W	Active
SSPM	TR-SN-02	Tote Road Snow Stockpile KM63	529396	7926786	71° 26' 27.7" N	80° 10' 20.9" W	Active
SSPM	TR-SN-03	Tote Road Snow Stockpile KM77	538726	7920503	71° 23' 00.1" N	79° 54' 47.0" W	Active
SSPM	TR-SN-04	Tote Road Snow Stockpile KM86	547040	7919654	71° 22' 27.3" N	-79° 40' 49.0" W	Active
SSPM	TR-SN-05	Tote Road Snow Stockpile KM92	551307	7916785	71° 20' 51.7" N	79° 33' 45.2" W	Inactive ²
SSPM	TR-SN-06	Tote Road Snow Stockpile KM97	555217	7914564	71° 19' 36.9" N	-79° 27' 16.6" W	Active
SSPM	TR-SN-07	Tote Road Snow Stockpile KM75	537681	7920369	71° 22' 56.4" N	-79° 56' 32.8" W	Active
Recycled Water	TR-BP-01	Tote Road KM97 Borrow Pond Recycled Water for Dust Suppression	556021	7914684	71° 19' 40.1" N	-79° 25' 55.4" W	Active
Recycled Water	TR-BP-02	Tote Road KM57 Borrow Pond Recycled Water for Dust Suppression	527171	7932085	71° 29' 19.6" N	-80° 13' 59.6" W	Active
TRMP	CV-167	Approximately located at KM6	505519	7972462	71° 51' 08.2" N	-80° 50' 28.5" W	Active
TRMP	CV-154-A ⁴	Approximately located at KM9.5	507620	7970076	71° 49' 51.0" N	-80° 46' 51.8" W	Active
TRMP	CV-128	Approximately located at KM17	513556	7965889	71° 47' 34.9"N	-80° 36' 40.6"W	Active
TRMP	CV-129	Approximately located at KM15	512381	7966783	71° 48' 03.9"N	-80° 38' 41.3"W	Active
TRMP	CV-115	Approximately located at KM28	519222	7958135	71° 43' 23.2"N	-80° 27' 03.0"W	Active
TRMP	CV-112	Approximately located at KM33	521033	7954935	71° 41' 39.3"N	-80° 24' 00.0"W	Active
TRMP	CV-106	Approximately located at KM33	521663	7953392	71° 40' 49.3"N	-80° 22' 57.0"W	Active
TRMP	CV-099	Approximately located at KM37	521886	7948843	71° 38' 22.4"N	-80° 22' 38.9"W	Active
TRMP	CV-093	Approximately located at KM42	522927	7945093	71° 36' 21.1"N	-80° 20' 56.4"W	Active
TRMP	CV-078	Approximately located at KM51	525852	7936787	71° 31' 51.9"N	-80° 16' 07.8"W	Active
TRMP	CV-072-C ⁴	Approximately located at KM54	526897	7934576	71° 30' 40.1"N	-80° 14' 24.2"W	Active
TRMP	CV-060	Approximately located at KM58	527622	7930342	71° 28' 23.2"N	-80° 13' 16.0"W	Active
TRMP	BG-50	Approximately located at KM63	529294	7926852	71° 26' 29.8"N	-80° 10' 31.1"W	Active
TRMP	CV-040	Approximately located at KM71.5	535168	7920326	71° 22' 56.4"N	-80° 00' 46.7"W	Active
TRMP	BG-32	Approximately located at KM78	540729	7921597	71° 23' 34.2"N	-79° 51' 22.6"W	Active
TRMP	CV-217	Approximately located at KM80	542321	7922189	71° 23' 52.4"N	-79° 48' 40.5"W	Active
TRMP	BG-30	Approximately located at KM84.5	546070	7919844	71° 22' 34.2"N	-79° 42' 26.6"W	Active
TRMP	BG-24	Approximately located at KM88	548766	7918878	71° 22' 01.1"N	-79° 37' 56.6"W	Active
TRMP	CV-001	Approximately located at KM94.1	553544	7914897	71° 19' 49.0"N	-79° 30' 04.3"W	Active
TRMP	CV-223	Approximately located at KM97.5	555705	7914676	71° 19' 40.1"N	-79° 26' 27.3"W	Active

Notes:

¹ Exploration Phase infrastructure decommissioned.

² No surface water flows at location in 2021.

³ Not constructed.

⁴ Tote Road Water Crossings CV-154-A and CV-072-C are replacements for CV-162 and CV-071, respectively, that were originally listed in the Roads Management Plan (BAF-PH1-830-P16-0023), that are still representative of the appropriate watershed.

SNP - Surveillance Network Program ; TRMP - Tote Road Monitoring Program ; SSPM - Snow Stockpile Program Monitoring

Table 7.2.1: Water Quality Results for Water Licence Monitoring Location - MP-01

Analyte	Sample ID			MP-01	MP-0101	MP-01	MP-01	MP-01	MP-01	MP-01	MP-01
	ALS Laboratory Sample ID			L2550732-1	L2550732-2	L2558665-1	L2563942-1	L2579172-1	L2584925-1	L2597166-1	L2602461-1
	Sample Date & Time			2021-01-21 12:45	2021-01-21 12:45	2021-02-16 10:15	2021-03-04 11:30	2021-04-20 13:15	2021-05-06 11:30	2021-06-02 13:10	2021-06-15 13:10
	QA/QC Sample Type			N/A	Field Duplicate	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹								
pH	pH units	0.10	6.0 - 9.5	7.78	7.79	7.61	7.85	7.57	7.73	7.90	7.83
Total Suspended Solids	mg/L	3.0/1.0	120	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0
Ammonia, Total (as N)	mg/L	0.010	-	0.031	0.030	0.053	0.025	0.04	0.027	0.023	0.072
Total Kjeldahl Nitrogen	mg/L	0.50/0.050/5.0	-	1.91	1.82	1.04	0.98	1.23	1.17	0.920	35.0
Phosphorus, Total	mg/L	0.030/0.0030/0.060	-	9.77	9.76	13.2	9.92	12.9	11.9	8.90	12.5
Fecal Coliforms	CFU/100 mL	0	10,000	0	0	0	7	45	0	0	0
BOD	mg/L	2.0	100	<2.0	<2.0	<2.0	<2.0	4.8	<2.0	<2.0	<2.0
Oil and Grease, Total	mg/L	2.0/5.0	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-	-	Not Acutely Toxic	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 5.

² Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14) .

Table 7.2.1: Water Quality Results for Water Licence Monitoring Location - MP-01

Analyte	Sample ID			MP-01	MP-01	MP-01	MP-0103	MP-01	MP-0103	MP-01	MP-0102
	ALS Laboratory Sample ID			L2611143-1	L2622710-1	L2637961-1	L2637961-3	L2640590-1	L2640590-3	L2648435-1	L2648435-3
	Sample Date & Time			2021-07-06 11:00	2021-08-03 13:00	2021-09-08 13:10	2021-09-08 13:10	2021-09-15 13:10	2021-09-15 13:00	2021-10-05 14:00	2021-10-05 14:00
	QA/QC Sample Type			N/A	N/A	N/A	Travel Blank	N/A	Travel Blank	N/A	Field Blank
	Units	LOR	Water Licence Criteria ¹								
pH	pH units	0.10	6.0 - 9.5	7.96	7.63	7.90	5.87	7.74	5.57	7.69	5.74
Total Suspended Solids	mg/L	3.0/1.0	120	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	1.0	<1.0
Ammonia, Total (as N)	mg/L	0.010	-	0.049	0.025	0.050	<0.010	0.042	<0.010	0.035	<0.010
Total Kjeldahl Nitrogen	mg/L	0.50/0.050/5.0	-	3.60	5.30	6.85	<0.050	3.49	<0.050	1.15	<0.050
Phosphorus, Total	mg/L	0.030/0.0030/0.060	-	11.1	14.9	13.7	0.0035	10.9	<0.0030	6.57	<0.0030
Fecal Coliforms	CFU/100 mL	0	10,000	0	0	0	0	0	0	0	0
BOD	mg/L	2.0	100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Oil and Grease, Total	mg/L	2.0/5.0	-	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0	<2.0	<2.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	-	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-	-	-	-	-	-	-

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 5.
² Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).
³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14) .

Table 7.2.1: Water Quality Results for Water Licence Monitoring Location - MP-01

Analyte	Sample ID			MP-01	MP-0101	MP-01	MP-0103
	ALS Laboratory Sample ID			L2661884-1	L2661884-4	L2671157-1	L2671157-3
	Sample Date & Time			2021-11-10 13:10	2021-11-10 13:10	2021-12-08 13:10	2021-12-08 13:00
	QA/QC Sample Type			N/A	Field Duplicate	N/A	Travel Blank
	Units	LOR	Water Licence Criteria ¹				
pH	pH units	0.10	6.0 - 9.5	7.86	7.87	8.07	5.32
Total Suspended Solids	mg/L	3.0/1.0	120	<1.0	<1.0	3.4	<1.0
Ammonia, Total (as N)	mg/L	0.010	-	0.031	0.036	0.027	0.013
Total Kjeldahl Nitrogen	mg/L	0.50/0.050/5.0	-	1.24	1.27	0.870	<0.050
Phosphorus, Total	mg/L	0.030/0.0030/0.060	-	11.1	11.1	8.58	<0.0030
Fecal Coliforms	CFU/100 mL	0	10,000	0	0	0	0
BOD	mg/L	2.0	100	<2.0	<2.0	<2.0	<2.0
Oil and Grease, Total	mg/L	2.0/5.0	-	<2.0	<2.0	<5.0	<2.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	-
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 5.

² Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14) .

Table 7.2.2: Water Quality Results for Water Licence Monitoring Location - MP-01A

Analyte	Sample ID			MP-01A	MP-01A
	ALS Laboratory Sample ID			L2632384-1	L2635378-1
	Sample Date & Time			2021-08-26 11:10	2021-09-01 15:30
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
pH	pH units	0.10	6.0 - 9.5	7.83	7.96
Total Suspended Solids	mg/L	1.0	120	11.5	13.0
Total Dissolved Solids	mg/L	20	-	587	-
Turbidity	NTU	0.10	-	2.39	-
Alkalinity, Total (as CaCO ₃)	mg/L	1.0	-	273	-
Ammonia, Total (as N)	mg/L	1.0	-	6.1	6.7
Total Kjeldahl Nitrogen	mg/L	0.10/0.50	-	11.5	13.0
Phosphorus, Total	mg/L	0.0030	-	0.186	0.217
Fecal Coliforms	CFU/100mL	0	10,000	0	0
BOD	mg/L	3.0	100	<3.0	<3.0
COD	mg/L	10	-	122	120
Oil and Grease, Total	mg/L	5.0	-	<5.0	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	-	-	Not Acutely Toxic	Not Acutely Toxic	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 5.

² Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.2.3: Water Quality Results for Water Licence Monitoring Location - MP-01B

Analyte	Sample ID			MP-01B	MP-01B	MP-01B	MP-01B	MP-01B	MP-01B	MP-01B
	ALS Laboratory Sample ID			L2553158-1	L2558672-1	L2563947-1	L2579204-1	L2584928-1	L2597169-1	L2602482-1
	Sample Date & Time			2021-01-31 10:15	2021-02-16 13:30	2021-03-04 13:40	2021-04-20 13:30	2021-05-06 12:00	2021-06-02 13:15	2021-06-15 13:15
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
pH	pH units	0.10	6.0 - 9.5	7.99	8.57	8.47	8.12	7.22	8.43	8.45
Total Suspended Solids	mg/L	1.0/3.0	120	<3.0	<3.0	3.5	8.0	<3.0	3.7	<1.0
Ammonia, Total (as N)	mg/L	0.0050/0.010/0.50	-	0.0205	0.041	0.029	<0.010	0.0	0.018	0.038
Total Kjeldahl Nitrogen	mg/L	0.050	-	<0.050	1.26	2.40	1.20	0.550	5.20	0.730
Phosphorus, Total	mg/L	0.40/0.030/0.060/0.0030	-	9.57	7.25	7.62	10.5	15.3	3.61	6.96
Fecal Coliforms	CFU/100mL	1	10,000	<1	2	1	0	3	0	0
BOD	mg/L	2.0/3.0	100	3.0	3.1	<2.0	<2.0	<2.0	<2.0	<3.0
Oil and Grease, Total	mg/L	2.0/5.0	-	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	N/A		Not Acutely Toxic	-	-	Not Acutely Toxic	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 5.

² Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.2.3: Water Quality Results for Water Licence Monitoring Location - MP-01B

Analyte	Sample ID			MP-01B	MP-01B	MP-01B	MP-01B03	MP-01B	MP-01B03	MP-01B
	ALS Laboratory Sample ID			L2611174-1	L2622708-1	L2637988-1	L2637988-3	L2640599-1	L2640599-3	L2648442-1
	Sample Date & Time			2021-07-06 12:00	2021-08-03 12:30	2021-09-08 13:15	2021-09-08 13:00	2021-09-15 13:15	2021-09-15 13:00	2021-10-05 14:00
	QA/QC Sample Type			N/A	N/A	N/A	Travel Blank	N/A	Travel Blank	N/A
	Units	LOR	Water Licence Criteria ¹							
pH	pH units	0.10	6.0 - 9.5	7.94	7.98	8.17	5.77	8.09	6.03	8.01
Total Suspended Solids	mg/L	1.0/3.0	120	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ammonia, Total (as N)	mg/L	0.0050/0.010/0.50	-	0.023	<0.50	0.048	<0.010	0.051	0.024	0.013
Total Kjeldahl Nitrogen	mg/L	0.050	-	0.850	3.90	0.885	<0.050	0.787	<0.050	<0.050
Phosphorus, Total	mg/L	0.40/0.030/0.060/0.0030	-	11.4	8.81	9.38	0.0073	5.56	<0.0030	9.73
Fecal Coliforms	CFU/100mL	1	10,000	2	0	4	0	4	0	1
BOD	mg/L	2.0/3.0	100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Oil and Grease, Total	mg/L	2.0/5.0	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen
Acute Lethality ^{2,3}	N/A		Not Acutely Toxic	-	-	-	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 5.

² Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.2.3: Water Quality Results for Water Licence Monitoring Location - MP-01B

Analyte	Sample ID			MP-01B03	MP-01B	MP-01B01	MP-01B	MP-01B02
	ALS Laboratory Sample ID			L2648442-3	L2661878-1	L2661878-4	L2671142-1	L2671142-3
	Sample Date & Time			2021-10-05 14:00	2021-11-10 13:10	2021-11-10 13:10	2021-12-08 13:45	2021-12-08 13:40
	QA/QC Sample Type			Travel Blank	N/A	Field Duplicate	N/A	Field Blank
	Units	LOR	Water Licence Criteria ¹					
pH	pH units	0.10	6.0 - 9.5	5.99	8.29	8.22	7.80	6.30
Total Suspended Solids	mg/L	1.0/3.0	120	<1.0	<1.0	<1.0	<1.0	<1.0
Ammonia, Total (as N)	mg/L	0.0050/0.010/0.50	-	<0.010	0.043	0.044	0.024	<0.010
Total Kjeldahl Nitrogen	mg/L	0.050	-	<0.050	1.14	1.48	<0.050	<0.050
Phosphorus, Total	mg/L	0.40/0.030/0.060/0.0030	-	<0.0030	7.39	7.45	7.15	<0.0030
Fecal Coliforms	CFU/100mL	1	10,000	0	0	0	0	0
BOD	mg/L	2.0/3.0	100	<2.0	<2.0	<2.0	<2.0	<2.0
Oil and Grease, Total	mg/L	2.0/5.0	-	<5.0	<2.0	<2.0	<2.0	<2.0
	-	-	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	-
Acute Lethality ^{2,3}	N/A		Not Acutely Toxic	-	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 5.

²Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

³Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.2.4: Water Quality Results for Water Licence Monitoring Location - MP-03

Analyte	Sample ID			MP-03	MP-03
	ALS Laboratory Sample ID			L2612302-1	L2631106-1
	Sample Date & Time			2021-07-09 13:20	2021-08-23 7:10
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
pH	pH units	0.10	-	8.07	8.47
Total Suspended Solids	mg/L	2.0	-	174	<2.0
Total Dissolved Solids	mg/L	10	-	535	343
Turbidity	NTU	0.10	-	185	1.88
Ammonia, Total (as N)	mg/L	0.0050/0.010	-	0.0369	0.162
Phosphorus, Total	mg/L	0.020/0.0030	-	0.072	0.0068
Arsenic (As)-Total	mg/L	0.00010	-	0.00101	0.00046
Copper (Cu)-Total	mg/L	0.0010/0.00050	-	0.00560	0.0023
Lead (Pb)-Total	mg/L	0.000050	0.001	0.00656	0.000347
Nickel (Ni)-Total	mg/L	0.00050	-	0.00279	0.00058
Zinc (Zn)-Total	mg/L	0.0030	-	0.0255	<0.0030
Benzene	mg/L	0.00050	0.37	<0.00050	<0.00050
Ethylbenzene	mg/L	0.00050	0.09	<0.00050	<0.00050
Toluene	mg/L	0.00045/0.00050	0.002	<0.00045	<0.00050
F1 (C6-C10)	mg/L	0.10/0.025	-	<0.10	<0.025
F2 (C10-C16)	mg/L	0.10	-	3.62	<0.10
F3 (C16-C34)	mg/L	0.25	-	1.29	<0.25
F4 (C34-C50)	mg/L	0.25	-	<0.25	<0.25
Total Hydrocarbons (C6-C50)	mg/L	0.38/0.37	-	4.91	<0.37
Oil and Grease, Total	mg/L	5.0	15	<5.0	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 8.

Table 7.2.5: Water Quality Results for Water Licence Monitoring Location - MP-04

Analyte	Sample ID			MP-04	MP-04	MP-04
	ALS Laboratory Sample ID			L2612836-1	L2632383-1	L2634815-1
	Sample Date & Time			2021-07-12 14:20	2021-08-26 8:50	2021-09-01 10:30
	QA/QC Sample Type			N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹			
pH	pH units	0.10	6.0 - 9.0	7.97	7.83	8.10
Total Suspended Solids	mg/L	1.0/2.0	15	17.3	1.6	2.6
Total Dissolved Solids	mg/L	10/20	-	616	902	785
Turbidity	NTU	0.10	-	10.8	4.66	5.43
Lead (Pb)-Total	mg/L	0.00005/0.00050	0.001	0.000124	0.000285	<0.00050
Benzene	mg/L	0.00050	0.370	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	0.00050	0.090	<0.00050	<0.00050	<0.00050
Toluene	mg/L	0.00050	0.002	<0.00050	<0.00050	<0.00050
F1 (C6-C10)	mg/L	0.025	-	<0.025	<0.025	<0.025
F2 (C10-C16)	mg/L	0.10	-	0.35	0.36	0.39
F3 (C16-C34)	mg/L	0.25	-	<0.25	<0.25	<0.25
F4 (C34-C50)	mg/L	0.25	-	<0.25	<0.25	<0.25
Total Hydrocarbons (C6-C50)	mg/L	0.37	-	<0.37	<0.37	0.39
Oil and Grease, Total	mg/L	5.0	15	<5.0	<5.0	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 9.

Table 7.2.6: Water Quality Results for Water Licence Monitoring Location - MP-04A

Analyte	Sample ID			MP-04A	MP-04A
	ALS Laboratory Sample ID			L2622824-1	L2629905-1
	Sample Date & Time			2021-08-02 8:15	2021-08-20 14:30
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
pH	pH	0.10	6.0 - 9.0	6.58	7.12
Total Suspended Solids	mg/L	2.0	15	8.2	19.8
Total Dissolved Solids	mg/L	10/20	-	1990	1170
Turbidity	NTU	0.10	-	4.81	4.75
Lead (Pb)-Total	mg/L	0.00050/0.000050	0.001	0.00403	0.000237
Benzene	mg/L	0.00050	0.370	<0.00050	<0.00050
Ethylbenzene	mg/L	0.00050	0.090	<0.00050	<0.00050
Toluene	mg/L	0.00050/0.00045	0.002	<0.00050	<0.00045
F1 (C6-C10)	mg/ml	0.025/0.10	-	<0.025	<0.10
F2 (C10-C16)	mg/L	0.10	-	<0.10	<0.10
F3 (C16-C34)	mg/L	0.25	-	0.30	<0.25
F4 (C34-C50)	mg/L	0.25	-	<0.25	<0.25
Total Hydrocarbons (C6-C50)	mg/ml	0.37/0.38	-	<0.37	<0.38
Oil and Grease, Total	mg/L	5.0	15	<5.0	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 9.

Table 7.2.7: Water Quality Results for Water Licence Monitoring Location - MP-05

Analyte	Sample ID			MP-05	MP-05
	ALS Laboratory Sample ID			L2606851-1	L2611194-1
	Sample Date & Time			2021-06-26 7:20	2021-07-05 15:30
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
Hardness (as CaCO3)	mg/L	0.50/1.3	-	349	508
pH	pH units	0.10	6.0 - 9.5	8.27	8.32
Total Suspended Solids	mg/L	1.0/2.0	15	4.4	<1.0
Total Dissolved Solids	mg/L	10/20	-	613	833
Turbidity	NTU	0.10	-	14.9	6.81
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	118	137
Ammonia, Total (as N)	mg/L	0.0050/0.010/0.10	-	0.0481	0.096
Chloride (Cl)	mg/L	2.5/0.50	-	137	139
Fluoride (F)	mg/L	0.10/0.020	-	0.20	0.20
Nitrate (as N)	mg/L	0.020/0.10	-	3.01	4.28
Total Kjeldahl Nitrogen	mg/L	0.050	-	0.434	0.730
Phosphorus, Total	mg/L	0.0020/0.0030	-	0.0145	0.0067
Sulfate (SO4)	mg/L	1.5/0.30	-	172	306
Dissolved Organic Carbon	mg/L	0.50	-	4.46	3.93
Total Organic Carbon	mg/L	0.50	-	3.90	4.50
Aluminum (Al)-Total	mg/L	0.0030/0.050/0.0050	-	0.150	0.115
Arsenic (As)-Total	mg/L	0.00010/0.0010	0.50	0.00024	<0.0010
Cadmium (Cd)-Total	mg/L	0.0000050/0.000050	-	<0.0000050	<0.000050
Calcium (Ca)-Total	mg/L	0.05/0.50	-	58.9	86.6
Copper (Cu)-Total	mg/L	0.00050/0.0050	0.30	0.00133	<0.0050
Iron (Fe)-Total	mg/L	0.010/0.10	-	0.170	0.14
Lead (Pb)-Total	mg/L	0.000050/0.00050	0.20	0.000259	<0.00050
Magnesium (Mg)-Total	mg/L	0.0050/0.050	-	45.8	69.7
Manganese (Mn)-Total	mg/L	0.00010/0.0050/0.00050	-	0.181	0.363
Mercury (Hg)-Total	mg/L	0.0000050	-	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.000050/0.00050	-	0.00510	0.00492
Nickel (Ni)-Total	mg/L	0.00050/0.0050	0.50	0.00161	<0.0050
Potassium (K)-Total	mg/L	0.050/0.50	-	8.65	9.00
Selenium (Se)-Total	mg/L	0.000050/0.00050	-	0.000363	0.00055
Sodium (Na)-Total	mg/L	0.050/0.50	-	57.2	53.3
Thallium (Tl)-Total	mg/L	0.000010/0.00010	-	0.000015	<0.00010
Uranium (U)-Total	mg/L	0.000010/0.00010	-	0.119	0.141
Zinc (Zn)-Total	mg/L	0.0030/0.030	0.50	0.0070	<0.030
Aluminum (Al)-Dissolved	mg/L	0.0010/0.50/0.050/0.0050	-	0.0206	<0.050
Arsenic (As)-Dissolved	mg/L	0.00010/0.0010	-	0.00021	<0.0010
Cadmium (Cd)-Dissolved	mg/L	0.0000050/0.000050	-	<0.0000050	<0.000050
Calcium (Ca)-Dissolved	mg/L	0.050/0.50	-	60.3	85.60
Copper (Cu)-Dissolved	mg/L	0.00020/0.0020	-	0.00120	<0.0020
Iron (Fe)-Dissolved	mg/L	0.010/0.10	-	<0.010	<0.10
Lead (Pb)-Dissolved	mg/L	0.000050/0.00050	-	<0.000050	<0.00050
Magnesium (Mg)-Dissolved	mg/L	0.0050/0.050	-	48.1	71.4
Manganese (Mn)-Dissolved	mg/L	0.00010/0.0050/0.00050	-	0.158	0.330
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050/0.00050	-	0.00530	0.00471
Nickel (Ni)-Dissolved	mg/L	0.00050/0.0050	-	0.00136	<0.0050
Potassium (K)-Dissolved	mg/L	0.050/0.50	-	8.90	9.24
Selenium (Se)-Dissolved	mg/L	0.000050/0.00050	-	0.000348	0.00058
Sodium (Na)-Dissolved	mg/L	0.050/0.50	-	58.7	54.5
Thallium (Tl)-Dissolved	mg/L	0.000010/0.00010	-	0.000013	<0.00010
Uranium (U)-Dissolved	mg/L	0.000010/0.00010	-	0.114	0.137
Zinc (Zn)-Dissolved	mg/L	0.0010/0.010	-	0.0046	<0.010
Oil and Grease, Total	mg/L	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen
Toxicity	-	-	Not Acutely Toxic	Not Acutely Toxic	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 10.

Table 7.2.7: Water Quality Results for Water Licence Monitoring Location - MP-05

Analyte	Sample ID			MP-05	MP-0501
	ALS Laboratory Sample ID			L2622832-1	L2622832-2
	Sample Date & Time			2021-08-02 14:30	2021-08-02 14:30
	QA/QC Sample Type			N/A	Field Duplicate
	Units	LOR	Water Licence Criteria ¹		
Hardness (as CaCO3)	mg/L	0.50/1.3	-	434	437
pH	pH units	0.10	6.0 - 9.5	8.36	8.33
Total Suspended Solids	mg/L	1.0/2.0	15	1.7	1.7
Total Dissolved Solids	mg/L	10/20	-	658	659
Turbidity	NTU	0.10	-	4.24	4.68
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	179	179
Ammonia, Total (as N)	mg/L	0.0050/0.010/0.10	-	0.049	0.049
Chloride (Cl)	mg/L	2.5/0.50	-	120	120
Fluoride (F)	mg/L	0.10/0.020	-	0.190	0.188
Nitrate (as N)	mg/L	0.020/0.10	-	3.77	3.77
Total Kjeldahl Nitrogen	mg/L	0.050	-	0.490	0.770
Phosphorus, Total	mg/L	0.0020/0.0030	-	0.0073	0.0052
Sulfate (SO4)	mg/L	1.5/0.30	-	180	180
Dissolved Organic Carbon	mg/L	0.50	-	5.99	4.77
Total Organic Carbon	mg/L	0.50	-	5.10	4.51
Aluminum (Al)-Total	mg/L	0.0030/0.050/0.0050	-	0.097	0.077
Arsenic (As)-Total	mg/L	0.00010/0.0010	0.50	<0.0010	<0.0010
Cadmium (Cd)-Total	mg/L	0.0000050/0.000050	-	<0.000050	<0.000050
Calcium (Ca)-Total	mg/L	0.05/0.50	-	78.4	79.8
Copper (Cu)-Total	mg/L	0.00050/0.0050	0.30	<0.0050	<0.0050
Iron (Fe)-Total	mg/L	0.010/0.10	-	<0.10	0.11
Lead (Pb)-Total	mg/L	0.000050/0.00050	0.20	<0.00050	<0.00050
Magnesium (Mg)-Total	mg/L	0.0050/0.050	-	57.8	56.6
Manganese (Mn)-Total	mg/L	0.00010/0.0050/0.00050	-	0.0977	0.0955
Mercury (Hg)-Total	mg/L	0.0000050	-	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.000050/0.00050	-	0.00388	0.00384
Nickel (Ni)-Total	mg/L	0.00050/0.0050	0.50	<0.0050	<0.0050
Potassium (K)-Total	mg/L	0.050/0.50	-	8.53	8.35
Selenium (Se)-Total	mg/L	0.000050/0.00050	-	<0.00050	<0.00050
Sodium (Na)-Total	mg/L	0.050/0.50	-	57.4	56.0
Thallium (Tl)-Total	mg/L	0.000010/0.00010	-	<0.00010	<0.00010
Uranium (U)-Total	mg/L	0.000010/0.00010	-	0.116	0.115
Zinc (Zn)-Total	mg/L	0.0030/0.030	0.50	<0.030	<0.030
Aluminum (Al)-Dissolved	mg/L	0.0010/0.50/0.050/0.0050	-	<0.050	<0.050
Arsenic (As)-Dissolved	mg/L	0.00010/0.0010	-	<0.0010	<0.0010
Cadmium (Cd)-Dissolved	mg/L	0.0000050/0.000050	-	<0.000050	<0.000050
Calcium (Ca)-Dissolved	mg/L	0.050/0.50	-	78.4	79.3
Copper (Cu)-Dissolved	mg/L	0.00020/0.0020	-	<0.0020	<0.0020
Iron (Fe)-Dissolved	mg/L	0.010/0.10	-	<0.10	<0.10
Lead (Pb)-Dissolved	mg/L	0.000050/0.00050	-	<0.00050	<0.00050
Magnesium (Mg)-Dissolved	mg/L	0.0050/0.050	-	57.8	58.1
Manganese (Mn)-Dissolved	mg/L	0.00010/0.0050/0.00050	-	0.0789	0.0814
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050/0.00050	-	0.00402	0.00403
Nickel (Ni)-Dissolved	mg/L	0.00050/0.0050	-	<0.0050	<0.0050
Potassium (K)-Dissolved	mg/L	0.050/0.50	-	8.58	8.43
Selenium (Se)-Dissolved	mg/L	0.000050/0.00050	-	<0.00050	<0.00050
Sodium (Na)-Dissolved	mg/L	0.050/0.50	-	57.5	57.2
Thallium (Tl)-Dissolved	mg/L	0.000010/0.00010	-	<0.00010	<0.00010
Uranium (U)-Dissolved	mg/L	0.000010/0.00010	-	0.116	0.115
Zinc (Zn)-Dissolved	mg/L	0.0010/0.010	-	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen
Toxicity	-	-	Not Acutely Toxic	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 10.

Table 7.2.7: Water Quality Results for Water Licence Monitoring Location - MP-05

Analyte	Sample ID			MP-05
	ALS Laboratory Sample ID			L2637962-1
	Sample Date & Time			2021-09-08 15:25
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
Hardness (as CaCO3)	mg/L	0.50/1.3	-	426
pH	pH units	0.10	6.0 - 9.5	8.31
Total Suspended Solids	mg/L	1.0/2.0	15	2.1
Total Dissolved Solids	mg/L	10/20	-	697
Turbidity	NTU	0.10	-	6.16
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	198
Ammonia, Total (as N)	mg/L	0.0050/0.010/0.10	-	0.58
Chloride (Cl)	mg/L	2.5/0.50	-	131
Fluoride (F)	mg/L	0.10/0.020	-	<0.10
Nitrate (as N)	mg/L	0.020/0.10	-	4.45
Total Kjeldahl Nitrogen	mg/L	0.050	-	2.24
Phosphorus, Total	mg/L	0.0020/0.0030	-	0.0060
Sulfate (SO4)	mg/L	1.5/0.30	-	179
Dissolved Organic Carbon	mg/L	0.50	-	6.86
Total Organic Carbon	mg/L	0.50	-	5.89
Aluminum (Al)-Total	mg/L	0.0030/0.050/0.0050	-	0.0586
Arsenic (As)-Total	mg/L	0.00010/0.0010	0.50	0.00022
Cadmium (Cd)-Total	mg/L	0.0000050/0.000050	-	<0.0000050
Calcium (Ca)-Total	mg/L	0.05/0.50	-	83.5
Copper (Cu)-Total	mg/L	0.00050/0.0050	0.30	0.00170
Iron (Fe)-Total	mg/L	0.010/0.10	-	0.101
Lead (Pb)-Total	mg/L	0.000050/0.00050	0.20	0.000156
Magnesium (Mg)-Total	mg/L	0.0050/0.050	-	54.9
Manganese (Mn)-Total	mg/L	0.00010/0.0050/0.00050	-	0.0758
Mercury (Hg)-Total	mg/L	0.0000050	-	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.000050/0.00050	-	0.00339
Nickel (Ni)-Total	mg/L	0.00050/0.0050	0.50	0.00139
Potassium (K)-Total	mg/L	0.050/0.50	-	8.39
Selenium (Se)-Total	mg/L	0.000050/0.00050	-	0.000337
Sodium (Na)-Total	mg/L	0.050/0.50	-	58.0
Thallium (Tl)-Total	mg/L	0.000010/0.00010	-	0.000017
Uranium (U)-Total	mg/L	0.000010/0.00010	-	0.0747
Zinc (Zn)-Total	mg/L	0.0030/0.030	0.50	0.0114
Aluminum (Al)-Dissolved	mg/L	0.0010/0.50/0.050/0.0050	-	0.0091
Arsenic (As)-Dissolved	mg/L	0.00010/0.0010	-	0.00021
Cadmium (Cd)-Dissolved	mg/L	0.0000050/0.000050	-	0.0000135
Calcium (Ca)-Dissolved	mg/L	0.050/0.50	-	80.9
Copper (Cu)-Dissolved	mg/L	0.00020/0.0020	-	0.00159
Iron (Fe)-Dissolved	mg/L	0.010/0.10	-	0.014
Lead (Pb)-Dissolved	mg/L	0.000050/0.00050	-	0.000058
Magnesium (Mg)-Dissolved	mg/L	0.0050/0.050	-	54.4
Manganese (Mn)-Dissolved	mg/L	0.00010/0.0050/0.00050	-	0.0676
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050/0.00050	-	0.00328
Nickel (Ni)-Dissolved	mg/L	0.00050/0.0050	-	0.00165
Potassium (K)-Dissolved	mg/L	0.050/0.50	-	8.37
Selenium (Se)-Dissolved	mg/L	0.000050/0.00050	-	0.000421
Sodium (Na)-Dissolved	mg/L	0.050/0.50	-	57.5
Thallium (Tl)-Dissolved	mg/L	0.000010/0.00010	-	0.000014
Uranium (U)-Dissolved	mg/L	0.000010/0.00010	-	0.0711
Zinc (Zn)-Dissolved	mg/L	0.0010/0.010	-	0.0099
Oil and Grease, Total	mg/L	-	-	-
	-	-	No Visible Sheen	No Visible Sheen
Toxicity	-	-	Not Acutely Toxic	-

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 10.

Table 7.2.8: Water Quality Results for Water Licence Monitoring Location - MP-06

Analyte	Sample ID			MP-06	MP-06
	ALS Laboratory Sample ID			L2611198-1	L2622828-1
	Sample Date & Time			2021-07-05 14:30	2021-08-02 14:30
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
Hardness (as CaCO3)	mg/L	0.50/1.3	-	356	378
pH	pH units	0.10	6.0 - 9.5	8.15	8.10
Total Suspended Solids	mg/L	1.0/2.0	15	2.1	2.7
Total Dissolved Solids	mg/L	10/20	-	643	699
Turbidity	NTU	0.10	-	1.66	2.35
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	77.1	103
Ammonia, Total (as N)	mg/L	0.010	-	<0.010	0.028
Chloride (Cl)	mg/L	2.5/0.50	-	123	115
Fluoride (F)	mg/L	0.10/0.020	-	0.115	0.334
Nitrate (as N)	mg/L	0.020/0.10	-	2.39	4.06
Total Kjeldahl Nitrogen	mg/L	0.050	-	0.470	0.800
Phosphorus, Total	mg/L	0.0030	-	<0.0030	0.0042
Sulfate (SO4)	mg/L	1.5/0.30	-	217	238
Dissolved Organic Carbon	mg/L	0.50	-	8.17	12.6
Total Organic Carbon	mg/L	0.50	-	7.92	12.8
Aluminum (Al)-Total	mg/L	0.050/0.0050	-	0.0187	0.087
Arsenic (As)-Total	mg/L	0.00010/0.0010	0.50	0.00020	<0.0010
Cadmium (Cd)-Total	mg/L	0.0000050/0.000050	-	<0.0000050	<0.000050
Calcium (Ca)-Total	mg/L	0.050/0.50	-	52.9	67.9
Copper (Cu)-Total	mg/L	0.00050/0.0050	0.30	0.00076	<0.0050
Iron (Fe)-Total	mg/L	0.010/0.10	-	0.015	0.18
Lead (Pb)-Total	mg/L	0.000050/0.00050	0.20	<0.000050	<0.00050
Magnesium (Mg)-Total	mg/L	0.0050/0.050	-	53.5	50.5
Manganese (Mn)-Total	mg/L	0.0050/0.00050	-	0.0429	0.0189
Mercury (Hg)-Total	mg/L	0.0000050	-	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.000050/0.00050	-	0.00362	0.00581
Nickel (Ni)-Total	mg/L	0.00050/0.0050	0.50	0.00122	<0.0050
Potassium (K)-Total	mg/L	0.050/0.50	-	7.26	10.6
Selenium (Se)-Total	mg/L	0.000050/0.00050	-	0.000410	<0.00050
Sodium (Na)-Total	mg/L	0.050/0.50	-	55.7	71.8
Thallium (Tl)-Total	mg/L	0.000010/0.00010	-	0.000015	<0.00010
Uranium (U)-Total	mg/L	0.000010/0.00010	-	0.0406	0.444
Zinc (Zn)-Total	mg/L	0.0030/0.030	0.50	<0.0030	<0.030
Aluminum (Al)-Dissolved	mg/L	0.050/0.0050	-	0.0108	<0.050
Arsenic (As)-Dissolved	mg/L	0.00010/0.0010	-	0.00023	<0.0010
Cadmium (Cd)-Dissolved	mg/L	0.0000050/0.000050	-	0.0000061	<0.000050
Calcium (Ca)-Dissolved	mg/L	0.050/0.50	-	52.2	67.8
Copper (Cu)-Dissolved	mg/L	0.00020/0.0020	-	0.00069	<0.0020
Iron (Fe)-Dissolved	mg/L	0.010/0.10	-	<0.010	<0.10
Lead (Pb)-Dissolved	mg/L	0.000050/0.00050	-	<0.000050	<0.00050
Magnesium (Mg)-Dissolved	mg/L	0.0050/0.050	-	54.9	50.7
Manganese (Mn)-Dissolved	mg/L	0.0050/0.00050	-	0.0410	0.0100
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050/0.00050	-	0.00356	0.00642
Nickel (Ni)-Dissolved	mg/L	0.00050/0.0050	-	0.00112	<0.0050
Potassium (K)-Dissolved	mg/L	0.050/0.50	-	7.44	10.6
Selenium (Se)-Dissolved	mg/L	0.000050/0.00050	-	0.000491	0.00060
Sodium (Na)-Dissolved	mg/L	0.050/0.50	-	56.1	72.7
Thallium (Tl)-Dissolved	mg/L	0.000010/0.00010	-	0.000017	<0.00010
Uranium (U)-Dissolved	mg/L	0.000010/0.00010	-	0.0407	0.450
Zinc (Zn)-Dissolved	mg/L	0.0010/0.010	-	0.0016	<0.010
Oil and Grease, Total	mg/L	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen
Toxicity	-	-	Not Acutely Toxic	Not Acutely Toxic	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 10.

Table 7.2.8: Water Quality Results for Water Licence Monitoring Location - MP-06

Analyte	Sample ID			MP-06	MP-06
	ALS Laboratory Sample ID			L2634795-1	L2655270-1
	Sample Date & Time			2021-09-01 11:15	2021-10-24 16:15
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
Hardness (as CaCO3)	mg/L	0.50/1.3	-	549	311
pH	pH units	0.10	6.0 - 9.5	8.11	8.13
Total Suspended Solids	mg/L	1.0/2.0	15	2.1	5.3
Total Dissolved Solids	mg/L	10/20	-	1,030	503
Turbidity	NTU	0.10	-	4.27	20.6
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	150	151
Ammonia, Total (as N)	mg/L	0.010	-	0.350	0.435
Chloride (Cl)	mg/L	2.5/0.50	-	159	77.8
Fluoride (F)	mg/L	0.10/0.020	-	0.48	0.165
Nitrate (as N)	mg/L	0.020/0.10	-	7.49	2.86
Total Kjeldahl Nitrogen	mg/L	0.050	-	1.82	1.46
Phosphorus, Total	mg/L	0.0030	-	0.0044	0.0049
Sulfate (SO4)	mg/L	1.5/0.30	-	428	139
Dissolved Organic Carbon	mg/L	0.50	-	5.13	7.49
Total Organic Carbon	mg/L	0.50	-	5.96	6.86
Aluminum (Al)-Total	mg/L	0.050/0.0050	-	<0.050	0.284
Arsenic (As)-Total	mg/L	0.00010/0.0010	0.50	<0.0010	0.00025
Cadmium (Cd)-Total	mg/L	0.0000050/0.000050	-	<0.000050	0.0000068
Calcium (Ca)-Total	mg/L	0.050/0.50	-	104	64.2
Copper (Cu)-Total	mg/L	0.00050/0.0050	0.30	<0.0050	0.00164
Iron (Fe)-Total	mg/L	0.010/0.10	-	<0.10	0.413
Lead (Pb)-Total	mg/L	0.000050/0.00050	0.20	<0.00050	0.000441
Magnesium (Mg)-Total	mg/L	0.0050/0.050	-	65.3	40.2
Manganese (Mn)-Total	mg/L	0.0050/0.00050	-	0.107	0.138
Mercury (Hg)-Total	mg/L	0.0000050	-	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.000050/0.00050	-	0.0134	0.00429
Nickel (Ni)-Total	mg/L	0.00050/0.0050	0.50	<0.0050	0.00132
Potassium (K)-Total	mg/L	0.050/0.50	-	15.6	6.70
Selenium (Se)-Total	mg/L	0.000050/0.00050	-	0.00073	0.000431
Sodium (Na)-Total	mg/L	0.050/0.50	-	104	36.1
Thallium (Tl)-Total	mg/L	0.000010/0.00010	-	<0.00010	0.000018
Uranium (U)-Total	mg/L	0.000010/0.00010	-	0.778	0.109
Zinc (Zn)-Total	mg/L	0.0030/0.030	0.50	<0.030	0.0098
Aluminum (Al)-Dissolved	mg/L	0.050/0.0050	-	<0.050	0.0175
Arsenic (As)-Dissolved	mg/L	0.00010/0.0010	-	<0.0010	0.00020
Cadmium (Cd)-Dissolved	mg/L	0.0000050/0.000050	-	<0.000050	0.0000075
Calcium (Ca)-Dissolved	mg/L	0.050/0.50	-	114	57.2
Copper (Cu)-Dissolved	mg/L	0.00020/0.0020	-	<0.0020	0.00136
Iron (Fe)-Dissolved	mg/L	0.010/0.10	-	<0.10	0.016
Lead (Pb)-Dissolved	mg/L	0.000050/0.00050	-	<0.00050	0.000061
Magnesium (Mg)-Dissolved	mg/L	0.0050/0.050	-	64.0	40.9
Manganese (Mn)-Dissolved	mg/L	0.0050/0.00050	-	0.0998	0.126
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050/0.00050	-	0.0150	0.00403
Nickel (Ni)-Dissolved	mg/L	0.00050/0.0050	-	<0.0050	0.00100
Potassium (K)-Dissolved	mg/L	0.050/0.50	-	15.5	6.91
Selenium (Se)-Dissolved	mg/L	0.000050/0.00050	-	0.0111	0.000451
Sodium (Na)-Dissolved	mg/L	0.050/0.50	-	<0.00050	36.2
Thallium (Tl)-Dissolved	mg/L	0.000010/0.00010	-	<0.0020	0.000015
Uranium (U)-Dissolved	mg/L	0.000010/0.00010	-	<0.0010	0.109
Zinc (Zn)-Dissolved	mg/L	0.0010/0.010	-	<0.0050	0.0088
Oil and Grease, Total	mg/L	-	-	<0.010	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen
Toxicity	-	-	Not Acutely Toxic	-	-

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 10.

Table 7.2.9: Water Quality Results for Water Licence Monitoring Location - MP-C-B

Analyte	Sample ID			MP-C-B	MP-C-B	MP-C-B	MP-C-B	MP-C-B03	MP-C-B	MP-C-B	MP-C-B	MP-C-B
	ALS Laboratory Sample ID			L2586524-1	L2595282-4	L2600575-4	L2602404-6	L2602404-7	L2606493-6	L2608772-4	L2611804-3	L2614208-3
	Sample Date & Time			2021-05-09 12:15	2021-06-01 9:05	2021-06-08 9:30	2021-06-15 11:45	2021-06-15 11:45	2021-06-24 10:15	2021-06-29 8:45	2021-07-06 8:50	2021-07-13 16:40
	QA/QC Sample Type			N/A	N/A	N/A	N/A	Travel Blank	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹									
Conductivity	umhos/cm	1.0/3.0	-	-	472	-	257	<1.0	-		488	-
pH	pH units	0.10	6.0 - 9.5	8.08	8.23	8.08	8.11	6.26	8.28	8.30	8.22	8.21
Total Suspended Solids	mg/L	1.0/2.0	Grab 30, Average 15	<2.0	12.7	22.3	3.9	<1.0	<2.0	<2.0	1.8	<2.0
Total Dissolved Solids	mg/L	10/20	-	315	270	220	147	<10	224	278	320	344
Turbidity	NTU	0.10	-	3.99	33.6	51.0	0.20	0.31	5.10	10.0	2.22	3.80
Ammonia, Total (as N)	mg/L	0.010	-	-	0.406	-	0.066	0.013	-		0.022	-
Nitrate (as N)	mg/L	0.020	-	-	0.545	-	0.966	<0.020	-	-	0.903	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<5.0	-	<5.0	<5.0	-	-	<5.0	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.2.9: Water Quality Results for Water Licence Monitoring Location - MP-C-B

Analyte	Sample ID			MP-C-B	MP-C-B	MP-C-B	MP-C-B	MP-C-B	MP-C-B01	MP-C-B	MP-C-B	MP-C-B01
	ALS Laboratory Sample ID			L2617707-3	L2620706-3	L2623229-8	L2626311-7	L2627807-2	L2627807-3	L2630604-5	L2634765-1	L2634765-2
	Sample Date & Time			2021-07-20 9:15	2021-07-27 14:15	2021-08-03 13:45	2021-08-11 6:40	2021-08-15 9:55	2021-08-15 9:55	2021-08-24 8:15	2021-09-01 10:00	2021-09-01 10:00
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	Field Duplicate	N/A	N/A	Field Duplicate
	Units	LOR	Water Licence Criteria ¹									
Conductivity	umhos/cm	1.0/3.0	-	-	-	592	-	-	-	-	746	750
pH	pH units	0.10	6.0 - 9.5	8.28	8.31	8.29	8.28	8.33	8.32	8.37	8.18	8.22
Total Suspended Solids	mg/L	1.0/2.0	Grab 30, Average 15	<2.0	3.2	<2.0	2.9	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10/20	-	354	389	354	394	351	354	343	432	428
Turbidity	NTU	0.10	-	2.93	9.88	1.68	7.76	4.30	4.27	3.07	1.69	1.71
Ammonia, Total (as N)	mg/L	0.010	-	-	-	0.019	-	-	-	-	0.023	0.022
Nitrate (as N)	mg/L	0.020	-	-	-	3.50	-	-	-	-	4.34	4.34
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-	<5.0	-	-	-	-	<5.0	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.2.9: Water Quality Results for Water Licence Monitoring Location - MP-C-B

Analyte	Sample ID			MP-C-B	MP-C-B	MP-C-B	MP-C-B	MP-C-B01
	ALS Laboratory Sample ID			L2637047-1	L2639311-4	L2648053-1	L2650270-1	L2650270-2
	Sample Date & Time			2021-09-07 16:25	2021-09-14 10:40	2021-10-05 14:15	2021-10-11 8:15	2021-10-11 8:15
	QA/QC Sample Type			N/A	N/A	N/A	N/A	Field Duplicate
	Units	LOR	Water Licence Criteria ¹					
Conductivity	umhos/cm	1.0/3.0	-	-	-	537	-	-
pH	pH units	0.10	6.0 - 9.5	8.20	7.85	8.03	7.77	7.80
Total Suspended Solids	mg/L	1.0/2.0	Grab 30, Average 15	<2.0	<2.0	26.8	<2.0	<2.0
Total Dissolved Solids	mg/L	10/20	-	394	469	343	433	432
Turbidity	NTU	0.10	-	1.64	0.47	111	3.08	3.11
Ammonia, Total (as N)	mg/L	0.010	-	-	-	0.247	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	1.95	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-	<5.0	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.2.10: Water Quality Results for Water Licence Monitoring Location - MP-C-H

Analyte	Sample ID			MP-C-H	MP-C-H	MP-C-H	MP-C-H	MP-C-H	MP-C-H01	MP-C-H
	ALS Laboratory Sample ID			L2600575-1	L2602404-1	L2606493-7	L2608772-1	L2611804-1	L2611804-2	L2614208-7
	Sample Date & Time			2021-06-08 7:30	2021-06-15 8:45	2021-06-24 10:40	2021-06-29 6:45	2021-07-06 7:40	2021-07-06 7:40	2021-07-13 15:00
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0	-	-	150	-	-	227	228	-
pH	pH units	0.10	6.0 - 9.5	7.92	7.90	8.08	8.09	8.06	8.12	8.15
Total Suspended Solids	mg/L	2.0/1.0	Grab 30, Average 15	3.0	3.2	<2.0	<2.0	<1.0	<1.0	<2.0
Total Dissolved Solids	mg/L	10/20	-	406	82	77	99	142	144	152
Turbidity	NTU	0.10	-	10.0	7.11	1.34	1.98	0.49	0.62	0.48
Ammonia, Total (as N)	mg/L	0.010	-	-	0.041	-	-	0.015	0.012	-
Nitrate (as N)	mg/L	0.020	-	-	0.343	-	-	0.335	0.327	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<5.0	-	-	<5.0	<5.0	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.2.10: Water Quality Results for Water Licence Monitoring Location - MP-C-H

Analyte	Sample ID			MP-C-H	MP-C-H	MP-C-H03	MP-C-H	MP-C-H	MP-C-H	MP-C-H
	ALS Laboratory Sample ID			L2617707-2	L2620706-6	L2620706-7	L2623229-5	L2626311-6	L2627807-1	L2630604-1
	Sample Date & Time			2021-07-20 7:20	2021-07-28 7:15	2021-07-28 7:15	2021-08-03 11:20	2021-08-10 11:00	2021-08-15 9:10	2021-08-24 6:50
	QA/QC Sample Type			N/A	N/A	Travel Blank	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0	-	-	-	-	392	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.23	8.19	5.95	8.26	8.18	8.32	8.32
Total Suspended Solids	mg/L	2.0/1.0	Grab 30, Average 15	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10/20	-	183	157	14	204	161	207	179
Turbidity	NTU	0.10	-	0.38	0.17	<0.10	0.38	0.29	0.41	0.23
Ammonia, Total (as N)	mg/L	0.010	-	-	-	-	0.073	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	-	0.988	-	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-	-	<5.0	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.2.10: Water Quality Results for Water Licence Monitoring Location - MP-C-H

Analyte	Sample ID			MP-C-H01	MP-C-H	MP-C-H	MP-C-H	MP-C-H01	MP-C-H	MP-C-H
	ALS Laboratory Sample ID			L2630604-2	L2634765-5	L2637047-5	L2639311-1	L2639311-2	L2648053-5	L2650270-5
	Sample Date & Time			2021-08-24 6:50	2021-09-01 10:45	2021-09-07 10:30	2021-09-14 9:00	2021-09-14 9:00	2021-10-05 13:50	2021-10-11 8:00
	QA/QC Sample Type			Field Duplicate	N/A	N/A	N/A	Field Duplicate	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0	-	-	346	-	-	-	291	-
pH	pH units	0.10	6.0 - 9.5	8.33	8.28	8.20	8.09	8.13	8.17	8.09
Total Suspended Solids	mg/L	2.0/1.0	Grab 30, Average 15	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10/20	-	174	202	204	217	197	187	166
Turbidity	NTU	0.10	-	0.25	0.12	0.45	0.11	0.11	0.72	0.26
Ammonia, Total (as N)	mg/L	0.010	-	-	<0.010	-	-	-	0.012	-
Nitrate (as N)	mg/L	0.020	-	-	0.151	-	-	-	0.185	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<2.0	-	-	-	<5.0	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.2.11: Water Quality Results for Water Licence Monitoring Location - MP-C-J

Analyte	Sample ID			MP-C-J	MP-C-J03	MP-C-J	MP-C-J	MP-C-J	MP-C-J
	ALS Laboratory Sample ID			L2600575-2	L2600575-3	L2602404-4	L2606493-4	L2608772-2	L2611804-5
	Sample Date & Time			2021-06-08 8:15	2021-06-08 8:15	2021-06-15 11:05	2021-06-24 9:30	2021-06-29 7:35	2021-07-06 9:55
	QA/QC Sample Type			N/A	Travel Blank	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹						
Conductivity	umhos/cm	1.0	-	-	-	466	-		400
pH	pH units	0.10	6.0 - 9.5	8.05	5.90	8.22	8.14	8.03	7.98
Total Suspended Solids	mg/L	2.0/1.0	Grab 30, Average 15	<2.0	<2.0	2.2	<2.0	<2.0	<1.0
Total Dissolved Solids	mg/L	10/20	-	263	<10	258	205	196	244
Turbidity	NTU	0.10	-	2.09	<0.10	1.03	0.96	0.20	0.29
Ammonia, Total (as N)	mg/L	0.010	-	-	-	0.013	-	-	0.021
Nitrate (as N)	mg/L	0.020	-	-	-	0.230	-	-	0.079
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-	<5.0	-	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.2.11: Water Quality Results for Water Licence Monitoring Location - MP-C-J

Analyte	Sample ID			MP-C-J	MP-C-J	MP-C-J	MP-C-J	MP-C-J	MP-C-J01	MP-C-J
	ALS Laboratory Sample ID			L2614208-5	L2617707-5	L2620706-5	L2623229-6	L2626311-1	L2626311-2	L2627807-5
	Sample Date & Time			2021-07-13 16:00	2021-07-20 8:50	2021-07-28 8:00	2021-08-03 12:15	2021-08-10 8:35	2021-08-10 8:35	2021-08-15 10:35
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0	-	-	-	-	452	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.96	8.09	7.95	8.07	8.06	8.06	8.15
Total Suspended Solids	mg/L	2.0/1.0	Grab 30, Average 15	2.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10/20	-	276	220	244	244	172	235	242
Turbidity	NTU	0.10	-	<0.10	0.50	0.25	0.19	0.33	0.39	0.35
Ammonia, Total (as N)	mg/L	0.010	-	-	-	-	0.011	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	-	0.048	-	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-	-	<5.0	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.2.11: Water Quality Results for Water Licence Monitoring Location - MP-C-J

Analyte	Sample ID			MP-C-J	MP-C-J	MP-C-J	MP-C-J
	ALS Laboratory Sample ID			L2630604-3	L2634765-3	L2637047-2	L2648053-2
	Sample Date & Time			2021-08-24 7:30	2021-09-01 9:20	2021-09-07 9:45	2021-10-06 6:55
	QA/QC Sample Type			N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	1.0	-	-	500	-	419
pH	pH units	0.10	6.0 - 9.5	8.00	7.89	7.91	7.81
Total Suspended Solids	mg/L	2.0/1.0	Grab 30, Average 15	<2.0	2.2	<2.0	2.9
Total Dissolved Solids	mg/L	10/20	-	249	277	281	246
Turbidity	NTU	0.10	-	0.27	<0.10	0.21	0.69
Ammonia, Total (as N)	mg/L	0.010	-	-	<0.010	-	0.018
Nitrate (as N)	mg/L	0.020	-	-	0.088	-	0.055
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<5.0	-	<2.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.2.12: Water Quality Results for Water Licence Monitoring Location - MP-C-K

Analyte	Sample ID			MP-C-K	MP-C-K	MP-C-K03	MP-C-K	MP-C-K	MP-C-K
	ALS Laboratory Sample ID			L2592243-1	L2595282-2	L2595282-3	L2600575-5	L2602404-5	L2606493-5
	Sample Date & Time			2021-05-25 11:35	2021-06-01 8:45	2021-06-01 8:45	2021-06-08 9:45	2021-06-15 11:30	2021-06-24 10:00
	QA/QC Sample Type			N/A	N/A	Travel Blank	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹						
Conductivity	umhos/cm	1.0	-	539	509	<1.0	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.99	8.25	8.00	8.11	8.17	8.21
Total Suspended Solids	mg/L	1.0/2.0/3.0	Grab 30, Average 15	10.2	4.4	<1.0	3.4	<1.0	<2.0
Total Dissolved Solids	mg/L	10/20	-	430	302	<10	267	269	268
Turbidity	NTU	0.10	-	22.9	11.6	<0.10	7.52	1.14	0.87
Ammonia, Total (as N)	mg/L	0.010/0.050	-	2.06	0.284	<0.010	-	-	-
Nitrate (as N)	mg/L	0.020	-	0.285	0.544	<0.020	-	-	-
Oil and Grease, Total	mg/L	5.0	-	<5.0	<5.0	<5.0	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.2.12: Water Quality Results for Water Licence Monitoring Location - MP-C-K

Analyte	Sample ID			MP-C-K	MP-C-K	MP-C-K	MP-C-K	MP-C-K	MP-C-K
	ALS Laboratory Sample ID			L2608772-3	L2611804-4	L2614208-4	L2617707-4	L2620706-4	L2623229-7
	Sample Date & Time			2021-06-29 8:30	2021-07-06 9:30	2021-07-13 15:45	2021-07-20 8:35	2021-07-27 14:45	2021-08-03 13:00
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹						
Conductivity	umhos/cm	1.0	-		569	-	-	-	783
pH	pH units	0.10	6.0 - 9.5	8.22	8.20	8.00	8.13	8.18	8.16
Total Suspended Solids	mg/L	1.0/2.0/3.0	Grab 30, Average 15	<2.0	1.0	12.7	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10/20	-	269	406	404	437	425	543
Turbidity	NTU	0.10	-	0.92	0.75	0.51	0.52	0.42	0.42
Ammonia, Total (as N)	mg/L	0.010/0.050	-	-	0.017	-	-	-	0.053
Nitrate (as N)	mg/L	0.020	-	-	1.43	-	-	-	1.95
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	-	-	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.2.12: Water Quality Results for Water Licence Monitoring Location - MP-C-K

Analyte	Sample ID			MP-C-K	MP-C-K	MP-C-K	MP-C-K	MP-C-K	MP-C-K01
	ALS Laboratory Sample ID			L2626311-3	L2627807-4	L2630604-4	L2634765-4	L2637047-3	L2637047-4
	Sample Date & Time			2021-08-10 9:00	2021-08-15 10:20	2021-08-24 8:00	2021-09-01 9:40	2021-09-07 16:05	2021-09-07 16:05
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	Field Duplicate
	Units	LOR	Water Licence Criteria ¹						
Conductivity	umhos/cm	1.0	-	-	-	-	1,030	-	-
pH	pH units	0.10	6.0 - 9.5	8.15	8.26	8.29	8.15	8.15	8.13
Total Suspended Solids	mg/L	1.0/2.0/3.0	Grab 30, Average 15	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10/20	-	531	547	513	614	570	575
Turbidity	NTU	0.10	-	1.39	0.72	0.50	0.43	0.32	0.29
Ammonia, Total (as N)	mg/L	0.010/0.050	-	-	-	-	0.028	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	-	1.21	-	-
Oil and Grease, Total	mg/L	5.0	-	-	-	-	<5.0	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.2.12: Water Quality Results for Water Licence Monitoring Location - MP-C-K

Analyte	Sample ID			MP-C-K	MP-C-K	MP-C-K01	MP-C-K
	ALS Laboratory Sample ID			L2639311-3	L2648053-3	L2648053-4	L2650270-3
	Sample Date & Time			2021-09-14 10:25	2021-10-05 14:30	2021-10-05 14:30	2021-10-11 9:00
	QA/QC Sample Type			N/A	N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	1.0	-	-	704	701	-
pH	pH units	0.10	6.0 - 9.5	7.84	8.00	8.01	7.75
Total Suspended Solids	mg/L	1.0/2.0/3.0	Grab 30, Average 15	2.5	2.1	<2.0	2.1
Total Dissolved Solids	mg/L	10/20	-	795	447	426	467
Turbidity	NTU	0.10	-	0.27	3.49	3.42	0.74
Ammonia, Total (as N)	mg/L	0.010/0.050	-	-	0.056	0.053	-
Nitrate (as N)	mg/L	0.020	-	-	0.964	0.974	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	<5.0	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.2.13: Water Quality Results for Water Licence Monitoring Location - MP-Q1-01

Analyte	Sample ID			MP-Q1-01	MP-Q1-01	MP-Q1-01	MP-Q1-01	MP-Q1-01	MP-Q1-0101	MP-Q1-01
	ALS Laboratory Sample ID			L2595282-1	L2600575-7	L2602404-3	L2606493-3	L2608772-7	L2608772-8	L2611804-7
	Sample Date & Time			2021-06-01 8:00	2021-06-08 10:45	2021-06-15 10:40	2021-06-24 9:30	2021-06-29 9:35	2021-06-29 9:35	2021-07-06 11:20
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0	-	211	-	-	-	-	-	190
pH	pH units	0.10	6.0 - 9.5	8.01	7.77	7.74	7.89	7.79	7.83	7.92
Total Suspended Solids	mg/L	1.0/2.0	Grab 30, Average 15	2.9	6.8	1.4	<2.0	<2.0	<2.0	<1.0
Total Dissolved Solids	mg/L	10/13/20	-	122	78	63	103	77	104	128
Turbidity	NTU	0.10	-	16.1	7.56	5.51	2.08	1.95	1.98	1.66
Ammonia, Total (as N)	mg/L	0.010	-	0.072	-	-	-			0.031
Nitrate (as N)	mg/L	0.020	-	1.08	-	-	-			0.811
Oil and Grease, Total	mg/L	5.0	-	<5.0	-	-	-	-	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	Not Acutely Toxic	-	-	-	-	-	Not Acutely Toxic

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.2.13: Water Quality Results for Water Licence Monitoring Location - MP-Q1-01

Analyte	Sample ID			MP-Q1-01	MP-Q1-0103	MP-Q1-01	MP-Q1-01	MP-Q1-01	MP-Q1-0101	MP-Q1-01
	ALS Laboratory Sample ID			L2614208-1	L2614208-2	L2617707-1	L2620706-1	L2623229-3	L2623229-4	L2626311-5
	Sample Date & Time			2021-07-13 13:40	2021-07-13 13:40	2021-07-20 7:55	2021-07-27 13:40	2021-08-03 10:35	2021-08-03 10:35	2021-08-10 10:20
	QA/QC Sample Type			N/A	Travel Blank	N/A	N/A	N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0	-	-	-	-	-	195	196	-
pH	pH units	0.10	6.0 - 9.5	7.86	6.06	7.97	7.82	7.97	8.00	7.97
Total Suspended Solids	mg/L	1.0/2.0	Grab 30, Average 15	<2.0	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10/13/20	-	101	17	133	115	72	71	112
Turbidity	NTU	0.10	-	3.88	<0.10	2.52	2.47	1.96	2.11	4.81
Ammonia, Total (as N)	mg/L	0.010	-	-	-	-	-	0.012	0.010	-
Nitrate (as N)	mg/L	0.020	-	-	-	-	-	0.544	0.547	-
Oil and Grease, Total	mg/L	5.0	-	-	-	-	-	<5.0	<5.0	-
	-	-	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-	-	-	-	-	-

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.
² Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).
³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.2.13: Water Quality Results for Water Licence Monitoring Location - MP-Q1-01

Analyte	Sample ID			MP-Q1-01	MP-Q1-01
	ALS Laboratory Sample ID			L2627807-6	L2648053-8
	Sample Date & Time			2021-08-15 11:10	2021-10-06 7:45
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
Conductivity	umhos/cm	1.0	-	-	184
pH	pH units	0.10	6.0 - 9.5	8.02	7.92
Total Suspended Solids	mg/L	1.0/2.0	Grab 30, Average 15	<2.0	<2.0
Total Dissolved Solids	mg/L	10/13/20	-	109	138
Turbidity	NTU	0.10	-	4.08	10.6
Ammonia, Total (as N)	mg/L	0.010	-	-	0.010
Nitrate (as N)	mg/L	0.020	-	-	1.09
Oil and Grease, Total	mg/L	5.0	-	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.
² Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).
³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.2.14: Water Quality Results for Water Licence Monitoring Location - MP-Q1-02

Analyte	Sample ID			MP-Q1-02	MP-Q1-02	MP-Q1-02	MP-Q1-02	MP-Q1-02	MP-Q1-02	MP-Q1-02
	ALS Laboratory Sample ID			L2600575-6	L2602404-2	L2606493-1	L2606493-2	L2608772-5	L2611804-6	L2614208-6
	Sample Date & Time			2021-06-08 10:15	2021-06-15 10:10	2021-06-24 8:45	2021-06-24 8:45	2021-06-29 9:10	2021-07-06 10:30	2021-07-13 17:10
	QA/QC Sample Type			N/A	N/A	N/A	Field Duplicate	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0	-	-	237	-	-	-	336	-
pH	pH units	0.10	6.0 - 9.5	7.92	8.12	8.10	8.12	8.08	8.02	8.01
Total Suspended Solids ²	mg/L	1.0/2.0/5.0	Grab 30, Average 15	50.0	990.0	121.0	134.0	360.0	21.6	327.0
Total Dissolved Solids	mg/L	10/20	-	178	251	210	210	235	279	257
Turbidity	NTU	0.10	-	80.9	1,010	133	152	239	34.7	241
Ammonia, Total (as N)	mg/L	0.01/0.05/0.010	-	-	1.17	-	-	-	1.62	-
Nitrate (as N)	mg/L	0.020	-	-	4.49	-	-	-	9.21	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	-	-	-	<5.0	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{3,4}	N/A	-	Not Acutely Toxic	-	-	-	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for June, July, August and exceeded maximum average TSS concentration discharge limits.

³ Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

⁴ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.2.14: Water Quality Results for Water Licence Monitoring Location - MP-Q1-02

Analyte	Sample ID			MP-Q1-02	MP-Q1-02	MP-Q1-02	MP-Q1-02	MP-Q1-02	MP-Q1-02	MP-Q1-02
	ALS Laboratory Sample ID			L2617707-6	L2620706-2	L2623229-1	L2626311-4	L2627807-7	L2630604-6	L2634765-6
	Sample Date & Time			2021-07-22 15:50	2021-07-27 14:00	2021-08-03 9:30	2021-08-10 9:45	2021-08-15 8:15	2021-08-24 8:35	2021-09-01 8:00
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0	-	-	-	514	-	-	-	558
pH	pH units	0.10	6.0 - 9.5	8.12	8.05	8.02	8.04	8.02	8.12	7.98
Total Suspended Solids ²	mg/L	1.0/2.0/5.0	Grab 30, Average 15	8.9	5.1	8.2	3.4	21.7	36.5	<2.0
Total Dissolved Solids	mg/L	10/20	-	292	286	336	320	406	292	336
Turbidity	NTU	0.10	-	9.83	8.29	9.00	6.39	19.2	22.7	2.29
Ammonia, Total (as N)	mg/L	0.01/0.05/0.010	-	-	-	0.967	-	-	-	0.010
Nitrate (as N)	mg/L	0.020	-	-	-	13.1	-	-	-	5.32
Oil and Grease, Total	mg/L	5.0	-	-	-	<5.0	-	-	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{3,4}	N/A	-	Not Acutely Toxic	-	-	Not Acutely Toxic	-	-	-	Not Acutely Toxic

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for June, July, August and exceeded maximum average TSS concentration discharge limits.

³ Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

⁴ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.2.14: Water Quality Results for Water Licence Monitoring Location - MP-Q1-02

Analyte	Sample ID			MP-Q1-02	MP-Q1-02
	ALS Laboratory Sample ID			L2637047-6	L2648053-6
	Sample Date & Time			2021-09-07 15:10	2021-10-06 7:20
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
Conductivity	umhos/cm	1.0	-	-	345
pH	pH units	0.10	6.0 - 9.5	7.76	8.01
Total Suspended Solids ²	mg/L	1.0/2.0/5.0	Grab 30, Average 15	<2.0	23.9
Total Dissolved Solids	mg/L	10/20	-	300	235
Turbidity	NTU	0.10	-	2.16	42.0
Ammonia, Total (as N)	mg/L	0.01/0.05/0.010	-	-	0.162
Nitrate (as N)	mg/L	0.020	-	-	3.13
Oil and Grease, Total	mg/L	5.0	-	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{3,4}	N/A	-	Not Acutely Toxic	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for June, July, August and exceeded maximum average TSS concentration discharge limits.

³ Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

⁴ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.1: Water Quality Results for Water Licence Monitoring Location - MS-01

Analyte	Sample ID			MS-01	MS-0101	MS-01	MS-01	MS-01	MS-01	MS-01
	ALS Laboratory Sample ID			L2546495-1	L2546495-3	L2558678-1	L2564297-1	L2579165-1	L2588104-1	L2603176-1
	Sample Date & Time			2021-01-06 15:00	2021-01-06 15:00	2021-02-16 15:00	2021-03-04 15:00	2021-04-20 15:00	2021-05-12 15:00	2021-06-16 14:45
	QA/QC Sample Type			N/A	Field Duplicate	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
pH	pH units	0.10	6.0 - 9.5	8.02	7.99	7.57	7.51	7.59	8.10	7.47
Total Suspended Solids	mg/L	1.0/2.0/3.0	35	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<2.0
Ammonia, Total (as N)	mg/L	0.010/0.020	4	2.19	2.21	0.399	0.589	1.79	0.047	0.129
Total Kjeldahl Nitrogen	mg/L	0.050/0.50	-	8.30	7.70	0.830	2.40	2.24	1.01	0.560
Phosphorus, Total	mg/L	0.0030/0.0060	4	1.05	1.07	0.621	0.77	1.8	1.36	1.29
Fecal Coliforms	CFU/100 mL	-	1,000	0	0	0	0	0	0	0
BOD	mg/L	2.0	30	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Oil and Grease, Total	mg/L	2.0/5.0	-	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-	-	Not Acutely Toxic	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 4.

² Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.1: Water Quality Results for Water Licence Monitoring Location - MS-01

Analyte	Sample ID			MS-01	MS-01	MS-0102	MS-01	MS-0103	MS-01	MS-01
	ALS Laboratory Sample ID			L2614654-1	L2623232-1	L2623232-3	L2637974-1	L2637974-3	L2649043-1	L2662051-1
	Sample Date & Time			2021-07-14 14:45	2021-08-04 14:45	2021-08-04 14:45	2021-09-08 14:45	2021-09-08 14:45	2021-10-06 14:45	2021-11-10 14:45
	QA/QC Sample Type			N/A	N/A	Field Blank	N/A	Travel Blank	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
pH	pH units	0.10	6.0 - 9.5	7.60	7.63	5.50	7.56	6.48	7.68	7.16
Total Suspended Solids	mg/L	1.0/2.0/3.0	35	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ammonia, Total (as N)	mg/L	0.010/0.020	4	0.076	0.099	0.021	0.283	0.014	0.053	0.096
Total Kjeldahl Nitrogen	mg/L	0.050/0.50	-	0.720	4.10	<0.050	1.59	0.065	<0.050	0.560
Phosphorus, Total	mg/L	0.0030/0.0060	4	1.29	1.08	0.0064	2.66	<0.0030	0.728	1.18
Fecal Coliforms	CFU/100 mL	-	1,000	0	0	0	0	0	0	0
BOD	mg/L	2.0	30	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Oil and Grease, Total	mg/L	2.0/5.0	-	7.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	-	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-	-	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 4.

² Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.1: Water Quality Results for Water Licence Monitoring Location - MS-01

Analyte	Sample ID			MS-0101	MS-01
	ALS Laboratory Sample ID			L2662051-3	L2671710-1
	Sample Date & Time			2021-11-10 14:45	2021-12-09 14:45
	QA/QC Sample Type			Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹		
pH	pH units	0.10	6.0 - 9.5	7.06	7.27
Total Suspended Solids	mg/L	1.0/2.0/3.0	35	1.7	<1.0
Ammonia, Total (as N)	mg/L	0.010/0.020	4	0.101	0.092
Total Kjeldahl Nitrogen	mg/L	0.050/0.50	-	1.74	0.660
Phosphorus, Total	mg/L	0.0030/0.0060	4	1.17	1.09
Fecal Coliforms	CFU/100 mL	-	1,000	0	0
BOD	mg/L	2.0	30	<2.0	<2.0
Oil and Grease, Total	mg/L	2.0/5.0	-	<5.0	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 4.

² Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.2: Water Quality Results for Water Licence Monitoring Location - MS-01B

Analyte	Sample ID			MS-01B	MS-01B01	MS-01B	MS-01B	MS-01B	MS-01B
	ALS Laboratory Sample ID			L2546497-1	L2546497-3	L2558651-1	L2564299-1	L2579205-1	L2588098-1
	Sample Date & Time			2021-01-06 15:00	2021-01-06 15:00	2021-02-16 15:00	2021-03-04 15:00	2021-04-20 15:00	2021-05-12 15:00
	QA/QC Sample Type			N/A	Field Duplicate	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹						
pH	pH units	0.10	6.0 - 9.5	8.58	8.67	8.03	7.16	6.91	8.18
Total Suspended Solids	mg/L	1.0/3.0	35	4.0	3.0	<3.0	4.2	5.3	19.8
Ammonia, Total (as N)	mg/L	0.010	4	0.299	0.302	0.188	0.1	0.124	0.147
Total Kjeldahl Nitrogen	mg/L	0.050/0.50	-	4.30	4.70	0.810	1.2	1.42	0.860
Phosphorus, Total	mg/L	0.0030/0.0060/0.0090	4	0.800	0.800	1.17	1.2	0.389	0.479
Fecal Coliforms	CFU/100 mL	-	1,000	0	0	0	0	0	0
BOD	mg/L	2.0	30	2.0	2.1	<2.0	<2.0	<2.0	3.3
Oil and Grease, Total	mg/L	2.0/5.0	-	<5.0	<5.0	<2.0	<2.0	<2.0	<5.0
	-	-	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-	-	Not Acutely Toxic	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 4.

²Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

³Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.2: Water Quality Results for Water Licence Monitoring Location - MS-01B

Analyte	Sample ID			MS-01B	MS-01B	MS-01B	MS-01B02	MS-01B	MS-01B03
	ALS Laboratory Sample ID			L2603172-1	L2614658-1	L2623234-1	L2623234-3	L2637955-1	L2637955-3
	Sample Date & Time			2021-06-16 15:00	2021-07-14 15:00	2021-08-04 15:00	2021-08-04 15:00	2021-09-08 15:00	2021-09-08 15:00
	QA/QC Sample Type			N/A	N/A	N/A	Field Blank	N/A	Travel Blank
	Units	LOR	Water Licence Criteria ¹						
pH	pH units	0.10	6.0 - 9.5	8.15	7.87	7.98	6.54	8.37	6.31
Total Suspended Solids	mg/L	1.0/3.0	35	<2.0	2.2	6.3	<1.0	2.9	<1.0
Ammonia, Total (as N)	mg/L	0.010	4	0.114	0.207	0.374	<0.010	0.187	<0.010
Total Kjeldahl Nitrogen	mg/L	0.050/0.50	-	0.850	0.230	1.80	<0.050	1.48	0.085
Phosphorus, Total	mg/L	0.0030/0.0060/0.0090	4	1.46	0.444	2.38	0.0098	1.01	<0.0030
Fecal Coliforms	CFU/100 mL	-	1,000	-	0	30	0	0	0
BOD	mg/L	2.0	30	<2.0	<2.0	2.5	<2.0	<2.0	<2.0
Oil and Grease, Total	mg/L	2.0/5.0	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	-
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 4.

²Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

³Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.2: Water Quality Results for Water Licence Monitoring Location - MS-01B

Analyte	Sample ID			MS-01B	MS-01B	MS-01B01	MS-01B
	ALS Laboratory Sample ID			L2649046-1	L2661895-1	L2661895-3	L2671716-1
	Sample Date & Time			2021-10-06 14:45	2021-11-10 14:45	2021-11-10 14:45	2021-12-09 15:00
	QA/QC Sample Type			N/A	N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹				
pH	pH units	0.10	6.0 - 9.5	7.88	8.15	8.08	7.58
Total Suspended Solids	mg/L	1.0/3.0	35	2.3	1.4	<1.0	2.2
Ammonia, Total (as N)	mg/L	0.010	4	0.414	0.188	0.189	0.227
Total Kjeldahl Nitrogen	mg/L	0.050/0.50	-	1.15	0.760	0.230	0.570
Phosphorus, Total	mg/L	0.0030/0.0060/0.0090	4	1.05	0.915	0.904	1.19
Fecal Coliforms	CFU/100 mL	-	1,000	3	0	0	0
BOD	mg/L	2.0	30	<2.0	<2.0	<2.0	<2.0
Oil and Grease, Total	mg/L	2.0/5.0	-	<5.0	<5.0	<5.0	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 4.

²Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

³Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.3: Water Quality Results for Water Licence Monitoring Location - MS-03B

Analyte	Sample ID			MS-03B	MS-03B
	ALS Laboratory Sample ID			L2625152-1	L2627334-1
	Sample Date & Time			2021-08-07 12:55	2021-08-15 9:50
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
pH	pH units	0.10	6.0 - 9.5	7.94	8.20
Total Suspended Solids	mg/L	1.0	-	<1.0	<2.0
Total Dissolved Solids	mg/L	20	-	234	426
Turbidity	NTU	0.10	-	1.86	6.70
Lead (Pb)-Total	mg/L	0.00050	0.001	<0.00050	0.00062
Benzene	mg/L	0.00050	0.370	<0.00050	<0.00050
Ethylbenzene	mg/L	0.00050	0.090	<0.00050	<0.00050
Toluene	mg/L	0.00050	0.002	<0.00050	<0.00050
F1 (C6-C10)	mg/L	0.025	-	<0.025	<0.025
F2 (C10-C16)	mg/L	0.10	-	<0.10	<0.10
F3 (C16-C34)	mg/L	0.25	-	<0.25	<0.25
F4 (C34-C50)	mg/L	0.25	-	<0.25	<0.25
Total Hydrocarbons (C6-C50)	mg/L	0.37	-	<0.37	<0.37
Oil and Grease, Total	mg/L	5.0	15	<5.0	<5.0
	-		No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 8: Effluent Quality Discharge Limits for the Bulk Fuel Storage Facilities.

Table 7.3.4: Water Quality Results for Water Licence Monitoring Location - MS-06

Analyte	Sample ID				MS-06	MS-06	MS-06	MS-0603	MS-06
	ALS Laboratory Sample ID				L2595329-1	L2595285-1	L2611695-1	L2611695-2	L2622149-1
	Sample Date & Time				2021-05-31 14:00	2021-06-01 12:00	2021-07-08 9:30	2021-07-08 9:30	2021-08-04 11:10
	QA/QC Sample Type				N/A	N/A	N/A	Travel Blank	N/A
	Units	LOR	Water Licence Criteria ¹	MDMER Criteria ²					
Conductivity	umhos/cm	1.0	-	-	-	-	1050	<1.0	-
Hardness (as CaCO3)	mg/L	0.50	-	-	120	84.1	536	<0.50	1,020
pH	pH units	0.10/0.50	6.0 - 9.5	6.0 - 9.5	7.46	7.41	7.69	5.74	7.54
Total Suspended Solids	mg/L	1.0/2.0	15	30	2.3	1.4	<2.0	<2.0	3.5
Total Dissolved Solids	mg/L	10/20	-	-	595	261	800	<10	744
Turbidity	NTU	0.10/10	-	-	2.15	7.68	10.6	<0.10	19.2
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	-	93.7	16.1	39.1	<1.0	32
Ammonia, Total (as N)	mg/L	0.010/0.10/0.050/0.0050	-	-	0.030	0.019	2.66	<0.010	2.31
Chloride (Cl)	mg/L	2.5/0.50	-	-	39.6	10.7	29.2	<0.50	24.9
Fluoride (F)	mg/L	0.10/0.020	-	-	0.035	0.045	<0.10	<0.020	0.071
Nitrate (as N)	mg/L	0.10/0.020	-	-	50.3	4.89	11.9	<0.020	11.3
Total Kjeldahl Nitrogen	mg/L	0.050	-	-	0.620	0.520	3.71	<0.050	2.310
Phosphorus, Total	mg/L	0.0030	-	-	0.229	0.388	<0.0030	<0.0030	0.0086
Sulfate (SO4)	mg/L	1.5/0.30	-	-	109	136	489	<0.30	412
Dissolved Organic Carbon	mg/L	0.50	-	-	8.39	9.23	3.31	0.60	5.16
Total Organic Carbon	mg/L	0.50	-	-	9.00	7.49	3.73	1.01	2.72
Aluminum (Al)-Total	mg/L	0.050/0.0050	-	-	0.141	0.160	<0.050	<0.0050	0.026
Antimony (Sb)-Total	mg/L	0.0010/0.00010	-	-	0.00039	0.00046	<0.0010	<0.00010	<0.00010
Arsenic (As)-Total	mg/L	0.0010/0.00010	0.5	0.60	0.00030	0.00036	<0.0010	<0.00010	0.00014
Barium (Ba)-Total	mg/L	0.0010/0.00010	-	-	0.00527	0.00279	0.0134	<0.00010	0.01310
Beryllium (Be)-Total	mg/L	0.0010/0.00010	-	-	<0.00010	<0.00010	<0.0010	<0.00010	<0.00010
Bismuth (Bi)-Total	mg/L	0.00050/0.000050	-	-	0.00165	0.00131	<0.00050	<0.000050	<0.000050
Boron (B)-Total	mg/L	0.10/0.010	-	-	0.306	0.276	<0.10	<0.010	0.049
Cadmium (Cd)-Total	mg/L	0.000050/0.0000050	-	-	0.0000803	0.0000998	<0.000050	<0.0000050	0.000013
Calcium (Ca)-Total	mg/L	0.50/0.050	-	-	23.8	15.8	48.2	<0.050	45.2
Cesium (Cs)-Total	mg/L	0.00010/0.000010	-	-	0.000057	0.000052	<0.00010	<0.000010	0.000038
Chromium (Cr)-Total	mg/L	0.0050/0.00050	-	-	<0.00050	<0.00050	<0.0050	<0.00050	<0.00050
Cobalt (Co)-Total	mg/L	0.0010/0.00010	-	-	0.00072	0.00050	0.0033	<0.00010	0.00211
Copper (Cu)-Total	mg/L	0.0050/0.00050	0.3	0.60	0.0146	0.0126	<0.0050	<0.00050	0.00727
Iron (Fe)-Total	mg/L	0.10/0.010	-	-	0.128	0.078	<0.10	<0.010	0.077
Lead (Pb)-Total	mg/L	0.00050/0.000050	0.2	0.20	0.000151	0.000129	<0.00050	<0.000050	0.000553
Lithium (Li)-Total	mg/L	0.010/0.0010	-	-	0.0073	0.0054	0.021	<0.0010	0.0217
Magnesium (Mg)-Total	mg/L	0.050/0.0050	-	-	15.1	11.1	97.6	0.0112	95.1
Manganese (Mn)-Total	mg/L	0.0050/0.00050	-	-	0.0665	0.00804	1.70	<0.00050	1.30000
Mercury (Hg)-Total	mg/L	0.0000050	-	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.00050/0.000050	-	-	0.00115	0.0021	0.00395	<0.000050	0.00266
Nickel (Ni)-Total	mg/L	0.0050/0.00050	0.5	1.00	0.00335	0.00357	0.0082	<0.00050	0.0053
Phosphorus (P)-Total	mg/L	0.50/0.050	-	-	0.283	0.432	<0.50	<0.050	<0.050
Potassium (K)-Total	mg/L	0.50/0.050	-	-	20.8	16.9	10.5	<0.050	9.9
Rubidium (Rb)-Total	mg/L	0.0020/0.00020	-	-	0.0202	0.0176	0.0118	<0.00020	0.0126
Selenium (Se)-Total	mg/L	0.00050/0.000050	-	-	0.000122	0.000136	0.00157	<0.000050	0.001690
Silicon (Si)-Total	mg/L	1.0/0.10	-	-	1.10	0.89	1.1	<0.10	0.81
Silver (Ag)-Total	mg/L	0.00050/0.000050	-	-	<0.000050	<0.000050	<0.00050	<0.000050	<0.000050
Sodium (Na)-Total	mg/L	0.50/0.050	-	-	146	149	11.4	<0.050	11
Strontium (Sr)-Total	mg/L	0.010/0.0010	-	-	0.0270	0.0153	0.103	<0.0010	0.0997
Sulfur (S)-Total	mg/L	5.0/0.50	-	-	46.2	35.9	150	<0.50	154
Tellurium (Te)-Total	mg/L	0.0020/0.00020	-	-	<0.00020	<0.00020	<0.0020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L	0.00010/0.000010	-	-	<0.000010	<0.000010	<0.00010	<0.000010	0.000071
Thorium (Th)-Total	mg/L	0.0010/0.00010	-	-	<0.00010	<0.00010	<0.0010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L	0.0010/0.00010	-	-	0.00015	0.00014	<0.0010	<0.00010	<0.00010
Titanium (Ti)-Total	mg/L	0.0010/0.0020/0.0030/0.00030	-	-	0.00131	<0.00050	<0.0030	<0.00030	0.00031
Tungsten (W)-Total	mg/L	0.0010/0.00010	-	-	0.00016	0.00026	<0.0010	<0.00010	<0.00010
Uranium (U)-Total	mg/L	0.00010/0.000010	-	-	0.000229	0.000394	0.00525	<0.000010	0.00231
Vanadium (V)-Total	mg/L	0.0050/0.00050	-	-	<0.00050	<0.00050	<0.0050	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L	0.030/0.0030	0.5	1.00	0.0875	0.0721	<0.030	<0.0030	0.0376
Zirconium (Zr)-Total	mg/L	0.0020/0.00020	-	-	<0.00020	<0.00020	<0.0020	<0.00020	<0.00020
Aluminum (Al)-Dissolved	mg/L	0.0050	-	-	0.0516	0.126	<0.0050	<0.0050	<0.0050
Antimony (Sb)-Dissolved	mg/L	0.00010	-	-	0.00040	0.00052	0.00014	<0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L	0.00010	-	-	0.00032	0.00035	0.00012	<0.00010	0.00014
Barium (Ba)-Dissolved	mg/L	0.00010	-	-	0.00519	0.00288	0.0136	<0.00010	0.01260
Beryllium (Be)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L	0.000050	-	-	0.00162	0.00129	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L	0.010	-	-	0.271	0.255	0.047	<0.010	0.048
Cadmium (Cd)-Dissolved	mg/L	0.0000050	-	-	0.0000834	0.0000972	0.0000291	<0.0000050	0.0000089
Calcium (Ca)-Dissolved	mg/L	0.050	-	-	22.8	15.4	50.6	<0.050	46.1
Cesium (Cs)-Dissolved	mg/L	0.000010	-	-	0.000057	0.000057	0.000050	<0.000010	0.000039
Chromium (Cr)-Dissolved	mg/L	0.00050	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Dissolved	mg/L	0.00010	-	-	0.00064	0.00047	0.00297	<0.00010	0.00185
Copper (Cu)-Dissolved	mg/L	0.00020	-	-	0.0142	0.0122	0.00045	<0.00020	0.00047
Iron (Fe)-Dissolved	mg/L	0.010	-	-	0.072	0.063	<0.010	<0.010	<0.010
Lead (Pb)-Dissolved	mg/L	0.000050	-	-	0.000090	0.000110	<0.000050	<0.000050	<0.000050
Lithium (Li)-Dissolved	mg/L	0.0010	-	-	0.0066	0.0049	0.0252	<0.0010	0.0237
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	-	15.4	11.1	99.4	<0.0050	94.9
Manganese (Mn)-Dissolved	mg/L	0.00050	-	-	0.0685	0.0071	1.67	<0.00050	1.2600
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050	-	-	0.00109	0.0021	0.00419	<0.000050	0.00264
Nickel (Ni)-Dissolved	mg/L	0.00050	-	-	0.00322	0.00351	0.00696	<0.00050	0.00481
Phosphorus (P)-Dissolved	mg/L	0.050	-	-	0.238	0.466	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	mg/L	0.050	-	-	21.2	17.2	10.9	<0.050	10.0
Rubidium (Rb)-Dissolved	mg/L	0.00020	-	-	0.0204	0.0172	0.0129	<0.00020	0.0125
Selenium (Se)-Dissolved	mg/L	0.000050	-	-	0.000126	0.000146	0.00212	<0.000050	0.001700
Silicon (Si)-Dissolved	mg/L	0.050	-	-	0.992	0.841	1.14	<0.050	0.769
Silver (Ag)-Dissolved	mg/L	0.000050	-	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Sodium (Na)-Dissolved	mg/L	0.050	-	-	123	138	11.7	<0.050	11
Strontium (Sr)-Dissolved	mg/L	0.0010	-	-	0.0267	0.0152	0.112	<0.0010	0.0994
Sulfur (S)-Dissolved	mg/L	0.50	-	-	44.7	36.2	167	<0.50	153
Tellurium (Te)-Dissolved	mg/L	0.00020	-	-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L	0.000010	-	-	0.000010	<0.000010	0.000090	<0.000010	0.000070
Thorium (Th)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L	0.00010	-	-	<0.00010	0.00014	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L	0.00030	-	-	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten (W)-Dissolved	mg/L	0.00010	-	-	0.00016	0.00026	<0.00010	<0.00010	<0.00010
Uranium (U)-Dissolved	mg/L	0.000010	-	-	0.000205	0.000371	0.00550	<0.000010	0.00236
Vanadium (V)-Dissolved	mg/L	0.00050	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L	0.0010	-	-	0.0913	0.0765	0.0071	<0.0010	0.0168
Zirconium (Zr)-Dissolved	mg/L	0.00020	-	-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Ra-226	Bq/L	0.0067/0.0054/0.0058/0.0033/ 0.0031/0.0064	-	1.11	-	<0.0054	0.013	<0.0033	<0.0054
Oil and Grease, Total	mg/L	2	-	-	-	-	-	-	-
Acute Toxicity ³	-	-	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen
	-	-	Not acutely toxic	Not Acutely Toxic	-	Not Acutely Toxic	Not Acutely Toxic	-	Not Acutely Toxic

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (ZAM-MRY1325 - Amend. 1) - Table 10: Effluent Quality Discharge Limits for Open Pit, Stockpiles, and Sedimentation Ponds.
² Metal and Diamond Mining Effluent Regulations (MDMER) June 10, 2021, Schedule 4, Table 2.
³ Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13). Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.4: Water Quality Results for Water Licence Monitoring Location - MS-06

Analyte	Sample ID				MS-06	MS-06	MS-06
	ALS Laboratory Sample ID				L2624310-1	L2634291-1	L2638230-1
	Sample Date & Time				2021-08-08 11:35	2021-09-01 11:25	2021-09-10 10:55
	QA/QC Sample Type				N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	MDMER Criteria ²			
Conductivity	umhos/cm	1.0	-	-	-	-	-
Hardness (as CaCO3)	mg/L	0.50	-	-	507	523	494
pH	pH units	0.10/0.50	6.0 - 9.5	6.0 - 9.5	7.69	7.49	7.59
Total Suspended Solids	mg/L	1.0/2.0	15	30	2.8	4.0	2.6
Total Dissolved Solids	mg/L	10/20	-	-	734	782	808
Turbidity	NTU	0.10/10	-	-	11	8.77	6.4
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	-	36.3	43.1	27.8
Ammonia, Total (as N)	mg/L	0.010/0.10/0.050/0.0050	-	-	1.97	1.17	1.04
Chloride (Cl)	mg/L	2.5/0.50	-	-	25.4	25.2	25.4
Fluoride (F)	mg/L	0.10/0.020	-	-	0.07	0.059	<0.10
Nitrate (as N)	mg/L	0.10/0.020	-	-	11.5	12.6	12.7
Total Kjeldahl Nitrogen	mg/L	0.050	-	-	2.61	1.24	1.55
Phosphorus, Total	mg/L	0.0030	-	-	0.0031	<0.0030	0.005
Sulfate (SO4)	mg/L	1.5/0.30	-	-	420	434	448
Dissolved Organic Carbon	mg/L	0.50	-	-	3.72	3.23	2.4
Total Organic Carbon	mg/L	0.50	-	-	2.82	3.05	2.47
Aluminum (Al)-Total	mg/L	0.050/0.0050	-	-	0.0526	0.0360	0.0257
Antimony (Sb)-Total	mg/L	0.0010/0.00010	-	-	0.00012	<0.00010	<0.00010
Arsenic (As)-Total	mg/L	0.0010/0.00010	0.5	0.60	0.00018	0.00017	0.00033
Barium (Ba)-Total	mg/L	0.0010/0.00010	-	-	0.0131	0.0120	0.0115
Beryllium (Be)-Total	mg/L	0.0010/0.00010	-	-	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Total	mg/L	0.00050/0.000050	-	-	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L	0.10/0.010	-	-	0.056	0.050	0.050
Cadmium (Cd)-Total	mg/L	0.000050/0.0000050	-	-	0.000006	0.0000120	0.0000072
Calcium (Ca)-Total	mg/L	0.50/0.050	-	-	49.1	46.6	50.0
Cesium (Cs)-Total	mg/L	0.00010/0.000010	-	-	0.000041	0.000030	0.000027
Chromium (Cr)-Total	mg/L	0.0050/0.00050	-	-	<0.00050	<0.00050	<0.00010
Cobalt (Co)-Total	mg/L	0.0010/0.00010	-	-	0.00203	0.00198	0.00185
Copper (Cu)-Total	mg/L	0.0050/0.00050	0.3	0.60	0.00055	0.00510	<0.00050
Iron (Fe)-Total	mg/L	0.10/0.010	-	-	0.159	0.078	0.040
Lead (Pb)-Total	mg/L	0.00050/0.000050	0.2	0.20	0.000089	0.000471	<0.000050
Lithium (Li)-Total	mg/L	0.010/0.0010	-	-	0.0261	0.0214	0.0238
Magnesium (Mg)-Total	mg/L	0.050/0.0050	-	-	95.5	98.0	92.7
Manganese (Mn)-Total	mg/L	0.0050/0.00050	-	-	1.3	1.04	0.987
Mercury (Hg)-Total	mg/L	0.0000050	-	-	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.00050/0.000050	-	-	0.00265	0.00193	0.00258
Nickel (Ni)-Total	mg/L	0.0050/0.00050	0.5	1.00	0.00496	0.00463	0.00397
Phosphorus (P)-Total	mg/L	0.50/0.050	-	-	<0.050	<0.050	<0.050
Potassium (K)-Total	mg/L	0.50/0.050	-	-	10.1	9.25	10.1
Rubidium (Rb)-Total	mg/L	0.0020/0.00020	-	-	0.0135	0.0120	0.0127
Selenium (Se)-Total	mg/L	0.00050/0.000050	-	-	0.00179	0.00186	0.00172
Silicon (Si)-Total	mg/L	1.0/0.10	-	-	0.81	0.40	0.34
Silver (Ag)-Total	mg/L	0.00050/0.000050	-	-	<0.000050	<0.000050	<0.000010
Sodium (Na)-Total	mg/L	0.50/0.050	-	-	10.6	10.2	10.3
Strontium (Sr)-Total	mg/L	0.010/0.0010	-	-	0.104	0.102	0.104
Sulfur (S)-Total	mg/L	5.0/0.50	-	-	153	169	160
Tellurium (Te)-Total	mg/L	0.0020/0.00020	-	-	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L	0.00010/0.000010	-	-	0.000071	0.000064	0.000060
Thorium (Th)-Total	mg/L	0.0010/0.00010	-	-	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L	0.0010/0.00010	-	-	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total	mg/L	0.0010/0.0020/0.0030/0.00030	-	-	<0.0010	<0.0020	0.00069
Tungsten (W)-Total	mg/L	0.0010/0.00010	-	-	<0.00010	<0.00010	<0.00010
Uranium (U)-Total	mg/L	0.00010/0.000010	-	-	0.00241	0.00167	0.00159
Vanadium (V)-Total	mg/L	0.0050/0.00050	-	-	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L	0.030/0.0030	0.5	1.00	0.0198	0.0512	0.0052
Zirconium (Zr)-Total	mg/L	0.0020/0.00020	-	-	<0.00020	<0.00020	<0.00020
Aluminum (Al)-Dissolved	mg/L	0.0050	-	-	0.0078	0.0154	0.0065
Antimony (Sb)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L	0.00010	-	-	0.00015	0.00016	0.00020
Barium (Ba)-Dissolved	mg/L	0.00010	-	-	0.0126	0.0117	0.0109
Beryllium (Be)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L	0.000050	-	-	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L	0.010	-	-	0.053	0.052	0.048
Cadmium (Cd)-Dissolved	mg/L	0.0000050	-	-	0.0000052	0.0000151	0.0000064
Calcium (Ca)-Dissolved	mg/L	0.050	-	-	48.5	49.2	49.2
Cesium (Cs)-Dissolved	mg/L	0.000010	-	-	0.000039	0.000028	0.000024
Chromium (Cr)-Dissolved	mg/L	0.00050	-	-	<0.00050	<0.00050	<0.00010
Cobalt (Co)-Dissolved	mg/L	0.00010	-	-	0.00162	0.00173	0.00133
Copper (Cu)-Dissolved	mg/L	0.00020	-	-	0.00033	0.00414	0.00037
Iron (Fe)-Dissolved	mg/L	0.010	-	-	<0.010	0.027	<0.010
Lead (Pb)-Dissolved	mg/L	0.000050	-	-	<0.000050	0.000391	<0.000050
Lithium (Li)-Dissolved	mg/L	0.0010	-	-	0.0265	0.0249	0.0242
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	-	93.7	97.2	90.1
Manganese (Mn)-Dissolved	mg/L	0.00050	-	-	1.21	1.00	0.888
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	-	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050	-	-	0.00271	0.00196	0.00199
Nickel (Ni)-Dissolved	mg/L	0.00050	-	-	0.00448	0.00434	0.00376
Phosphorus (P)-Dissolved	mg/L	0.050	-	-	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	mg/L	0.050	-	-	10	9.70	9.62
Rubidium (Rb)-Dissolved	mg/L	0.00020	-	-	0.013	0.0124	0.0124
Selenium (Se)-Dissolved	mg/L	0.000050	-	-	0.00198	0.00180	0.00164
Silicon (Si)-Dissolved	mg/L	0.050	-	-	0.704	0.367	0.266
Silver (Ag)-Dissolved	mg/L	0.000050	-	-	<0.000050	<0.000050	<0.000010
Sodium (Na)-Dissolved	mg/L	0.050	-	-	10.3	10.2	10.1
Strontium (Sr)-Dissolved	mg/L	0.0010	-	-	0.105	0.101	0.100
Sulfur (S)-Dissolved	mg/L	0.50	-	-	153	167	153
Tellurium (Te)-Dissolved	mg/L	0.00020	-	-	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L	0.000010	-	-	0.000071	0.000064	0.000058
Thorium (Th)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L	0.00030	-	-	<0.00030	0.00033	<0.00030
Tungsten (W)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010
Uranium (U)-Dissolved	mg/L	0.000010	-	-	0.00231	0.00168	0.00157
Vanadium (V)-Dissolved	mg/L	0.00050	-	-	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L	0.0010	-	-	0.0197	0.129	0.0043
Zirconium (Zr)-Dissolved	mg/L	0.00020	-	-	<0.00020	<0.00020	<0.00020
Ra-226	Bq/L	0.0067/0.0054/0.0058/0.0033/ 0.0031/0.0064	-	1.11	0.0037	0.016	<0.0064
Oil and Grease, Total	mg/L	2	-	-	-	-	-
	-	-	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Toxicity ³	-	-	Not acutely toxic	Not Acutely Toxic	-	Not Acutely Toxic	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (ZAM-MRY1325 - Amend. 1) - Table 10: Effluent Quality Discharge Limits for Open Pit, Stockpiles, and Sedimentation Ponds.

² Metal and Daimond Mining Effluent Regulations (MDMER) June 10, 2021, Schedule 4, Table 2.

³ Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13). Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.5: Water Quality Results for Water Licence Monitoring Location - MS-06

Analyte	Sample ID				MS-07	MS-0702	MS-07
	ALS Laboratory Sample ID				L2611689-1	L2611689-2	L2628143-1
	Sample Date & Time				2021-07-08 11:45	2021-07-08 11:45	2021-08-17 14:10
	QA/QC Sample Type				N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹	MDMER Criteria ²			
Conductivity	umhos/cm	1.0	-	-	399	402	-
Hardness (as CaCO3)	mg/L	0.50	-	-	176	175	282
pH	pH units	0.10	6.0 - 9.5	6.0 - 9.5	7.56	7.58	8.11
Total Suspended Solids	mg/L	2.0	15	30	<2.0	<2.0	6.3
Total Dissolved Solids	mg/L	10	-	-	265	274	402
Turbidity	NTU	0.10	-	-	1.59	1.62	3.72
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	-	31.1	31.3	67.8
Ammonia, Total (as N)	mg/L	0.010	-	-	0.340	0.336	0.082
Chloride (Cl)	mg/L	0.50	-	-	3.54	3.55	8.82
Fluoride (F)	mg/L	0.020	-	-	0.117	0.116	0.125
Nitrate (as N)	mg/L	0.020	-	-	5.99	6.00	12.2
Total Kjeldahl Nitrogen	mg/L	0.050	-	-	0.860	0.910	0.630
Phosphorus, Total	mg/L	0.0030	-	-	<0.0030	<0.0030	0.0097
Sulfate (SO4)	mg/L	0.30	-	-	134	134	183
Dissolved Organic Carbon	mg/L	0.50	-	-	2.19	2.26	2.91
Total Organic Carbon	mg/L	0.50	-	-	2.42	2.50	3.93
Aluminum (Al)-Total	mg/L	0.0050	-	-	0.0435	0.0563	0.185
Antimony (Sb)-Total	mg/L	0.00010	-	-	0.00013	0.00013	<0.00010
Arsenic (As)-Total	mg/L	0.00010	0.50	0.60	<0.00010	<0.00010	0.00013
Barium (Ba)-Total	mg/L	0.00010	-	-	0.0153	0.0152	0.0219
Beryllium (Be)-Total	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Total	mg/L	0.000050	-	-	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L	0.010	-	-	0.016	0.017	0.026
Cadmium (Cd)-Total	mg/L	0.000050	-	-	0.0000233	0.0000210	0.0000203
Calcium (Ca)-Total	mg/L	0.050	-	-	24.8	25.0	47.4
Cesium (Cs)-Total	mg/L	0.000010	-	-	<0.000010	<0.000010	0.000022
Chromium (Cr)-Total	mg/L	0.00050	-	-	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total	mg/L	0.00010	-	-	0.00062	0.00062	0.00079
Copper (Cu)-Total	mg/L	0.00050	0.30	0.60	0.00090	0.00109	0.00128
Iron (Fe)-Total	mg/L	0.010	-	-	0.042	0.057	0.214
Lead (Pb)-Total	mg/L	0.000050	0.20	0.20	0.000071	0.000081	0.000234
Lithium (Li)-Total	mg/L	0.0010	-	-	0.0050	0.0050	0.006
Magnesium (Mg)-Total	mg/L	0.0050	-	-	28.0	28.2	39.7
Manganese (Mn)-Total	mg/L	0.00050	-	-	0.0421	0.0427	0.0319
Mercury (Hg)-Total	mg/L	0.0000050	-	-	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.000050	-	-	0.00729	0.00729	0.00985
Nickel (Ni)-Total	mg/L	0.00050	0.50	1.00	0.00061	0.00060	0.00086
Phosphorus (P)-Total	mg/L	0.050	-	-	<0.050	<0.050	<0.050
Potassium (K)-Total	mg/L	0.050	-	-	8.47	8.48	11.7
Rubidium (Rb)-Total	mg/L	0.00020	-	-	0.00345	0.00341	0.00481
Selenium (Se)-Total	mg/L	0.000050	-	-	0.00114	0.00121	0.00149
Silicon (Si)-Total	mg/L	0.10	-	-	1.07	1.11	1.69
Silver (Ag)-Total	mg/L	0.000050	-	-	<0.000050	<0.000050	<0.000050
Sodium (Na)-Total	mg/L	0.050	-	-	2.83	2.82	4.64
Strontium (Sr)-Total	mg/L	0.0010	-	-	0.0300	0.0299	0.0816
Sulfur (S)-Total	mg/L	0.50	-	-	45.9	46.5	65.6
Tellurium (Te)-Total	mg/L	0.00020	-	-	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L	0.000010	-	-	<0.000010	<0.000010	<0.000010
Thorium (Th)-Total	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total	mg/L	0.00030	-	-	0.00106	0.00184	0.00745
Tungsten (W)-Total	mg/L	0.00010	-	-	<0.00010	<0.00010	0.00014
Uranium (U)-Total	mg/L	0.000010	-	-	0.00236	0.00236	0.00631
Vanadium (V)-Total	mg/L	0.00050	-	-	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L	0.0030	0.50	1.00	<0.0030	<0.0030	<0.0030
Zirconium (Zr)-Total	mg/L	0.00020	-	-	<0.00020	<0.00020	<0.00020
Aluminum (Al)-Dissolved	mg/L	0.0050	-	-	0.0192	0.0189	0.168
Antimony (Sb)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	0.00013
Barium (Ba)-Dissolved	mg/L	0.00010	-	-	0.0155	0.0152	0.025
Beryllium (Be)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L	0.000050	-	-	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L	0.010	-	-	0.016	0.016	0.022
Cadmium (Cd)-Dissolved	mg/L	0.0000050	-	-	0.0000244	0.0000231	0.0000236
Calcium (Ca)-Dissolved	mg/L	0.050	-	-	25.7	25.7	46.3
Cesium (Cs)-Dissolved	mg/L	0.000010	-	-	<0.000010	<0.000010	0.000018
Chromium (Cr)-Dissolved	mg/L	0.00050	-	-	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Dissolved	mg/L	0.00010	-	-	0.00055	0.00055	0.00077
Copper (Cu)-Dissolved	mg/L	0.00020	-	-	0.00080	0.00064	0.00143
Iron (Fe)-Dissolved	mg/L	0.010	-	-	<0.010	<0.010	0.141
Lead (Pb)-Dissolved	mg/L	0.000050	-	-	<0.000050	<0.000050	0.000232
Lithium (Li)-Dissolved	mg/L	0.0010	-	-	0.0047	0.0048	0.0057
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	-	27.2	26.9	40.4
Manganese (Mn)-Dissolved	mg/L	0.00050	-	-	0.0372	0.0366	0.0331
Mercury (Hg)-Dissolved	mg/L	0.00000050	-	-	<0.00000050	<0.00000050	<0.00000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050	-	-	0.00736	0.00744	0.00967
Nickel (Ni)-Dissolved	mg/L	0.00050	-	-	<0.00050	<0.00050	0.00082
Phosphorus (P)-Dissolved	mg/L	0.050	-	-	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	mg/L	0.050	-	-	8.35	8.34	12.1
Rubidium (Rb)-Dissolved	mg/L	0.00020	-	-	0.00334	0.00348	0.0049
Selenium (Se)-Dissolved	mg/L	0.000050	-	-	0.00133	0.00131	0.00132
Silicon (Si)-Dissolved	mg/L	0.050	-	-	1.01	1.02	1.53
Silver (Ag)-Dissolved	mg/L	0.000050	-	-	<0.000050	<0.000050	<0.000050
Sodium (Na)-Dissolved	mg/L	0.050	-	-	2.72	2.69	4.71
Strontium (Sr)-Dissolved	mg/L	0.0010	-	-	0.0308	0.0315	0.0832
Sulfur (S)-Dissolved	mg/L	0.50	-	-	47.2	47.1	59.9
Tellurium (Te)-Dissolved	mg/L	0.00020	-	-	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L	0.000010	-	-	<0.000010	<0.000010	0.000010
Thorium (Th)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L	0.00030	-	-	<0.00030	<0.00030	0.00595
Tungsten (W)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	0.00013
Uranium (U)-Dissolved	mg/L	0.000010	-	-	0.00242	0.00242	0.00616
Vanadium (V)-Dissolved	mg/L	0.00050	-	-	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L	0.0010	-	-	0.0010	<0.0010	0.0010
Zirconium (Zr)-Dissolved	mg/L	0.00020	-	-	<0.00020	<0.00020	<0.00020
Ra-226	Bq/L	0.0064/0.0035/0.0058	-	1.11	0.0068	<0.0035	0.0062
Oil and Grease, Total	mg/L	-	-	-	-	-	-
Acute Toxicity ³	-	-	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen
	-	-	Not Acutely Toxic	Not Acutely Toxic	Not Acutely Toxic	-	Not Acutely Toxic

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 10: Effluent Quality Discharge Limits for Open Pit, Stockpiles, and Sedimentation Ponds.
² Metal and Daimond Mining Effluent Regulations (MDMER) June 10, 2021, Schedule 4, Table 2.
³ Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13). Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.6: Water Quality Results for Water Licence Monitoring Location - MS-08

Analyte	Sample ID				MS-08	MS-08	MS-0802	MS-08	MS-08
	ALS Laboratory Sample ID				L2606206-1	L2611670-1	L2611670-2	L2621962-1	L2624309-1
	Sample Date & Time				2021-06-23 16:20	2021-07-08 13:05	2021-07-08 13:05	2021-08-03 13:20	2021-08-08 19:20
	QA/QC Sample Type				N/A	N/A	Field Blank	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	MDMER Criteria ²					
Conductivity	umhos/cm	1.0	-	-	551	943	<1.0	-	-
Hardness (as CaCO3)	mg/L	0.50/1.3	-	-	296	520	<0.50	1600	1610
pH	pH units	0.10	6.0 - 9.5	6.0 - 9.5	7.65	8.04	5.62	8.58	7.49
Total Suspended Solids	mg/L	2.0	15	30	2.5	13.0	<2.0	8.0	10.3
Total Dissolved Solids	mg/L	10	-	-	418	772	20	2,190	2,510
Turbidity	NTU	0.10	-	-	5.06	8.45	<0.10	6.43	14.1
Acidity (as CaCO3)	mg/L	2.0	-	-	<2.0	-	-	-	-
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	-	19.2	10.4	<1.0	10.1	8.4
Ammonia, Total (as N)	mg/L	0.10/0.010/0.20	-	-	0.436	1.09	<0.010	3.35	4.26
Chloride (Cl)	mg/L	0.50/2.5	-	-	1.35	3.94	<0.50	9.9	10.3
Fluoride (F)	mg/L	0.020/0.10	-	-	0.059	0.076	<0.020	<0.10	<0.10
Nitrate (as N)	mg/L	0.020/0.10	-	-	1.57	7.13	<0.020	18.8	19.2
Total Kjeldahl Nitrogen	mg/L	0.050	-	-	0.71	1.46	<0.050	3.87	4.41
Phosphorus, Total	mg/L	0.0030	-	-	<0.0030	<0.0030	<0.0030	0.0058	0.0037
Sulfate (SO4)	mg/L	0.30/1.5	-	-	262	472	<0.30	1,370	1,350
Dissolved Organic Carbon	mg/L	0.50	-	-	2.09	1.87	<0.50	2.91	2.11
Total Organic Carbon	mg/L	0.50	-	-	1.63	1.42	0.87	2.29	2.14
Aluminum (Al)-Total	mg/L	0.050/0.0050	-	-	0.1	0.202	<0.0050	0.059	0.097
Antimony (Sb)-Total	mg/L	0.0010/0.00010	-	-	<0.00010	<0.0010	<0.00010	<0.0010	<0.0010
Arsenic (As)-Total	mg/L	0.0010/0.00010	0.50	0.60	<0.00010	<0.0010	<0.00010	<0.0010	<0.0010
Barium (Ba)-Total	mg/L	0.0010/0.00010	-	-	0.0013	0.0093	<0.00010	0.0191	0.0155
Beryllium (Be)-Total	mg/L	0.0010/0.00010	-	-	<0.00010	<0.0010	<0.00010	<0.0010	<0.0010
Bismuth (Bi)-Total	mg/L	0.00050/0.000050	-	-	<0.000050	<0.00050	<0.000050	<0.00050	<0.00050
Boron (B)-Total	mg/L	0.10/0.010	-	-	<0.010	<0.10	<0.010	<0.10	<0.10
Cadmium (Cd)-Total	mg/L	0.000050/0.0000050	-	-	<0.0000050	<0.000050	<0.0000050	<0.000050	<0.0000050
Calcium (Ca)-Total	mg/L	0.50/0.050	-	-	19	50	<0.050	137	139
Cesium (Cs)-Total	mg/L	0.00010/0.000010	-	-	0.000014	<0.00010	<0.000010	<0.00010	<0.00010
Chromium (Cr)-Total	mg/L	0.0050/0.00050	-	-	<0.00050	<0.0050	<0.00050	<0.0050	<0.0050
Cobalt (Co)-Total	mg/L	0.0010/0.00010	-	-	0.0020	0.0268	<0.00010	0.0181	0.033
Copper (Cu)-Total	mg/L	0.0050/0.00050	0.30	0.60	0.00059	0.0051	<0.00050	0.0162	0.0149
Iron (Fe)-Total	mg/L	0.10/0.010	-	-	0.59	2.52	<0.010	2.28	4.45
Lead (Pb)-Total	mg/L	0.00050/0.000050	0.20	0.20	0.000122	<0.00050	<0.000050	<0.00050	<0.00050
Lithium (Li)-Total	mg/L	0.10/0.0010/0.010	-	-	0.0047	<0.010	<0.0010	0.033	0.037
Magnesium (Mg)-Total	mg/L	0.050/0.0050	-	-	57	96.9	0.0382	316	339
Manganese (Mn)-Total	mg/L	0.0050/0.00050	-	-	0.17	2.29	<0.00050	3.77	4.6
Mercury (Hg)-Total	mg/L	0.0000050	-	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.00050/0.000050	-	-	0.000169	<0.00050	<0.000050	<0.00050	<0.00050
Nickel (Ni)-Total	mg/L	0.0050/0.00050	0.50	1.00	0.00205	0.0238	<0.00050	0.0187	0.0322
Phosphorus (P)-Total	mg/L	0.50/0.050	-	-	<0.050	<0.50	<0.050	<0.50	<0.50
Potassium (K)-Total	mg/L	0.50/0.050	-	-	0.487	3.02	<0.050	6.78	7.76
Rubidium (Rb)-Total	mg/L	0.0020/0.00020	-	-	0.00117	0.004	<0.00020	0.0085	0.0099
Selenium (Se)-Total	mg/L	0.00050/0.000050	-	-	0.000587	0.00166	<0.000050	0.00586	0.00607
Silicon (Si)-Total	mg/L	1.0/0.10	-	-	0.31	<1.0	<0.10	<1.0	<1.0
Silver (Ag)-Total	mg/L	0.00050/0.000050	-	-	<0.000050	<0.00050	<0.000050	<0.00050	<0.00050
Sodium (Na)-Total	mg/L	0.50/0.050	-	-	0.466	1.55	<0.050	4.23	4.37
Strontium (Sr)-Total	mg/L	0.010/0.0010	-	-	0.0933	0.135	<0.0010	0.319	0.334
Sulfur (S)-Total	mg/L	5.0/0.50	-	-	88.7	165	<0.50	543	555
Tellurium (Te)-Total	mg/L	0.0020/0.00020	-	-	<0.00020	<0.0020	<0.00020	<0.0020	<0.0020
Thallium (Tl)-Total	mg/L	0.00010/0.000010	-	-	0.000026	<0.00010	<0.000010	0.00012	0.00012
Thorium (Th)-Total	mg/L	0.0010/0.00010	-	-	<0.00010	<0.0010	<0.00010	<0.0010	<0.0010
Tin (Sn)-Total	mg/L	0.0010/0.00010	-	-	0.00066	<0.0010	<0.00010	<0.0010	<0.0010
Titanium (Ti)-Total	mg/L	0.0030/0.00030	-	-	<0.0050	0.003	<0.00030	<0.0030	<0.0030
Tungsten (W)-Total	mg/L	0.0010/0.00010	-	-	<0.00010	<0.0010	<0.00010	<0.0010	<0.0010
Uranium (U)-Total	mg/L	0.00010/0.000010	-	-	0.000099	0.00054	<0.000010	0.000256	0.00037
Vanadium (V)-Total	mg/L	0.0050/0.00050	-	-	0.0007	<0.0050	<0.00050	<0.0050	<0.0050
Zinc (Zn)-Total	mg/L	0.030/0.0030	0.50	1.00	<0.0030	<0.030	<0.0030	<0.030	<0.030
Zirconium (Zr)-Total	mg/L	0.0020/0.00020	-	-	<0.00020	<0.0020	<0.00020	<0.0020	<0.0020
Aluminum (Al)-Dissolved	mg/L	0.0050	-	-	<0.0050	0.0434	<0.0050	<0.050 *	<0.050
Antimony (Sb)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010	<0.0010	<0.0010
Arsenic (As)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010	<0.0010	<0.0010
Barium (Ba)-Dissolved	mg/L	0.00010	-	-	0.00093	0.00859	<0.00010	0.0184	0.0141
Beryllium (Be)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010	<0.0010	<0.0010
Bismuth (Bi)-Dissolved	mg/L	0.000050	-	-	<0.000050	<0.000050	<0.000050	<0.00050	<0.00050
Boron (B)-Dissolved	mg/L	0.010	-	-	<0.010	0.015	<0.010	<0.10	<0.10
Cadmium (Cd)-Dissolved	mg/L	0.0000050	-	-	<0.0000050	0.0000052	<0.0000050	<0.000050	<0.0000050
Calcium (Ca)-Dissolved	mg/L	0.050	-	-	20.5	49.6	0.055	133	131
Cesium (Cs)-Dissolved	mg/L	0.000010	-	-	<0.000010	0.000013	<0.000010	<0.00010	<0.00010
Chromium (Cr)-Dissolved	mg/L	0.00050	-	-	<0.00050	<0.00050	<0.00050	<0.0050	<0.0050
Cobalt (Co)-Dissolved	mg/L	0.00010	-	-	0.00136	0.00657	<0.00010	0.0097	0.0221
Copper (Cu)-Dissolved	mg/L	0.00020	-	-	<0.00020	0.00382	<0.00020	0.0153	0.0119
Iron (Fe)-Dissolved	mg/L	0.010	-	-	<0.010	<0.010	<0.010	<0.10	<0.10
Lead (Pb)-Dissolved	mg/L	0.000050	-	-	<0.000050	<0.000050	<0.000050	<0.00050	<0.00050
Lithium (Li)-Dissolved	mg/L	0.0010	-	-	0.005	0.0117	<0.0010	0.031	0.033
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	-	59.3	96.1	<0.0050	307	311
Manganese (Mn)-Dissolved	mg/L	0.00050	-	-	0.15	1.74	<0.00050	3.48	4.06
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050	-	-	0.00017	0.000115	<0.000050	<0.00050	<0.00050
Nickel (Ni)-Dissolved	mg/L	0.00050	-	-	0.00144	0.00795	<0.00050	0.0114	0.0204
Phosphorus (P)-Dissolved	mg/L	0.050	-	-	<0.050	<0.050	<0.050	<0.50	<0.50
Potassium (K)-Dissolved	mg/L	0.050	-	-	0.5	3.03	<0.050	6.65	7.27
Rubidium (Rb)-Dissolved	mg/L	0.00020	-	-	0.00099	0.00378	<0.00020	0.0079	0.0092
Selenium (Se)-Dissolved	mg/L	0.000050	-	-	0.000717	0.00208	<0.000050	0.00566	0.00564
Silicon (Si)-Dissolved	mg/L	0.050	-	-	0.088	0.463	<0.050	<0.50	<0.50
Silver (Ag)-Dissolved	mg/L	0.000050	-	-	<0.000050	<0.000050	<0.000050	<0.00050	<0.00050
Sodium (Na)-Dissolved	mg/L	0.050	-	-	0.48	1.51	<0.050	3.82	4.03
Strontium (Sr)-Dissolved	mg/L	0.00100	-	-	0.0923	0.137	<0.0010	0.299	0.325
Sulfur (S)-Dissolved	mg/L	0.50/5.0	-	-	92.8	170	<0.50	533	520
Tellurium (Te)-Dissolved	mg/L	0.00020	-	-	<0.00020	<0.00020	<0.00020	<0.0020	<0.0020
Thallium (Tl)-Dissolved	mg/L	0.000010	-	-	0.000026	0.000046	<0.000010	0.00012	0.00012
Thorium (Th)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010	<0.0010	<0.0010
Tin (Sn)-Dissolved	mg/L	0.00010	-	-	0.00071	<0.00010	<0.00010	<0.0010	<0.0010
Titanium (Ti)-Dissolved	mg/L	0.00030/0.00030	-	-	<0.00030	<0.00030	<0.00030	<0.0030	<0.0030
Tungsten (W)-Dissolved	mg/L	0.00010	-	-	<0.00010	<0.00010	<0.00010	<0.0010	<0.0010
Uranium (U)-Dissolved	mg/L	0.000010	-	-	0.000032	0.000067	<0.000010	0.0001	<0.00010
Vanadium (V)-Dissolved	mg/L	0.00050	-	-	<0.00050	<0.00050	<0.00050	<0.0050	<0.0050
Zinc (Zn)-Dissolved	mg/L	0.0010	-	-	0.0022	<0.0010	<0.0010	<0.010	<0.010
Zirconium (Zr)-Dissolved	mg/L	0.00020	-	-	<0.00020	<0.00020	<0.00020	<0.0020	<0.0020
Ra-226	Bq/L	0.0096/0.0060/0.0033 /0.0049/0.0047	-	1.11	<0.0096	0.0067	0.004	0.0047	0.0070
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-
	-	-	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	No Visible Sheen
Acute Toxicity ³	-	-	Not Acutely Toxic	Not Acutely Toxic	Not Acutely Toxic	Not Acutely Toxic	-	Not Acutely Toxic	-

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 10: Effluent Quality Discharge Limits for Open Pit, Stockpiles, and Sedimentation Ponds.
² Metal and Daimond Mining Effluent Regulations (MDMER) June 10, 2021, Schedule 4, Table 2.
³ Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13); Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.7: Water Quality Results for Water Licence Monitoring Location - MS-MRY-06

Analyte	Sample ID			MS-MRY-06
	ALS Laboratory Sample ID			L2618137-2
	Sample Date & Time			2021-07-23 9:10
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
pH	pH units	0.10	6.0 - 9.5	8.05
Total Suspended Solids	mg/L	2.0	-	31.8
Lead (Pb)-Total	mg/L	0.00005/0.00050	0.001	0.000443
Oil and Grease, Total	mg/L	5.0	15	<5.0
	-	-	No Visible Sheen	No Visible Sheen
Benzene	mg/L	0.00050	0.370	<0.00050
Ethylbenzene	mg/L	0.00050	0.090	<0.00050
Toluene	mg/L	0.00045/0.00050	0.002	0.00088
F1 (C6-C10)	mg/L	0.10/0.025	-	<0.10
F2 (C10-C16)	mg/L	0.10	-	0.18
F3 (C16-C34)	mg/L	0.25	-	0.30
F4 (C34-C50)	mg/L	0.25	-	<0.25
Total Petroleum Hydrocarbons (TPH)	mg/L	0.38/0.37	-	0.48

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 8: Effluent Quality Discharge Limits for the Bulk Fuel Storage Facilities.

Table 7.3.8: Water Quality Results for Water Licence Monitoring Location - MS-MRY-09

Analyte	Sample ID			MS-MRY-09	MS-MRY-09	MS-MRY-09	MS-MRY-09	MS-MRY-09	MS-MRY-09	MS-MRY-09	MS-MRY-09	MS-MRY-09	MS-MRY-09	MS-MRY-09	MS-MRY-09	MS-MRY-09
	ALS Laboratory Sample ID			L2600578-1	L2602902-1	L2605841-5	L2608050-1	L2609333-1	L2614342-1	L2618103-1	L2621268-10	L2621381-16	L2627735-1	L2631125-1	L2635818-1	L2635847-1
	Sample Date & Time			2021-06-10 7:50	2021-06-15 15:10	2021-06-21 8:25	2021-06-28 9:00	2021-07-04 8:15	2021-07-13 10:55	2021-07-21 10:35	2021-07-30 9:10	2021-08-02 14:20	2021-08-12 13:35	2021-08-24 8:45	2021-09-04 15:25	2021-09-06 11:45
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹													
Hardness	mg/L	0.50	-	-	26.5	-	-	44.5	-	-	-	65.7	-	-	85.4	-
pH	pH units	0.10	6.0 - 9.5	7.63	7.70	7.72	7.87	8.05	7.78	7.91	7.98	8.00	8.19	8.11	8.09	7.99
Total Suspended Solids	mg/L	1.0/2.0	15	16.1	6.7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.9	<2.0	<2.0	<2.0	2.5
Total Dissolved Solids	mg/L	10	-	43	39	25	33	90	72	60	75	84	25	83	75	94
Turbidity	NTU	0.10	-	1.70	7.08	2.89	2.67	1.01	2.01	1.12	0.55	0.83	0.40	0.33	0.25	0.60
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	-	36.1	-	-	46.2	-	-	-	58.6	-	-	86.6	-
Ammonia, Total (as N)	mg/L	0.010	-	-	<0.010	-	-	<0.010	-	-	-	<0.010	-	-	<0.010	-
Chloride (Cl)	mg/L	0.50	-	-	0.77	-	-	1.11	-	-	-	1.16	-	-	1.62	-
Fluoride (F)	mg/L	0.020	-	-	<0.020	-	-	<0.020	-	-	-	<0.020	-	-	<0.020	-
Nitrate (as N)	mg/L	0.020	-	-	0.053	-	-	0.052	-	-	-	<0.020	-	-	0.057	-
Total Kjeldahl Nitrogen	mg/L	0.050	-	-	0.070	-	-	0.110	-	-	-	0.060	-	-	0.116	-
Phosphorus, Total	mg/L	0.0030	-	-	0.0112	-	-	<0.0030	-	-	-	0.0100	-	-	<0.0030	-
Sulfate (SO4)	mg/L	0.30	-	-	1.22	-	-	2.43	-	-	-	2.49	-	-	4.06	-
Dissolved Organic Carbon	mg/L	0.50	-	-	1.96	-	-	1.69	-	-	-	2.58	-	-	2.90	-
Total Organic Carbon	mg/L	0.50	-	-	1.85	-	-	2.09	-	-	-	2.94	-	-	2.48	-
Aluminum (Al)-Total	mg/L	0.0050	-	-	0.204	-	-	0.0242	-	-	-	0.136	-	-	0.0378	-
Arsenic (As)-Total	mg/L	0.00010	0.50	-	<0.00010	-	-	<0.00010	-	-	-	<0.00010	-	-	<0.00010	-
Cadmium (Cd)-Total	mg/L	0.0000050	-	-	<0.0000050	-	-	<0.0000050	-	-	-	<0.0000050	-	-	0.0000056	-
Calcium (Ca)-Total	mg/L	0.050	-	-	5.53	-	-	8.83	-	-	-	12.2	-	-	15.3	-
Copper (Cu)-Total	mg/L	0.00050	0.30	-	0.00187	-	-	0.00203	-	-	-	0.00174	-	-	0.00224	-
Iron (Fe)-Total	mg/L	0.010	-	-	0.286	-	-	0.031	-	-	-	0.174	-	-	0.049	-
Lead (Pb)-Total	mg/L	0.000050	0.20	-	0.000262	-	-	<0.000050	-	-	-	0.000133	-	-	0.000053	-
Magnesium (Mg)-Total	mg/L	0.0050	-	-	3.27	-	-	5.33	-	-	-	8.38	-	-	10.1	-
Manganese (Mn)-Total	mg/L	0.00050	-	-	0.00527	-	-	0.00062	-	-	-	0.00267	-	-	0.00	-
Mercury (Hg)-Total	mg/L	0.0000050	-	-	<0.0000050	-	-	<0.0000050	-	-	-	<0.0000050	-	-	<0.0000050	-
Molybdenum (Mo)-Total	mg/L	0.000050	-	-	0.000232	-	-	0.000491	-	-	-	0.000434	-	-	0.00118	-
Nickel (Ni)-Total	mg/L	0.00050	0.50	-	0.00073	-	-	<0.00050	-	-	-	0.00063	-	-	0.00052	-
Potassium (K)-Total	mg/L	0.050	-	-	0.904	-	-	1.23	-	-	-	1.46	-	-	2.14	-
Selenium (Se)-Total	mg/L	0.000050	-	-	<0.000050	-	-	<0.000050	-	-	-	<0.000050	-	-	0.000076	-
Sodium (Na)-Total	mg/L	0.050	-	-	0.322	-	-	0.418	-	-	-	0.653	-	-	0.763	-
Thallium (Tl)-Total	mg/L	0.000010	-	-	0.000013	-	-	0.000012	-	-	-	0.000011	-	-	0.000014	-
Uranium (U)-Total	mg/L	0.000010	-	-	0.000569	-	-	0.00149	-	-	-	0.00196	-	-	0.0071	-
Zinc (Zn)-Total	mg/L	0.0030	0.50	-	<0.0030	-	-	<0.0030	-	-	-	<0.0030	-	-	<0.0030	-
Aluminum (Al)-Dissolved	mg/L	0.0050	-	-	0.0097	-	-	0.0076	-	-	-	0.0076	-	-	0.0067	-
Arsenic (As)-Dissolved	mg/L	0.00010	-	-	<0.00010	-	-	<0.00010	-	-	-	<0.00010	-	-	<0.00010	-
Cadmium (Cd)-Dissolved	mg/L	0.0000050	-	-	<0.0000050	-	-	<0.0000050	-	-	-	<0.0000050	-	-	<0.0000050	-
Calcium (Ca)-Dissolved	mg/L	0.050	-	-	5.15	-	-	8.95	-	-	-	12.6	-	-	16.7	-
Copper (Cu)-Dissolved	mg/L	0.00020	-	-	0.00125	-	-	<0.010	-	-	-	0.00143	-	-	0.00205	-
Iron (Fe)-Dissolved	mg/L	0.010	-	-	0.011	-	-	<0.000050	-	-	-	<0.010	-	-	<0.010	-
Lead (Pb)-Dissolved	mg/L	0.000050	-	-	<0.000050	-	-	<0.0010	-	-	-	<0.000050	-	-	<0.000050	-
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	-	3.30	-	-	5.37	-	-	-	8.32	-	-	10.6	-
Manganese (Mn)-Dissolved	mg/L	0.00050	-	-	0.00098	-	-	<0.00050	-	-	-	<0.00050	-	-	<0.00050	-
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	-	<0.0000050	-	-	<0.0000050	-	-	-	<0.0000050	-	-	<0.0000050	-
Molybdenum (Mo)-Dissolved	mg/L	0.000050	-	-	0.000218	-	-	0.000495	-	-	-	0.000401	-	-	0.0012	-
Nickel (Ni)-Dissolved	mg/L	0.00050	-	-	<0.00050	-	-	<0.00050	-	-	-	<0.00050	-	-	<0.00050	-
Potassium (K)-Dissolved	mg/L	0.050	-	-	0.875	-	-	1.28	-	-	-	1.42	-	-	2.26	-
Selenium (Se)-Dissolved	mg/L	0.000050	-	-	<0.000050	-	-	0.000053	-	-	-	<0.000050	-	-	0.0001	-
Sodium (Na)-Dissolved	mg/L	0.050	-	-	0.344	-	-	0.436	-	-	-	0.647	-	-	0.786	-
Thallium (Tl)-Dissolved	mg/L	0.000010	-	-	<0.000010	-	-	<0.000010	-	-	-	<0.000010	-	-	0.000012	-
Uranium (U)-Dissolved	mg/L	0.000010	-	-	0.000403	-	-	0.00147	-	-	-	0.00192	-	-	0.00739	-
Zinc (Zn)-Dissolved	mg/L	0.0010	-	-	<0.0010	-	-	0.0015	-	-	-	<0.0010	-	-	<0.0010	-
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Toxicity	-	-	Not Acutely Toxic	-	Not Acutely Toxic	-	-	-	-	-	-	-	-	-	-	-

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 10: Effluent Quality Discharge Limits for Open Pit, Stockpiles, and Sedimentation Ponds.

Table 7.3.8: Water Quality Results for Water Licence Monitoring Location - MS-MRY-09

Analyte	Sample ID			MS-MRY-09	MS-MRY-0901	MS-MRY-09	MS-MRY-09
	ALS Laboratory Sample ID			L2639307-1	L2639307-2	L2642214-1	L2644501-1
	Sample Date & Time			2021-09-13 9:50	2021-09-13 9:50	2021-09-20 8:05	2021-09-27 7:40
	QA/QC Sample Type			N/A	Field Duplicate	N/A	N/A
	Units	LOR	Water Licence Criteria ¹				
Hardness	mg/L	0.50	-	-	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.90	7.89	7.88	7.99
Total Suspended Solids	mg/L	1.0/2.0	15	<2.0	<2.0	<2.0	4.0
Total Dissolved Solids	mg/L	10	-	53	25	131	214
Turbidity	NTU	0.10	-	0.27	0.26	0.11	0.22
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	-	-	-	-
Ammonia, Total (as N)	mg/L	0.010	-	-	-	-	-
Chloride (Cl)	mg/L	0.50	-	-	-	-	-
Fluoride (F)	mg/L	0.020	-	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	-	-
Total Kjeldahl Nitrogen	mg/L	0.050	-	-	-	-	-
Phosphorus, Total	mg/L	0.0030	-	-	-	-	-
Sulfate (SO4)	mg/L	0.30	-	-	-	-	-
Dissolved Organic Carbon	mg/L	0.50	-	-	-	-	-
Total Organic Carbon	mg/L	0.50	-	-	-	-	-
Aluminum (Al)-Total	mg/L	0.0050	-	-	-	-	-
Arsenic (As)-Total	mg/L	0.00010	0.50	-	-	-	-
Cadmium (Cd)-Total	mg/L	0.0000050	-	-	-	-	-
Calcium (Ca)-Total	mg/L	0.050	-	-	-	-	-
Copper (Cu)-Total	mg/L	0.00050	0.30	-	-	-	-
Iron (Fe)-Total	mg/L	0.010	-	-	-	-	-
Lead (Pb)-Total	mg/L	0.000050	0.20	-	-	-	-
Magnesium (Mg)-Total	mg/L	0.0050	-	-	-	-	-
Manganese (Mn)-Total	mg/L	0.00050	-	-	-	-	-
Mercury (Hg)-Total	mg/L	0.0000050	-	-	-	-	-
Molybdenum (Mo)-Total	mg/L	0.000050	-	-	-	-	-
Nickel (Ni)-Total	mg/L	0.00050	0.50	-	-	-	-
Potassium (K)-Total	mg/L	0.050	-	-	-	-	-
Selenium (Se)-Total	mg/L	0.000050	-	-	-	-	-
Sodium (Na)-Total	mg/L	0.050	-	-	-	-	-
Thallium (Tl)-Total	mg/L	0.000010	-	-	-	-	-
Uranium (U)-Total	mg/L	0.000010	-	-	-	-	-
Zinc (Zn)-Total	mg/L	0.0030	0.50	-	-	-	-
Aluminum (Al)-Dissolved	mg/L	0.0050	-	-	-	-	-
Arsenic (As)-Dissolved	mg/L	0.00010	-	-	-	-	-
Cadmium (Cd)-Dissolved	mg/L	0.0000050	-	-	-	-	-
Calcium (Ca)-Dissolved	mg/L	0.050	-	-	-	-	-
Copper (Cu)-Dissolved	mg/L	0.00020	-	-	-	-	-
Iron (Fe)-Dissolved	mg/L	0.010	-	-	-	-	-
Lead (Pb)-Dissolved	mg/L	0.000050	-	-	-	-	-
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	-	-	-	-
Manganese (Mn)-Dissolved	mg/L	0.00050	-	-	-	-	-
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	-	-	-	-
Molybdenum (Mo)-Dissolved	mg/L	0.000050	-	-	-	-	-
Nickel (Ni)-Dissolved	mg/L	0.00050	-	-	-	-	-
Potassium (K)-Dissolved	mg/L	0.050	-	-	-	-	-
Selenium (Se)-Dissolved	mg/L	0.000050	-	-	-	-	-
Sodium (Na)-Dissolved	mg/L	0.050	-	-	-	-	-
Thallium (Tl)-Dissolved	mg/L	0.000010	-	-	-	-	-
Uranium (U)-Dissolved	mg/L	0.000010	-	-	-	-	-
Zinc (Zn)-Dissolved	mg/L	0.0010	-	-	-	-	-
Oil and Grease, Total	mg/L	-	-	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Toxicity	-	-	Not Acutely Toxic	-	-	-	-

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 10: Effluent Quality Discharge Limits for Open Pit, Stockpiles, and Sedimentation Ponds.

Table 7.3.9: Water Quality Results for Water Licence Monitoring Location - MS-MRY-10

Analyte	Sample ID			MS-MRY-10	MS-MRY-10	MS-MRY-10	MS-MRY-10	MS-MRY-10
	ALS Laboratory Sample ID			L2600491-1	L2602423-1	L2605841-6	L2608050-13	L2609728-7
	Sample Date & Time			2021-06-07 16:00	2021-06-14 12:50	2021-06-21 10:35	2021-06-28 14:40	2021-07-05 16:20
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹					
Hardness	mg/L	0.50	-	-	29.6	-	-	124
pH	pH units	0.10	6.0 - 9.5	6.95	7.39	8.06	8.21	8.42
Total Suspended Solids	mg/L	2.0/1.0	15	<2.0	13.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10/13	-	21	36	130	64	153
Turbidity	NTU	0.10	-	1.36	6.99	0.29	0.27	0.13
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	-	30.6	-	-	108
Ammonia, Total (as N)	mg/L	0.010	-	-	0.014	-	-	<0.010
Chloride (Cl)	mg/L	0.50	-	-	2.00	-	-	11.3
Fluoride (F)	mg/L	0.020	-	-	<0.020	-	-	0.028
Nitrate (as N)	mg/L	0.020	-	-	<0.020	-	-	0.022
Total Kjeldahl Nitrogen	mg/L	0.050	-	-	0.190	-	-	0.130
Phosphorus, Total	mg/L	0.0030	-	-	0.0149	-	-	<0.0030
Sulfate (SO4)	mg/L	0.30	-	-	2.64	-	-	10.4
Dissolved Organic Carbon	mg/L	0.50	-	-	2.76	-	-	1.13
Total Organic Carbon	mg/L	0.50	-	-	2.77	-	-	2.20
Aluminum (Al)-Total	mg/L	0.0050	-	-	0.290	-	-	0.0207
Antimony (Sb)-Total	mg/L	0.00010	-	-	<0.00010	-	-	0.00011
Arsenic (As)-Total	mg/L	0.00010	0.50	-	<0.00010	-	-	<0.00010
Barium (Ba)-Total	mg/L	0.00010	-	-	0.00637	-	-	0.0148
Beryllium (Be)-Total	mg/L	0.00010	-	-	<0.00010	-	-	<0.00010
Bismuth (Bi)-Total	mg/L	0.000050	-	-	<0.000050	-	-	<0.000050
Boron (B)-Total	mg/L	0.010	-	-	<0.010	-	-	<0.010
Cadmium (Cd)-Total	mg/L	0.0000050	-	-	<0.0000050	-	-	<0.0000050
Calcium (Ca)-Total	mg/L	0.050	-	-	5.39	-	-	25.3
Cesium (Cs)-Total	mg/L	0.000010	-	-	0.000022	-	-	<0.000010
Chromium (Cr)-Total	mg/L	0.00050	-	-	0.00053	-	-	<0.00050
Cobalt (Co)-Total	mg/L	0.00010	-	-	0.00020	-	-	<0.00010
Copper (Cu)-Total	mg/L	0.00050	0.30	-	0.00092	-	-	0.00130
Iron (Fe)-Total	mg/L	0.010	-	-	0.404	-	-	0.026
Lead (Pb)-Total	mg/L	0.000050	0.20	-	0.000213	-	-	<0.000050
Lithium (Li)-Total	mg/L	0.0010	-	-	<0.0010	-	-	0.0015
Magnesium (Mg)-Total	mg/L	0.0050	-	-	3.60	-	-	14.8
Manganese (Mn)-Total	mg/L	0.00050	-	-	0.00811	-	-	0.00064
Mercury (Hg)-Total	mg/L	0.0000050	-	-	<0.0000050	-	-	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.000050	-	-	0.000162	-	-	0.000311
Nickel (Ni)-Total	mg/L	0.00050	0.50	-	0.00059	-	-	<0.00050
Phosphorus (P)-Total	mg/L	0.050	-	-	<0.050	-	-	<0.050
Potassium (K)-Total	mg/L	0.050	-	-	0.958	-	-	1.51
Rubidium (Rb)-Total	mg/L	0.00020	-	-	0.00153	-	-	0.00146
Selenium (Se)-Total	mg/L	0.000050	-	-	<0.000050	-	-	<0.000050
Silicon (Si)-Total	mg/L	0.10	-	-	0.82	-	-	1.26
Silver (Ag)-Total	mg/L	0.000050	-	-	<0.000050	-	-	<0.000050
Sodium (Na)-Total	mg/L	0.050	-	-	0.363	-	-	2.42
Strontium (Sr)-Total	mg/L	0.0010	-	-	0.0032	-	-	0.0153
Sulfur (S)-Total	mg/L	0.50	-	-	1.02	-	-	3.61
Tellurium (Te)-Total	mg/L	0.00020	-	-	<0.00020	-	-	<0.00020
Thallium (Tl)-Total	mg/L	0.000010	-	-	<0.000010	-	-	<0.000010
Thorium (Th)-Total	mg/L	0.00010	-	-	<0.00010	-	-	<0.00010
Tin (Sn)-Total	mg/L	0.00010	-	-	<0.00010	-	-	<0.00010
Titanium (Ti)-Total	mg/L	0.00030	-	-	0.0149	-	-	0.00110
Tungsten (W)-Total	mg/L	0.00010	-	-	<0.00010	-	-	<0.00010
Uranium (U)-Total	mg/L	0.000010	-	-	0.000093	-	-	0.00138
Vanadium (V)-Total	mg/L	0.00050	-	-	0.00063	-	-	<0.00050
Zinc (Zn)-Total	mg/L	0.0030	0.50	-	<0.0030	-	-	<0.0030
Zirconium (Zr)-Total	mg/L	0.00020	-	-	<0.00020	-	-	<0.00020
Aluminum (Al)-Dissolved	mg/L	0.0050	-	-	0.0086	-	-	<0.0050
Antimony (Sb)-Dissolved	mg/L	0.00010	-	-	<0.00010	-	-	<0.00010
Arsenic (As)-Dissolved	mg/L	0.00010	-	-	<0.00010	-	-	<0.00010
Barium (Ba)-Dissolved	mg/L	0.00010	-	-	0.00390	-	-	0.0143
Beryllium (Be)-Dissolved	mg/L	0.00010	-	-	<0.00010	-	-	<0.00010
Bismuth (Bi)-Dissolved	mg/L	0.000050	-	-	<0.000050	-	-	<0.000050
Boron (B)-Dissolved	mg/L	0.010	-	-	<0.010	-	-	<0.010
Cadmium (Cd)-Dissolved	mg/L	0.0000050	-	-	<0.0000050	-	-	<0.0000050
Calcium (Ca)-Dissolved	mg/L	0.050	-	-	5.71	-	-	25.7
Cesium (Cs)-Dissolved	mg/L	0.000010	-	-	<0.000010	-	-	<0.000010
Chromium (Cr)-Dissolved	mg/L	0.00050	-	-	<0.00050	-	-	<0.00050
Cobalt (Co)-Dissolved	mg/L	0.00010	-	-	<0.00010	-	-	<0.00010
Copper (Cu)-Dissolved	mg/L	0.00020	-	-	0.00052	-	-	0.00104
Iron (Fe)-Dissolved	mg/L	0.010	-	-	<0.010	-	-	<0.010
Lead (Pb)-Dissolved	mg/L	0.000050	-	-	<0.000050	-	-	<0.000050
Lithium (Li)-Dissolved	mg/L	0.0010	-	-	0.0010	-	-	0.0010
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	-	3.72	-	-	14.6
Manganese (Mn)-Dissolved	mg/L	0.00050	-	-	0.00278	-	-	<0.00050
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	-	<0.0000050	-	-	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050	-	-	0.000146	-	-	0.000299
Nickel (Ni)-Dissolved	mg/L	0.00050	-	-	<0.00050	-	-	<0.00050
Phosphorus (P)-Dissolved	mg/L	0.050	-	-	<0.050	-	-	<0.050
Potassium (K)-Dissolved	mg/L	0.050	-	-	0.863	-	-	1.50
Rubidium (Rb)-Dissolved	mg/L	0.00020	-	-	0.00091	-	-	0.00141
Selenium (Se)-Dissolved	mg/L	0.000050	-	-	<0.000050	-	-	<0.000050
Silicon (Si)-Dissolved	mg/L	0.050	-	-	0.360	-	-	1.16
Silver (Ag)-Dissolved	mg/L	0.000050	-	-	<0.000050	-	-	<0.000050
Sodium (Na)-Dissolved	mg/L	0.050	-	-	0.357	-	-	2.35
Strontium (Sr)-Dissolved	mg/L	0.0010	-	-	0.0033	-	-	0.0155
Sulfur (S)-Dissolved	mg/L	0.50	-	-	0.97	-	-	3.75
Tellurium (Te)-Dissolved	mg/L	0.00020	-	-	<0.00020	-	-	<0.00020
Thallium (Tl)-Dissolved	mg/L	0.000010	-	-	<0.000010	-	-	<0.000010
Thorium (Th)-Dissolved	mg/L	0.00010	-	-	<0.00010	-	-	<0.00010
Tin (Sn)-Dissolved	mg/L	0.00010	-	-	<0.00010	-	-	<0.00010
Titanium (Ti)-Dissolved	mg/L	0.00030	-	-	<0.00030	-	-	<0.00030
Tungsten (W)-Dissolved	mg/L	0.00010	-	-	<0.00010	-	-	<0.00010
Uranium (U)-Dissolved	mg/L	0.000010	-	-	0.000051	-	-	0.00129
Vanadium (V)-Dissolved	mg/L	0.00050	-	-	<0.00050	-	-	<0.00050
Zinc (Zn)-Dissolved	mg/L	0.0010	-	-	<0.0010	-	-	<0.0010
Zirconium (Zr)-Dissolved	mg/L	0.00020	-	-	<0.00020	-	-	<0.00020
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-
Acute Toxicity	-	-	No Visible Sheen Not Acutely Toxic	No Visible Sheen	No Visible Sheen Not Acutely Toxic	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 10: Effluent Quality Discharge Limits for Open Pit, Stockpiles, and Sedimentation Ponds.

Table 7.3.9: Water Quality Results for Water Licence Monitoring Location - MS-MRY-10

Analyte	Sample ID			MS-MRY-10	MS-MRY-10	MS-MRY-10	MS-MRY-10	MS-MRY-10
	ALS Laboratory Sample ID			L2612809-16	L2618103-2	L2621358-7	L2621963-1	L2627333-1
	Sample Date & Time			2021-07-12 15:35	2021-07-22 16:15	2021-07-31 14:55	2021-08-03 14:40	2021-08-14 17:40
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹					
Hardness	mg/L	0.50	-	-	-	-	140	-
pH	pH units	0.10	6.0 - 9.5	7.75	8.32	8.34	8.35	8.34
Total Suspended Solids	mg/L	2.0/1.0	15	2.7	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10/13	-	124	157	128	136	96
Turbidity	NTU	0.10	-	0.33	0.17	0.19	<0.10	0.14
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	-	-	-	115	-
Ammonia, Total (as N)	mg/L	0.010	-	-	-	-	0.011	-
Chloride (Cl)	mg/L	0.50	-	-	-	-	8.99	-
Fluoride (F)	mg/L	0.020	-	-	-	-	0.032	-
Nitrate (as N)	mg/L	0.020	-	-	-	-	<0.020	-
Total Kjeldahl Nitrogen	mg/L	0.050	-	-	-	-	0.120	-
Phosphorus, Total	mg/L	0.0030	-	-	-	-	0.0039	-
Sulfate (SO4)	mg/L	0.30	-	-	-	-	9.95	-
Dissolved Organic Carbon	mg/L	0.50	-	-	-	-	1.88	-
Total Organic Carbon	mg/L	0.50	-	-	-	-	2.68	-
Aluminum (Al)-Total	mg/L	0.0050	-	-	-	-	<0.0050	-
Antimony (Sb)-Total	mg/L	0.00010	-	-	-	-	<0.00010	-
Arsenic (As)-Total	mg/L	0.00010	0.50	-	-	-	<0.00010	-
Barium (Ba)-Total	mg/L	0.00010	-	-	-	-	0.0153	-
Beryllium (Be)-Total	mg/L	0.00010	-	-	-	-	<0.00010	-
Bismuth (Bi)-Total	mg/L	0.000050	-	-	-	-	<0.000050	-
Boron (B)-Total	mg/L	0.010	-	-	-	-	<0.010	-
Cadmium (Cd)-Total	mg/L	0.0000050	-	-	-	-	<0.0000050	-
Calcium (Ca)-Total	mg/L	0.050	-	-	-	-	26.8	-
Cesium (Cs)-Total	mg/L	0.000010	-	-	-	-	<0.000010	-
Chromium (Cr)-Total	mg/L	0.00050	-	-	-	-	<0.00050	-
Cobalt (Co)-Total	mg/L	0.00010	-	-	-	-	<0.00010	-
Copper (Cu)-Total	mg/L	0.00050	0.30	-	-	-	0.00115	-
Iron (Fe)-Total	mg/L	0.010	-	-	-	-	<0.010	-
Lead (Pb)-Total	mg/L	0.000050	0.20	-	-	-	<0.000050	-
Lithium (Li)-Total	mg/L	0.0010	-	-	-	-	0.0010	-
Magnesium (Mg)-Total	mg/L	0.0050	-	-	-	-	17.4	-
Manganese (Mn)-Total	mg/L	0.00050	-	-	-	-	<0.00050	-
Mercury (Hg)-Total	mg/L	0.0000050	-	-	-	-	<0.0000050	-
Molybdenum (Mo)-Total	mg/L	0.000050	-	-	-	-	0.000313	-
Nickel (Ni)-Total	mg/L	0.00050	0.50	-	-	-	<0.00050	-
Phosphorus (P)-Total	mg/L	0.050	-	-	-	-	<0.050	-
Potassium (K)-Total	mg/L	0.050	-	-	-	-	1.63	-
Rubidium (Rb)-Total	mg/L	0.00020	-	-	-	-	0.00134	-
Selenium (Se)-Total	mg/L	0.000050	-	-	-	-	<0.000050	-
Silicon (Si)-Total	mg/L	0.10	-	-	-	-	1.53	-
Silver (Ag)-Total	mg/L	0.000050	-	-	-	-	<0.000050	-
Sodium (Na)-Total	mg/L	0.050	-	-	-	-	2.81	-
Strontium (Sr)-Total	mg/L	0.0010	-	-	-	-	0.0162	-
Sulfur (S)-Total	mg/L	0.50	-	-	-	-	3.78	-
Tellurium (Te)-Total	mg/L	0.00020	-	-	-	-	<0.00020	-
Thallium (Tl)-Total	mg/L	0.000010	-	-	-	-	<0.000010	-
Thorium (Th)-Total	mg/L	0.00010	-	-	-	-	<0.00010	-
Tin (Sn)-Total	mg/L	0.00010	-	-	-	-	<0.00010	-
Titanium (Ti)-Total	mg/L	0.00030	-	-	-	-	<0.00030	-
Tungsten (W)-Total	mg/L	0.00010	-	-	-	-	<0.00010	-
Uranium (U)-Total	mg/L	0.000010	-	-	-	-	0.00159	-
Vanadium (V)-Total	mg/L	0.00050	-	-	-	-	<0.00050	-
Zinc (Zn)-Total	mg/L	0.0030	0.50	-	-	-	<0.0030	-
Zirconium (Zr)-Total	mg/L	0.00020	-	-	-	-	<0.00020	-
Aluminum (Al)-Dissolved	mg/L	0.0050	-	-	-	-	<0.0050	-
Antimony (Sb)-Dissolved	mg/L	0.00010	-	-	-	-	<0.00010	-
Arsenic (As)-Dissolved	mg/L	0.00010	-	-	-	-	<0.00010	-
Barium (Ba)-Dissolved	mg/L	0.00010	-	-	-	-	0.0155	-
Beryllium (Be)-Dissolved	mg/L	0.00010	-	-	-	-	<0.00010	-
Bismuth (Bi)-Dissolved	mg/L	0.000050	-	-	-	-	<0.000050	-
Boron (B)-Dissolved	mg/L	0.010	-	-	-	-	<0.010	-
Cadmium (Cd)-Dissolved	mg/L	0.0000050	-	-	-	-	<0.0000050	-
Calcium (Ca)-Dissolved	mg/L	0.050	-	-	-	-	27.2	-
Cesium (Cs)-Dissolved	mg/L	0.000010	-	-	-	-	<0.000010	-
Chromium (Cr)-Dissolved	mg/L	0.00050	-	-	-	-	<0.00050	-
Cobalt (Co)-Dissolved	mg/L	0.00010	-	-	-	-	<0.00010	-
Copper (Cu)-Dissolved	mg/L	0.00020	-	-	-	-	0.00112	-
Iron (Fe)-Dissolved	mg/L	0.010	-	-	-	-	<0.010	-
Lead (Pb)-Dissolved	mg/L	0.000050	-	-	-	-	<0.000050	-
Lithium (Li)-Dissolved	mg/L	0.0010	-	-	-	-	0.0012	-
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	-	-	-	17.5	-
Manganese (Mn)-Dissolved	mg/L	0.00050	-	-	-	-	<0.00050	-
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	-	-	-	<0.0000050	-
Molybdenum (Mo)-Dissolved	mg/L	0.000050	-	-	-	-	0.000294	-
Nickel (Ni)-Dissolved	mg/L	0.00050	-	-	-	-	<0.00050	-
Phosphorus (P)-Dissolved	mg/L	0.050	-	-	-	-	<0.050	-
Potassium (K)-Dissolved	mg/L	0.050	-	-	-	-	1.63	-
Rubidium (Rb)-Dissolved	mg/L	0.00020	-	-	-	-	0.00148	-
Selenium (Se)-Dissolved	mg/L	0.000050	-	-	-	-	<0.000050	-
Silicon (Si)-Dissolved	mg/L	0.050	-	-	-	-	1.52	-
Silver (Ag)-Dissolved	mg/L	0.000050	-	-	-	-	<0.000050	-
Sodium (Na)-Dissolved	mg/L	0.050	-	-	-	-	2.83	-
Strontium (Sr)-Dissolved	mg/L	0.0010	-	-	-	-	0.0162	-
Sulfur (S)-Dissolved	mg/L	0.50	-	-	-	-	3.45	-
Tellurium (Te)-Dissolved	mg/L	0.00020	-	-	-	-	<0.00020	-
Thallium (Tl)-Dissolved	mg/L	0.000010	-	-	-	-	<0.000010	-
Thorium (Th)-Dissolved	mg/L	0.00010	-	-	-	-	<0.00010	-
Tin (Sn)-Dissolved	mg/L	0.00010	-	-	-	-	<0.00010	-
Titanium (Ti)-Dissolved	mg/L	0.00030	-	-	-	-	<0.00030	-
Tungsten (W)-Dissolved	mg/L	0.00010	-	-	-	-	<0.00010	-
Uranium (U)-Dissolved	mg/L	0.000010	-	-	-	-	0.00153	-
Vanadium (V)-Dissolved	mg/L	0.00050	-	-	-	-	<0.00050	-
Zinc (Zn)-Dissolved	mg/L	0.0010	-	-	-	-	<0.0010	-
Zirconium (Zr)-Dissolved	mg/L	0.00020	-	-	-	-	<0.00020	-
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-
Acute Toxicity	-	-	No Visible Sheen Not Acutely Toxic	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 10: Effluent Quality Discharge Limits for Open Pit, Stockpiles, and Sedimentation Ponds.

Table 7.3.9: Water Quality Results for Water Licence Monitoring Location - MS-MRY-10

Analyte	Sample ID			MS-MRY-10	MS-MRY-10	MS-MRY-10	MS-MRY-10
	ALS Laboratory Sample ID			L2627332-15	L2630140-8	L2635757-1	L2637080-1
	Sample Date & Time			2021-08-16 9:50	2021-08-22 12:30	2021-09-03 11:40	2021-09-08 13:25
	QA/QC Sample Type			N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹				
Hardness	mg/L	0.50	-	-	-	143	-
pH	pH units	0.10	6.0 - 9.5	8.37	8.45	8.25	7.99
Total Suspended Solids	mg/L	2.0/1.0	15	<2.0	<2.0	2.5	2.6
Total Dissolved Solids	mg/L	10/13	-	122	209	144	222
Turbidity	NTU	0.10	-	0.15	<0.10	0.10	0.41
Alkalinity, Total (as CaCO3)	mg/L	1.0	-	-	-	130	-
Ammonia, Total (as N)	mg/L	0.010	-	-	-	<0.010	-
Chloride (Cl)	mg/L	0.50	-	-	-	10.3	-
Fluoride (F)	mg/L	0.020	-	-	-	0.025	-
Nitrate (as N)	mg/L	0.020	-	-	-	0.026	-
Total Kjeldahl Nitrogen	mg/L	0.050	-	-	-	0.117	-
Phosphorus, Total	mg/L	0.0030	-	-	-	<0.0030	-
Sulfate (SO4)	mg/L	0.30	-	-	-	9.88	-
Dissolved Organic Carbon	mg/L	0.50	-	-	-	2.76	-
Total Organic Carbon	mg/L	0.50	-	-	-	1.91	-
Aluminum (Al)-Total	mg/L	0.0050	-	-	-	0.0231	-
Antimony (Sb)-Total	mg/L	0.00010	-	-	-	<0.00010	-
Arsenic (As)-Total	mg/L	0.00010	0.50	-	-	<0.00010	-
Barium (Ba)-Total	mg/L	0.00010	-	-	-	0.0138	-
Beryllium (Be)-Total	mg/L	0.00010	-	-	-	<0.00010	-
Bismuth (Bi)-Total	mg/L	0.000050	-	-	-	<0.000050	-
Boron (B)-Total	mg/L	0.010	-	-	-	<0.010	-
Cadmium (Cd)-Total	mg/L	0.0000050	-	-	-	<0.0000050	-
Calcium (Ca)-Total	mg/L	0.050	-	-	-	25.3	-
Cesium (Cs)-Total	mg/L	0.000010	-	-	-	<0.000010	-
Chromium (Cr)-Total	mg/L	0.00050	-	-	-	<0.00050	-
Cobalt (Co)-Total	mg/L	0.00010	-	-	-	<0.00010	-
Copper (Cu)-Total	mg/L	0.00050	0.30	-	-	0.00103	-
Iron (Fe)-Total	mg/L	0.010	-	-	-	0.030	-
Lead (Pb)-Total	mg/L	0.000050	0.20	-	-	<0.000050	-
Lithium (Li)-Total	mg/L	0.0010	-	-	-	0.0011	-
Magnesium (Mg)-Total	mg/L	0.0050	-	-	-	16.9	-
Manganese (Mn)-Total	mg/L	0.00050	-	-	-	0.00076	-
Mercury (Hg)-Total	mg/L	0.0000050	-	-	-	<0.0000050	-
Molybdenum (Mo)-Total	mg/L	0.000050	-	-	-	0.000272	-
Nickel (Ni)-Total	mg/L	0.00050	0.50	-	-	<0.00050	-
Phosphorus (P)-Total	mg/L	0.050	-	-	-	<0.050	-
Potassium (K)-Total	mg/L	0.050	-	-	-	1.37	-
Rubidium (Rb)-Total	mg/L	0.00020	-	-	-	0.00117	-
Selenium (Se)-Total	mg/L	0.000050	-	-	-	<0.000050	-
Silicon (Si)-Total	mg/L	0.10	-	-	-	1.37	-
Silver (Ag)-Total	mg/L	0.000050	-	-	-	<0.000050	-
Sodium (Na)-Total	mg/L	0.050	-	-	-	2.50	-
Strontium (Sr)-Total	mg/L	0.0010	-	-	-	0.0155	-
Sulfur (S)-Total	mg/L	0.50	-	-	-	3.32	-
Tellurium (Te)-Total	mg/L	0.00020	-	-	-	<0.00020	-
Thallium (Tl)-Total	mg/L	0.000010	-	-	-	<0.000010	-
Thorium (Th)-Total	mg/L	0.00010	-	-	-	<0.00010	-
Tin (Sn)-Total	mg/L	0.00010	-	-	-	<0.00010	-
Titanium (Ti)-Total	mg/L	0.00030	-	-	-	0.00154	-
Tungsten (W)-Total	mg/L	0.00010	-	-	-	<0.00010	-
Uranium (U)-Total	mg/L	0.000010	-	-	-	0.00172	-
Vanadium (V)-Total	mg/L	0.00050	-	-	-	<0.00050	-
Zinc (Zn)-Total	mg/L	0.0030	0.50	-	-	<0.0030	-
Zirconium (Zr)-Total	mg/L	0.00020	-	-	-	<0.00020	-
Aluminum (Al)-Dissolved	mg/L	0.0050	-	-	-	<0.0050	-
Antimony (Sb)-Dissolved	mg/L	0.00010	-	-	-	<0.00010	-
Arsenic (As)-Dissolved	mg/L	0.00010	-	-	-	<0.00010	-
Barium (Ba)-Dissolved	mg/L	0.00010	-	-	-	0.0149	-
Beryllium (Be)-Dissolved	mg/L	0.00010	-	-	-	<0.00010	-
Bismuth (Bi)-Dissolved	mg/L	0.000050	-	-	-	<0.000050	-
Boron (B)-Dissolved	mg/L	0.010	-	-	-	<0.010	-
Cadmium (Cd)-Dissolved	mg/L	0.0000050	-	-	-	<0.0000050	-
Calcium (Ca)-Dissolved	mg/L	0.050	-	-	-	28.1	-
Cesium (Cs)-Dissolved	mg/L	0.000010	-	-	-	<0.000010	-
Chromium (Cr)-Dissolved	mg/L	0.00050	-	-	-	<0.00050	-
Cobalt (Co)-Dissolved	mg/L	0.00010	-	-	-	<0.00010	-
Copper (Cu)-Dissolved	mg/L	0.00020	-	-	-	0.00098	-
Iron (Fe)-Dissolved	mg/L	0.010	-	-	-	<0.010	-
Lead (Pb)-Dissolved	mg/L	0.000050	-	-	-	<0.000050	-
Lithium (Li)-Dissolved	mg/L	0.0010	-	-	-	0.0014	-
Magnesium (Mg)-Dissolved	mg/L	0.0050	-	-	-	17.7	-
Manganese (Mn)-Dissolved	mg/L	0.00050	-	-	-	<0.00050	-
Mercury (Hg)-Dissolved	mg/L	0.0000050	-	-	-	<0.0000050	-
Molybdenum (Mo)-Dissolved	mg/L	0.000050	-	-	-	0.000306	-
Nickel (Ni)-Dissolved	mg/L	0.00050	-	-	-	<0.00050	-
Phosphorus (P)-Dissolved	mg/L	0.050	-	-	-	<0.050	-
Potassium (K)-Dissolved	mg/L	0.050	-	-	-	1.46	-
Rubidium (Rb)-Dissolved	mg/L	0.00020	-	-	-	0.00124	-
Selenium (Se)-Dissolved	mg/L	0.000050	-	-	-	<0.000050	-
Silicon (Si)-Dissolved	mg/L	0.050	-	-	-	1.47	-
Silver (Ag)-Dissolved	mg/L	0.000050	-	-	-	<0.000050	-
Sodium (Na)-Dissolved	mg/L	0.050	-	-	-	2.63	-
Strontium (Sr)-Dissolved	mg/L	0.0010	-	-	-	0.0170	-
Sulfur (S)-Dissolved	mg/L	0.50	-	-	-	3.85	-
Tellurium (Te)-Dissolved	mg/L	0.00020	-	-	-	<0.00020	-
Thallium (Tl)-Dissolved	mg/L	0.000010	-	-	-	<0.000010	-
Thorium (Th)-Dissolved	mg/L	0.00010	-	-	-	<0.00010	-
Tin (Sn)-Dissolved	mg/L	0.00010	-	-	-	<0.00010	-
Titanium (Ti)-Dissolved	mg/L	0.00030	-	-	-	<0.00030	-
Tungsten (W)-Dissolved	mg/L	0.00010	-	-	-	<0.00010	-
Uranium (U)-Dissolved	mg/L	0.000010	-	-	-	0.00184	-
Vanadium (V)-Dissolved	mg/L	0.00050	-	-	-	<0.00050	-
Zinc (Zn)-Dissolved	mg/L	0.0010	-	-	-	<0.0010	-
Zirconium (Zr)-Dissolved	mg/L	0.00020	-	-	-	<0.00020	-
Oil and Grease, Total	mg/L	-	-	-	-	-	-
Acute Toxicity	-	-	No Visible Sheen Not Acutely Toxic	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 10: Effluent Quality Discharge Limits for Open Pit, Stockpiles, and Sedimentation Ponds.

Table 7.3.10: Water Quality Results for Water Licence Monitoring Location - MS-MRY-13A

Analyte	Sample ID			MS-MRY-13A	MS-MRY-13A	MS-MRY-13A	MS-MRY-13A
	ALS Laboratory Sample ID			L2585502-6	L2592735-4	L2595911-8	L2601055-10
	Sample Date & Time			2021-05-09 14:45	2021-05-26 12:20	2021-05-31 15:45	2021-06-08 14:50
	QA/QC Sample Type			N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	1.0	-		89.1	-	-
pH	pH units	0.10	6.0 - 9.5	7.77	7.54	7.45	7.37
Total Suspended Solids	mg/L	2.0	15.0	2.0	7.9	2.0	4.6
Total Dissolved Solids	mg/L	10	-	63	73	41	45
Turbidity	NTU	0.10	-	49.6	85.8	14.5	17.7
Alkalinity, Total (as CaCO ₃)	mg/L	1.0	-	-	38.1	-	-
Dissolved Organic Carbon	mg/L	0.50	-	-	7.44	-	-
Total Organic Carbon	mg/L	0.50	-	-	5.0	-	-
Aluminum (Al)-Total	mg/L	0.0050/0.050	-	-	1.48	-	-
Antimony (Sb)-Total	mg/L	0.00010/0.0010	-	-	0.00042	-	-
Arsenic (As)-Total	mg/L	0.00010/0.0010	0.50	-	0.00041	-	-
Barium (Ba)-Total	mg/L	0.00010/0.0010	-	-	0.0143	-	-
Beryllium (Be)-Total	mg/L	0.00010/0.0010	-	-	<0.00010	-	-
Bismuth (Bi)-Total	mg/L	0.000050/0.00050	-	-	<0.000050	-	-
Boron (B)-Total	mg/L	0.010/0.10	-	-	0.078	-	-
Cadmium (Cd)-Total	mg/L	0.0000050/0.000050	-	-	0.0000167	-	-
Calcium (Ca)-Total	mg/L	0.050/0.50	-	-	8.80	-	-
Cesium (Cs)-total	mg/L	0.000010/0.00010			0.000169		
Chromium (Cr)-Total	mg/L	0.00050/0.0050	-	-	0.00330	-	-
Cobalt (Co)-Total	mg/L	0.00010/0.0010	-	-	0.00151	-	-
Copper (Cu)-Total	mg/L	0.00050/0.0050	0.30	-	0.00339	-	-
Iron (Fe)-Total	mg/L	0.010/0.10	-	-	1.92	-	-
Lead (Pb)-Total	mg/L	0.000050/0.00050	0.20	-	0.00143	-	-
Lithium (Li)-Total	mg/L	0.0010/0.010	-	-	0.0038	-	-
Magnesium (Mg)-Total	mg/L	0.0050/0.00050	-	-	4.74	-	-
Manganese (Mn)-Total	mg/L	0.00050/0.0050	-	-	0.0462	-	-
Mercury (Hg)-Total	mg/L	0.0000050	-	-	0.0000065	-	-
Molybdenum (Mo)-Total	mg/L	0.000050/0.00050	-	-	0.000559	-	-
Nickel (Ni)-Total	mg/L	0.00050/0.0050	0.50	-	0.00626	-	-
Phosphorus (P)-Total	mg/L	0.050/0.50			0.058		
Potassium (K)-Total	mg/L	0.050/0.50	-	-	2.13	-	-
Rubidium (Rb)-Total	mg/L	0.00020/0.0020			0.00498		-
Selenium (Se)-Total	mg/L	0.000050/0.00050	-	-	0.000052	-	-
Silicon (Si)-Total	mg/L	0.10/1.0	-	-	3.11	-	-
Silver (Ag)-Total	mg/L	0.00005/0.00050	-	-	<0.000050	-	-
Sodium (Na)-Total	mg/L	0.050/0.50	-	-	1.16	-	-
Strontium (Sr)-Total	mg/L	0.0010/0.010	-	-	0.0127	-	-
Sulfur (S)-Total	mg/L	0.50/5.0			2.51		-
Tellurium (Te)-Total	mg/L	0.00020/0.0020			<0.00020		-
Thallium (Tl)-Total	mg/L	0.000010/0.00010	-	-	0.000027	-	-
Thorium (Th)-Total	mg/L	0.00010/0.0010			0.00078		-
Tin (Sn)-Total	mg/L	0.00010/0.0010	-	-	<0.00010	-	-
Titanium (Ti)-Total	mg/L	0.00030/0.0030	-	-	0.0523	-	-
Tungsten (W)-Total	mg/L	0.00010/0.0010	-	-	<0.00010	-	-
Uranium (U)-Total	mg/L	0.000010/0.00010	-	-	0.000775	-	-
Vanadium (V)-Total	mg/L	0.00050/0.0050	-	-	0.00255	-	-
Zinc (Zn)-Total	mg/L	0.0030/0.030	0.50	-	0.0093	-	-
Zirconium (Zr)-Total	mg/L	0.00020/0.0020	-	-	0.00126	-	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	-	-
	-	0.00010	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Phenols (4AAP)	mg/L	0.010/0.0010	-	-	<0.010	-	-
F1 (C6-C10)	ug/L	25	-	-	<25	-	-
F2 (C10-C16)	ug/L	100/150	-	-	<150	-	-
F3 (C16-C34)	ug/L	250/380	-	-	<380	-	-
F4 (C34-C50)	ug/L	250/380	-	-	<380	-	-
Total Hydrocarbons (C6-C50)	ug/L	370/550	-	-	<550	-	-

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 7: Landfill Facilities.

Table 7.3.10: Water Quality Results for Water Licence Monitoring Location - MS-MRY-13A

Analyte	Sample ID			MS-MRY-13A	MS-MRY-13A	MS-MRY-13A	MS-MRY-13A03
	ALS Laboratory Sample ID			L2602498-10	L2605841-12	L2608050-5	L2608050-6
	Sample Date & Time			2021-06-13 14:50	2021-06-21 15:10	2021-06-28 16:10	2021-06-28 16:10
	QA/QC Sample Type			N/A	N/A	N/A	Travel Blank
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	1.0	-	125	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.66	7.93	8.27	6.13
Total Suspended Solids	mg/L	2.0	15.0	2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	67	312	416	<10
Turbidity	NTU	0.10	-	8.87	0.27	0.43	<0.10
Alkalinity, Total (as CaCO ₃)	mg/L	1.0	-	47.1	-	-	-
Dissolved Organic Carbon	mg/L	0.50	-	2.50	-	-	-
Total Organic Carbon	mg/L	0.50	-	3.10	-	-	-
Aluminum (Al)-Total	mg/L	0.0050/0.050	-	0.113	-	-	-
Antimony (Sb)-Total	mg/L	0.00010/0.0010	-	0.00014	-	-	-
Arsenic (As)-Total	mg/L	0.00010/0.0010	0.50	0.00013	-	-	-
Barium (Ba)-Total	mg/L	0.00010/0.0010	-	0.0130	-	-	-
Beryllium (Be)-Total	mg/L	0.00010/0.0010	-	<0.00010	-	-	-
Bismuth (Bi)-Total	mg/L	0.000050/0.00050	-	<0.000050	-	-	-
Boron (B)-Total	mg/L	0.010/0.10	-	0.271	-	-	-
Cadmium (Cd)-Total	mg/L	0.0000050/0.000050	-	0.0000058	-	-	-
Calcium (Ca)-Total	mg/L	0.050/0.50	-	11.0	-	-	-
Cesium (Cs)-total	mg/L	0.000010/0.00010		0.000013			
Chromium (Cr)-Total	mg/L	0.00050/0.0050	-	<0.00050	-	-	-
Cobalt (Co)-Total	mg/L	0.00010/0.0010	-	0.00017	-	-	-
Copper (Cu)-Total	mg/L	0.00050/0.0050	0.30	0.00132	-	-	-
Iron (Fe)-Total	mg/L	0.010/0.10	-	0.190	-	-	-
Lead (Pb)-Total	mg/L	0.000050/0.00050	0.20	0.000130	-	-	-
Lithium (Li)-Total	mg/L	0.0010/0.010	-	0.0027	-	-	-
Magnesium (Mg)-Total	mg/L	0.0050/0.00050	-	6.84	-	-	-
Manganese (Mn)-Total	mg/L	0.00050/0.0050	-	0.00401	-	-	-
Mercury (Hg)-Total	mg/L	0.0000050	-	<0.0000050	-	-	-
Molybdenum (Mo)-Total	mg/L	0.000050/0.00050	-	0.000446	-	-	-
Nickel (Ni)-Total	mg/L	0.00050/0.0050	0.50	0.00468	-	-	-
Phosphorus (P)-Total	mg/L	0.050/0.50		<0.050			
Potassium (K)-Total	mg/L	0.050/0.50	-	1.08	-	-	-
Rubidium (Rb)-Total	mg/L	0.00020/0.0020		0.00248	-	-	-
Selenium (Se)-Total	mg/L	0.000050/0.00050	-	<0.000050	-	-	-
Silicon (Si)-Total	mg/L	0.10/1.0	-	0.99	-	-	-
Silver (Ag)-Total	mg/L	0.00005/0.00050	-	<0.000050	-	-	-
Sodium (Na)-Total	mg/L	0.050/0.50	-	1.93	-	-	-
Strontium (Sr)-Total	mg/L	0.0010/0.010	-	0.0100	-	-	-
Sulfur (S)-Total	mg/L	0.50/5.0		4.62	-	-	-
Tellurium (Te)-Total	mg/L	0.00020/0.0020		<0.00020	-	-	-
Thallium (Tl)-Total	mg/L	0.000010/0.00010	-	0.000013	-	-	-
Thorium (Th)-Total	mg/L	0.00010/0.0010		<0.00010	-	-	-
Tin (Sn)-Total	mg/L	0.00010/0.0010	-	0.00053	-	-	-
Titanium (Ti)-Total	mg/L	0.00030/0.0030	-	0.00428	-	-	-
Tungsten (W)-Total	mg/L	0.00010/0.0010	-	<0.00010	-	-	-
Uranium (U)-Total	mg/L	0.000010/0.00010	-	0.000107	-	-	-
Vanadium (V)-Total	mg/L	0.00050/0.0050	-	<0.00050	-	-	-
Zinc (Zn)-Total	mg/L	0.0030/0.030	0.50	0.0110	-	-	-
Zirconium (Zr)-Total	mg/L	0.00020/0.0020	-	<0.00020	-	-	-
Oil and Grease, Total	mg/L	5.0	-	<5.0	-	-	-
	-	0.00010	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	-
Phenols (4AAP)	mg/L	0.010/0.0010	-	<0.0010	-	-	-
F1 (C6-C10)	ug/L	25	-	<25	-	-	-
F2 (C10-C16)	ug/L	100/150	-	<100	-	-	-
F3 (C16-C34)	ug/L	250/380	-	<250	-	-	-
F4 (C34-C50)	ug/L	250/380	-	<250	-	-	-
Total Hydrocarbons (C6-C50)	ug/L	370/550	-	<370	-	-	-

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 7: Landfill Facilities.

Table 7.3.10: Water Quality Results for Water Licence Monitoring Location - MS-MRY-13A

Analyte	Sample ID			MS-MRY-13A	MS-MRY-13A	MS-MRY-13A01	MS-MRY-13A
	ALS Laboratory Sample ID			L2609333-5	L2612809-9	L2612809-10	L2615981-2
	Sample Date & Time			2021-07-04 12:45	2021-07-12 11:45	2021-07-12 11:45	2021-07-19 10:35
	QA/QC Sample Type			N/A	N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	1.0	-	749	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.26	7.94	7.92	8.01
Total Suspended Solids	mg/L	2.0	15.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	526	480	486	497
Turbidity	NTU	0.10	-	0.30	0.35	0.22	0.17
Alkalinity, Total (as CaCO ₃)	mg/L	1.0	-	136	-	-	-
Dissolved Organic Carbon	mg/L	0.50	-	4.54	-	-	-
Total Organic Carbon	mg/L	0.50	-	5.53	-	-	-
Aluminum (Al)-Total	mg/L	0.0050/0.050	-	<0.050	-	-	-
Antimony (Sb)-Total	mg/L	0.00010/0.0010	-	<0.0010	-	-	-
Arsenic (As)-Total	mg/L	0.00010/0.0010	0.50	<0.0010	-	-	-
Barium (Ba)-Total	mg/L	0.00010/0.0010	-	0.0472	-	-	-
Beryllium (Be)-Total	mg/L	0.00010/0.0010	-	<0.0010	-	-	-
Bismuth (Bi)-Total	mg/L	0.000050/0.00050	-	<0.00050	-	-	-
Boron (B)-Total	mg/L	0.010/0.10	-	1.44	-	-	-
Cadmium (Cd)-Total	mg/L	0.0000050/0.000050	-	<0.000050	-	-	-
Calcium (Ca)-Total	mg/L	0.050/0.50	-	65.3	-	-	-
Cesium (Cs)-total	mg/L	0.000010/0.00010	-	<0.00010	-	-	-
Chromium (Cr)-Total	mg/L	0.00050/0.0050	-	<0.0050	-	-	-
Cobalt (Co)-Total	mg/L	0.00010/0.0010	-	<0.0010	-	-	-
Copper (Cu)-Total	mg/L	0.00050/0.0050	0.30	<0.0050	-	-	-
Iron (Fe)-Total	mg/L	0.010/0.10	-	<0.10	-	-	-
Lead (Pb)-Total	mg/L	0.000050/0.00050	0.20	<0.00050	-	-	-
Lithium (Li)-Total	mg/L	0.0010/0.010	-	0.026	-	-	-
Magnesium (Mg)-Total	mg/L	0.0050/0.00050	-	48.9	-	-	-
Manganese (Mn)-Total	mg/L	0.00050/0.0050	-	<0.0050	-	-	-
Mercury (Hg)-Total	mg/L	0.0000050	-	<0.0000050	-	-	-
Molybdenum (Mo)-Total	mg/L	0.000050/0.00050	-	0.00056	-	-	-
Nickel (Ni)-Total	mg/L	0.00050/0.0050	0.50	0.0125	-	-	-
Phosphorus (P)-Total	mg/L	0.050/0.50	-	<0.50	-	-	-
Potassium (K)-Total	mg/L	0.050/0.50	-	3.08	-	-	-
Rubidium (Rb)-Total	mg/L	0.00020/0.0020	-	0.0088	-	-	-
Selenium (Se)-Total	mg/L	0.000050/0.00050	-	<0.00050	-	-	-
Silicon (Si)-Total	mg/L	0.10/1.0	-	3.3	-	-	-
Silver (Ag)-Total	mg/L	0.00005/0.00050	-	<0.00050	-	-	-
Sodium (Na)-Total	mg/L	0.050/0.50	-	15.2	-	-	-
Strontium (Sr)-Total	mg/L	0.0010/0.010	-	0.055	-	-	-
Sulfur (S)-Total	mg/L	0.50/5.0	-	56.6	-	-	-
Tellurium (Te)-Total	mg/L	0.00020/0.0020	-	<0.0020	-	-	-
Thallium (Tl)-Total	mg/L	0.000010/0.00010	-	<0.00010	-	-	-
Thorium (Th)-Total	mg/L	0.00010/0.0010	-	<0.0010	-	-	-
Tin (Sn)-Total	mg/L	0.00010/0.0010	-	<0.0010	-	-	-
Titanium (Ti)-Total	mg/L	0.00030/0.0030	-	<0.0030	-	-	-
Tungsten (W)-Total	mg/L	0.00010/0.0010	-	<0.0010	-	-	-
Uranium (U)-Total	mg/L	0.000010/0.00010	-	0.00255	-	-	-
Vanadium (V)-Total	mg/L	0.00050/0.0050	-	<0.0050	-	-	-
Zinc (Zn)-Total	mg/L	0.0030/0.030	0.50	<0.030	-	-	-
Zirconium (Zr)-Total	mg/L	0.00020/0.0020	-	<0.0020	-	-	-
Oil and Grease, Total	mg/L	5.0	-	<5.0	-	-	-
	-	0.00010	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Phenols (4AAP)	mg/L	0.010/0.0010	-	<0.0010	-	-	-
F1 (C6-C10)	ug/L	25	-	<25	-	-	-
F2 (C10-C16)	ug/L	100/150	-	<100	-	-	-
F3 (C16-C34)	ug/L	250/380	-	<250	-	-	-
F4 (C34-C50)	ug/L	250/380	-	<250	-	-	-
Total Hydrocarbons (C6-C50)	ug/L	370/550	-	<370	-	-	-

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 7: Landfill Facilities.

Table 7.3.10: Water Quality Results for Water Licence Monitoring Location - MS-MRY-13A

Analyte	Sample ID			MS-MRY-13A	MS-MRY-13A	MS-MRY-13A	MS-MRY-13A
	ALS Laboratory Sample ID			L2621268-6	L2621381-5	L2624988-5	L2627332-5
	Sample Date & Time			2021-07-29 11:40	2021-08-02 10:15	2021-08-10 14:15	2021-08-16 12:20
	QA/QC Sample Type			N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	1.0	-	-	874	-	-
pH	pH units	0.10	6.0 - 9.5	7.95	7.89	8.08	8.14
Total Suspended Solids	mg/L	2.0	15.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	512	588	700	794
Turbidity	NTU	0.10	-	0.12	0.24	0.22	0.21
Alkalinity, Total (as CaCO ₃)	mg/L	1.0	-	-	149	-	-
Dissolved Organic Carbon	mg/L	0.50	-	-	6.13	-	-
Total Organic Carbon	mg/L	0.50	-	-	6.68	-	-
Aluminum (Al)-Total	mg/L	0.0050/0.050	-	-	<0.050	-	-
Antimony (Sb)-Total	mg/L	0.00010/0.0010	-	-	<0.0010	-	-
Arsenic (As)-Total	mg/L	0.00010/0.0010	0.50	-	<0.0010	-	-
Barium (Ba)-Total	mg/L	0.00010/0.0010	-	-	0.0547	-	-
Beryllium (Be)-Total	mg/L	0.00010/0.0010	-	-	<0.0010	-	-
Bismuth (Bi)-Total	mg/L	0.000050/0.00050	-	-	<0.00050	-	-
Boron (B)-Total	mg/L	0.010/0.10	-	-	1.94	-	-
Cadmium (Cd)-Total	mg/L	0.0000050/0.000050	-	-	<0.000050	-	-
Calcium (Ca)-Total	mg/L	0.050/0.50	-	-	82.8	-	-
Cesium (Cs)-total	mg/L	0.000010/0.00010	-	-	<0.00010	-	-
Chromium (Cr)-Total	mg/L	0.00050/0.0050	-	-	<0.0050	-	-
Cobalt (Co)-Total	mg/L	0.00010/0.0010	-	-	<0.0010	-	-
Copper (Cu)-Total	mg/L	0.00050/0.0050	0.30	-	<0.0050	-	-
Iron (Fe)-Total	mg/L	0.010/0.10	-	-	<0.10	-	-
Lead (Pb)-Total	mg/L	0.000050/0.00050	0.20	-	<0.00050	-	-
Lithium (Li)-Total	mg/L	0.0010/0.010	-	-	0.030	-	-
Magnesium (Mg)-Total	mg/L	0.0050/0.00050	-	-	61.0	-	-
Manganese (Mn)-Total	mg/L	0.00050/0.0050	-	-	<0.0050	-	-
Mercury (Hg)-Total	mg/L	0.0000050	-	-	<0.0000050	-	-
Molybdenum (Mo)-Total	mg/L	0.000050/0.00050	-	-	0.00051	-	-
Nickel (Ni)-Total	mg/L	0.00050/0.0050	0.50	-	0.0148	-	-
Phosphorus (P)-Total	mg/L	0.050/0.50	-	-	<0.50	-	-
Potassium (K)-Total	mg/L	0.050/0.50	-	-	3.97	-	-
Rubidium (Rb)-Total	mg/L	0.00020/0.0020	-	-	0.0131	-	-
Selenium (Se)-Total	mg/L	0.000050/0.00050	-	-	<0.00050	-	-
Silicon (Si)-Total	mg/L	0.10/1.0	-	-	3.8	-	-
Silver (Ag)-Total	mg/L	0.00005/0.00050	-	-	<0.00050	-	-
Sodium (Na)-Total	mg/L	0.050/0.50	-	-	21.4	-	-
Strontium (Sr)-Total	mg/L	0.0010/0.010	-	-	0.064	-	-
Sulfur (S)-Total	mg/L	0.50/5.0	-	-	73.6	-	-
Tellurium (Te)-Total	mg/L	0.00020/0.0020	-	-	<0.0020	-	-
Thallium (Tl)-Total	mg/L	0.000010/0.00010	-	-	<0.00010	-	-
Thorium (Th)-Total	mg/L	0.00010/0.0010	-	-	<0.0010	-	-
Tin (Sn)-Total	mg/L	0.00010/0.0010	-	-	<0.0010	-	-
Titanium (Ti)-Total	mg/L	0.00030/0.0030	-	-	<0.0030	-	-
Tungsten (W)-Total	mg/L	0.00010/0.0010	-	-	<0.0010	-	-
Uranium (U)-Total	mg/L	0.000010/0.00010	-	-	0.00622	-	-
Vanadium (V)-Total	mg/L	0.00050/0.0050	-	-	<0.0050	-	-
Zinc (Zn)-Total	mg/L	0.0030/0.030	0.50	-	<0.030	-	-
Zirconium (Zr)-Total	mg/L	0.00020/0.0020	-	-	<0.0020	-	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	-	-
	-	0.00010	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Phenols (4AAP)	mg/L	0.010/0.0010	-	-	<0.0010	-	-
F1 (C6-C10)	ug/L	25	-	-	<25	-	-
F2 (C10-C16)	ug/L	100/150	-	-	<100	-	-
F3 (C16-C34)	ug/L	250/380	-	-	<250	-	-
F4 (C34-C50)	ug/L	250/380	-	-	<250	-	-
Total Hydrocarbons (C6-C50)	ug/L	370/550	-	-	<370	-	-

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 7: Landfill Facilities.

Table 7.3.11: Water Quality Results for Water Licence Monitoring Location - MS-MRY-13B

Analyte	Sample ID			MS-MRY-13B	MS-MRY-13B	MS-MRY-13B	MS-MRY-13B	MS-MRY-13B	MS-MRY-13B	MS-MRY-13B
	ALS Laboratory Sample ID			L2585502-5	L2601055-9	L2605841-11	L2609333-4	L2612809-8	L2615981-1	L2621268-5
	Sample Date & Time			2021-05-09 14:20	2021-06-08 14:30	2021-06-21 14:25	2021-07-04 12:10	2021-07-12 11:20	2021-07-19 10:10	2021-07-29 11:15
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	3.0/1.0	-	-	-	861	835	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.92	7.53	8.13	8.29	8.01	8.10	8.01
Total Suspended Solids	mg/L	1.0/2.0	15.0	3.9	2.5	3.1	2.1	2.5	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	157	71	558	563	366	681	606
Turbidity	NTU	0.10	-	36.6	9.14	2.49	0.31	1.53	0.16	0.20
Alkalinity, Total (as CaCO3)	mg/L	10	-	-	-	147	135	-	-	-
Dissolved Organic Carbon	mg/L	0.50	-	-	-	6.71	4.72	-	-	-
Total Organic Carbon	mg/L	0.50	-	-	-	5.72	5.69	-	-	-
Aluminum (Al)-Total	mg/L	0.050	-	-	-	<0.050	<0.050	-	-	-
Antimony (Sb)-Total	mg/L	0.0010	-	-	-	<0.0010	<0.0010	-	-	-
Arsenic (As)-Total	mg/L	0.0010	0.50	-	-	<0.0010	<0.0010	-	-	-
Barium (Ba)-Total	mg/L	0.0010	-	-	-	0.0572	0.0501	-	-	-
Beryllium (Be)-Total	mg/L	0.0010	-	-	-	<0.0010	<0.0010	-	-	-
Bismuth (Bi)-Total	mg/L	0.00050	-	-	-	<0.00050	<0.00050	-	-	-
Boron (B)-Total	mg/L	0.10	-	-	-	1.66	1.92	-	-	-
Cadmium (Cd)-Total	mg/L	0.000050	-	-	-	<0.000050	<0.000050	-	-	-
Calcium (Ca)-Total	mg/L	0.50	-	-	-	84.1	82.1	-	-	-
Chromium (Cr)-Total	mg/L	0.0050	-	-	-	<0.0050	<0.0050	-	-	-
Cobalt (Co)-Total	mg/L	0.0010	-	-	-	<0.0010	<0.0010	-	-	-
Copper (Cu)-Total	mg/L	0.0050	0.30	-	-	<0.0050	<0.0050	-	-	-
Iron (Fe)-Total	mg/L	0.10	-	-	-	<0.10	<0.10	-	-	-
Lead (Pb)-Total	mg/L	0.00050	0.20	-	-	<0.00050	<0.00050	-	-	-
Lithium (Li)-Total	mg/L	0.010	-	-	-	<0.010	0.023	-	-	-
Magnesium (Mg)-Total	mg/L	0.050	-	-	-	52.3	46.5	-	-	-
Manganese (Mn)-Total	mg/L	0.0050	-	-	-	<0.0050	0.0072	-	-	-
Mercury (Hg)-Total	mg/L	0.0000050	-	-	-	<0.0000050	<0.0000050	-	-	-
Molybdenum (Mo)-Total	mg/L	0.00050	-	-	-	<0.00050	<0.00050	-	-	-
Nickel (Ni)-Total	mg/L	0.0050	0.50	-	-	0.0131	0.0130	-	-	-
Potassium (K)-Total	mg/L	0.50	-	-	-	2.96	3.57	-	-	-
Selenium (Se)-Total	mg/L	0.00050	-	-	-	<0.00050	<0.00050	-	-	-
Silicon (Si)-Total	mg/L	1.0	-	-	-	2.6	3.2	-	-	-
Silver (Ag)-Total	mg/L	0.00050	-	-	-	<0.00050	<0.00050	-	-	-
Sodium (Na)-Total	mg/L	0.50	-	-	-	16.5	18.4	-	-	-
Strontium (Sr)-Total	mg/L	0.010	-	-	-	0.091	0.101	-	-	-
Thallium (Tl)-Total	mg/L	0.00010	-	-	-	<0.00010	<0.00010	-	-	-
Tin (Sn)-Total	mg/L	0.0010	-	-	-	<0.0010	<0.0010	-	-	-
Titanium (Ti)-Total	mg/L	0.0030	-	-	-	<0.0030	<0.0030	-	-	-
Tungsten (W)-Total	mg/L	0.0010	-	-	-	<0.0010	<0.0010	-	-	-
Uranium (U)-Total	mg/L	0.00010	-	-	-	0.00488	0.00493	-	-	-
Vanadium (V)-Total	mg/L	0.0050	-	-	-	<0.0050	<0.0050	-	-	-
Zinc (Zn)-Total	mg/L	0.030	0.50	-	-	<0.030	<0.030	-	-	-
Zirconium (Zr)-Total	mg/L	0.0020	-	-	-	<0.0020	<0.0020	-	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-	<5.0	<2.0	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Phenols (4AAP)	mg/L	0.0010	-	-	-	<0.0010	<0.0010	-	-	-
F1 (C6-C10)	ug/L	25	-	-	-	<25	<25	-	-	-
F2 (C10-C16)	ug/L	100	-	-	-	<100	<100	-	-	-
F3 (C16-C34)	ug/L	250	-	-	-	<250	<250	-	-	-
F4 (C34-C50)	ug/L	250	-	-	-	<250	<250	-	-	-
Total Hydrocarbons (C6-C50)	ug/L	370	-	-	-	<370	<370	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 7: Landfill Facilities.

Table 7.3.11: Water Quality Results for Water Licence Monitoring Location - MS-MRY-13B

Analyte	Sample ID			MS-MRY-13B	MS-MRY-13B	MS-MRY-13B	MS-MRY-13B03	MS-MRY-13B	MS-MRY-13B	MS-MRY-13B	MS-MRY-13B01	MS-MRY-13B
	ALS Laboratory Sample ID			L2621381-6	L2624988-4	L2627332-3	L2627332-4	L2630140-5	L2635278-9	L2636426-5	L2636426-6	L2639307-9
	Sample Date & Time			2021-08-02 9:30	2021-08-10 13:55	2021-08-16 12:00	2021-08-16 12:00	2021-08-22 10:40	2021-09-02 10:30	2021-09-07 12:30	2021-09-07 12:30	2021-09-13 14:10
	QA/QC Sample Type			N/A	N/A	N/A	Travel Blank	N/A	N/A	N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹									
Conductivity	umhos/cm	3.0/1.0	-	815	-	-	-	-	1,380	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.99	8.10	8.15	5.97	8.11	7.93	7.55	7.57	7.30
Total Suspended Solids	mg/L	1.0/2.0	15.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	658	832	649	<10	959	991	1100	1030	1240
Turbidity	NTU	0.10	-	0.15	0.16	0.25	<0.10	<0.10	0.24	0.11	0.12	0.41
Alkalinity, Total (as CaCO3)	mg/L	10	-	135	-	-	-	-	189	-	-	-
Dissolved Organic Carbon	mg/L	0.50	-	6.53	-	-	-	-	8.75	-	-	-
Total Organic Carbon	mg/L	0.50	-	6.97	-	-	-	-	7.85	-	-	-
Aluminum (Al)-Total	mg/L	0.050	-	<0.050	-	-	-	-	<0.050	-	-	-
Antimony (Sb)-Total	mg/L	0.0010	-	<0.0010	-	-	-	-	<0.0010	-	-	-
Arsenic (As)-Total	mg/L	0.0010	0.50	<0.0010	-	-	-	-	<0.0010	-	-	-
Barium (Ba)-Total	mg/L	0.0010	-	0.0419	-	-	-	-	0.0818	-	-	-
Beryllium (Be)-Total	mg/L	0.0010	-	<0.0010	-	-	-	-	<0.0010	-	-	-
Bismuth (Bi)-Total	mg/L	0.00050	-	<0.00050	-	-	-	-	<0.00050	-	-	-
Boron (B)-Total	mg/L	0.10	-	2.25	-	-	-	-	4.92	-	-	-
Cadmium (Cd)-Total	mg/L	0.000050	-	<0.000050	-	-	-	-	<0.000050	-	-	-
Calcium (Ca)-Total	mg/L	0.50	-	88.1	-	-	-	-	165	-	-	-
Chromium (Cr)-Total	mg/L	0.0050	-	<0.0050	-	-	-	-	<0.0050	-	-	-
Cobalt (Co)-Total	mg/L	0.0010	-	<0.0010	-	-	-	-	<0.0010	-	-	-
Copper (Cu)-Total	mg/L	0.0050	0.30	<0.0050	-	-	-	-	<0.0050	-	-	-
Iron (Fe)-Total	mg/L	0.10	-	<0.10	-	-	-	-	<0.10	-	-	-
Lead (Pb)-Total	mg/L	0.00050	0.20	<0.00050	-	-	-	-	<0.00050	-	-	-
Lithium (Li)-Total	mg/L	0.010	-	0.010	-	-	-	-	0.059	-	-	-
Magnesium (Mg)-Total	mg/L	0.050	-	51.7	-	-	-	-	71.2	-	-	-
Manganese (Mn)-Total	mg/L	0.0050	-	<0.0050	-	-	-	-	<0.0050	-	-	-
Mercury (Hg)-Total	mg/L	0.0000050	-	<0.0000050	-	-	-	-	<0.0000050	-	-	-
Molybdenum (Mo)-Total	mg/L	0.00050	-	<0.00050	-	-	-	-	0.00059	-	-	-
Nickel (Ni)-Total	mg/L	0.0050	0.50	0.0123	-	-	-	-	0.0189	-	-	-
Potassium (K)-Total	mg/L	0.50	-	3.07	-	-	-	-	6.90	-	-	-
Selenium (Se)-Total	mg/L	0.00050	-	<0.00050	-	-	-	-	<0.00050	-	-	-
Silicon (Si)-Total	mg/L	1.0	-	3.5	-	-	-	-	4.2	-	-	-
Silver (Ag)-Total	mg/L	0.00050	-	<0.00050	-	-	-	-	<0.00050	-	-	-
Sodium (Na)-Total	mg/L	0.50	-	18.0	-	-	-	-	35.3	-	-	-
Strontium (Sr)-Total	mg/L	0.010	-	0.108	-	-	-	-	0.232	-	-	-
Thallium (Tl)-Total	mg/L	0.00010	-	<0.00010	-	-	-	-	<0.00010	-	-	-
Tin (Sn)-Total	mg/L	0.0010	-	<0.0010	-	-	-	-	<0.0010	-	-	-
Titanium (Ti)-Total	mg/L	0.0030	-	<0.0030	-	-	-	-	<0.0030	-	-	-
Tungsten (W)-Total	mg/L	0.0010	-	<0.0010	-	-	-	-	<0.0010	-	-	-
Uranium (U)-Total	mg/L	0.00010	-	0.00551	-	-	-	-	0.0165	-	-	-
Vanadium (V)-Total	mg/L	0.0050	-	<0.0050	-	-	-	-	<0.0050	-	-	-
Zinc (Zn)-Total	mg/L	0.030	0.50	<0.030	-	-	-	-	<0.030	-	-	-
Zirconium (Zr)-Total	mg/L	0.0020	-	<0.0020	-	-	-	-	<0.0020	-	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	<5.0	-	-	-	-	<5.0	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Phenols (4AAP)	mg/L	0.0010	-	0.0011	-	-	-	-	<0.0010	-	-	-
F1 (C6-C10)	ug/L	25	-	<25	-	-	-	-	<25	-	-	-
F2 (C10-C16)	ug/L	100	-	<100	-	-	-	-	<100	-	-	-
F3 (C16-C34)	ug/L	250	-	<250	-	-	-	-	<250	-	-	-
F4 (C34-C50)	ug/L	250	-	<250	-	-	-	-	<250	-	-	-
Total Hydrocarbons (C6-C50)	ug/L	370	-	<370	-	-	-	-	<370	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 7: Landfill Facilities.

Table 7.3.12: Water Quality Results for Water Licence Monitoring Location - MS-C-A

Analyte	Sample ID			MS-C-A	MS-C-A	MS-C-A	MS-C-A	MS-C-A01	MS-C-A
	ALS Laboratory Sample ID			L2592735-5	L2595911-7	L2601055-5	L2602498-6	L2602498-7	L2605841-13
	Sample Date & Time			2021-05-26 10:45	2021-05-31 10:45	2021-06-08 12:55	2021-06-13 11:25	2021-06-13 11:25	2021-06-21 17:15
	QA/QC Sample Type			N/A	N/A	N/A	N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹						
Conductivity	umhos/cm	1.0/3.0	-	46.0	-	-	91.2	91.5	-
pH	pH units	0.10	6.0 - 9.5	7.31	7.35	7.55	7.74	7.73	7.93
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	6.5	3.5	3.1	<1.0	<1.0	<2.0
Total Dissolved Solids	mg/L	10	-	36	33	47	53	38	85
Turbidity	NTU	0.10	-	26.7	13.1	1.45	10.2	10.2	3.37
Ammonia, Total (as N)	mg/L	0.010/0.20	-	<0.010	-	-	<0.010	<0.010	-
Nitrate (as N)	mg/L	0.020	-	0.062	-	-	0.084	0.088	-
Oil and Grease, Total	mg/L	2.0/5.0	-	<2.0	-	-	<5.0	<5.0	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.12: Water Quality Results for Water Licence Monitoring Location - MS-C-A

Analyte	Sample ID			MS-C-A03	MS-C-A	MS-C-A	MS-C-A	MS-C-A	MS-C-A	MS-C-A
	ALS Laboratory Sample ID			L2605841-14	L2608050-11	L2609728-4	L2612809-1	L2612809-2	L2615981-9	L2621358-2
	Sample Date & Time			2021-06-21 17:15	2021-06-29 12:30	2021-07-05 11:30	2021-07-12 8:50	2021-07-12 8:50	2021-07-19 13:40	2021-07-31 9:10
	QA/QC Sample Type			Travel Blank	N/A	N/A	N/A	Field Blank	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0/3.0	-	-	-	155	-	-	-	-
pH	pH units	0.10	6.0 - 9.5	5.91	7.88	8.14	7.80	5.54	7.91	7.87
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	<2.0	<2.0	<2.0	<2.0	<2.0	2.9	2.5
Total Dissolved Solids	mg/L	10	-	<10	66	69	88	11	128	117
Turbidity	NTU	0.10	-	<0.10	1.95	1.15	1.16	<0.10	9.03	7.43
Ammonia, Total (as N)	mg/L	0.010/0.20	-	-	-	0.34	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	0.180	-	-	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-	<5.0	-	-	-	-
	-	-	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.12: Water Quality Results for Water Licence Monitoring Location - MS-C-A

Analyte	Sample ID			MS-C-A01	MS-C-A	MS-C-A	MS-C-A	MS-C-A	MS-C-A	MS-C-A
	ALS Laboratory Sample ID			L2621358-3	L2621381-4	L2626309-5	L2627332-9	L2630140-13	L2635278-2	L2636426-1
	Sample Date & Time			2021-07-31 9:10	2021-08-02 11:10	2021-08-11 10:20	2021-08-16 15:55	2021-08-22 14:35	2021-09-02 9:00	2021-09-07 10:30
	QA/QC Sample Type			Field Duplicate	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0/3.0	-	-	250	-	-	-	238	-
pH	pH units	0.10	6.0 - 9.5	7.88	7.89	8.05	8.09	8.06	7.95	7.87
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	2.5	<2.0	2.4	<2.0	<2.0	<2.0	3.7
Total Dissolved Solids	mg/L	10	-	120	134	135	137	170	127	123
Turbidity	NTU	0.10	-	7.57	4.47	14.6	11.2	8.15	3.00	2.44
Ammonia, Total (as N)	mg/L	0.010/0.20	-	-	0.053	-	-	-	<0.010	-
Nitrate (as N)	mg/L	0.020	-	-	0.344	-	-	-	0.289	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<5.0	-	-	-	<5.0	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.12: Water Quality Results for Water Licence Monitoring Location - MS-C-A

Analyte	Sample ID			MS-C-A	MS-C-A	MS-C-A	MS-C-A
	ALS Laboratory Sample ID			L2639307-12	L2642214-4	L2644501-3	L2647099-6
	Sample Date & Time			2021-09-13 16:00	2021-09-20 15:30	2021-09-27 14:30	2021-10-04 16:30
	QA/QC Sample Type			N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	1.0/3.0	-	-	-	-	221
pH	pH units	0.10	6.0 - 9.5	7.85	7.76	7.63	7.79
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	98	154	193	109
Turbidity	NTU	0.10	-	2.11	1.04	0.80	2.05
Ammonia, Total (as N)	mg/L	0.010/0.20	-	-	-	-	<0.010
Nitrate (as N)	mg/L	0.020	-	-	-	-	0.219
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-	-	<2.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.13: Water Quality Results for Water Licence Monitoring Location - MS-C-B

Analyte	Sample ID			MS-C-B	MS-C-B01	MS-C-B	MS-C-B01	MS-C-B	MS-C-B01	MS-C-B
	ALS Laboratory Sample ID			L2585502-3	L2585502-4	L2592735-6	L2592735-7	L2595911-5	L2595911-6	L2601055-6
	Sample Date & Time			2021-05-09 10:55	2021-05-09 10:55	2021-05-26 11:10	2021-05-26 11:10	2021-05-31 11:10	2021-05-31 11:10	2021-06-08 13:20
	QA/QC Sample Type			N/A	Field Duplicate	N/A	Field Duplicate	N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0/3.0	-	-	-	46.9	46.7	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.50	7.49	7.29	7.31	7.40	7.37	7.58
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	2.5	2.0	20.1	29.6	2.4	2.0	2.5
Total Dissolved Solids	mg/L	10	-	55	57	49	44	32	32	44
Turbidity	NTU	0.10	-	32.6	32.9	40.4	60.2	14.8	15.6	19.4
Ammonia, Total (as N)	mg/L	0.010	-	-	-	0.011	0.012	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	0.076	0.114	-	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-	<5.0	<2.0	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.13: Water Quality Results for Water Licence Monitoring Location - MS-C-B

Analyte	Sample ID			MS-C-B01	MS-C-B	MS-C-B	MS-C-B01	MS-C-B	MS-C-B	MS-C-B
	ALS Laboratory Sample ID			L2601055-7	L2602498-8	L2605841-15	L2605841-16	L2608050-15	L2609728-5	L2612809-3
	Sample Date & Time			2021-06-08 13:20	2021-06-13 12:05	2021-06-21 17:45	2021-06-21 17:45	2021-06-29 12:40	2021-07-05 12:05	2021-07-12 9:20
	QA/QC Sample Type			Field Duplicate	N/A	N/A	Field Duplicate	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0/3.0	-	-	87.5	-	-	-	160	-
pH	pH units	0.10	6.0 - 9.5	7.52	7.72	7.89	7.86	7.80	8.16	7.79
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	2.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	43	53	61	61	74	82	101
Turbidity	NTU	0.10	-	19.2	10.6	3.86	3.84	2.37	1.38	1.45
Ammonia, Total (as N)	mg/L	0.010	-	-	<0.010	-	-	-	0.033	-
Nitrate (as N)	mg/L	0.020	-	-	0.104	-	-	-	0.195	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<5.0	-	-	-	<5.0	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.13: Water Quality Results for Water Licence Monitoring Location - MS-C-B

Analyte	Sample ID			MS-C-B	MS-C-B01	MS-C-B	MS-C-B	MS-C-B	MS-C-B01	MS-C-B
	ALS Laboratory Sample ID			L2615981-12	L2615981-14	L2621358-4	L2621381-3	L2626309-6	L2626309-7	L2627332-10
	Sample Date & Time			2021-07-19 14:10	2021-07-19 14:10	2021-07-31 9:45	2021-08-02 11:45	2021-08-11 10:55	2021-08-11 10:55	2021-08-16 16:35
	QA/QC Sample Type			N/A	Field Duplicate	N/A	N/A	N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0/3.0	-	-	-	-	253	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.88	7.63	7.87	7.85	8.03	8.03	8.11
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	2.1	<2.0	<2.0	<2.0	2.9	<2.0	2.4
Total Dissolved Solids	mg/L	10	-	120	133	118	143	150	148	104
Turbidity	NTU	0.10	-	10.2	10.4	8.83	5.10	17.4	17.2	12.9
Ammonia, Total (as N)	mg/L	0.010	-	-	-	-	<0.010	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	-	0.369	-	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-	-	<5.0	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.13: Water Quality Results for Water Licence Monitoring Location - MS-C-B

Analyte	Sample ID			MS-C-B	MS-C-B	MS-C-B	MS-C-B	MS-C-B
	ALS Laboratory Sample ID			L2630140-14	L2635278-7	L2636426-2	L2639307-13	L2647099-7
	Sample Date & Time			2021-08-22 15:00	2021-09-02 9:40	2021-09-07 10:55	2021-09-13 16:15	2021-10-04 16:45
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹					
Conductivity	umhos/cm	1.0/3.0	-	-	252	-	-	201
pH	pH units	0.10	6.0 - 9.5	8.00	7.84	7.83	7.72	7.70
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	3.5	<2.0	2.1	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	169	148	133	64	99
Turbidity	NTU	0.10	-	8.64	2.95	2.23	1.76	4.24
Ammonia, Total (as N)	mg/L	0.010	-	-	<0.010	-	-	<0.010
Nitrate (as N)	mg/L	0.020	-	-	0.336	-	-	0.235
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<5.0	-	-	<2.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.14: Water Quality Results for Water Licence Monitoring Location - MS-C-C

Analyte	Sample ID			MS-C-C	MS-C-C	MS-C-C	MS-C-C	MS-C-C	MS-C-C	MS-C-C
	ALS Laboratory Sample ID			L2585502-9	L2592735-3	L2595911-10	L2608050-9	L2609333-9	L2612809-7	L2615981-13
	Sample Date & Time			2021-05-09 16:40	2021-05-26 10:50	2021-06-01 9:55	2021-06-28 17:00	2021-07-04 15:10	2021-07-12 10:25	2021-07-19 14:10
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0/3.0	-	-	320	-	-	930	-	-
pH	pH units	0.10	6.0 - 9.5	7.80	7.75	7.69	7.83	8.18	7.82	7.92
Total Suspended Solids	mg/L	2.0	Grab 30 and Average 15	13.6	8.4	16.7	2.5	<2.0	5.8	2.5
Total Dissolved Solids	mg/L	10	-	168	181	298	745	679	556	601
Turbidity	NTU	0.10	-	108	24.7	32.3	2.8	4.64	94.1	3.67
Ammonia, Total (as N)	mg/L	0.010	-	-	1.02	-	-	<0.010	-	-
Nitrate (as N)	mg/L	0.020	-	-	1.36	-	-	7.40	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<2.0	-	-	<5.0	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.14: Water Quality Results for Water Licence Monitoring Location - MS-C-C

Analyte	Sample ID			MS-C-C	MS-C-C	MS-C-C	MS-C-C	MS-C-C	MS-C-C	MS-C-C	MS-C-C
	ALS Laboratory Sample ID			L2621268-9	L2621381-12	L2626309-3	L2627332-13	L2630140-11	L2635278-6	L2636426-10	L2647099-5
	Sample Date & Time			2021-07-29 14:05	2021-08-02 14:00	2021-08-11 9:40	2021-08-16 15:05	2021-08-22 13:55	2021-09-02 9:30	2021-09-07 13:40	2021-10-04 10:15
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹								
Conductivity	umhos/cm	1.0/3.0	-	-	836	-	-	-	937	-	670
pH	pH units	0.10	6.0 - 9.5	7.93	7.94	8.00	8.11	8.12	8.02	7.85	7.97
Total Suspended Solids	mg/L	2.0	Grab 30 and Average 15	<2.0	<2.0	<2.0	<2.0	<2.0	4.2	4.6	8.0
Total Dissolved Solids	mg/L	10	-	564	557	487	500	611	640	658	405
Turbidity	NTU	0.10	-	2.18	6.27	3.74	0.22	2.07	8.31	0.76	57.6
Ammonia, Total (as N)	mg/L	0.010	-	-	<0.010	-	-	-	<0.010	-	0.058
Nitrate (as N)	mg/L	0.020	-	-	6.54	-	-	-	7.51	-	5.76
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<5.0	-	-	-	<5.0	-	<2.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.15: Water Quality Results for Water Licence Monitoring Location - MS-C-D

Analyte	Sample ID			MS-C-D	MS-C-D	MS-C-D	MS-C-D01	MS-C-D	MS-C-D	MS-C-D	MS-C-D01
	ALS Laboratory Sample ID			L2585502-8	L2592735-2	L2595911-11	L2595911-12	L2600576-1	L2608050-8	L2609333-7	L2609333-8
	Sample Date & Time			2021-05-09 16:25	2021-05-26 10:25	2021-06-01 9:30	2021-06-01 9:30	2021-06-08 17:10	2021-06-28 16:40	2021-07-04 14:35	2021-07-04 14:35
	QA/QC Sample Type			N/A	N/A	N/A	Field Duplicate	N/A	N/A	N/A	Field Duplicate
	Units	LOR	Water Licence Criteria ¹								
Conductivity	umhos/cm	1.0/3.0	-	-	291	-	-	-	-	845	854
pH	pH units	0.10	6.0 - 9.5	7.82	7.67	7.91	7.86	7.99	8.45	8.45	8.44
Total Suspended Solids	mg/L	2.0	Grab 30 and Average 15	131	5.8	12.3	12.4	25.0	4.5	4.6	5.9
Total Dissolved Solids	mg/L	10	-	171	166	183	181	146	561	610	624
Turbidity	NTU	0.10	-	411	74.3	64.1	66.5	88.4	13.2	23.7	23.9
Ammonia, Total (as N)	mg/L	0.010	-	-	0.568	-	-	-	-	<0.010	<0.010
Nitrate (as N)	mg/L	0.020	-	-	0.581	-	-	-	-	3.99	4.00
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<2.0	-	-	-	-	<5.0	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.15: Water Quality Results for Water Licence Monitoring Location - MS-C-D

Analyte	Sample ID			MS-C-D	MS-C-D	MS-C-D	MS-C-D	MS-C-D	MS-C-D	MS-C-D	MS-C-D
	ALS Laboratory Sample ID			L2612809-6	L2615981-11	L2621268-8	L2621381-10	L2626309-2	L2627332-7	L2630140-10	L2635278-5
	Sample Date & Time			2021-07-12 10:10	2021-07-19 13:55	2021-07-29 13:50	2021-08-02 13:35	2021-08-11 9:15	2021-08-16 14:55	2021-08-22 13:45	2021-09-02 9:15
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹								
Conductivity	umhos/cm	1.0/3.0	-	-	-	-	885	-	-	-	869
pH	pH units	0.10	6.0 - 9.5	8.10	8.31	8.20	8.26	8.17	8.37	8.49	8.30
Total Suspended Solids	mg/L	2.0	Grab 30 and Average 15	10.9	10.1	4.7	3.9	3.8	5.7	6.0	2.5
Total Dissolved Solids	mg/L	10	-	616	677	626	578	464	472	561	565
Turbidity	NTU	0.10	-	71.3	42.5	20.5	22.0	25.8	44.8	13.8	7.11
Ammonia, Total (as N)	mg/L	0.010	-	-	-	-	0.028	-	-	-	<0.010
Nitrate (as N)	mg/L	0.020	-	-	-	-	5.41	-	-	-	6.32
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-	-	<2.0	-	-	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.15: Water Quality Results for Water Licence Monitoring Location - MS-C-D

Analyte	Sample ID			MS-C-D	MS-C-D
	ALS Laboratory Sample ID			L2636426-8	L2639307-8
	Sample Date & Time			2021-09-07 13:25	2021-09-13 13:00
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
Conductivity	umhos/cm	1.0/3.0	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.24	8.13
Total Suspended Solids	mg/L	2.0	Grab 30 and Average 15	4.1	3.0
Total Dissolved Solids	mg/L	10	-	599	563
Turbidity	NTU	0.10	-	13.8	10.1
Ammonia, Total (as N)	mg/L	0.010	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.16: Water Quality Results for Water Licence Monitoring Location - MS-C-E

Analyte	Sample ID			MS-C-E	MS-C-E	MS-C-E	MS-C-E	MS-C-E	MS-C-E	MS-C-E
	ALS Laboratory Sample ID			L2585502-7	L2592735-1	L2595911-9	L2601055-12	L2602498-3	L2602498-4	L2605841-10
	Sample Date & Time			2021-05-09 16:10	2021-05-26 9:25	2021-06-01 9:15	2021-06-08 16:10	2021-06-13 9:50	2021-06-13 9:50	2021-06-21 13:20
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0/3.0	-	-	166	-	-	346	348	-
pH	pH units	0.10	6.0 - 9.5	7.67	7.65	7.67	7.85	7.98	7.98	8.14
Total Suspended Solids ²	mg/L	1.0/2.0	Grab 30 and Average 15	69.4	21.7	7.4	7.7	1.3	1.0	<2.0
Total Dissolved Solids	mg/L	10/20	-	85	102	77	103	204	200	497
Turbidity	NTU	0.10	-	157	60.5	21.0	43.6	1.66	1.39	3.14
Ammonia, Total (as N)	mg/L	0.010	-	-	0.179	-	-	0.013	0.013	-
Nitrate (as N)	mg/L	0.020	-	-	0.292	-	-	0.751	0.746	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<2.0	-	-	<5.0	<5.0	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.16: Water Quality Results for Water Licence Monitoring Location - MS-C-E

Analyte	Sample ID			MS-C-E	MS-C-E	MS-C-E	MS-C-E	MS-C-E	MS-C-E	MS-C-E	MS-C-E
	ALS Laboratory Sample ID			L2608050-7	L2609333-6	L2612809-5	L2615981-10	L2621268-7	L2621381-11	L2626309-4	L2627332-6
	Sample Date & Time			2021-06-28 16:30	2021-07-04 14:20	2021-07-12 10:00	2021-07-19 13:45	2021-07-29 13:45	2021-08-02 12:55	2021-08-11 8:50	2021-08-16 14:25
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹								
Conductivity	umhos/cm	1.0/3.0	-	-	730	-	-	-	832	-	-
pH	pH units	0.10	6.0 - 9.5	8.16	8.30	7.99	8.05	8.03	8.06	8.06	8.15
Total Suspended Solids ²	mg/L	1.0/2.0	Grab 30 and Average 15	<2.0	<2.0	2.5	2.1	<2.0	2.9	<2.0	<2.0
Total Dissolved Solids	mg/L	10/20	-	487	537	559	672	605	564	631	624
Turbidity	NTU	0.10	-	1.70	4.75	11.3	5.85	3.71	8.15	5.73	6.98
Ammonia, Total (as N)	mg/L	0.010	-	-	<0.010	-	-	-	<0.010	-	-
Nitrate (as N)	mg/L	0.020	-	-	2.74	-	-	-	4.79	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<5.0	-	-	-	<5.0	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.16: Water Quality Results for Water Licence Monitoring Location - MS-C-E

Analyte	Sample ID			MS-C-E	MS-C-E	MS-C-E01	MS-C-E	MS-C-E	MS-C-E03	MS-C-E
	ALS Laboratory Sample ID			L2630140-9	L2635278-3	L2635278-3	L2636426-7	L2639307-6	L2639307-7	L2647099-4
	Sample Date & Time			2021-08-22 13:35	2021-09-02 9:00	2021-09-02 9:00	2021-09-07 13:20	2021-09-13 12:50	2021-09-13 12:50	2021-10-04 9:50
	QA/QC Sample Type			N/A	N/A	Field Duplicate	N/A	N/A	Travel Blank	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0/3.0	-	-	980	973	-	-	-	667
pH	pH units	0.10	6.0 - 9.5	8.19	7.99	8.01	7.91	7.52	5.91	8.02
Total Suspended Solids ²	mg/L	1.0/2.0	Grab 30 and Average 15	2.5	3.3	2.9	3.8	10.2	<2.0	4.0
Total Dissolved Solids	mg/L	10/20	-	715	661	698	725	685	<10	390
Turbidity	NTU	0.10	-	2.73	5.46	5.30	2.04	2.29	<0.10	36.5
Ammonia, Total (as N)	mg/L	0.010	-	-	<0.010	<0.010	-	-	-	0.046
Nitrate (as N)	mg/L	0.020	-	-	6.73	6.71	-	-	-	4.15
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<5.0	<5.0	-	-	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.17: Water Quality Results for Water Licence Monitoring Location - MS-C-F

Analyte	Sample ID			MS-C-F	MS-C-F	MS-C-F	MS-C-F	MS-C-F	MS-C-F	MS-C-F
	ALS Laboratory Sample ID			L2601055-8	L2602498-5	L2605841-1	L2608050-10	L2609333-10	L2612809-4	L2616345-1
	Sample Date & Time			2021-06-08 13:55	2021-06-13 10:35	2021-06-22 9:20	2021-06-29 13:15	2021-07-04 16:10	2021-07-12 9:45	2021-07-21 7:45
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0	-	-	84.8	-	-	152	-	-
pH	pH units	0.10	6.0 - 9.5	7.48	7.68	7.92	8.06	8.19	7.94	7.87
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	4.0	3.4	23.5	<2.0	<2.0	2.5	16.7
Total Dissolved Solids	mg/L	10	-	47	51	68	96	105	106	117
Turbidity	NTU	0.10	-	32.9	20.2	29.0	12.0	8.84	11.3	33.3
Ammonia, Total (as N)	mg/L	0.010	-	-	0.023	-	-	0.016	-	-
Nitrate (as N)	mg/L	0.020	-	-	0.060	-	-	0.184	-	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	-	-	<5.0	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.17: Water Quality Results for Water Licence Monitoring Location - MS-C-F

Analyte	Sample ID			MS-C-F	MS-C-F	MS-C-F01	MS-C-F	MS-C-F	MS-C-F	MS-C-F	MS-C-F
	ALS Laboratory Sample ID			L2621358-1	L2621381-1	L2621381-2	L2624988-8	L2627332-8	L2630140-12	L2635278-1	L2636426-9
	Sample Date & Time			2021-07-31 8:50	2021-08-02 12:50	2021-08-02 12:50	2021-08-10 16:55	2021-08-16 15:35	2021-08-22 14:15	2021-09-02 8:25	2021-09-07 13:25
	QA/QC Sample Type			N/A	N/A	Field Duplicate	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹								
Conductivity	umhos/cm	1.0	-	-	266	267	-	-	-	252	-
pH	pH units	0.10	6.0 - 9.5	7.92	8.02	8.03	8.01	8.08	8.03	7.95	7.87
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	10.4	5.8	6.3	29.4	15.7	36.3	26.7	7.7
Total Dissolved Solids	mg/L	10	-	138	139	145	200	151	206	153	144
Turbidity	NTU	0.10	-	31.9	15.4	16.0	94.7	48.8	68.3	41.9	14.3
Ammonia, Total (as N)	mg/L	0.010	-	-	0.019	0.023	-	-	-	0.015	-
Nitrate (as N)	mg/L	0.020	-	-	0.460	0.445	-	-	-	0.357	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	<5.0	-	-	-	<5.0	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.18: Water Quality Results for Water Licence Monitoring Location - MS-C-G

Analyte	Sample ID			MS-C-G	MS-C-G03	MS-C-G	MS-C-G02	MS-C-G	MS-C-G	MS-C-G
	ALS Laboratory Sample ID			L2605841-2	L2605841-3	L2608050-2	L2608050-3	L2609333-2	L2612809-11	L2615981-7
	Sample Date & Time			2021-06-22 9:55	2021-06-22 9:55	2021-06-28 10:55	2021-06-28 10:55	2021-07-04 10:30	2021-07-12 12:15	2021-07-19 12:05
	QA/QC Sample Type			N/A	Travel Blank	N/A	Field Blank	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0	-	194	1.2	-	-	191	-	-
pH	pH units	0.10	6.0 - 9.5	8.07	5.29	7.9	6.05	8.17	7.77	7.77
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	97	<10	106	97	117	120	121
Turbidity	NTU	0.10	-	3.17	0.22	1.35	<0.10	0.54	0.26	<0.10
Ammonia, Total (as N)	mg/L	0.050/0.010	-	0.038	<0.010	-	-	<0.010	-	-
Nitrate (as N)	mg/L	0.020	-	0.478	<0.020	-	-	0.693	-	-
Oil and Grease, Total	mg/L	5.0	-	<5.0	<5.0	-	-	<5.0	-	-
	-	-	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.18: Water Quality Results for Water Licence Monitoring Location - MS-C-G

Analyte	Sample ID			MS-C-G	MS-C-G	MS-C-G	MS-C-G02	MS-C-G	MS-C-G	MS-C-G01
	ALS Laboratory Sample ID			L2621358-5	L2621381-13	L2624988-1	L2624988-2	L2627332-14	L2630140-6	L2630140-15
	Sample Date & Time			2021-07-31 11:50	2021-08-02 11:00	2021-08-10 12:40	2021-08-10 12:40	2021-08-16 12:55	2021-08-22 11:15	2021-08-22 11:15
	QA/QC Sample Type			N/A	N/A	N/A	Field Blank	N/A	N/A	Field Duplicate
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0	-	-	243	-	-	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.76	7.71	7.99	6.26	7.97	7.73	7.75
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	3.3
Total Dissolved Solids	mg/L	10	-	106	146	153	<10	93	171	170
Turbidity	NTU	0.10	-	0.17	<0.10	0.18	<0.10	0.22	0.10	<0.10
Ammonia, Total (as N)	mg/L	0.050/0.010	-	-	0.012	-	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	5.28	-	-	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	-	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.18: Water Quality Results for Water Licence Monitoring Location - MS-C-G

Analyte	Sample ID			MS-C-G	MS-C-G	MS-C-G
	ALS Laboratory Sample ID			L2635278-8	L2636426-3	L2639307-10
	Sample Date & Time			2021-09-02 10:25	2021-09-07 12:05	2021-09-13 14:40
	QA/QC Sample Type			N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	1.0	-	312	-	-
pH	pH units	0.10	6.0 - 9.5	7.63	7.61	7.55
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	187	177	152
Turbidity	NTU	0.10	-	0.10	<0.10	0.11
Ammonia, Total (as N)	mg/L	0.050/0.010	-	1.82	-	-
Nitrate (as N)	mg/L	0.020	-	11.2	-	-
Oil and Grease, Total	mg/L	5.0	-	<5.0	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.19: Water Quality Results for Water Licence Monitoring Location - MS-C-H

Analyte	Sample ID			MS-C-H	MS-C-H	MS-C-H	MS-C-H	MS-C-H	MS-C-H
	ALS Laboratory Sample ID			L2601055-11	L2602498-9	L2605841-4	L2608050-4	L2609333-3	L2612809-12
	Sample Date & Time			2021-06-08 15:35	2021-06-13 14:50	2021-06-21 10:35	2021-06-28 11:35	2021-07-04 11:10	2021-07-12 12:45
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹						
Conductivity	umhos/cm	1.0	-	-	67.0	-	-	187	-
pH	pH units	0.10	6.0 - 9.5	7.40	7.64	7.88	8.05	8.29	8.10
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	2.0	2.2	<1.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	27	34	74	96	111	118
Turbidity	NTU	0.10	-	10.9	12.0	1.0	0.38	0.29	0.48
Ammonia, Total (as N)	mg/L	0.010	-	-	0.021	-	-	0.018	-
Nitrate (as N)	mg/L	0.020	-	-	0.268	-	-	0.184	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	-	-	<5.0	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.19: Water Quality Results for Water Licence Monitoring Location - MS-C-H

Analyte	Sample ID			MS-C-H	MS-C-H	MS-C-H	MS-C-H	MS-C-H	MS-C-H01
	ALS Laboratory Sample ID			L2615981-8	L2621358-6	L2621381-14	L2624988-3	L2627332-11	L2627332-12
	Sample Date & Time			2021-07-19 12:35	2021-07-31 12:20	2021-08-02 11:35	2021-08-10 13:15	2021-08-16 13:30	2021-08-16 13:30
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	Field Duplicate
	Units	LOR	Water Licence Criteria ¹						
Conductivity	umhos/cm	1.0	-	-	-	234	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.06	8.17	8.20	8.21	8.29	8.28
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	100	102	128	120	87	88
Turbidity	NTU	0.10	-	0.18	0.16	0.12	0.30	0.27	0.13
Ammonia, Total (as N)	mg/L	0.010	-	-	-	0.022	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	0.221	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	-	<5.0	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.19: Water Quality Results for Water Licence Monitoring Location - MS-C-H

Analyte	Sample ID			MS-C-H	MS-C-H	MS-C-H01	MS-C-H	MS-C-H
	ALS Laboratory Sample ID			L2630140-7	L2635278-10	L2635278-11	L2636426-4	L2639307-11
	Sample Date & Time			2021-08-22 11:40	2021-09-02 10:55	2021-09-02 10:55	2021-09-07 12:25	2021-09-13 15:10
	QA/QC Sample Type			N/A	N/A	Field Duplicate	N/A	N/A
	Units	LOR	Water Licence Criteria ¹					
Conductivity	umhos/cm	1.0	-	-	253	253	-	-
pH	pH units	0.10	6.0 - 9.5	8.36	8.26	8.28	8.16	8.10
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	155	210	135	129	90
Turbidity	NTU	0.10	-	0.13	3.35	0.33	0.17	0.33
Ammonia, Total (as N)	mg/L	0.010	-	-	0.013	0.014	-	-
Nitrate (as N)	mg/L	0.020	-	-	0.138	0.129	-	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	<5.0	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.3.20: Water Quality Results for Water Licence Monitoring Location - MQ-C-A

Analyte	Sample ID			MQ-C-A	MQ-C-A	MQ-C-A	MQ-C-A01	MQ-C-A	MQ-C-A02	MQ-C-A
	ALS Laboratory Sample ID			L2592735-8	L2593502-1	L2595911-1	L2595911-2	L2601055-1	L2601055-2	L2602498-1
	Sample Date & Time			2021-05-26 13:40	2021-05-27 13:45	2021-05-31 9:10	2021-05-31 9:10	2021-06-07 13:50	2021-06-07 13:50	2021-06-13 8:45
	QA/QC Sample Type			N/A	N/A	N/A	Field Duplicate	N/A	Field Blank	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0/3.0	-	31.5	41.7	-	-	-	-	85.2
pH	pH units	0.10	6.0 - 9.5	7.08	7.61	7.57	7.56	7.66	5.81	7.64
Total Suspended Solids	mg/L	2.0/1.0	Grab 30 and Average 15	<2.0	<3.0	2.0	<2.0	3.0	<2.0	<1.0
Total Dissolved Solids	mg/L	10/13	-	25	27	53	49	53	<10	38
Turbidity	NTU	0.10	-	4.93	20.2	3.17	3.49	7.92	<0.10	2.39
Ammonia, Total (as N)	mg/L	0.010	-	<0.010	0.013	-	-	-	-	<0.010
Nitrate (as N)	mg/L	0.020	-	0.050	0.035	-	-	-	-	<0.020
Oil and Grease, Total	mg/L	2.0/5.0	-	<5.0	<5.0	-	-	-	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	-	No Visible Sheen
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	Not Acutely Toxic	-	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Acute lethality to Rainbow Trout (as per Environment Canada Method EPS/1/RM/13).

³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.20: Water Quality Results for Water Licence Monitoring Location - MQ-C-A

Analyte	Sample ID			MQ-C-A	MQ-C-A	MQ-C-A	MQ-C-A03	MQ-C-A	MQ-C-A	MQ-C-A	MQ-C-A01
	ALS Laboratory Sample ID			L2605841-7	L2608050-12	L2609728-1	L2609728-2	L2612809-15	L2615981-5	L2621268-1	L2621268-2
	Sample Date & Time			2021-06-21 11:20	2021-06-29 7:45	2021-07-05 9:30	2021-07-05 9:30	2021-07-12 15:15	2021-07-19 11:05	2021-07-29 9:40	2021-07-29 9:40
	QA/QC Sample Type			N/A	N/A	N/A	Travel Blank	N/A	N/A	N/A	Field Duplicate
	Units	LOR	Water Licence Criteria ¹								
Conductivity	umhos/cm	1.0/3.0	-	-	-	211	<1.0	-	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.80	7.94	8.31	6.01	8.00	8.03	8.12	8.15
Total Suspended Solids	mg/L	2.0/1.0	Grab 30 and Average 15	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10/13	-	43	72	106	25	140	153	162	156
Turbidity	NTU	0.10	-	6.90	0.77	0.23	<0.10	0.72	0.19	0.20	0.19
Ammonia, Total (as N)	mg/L	0.010	-	-	-	<0.010	<0.010	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	0.026	<0.020	-	-	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-	<5.0	<5.0	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	-
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-	-	-	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Acute lethality to Rainbow Trout (as per Environment Canada Method EPS/1/RM/13).

³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.20: Water Quality Results for Water Licence Monitoring Location - MQ-C-A

Analyte	Sample ID			MQ-C-A	MQ-C-A	MQ-C-A	MQ-C-A	MQ-C-A	MQ-C-A	MQ-C-A
	ALS Laboratory Sample ID			L2621381-9	L2624988-6	L2627332-1	L2630140-1	L2635806-1	L2636426-12	L2639307-3
	Sample Date & Time			2021-08-02 8:50	2021-08-10 15:20	2021-08-16 9:40	2021-08-22 8:00	2021-09-04 9:25	2021-09-07 14:40	2021-09-13 11:50
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0/3.0	-	321	-	327	-	358	-	-
pH	pH units	0.10	6.0 - 9.5	8.16	8.23	8.34	8.19	8.23	8.12	7.99
Total Suspended Solids	mg/L	2.0/1.0	Grab 30 and Average 15	<2.0	<2.0	<2.0	2.5	3.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10/13	-	186	175	120	207	190	191	146
Turbidity	NTU	0.10	-	0.23	0.22	0.25	0.17	0.27	<0.10	0.21
Ammonia, Total (as N)	mg/L	0.010	-	0.024	-	0.011	-	<0.010	-	-
Nitrate (as N)	mg/L	0.020	-	<0.020	-	<0.020	-	<0.020	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	<5.0	-	<5.0	-	<5.0	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-	Not Acutely Toxic	-	Not Acutely Toxic	-	-

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.
² Acute lethality to Rainbow Trout (as per Environment Canada Method EPS/1/RM/13).
³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.21: Water Quality Results for Water Licence Monitoring Location - MQ-C-B

Analyte	Sample ID			MQ-C-B	MQ-C-B	MQ-C-B	MQ-C-B	MQ-C-B	MQ-C-B02	MQ-C-B
	ALS Laboratory Sample ID			L2585502-2	L2592735-9	L2595911-4	L2601055-4	L2601684-1	L2601684-2	L2605841-9
	Sample Date & Time			2021-05-09 10:35	2021-05-26 14:00	2021-05-31 10:10	2021-06-07 15:00	2021-06-15 9:20	2021-06-15 9:20	2021-06-21 12:00
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	Field Blank	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0/3.0	-	-	54.2	-	-	133	<1.0	-
pH	pH units	0.10	6.0 - 9.5	7.56	7.34	7.62	7.65	7.88	5.93	8.17
Total Suspended Solids ²	mg/L	1.0/2.0	Grab 30 and Average 15	2.7	43.6	19.7	92.2	2.4	<2.0	6.9
Total Dissolved Solids	mg/L	10	-	69	66	73	84	100	15	113
Turbidity	NTU	0.10	-	25.6	217	113	146	56.6	<0.10	34.4
Ammonia, Total (as N)	mg/L	0.010	-	-	0.050	-	-	0.039	<0.010	-
Nitrate (as N)	mg/L	0.020	-	-	0.136	-	-	0.452	<0.020	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<2.0	-	-	<5.0	<5.0	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen
Acute Lethality ^{3,4}	N/A	-	Not Acutely Toxic	-	-	-	-	Not Acutely Toxic	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for May, June, August and October exceeded maximum average TSS concentration discharge limits.

³ Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

⁴ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.21: Water Quality Results for Water Licence Monitoring Location - MQ-C-B

Analyte	Sample ID			MQ-C-B	MQ-C-B	MQ-C-B	MQ-C-B	MQ-C-B	MQ-C-B	MQ-C-B02
	ALS Laboratory Sample ID			L2608050-14	L2609728-3	L2612809-13	L2615981-6	L2621268-4	L2621381-8	L2621381-15
	Sample Date & Time			2021-06-29 9:00	2021-07-05 10:30	2021-07-12 14:05	2021-07-19 11:35	2021-07-29 10:45	2021-08-02 9:50	2021-08-02 9:50
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A	Field Blank
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0/3.0	-	-	287	-	-	-	341	<1.0
pH	pH units	0.10	6.0 - 9.5	8.09	8.33	8.06	8.14	8.14	8.14	6.64
Total Suspended Solids ²	mg/L	1.0/2.0	Grab 30 and Average 15	19.0	5.6	10.4	5.3	<2.0	11.9	<2.0
Total Dissolved Solids	mg/L	10	-	116	167	153	163	159	196	15
Turbidity	NTU	0.10	-	58.9	24.1	23.3	9.76	3.41	23.5	<0.10
Ammonia, Total (as N)	mg/L	0.010	-	-	0.037	-	-	-	0.021	<0.010
Nitrate (as N)	mg/L	0.020	-	-	2.09	-	-	-	1.44	<0.020
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<5.0	-	-	-	<5.0	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	-
Acute Lethality ^{3,4}	N/A	-	Not Acutely Toxic	-	-	-	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for May, June, August and October exceeded maximum average TSS concentration discharge limits.

³ Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

⁴ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.21: Water Quality Results for Water Licence Monitoring Location - MQ-C-B

Analyte	Sample ID			MQ-C-B	MQ-C-B	MQ-C-B	MQ-C-B01	MQ-C-B	MQ-C-B	MQ-C-B
	ALS Laboratory Sample ID			L2626309-1	L2628128-1	L2630140-3	L2630140-4	L2635278-12	L2636426-11	L2639307-5
	Sample Date & Time			2021-08-11 12:35	2021-08-17 8:40	2021-08-22 9:50	2021-08-22 9:50	2021-09-02 11:45	2021-09-07 14:35	2021-09-13 12:30
	QA/QC Sample Type			N/A	N/A	N/A	Field Duplicate	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0/3.0	-	-	-	-	-	365	-	-
pH	pH units	0.10	6.0 - 9.5	8.20	8.28	8.32	8.33	8.29	8.12	7.86
Total Suspended Solids ²	mg/L	1.0/2.0	Grab 30 and Average 15	98.7	<2.0	<2.0	3.0	<2.0	<2.0	3.9
Total Dissolved Solids	mg/L	10	-	288	174	224	222	136	229	284
Turbidity	NTU	0.10	-	184	2.51	3.27	3.23	0.33	0.89	8.44
Ammonia, Total (as N)	mg/L	0.010	-	-	-	-	-	<0.010	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	-	-	1.35	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-	-	-	<5.0	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{3,4}	N/A	-	Not Acutely Toxic	-	-	-	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for May, June, August and October exceeded maximum average TSS concentration discharge limits.

³ Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

⁴ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.21: Water Quality Results for Water Licence Monitoring Location - MQ-C-B

Analyte	Sample ID			MQ-C-B	MQ-C-B	MQ-C-B	MQ-C-B01
	ALS Laboratory Sample ID			L2642214-3	L2644501-4	L2647099-2	L2647099-3
	Sample Date & Time			2021-09-20 11:30	2021-09-27 10:00	2021-10-04 9:10	2021-10-04 9:10
	QA/QC Sample Type			N/A	N/A	N/A	Field Duplicate
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	1.0/3.0	-	-	475	377	377
pH	pH units	0.10	6.0 - 9.5	7.72	7.56	7.92	7.92
Total Suspended Solids ²	mg/L	1.0/2.0	Grab 30 and Average 15	<2.0	<2.0	18.5	16.5
Total Dissolved Solids	mg/L	10	-	257	281	178	220
Turbidity	NTU	0.10	-	1.46	1.2	71.1	69.5
Ammonia, Total (as N)	mg/L	0.010	-	-	0.020	0.043	0.043
Nitrate (as N)	mg/L	0.020	-	-	0.135	0.292	0.282
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<5.0	<2.0	<2.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{3,4}	N/A	-	Not Acutely Toxic	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for May, June, August and October exceeded maximum average TSS concentration discharge limits.

³ Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

⁴ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14).

Table 7.3.22: Water Quality Results for Water Licence Monitoring Location - MQ-C-D

Analyte	Sample ID			MQ-C-D	MQ-C-D	MQ-C-D01	MQ-C-D	MQ-C-D	MQ-C-D
	ALS Laboratory Sample ID			L2585502-1	L2592735-10	L2592735-11	L2595911-3	L2601055-3	L2602498-2
	Sample Date & Time			2021-05-09 9:30	2021-05-26 14:00	2021-05-26 14:00	2021-05-31 9:40	2021-06-07 14:25	2021-06-13 9:10
	QA/QC Sample Type			N/A	N/A	Field Duplicate	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹						
Conductivity	umhos/cm	1.0/3.0	-	-	65.3	65.7	-	-	274
pH	pH units	0.10	6.0 - 9.5	7.58	7.39	7.42	7.54	7.73	7.93
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	3.1	8.2	10.6	11.9	14.9	10.8
Total Dissolved Solids	mg/L	10	-	108	49	53	61	66	172
Turbidity	NTU	0.10	-	38.8	70.4	53.6	41.7	64.1	55.9
Ammonia, Total (as N)	mg/L	0.010	-	-	0.087	0.084	-	-	0.037
Nitrate (as N)	mg/L	0.020	-	-	0.044	0.023	-	-	0.860
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<2.0	<2.0	-	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14)

Table 7.3.22: Water Quality Results for Water Licence Monitoring Location - MQ-C-D

Analyte	Sample ID			MQ-C-D	MQ-C-D	MQ-C-D	MQ-C-D	MQ-C-D03	MQ-C-D	MQ-C-D
	ALS Laboratory Sample ID			L2605841-8	L2608050-16	L2609728-6	L2612809-14	L2615981-3	L2615981-4	L2621268-3
	Sample Date & Time			2021-06-21 11:35	2021-06-29 8:00	2021-07-05 15:30	2021-07-12 14:40	2021-07-19 11:05	2021-07-19 11:05	2021-07-29 10:00
	QA/QC Sample Type			N/A	N/A	N/A	N/A	Travel Blank	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0/3.0	-	-	-	250	-	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.02	8.20	8.35	8.00	5.97	8.14	8.05
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	10.6	9.3	6.0	24.0	<2.0	11.5	9.0
Total Dissolved Solids	mg/L	10	-	155	157	132	180	<10	179	177
Turbidity	NTU	0.10	-	34.4	29.3	21.8	50.1	<0.10	25.2	21.5
Ammonia, Total (as N)	mg/L	0.010	-	-	-	0.022	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	0.597	-	-	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-	<5.0	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-	Not Acutely Toxic	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14)

Table 7.3.22: Water Quality Results for Water Licence Monitoring Location - MQ-C-D

Analyte	Sample ID			MQ-C-D	MQ-C-D	MQ-C-D	MQ-C-D	MQ-C-D	MQ-C-D	MQ-C-D
	ALS Laboratory Sample ID			L2621381-7	L2624988-7	L2627332-2	L2630140-2	L2635278-13	L2636426-13	L2639307-4
	Sample Date & Time			2021-08-02 9:10	2021-08-10 15:40	2021-08-16 10:15	2021-08-22 8:10	2021-09-02 11:50	2021-09-07 14:50	2021-09-13 12:05
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0/3.0	-	313	-	-	-	348	-	-
pH	pH units	0.10	6.0 - 9.5	8.09	8.23	8.13	8.21	8.17	7.98	7.92
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	4.6	7.1	8.1	3.5	2.5	5.5	2.9
Total Dissolved Solids	mg/L	10	-	153	127	139	218	197	199	255
Turbidity	NTU	0.10	-	14.8	25.5	26.0	13.3	7.12	4.96	4.83
Ammonia, Total (as N)	mg/L	0.010	-	0.026	-	-	-	<0.010	-	-
Nitrate (as N)	mg/L	0.020	-	0.968	-	-	-	0.970	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	<5.0	-	-	-	<5.0	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-	-	-	-	-	-

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).

³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14)

Table 7.3.22: Water Quality Results for Water Licence Monitoring Location - MQ-C-D

Analyte	Sample ID			MQ-C-D	MQ-C-D02	MQ-C-D	MQ-C-D01	MQ-C-D
	ALS Laboratory Sample ID			L2642214-2	L2642214-5	L2644501-2	L2644501-5	L2647099-1
	Sample Date & Time			2021-09-20 10:40	2021-09-20 10:40	2021-09-27 9:10	2021-09-27 9:10	2021-10-04 8:35
	QA/QC Sample Type			N/A	Field Blank	N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹					
Conductivity	umhos/cm	1.0/3.0	-	-	-	-	-	263
pH	pH units	0.10	6.0 - 9.5	7.90	5.84	7.78	7.80	7.53
Total Suspended Solids	mg/L	1.0/2.0	Grab 30 and Average 15	<2.0	<2.0	2.0	2.0	<2.0
Total Dissolved Solids	mg/L	10	-	235	26	290	300	129
Turbidity	NTU	0.10	-	3.64	<0.10	3.18	3.01	5.79
Ammonia, Total (as N)	mg/L	0.010	-	-	-	-	-	0.210
Nitrate (as N)	mg/L	0.020	-	-	-	-	-	0.115
Oil and Grease, Total	mg/L	2.0/5.0	-	-	-	-	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen	-	No Visible Sheen	No Visible Sheen	No Visible Sheen
Acute Lethality ^{2,3}	N/A	-	Not Acutely Toxic	-	-	-	-	-

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.
² Acute lethality to Rainbow trout (as per Environment Canada Method EPS/1/RM/13).
³ Acute lethality to Daphnia magna (as per Environment Canada Method EPS/1/RM/14)

Table 7.4.1: Water Quality Results for Water Licence Monitoring Location - MS-SN-01

Analyte	Sample ID ³			MS-SN-01_2021-05-25_1635	MS-SN-01_2021-06-01_1500	MS-SN-01_2021-06-09_1115	MS-SN-01_2021-06-14_1525	MS-SN-01_2021-06-22_1000	MS-SN-01_2021-06-30_1535
	ALS Laboratory Sample ID			L2592985-1	L2595323-4	L2601057-1	L2602839-3	L2604736-1	L2608766-1
	Sample Date & Time			2021-05-25 16:35	2021-06-01 13:40	2021-06-09 11:15	2021-06-14 15:25	2021-06-22 10:00	2021-06-30 15:35
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹						
Conductivity	umhos/cm	1.0	-	32.7	172	-	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.33	7.98	7.58	7.62	7.97	7.89
Total Suspended Solids ²	mg/L	1.0/2.0/3.0	Grab 30 and Average 15	3.8	52.1	23.6	11.0	9.7	8.8
Total Dissolved Solids	mg/L	10/13	-	<10	133	96	99	103	93
Turbidity	NTU	0.10	-	23.1	60.5	33.6	31.9	18.8	17.7
Ammonia, Total (as N)	mg/L	0.010	-	<0.010	0.011	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	<0.020	0.197	-	-	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	<5.0	<5.0	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for June exceeded maximum average TSS concentration discharge limits.

³ Sample location for MS-SN-01 was incorrect for June samples. Results may not be representative of location.

Table 7.4.2: Water Quality Results for Water Licence Monitoring Location - MS-SN-02

Analyte	Sample ID			MS-SN-02_2021-05-25_1730	MS-SN-02_2021-06-01_1300	MS-SN-02_2021-06-09_1340	MS-SN-02_2021-06-14_1040	MS-SN-02_2021-06-22_1530	MS-SN-02_2021-06-30_1645
	ALS Laboratory Sample ID			L2592985-2	L2595323-2	L2601057-2	L2602839-1	L2604736-4	L2608766-2
	Sample Date & Time			2021-05-25 17:30	2021-06-01 13:00	2021-06-09 13:40	2021-06-14 10:40	2021-06-22 15:30	2021-06-30 16:45
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹						
Conductivity	umhos/cm	1.0	-	36.2	81.0	-	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.40	7.62	7.82	7.97	8.04	8.18
Total Suspended Solids	mg/L	1.0/2.0/3.0	Grab 30 and Average 15	39.3	24.6	14.9	3.9	19.0	6.0
Total Dissolved Solids	mg/L	10/13	-	51	58	77	85	114	127
Turbidity	NTU	0.10	-	263	206	113	55.8	157	29.5
Ammonia, Total (as N)	mg/L	0.010	-	0.052	0.099	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	0.111	1.39	-	-	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	<5.0	<2.0	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.4.3: Water Quality Results for Water Licence Monitoring Location - MS-SN-03

Analyte	Sample ID			MS-SN-03_2021-05-25_1710	MS-SN-03_2021-06-01_1045	MS-SN-03_2021-06-09_1250	MS-SN-03_2021-06-14_1420	MS-SN-03_2021-06-22_1150	MS-SN-0301_2021-06-22_1150
	ALS Laboratory Sample ID			L2592985-3	L2595323-1	L2601057-2	L2602839-2	L2604736-2	L2604736-3
	Sample Date & Time			2021-05-25 17:10	2021-06-01 10:45	2021-06-09 12:50	2021-06-14 14:40	2021-06-22 11:50	2021-06-22 11:50
	QA/QC Sample Type			N/A	N/A	N/A	N/A	N/A	Field Duplicate
	Units	LOR	Water Licence Criteria ¹						
Conductivity	umhos/cm	1.0	-	116	158	-	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.72	7.88	7.64	7.78	8.03	7.97
Total Suspended Solids ²	mg/L	1.0/2.0/3.0	Grab 30 and Average 15	21.4	17.1	112	53.8	18.2	18.6
Total Dissolved Solids	mg/L	10/13	-	82	115	110	138	131	142
Turbidity	NTU	0.10	-	113	126	354	205	114	115
Ammonia, Total (as N)	mg/L	0.010	-	0.231	0.089	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	0.118	0.137	-	-	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	<5.0	<2.0	-	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.
² Average TSS for May and June exceeded maximum average TSS concentration discharge limits.

Table 7.4.4: Water Quality Results for Water Licence Monitoring Location - TR-SN-01

Analyte	Sample ID			TR-SN-01_2021-06-05_1140	TR-SN-01_2021-06-07_1510
	ALS Laboratory Sample ID			L2600488-1	L2599385-7
	Sample Date & Time			2021-06-05 11:40	2021-06-07 15:10
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
Conductivity	umhos/cm	1.0	-	-	162
pH	pH units	0.10	6.0 - 9.5	8.11	8.11
Total Suspended Solids ²	mg/L	1.0/2.0	Grab 30 and Average 15	260.0	84.8
Total Dissolved Solids	mg/L	10	-	100	134
Turbidity	NTU	0.10	-	80.5	183
Ammonia, Total (as N)	mg/L	0.010	-	-	0.034
Nitrate (as N)	mg/L	0.020	-	-	0.152
Oil and Grease, Total	mg/L	2.0	-	-	<2.0
	-	-	No Visible Sheen	No visible sheen	No visible sheen

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for June exceeded maximum average TSS concentration discharge limits.

Table 7.4.5: Water Quality Results for Water Licence Monitoring Location - TR-SN-02

Analyte	Sample ID			TR-SN-02_2021-06-05_1300	TR-SN-02_2021-06-07_1340	TR-SN-0203_2021-06-07_1340	TR-SN-02_2021-06-13_1120	TR-SN-02_2021-06-29_1530
	ALS Laboratory Sample ID			L2600488-2	L2599385-5	L2599385-6	L2603800-5	L2608769-4
	Sample Date & Time			2021-06-05 13:00	2021-06-07 13:40	2021-06-07 13:40	2021-06-13 11:20	2021-06-29 15:30
	QA/QC Sample Type			N/A	N/A	Travel Blank	N/A	N/A
	Units	LOR	Water Licence Criteria ¹					
Conductivity	umhos/cm	1.0	-	-	110	<1.0	-	-
pH	pH units	0.10	6.0 - 9.5	8.16	8.11	6.08	8.07	8.15
Total Suspended Solids ²	mg/L	1.0/2.0/3.0	Grab 30 and Average 15	129	117	<1.0	31.0	65.4
Total Dissolved Solids	mg/L	10	-	117	106	<10	106	142
Turbidity	NTU	0.10	-	110	195	0.54	90.7	123
Ammonia, Total (as N)	mg/L	0.010	-	-	0.026	<0.010	-	-
Nitrate (as N)	mg/L	0.020	-	-	0.088	<0.020	-	-
Oil and Grease, Total	mg/L	2.0	-	-	<2.0	<2.0	-	-
	-	-	No Visible Sheen	No visible sheen	No visible sheen	-	No visible sheen	No visible sheen

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for June exceeded maximum average TSS concentration discharge limits.

Table 7.4.6: Water Quality Results for Water Licence Monitoring Location - TR-SN-03

Analyte	Sample ID			TR-SN-03_2021-06-05_1420	TR-SN-03_2021-06-07_1215	TR-SN-03_2021-06-13_1555	TR-SN-0301_2021-06-13_1555
	ALS Laboratory Sample ID			L2600488-5	L2599385-3	L2603800-2	L2603800-3
	Sample Date & Time			2021-06-05 14:20	2021-06-07 12:15	2021-06-13 15:55	2021-06-13 15:55
	QA/QC Sample Type			N/A	N/A	N/A	Field Duplicate
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	1.0	-	-	117	-	-
pH	pH units	0.10	6.0 - 9.5	8.07	8.22	8.15	8.21
Total Suspended Solids ²	mg/L	1.0/2.0/3.0	Grab 30 and Average 15	476	905	158	112
Total Dissolved Solids	mg/L	10	-	136	197	181	177
Turbidity	NTU	0.10	-	700	588	215	222
Ammonia, Total (as N)	mg/L	0.010	-	-	0.039	-	-
Nitrate (as N)	mg/L	0.020	-	-	0.102	-	-
Oil and Grease, Total	mg/L	2.0	-	-	<2.0	-	-
	-	-	No Visible Sheen	No visible sheen	No visible sheen	No visible sheen	No visible sheen

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for June exceeded maximum average TSS concentration discharge limits.

Table 7.4.7: Water Quality Results for Water Licence Monitoring Location - TR-SN-04

Analyte	Sample ID			TR-SN-04_2021-06-07_1135	TR-SN-04_2021-06-13_1345	TR-SN-04_2021-06-29_1210
	ALS Laboratory Sample ID			L2599385-2	L2603800-1	L2608769-1
	Sample Date & Time			2021-06-07 11:35	2021-06-13 13:45	2021-06-29 12:10
	QA/QC Sample Type			N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	1.0	-	102	-	-
pH	pH units	0.10	6.0 - 9.5	7.62	7.11	7.53
Total Suspended Solids ²	mg/L	1.0/2.0/3.0	Grab 30 and Average 15	1,080	74.9	19.5
Total Dissolved Solids	mg/L	10	-	135	93	113
Turbidity	NTU	0.10	-	364	91.0	131
Ammonia, Total (as N)	mg/L	0.010	-	0.042	-	-
Nitrate (as N)	mg/L	0.020	-	0.030	-	-
Oil and Grease, Total	mg/L	2.0	-	<5.0	-	-
	-	-	No Visible Sheen	No visible sheen	No visible sheen	No visible sheen

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for June exceeded maximum average TSS concentration discharge limits.

Table 7.4.8: Water Quality Results for Water Licence Monitoring Location - TR-SN-06

Analyte	Sample ID			TR-SN-06_2021-06-05_1535	TR-SN-06_2021-06-07_1045
	ALS Laboratory Sample ID			L2600488-6	L2599385-1
	Sample Date & Time			2021-06-05 15:35	2021-06-07 10:45
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
Conductivity	umhos/cm	1.0	-	-	132
pH	pH units	0.10	6.0 - 9.5	7.84	7.94
Total Suspended Solids ²	mg/L	1.0/2.0	Grab 30 and Average 15	73.6	235
Total Dissolved Solids	mg/L	10	-	147	189
Turbidity	NTU	0.10	-	134	362
Ammonia, Total (as N)	mg/L	0.010	-	-	0.023
Nitrate (as N)	mg/L	0.020	-	-	0.114
Oil and Grease, Total	mg/L	2.0	-	-	<2.0
	-	-	No Visible Sheen	No visible sheen	No visible sheen

Notes:

Bold highlighted values indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for June exceeded maximum average TSS concentration discharge limits.

Table 7.4.9: Water Quality Results for Water Licence Monitoring Location - TR-SN-07

Analyte	Sample ID			TR-SN-07_2021-06-05_1345	TR-SN-0701_2021-06-05_1345	TR-SN-07_2021-06-07_1255	TR-SN-07_2021-06-13_930	TR-SN-07_2021-06-29_1430	TR-SN-0701_2021-06-29_1430
	ALS Laboratory Sample ID			L2600488-3	L2600488-4	L2599385-4	L2603800-4	L2608769-2	L2608769-3
	Sample Date & Time			2021-06-05 13:45	2021-06-05 13:45	2021-06-07 12:55	2021-06-13 9:30	2021-06-29 14:30	2021-06-29 14:30
	QA/QC Sample Type			N/A	Field Duplicate	N/A	N/A	N/A	Field Duplicate
	Units	LOR	Water Licence Criteria ¹						
Conductivity	umhos/cm	1.0	-	-	-	107	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.14	8.09	8.18	7.88	7.99	7.99
Total Suspended Solids ²	mg/L	1.0/2.0/3.0	Grab 30 and Average 15	556	464	995	22.7	285	267
Total Dissolved Solids	mg/L	10	-	131	132	126	101	248	267
Turbidity	NTU	0.10	-	656	602	305	73.2	475	474
Ammonia, Total (as N)	mg/L	0.010	-	-	-	0.060	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	0.060	-	-	-
Oil and Grease, Total	mg/L	2.0	-	-	-	<2.0	-	-	-
	-	-	No Visible Sheen	No visible sheen	-	No visible sheen	No visible sheen	No visible sheen	No visible sheen

Notes:
Bold highlighted values indicate results that exceeded the applicable water quality criteria.
¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.
²Average TSS for June exceeded maximum average TSS concentration discharge limits.

Table 7.5.1: Water Quality Results for Water Licence Monitoring Location - MS-RW-01

Analyte	Sample ID			MS-RW-01	MS-RW-01	MS-RW-01
	ALS Laboratory Sample ID			L2602509-1	L2606196-2	L2608042-1
	Sample Date & Time			2021-06-14 13:45	2021-06-24 16:15	2021-06-29 14:30
	QA/QC Sample Type			NA	NA	NA
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	1.0	-	-	-	-
pH	pH units	0.10	6.0 - 9.5	7.77	8.10	8.08
Total Suspended Solids ²	mg/L	2.0	Grab 30, Average 15	35.9	21.3	12.2
Total Dissolved Solids	mg/L	10	-	171	264	274
Turbidity	NTU	0.10	-	132.0	59.4	39.3
Ammonia, Total (as N)	mg/L	0.010	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-		-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for June exceeded maximum average TSS concentration discharge limits. It should be noted that this water was applied directly to roadways for dust suppression efforts and did not migrate to receiving water bodies.

Table 7.5.2: Water Quality Results for Water Licence Monitoring Location - MS-RW-02

Analyte	Sample ID			MS-RW-02	MS-RW-02	MS-RW-02	MS-RW-02
	ALS Laboratory Sample ID			L2599259-1	L2602509-2	L2606196-3	L2608042-2
	Sample Date & Time			2021-06-09 12:25	2021-06-14 14:00	2021-06-24 16:30	2021-06-29 14:45
	QA/QC Sample Type			NA	NA	NA	NA
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	1.0	-	-	111	-	-
pH	pH units	0.10	6.0 - 9.5	7.73	7.74	8.03	8.31
Total Suspended Solids ²	mg/L	2.0	Grab 30, Average 15	35.0	21.0	8.2	4.3
Total Dissolved Solids	mg/L	10	-	79	74	89	70
Turbidity	NTU	0.10	-	124	76.4	26.0	14.7
Ammonia, Total (as N)	mg/L	0.010	-	-	0.071	-	-
Nitrate (as N)	mg/L	0.020	-	-	0.188	-	-
Oil and Grease, Total	mg/L	2.0/5.0	-	-	<5.0	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for June exceeded maximum average TSS concentration discharge limits, although only two (2) samples were collected. It should be noted that this water was applied directly to roadways for dust suppression efforts and did not migrate to receiving water bodies.

Table 7.5.3: Water Quality Results for Water Licence Monitoring Location - MP-Q1-P1

Analyte	Sample ID			MP-Q1-P1	MP-Q1-P1	MP-Q1-P1	MP-Q1-P1	MP-Q1-P1	MP-Q1-P1	MP-Q1-P101
	ALS Laboratory Sample ID			L2602410-1	L2606555-2	L2608772-6	L2611924-1	L2614201-1	L2617629-1	L2617629-2
	Sample Date & Time			2021-06-15	2021-06-22 17:00	2021-06-29 9:30	2021-07-06 11:00	2021-07-13 13:50	2021-07-20 8:05	2021-07-20 8:05
	QA/QC Sample Type			NA	NA	NA	NA	NA	NA	Field Duplicate
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0	-	210		-	313	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.02	8.20	8.27	8.22	8.30	8.33	8.33
Total Suspended Solids	mg/L	1.0/2.0	Grab 30, Average 15	7.2	<2.0	<2.0	1.5	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10/20	-	121	207	77	226	218	201	194
Turbidity	NTU	0.10	-	4.52	1.75	1.95	2.16	1.61	1.36	1.38
Ammonia, Total (as N)	mg/L	0.0050	-	0.153	-	-	0.0402	-	-	-
Nitrate (as N)	mg/L	0.020	-	0.245	-	-	0.249	-	-	-
Oil and Grease, Total	mg/L	5.0	-	<5.0	-	-	<5.0	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.5.3: Water Quality Results for Water Licence Monitoring Location - MP-Q1-P1

Analyte	Sample ID			MP-Q1-P1	MP-Q1-P1	MP-Q1-P1	MP-Q1-P1	MP-Q1-P1
	ALS Laboratory Sample ID			L2620707-1	L2623229-2	L2626310-1	L2627881-1	L2630428-1
	Sample Date & Time			2021-07-27 13:50	2021-08-03 10:35	2021-08-10 10:05	2021-08-15 11:20	2021-08-24 8:45
	QA/QC Sample Type			NA	NA	NA	NA	NA
	Units	LOR	Water Licence Criteria ¹					
Conductivity	umhos/cm	1.0	-	-	312	-	-	-
pH	pH units	0.10	6.0 - 9.5	8.15	8.22	8.26	8.28	8.21
Total Suspended Solids	mg/L	1.0/2.0	Grab 30, Average 15	<2.0	1.7	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10/20	-	187	199	128	179	161
Turbidity	NTU	0.10	-	2.07	1.99	4.54	5.13	4.39
Ammonia, Total (as N)	mg/L	0.0050	-	-	0.034	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	0.243	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	<5.0	-	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:
Bold highlight indicate results that exceeded the applicable water quality criteria.
¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

Table 7.5.4: Water Quality Results for Water Licence Monitoring Location - TR-BP-01

Analyte	Sample ID			TR-BP-01	TR-BP-01	TR-BP-01	TR-BP-01	TR-BP-01	TR-BP-01	TR-BP-01
	ALS Laboratory Sample ID			L2599259-4	L2602421-1	L2606196-1	L2608768-1	L2609726-3	L2614868-1	L2618096-1
	Sample Date & Time			2021-06-09 15:15	2021-06-15 10:40	2021-06-24 15:50	2021-06-30 16:50	2021-07-05 16:00	2021-07-15 12:30	2021-07-21 17:35
	QA/QC Sample Type			NA	NA	NA	NA	NA	NA	NA
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0	-	-	126	-	-	523	-	-
pH	pH units	0.10	6.0 - 9.5	7.53	7.33	7.84	7.81	8.02	7.68	7.57
Total Suspended Solids ²	mg/L	2.0	Grab 30, Average 15	28.5	18.4	21.3	14	6.0	<2.0	5.2
Total Dissolved Solids	mg/L	10	-	118	110	264	445	465	455	512
Turbidity	NTU	0.10	-	131	77.70	59.40	21.30	13.4	9.87	5.27
Ammonia, Total (as N)	mg/L	0.010	-	-	<0.010	-		0.053	-	-
Nitrate (as N)	mg/L	0.020	-	-	0.065	-		<0.020	-	-
Oil and Grease, Total	mg/L	2.0	-	-	<5.0	-		<2.0	-	-
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for June exceeded maximum average TSS concentration discharge limits. It should be noted that this water was applied directly to roadways for dust suppression efforts and did not migrate to receiving water bodies.

Table 7.5.4: Water Quality Results for Water Licence Monitoring Location - TR-BP-01

Analyte	Sample ID			TR-BP-01	TR-BP-01	TR-BP-01	TR-BP-01	TR-BP-01	TR-BP-01	TR-BP-01
	ALS Laboratory Sample ID			L2621357-4	L2623789-4	L2626308-2	L2627457-3	L2632985-1	L2635807-3	L2635807-4
	Sample Date & Time			2021-07-31 11:25	2021-08-06 17:50	2021-08-11 17:45	2021-08-16 17:10	2021-08-28 15:40	2021-09-04 10:10	2021-09-04 10:10
	QA/QC Sample Type			NA	NA	NA	NA	NA	NA	Field Duplicate
	Units	LOR	Water Licence Criteria ¹							
Conductivity	umhos/cm	1.0	-	-	-	-	773	-	721	720
pH	pH units	0.10	6.0 - 9.5	7.75	7.8	7.95	7.89	7.79	7.93	7.9
Total Suspended Solids ²	mg/L	2.0	Grab 30, Average 15	4.8	7.0	3.2	5.1	<2.0	6.1	5.6
Total Dissolved Solids	mg/L	10	-	576	621	579	635	563	586	598
Turbidity	NTU	0.10	-	3.84	4.35	4.05	3.12	2.42	2.66	2.77
Ammonia, Total (as N)	mg/L	0.010	-	-	-	-	<0.010	-	0.023	0.015
Nitrate (as N)	mg/L	0.020	-	-	-	-	<0.020	-	0.089	0.084
Oil and Grease, Total	mg/L	2.0	-	-	-	-	<5.0	-	<5.0	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for June exceeded maximum average TSS concentration discharge limits. It should be noted that this water was applied directly to roadways for dust suppression efforts and did not migrate to receiving water bodies.

Table 7.5.5: Water Quality Results for Water Licence Monitoring Location - TR-BP-02

Analyte	Sample ID			TR-BP-02	TR-BP-02	TR-BP-02
	ALS Laboratory Sample ID			L2602531-1	L2606555-1	L2613425-1
	Sample Date & Time			2021-06-10 11:35	2021-06-22 13:00	2021-07-13 15:55
	QA/QC Sample Type			NA	NA	NA
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	1.0	-	-	-	288
pH	pH units	0.10	6.0 - 9.5	7.94	8.21	7.98
Total Suspended Solids ²	mg/L	2.0	Grab 30, Average 15	21.2	12.8	12.4
Total Dissolved Solids	mg/L	10	-	64	155	164
Turbidity	NTU	0.10	-	44.2	23.6	17.4
Ammonia, Total (as N)	mg/L	0.010	-	-	-	<0.010
Nitrate (as N)	mg/L	0.020	-	-	-	<0.020
Oil and Grease, Total	mg/L	5.0	-	-	-	<5.0
	-	-	No Visible Sheen	No Visible Sheen	No Visible Sheen	No Visible Sheen

Notes:

Bold highlight indicate results that exceeded the applicable water quality criteria.

¹ Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11.

² Average TSS for June exceeded maximum average TSS concentration discharge limits, although only two (2) samples were collected. It should be noted that this water was applied directly to roadways for dust suppression efforts and did not migrate to receiving water bodies.

Table 7.6.1: Field QA/QC Water Quality Data Analysis - Field Duplicates - MP-01

Parameter	Sample ID		MP-01	MP-0101	Relative Percent Difference (RPD)	MP-01	MP-0101	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2550732-1	L2550732-2		L2661884-1	L2661884-4	
	Sample Date & Time		2021-01-21 12:45	2021-01-21 12:45		2021-11-10 13:10	2021-11-10 13:10	
	QA/QC Sample Type		N/A	Field Duplicate		N/A	Field Duplicate	
	Units	LOR						
pH	pH units	0.10	7.78	7.79	0.1	7.86	7.87	0.1
Total Suspended Solids	mg/L	3.0	<3.0	<3.0	N/A	<1.0	<1.0	N/A
Ammonia, Total (as N)	mg/L	0.010	0.031	0.030	N/A	0.031	0.036	N/A
Total Kjeldahl Nitrogen	mg/L	0.050	1.91	1.82	4.8	1.24	1.27	2.4
Phosphorus, Total	mg/L	0.030	9.77	9.76	0.1	11.1	11.1	N/A
Fecal Coliforms	CFU/100 mL	-	0	0	N/A	0	0	N/A
BOD	mg/L	2.0	<2.0	<2.0	N/A	<2.0	<2.0	N/A
Oil and Grease, Total	mg/L	2.0	<2.0	<2.0	N/A	<2.0	<2.0	N/A

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.2: Field QA/QC Water Quality Data Analysis - Field Duplicates - MP-01

Parameter	Sample ID		MP-01B	MP-01B01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2661878-1	L2661878-4	
	Sample Date & Time		2021-11-10 13:10	2021-11-10 13:10	
	QA/QC Sample Type		N/A	Field Duplicate	
	Units	LOR			
pH	pH units	0.1	8.29	8.22	0.8
Total Suspended Solids	mg/L	1.0	<1.0	<1.0	N/A
Ammonia, Total (as N)	mg/L	0.010	0.043	0.044	N/A
Total Kjeldahl Nitrogen	mg/L	0.050	1.14	1.48	26.0
Phosphorus, Total	mg/L	0.030	7.39	7.45	0.8
Fecal Coliforms	CFU/100 mL	-	0	0	N/A
BOD	mg/L	2.0	<2.0	<2.0	N/A
Oil and Grease, Total	mg/L	2.0	<2.0	<2.0	N/A

Note:

RPD calculated when average of two samples > 5x LOR.

Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.

Calculations of results below detection limits used the value of the detection limit.

RPD values exceeding 30% are bolded.

Table 7.6.3: Field QA/QC Water Quality Data Analysis - Field Duplicates - MP-05

Parameter	Sample ID		MP-05	MP-0501	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2622832-1	L2622832-2	
	Sample Date & Time		2021-08-02 14:30	2021-08-02 14:30	
	QA/QC Sample Type		N/A	Field Duplicate	
	Units	LOR			
Hardness (as CaCO3)	mg/L	1.3	434	437	0.7
pH	pH units	0.10	8.36	8.33	0.4
Total Suspended Solids	mg/L	1.0	1.7	1.7	N/A
Total Dissolved Solids	mg/L	20	658	659	0.2
Turbidity	NTU	0.10	4.24	4.68	9.9
Alkalinity, Total (as CaCO3)	mg/L	1.0	179	179	N/A
Ammonia, Total (as N)	mg/L	0.010	0.049	0.049	N/A
Chloride (Cl)	mg/L	0.50	120	120	N/A
Fluoride (F)	mg/L	0.020	0.190	0.188	1.1
Nitrate (as N)	mg/L	0.020	3.77	3.77	N/A
Total Kjeldahl Nitrogen	mg/L	0.050	0.490	0.770	44.4
Phosphorus, Total	mg/L	0.0030	0.0073	0.0052	N/A
Sulfate (SO4)	mg/L	0.30	180	180	N/A
Dissolved Organic Carbon	mg/L	0.50	5.99	4.77	22.7
Total Organic Carbon	mg/L	0.50	5.10	4.51	12.3
Aluminum (Al)-Total	mg/L	0.050	0.097	0.077	N/A
Arsenic (As)-Total	mg/L	0.0010	<0.0010	<0.0010	N/A
Cadmium (Cd)-Total	mg/L	0.000050	<0.000050	<0.000050	N/A
Calcium (Ca)-Total	mg/L	0.50	78.4	79.8	1.8
Copper (Cu)-Total	mg/L	0.0050	<0.0050	<0.0050	N/A
Iron (Fe)-Total	mg/L	0.10	<0.10	0.11	N/A
Lead (Pb)-Total	mg/L	0.00050	<0.00050	<0.00050	N/A
Magnesium (Mg)-Total	mg/L	0.050	57.8	56.6	2.1
Manganese (Mn)-Total	mg/L	0.0050	0.0977	0.0955	2.3
Mercury (Hg)-Total	mg/L	0.0000050	<0.0000050	<0.0000050	N/A
Molybdenum (Mo)-Total	mg/L	0.00050	0.00388	0.00384	1.0
Nickel (Ni)-Total	mg/L	0.0050	<0.0050	<0.0050	N/A
Potassium (K)-Total	mg/L	0.50	8.53	8.35	2.1
Selenium (Se)-Total	mg/L	0.00050	<0.00050	<0.00050	N/A
Sodium (Na)-Total	mg/L	0.50	57.4	56.0	2.5
Thallium (Tl)-Total	mg/L	0.00010	<0.00010	<0.00010	N/A
Uranium (U)-Total	mg/L	0.00010	0.116	0.115	0.9
Zinc (Zn)-Total	mg/L	0.030	<0.030	<0.030	N/A
Aluminum (Al)-Dissolved	mg/L	0.050	<0.050	<0.050	N/A
Arsenic (As)-Dissolved	mg/L	0.0010	<0.0010	<0.0010	N/A
Cadmium (Cd)-Dissolved	mg/L	0.000050	<0.000050	<0.000050	N/A
Calcium (Ca)-Dissolved	mg/L	0.50	78.4	79.3	1.1
Copper (Cu)-Dissolved	mg/L	0.0020	<0.0020	<0.0020	N/A
Iron (Fe)-Dissolved	mg/L	0.10	<0.10	<0.10	N/A
Lead (Pb)-Dissolved	mg/L	0.00050	<0.00050	<0.00050	N/A
Magnesium (Mg)-Dissolved	mg/L	0.050	57.8	58.1	0.5
Manganese (Mn)-Dissolved	mg/L	0.0050	0.0789	0.0814	3.1
Mercury (Hg)-Dissolved	mg/L	0.0000050	<0.0000050	<0.0000050	N/A
Molybdenum (Mo)-Dissolved	mg/L	0.00050	0.00402	0.00403	0.2
Nickel (Ni)-Dissolved	mg/L	0.0050	<0.0050	<0.0050	N/A
Potassium (K)-Dissolved	mg/L	0.50	8.58	8.43	1.8
Selenium (Se)-Dissolved	mg/L	0.00050	<0.00050	<0.00050	N/A
Sodium (Na)-Dissolved	mg/L	0.50	57.5	57.2	0.5
Thallium (Tl)-Dissolved	mg/L	0.00010	<0.00010	<0.00010	N/A
Uranium (U)-Dissolved	mg/L	0.00010	0.116	0.115	0.9
Zinc (Zn)-Dissolved	mg/L	0.010	<0.010	<0.010	N/A
Oil and Grease, Total	mg/L	-	-	-	-

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.4: Field QA/QC Water Quality Data Analysis - Field Duplicates - MP-C-B

Parameter	Sample ID		MP-C-B	MP-C-B01	Relative Percent Difference (RPD)	MP-C-B	MP-C-B01	Relative Percent Difference (RPD)	MP-C-B	MP-C-B01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2627807-2	L2627807-3		L2634765-1	L2634765-2		L2650270-1	L2650270-2	
	Sample Date & Time		2021-08-15 9:55	2021-08-15 9:55		2021-09-01 10:00	2021-09-01 10:00		2021-10-11 8:15	2021-10-11 8:15	
	QA/QC Sample Type		N/A	Field Duplicate		N/A	Field Duplicate		N/A	Field Duplicate	
	Units	LOR									
Conductivity	umhos/cm	1.0	-	-	-	746	750	0.5	-	-	-
pH	pH units	0.10	8.33	8.32	0.1	8.18	8.22	0.5	7.77	7.80	0.4
Total Suspended Solids	mg/L	2.0	<2.0	<2.0	N/A	<2.0	<2.0	N/A	<2.0	<2.0	N/A
Total Dissolved Solids	mg/L	10/20	351	354	0.9	432	428	0.9	433	432	0.2
Turbidity	NTU	0.10	4.30	4.27	0.7	1.69	1.71	1.2	3.08	3.11	1.0
Ammonia, Total (as N)	mg/L	0.010	-	-	-	0.023	0.022	N/A	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	4.34	4.34	N/A	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	-	<5.0	<5.0	N/A	-	-	-

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.5: Field QA/QC Water Quality Data Analysis - Field Duplicates - MP-C-H

Parameter	Sample ID		MP-C-H	MP-C-H01	Relative Percent Difference (RPD)	MP-C-H	MP-C-H01	Relative Percent Difference (RPD)	MP-C-H	MP-C-H01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2611804-1	L2611804-2		L2630604-1	L2630604-2		L2639311-1	L2639311-2	
	Sample Date & Time		2021-07-06 7:40	2021-07-06 7:40		2021-08-24 6:50	2021-08-24 6:50		2021-09-14 9:00	2021-09-14 9:00	
	QA/QC Sample Type		N/A	Field Duplicate		N/A	Field Duplicate		N/A	Field Duplicate	
	Units	LOR									
Conductivity	umhos/cm	1.0	227	228	0.4	-	-	-	-	-	-
pH	pH units	0.10	8.06	8.12	0.7	8.32	8.33	0.1	8.09	8.13	0.5
Total Suspended Solids	mg/L	1.0/2.0	<1.0	<1.0	N/A	<2.0	<2.0	N/A	<2.0	<2.0	N/A
Total Dissolved Solids	mg/L	13/10	142	144	1.4	179	174	2.8	217	197	9.7
Turbidity	NTU	0.10	0.49	0.62	23.4	0.23	0.25	N/A	0.11	0.11	N/A
Ammonia, Total (as N)	mg/L	0.010	0.015	0.012	NA	-	-	-	-	-	-
Nitrate (as N)	mg/L	0.020	0.335	0.327	2.4	-	-	-	-	-	-
Oil and Grease, Total	mg/L	5.0	<5.0	<5.0	N/A	-	-	-	-	-	-

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.6: Field QA/QC Water Quality Data Analysis - Field Duplicates - MP-C-J

Parameter	Sample ID		MP-C-J	MP-C-J01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2626311-1	L2626311-2	
	Sample Date & Time		2021-08-10 8:35	2021-08-10 8:35	
	QA/QC Sample Type		N/A	Field Duplicate	
	Units	LOR			
Conductivity	umhos/cm	1.0	-	-	-
pH	pH units	0.10	8.06	8.06	N/A
Total Suspended Solids	mg/L	2.0	<2.0	<2.0	N/A
Total Dissolved Solids	mg/L	10	172	235	31
Turbidity	NTU	0.10	0.33	0.39	N/A
Ammonia, Total (as N)	mg/L	0.010	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	-

Note:

RPD calculated when average of two samples > 5x LOR.

Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.

Calculations of results below detection limits used the value of the detection limit.

RPD values exceeding 30% are bolded.

Table 7.6.7: Field QA/QC Water Quality Data Analysis - Field Duplicates - MP-C-K

Parameter	Sample ID		MP-C-K	MP-C-K01	Relative Percent Difference (RPD)	MP-C-K	MP-C-K01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2637047-3	L2637047-4		L2648053-3	L2648053-4	
	Sample Date & Time		2021-09-07 16:05	2021-09-07 16:05		2021-10-05 14:30	2021-10-05 14:30	
	QA/QC Sample Type		N/A	Field Duplicate		N/A	Field Duplicate	
	Units	LOR						
Conductivity	umhos/cm	1.0	-	-	-	704	701	0.4
pH	pH units	0.10	8.15	8.13	0.2	8.00	8.01	0.1
Total Suspended Solids	mg/L	2.0	<2.0	<2.0	N/A	2.1	<2.0	N/A
Total Dissolved Solids	mg/L	10	570	575	0.9	447	426	4.8
Turbidity	NTU	0.10	0.32	0.29	N/A	3.49	3.42	2.0
Ammonia, Total (as N)	mg/L	0.010	-	-	-	0.056	0.053	5.5
Nitrate (as N)	mg/L	0.020	-	-	-	0.964	0.974	1.0
Oil and Grease, Total	mg/L	5.0	-	-	-	<5.0	<5.0	N/A

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.8: Field QA/QC Water Quality Data Analysis - Field Duplicates - MP-Q1-01

Parameter	Sample ID		MP-Q1-01	MP-Q1-0101	Relative Percent Difference (RPD)	MP-Q1-01	MP-Q1-0101	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2608772-7	L2608772-8		L2623229-3	L2623229-4	
	Sample Date & Time		2021-06-29 9:35	2021-06-29 9:35		2021-08-03 10:35	2021-08-03 10:35	
	QA/QC Sample Type		N/A	Field Duplicate		N/A	Field Duplicate	
	Units	LOR						
Conductivity	umhos/cm	1.0	-	-	-	195	196	0.5
pH	pH units	0.10	7.79	7.83	0.5	7.97	8.00	0.4
Total Suspended Solids	mg/L	1.0/2.0	<2.0	<2.0	N/A	<1.0	<2.0	N/A
Total Dissolved Solids	mg/L	10/13	77	104	29.8	72	71	1.4
Turbidity	NTU	0.10	1.95	1.98	1.5	1.96	2.11	7.4
Ammonia, Total (as N)	mg/L	0.010	-	-	-	0.012	0.010	N/A
Nitrate (as N)	mg/L	0.020	-	-	-	0.544	0.547	0.5
Oil and Grease, Total	mg/L	5.0	-	-	-	<5.0	<5.0	N/A

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.9: Field QA/QC Water Quality Data Analysis - Field Duplicates - MP-Q1-02

Parameter	Sample ID		MP-Q1-02	MP-Q1-0201	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2606493-1	L2606493-2	
	Sample Date & Time		2021-06-24 8:45	2021-06-24 8:45	
	QA/QC Sample Type		N/A	Field Duplicate	
	Units	LOR			
Conductivity	umhos/cm	1.0	-	-	-
pH	pH units	0.10	8.10	8.12	0.2
Total Suspended Solids	mg/L	2.0	121	134	10.2
Total Dissolved Solids	mg/L	10	210	210	N/A
Turbidity	NTU	0.10	133	152	13.3
Ammonia, Total (as N)	mg/L	0.01	-	-	-
Nitrate (as N)	mg/L	0.0	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	-

Note:

RPD calculated when average of two samples > 5x LOR.

Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.

Calculations of results below detection limits used the value of the detection limit.

RPD values exceeding 30% are bolded.

Table 7.6.10: Field QA/QC Water Quality Data Analysis - Field Duplicates - MS-01

Parameter	Sample ID		MS-01	MS-0101	Relative Percent Difference (RPD)	MS-01	MS-0101	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2546495-1	L2546495-3		L2662051-1	L2662051-3	
	Sample Date & Time		2021-01-06 15:00	2021-01-06 15:00		2021-11-10 14:45	2021-11-10 14:45	
	QA/QC Sample Type		N/A	Field Duplicate		N/A	Field Duplicate	
	Units	LOR						
pH	pH units	0.10	8.02	7.99	0.4	7.16	7.06	1.4
Total Suspended Solids	mg/L	3.0/1.0	<3.0	<3.0	N/A	<1.0	1.7	N/A
Ammonia, Total (as N)	mg/L	0.10	2.19	2.21	0.9	0.096	0.101	N/A
Total Kjeldahl Nitrogen	mg/L	0.50	8.30	7.70	7.5	0.560	1.74	N/A
Phosphorus, Total	mg/L	0.0060	1.05	1.07	1.9	1.18	1.17	0.9
Fecal Coliforms	CFU/100 mL	-	0	0	N/A	0	0	N/A
BOD	mg/L	2.0	<2.0	<2.0	N/A	<2.0	<2.0	N/A
Oil and Grease, Total	mg/L	5.0	<5.0	<5.0	N/A	<5.0	<5.0	N/A

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.11: Field QA/QC Water Quality Data Analysis - Field Duplicates - MS-01B

Parameter	Sample ID		MS-01B	MS-01B01	Relative Percent Difference (RPD)	MS-01B	MS-01B01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2546497-1	L2546497-3		L2661895-1	L2661895-3	
	Sample Date & Time		2021-01-06 15:00	2021-01-06 15:00		2021-11-10 14:45	2021-11-10 14:45	
	QA/QC Sample Type		N/A	Field Duplicate		N/A	Field Duplicate	
	Units	LOR						
pH	pH units	0.10	8.58	8.67	1.0	8.15	8.08	0.9
Total Suspended Solids	mg/L	3.0	4.0	3.0	N/A	1.4	<1.0	N/A
Ammonia, Total (as N)	mg/L	0.01	0.299	0.302	1.0	0.188	0.189	0.5
Total Kjeldahl Nitrogen	mg/L	0.50	4.30	4.70	8.9	0.760	0.230	N/A
Phosphorus, Total	mg/L	0.0030	0.800	0.800	N/A	0.915	0.904	1.2
Fecal Coliforms	CFU/100 mL	-	0	0	N/A	0	0	N/A
BOD	mg/L	2.0	2.0	2.1	N/A	<2.0	<2.0	N/A
Oil and Grease, Total	mg/L	5.0	<5.0	<5.0	N/A	<5.0	<5.0	N/A

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.12: Field QA/QC Water Quality Data Analysis - Field Duplicates - MS-07

Parameter	Sample ID		MS-07	MS-0701	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2611689-1	L2611689-2	
	Sample Date & Time		2021-07-08 11:45	2021-07-08 11:45	
	QA/QC Sample Type		N/A	Field Duplicate	
	Units	LOR			
Conductivity	umhos/cm	1.0	399	402	0.7
Hardness (as CaCO3)	mg/L	0.50	176	175	0.6
pH	pH units	0.10	7.56	7.58	0.3
Total Suspended Solids	mg/L	2.0	<2.0	<2.0	N/A
Total Dissolved Solids	mg/L	10	265	274	3.3
Turbidity	NTU	0.10	1.59	1.62	1.9
Alkalinity, Total (as CaCO3)	mg/L	1.0	31.1	31.3	0.6
Ammonia, Total (as N)	mg/L	0.010	0.340	0.336	1.2
Chloride (Cl)	mg/L	0.50	3.54	3.55	0.3
Fluoride (F)	mg/L	0.020	0.117	0.116	0.9
Nitrate (as N)	mg/L	0.020	5.99	6.00	0.2
Total Kjeldahl Nitrogen	mg/L	0.050	0.860	0.910	5.6
Phosphorus, Total	mg/L	0.0030	<0.0030	<0.0030	N/A
Sulfate (SO4)	mg/L	0.30	134	134	N/A
Dissolved Organic Carbon	mg/L	0.50	2.19	2.26	N/A
Total Organic Carbon	mg/L	0.50	2.42	2.50	N/A
Aluminum (Al)-Total	mg/L	0.0050	0.0435	0.0563	25.7
Antimony (Sb)-Total	mg/L	0.00010	0.00013	0.00013	N/A
Arsenic (As)-Total	mg/L	0.00010	<0.00010	<0.00010	N/A
Barium (Ba)-Total	mg/L	0.00010	0.0153	0.0152	0.7
Beryllium (Be)-Total	mg/L	0.00010	<0.00010	<0.00010	N/A
Bismuth (Bi)-Total	mg/L	0.000050	<0.000050	<0.000050	N/A
Boron (B)-Total	mg/L	0.010	0.016	0.017	N/A
Cadmium (Cd)-Total	mg/L	0.0000050	0.0000233	0.0000210	N/A
Calcium (Ca)-Total	mg/L	0.050	24.8	25.0	0.8
Cesium (Cs)-Total	mg/L	0.000010	<0.000010	<0.000010	N/A
Chromium (Cr)-Total	mg/L	0.00050	<0.00050	<0.00050	N/A
Cobalt (Co)-Total	mg/L	0.00010	0.00062	0.00062	N/A
Copper (Cu)-Total	mg/L	0.00050	0.00090	0.00109	N/A
Iron (Fe)-Total	mg/L	0.010	0.042	0.057	N/A
Lead (Pb)-Total	mg/L	0.000050	0.000071	0.000081	N/A
Lithium (Li)-Total	mg/L	0.0010	0.0050	0.0050	N/A
Magnesium (Mg)-Total	mg/L	0.0050	28.0	28.2	0.7
Manganese (Mn)-Total	mg/L	0.00050	0.0421	0.0427	1.4
Mercury (Hg)-Total	mg/L	0.0000050	<0.0000050	<0.0000050	N/A
Molybdenum (Mo)-Total	mg/L	0.000050	0.00729	0.00729	N/A
Nickel (Ni)-Total	mg/L	0.00050	0.00061	0.00060	N/A
Phosphorus (P)-Total	mg/L	0.050	<0.050	<0.050	N/A
Potassium (K)-Total	mg/L	0.050	8.47	8.48	0.1
Rubidium (Rb)-Total	mg/L	0.00020	0.00345	0.00341	1.2
Selenium (Se)-Total	mg/L	0.000050	0.00114	0.00121	6.0
Silicon (Si)-Total	mg/L	0.10	1.07	1.11	3.7
Silver (Ag)-Total	mg/L	0.000050	<0.000050	<0.000050	N/A
Sodium (Na)-Total	mg/L	0.050	2.83	2.82	0.4
Strontium (Sr)-Total	mg/L	0.0010	0.0300	0.0299	0.3
Sulfur (S)-Total	mg/L	0.50	45.9	46.5	1.3
Tellurium (Te)-Total	mg/L	0.00020	<0.00020	<0.00020	N/A
Thallium (Tl)-Total	mg/L	0.000010	<0.000010	<0.000010	N/A
Thorium (Th)-Total	mg/L	0.00010	<0.00010	<0.00010	N/A
Tin (Sn)-Total	mg/L	0.00010	<0.00010	<0.00010	N/A
Titanium (Ti)-Total	mg/L	0.00030	0.00106	0.00184	N/A
Tungsten (W)-Total	mg/L	0.00010	<0.00010	<0.00010	N/A
Uranium (U)-Total	mg/L	0.000010	0.00236	0.00236	N/A
Vanadium (V)-Total	mg/L	0.00050	<0.00050	<0.00050	N/A
Zinc (Zn)-Total	mg/L	0.0030	<0.0030	<0.0030	N/A
Zirconium (Zr)-Total	mg/L	0.00020	<0.00020	<0.00020	N/A
Aluminum (Al)-Dissolved	mg/L	0.0050	0.0192	0.0189	N/A
Antimony (Sb)-Dissolved	mg/L	0.00010	<0.00010	<0.00010	N/A
Arsenic (As)-Dissolved	mg/L	0.00010	<0.00010	<0.00010	N/A
Barium (Ba)-Dissolved	mg/L	0.00010	0.0155	0.0152	2.0
Beryllium (Be)-Dissolved	mg/L	0.00010	<0.00010	<0.00010	N/A
Bismuth (Bi)-Dissolved	mg/L	0.000050	<0.000050	<0.000050	N/A
Boron (B)-Dissolved	mg/L	0.010	0.016	0.016	N/A
Cadmium (Cd)-Dissolved	mg/L	0.0000050	0.0000244	0.0000231	N/A
Calcium (Ca)-Dissolved	mg/L	0.050	25.7	25.7	N/A
Cesium (Cs)-Dissolved	mg/L	0.000010	<0.000010	<0.000010	N/A
Chromium (Cr)-Dissolved	mg/L	0.00050	<0.00050	<0.00050	N/A

Table 7.6.12: Field QA/QC Water Quality Data Analysis - Field Duplicates - MS-07

Parameter	Sample ID		MS-07	MS-0701	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2611689-1	L2611689-2	
	Sample Date & Time		2021-07-08 11:45	2021-07-08 11:45	
	QA/QC Sample Type		N/A	Field Duplicate	
	Units	LOR			
Cobalt (Co)-Dissolved	mg/L	0.00010	0.00055	0.00055	N/A
Copper (Cu)-Dissolved	mg/L	0.00020	0.00080	0.00064	N/A
Iron (Fe)-Dissolved	mg/L	0.010	<0.010	<0.010	N/A
Lead (Pb)-Dissolved	mg/L	0.000050	<0.000050	<0.000050	N/A
Lithium (Li)-Dissolved	mg/L	0.0010	0.0047	0.0048	N/A
Magnesium (Mg)-Dissolved	mg/L	0.0050	27.2	26.9	1.1
Manganese (Mn)-Dissolved	mg/L	0.00050	0.0372	0.0366	1.6
Mercury (Hg)-Dissolved	mg/L	0.0000050	<0.0000050	<0.0000050	N/A
Molybdenum (Mo)-Dissolved	mg/L	0.000050	0.00736	0.00744	1.1
Nickel (Ni)-Dissolved	mg/L	0.00050	<0.00050	<0.00050	N/A
Phosphorus (P)-Dissolved	mg/L	0.050	<0.050	<0.050	N/A
Potassium (K)-Dissolved	mg/L	0.050	8.35	8.34	0.1
Rubidium (Rb)-Dissolved	mg/L	0.00020	0.00334	0.00348	4.1
Selenium (Se)-Dissolved	mg/L	0.000050	0.00133	0.00131	1.5
Silicon (Si)-Dissolved	mg/L	0.050	1.01	1.02	1.0
Silver (Ag)-Dissolved	mg/L	0.000050	<0.000050	<0.000050	N/A
Sodium (Na)-Dissolved	mg/L	0.050	2.72	2.69	1.1
Strontium (Sr)-Dissolved	mg/L	0.0010	0.0308	0.0315	2.2
Sulfur (S)-Dissolved	mg/L	0.50	47.2	47.1	0.2
Tellurium (Te)-Dissolved	mg/L	0.00020	<0.00020	<0.00020	N/A
Thallium (Tl)-Dissolved	mg/L	0.000010	<0.000010	<0.000010	N/A
Thorium (Th)-Dissolved	mg/L	0.00010	<0.00010	<0.00010	N/A
Tin (Sn)-Dissolved	mg/L	0.00010	<0.00010	<0.00010	N/A
Titanium (Ti)-Dissolved	mg/L	0.00030	<0.00030	<0.00030	N/A
Tungsten (W)-Dissolved	mg/L	0.00010	<0.00010	<0.00010	N/A
Uranium (U)-Dissolved	mg/L	0.000010	0.00242	0.00242	N/A
Vanadium (V)-Dissolved	mg/L	0.00050	<0.00050	<0.00050	N/A
Zinc (Zn)-Dissolved	mg/L	0.0010	0.0010	<0.0010	N/A
Zirconium (Zr)-Dissolved	mg/L	0.00020	<0.00020	<0.00020	N/A
Ra-226	Bq/L	0.0035	0.0068	<0.0035	N/A
Oil and Grease, Total	mg/L	-	-	-	-

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.13: Field QA/QC Water Quality Data Analysis - Field Duplicates - MS-MRY-09

Parameter	Sample ID		MS-MRY-09	MS-MRY-0901	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2639307-1	L2639307-2	
	Sample Date & Time		2021-09-13 9:50	2021-09-13 9:50	
	QA/QC Sample Type		N/A	Field Duplicate	
	Units	LOR			
Hardness (as CaCO ₃)	mg/L	0.50	-	-	-
pH	pH units	0.10	7.90	7.89	0.1
Total Suspended Solids	mg/L	2.0	<2.0	<2.0	N/A
Total Dissolved Solids	mg/L	10	53	25	N/A
Turbidity	NTU	0.10	0.27	0.26	N/A
Ammonia, Total (as N)	mg/L	0.010	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	-

Note:

RPD calculated when average of two samples > 5x LOR.

Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.

Calculations of results below detection limits used the value of the detection limit.

RPD values exceeding 30% are bolded.

Table 7.6.14: Field QA/QC Water Quality Data Analysis - Field Duplicates - MS-MRY-13A

Parameter	Sample ID		MS-MRY-13A	MS-MRY-13A01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2612809-9	L2612809-10	
	Sample Date & Time		2021-07-12 11:45	2021-07-12 11:45	
	QA/QC Sample Type		N/A	Field Duplicate	
	Units	LOR			
Conductivity	umhos/cm	1.0	-	-	-
pH	pH units	0.10	7.94	7.92	0.3
Total Suspended Solids	mg/L	2.0	<2.0	<2.0	N/A
Total Dissolved Solids	mg/L	10	480	486	1.2
Turbidity	NTU	0.10	0.35	0.22	N/A
Ammonia, Total (as N)	mg/L	0.010	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	-

Note:

RPD calculated when average of two samples > 5x LOR.

Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.

Calculations of results below detection limits used the value of the detection limit.

RPD values exceeding 30% are bolded.

Table 7.6.15: Field QA/QC Water Quality Data Analysis - Field Duplicates - MS-MRY-13B

Parameter	Sample ID		MS-MRY-13B	MS-MRY-13B01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2636426-5	L2636426-6	
	Sample Date & Time		2021-09-07 12:30	2021-09-07 12:30	
	QA/QC Sample Type		N/A	Field Duplicate	
	Units	LOR			
Conductivity	umhos/cm	1.0	-	-	-
pH	pH units	0.10	7.55	7.57	0.3
Total Suspended Solids	mg/L	2.0	<2.0	<2.0	N/A
Total Dissolved Solids	mg/L	10	1100	1030	6.6
Turbidity	NTU	0.10	0.11	0.12	N/A
Ammonia, Total (as N)	mg/L	0.010	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	-

Note:

RPD calculated when average of two samples > 5x LOR.

Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.

Calculations of results below detection limits used the value of the detection limit.

RPD values exceeding 30% are bolded.

Table 7.6.16: Field QA/QC Water Quality Data Analysis - Field Duplicates - MS-C-A

Parameter	Sample ID		MS-C-A	MS-C-A01	Relative Percent Difference (RPD)	MS-C-A	MS-C-A01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2602498-6	L2602498-7		L2621358-2	L2621358-3	
	Sample Date & Time		2021-06-13 11:25	2021-06-13 11:25		2021-07-31 9:10	2021-07-31 9:10	
	QA/QC Sample Type		N/A	Field Duplicate		N/A	Field Duplicate	
	Units	LOR						
Conductivity	umhos/cm	1.0	91.2	91.5	0.3	-	-	-
pH	pH units	0.10	7.74	7.73	0.1	7.87	7.88	0.1
Total Suspended Solids	mg/L	1.0	<1.0	<1.0	N/A	2.5	2.5	N/A
Total Dissolved Solids	mg/L	10	53	38	N/A	117	120	2.5
Turbidity	NTU	0.10	10.2	10.2	N/A	7.43	7.57	1.9
Ammonia, Total (as N)	mg/L	0.010	<0.010	<0.010	N/A	-	-	-
Nitrate (as N)	mg/L	0.020	0.084	0.088	N/A	-	-	-
Oil and Grease, Total	mg/L	5.0	<5.0	<5.0	N/A	-	-	-

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.17: Field QA/QC Water Quality Data Analysis - Field Duplicates - MS-C-B

Parameter	Sample ID		MS-C-B	MS-C-B01	Relative Percent Difference (RPD)	MS-C-B	MS-C-B01	Relative Percent Difference (RPD)	MS-C-B	MS-C-B01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2585502-3	L2585502-4		L2592735-6	L2592735-7		L2595911-5	L2595911-6	
	Sample Date & Time		2021-05-09 10:55	2021-05-09 10:55		2021-05-26 11:10	2021-05-26 11:10		2021-05-31 11:10	2021-05-31 11:10	
	QA/QC Sample Type		N/A	Field Duplicate		N/A	Field Duplicate		N/A	Field Duplicate	
	Units	LOR									
Conductivity	umhos/cm	1.0	-	-	-	46.9	46.7	0.4	-	-	-
pH	pH units	0.10	7.50	7.49	0.1	7.29	7.31	0.3	7.40	7.37	0.4
Total Suspended Solids	mg/L	1.0/2.0	2.5	2.0	N/A	20.1	29.6	38.2	2.4	2.0	N/A
Total Dissolved Solids	mg/L	10	55	57	3.6	49	44	N/A	32	32	N/A
Turbidity	NTU	0.10	32.6	32.9	0.9	40.4	60.2	39.4	14.8	15.6	5.3
Ammonia, Total (as N)	mg/L	0.010	-	-	-	0.011	0.012	N/A	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	0.076	0.114	N/A	-	-	-
Oil and Grease, Total	mg/L	2.0	-	-	-	<5.0	<2.0	N/A	-	-	-

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.17: Field QA/QC Water Quality Data Analysis - Field Duplicates - MS-C-B

Parameter	Sample ID		MS-C-B	MS-C-B01	Relative Percent Difference (RPD)	MS-C-B	MS-C-B01	Relative Percent Difference (RPD)	MS-C-B	MS-C-B01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2601055-6	L2601055-7		L2605841-15	L2605841-16		L2615981-12	L2615981-14	
	Sample Date & Time		2021-06-08 13:20	2021-06-08 13:20		2021-06-21 17:45	2021-06-21 17:45		2021-07-19 14:10	2021-07-19 14:10	
	QA/QC Sample Type		N/A	Field Duplicate		N/A	Field Duplicate		N/A	Field Duplicate	
	Units	LOR									
Conductivity	umhos/cm	1.0	-	-	-	-	-	-	-	-	-
pH	pH units	0.10	7.58	7.52	0.8	7.89	7.86	0.4	7.88	7.63	3.2
Total Suspended Solids	mg/L	1.0/2.0	2.5	2.0	N/A	<2.0	<2.0	N/A	2.1	<2.0	N/A
Total Dissolved Solids	mg/L	10	44	43	N/A	61	61	N/A	120	133	10.3
Turbidity	NTU	0.10	19.4	19.2	1.0	3.86	3.84	0.5	10.2	10.4	1.9
Ammonia, Total (as N)	mg/L	0.010	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	-	-	-	-	-	-
Oil and Grease, Total	mg/L	2.0	-	-	-	-	-	-	-	-	-

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.17: Field QA/QC Water Quality Data Analysis - Field Duplicates - MS-C-B

Parameter	Sample ID		MS-C-B	MS-C-B01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2626309-6	L2626309-7	
	Sample Date & Time		2021-08-11 10:55	2021-08-11 10:55	
	QA/QC Sample Type		N/A	Field Duplicate	
	Units	LOR			
Conductivity	umhos/cm	1.0	-	-	-
pH	pH units	0.10	8.03	8.03	N/A
Total Suspended Solids	mg/L	1.0/2.0	2.9	<2.0	N/A
Total Dissolved Solids	mg/L	10	150	148	1.3
Turbidity	NTU	0.10	17.4	17.2	1.2
Ammonia, Total (as N)	mg/L	0.010	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-
Oil and Grease, Total	mg/L	2.0	-	-	-

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.18: Field QA/QC Water Quality Data Analysis - Field Duplicates - MS-C-D

Parameter	Sample ID		MS-C-D	MS-C-D01	Relative Percent Difference (RPD)	MS-C-D	MS-C-D01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2595911-11	L2595911-12		L2609333-7	L2609333-8	
	Sample Date & Time		2021-06-01 9:30	2021-06-01 9:30		2021-07-04 14:35	2021-07-04 14:35	
	QA/QC Sample Type		N/A	Field Duplicate		N/A	Field Duplicate	
	Units	LOR						
Conductivity	umhos/cm	1.0	-	-	-	845	854	1.1
pH	pH units	0.10	7.91	7.86	0.6	8.45	8.44	0.1
Total Suspended Solids	mg/L	2.0	12.3	12.4	0.8	4.6	5.9	N/A
Total Dissolved Solids	mg/L	10	183	181	1.1	610	624	2.3
Turbidity	NTU	0.10	64.1	66.5	3.7	23.7	23.9	0.8
Ammonia, Total (as N)	mg/L	0.010	-	-	-	<0.010	<0.010	N/A
Nitrate (as N)	mg/L	0.020	-	-	-	3.99	4.00	0.3
Oil and Grease, Total	mg/L	5.0	-	-	-	<5.0	<5.0	N/A

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.19: Field QA/QC Water Quality Data Analysis - Field Duplicates - MS-C-E

Parameter	Sample ID		MS-C-E	MS-C-E01	Relative Percent Difference (RPD)	MS-C-E	MS-C-E01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2602498-3	L2602498-4		L2635278-3	L2635278-3	
	Sample Date & Time		2021-06-13 9:50	2021-06-13 9:50		2021-09-02 9:00	2021-09-02 9:00	
	QA/QC Sample Type		N/A	Field Duplicate		N/A	Field Duplicate	
	Units	LOR						
Conductivity	umhos/cm	1.0	346	348	0.6	980	973	0.7
pH	pH units	0.10	7.98	7.98	N/A	7.99	8.01	0.2
Total Suspended Solids	mg/L	1.0/2.0	1.3	1.0	N/A	3.3	2.9	N/A
Total Dissolved Solids	mg/L	13/10	204	200	2.0	661	698	5.4
Turbidity	NTU	0.10	1.66	1.39	17.7	5.46	5.30	3.0
Ammonia, Total (as N)	mg/L	0.010	0.013	0.013	N/A	<0.010	<0.010	N/A
Nitrate (as N)	mg/L	0.020	0.751	0.746	0.7	6.73	6.71	0.3
Oil and Grease, Total	mg/L	5.0	<5.0	<5.0	N/A	<5.0	<5.0	N/A

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.20: Field QA/QC Water Quality Data Analysis - Field Duplicates - MS-C-F

Parameter	Sample ID		MS-C-F	MS-C-F01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2621381-1	L2621381-2	
	Sample Date & Time		2021-08-02 12:50	2021-08-02 12:50	
	QA/QC Sample Type		N/A	Field Duplicate	
	Units	LOR			
Conductivity	umhos/cm	1.0	266	267	0.4
pH	pH units	0.10	8.02	8.03	0.1
Total Suspended Solids	mg/L	2.0	5.8	6.3	N/A
Total Dissolved Solids	mg/L	10	139	145	4.2
Turbidity	NTU	0.10	15.4	16.0	3.8
Ammonia, Total (as N)	mg/L	0.010	0.019	0.023	N/A
Nitrate (as N)	mg/L	0.020	0.460	0.445	3.3
Oil and Grease, Total	mg/L	5.0	<5.0	<5.0	N/A

Note:

RPD calculated when average of two samples > 5x LOR.

Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.

Calculations of results below detection limits used the value of the detection limit.

RPD values exceeding 30% are bolded.

Table 7.6.21: Field QA/QC Water Quality Data Analysis - Field Duplicates - MS-C-G

Parameter	Sample ID		MS-C-G	MS-C-G01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2630140-6	L2630140-15	
	Sample Date & Time		2021-08-22 11:15	2021-08-22 11:15	
	QA/QC Sample Type		N/A	Field Duplicate	
	Units	LOR			
Conductivity	umhos/cm	1.0	-	-	-
pH	pH units	0.10	7.73	7.75	0.3
Total Suspended Solids	mg/L	2.0	<2.0	3.3	N/A
Total Dissolved Solids	mg/L	10	171	170	0.6
Turbidity	NTU	0.10	0.10	<0.10	N/A
Ammonia, Total (as N)	mg/L	0.010	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	-

Note:

RPD calculated when average of two samples > 5x LOR.

Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.

Calculations of results below detection limits used the value of the detection limit.

RPD values exceeding 30% are bolded.

Table 7.6.22: Field QA/QC Water Quality Data Analysis - Field Duplicates - MS-C-H

Parameter	Sample ID		MS-C-H	MS-C-H01	Relative Percent Difference (RPD)	MS-C-H	MS-C-H01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2627332-11	L2627332-12		L2635278-10	L2635278-11	
	Sample Date & Time		2021-08-16 13:30	2021-08-16 13:30		2021-09-02 10:55	2021-09-02 10:55	
	QA/QC Sample Type		N/A	Field Duplicate		N/A	Field Duplicate	
	Units	LOR						
Conductivity	umhos/cm	1.0	-	-	-	253	253	N/A
pH	pH units	0.10	8.29	8.28	0.1	8.26	8.28	0.2
Total Suspended Solids	mg/L	2.0	<2.0	<2.0	N/A	<2.0	<2.0	N/A
Total Dissolved Solids	mg/L	10	87	88	1.1	210	135	43.5
Turbidity	NTU	0.10	0.27	0.13	N/A	3.35	0.33	164.1
Ammonia, Total (as N)	mg/L	0.010	-	-	-	0.013	0.014	N/A
Nitrate (as N)	mg/L	0.020	-	-	-	0.138	0.129	6.7
Oil and Grease, Total	mg/L	5.0	-	-	-	<5.0	<5.0	N/A

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.23: Field QA/QC Water Quality Data Analysis - Field Duplicates - MQ-C-A

Parameter	Sample ID		MQ-C-A	MQ-C-A01	Relative Percent Difference (RPD)	MQ-C-A	MQ-C-A01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2595911-1	L2595911-2		L2621268-1	L2621268-2	
	Sample Date & Time		2021-05-31 9:10	2021-05-31 9:10		2021-07-29 9:40	2021-07-29 9:40	
	QA/QC Sample Type		N/A	Field Duplicate		N/A	Field Duplicate	
	Units	LOR						
Conductivity	umhos/cm	1.0	-	-	-	-	-	-
pH	pH units	0.10	7.57	7.56	0.1	8.12	8.15	0.4
Total Suspended Solids	mg/L	2.0	2.0	<2.0	N/A	<2.0	<2.0	N/A
Total Dissolved Solids	mg/L	10	53	49	7.8	162	156	3.8
Turbidity	NTU	0.10	3.17	3.49	9.6	0.20	0.19	N/A
Ammonia, Total (as N)	mg/L	0.010	-	-	-	-	-	-
Nitrate (as N)	mg/L	0.020	-	-	-	-	-	-
Oil and Grease, Total	mg/L	5.0	-	-	-	-	-	-

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.24: Field QA/QC Water Quality Data Analysis - Field Duplicates - MQ-C-B

Parameter	Sample ID		MQ-C-B	MQ-C-B01	Relative Percent Difference (RPD)	MQ-C-B	MQ-C-B01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2630140-3	L2630140-4		L2647099-2	L2647099-3	
	Sample Date & Time		2021-08-22 9:50	2021-08-22 9:50		2021-10-04 9:10	2021-10-04 9:10	
	QA/QC Sample Type		N/A	Field Duplicate		N/A	Field Duplicate	
	Units	LOR						
Conductivity	umhos/cm	1.0	-	-	-	377	377	N/A
pH	pH units	0.10	8.32	8.33	0.1	7.92	7.92	N/A
Total Suspended Solids	mg/L	2.0	<2.0	3.0	N/A	18.5	16.5	11.4
Total Dissolved Solids	mg/L	10	224	222	0.9	178	220	21.1
Turbidity	NTU	0.10	3.27	3.23	1.2	71.1	69.5	2.3
Ammonia, Total (as N)	mg/L	0.010	-	-	-	0.043	0.043	N/A
Nitrate (as N)	mg/L	0.020	-	-	-	0.292	0.282	3.5
Oil and Grease, Total	mg/L	2.0	-	-	-	<2.0	<2.0	N/A

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.6.25: Field QA/QC Water Quality Data Analysis - Field Duplicates - MQ-C-D

Parameter	Sample ID		MQ-C-D	MQ-C-D01	Relative Percent Difference (RPD)	MQ-C-D	MQ-C-D01	Relative Percent Difference (RPD)
	ALS Laboratory Sample ID		L2592735-10	L2592735-11		L2644501-2	L2644501-5	
	Sample Date & Time		2021-05-26 14:00	2021-05-26 14:00		2021-09-27 9:10	2021-09-27 9:10	
	QA/QC Sample Type		N/A	Field Duplicate		N/A	Field Duplicate	
	Units	LOR						
Conductivity	umhos/cm	3.0	65.3	65.7	0.6	-	-	-
pH	pH units	0.10	7.39	7.42	0.4	7.78	7.80	0.3
Total Suspended Solids	mg/L	2.0	8.2	10.6	N/A	2.0	2.0	N/A
Total Dissolved Solids	mg/L	10	49	53	7.8	290	300	3.4
Turbidity	NTU	0.10	70.4	53.6	27.1	3.18	3.01	5.5
Ammonia, Total (as N)	mg/L	0.010	0.087	0.084	3.5	-	-	-
Nitrate (as N)	mg/L	0.020	0.044	0.023	N/A	-	-	-
Oil and Grease, Total	mg/L	2.0	<2.0	<2.0	N/A	-	-	-

Note:
RPD calculated when average of two samples > 5x LOR.
Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the average of the two samples, and multiplying by 100.
Calculations of results below detection limits used the value of the detection limit.
RPD values exceeding 30% are bolded.

Table 7.7.1: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MP-01

Analyte	Sample ID		MP-0103	MP-0103	MP-0102	MP-0103
	ALS Laboratory Sample ID		L2637961-3	L2640590-3	L2648435-3	L2671157-3
	Sample Date & Time		2021-09-08 13:10	2021-09-15 13:00	2021-10-05 14:00	2021-12-08 13:00
	QA/QC Sample Type		Travel Blank	Travel Blank	Field Blank	Travel Blank
	Units	LOR				
pH	pH units	0.10	5.87	5.57	5.74	5.32
Total Suspended Solids	mg/L	1.0	<1.0	<1.0	<1.0	<1.0
Ammonia, Total (as N)	mg/L	0.010	<0.010	<0.010	<0.010	0.013
Total Kjeldahl Nitrogen	mg/L	0.050	<0.050	<0.050	<0.050	<0.050
Phosphorus, Total	mg/L	0.0030	0.0035	<0.0030	<0.0030	<0.0030
Fecal Coliforms	CFU/100 mL	-	0	0	0	0
BOD	mg/L	2.0	<2.0	<2.0	<2.0	<2.0
Oil and Grease, Total	mg/L	2.0/5.0	<2.0	<5.0	<2.0	<2.0

Notes:

Bold values indicate values greater than their respective parameter LORs.

The field and travel result values greater than their respective parameter LORs were within 5 times the value of each parameter LOR.

Table 7.7.2: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MP-01B

Analyte	Sample ID		MP-01B03	MP-01B03	MP-01B03	MP-01B02
	ALS Laboratory Sample ID		L2637988-3	L2640599-3	L2648442-3	L2671142-3
	Sample Date & Time		2021-09-08 13:00	2021-09-15 13:00	2021-10-05 14:00	2021-12-08 13:40
	QA/QC Sample Type		Travel Blank	Travel Blank	Travel Blank	Field Blank
	Units	LOR				
pH	pH units	0.10	5.77	6.03	5.99	6.30
Total Suspended Solids	mg/L	1.0	<1.0	<1.0	<1.0	<1.0
Ammonia, Total (as N)	mg/L	0.010	<0.010	0.024	<0.010	<0.010
Total Kjeldahl Nitrogen	mg/L	0.050	<0.050	<0.050	<0.050	<0.050
Phosphorus, Total	mg/L	0.0030	0.0073	<0.0030	<0.0030	<0.0030
Fecal Coliforms	CFU/100 mL	-	0	0	0	0
BOD	mg/L	2.0	<2.0	<2.0	<2.0	<2.0
Oil and Grease, Total	mg/L	2.0/5.0	<2.0	<2.0	<5.0	<2.0

Notes:

Bold values indicate values greater than their respective parameter LORs.

The field and travel result values greater than their respective parameter LORs were within 5 times the value of each parameter LOR.

Table 7.7.3: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MP-C-B

Analyte	Sample ID		MP-C-B03
	ALS Laboratory Sample ID		L2602404-7
	Sample Date & Time		2021-06-15 11:45
	QA/QC Sample Type		Travel Blank
	Units	LOR	
Conductivity	umhos/cm	1.0	<1.0
pH	pH units	0.10	6.26
Total Suspended Solids	mg/L	1.0	<1.0
Total Dissolved Solids	mg/L	10	<10
Turbidity	NTU	0.10	0.31
Ammonia, Total (as N)	mg/L	0.010	0.013
Nitrate (as N)	mg/L	0.020	<0.020
Oil and Grease, Total	mg/L	5.0	<5.0

Notes:

Bold values indicate values greater than their respective parameter LORs.

The travel result values greater than their respective parameter LORs were within 5 times the value of each parameter LOR.

Table 7.7.4: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MP-C-H

Analyte	Sample ID		MP-C-H03
	ALS Laboratory Sample ID		L2620706-7
	Sample Date & Time		2021-07-28 7:15
	QA/QC Sample Type		Travel Blank
	Units	LOR	
Conductivity	umhos/cm	1.0	-
pH	pH units	0.10	5.95
Total Suspended Solids	mg/L	2.0	<2.0
Total Dissolved Solids	mg/L	10	14
Turbidity	NTU	0.10	<0.10
Ammonia, Total (as N)	mg/L	0.010	-
Nitrate (as N)	mg/L	0.020	-
Oil and Grease, Total	mg/L	5.0	-

Notes:

Bold values indicate values greater than their respective parameter LORs.

The field and travel result values greater than their respective parameter LORs were within 5 times the value of each parameter LOR.

Table 7.7.5: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MP-C-J

Analyte	Sample ID		MP-C-J03
	ALS Laboratory Sample ID		L2600575-3
	Sample Date & Time		2021-06-08 8:15
	QA/QC Sample Type		Travel Blank
	Units	LOR	
Conductivity	umhos/cm	1.0	-
pH	pH units	0.10	5.90
Total Suspended Solids	mg/L	1.0	<2.0
Total Dissolved Solids	mg/L	10	<10
Turbidity	NTU	0.10	<0.10
Ammonia, Total (as N)	mg/L	0.010	-
Nitrate (as N)	mg/L	0.020	-
Oil and Grease, Total	mg/L	5.0	-

Notes:

Bold values indicate values greater than their respective parameter LORs.

The travel result values were within their respective parameter LOR.

Table 7.7.6: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MP-C-K

Analyte	Sample ID		MP-C-K03
	ALS Laboratory Sample ID		L2595282-3
	Sample Date & Time		2021-06-01 8:45
	QA/QC Sample Type		Travel Blank
	Units	LOR	
Conductivity	umhos/cm	1.0	<1.0
pH	pH units	0.10	8.00
Total Suspended Solids	mg/L	1.0	<1.0
Total Dissolved Solids	mg/L	10	<10
Turbidity	NTU	0.10	<0.10
Ammonia, Total (as N)	mg/L	0.010	<0.010
Nitrate (as N)	mg/L	0.020	<0.020
Oil and Grease, Total	mg/L	5.0	<5.0

Notes:

Bold values indicate values greater than their respective parameter LORs.

The travel result values were within their respective parameter LOR.

Table 7.7.7: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MP-Q1-01

Analyte	Sample ID		MP-Q1-0103
	ALS Laboratory Sample ID		L2614208-2
	Sample Date & Time		2021-07-13 13:40
	QA/QC Sample Type		Travel Blank
	Units	LOR	
Conductivity	umhos/cm	1.0	-
pH	pH units	0.10	6.06
Total Suspended Solids	mg/L	2.0	<2.0
Total Dissolved Solids	mg/L	10	17
Turbidity	NTU	0.10	<0.10
Ammonia, Total (as N)	mg/L	-	-
Nitrate (as N)	mg/L	0.020	-
Oil and Grease, Total	mg/L	5.0	-

Notes:

Bold values indicate values greater than their respective parameter LORs.

The travel result values greater than their respective parameter LORs were within 5 times the value of each parameter LOR.

Table 7.7.8: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MS-MRY-13A

Analyte	Sample ID		MS-MRY-13A03
	ALS Laboratory Sample ID		L2608050-6
	Sample Date & Time		2021-06-28 16:10
	QA/QC Sample Type		Travel Blank
	Units	LOR	
Conductivity	umhos/cm	1.0	-
pH	pH units	0.10	6.13
Total Suspended Solids	mg/L	2.0	<2.0
Total Dissolved Solids	mg/L	10	<10
Turbidity	NTU	0.10	<0.10
Ammonia, Total (as N)	mg/L	0.010	-
Nitrate (as N)	mg/L	0.020	-
Oil and Grease, Total	mg/L	5.0	-

Notes:

Bold values indicate values greater than their respective parameter LORs.

The travel result values were within their respective parameter LOR.

Table 7.7.9: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MS-MRY-13B

Analyte	Sample ID		MS-MRY-13B03
	ALS Laboratory Sample ID		L2627332-4
	Sample Date & Time		2021-08-16 12:00
	QA/QC Sample Type		Travel Blank
	Units	LOR	
Conductivity	umhos/cm	1.0	-
pH	pH units	0.10	5.97
Total Suspended Solids	mg/L	2.0	<2.0
Total Dissolved Solids	mg/L	10	<10
Turbidity	NTU	0.10	<0.10
Ammonia, Total (as N)	mg/L	0.010	-
Nitrate (as N)	mg/L	0.020	-
Oil and Grease, Total	mg/L	5.0	-

Notes:

Bold values indicate values greater than their respective parameter LORs.

The travel result values were within their respective parameter LOR.

Table 7.7.10: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MS-01

Analyte	Sample ID		MS-0102	MS-0103
	ALS Laboratory Sample ID		L2623232-3	L2637974-3
	Sample Date & Time		2021-08-04 14:45	2021-09-08 14:45
	QA/QC Sample Type		Field Blank	Travel Blank
	Units	LOR		
pH	pH units	0.10	5.50	6.48
Total Suspended Solids	mg/L	1.0	<1.0	<1.0
Total Dissolved Solids	mg/L	10	<10	-
Turbidity	NTU	0.10	<0.10	-
Ammonia, Total (as N)	mg/L	0.01	-	0.014
Total Kjeldahl Nitrogen	mg/L	0.05	<0.050	0.065
Total Phosphorus	mg/L	0.0030	0.0064	<0.0030
Fecal Coliforms	mg/L	-	0	0
BOD	mg/L	2.0	<2.0	<2.0
Oil and Grease, Total	mg/L	5.0	<5.0	<5.0

Notes:

Bold values indicate values greater than their respective parameter LORs.

The field and travel result values greater than their respective parameter LORs were within 5 times the value of each parameter LOR.

Table 7.7.11: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MS-01B

Analyte	Sample ID		MS-01B02	MS-01B03
	ALS Laboratory Sample ID		L2623234-3	L2637955-3
	Sample Date & Time		2021-08-04 15:00	2021-09-08 15:00
	QA/QC Sample Type		Field Blank	Travel Blank
	Units	LOR		
pH	pH units	0.10	6.54	6.31
Total Suspended Solids	mg/L	1.0	<1.0	<1.0
Ammonia, Total (as N)	mg/L	0.010	<0.010	<0.010
Total Kjeldahl Nitrogen	mg/L	0.050	<0.050	0.085
Phosphorus, Total	mg/L	0.0090/0.0030	0.0098	<0.0030
Fecal Coliforms	CFU/100 mL	10/0	0	0
BOD	mg/L	2.0	<2.0	<2.0
Oil and Grease, Total	mg/L	5.0	<5.0	<5.0

Notes:

Bold values indicate values greater than their respective parameter LORs.

The field and travel result values greater than their respective parameter LORs were within 5 times the value of each parameter LOR.

Table 7.7.12: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MS-06

Analyte	Sample ID		MS-0603
	ALS Laboratory Sample ID		L2611695-2
	Sample Date & Time		2021-07-08 9:30
	QA/QC Sample Type		Travel Blank
	Units	LOR	
Conductivity	umhos/cm	1.0	<1.0
Hardness (as CaCO3)	mg/L	0.50	<0.50
pH	pH units	0.10	5.74
Total Suspended Solids	mg/L	2.0	<2.0
Total Dissolved Solids	mg/L	10	<10
Turbidity	NTU	0.10	<0.10
Alkalinity, Total (as CaCO3)	mg/L	1.0	<1.0
Ammonia, Total (as N)	mg/L	0.010	<0.010
Chloride (Cl)	mg/L	0.50	<0.50
Fluoride (F)	mg/L	0.020	<0.020
Nitrate (as N)	mg/L	0.020	<0.020
Total Kjeldahl Nitrogen	mg/L	0.050	<0.050
Phosphorus, Total	mg/L	0.0030	<0.0030
Sulfate (SO4)	mg/L	0.30	<0.30
Dissolved Organic Carbon	mg/L	0.50	0.60
Total Organic Carbon	mg/L	0.50	1.01
Aluminum (Al)-Total	mg/L	0.0050	<0.0050
Antimony (Sb)-Total	mg/L	0.00010	<0.00010
Arsenic (As)-Total	mg/L	0.00010	<0.00010
Barium (Ba)-Total	mg/L	0.00010	<0.00010
Beryllium (Be)-Total	mg/L	0.00010	<0.00010
Bismuth (Bi)-Total	mg/L	0.000050	<0.000050
Boron (B)-Total	mg/L	0.010	<0.010
Cadmium (Cd)-Total	mg/L	0.0000050	<0.0000050
Calcium (Ca)-Total	mg/L	0.050	<0.050
Cesium (Cs)-Total	mg/L	0.000010	<0.000010
Chromium (Cr)-Total	mg/L	0.00050	<0.00050
Cobalt (Co)-Total	mg/L	0.00010	<0.00010
Copper (Cu)-Total	mg/L	0.00050	<0.00050
Iron (Fe)-Total	mg/L	0.010	<0.010
Lead (Pb)-Total	mg/L	0.000050	<0.000050
Lithium (Li)-Total	mg/L	0.0010	<0.0010
Magnesium (Mg)-Total	mg/L	0.0050	0.0112
Manganese (Mn)-Total	mg/L	0.00050	<0.00050
Mercury (Hg)-Total	mg/L	0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.000050	<0.000050
Nickel (Ni)-Total	mg/L	0.00050	<0.00050
Phosphorus (P)-Total	mg/L	0.050	<0.050
Potassium (K)-Total	mg/L	0.050	<0.050
Rubidium (Rb)-Total	mg/L	0.00020	<0.00020
Selenium (Se)-Total	mg/L	0.000050	<0.000050
Silicon (Si)-Total	mg/L	0.10	<0.10
Silver (Ag)-Total	mg/L	0.000050	<0.000050
Sodium (Na)-Total	mg/L	0.050	<0.050
Strontium (Sr)-Total	mg/L	0.0010	<0.0010
Sulfur (S)-Total	mg/L	0.50	<0.50
Tellurium (Te)-Total	mg/L	0.00020	<0.00020
Thallium (Tl)-Total	mg/L	0.000010	<0.000010
Thorium (Th)-Total	mg/L	0.00010	<0.00010
Tin (Sn)-Total	mg/L	0.00010	<0.00010
Titanium (Ti)-Total	mg/L	0.00030	<0.00030
Tungsten (W)-Total	mg/L	0.00010	<0.00010
Uranium (U)-Total	mg/L	0.000010	<0.000010
Vanadium (V)-Total	mg/L	0.00050	<0.00050
Zinc (Zn)-Total	mg/L	0.0030	<0.0030
Zirconium (Zr)-Total	mg/L	0.00020	<0.00020
Aluminum (Al)-Dissolved	mg/L	0.0050	<0.0050
Antimony (Sb)-Dissolved	mg/L	0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L	0.00010	<0.00010
Barium (Ba)-Dissolved	mg/L	0.00010	<0.00010
Beryllium (Be)-Dissolved	mg/L	0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L	0.000050	<0.000050
Boron (B)-Dissolved	mg/L	0.010	<0.010
Cadmium (Cd)-Dissolved	mg/L	0.0000050	<0.0000050
Calcium (Ca)-Dissolved	mg/L	0.050	<0.050

Notes:

Bold values indicate values greater than their respective parameter LORs.

The travel result values greater than their respective parameter LORs were within 5 times the value of each parameter LOR.

Table 7.7.12: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MS-06

Analyte	Sample ID		MS-0603
	ALS Laboratory Sample ID		L2611695-2
	Sample Date & Time		2021-07-08 9:30
	QA/QC Sample Type		Travel Blank
	Units	LOR	
Cesium (Cs)-Dissolved	mg/L	0.000010	<0.000010
Chromium (Cr)-Dissolved	mg/L	0.00050	<0.00050
Cobalt (Co)-Dissolved	mg/L	0.00010	<0.00010
Copper (Cu)-Dissolved	mg/L	0.00020	<0.00020
Iron (Fe)-Dissolved	mg/L	0.010	<0.010
Lead (Pb)-Dissolved	mg/L	0.000050	<0.000050
Lithium (Li)-Dissolved	mg/L	0.0010	<0.0010
Magnesium (Mg)-Dissolved	mg/L	0.0050	<0.0050
Manganese (Mn)-Dissolved	mg/L	0.00050	<0.00050
Mercury (Hg)-Dissolved	mg/L	0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050	<0.000050
Nickel (Ni)-Dissolved	mg/L	0.00050	<0.00050
Phosphorus (P)-Dissolved	mg/L	0.050	<0.050
Potassium (K)-Dissolved	mg/L	0.050	<0.050
Rubidium (Rb)-Dissolved	mg/L	0.00020	<0.00020
Selenium (Se)-Dissolved	mg/L	0.000050	<0.000050
Silicon (Si)-Dissolved	mg/L	0.050	<0.050
Silver (Ag)-Dissolved	mg/L	0.000050	<0.000050
Sodium (Na)-Dissolved	mg/L	0.050	<0.050
Strontium (Sr)-Dissolved	mg/L	0.0010	<0.0010
Sulfur (S)-Dissolved	mg/L	0.50	<0.50
Tellurium (Te)-Dissolved	mg/L	0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L	0.000010	<0.000010
Thorium (Th)-Dissolved	mg/L	0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L	0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L	0.00030	<0.00030
Tungsten (W)-Dissolved	mg/L	0.00010	<0.00010
Uranium (U)-Dissolved	mg/L	0.000010	<0.000010
Vanadium (V)-Dissolved	mg/L	0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L	0.0010	<0.0010
Zirconium (Zr)-Dissolved	mg/L	0.00020	<0.00020
Ra-226	Bq/L	0.0058/0.0033	<0.0033
Oil and Grease, Total	mg/L	-	-
Acute Toxicity	-	-	-

Notes:

Bold values indicate values greater than their respective parameter LORs.
The travel result values greater than their respective parameter LORs were within 5 times the value of each parameter LOR.

Table 7.7.13: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MS-08

Analyte	Sample ID		MS-0802
	ALS Laboratory Sample ID		L2611670-2
	Sample Date & Time		2021-07-08 13:05
	QA/QC Sample Type		Field Blank
	Units	LOR	
Conductivity	umhos/cm	1.0	<1.0
Hardness (as CaCO3)	mg/L	0.50	<0.50
pH	pH units	0.10	5.62
Total Suspended Solids	mg/L	2.0	<2.0
Total Dissolved Solids	mg/L	10	20
Turbidity	NTU	0.10	<0.10
Alkalinity, Total (as CaCO3)	mg/L	1.0	<1.0
Ammonia, Total (as N)	mg/L	0.0100	<0.010
Chloride (Cl)	mg/L	0.50	<0.50
Fluoride (F)	mg/L	0.020	<0.020
Nitrate (as N)	mg/L	0.020	<0.020
Total Kjeldahl Nitrogen	mg/L	0.050	<0.050
Phosphorus, Total	mg/L	0.0030	<0.0030
Sulfate (SO4)	mg/L	0.30	<0.30
Dissolved Organic Carbon	mg/L	0.50	<0.50
Total Organic Carbon	mg/L	0.50	0.87
Aluminum (Al)-Total	mg/L	0.0050	<0.0050
Antimony (Sb)-Total	mg/L	0.00010	<0.00010
Arsenic (As)-Total	mg/L	0.00010	<0.00010
Barium (Ba)-Total	mg/L	0.00010	<0.00010
Beryllium (Be)-Total	mg/L	0.00010	<0.00010
Bismuth (Bi)-Total	mg/L	0.000050	<0.000050
Boron (B)-Total	mg/L	0.010	<0.010
Cadmium (Cd)-Total	mg/L	0.0000050	<0.0000050
Calcium (Ca)-Total	mg/L	0.05	<0.050
Cesium (Cs)-Total	mg/L	0.000010	<0.000010
Chromium (Cr)-Total	mg/L	0.00050	<0.00050
Cobalt (Co)-Total	mg/L	0.00010	<0.00010
Copper (Cu)-Total	mg/L	0.00050	<0.00050
Iron (Fe)-Total	mg/L	0.010	<0.010
Lead (Pb)-Total	mg/L	0.000050	<0.000050
Lithium (Li)-Total	mg/L	0.0010	<0.0010
Magnesium (Mg)-Total	mg/L	0.0050	0.0382
Manganese (Mn)-Total	mg/L	0.00050	<0.00050
Mercury (Hg)-Total	mg/L	0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.000050	<0.000050
Nickel (Ni)-Total	mg/L	0.00050	<0.00050
Phosphorus (P)-Total	mg/L	0.050	<0.050
Potassium (K)-Total	mg/L	0.050	<0.050
Rubidium (Rb)-Total	mg/L	0.00020	<0.00020
Selenium (Se)-Total	mg/L	0.000050	<0.000050
Silicon (Si)-Total	mg/L	0.10	<0.10
Silver (Ag)-Total	mg/L	0.000050	<0.000050
Sodium (Na)-Total	mg/L	0.050	<0.050
Strontium (Sr)-Total	mg/L	0.0010	<0.0010
Sulfur (S)-Total	mg/L	0.50	<0.50
Tellurium (Te)-Total	mg/L	0.00020	<0.00020
Thallium (Tl)-Total	mg/L	0.000010	<0.000010
Thorium (Th)-Total	mg/L	0.00010	<0.00010
Tin (Sn)-Total	mg/L	0.00010	<0.00010
Titanium (Ti)-Total	mg/L	0.00030	<0.00030
Tungsten (W)-Total	mg/L	0.00010	<0.00010
Uranium (U)-Total	mg/L	0.000010	<0.000010
Vanadium (V)-Total	mg/L	0.00050	<0.00050
Zinc (Zn)-Total	mg/L	0.0030	<0.0030
Zirconium (Zr)-Total	mg/L	0.00020	<0.00020
Aluminum (Al)-Dissolved	mg/L	0.0050	<0.0050
Antimony (Sb)-Dissolved	mg/L	0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L	0.00010	<0.00010
Barium (Ba)-Dissolved	mg/L	0.00010	<0.00010
Beryllium (Be)-Dissolved	mg/L	0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L	0.000050	<0.000050
Boron (B)-Dissolved	mg/L	0.010	<0.010
Cadmium (Cd)-Dissolved	mg/L	0.0000050	<0.0000050
Calcium (Ca)-Dissolved	mg/L	0.050	0.055

Notes:

Bold values indicate values greater than their respective parameter LORs.

The field result values greater than their respective parameter LORs were within 5 times the value of each parameter LOR, with the exception of total magnesium.

Table 7.7.13: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MS-08

Analyte	Sample ID		MS-0802
	ALS Laboratory Sample ID		L2611670-2
	Sample Date & Time		2021-07-08 13:05
	QA/QC Sample Type		Field Blank
	Units	LOR	
Cesium (Cs)-Dissolved	mg/L	0.000010	<0.000010
Chromium (Cr)-Dissolved	mg/L	0.00050	<0.00050
Cobalt (Co)-Dissolved	mg/L	0.00010	<0.00010
Copper (Cu)-Dissolved	mg/L	0.00020	<0.00020
Iron (Fe)-Dissolved	mg/L	0.010	<0.010
Lead (Pb)-Dissolved	mg/L	0.000050	<0.000050
Lithium (Li)-Dissolved	mg/L	0.0010	<0.0010
Magnesium (Mg)-Dissolved	mg/L	0.0050	<0.0050
Manganese (Mn)-Dissolved	mg/L	0.00050	<0.00050
Mercury (Hg)-Dissolved	mg/L	0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.000050	<0.000050
Nickel (Ni)-Dissolved	mg/L	0.00050	<0.00050
Phosphorus (P)-Dissolved	mg/L	0.050	<0.050
Potassium (K)-Dissolved	mg/L	0.050	<0.050
Rubidium (Rb)-Dissolved	mg/L	0.00020	<0.00020
Selenium (Se)-Dissolved	mg/L	0.000050	<0.000050
Silicon (Si)-Dissolved	mg/L	0.050	<0.050
Silver (Ag)-Dissolved	mg/L	0.000050	<0.000050
Sodium (Na)-Dissolved	mg/L	0.050	<0.050
Strontium (Sr)-Dissolved	mg/L	0.0010	<0.0010
Sulfur (S)-Dissolved	mg/L	0.50	<0.50
Tellurium (Te)-Dissolved	mg/L	0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L	0.000010	<0.000010
Thorium (Th)-Dissolved	mg/L	0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L	0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L	0.00030	<0.00030
Tungsten (W)-Dissolved	mg/L	0.00010	<0.00010
Uranium (U)-Dissolved	mg/L	0.000010	<0.000010
Vanadium (V)-Dissolved	mg/L	0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L	0.0010	<0.0010
Zirconium (Zr)-Dissolved	mg/L	0.00020	<0.00020
Ra-226	Bq/L	0.0033	0.0040
Oil and Grease, Total	mg/L	-	-

Notes:

Bold values indicate values greater than their respective parameter LORs.

The field result values greater than their respective parameter LORs were within 5 times the value of each parameter LOR, with the exception of total magnesium.

Table 7.7.14: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MS-C-A

Analyte	Sample ID		MS-C-A03	MS-C-A02
	ALS Laboratory Sample ID		L2605841-14	L2612809-2
	Sample Date & Time		2021-06-21 17:15	2021-07-12 8:50
	QA/QC Sample Type		Travel Blank	Field Blank
	Units	LOR		
Conductivity	umhos/cm	1.0	-	-
pH	pH units	0.10	5.91	5.54
Total Suspended Solids	mg/L	1.0/2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	<10	11
Turbidity	NTU	0.10	<0.10	<0.10
Ammonia, Total (as N)	mg/L	0.010	-	-
Nitrate (as N)	mg/L	0.020	-	-
Oil and Grease, Total	mg/L	5.0	-	-

Notes:

Bold values indicate values greater than their respective parameter LORs.

The field and travel result values greater than their respective parameter LORs were within 5 times the value of each parameter LOR.

Table 7.7.15: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MS-C-E

Analyte	Sample ID		MS-C-E03
	ALS Laboratory Sample ID		L2639307-7
	Sample Date & Time		2021-09-13 12:50
	QA/QC Sample Type		Travel Blank
	Units	LOR	
Conductivity	umhos/cm	1.0	-
pH	pH units	0.10	5.91
Total Suspended Solids	mg/L	2.0	<2.0
Total Dissolved Solids	mg/L	10	<10
Turbidity	NTU	0.10	<0.10
Ammonia, Total (as N)	mg/L	0.010	-
Nitrate (as N)	mg/L	0.020	-
Oil and Grease, Total	mg/L	5.0	-

Notes:

Bold values indicate values greater than their respective parameter LORs.

The travel result values were within their respective parameter LOR.

Table 7.7.16: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MS-C-G

Analyte	Sample ID		MS-C-G03	MS-C-G02	MS-C-G02
	ALS Laboratory Sample ID		L2605841-3	L2624988-2	L2608050-3
	Sample Date & Time		2021-06-21 9:55	2021-08-10 12:40	2021-06-28 10:55
	QA/QC Sample Type		Travel Blank	Field Blank	Field Blank
	Units	LOR			
Conductivity	umhos/cm	1.0	1.2	-	-
pH	pH units	0.10	5.29	6.26	6.05
Total Suspended Solids	mg/L	2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	<10	<10	97
Turbidity	NTU	0.10	0.22	<0.10	<0.10
Ammonia, Total (as N)	mg/L	0.010	<0.010	-	-
Nitrate (as N)	mg/L	0.020	<0.020	-	-
Oil and Grease, Total	mg/L	5.0	<5.0	-	-

Notes:

Bold values indicate values greater than their respective parameter LORs.

The field and travel result values greater than their respective parameter LORs were within 5 times the value of each parameter LOR, with the exception of TDS on June 28.

Table 7.7.17: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MQ-C-A

Analyte	Sample ID		MQ-C-A02	MQ-C-A03
	ALS Laboratory Sample ID		L2601055-2	L2609728-2
	Sample Date & Time		2021-06-07 13:50	2021-07-05 9:30
	QA/QC Sample Type		Field Blank	Travel Blank
	Units	LOR		
Conductivity	umhos/cm	1.0	-	<1.0
pH	pH units	0.10	5.81	6.01
Total Suspended Solids	mg/L	2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	<10	25
Turbidity	NTU	0.10	<0.10	<0.10
Ammonia, Total (as N)	mg/L	0.010	-	<0.010
Nitrate (as N)	mg/L	0.020	-	<0.020
Oil and Grease, Total	mg/L	5.0	-	<5.0

Notes:

Bold values indicate values greater than their respective parameter LORs.

The field and travel result values greater than their respective parameter LORs were within 5 times the value of each parameter LOR.

Table 7.7.18: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MQ-C-B

Analyte	Sample ID		MQ-C-B02	MQ-C-B02
	ALS Laboratory Sample ID		L2601684-2	L2621381-15
	Sample Date & Time		2021-06-15 9:20	2021-08-02 9:50
	QA/QC Sample Type		Field Blank	Field Blank
	Units	LOR		
Conductivity	umhos/cm	1.0	<1.0	<1.0
pH	pH units	0.10	5.93	6.64
Total Suspended Solids	mg/L	2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	15	15
Turbidity	NTU	0.10	<0.10	<0.10
Ammonia, Total (as N)	mg/L	0.010	<0.010	<0.010
Nitrate (as N)	mg/L	0.020	<0.020	<0.020
Oil and Grease, Total	mg/L	5.0	<5.0	<5.0

Notes:

Bold values indicate values greater than their respective parameter LORs.

The field result values greater than their respective parameter LORs were within 5 times the value of each parameter LOR.

Table 7.7.19: Field QA/QC Water Quality Data Analysis - Field Blanks, and Travel Blanks - MQ-C-D

Analyte	Sample ID		MQ-C-D03	MQ-C-D02
	ALS Laboratory Sample ID		L2615981-3	L2642214-5
	Sample Date & Time		2021-07-19 11:05	2021-09-20 10:40
	QA/QC Sample Type		Travel Blank	Field Blank
	Units	LOR		
Conductivity	umhos/cm	1.0	-	-
pH	pH units	0.10	5.97	5.84
Total Suspended Solids	mg/L	2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	<10	26
Turbidity	NTU	0.10	<0.10	<0.10
Ammonia, Total (as N)	mg/L	0.010	-	-
Nitrate (as N)	mg/L	0.020	-	-
Oil and Grease, Total	mg/L	5.0	-	-

Notes:

Bold values indicate values greater than their respective parameter LORs.

The field and travel result values greater than their respective parameter LORs were within 5 times the value of each parameter LOR.

Table 7.8: Summary - QA/QC Analysis of Duplicates with an RPD > 30% - 2021

Sample ID	Date Sampled	Parameter	RPD (%) ^a
MP-0501	2-Aug-21	Total Kjeldahl Nitrogen	44
MP-C-J01	10-Aug-21	Total Dissolved Solids	31
MS-C-B01	26-May-21	Total Suspended Solids; Turbidity	38; 39
MS-C-H01	2-Sep-21	Total Dissolved Solids; Turbidity	44; 164

Notes

^a Relative Percent Difference (RPD) for a parameter is calculated by dividing the absolute analytical result difference between the sample and its duplicate by the mean of the sample and duplicate, and multiplying by 100. $RPD = |(Result2 - Result1) / \text{Mean}| * 100$.

Table 7.9: Water Quality Monitoring Results - Natural Sedimentation Events - 2021

Analyte	Sample ID		MP-NS-04-DS_2021-06-11_1410	MP-NS-04-US_2021-06-11_1435
	ALS Laboratory Sample ID		L2601685-1	L2601685-2
	Sample Date & Time		2021-06-11 14:10	2021-06-11 14:35
	QA/QC Sample Type		N/A	N/A
	Units	LOR		
Total Suspended Solids	mg/L	2	8,090	33.3
Turbidity	NTU	0.1	848	8.58

Table 7.10.1: Surface Water Quality Results CV-167

Analyte	Sample ID				CV-167-DS_2021-06-10_0940	CV-167-US_2021-06-10_0950	CV-167-US02_2021-06-10_0950	CV-167-DS_2021-06-15_1515	CV-167-US_2021-06-15_1530	CV-167-US03_2021-06-15_1530	CV-167-DS_2021-06-21_1630	CV-167-US_2021-06-21_1640
	ALS Laboratory Sample ID				L2602352-28	L2602352-29	L2602352-30	L2603802-25	L2603802-26	L2603802-27	L2605811-41	L2605811-42
	Sample Date & Time				2021-06-10 9:40	2021-06-10 9:50	2021-06-10 9:50	2021-06-15 15:15	2021-06-15 15:30	2021-06-15 15:30	2021-06-21 16:30	2021-06-21 16:40
	QA/QC Sample Type				N/A	N/A	Field Blank	N/A	N/A	Travel Blank	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria								
pH	pH units	0.1	6.0 - 9.5	-	7.80	7.79	5.78	7.91	7.99	5.85	7.98	7.93
Total Suspended Solids	mg/L	1.0/2.0	30	See note ¹	11.2	6.1	<2.0	5.5	5.4	<1.0	7.3	2.9
Total Dissolved Solids	mg/L	10	-	-	82	93	<10	78	72	<10	78	59
Turbidity	NTU	0.1	-	-	9.10	6.25	0.22	6.81	3.94	0.46	8.61	3.14

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.1: Surface Water Quality Results CV-167

Analyte	Sample ID				CV-167-DS_2021-06-28_1400	CV-167-US_2021-06-28_1415	CV-167-DS_2021-07-04_0710	CV-167-US_2021-07-04_0720	CV-167-DS_2021-07-11_0810	CV-167-US_2021-07-11_0820	CV-167-DS_2021-07-28_0945	CV-167-US_2021-07-28_0950
	ALS Laboratory Sample ID				L2608262-43	L2608262-44	L2610075-1	L2610075-2	L2614284-1	L2614284-2	L2621359-1	L2621359-2
	Sample Date & Time				2021-06-28 14:00	2021-06-28 14:15	2021-07-04 7:10	2021-07-04 7:20	2021-07-11 8:10	2021-07-11 8:20	2021-07-28 9:45	2021-07-28 9:50
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria								
pH	pH units	0.1	6.0 - 9.5	-	8.07	8.04	8.04	8.09	8.04	8.11	8.15	8.20
Total Suspended Solids	mg/L	1.0/2.0	30	See note ¹	4.4	5.2	8.1	2.6	10.9	2.2	8.8	2.2
Total Dissolved Solids	mg/L	10	-	-	92	94	106	98	137	118	150	168
Turbidity	NTU	0.1	-	-	5.76	4.78	5.01	4.84	4.37	2.86	8.01	2.82

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.1: Surface Water Quality Results CV-167

Analyte	Sample ID				CV-167-DS_2021-08-16_1050	CV-167-US_2021-08-16_1100
	ALS Laboratory Sample ID				L2628935-1	L2628935-2
	Sample Date & Time				2021-08-16 10:50	2021-08-16 11:00
	QA/QC Sample Type				N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria		
pH	pH units	0.1	6.0 - 9.5	-	7.93	8.09
Total Suspended Solids	mg/L	1.0/2.0	30	See note ¹	3.5	2.0
Total Dissolved Solids	mg/L	10	-	-	183	166
Turbidity	NTU	0.1	-	-	5.91	1.05

Notes:

Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.2: Surface Water Quality Results CV-154

Analyte	Sample ID				CV-154-A-DS_2021-06-01_1745	CV-154-A-US_2021-06-01_1755	CV-154-A-DS_2021-06-10_1005	CV-154-A-US_2021-06-10_1015	CV-154-A-US01_2021-06-10_1015	CV-154-A-DS_2021-06-15_1450	CV-154-A-US_2021-06-15_1455
	ALS Laboratory Sample ID				L2597794-10	L2597794-11	L2602352-31	L2602352-32	L2602352-33	L2603802-23	L2603802-24
	Sample Date & Time				2021-06-01 17:45	2021-06-01 17:55	2021-06-10 10:05	2021-06-10 10:15	2021-06-10 10:15	2021-06-15 14:50	2021-06-15 14:55
	QA/QC Sample Type				N/A	N/A	N/A	N/A	Field Duplicate	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	8.19	8.00	7.89	7.76	7.86	8.07	8.06
Total Suspended Solids	mg/L	1.0/2.0	30	See note ¹	455	74.7	16.3	6.4	6.6	7.0	5.4
Total Dissolved Solids	mg/L	10	-	-	138	121	66	79	73	74	69
Turbidity	NTU	0.1	-	-	186	50.5	6.10	4.14	4.80	7.11	5.43

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.2: Surface Water Quality Results CV-154

Analyte	Sample ID				CV-154-A-DS_2021-06-21_1605	CV-154-A-US_2021-06-21_1615	CV-154-A-DS_2021-06-28_1320	CV-154-A-US_2021-06-28_1340	CV-154-A-DS_2021-07-04_0735	CV-154-A-US_2021-07-04_0745	CV-154-A-DS_2021-07-11_0835
	ALS Laboratory Sample ID				L2605811-39	L2605811-40	L2608262-41	L2608262-42	L2610075-3	L2610075-4	L2614284-3
	Sample Date & Time				2021-06-21 16:05	2021-06-21 16:15	2021-06-28 13:20	2021-06-28 13:40	2021-07-04 7:35	2021-07-04 7:45	2021-07-11 8:35
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	7.99	8.09	8.11	8.14	8.12	8.13	8.12
Total Suspended Solids	mg/L	1.0/2.0	30	See note ¹	3.7	3.9	17.2	16.7	2.8	6.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	83	80	97	97	161	135	175
Turbidity	NTU	0.1	-	-	4.51	4.75	21.0	23.1	8.47	18.6	1.03

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.
¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.2: Surface Water Quality Results CV-154

Analyte	Sample ID				CV-154-A-US_2021-07-11_0845	CV-154-A-DS_2021-07-28_1005	CV-154-A-US_2021-07-28_1015	CV-154-A-DS_2021-08-17_0800	CV-154-A-US_2021-08-17_0810
	ALS Laboratory Sample ID				L2614284-4	L2621359-3	L2621359-4	L2628935-12	L2628935-13
	Sample Date & Time				2021-07-11 8:45	2021-07-28 10:05	2021-07-28 10:15	2021-08-17 8:00	2021-08-17 8:10
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria					
pH	pH units	0.1	6.0 - 9.5	-	7.85	8.14	8.18	8.26	8.28
Total Suspended Solids	mg/L	1.0/2.0	30	See note ¹	7.0	8.9	19.7	15.5	26.0
Total Dissolved Solids	mg/L	10	-	-	171	193	208	197	190
Turbidity	NTU	0.1	-	-	1.33	10.6	23.1	34.0	41.7

Notes:

Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.3: Surface Water Quality Results CV-128

Analyte	Sample ID				CV-128-DS_2021-06-09_1720	CV-128-DS01_2021-06-09_1720	CV-128-US_2021-06-09_1730	CV-128-DS_2021-06-21_1445	CV-128-US_2021-06-21_1455	CV-128-DS_2021-06-28_1200	CV-128-US_2021-06-28_1215	CV-128-DS_2021-07-04_0825
	ALS Laboratory Sample ID				L2602352-25	L2602352-26	L2602352-27	L2605811-35	L2605811-36	L2608262-37	L2608262-38	L2610075-8
	Sample Date & Time				2021-06-09 17:20	2021-06-09 17:20	2021-06-09 17:30	2021-06-21 14:45	2021-06-21 14:55	2021-06-28 12:00	2021-06-28 12:15	2021-07-04 8:25
	QA/QC Sample Type				N/A	Field Duplicate	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria								
pH	pH units	0.1	6.0 - 9.5	-	7.59	7.57	7.58	7.92	7.92	7.91	7.90	7.92
Total Suspended Solids	mg/L	2	30	See note ¹	4.2	5.1	2.9	<2.0	1.2	<2.0	<2.0	<1.0
Total Dissolved Solids	mg/L	10	-	-	60	63	60	40	45	61	66	46
Turbidity	NTU	0.1	-	-	1.15	1.12	1.11	1.06	0.88	0.89	0.89	0.66

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.3: Surface Water Quality Results CV-128

Analyte	Sample ID				CV-128-DS01_2021-07-04_0825	CV-128-US_2021-07-04_0835	CV-128-DS_2021-07-11_0940	CV-128-US_2021-07-11_0950	CV-128-DS_2021-07-28_1105	CV-128-US_2021-07-28_1115
	ALS Laboratory Sample ID				L2610075-9	L2610075-10	L2614284-8	L2614284-9	L2621359-7	L2621359-8
	Sample Date & Time				2021-07-04 8:25	2021-07-04 8:35	2021-07-11 9:40	2021-07-11 9:50	2021-07-28 11:05	2021-07-28 11:15
	QA/QC Sample Type				Field Duplicate	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria						
pH	pH units	0.1	6.0 - 9.5	-	7.94	7.98	7.81	7.98	8.12	8.08
Total Suspended Solids	mg/L	2	30	See note ¹	1.3	<1.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	47	46	50	44	77	51
Turbidity	NTU	0.1	-	-	0.66	0.65	0.63	1.17	0.26	0.31

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.4: Surface Water Quality Results CV-129

Analyte	Sample ID				CV-129-DS_2021-06-10_1035	CV-129-US_2021-06-10_1045	CV-129-DS_2021-06-15_1335	CV-129-US_2021-06-15_1345	CV-129-DS_2021-06-21_1525	CV-129-US_2021-06-21_1535	CV-129-DS_2021-06-28_1245
	ALS Laboratory Sample ID				L2602352-34	L2602352-35	L2603802-21	L2603802-22	L2605811-37	L2605811-38	L2608262-39
	Sample Date & Time				2021-06-10 10:35	2021-06-10 10:45	2021-06-15 13:35	2021-06-15 13:45	2021-06-21 15:25	2021-06-21 15:25	2021-06-28 12:45
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	7.80	7.82	7.97	7.95	7.98	7.98	8.17
Total Suspended Solids	mg/L	1.0/2.0	30	See note ¹	17.2	<2.0	<1.0	<1.0	1.2	<1.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	74	80	59	58	49	43	186
Turbidity	NTU	0.1	-	-	4.44	0.78	0.37	0.45	0.44	0.11	0.58

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.4: Surface Water Quality Results CV-129

Analyte	Sample ID				CV-129-US_2021-06-28_1300	CV-129-DS_2021-07-04_0800	CV-129-US_2021-07-04_0810	CV-129-US02_2021-07-04_0810	CV-129-DS_2021-07-11_0910	CV-129-DS02_2021-07-11_0910	CV-129-US_2021-07-11_0920
	ALS Laboratory Sample ID				L2608262-40	L2610075-5	L2610075-6	L2610075-7	L2614284-5	L2614284-6	L2614284-7
	Sample Date & Time				2021-06-28 13:00	2021-07-04 8:00	2021-07-04 8:10	2021-07-04 8:10	2021-07-11 9:10	2021-07-11 9:10	2021-07-11 9:20
	QA/QC Sample Type				N/A	N/A	N/A	Field Blank	N/A	Field Blank	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	8.18	8.15	8.17	5.87	7.99	5.62	7.88
Total Suspended Solids	mg/L	1.0/2.0	30	See note ¹	<2.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	93	87	80	<10	93	<10	94
Turbidity	NTU	0.1	-	-	0.15	0.19	0.10	<0.10	0.23	1.61	0.12

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.
¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.4: Surface Water Quality Results CV-129

Analyte	Sample ID				CV-129-DS_2021-07-28_1040	CV-129-US_2021-07-28_1050	CV-129-DS_2021-08-16_1130	CV-129-US_2021-08-16_1140
	ALS Laboratory Sample ID				L2621359-5	L2621359-6	L2628935-3	L2628935-4
	Sample Date & Time				2021-07-28 10:40	2021-07-28 10:50	2021-08-16 11:30	2021-08-16 11:40
	QA/QC Sample Type				N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria				
pH	pH units	0.1	6.0 - 9.5	-	8.23	8.30	8.37	8.42
Total Suspended Solids	mg/L	1.0/2.0	30	See note ¹	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	116	127	139	128
Turbidity	NTU	0.1	-	-	<0.10	<0.10	0.53	0.14

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.
¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.5: Surface Water Quality Results CV-112

Analyte	Sample ID				CV-112-DS_2021-06-01_1605	CV-112-US_2021-06-01_1620	CV-112-DS_2021-06-09_1620	CV-112-US_2021-06-09_1630	CV-112-DS_2021-06-15_1100	CV-112-US_2021-06-15_1105	CV-112-DS_2021-06-21_1350
	ALS Laboratory Sample ID				L2597794-6	L2597794-7	L2602352-21	L2602352-22	L2603802-17	L2603802-18	L2605811-33
	Sample Date & Time				2021-06-01 16:05	2021-06-01 16:20	2021-06-09 16:20	2021-06-09 16:30	2021-06-15 11:00	2021-06-15 11:05	2021-06-21 13:50
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	8.38	8.16	7.75	7.75	7.99	7.98	8.09
Total Suspended Solids	mg/L	1.0/2.0	30	See note ¹	807	230	33.0	6.3	2.6	1.1	<2.0
Total Dissolved Solids	mg/L	10	-	-	230	108	66	66	57	67	74
Turbidity	NTU	0.1	-	-	954	104	2.40	1.50	1.79	1.21	0.82

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.5: Surface Water Quality Results CV-112

Analyte	Sample ID				CV-112-US_2021-06-21_1400	CV-112-DS_2021-06-28_1050	CV-112-US_2021-06-28_1100	CV-112-DS_2021-07-04_0930	CV-112-US_2021-07-04_0940	CV-112-DS_2021-07-11_1045	CV-112-US_2021-07-11_1050
	ALS Laboratory Sample ID				L2605811-34	L2608262-33	L2608262-34	L2610075-11	L2610075-12	L2614284-10	L2614284-11
	Sample Date & Time				2021-06-21 14:00	2021-06-28 10:50	2021-06-28 11:00	2021-07-04 9:30	2021-07-04 9:40	2021-07-11 10:45	2021-07-11 10:50
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	8.10	8.09	8.15	8.23	8.26	8.24	8.22
Total Suspended Solids	mg/L	1.0/2.0	30	See note ¹	<2.0	<2.0	<2.0	<1.0	<1.0	<2.0	4.4
Total Dissolved Solids	mg/L	10	-	-	75	105	104	121	116	109	114
Turbidity	NTU	0.1	-	-	0.58	0.33	0.25	0.65	0.14	0.74	1.36

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.5: Surface Water Quality Results CV-112

Analyte	Sample ID				CV-112-US03_1900-01-00_0000	CV-112-DS_2021-07-28_1620	CV-112-US_2021-07-28_1625	CV-112-DS_2021-08-16_1330	CV-112-US_2021-08-16_1340	CV-112-US01_2021-08-16_1340
	ALS Laboratory Sample ID				L2614284-12	L2621359-12	L2621359-13	L2628935-7	L2628935-8	L2628935-9
	Sample Date & Time				2021-07-11 10:50	2021-07-28 16:20	2021-07-28 16:25	2021-08-16 13:30	2021-08-16 13:40	2021-08-16 13:40
	QA/QC Sample Type				Travel Blank	N/A	N/A	N/A	N/A	Field Blank
	Units	LOR	Water Licence Criteria ¹	Screening Criteria						
pH	pH units	0.1	6.0 - 9.5	-	5.67	8.33	8.38	8.50	8.47	8.51
Total Suspended Solids	mg/L	1.0/2.0	30	See note ¹	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	<10	156	170	192	204	210
Turbidity	NTU	0.1	-	-	0.33	0.30	<0.10	0.22	<0.10	<0.10

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.6: Surface Water Quality Results CV-115

Analyte	Sample ID				CV-115-DS_2021-05-26_0915	CV-115-DS01_2021-05-26_0915	CV-115-US_2021-05-26_0930	CV-115-DS_2021-06-01_1640	CV-115-US_2021-06-01_1650	CV-115-DS_2021-06-09_1645	CV-115-US_2021-06-09_1650
	ALS Laboratory Sample ID				L2594754-1	L2594754-2	L2594754-3	L2597794-8	L2597794-9	L2602352-23	L2602352-24
	Sample Date & Time				2021-05-26 9:15	2021-05-26 9:15	2021-05-26 9:30	2021-06-01 16:40	2021-06-01 16:50	2021-06-09 16:45	2021-06-09 16:50
	QA/QC Sample Type				N/A	Field Duplicate	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	8.02	8.03	7.95	8.15	8.25	7.92	7.83
Total Suspended Solids	mg/L	1.0/2.0	30	See note ¹	21.7	22.9	3.6	114	5.5	9.6	7.1
Total Dissolved Solids	mg/L	10	-	-	174	168	143	173	171	70	87
Turbidity	NTU	0.1	-	-	30.8	31.3	12.6	125	4.10	2.27	1.19

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.6: Surface Water Quality Results CV-115

Analyte	Sample ID				CV-115-DS_2021-06-15_1125	CV-115-US_2021-06-15_1140	CV-115-DS_2021-06-28_1120	CV-115-US_2021-06-28_1130	CV-115-DS_2021-07-28_1145	CV-115-DS02_2021-07-28_1145	CV-115-US_2021-07-28_1155	CV-115-DS_2021-08-16_1300	CV-115-US_2021-08-16_1310
	ALS Laboratory Sample ID				L2603802-19	L2603802-20	L2608262-35	L2608262-36	L2621359-9	L2621359-10	L2621359-11	L2628935-5	L2628935-6
	Sample Date & Time				2021-06-15 11:25	2021-06-15 11:00	2021-06-28 11:20	2021-06-28 11:30	2021-07-28 11:45	2021-07-28 11:45	2021-07-28 11:55	2021-08-16 13:00	2021-08-16 13:10
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	Field Blank	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria									
pH	pH units	0.1	6.0 - 9.5	-	8.29	8.18	8.26	8.11	8.32	6.21	8.35	8.40	8.26
Total Suspended Solids	mg/L	1.0/2.0	30	See note ¹	2.2	<1.0	4.6	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	140	112	172	170	214	30	192	197	180
Turbidity	NTU	0.1	-	-	4.74	0.39	8.56	1.00	1.30	<0.10	0.16	0.65	0.14

Notes:

Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.7: Surface Water Quality Results CV-106

Analyte	Sample ID				CV-106-DS_2021-06-09_1600	CV-106-US_2021-06-09_1605	CV-106-DS_2021-06-15_1035	CV-106-DS012021-06-15_1035	CV-106-US_2021-06-15_1040	CV-106-DS_2021-06-21_1315	CV-106-US_2021-06-21_1325	CV-106-DS_2021-07-04_0950
	ALS Laboratory Sample ID				L2602352-19	L2602352-20	L2603802-14	L2603802-15	L2603802-16	L2605811-31	L2605811-32	L2610075-13
	Sample Date & Time				2021-06-09 16:00	2021-06-09 16:05	2021-06-15 10:35	2021-06-15 10:35	2021-06-15 10:40	2021-06-15 13:15	2021-06-15 13:25	2021-07-04 9:50
	QA/QC Sample Type				N/A	N/A	N/A	Field Duplicate	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria								
pH	pH units	0.1	6.0 - 9.5	-	7.92	7.94	7.95	7.95	7.72	7.96	7.73	8.06
Total Suspended Solids	mg/L	2	30	See note ¹	34.4	6.7	3.9	3.4	<1.0	4.3	<2.0	<1.0
Total Dissolved Solids	mg/L	10	-	-	92	127	54	54	37	62	33	126
Turbidity	NTU	0.1	-	-	4.26	1.67	2.32	2.28	1.10	3.03	1.18	0.49

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.7: Surface Water Quality Results CV-106

Analyte	Sample ID				CV-106-DS03_2021-07-04_0950	CV-106-US_2021-07-04_1000	CV-106-DS_2021-07-11_1100	CV-106-US_2021-07-11_1110	CV-106-DS_2021-07-28_1235	CV-106-US_2021-07-28_1245	CV-106-DS_2021-08-16_1400	CV-106-US_2021-08-16_1405
	ALS Laboratory Sample ID				L2610075-14	L2610075-15	L2614284-13	L2614284-14	L2621359-14	L2621359-15	L2628935-10	L2628935-11
	Sample Date & Time				2021-07-04 9:50	2021-07-04 10:00	2021-07-11 11:00	2021-07-11 11:10	2021-07-28 12:35	2021-07-28 12:45	2021-08-16 14:00	2021-08-16 14:05
	QA/QC Sample Type				Travel Blank	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria								
pH	pH units	0.1	6.0 - 9.5	-	5.95	7.96	7.94	7.80	7.98	8.13	7.93	8.32
Total Suspended Solids	mg/L	2	30	See note ¹	<1.0	<1.0	6.5	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	<10	82	91	45	207	110	227	141
Turbidity	NTU	0.1	-	-	0.22	0.16	0.97	0.45	0.53	0.11	2.81	0.13

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.8: Surface Water Quality Results CV-099

Analyte	Sample ID				CV-099-DS_ 2021-06-09_1400	CV-099-DS01_ 2021-06-09_1400	CV-099-US_ 2021-06-09_1415	CV-099-DS_ 2021-06-21_1210	CV-099-US_ 2021-06-21_1220	CV-099-DS_ 2021-06-28_0950	CV-099-US_ 2021-06-28_1000	CV-099-DS_ 2021-07-04_1025
	ALS Laboratory Sample ID				L2602352-16	L2602352-17	L2602352-18	L2605811-29	L2605811-30	L2608262-29	L2608262-30	L2610075-16
	Sample Date & Time				2021-06-09 14:00	2021-06-09 14:00	2021-06-09 14:15	2021-06-21 12:10	2021-06-21 12:20	2021-06-28 9:50	2021-06-28 10:00	2021-07-04 10:25
	QA/QC Sample Type				N/A	Field Duplicate	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria								
pH	pH units	0.1	6.0 - 9.5	-	7.88	7.83	7.82	8.00	7.90	8.15	8.13	8.25
Total Suspended Solids	mg/L	2.0/4.0	30	See note ¹	41.5	40.1	18.9	<2.0	<2.0	2.5	<2.0	<1.0
Total Dissolved Solids	mg/L	10	-	-	87	89	77	62	60	107	98	118
Turbidity	NTU	0.1	-	-	3.04	3.13	1.34	0.75	0.62	0.39	0.34	0.19

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.8: Surface Water Quality Results CV-099

Analyte	Sample ID				CV-099-US_ 2021-07-04_1035	CV-099-DS_ 2021-07-11_1135	CV-099-US_ 2021-07-11_1145	CV-099-DS_ 2021-07-28_1310	CV-099-US_ 2021-07-28_1315
	ALS Laboratory Sample ID				L2610075-17	L2614284-15	L2614284-16	L2621359-16	L2621359-17
	Sample Date & Time				2021-07-04 10:35	2021-07-11 11:35	2021-07-11 11:45	2021-07-28 13:10	2021-07-28 13:15
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria					
pH	pH units	0.1	6.0 - 9.5	-	8.28	8.22	8.17	8.38	8.38
Total Suspended Solids	mg/L	2.0/4.0	30	See note ¹	<1.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	113	94	85	160	157
Turbidity	NTU	0.1	-	-	<0.10	0.22	0.18	<0.10	<0.10

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.9: Surface Water Quality Results CV-093

Analyte	Sample ID				CV-093-DS_2021-06-09_1325	CV-093-US_2021-06-09_1340	CV-093-DS_2021-06-21_1130	CV-093-US_2021-06-21_1140	CV-093-DS_2021-06-28_0920	CV-093-US_2021-06-28_0930	CV-093-DS_2021-07-28_1350	CV-093-US_2021-07-28_1355
	ALS Laboratory Sample ID				L2602352-14	L2602352-15	L2605811-27	L2605811-28	L2608262-27	L2608262-28	L2621359-18	L2621359-19
	Sample Date & Time				2021-06-09 13:25	2021-06-09 13:40	2021-06-21 11:30	2021-06-21 11:30	2021-06-28 9:20	2021-06-28 9:30	2021-07-28 13:50	2021-07-28 13:55
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria								
pH	pH units	0.1	6.0 - 9.5	-	8.21	8.14	8.17	8.13	8.17	8.14	8.25	8.07
Total Suspended Solids	mg/L	2	30	See note ¹	133	48.9	2.9	8.9	5.4	<2.0	3.2	<2.0
Total Dissolved Solids	mg/L	10	-	-	86	97	102	93	122	125	168	181
Turbidity	NTU	0.1	-	-	28.5	1.61	3.39	10.0	0.74	0.24	0.44	0.10

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.10: Surface Water Quality Results CV-078

Analyte	Sample ID				CV-078-DS_2021-06-09_1250	CV-078-US_2021-06-09_1255	CV-078-DS_2021-06-21_1050	CV-078-DS01_2021-06-21_1050	CV-078-US_2021-06-21_1100	CV-078-US01_2021-06-21_1100	CV-078-DS_2021-06-27_1610
	ALS Laboratory Sample ID				L2602352-12	L2602352-13	L2605811-23	L2605811-24	L2605811-25	L2605811-26	L2608262-24
	Sample Date & Time				2021-06-09 12:50	2021-06-09 12:55	2021-06-21 10:50	2021-06-21 10:50	2021-06-21 11:00	2021-06-21 11:00	2021-06-27 16:10
	QA/QC Sample Type				N/A	N/A	N/A	Field Duplicate	N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	7.98	7.84	8.06	8.07	8.07	8.07	8.56
Total Suspended Solids	mg/L	2	30	See note ¹	32.8	12.0	<2.0	1.4	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	56	44	67	70	66	71	81
Turbidity	NTU	0.1	-	-	3.91	1.71	0.92	0.90	0.68	0.59	0.19

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.10: Surface Water Quality Results CV-078

Analyte	Sample ID				CV-078-US_2021-06-27_1615	CV-078-US01_2021-06-27_1615	CV-078-DS_2021-07-04_1130	CV-078-DS01_2021-07-04_1130	CV-078-US_2021-07-04_1140	CV-078-DS_2021-07-11_1240	CV-078-US_2021-07-11_1250
	ALS Laboratory Sample ID				L2608262-25	L2608262-26	L2610075-18	L2610075-19	L2610075-20	L2614284-17	L2614284-18
	Sample Date & Time				2021-06-27 16:15	2021-06-27 16:15	2021-07-04 11:30	2021-07-04 11:30	2021-07-04 11:40	2021-07-11 12:40	2021-07-11 12:50
	QA/QC Sample Type				N/A	Field Duplicate	N/A	Field Duplicate	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	8.09	8.12	8.27	8.29	8.29	8.20	8.27
Total Suspended Solids	mg/L	2	30	See note ¹	<2.0	<2.0	<1.0	<1.0	<1.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	88	88	107	106	101	108	110
Turbidity	NTU	0.1	-	-	0.20	0.19	0.21	0.18	0.11	0.63	<0.10

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.11: Surface Water Quality Results CV-072

Analyte	Sample ID				CV-072-DS_2021-06-14_1350	CV-072-DS_2021-06-14_1400	CV-072-C-DS_2021-06-21_1015	CV-072-C-US_2021-06-21_1020	CV-072-C-DS_2021-06-27_1545	CV-072-C-US_2021-06-27_1555
	ALS Laboratory Sample ID				L2603802-12	L2603802-13	L2605811-21	L2605811-22	L2608262-22	L2608262-23
	Sample Date & Time				2021-06-14 13:50	2021-06-14 14:00	2021-06-21 10:15	2021-06-21 10:20	2021-06-27 15:45	2021-06-27 15:50
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria						
pH	pH units	0.1	6.0 - 9.5	-	8.07	8.02	8.01	7.99	8.01	7.97
Total Suspended Solids	mg/L	2	30	See note ¹	13.3	13.0	<2.0	<2.0	2.1	<2.0
Total Dissolved Solids	mg/L	10	-	-	41	44	53	52	64	64
Turbidity	NTU	0.1	-	-	2.81	2.18	0.34	0.30	0.43	0.41

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.11: Surface Water Quality Results CV-072

Analyte	Sample ID				CV-072-C-DS_2021-07-04_1215	CV-072-C-US_2021-07-04_1225	CV-072-C-DS_2021-07-11_1325	CV-072-C-DS01_2021-07-11_1325	CV-072-C-US_2021-07-11_1335	CV-072-C-DS_2021-07-28_1430
	ALS Laboratory Sample ID				L2610075-21	L2610075-22	L2614284-19	L2614284-20	L2614284-21	L2621359-22
	Sample Date & Time				2021-07-04 12:15	2021-07-04 12:25	2021-07-11 13:25	2021-07-11 13:25	2021-07-11 13:35	2021-07-28 14:30
	QA/QC Sample Type				N/A	N/A	N/A	Field Duplicate	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria						
pH	pH units	0.1	6.0 - 9.5	-	8.16	8.17	8.10	8.10	8.05	8.24
Total Suspended Solids	mg/L	2	30	See note ¹	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	88	81	75	75	71	114
Turbidity	NTU	0.1	-	-	0.25	<0.10	0.30	0.26	0.15	0.18

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.11: Surface Water Quality Results CV-072

Analyte	Sample ID				CV-072-C-US_2021-07-28_1440	CV-072-C-US02_2021-07-28_1145	CV-072-C-DS_2021-08-17_0900	CV-072-C-US_2021-08-17_0910
	ALS Laboratory Sample ID				L2621359-23	L2621359-44	L2628935-14	L2628935-15
	Sample Date & Time				2021-07-28 14:40	2021-07-28 14:40	2021-08-17 9:00	2021-08-17 9:10
	QA/QC Sample Type				N/A	Field Blank	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria				
pH	pH units	0.1	6.0 - 9.5	-	8.23	8.23	8.33	8.33
Total Suspended Solids	mg/L	2	30	See note ¹	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	104	100	125	155
Turbidity	NTU	0.1	-	-	0.11	0.13	<0.10	0.16

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.12: Surface Water Quality Results CV-060

Analyte	Sample ID				CV-060-DS_2021-06-09-1140	CV-060-US_2021-06-09_1150	CV-060-DS_2021-06-14_1305	CV-060-US_2021-06-14_1310	CV-060-DS_2021-06-21_0945	CV-060-US_2021-06-21_0950	CV-060-DS_2021-06-27_1520
	ALS Laboratory Sample ID				L2602352-10	L2602352-11	L2603802-10	L2603802-11	L2605811-19	L2605811-20	L2608262-20
	Sample Date & Time				2021-06-09 11:40	2021-06-09 11:50	2021-06-14 13:05	2021-06-14 13:10	2021-06-21 9:45	2021-06-21 9:50	2021-06-27 15:20
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	7.79	7.73	8.05	8.03	8.02	8.09	8.25
Total Suspended Solids	mg/L	2	30	See note ¹	19.1	2.7	1.4	<1.0	1.5	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	70	29	73	67	89	89	130
Turbidity	NTU	0.1	-	-	3.93	1.96	1.59	0.56	0.17	<0.10	0.17

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.12: Surface Water Quality Results CV-060

Analyte	Sample ID				CV-060-US_2021-06-27_1530	CV-060-DS_2021-07-04_1250	CV-060-US_2021-07-04_1300	CV-060-DS_2021-07-11_1400	CV-060-US_2021-07-11_1410	CV-060-DS_2021-07-28_1455	CV-060-US_2021-07-28_1500
	ALS Laboratory Sample ID				L2608262-21	L2610075-23	L2610075-24	L2614284-22	L2614284-23	L2621359-24	L2621359-25
	Sample Date & Time				2021-06-27 15:30	2021-07-04 12:50	2021-07-04 13:50	2021-07-11 14:00	2021-07-11 14:10	2021-07-28 14:55	2021-07-28 15:00
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	8.15	8.23	8.23	8.18	8.15	8.17	8.18
Total Suspended Solids	mg/L	2	30	See note ¹	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	120	113	114	124	121	131	137
Turbidity	NTU	0.1	-	-	0.14	0.32	0.12	0.36	0.22	0.25	0.11

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.12: Surface Water Quality Results CV-060

Analyte	Sample ID				CV-060-DS_2021-08-17_0925	CV-060-US_2021-08-17_0935
	ALS Laboratory Sample ID				L2628935-16	L2628935-17
	Sample Date & Time				2021-08-17 9:25	2021-08-17 9:35
	QA/QC Sample Type				N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria		
pH	pH units	0.1	6.0 - 9.5	-	8.22	8.21
Total Suspended Solids	mg/L	2	30	See note ¹	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	162	153
Turbidity	NTU	0.1	-	-	0.11	0.11

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.13: Surface Water Quality Results BG-50

Analyte	Sample ID				BG-50-DS_2021-06-20_1615	BG-50-US_2021-06-20_1625	BG-50-DS_2021-06-27_1445	BG-50-US_2021-06-27_1455	BG-50-US01_2021-06-27_1455	BG-50-DS_2021-07-04_1315	BG-50-US_2021-07-04_1325
	ALS Laboratory Sample ID				L2605811-17	L2605811-18	L2608262-17	L2608262-18	L2608262-19	L2610075-25	L2610075-26
	Sample Date & Time				2021-06-20 16:15	2021-06-20 16:25	2021-06-27 14:45	2021-06-27 14:55	2021-06-27 14:55	2021-07-04 13:15	2021-07-04 13:25
	QA/QC Sample Type				N/A	N/A	N/A	N/A	Field Duplicate	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	7.95	7.94	8.00	7.96	7.94	8.11	8.10
Total Suspended Solids	mg/L	2	30	See note ¹	<2.0	1.1	<2.0	<2.0	<2.0	<1.0	<1.0
Total Dissolved Solids	mg/L	10	-	-	62	62	83	87	86	72	83
Turbidity	NTU	0.1	-	-	0.57	0.41	0.53	0.33	0.32	0.28	0.28

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.13: Surface Water Quality Results BG-50

Analyte	Sample ID				BG-50-DS_2021-07-11_1425	BG-50-US_2021-07-11_1435	BG-50-DS_2021-07-31_1100	BG-50-US_2021-07-31_1110
	ALS Laboratory Sample ID				L2614284-24	L2614284-25	L2621359-26	L2621359-27
	Sample Date & Time				2021-07-11 14:25	2021-07-11 14:35	2021-07-31 11:00	2021-07-31 11:10
	QA/QC Sample Type				N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria				
pH	pH units	0.1	6.0 - 9.5	-	8.01	8.11	8.22	8.17
Total Suspended Solids	mg/L	2	30	See note ¹	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	80	71	80	74
Turbidity	NTU	0.1	-	-	0.53	0.21	0.18	0.16

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.14: Surface Water Quality Results CV-040

Analyte	Sample ID				CV-040-DS_2021-06-20_1525	CV-040-US_2021-06-20_1530	CV-040-DS_2021-06-27_1400	CV-040-US_2021-06-27_1410	CV-040-DS_2021-07-05_0825	CV-040-US_2021-07-05_0835	CV-040-DS_2021-07-13_1035	CV-040-US_2021-07-13_1045
	ALS Laboratory Sample ID				L2605811-15	L2605811-16	L2608262-15	L2608262-16	L2610075-27	L2610075-28	L2614284-26	L2614284-27
	Sample Date & Time				2021-06-20 15:25	2021-06-20 15:30	2021-06-27 14:00	2021-06-27 14:10	2021-07-05 8:25	2021-07-05 8:35	2021-07-13 10:35	2021-07-13 10:45
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria								
pH	pH units	0.1	6.0 - 9.5	-	7.95	7.95	8.14	8.15	8.30	8.33	8.32	8.38
Total Suspended Solids	mg/L	2	30	See note ¹	3.5	2.2	<2.0	<2.0	<1.0	<1.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10/13	-	-	57	56	107	99	130	143	165	166
Turbidity	NTU	0.1	-	-	1.19	1.25	0.96	1.10	0.22	0.18	1.92	0.40

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.14: Surface Water Quality Results CV-040

Analyte	Sample ID				CV-040-DS_2021-07-31_1135	CV-040-US_2021-07-31_1145
	ALS Laboratory Sample ID				L2621359-28	L2621359-29
	Sample Date & Time				2021-07-31 11:35	2021-07-31 11:45
	QA/QC Sample Type				N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria		
pH	pH units	0.1	6.0 - 9.5	-	8.43	8.47
Total Suspended Solids	mg/L	2	30	See note ¹	<2.0	<2.0
Total Dissolved Solids	mg/L	10/13	-	-	189	191
Turbidity	NTU	0.1	-	-	0.58	0.58

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.15: Surface Water Quality Results BG-32

Analyte	Sample ID				BG-32-DS_2021-06-08_1600	BG-32-US_2021-06-08_1610	BG-32-DS_2021-06-14_0900	BG-32-US_2021-06-14_0910	BG-32-DS_2021-06-20_1435	BG-32-US_2021-06-20_1445	BG-32-DS_2021-06-27_1330
	ALS Laboratory Sample ID				L2602352-8	L2602352-9	L2603802-8	L2603802-9	L2605811-13	L2605811-14	L2608262-13
	Sample Date & Time				2021-06-08 14:00	2021-06-08 16:10	2021-06-14 9:00	2021-06-14 9:10	2021-06-20 14:35	2021-06-20 14:45	2021-06-27 13:30
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	7.52	7.58	7.82	7.88	7.97	8.02	8.08
Total Suspended Solids	mg/L	2	30	See note ¹	22.1	8.2	2.5	3.7	<2.0	2.3	<2.0
Total Dissolved Solids	mg/L	10	-	-	92	80	66	65	101	101	233
Turbidity	NTU	0.1	-	-	1.96	1.72	0.94	1.09	0.85	0.95	0.70

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.15: Surface Water Quality Results BG-32

Analyte	Sample ID				BG-32-US_2021-06-27_1335	BG-32-DS_2021-07-05_0920	BG-32-US_2021-07-05_0930	BG-32-DS_2021-07-13_1115	BG-32-US_2021-07-13_1125	BG-32-DS_2021-07-31_1220	BG-32-US_2021-07-31_1230
	ALS Laboratory Sample ID				L2608262-14	L2610075-29	L2610075-30	L2614284-28	L2614284-29	L2621359-30	L2621359-31
	Sample Date & Time				2021-06-27 13:35	2021-07-05 9:20	2021-07-05 9:30	2021-07-13 11:15	2021-07-13 11:25	2021-07-31 12:20	2021-07-31 12:30
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	8.07	8.09	8.15	8.02	8.10	8.14	8.16
Total Suspended Solids	mg/L	2	30	See note ¹	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	237	186	181	156	176	212	236
Turbidity	NTU	0.1	-	-	0.78	0.59	0.56	0.71	0.93	0.75	0.86

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.15: Surface Water Quality Results BG-32

Analyte	Sample ID				BG-32-DS_2021-08-17_1145	BG-32-US_2021-08-17_1155
	ALS Laboratory Sample ID				L2628935-18	L2628935-19
	Sample Date & Time				2021-08-17 11:45	2021-08-17 11:55
	QA/QC Sample Type				N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria		
pH	pH units	0.1	6.0 - 9.5	-	8.25	8.26
Total Suspended Solids	mg/L	2	30	See note ¹	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	183	183
Turbidity	NTU	0.1	-	-	0.59	0.62

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.16: Surface Water Quality Results CV-217

Analyte	Sample ID				CV-217-DS_2021-06-20_1400	CV-217-DS01_2021-06-20_1400	CV-217-US_2021-06-20_1410	CV-217-US01_2021-06-20_1410	CV-217-DS_2021-06-27_1300	CV-217-DS03_2021-06-27_1300	CV-217-US_2021-06-27_1310
	ALS Laboratory Sample ID				L2605811-9	L2605811-10	L2605811-11	L2605811-12	L2608262-10	L2608262-11	L2608262-12
	Sample Date & Time				2021-06-20 14:00	2021-06-20 14:00	2021-06-20 14:10	2021-06-20 14:10	2021-06-27 13:00	2021-06-27 13:00	2021-06-27 13:10
	QA/QC Sample Type				N/A	Field Duplicate	N/A	Field Duplicate	N/A	Travel Blank	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	7.52	7.53	7.43	7.44	7.56	5.71	7.55
Total Suspended Solids	mg/L	2	30	See note ¹	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	37	37	27	27	74	26	77
Turbidity	NTU	0.1	-	-	1.14	1.00	0.84	0.82	0.73	0.11	0.76

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.16: Surface Water Quality Results CV-217

Analyte	Sample ID				CV-217-DS_2021-07-05_0945	CV-217-US_2021-07-05_0955	CV-217-DS_2021-07-13_1135	CV-217-DS01_2021-07-13_1135	CV-217-US_2021-07-13_1145	CV-217-DS_2021-07-31_1245	CV-217-US_2021-07-31_1255
	ALS Laboratory Sample ID				L2610075-31	L2610075-32	L2614284-30	L2614284-31	L2614284-32	L2621359-32	L2621359-33
	Sample Date & Time				2021-07-05 9:45	2021-07-05 9:55	2021-07-13 11:35	2021-07-13 11:35	2021-07-13 11:45	2021-07-31 12:45	2021-07-31 12:55
	QA/QC Sample Type				N/A	N/A	N/A	Field Duplicate	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	7.72	7.73	7.66	7.64	7.66	7.91	7.84
Total Suspended Solids	mg/L	2	30	See note ¹	4.1	7.1	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	51	52	54	53	51	41	40
Turbidity	NTU	0.1	-	-	1.92	1.59	1.31	1.60	0.95	0.75	0.73

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.17: Surface Water Quality Results BG-30

Analyte	Sample ID				BG-30-DS_2021-06-13_1405	BG-30-US_2021-06-13_1415	BG-30-US01_2021-06-13_1415	BG-30-DS_2021-06-20_1310	BG-30-US_2021-06-20_1315	BG-30-DS_2021-06-27_1225	BG-30-US_2021-06-27_1235
	ALS Laboratory Sample ID				L2603802-5	L2603802-6	L2603802-7	L2605811-7	L2605811-8	L2608262-8	L2608262-9
	Sample Date & Time				2021-06-13 14:05	2021-06-13 14:15	2021-06-13 14:15	2021-06-20 13:10	2021-06-20 13:15	2021-06-27 12:25	2021-06-27 12:35
	QA/QC Sample Type				N/A	N/A	Field Duplicate	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	7.74	7.73	7.60	7.86	7.79	8.09	8.07
Total Suspended Solids	mg/L	2	30	See note ¹	23.1	15.9	28.5	24.8	6.3	21.3	<2.0
Total Dissolved Solids	mg/L	10	-	-	48	48	50	69	69	185	188
Turbidity	NTU	0.1	-	-	14.8	11.7	14.4	11.6	2.42	4.52	1.25

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.17: Surface Water Quality Results BG-30

Analyte	Sample ID				BG-30-DS_2021-07-05_1015	BG-30-US_2021-07-05_1025	BG-30-DS_2021-07-13_1200	BG-30-US_2021-07-13_1210	BG-30-DS_2021-07-31_1310	BG-30-US_2021-07-31_1320	BG-32-DS03_2021-07-31_1220
	ALS Laboratory Sample ID				L2610075-33	L2610075-34	L2614284-33	L2614284-34	L2621359-34	L2621359-35	L2621359-42
	Sample Date & Time				2021-07-05 10:15	2021-07-05 10:25	2021-07-13 12:00	2021-07-13 12:10	2021-07-31 13:10	2021-07-31 13:20	2021-07-31 12:20
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	N/A	Travel Blank
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	8.15	8.12	8.08	8.01	8.21	8.08	6.12
Total Suspended Solids	mg/L	2	30	See note ¹	1.1	<1.0	<2.0	<2.0	<2.0	2.5	<2.0
Total Dissolved Solids	mg/L	10	-	-	140	142	132	132	140	150	<10
Turbidity	NTU	0.1	-	-	1.13	0.73	1.64	1.55	0.91	0.89	<0.10

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.17: Surface Water Quality Results BG-30

Analyte	Sample ID				BG-30-US01_2021-07-31_1320	BG-30-DS_2021-08-17_1250	BG-30-US_2021-08-17_1300
	ALS Laboratory Sample ID				L2621359-43	L2628935-20	L2628935-21
	Sample Date & Time				2021-07-31 13:20	2021-08-17 12:50	2021-08-17 13:00
	QA/QC Sample Type				Field Blank	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria			
pH	pH units	0.1	6.0 - 9.5	-	8.07	8.24	8.19
Total Suspended Solids	mg/L	2	30	See note ¹	<2.0	<2.0	4.0
Total Dissolved Solids	mg/L	10	-	-	154	187	161
Turbidity	NTU	0.1	-	-	0.88	2.05	2.53

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.18: Surface Water Quality Results BG-24

Analyte	Sample ID				BG-24-DS_2021-06-08_1405	BG-24-US_2021-06-08_1420	BG-24-US01_2021-06-08_1420	BG-24-DS_2021-06-20_1230	BG-24-US_2021-06-20_1240	BG-24-DS_2021-06-27_1130	BG-24-US_2021-06-27_1140	BG-24-DS_2021-07-05_1050
	ALS Laboratory Sample ID				L2602352-5	L2602352-6	L2602352-7	L2605811-5	L2605811-6	L2608262-6	L2608262-7	L2610075-35
	Sample Date & Time				2021-06-08 14:05	2021-06-08 14:20	2021-06-08 14:20	2021-06-20 12:30	2021-06-20 12:40	2021-06-27 11:30	2021-06-27 11:40	2021-07-05 10:50
	QA/QC Sample Type				N/A	N/A	Field Duplicate	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria								
pH	pH units	0.1	6.0 - 9.5	-	7.64	7.57	7.56	7.90	7.89	7.98	7.97	8.14
Total Suspended Solids	mg/L	2	30	See note ¹	60.2	9.4	8.7	<2.0	<2.0	<2.0	<2.0	<1.0
Total Dissolved Solids	mg/L	10	-	-	77	43	50	65	64	87	81	96
Turbidity	NTU	0.1	-	-	11.4	21.4	1.93	0.89	0.55	0.53	0.47	0.59

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.18: Surface Water Quality Results BG-24

Analyte	Sample ID				BG-24-US_2021-07-05_1100	BG-24-DS_2021-07-13_1245	BG-24-US_2021-07-13_1255	BG-24-DS_2021-07-31_1330	BG-24-US_2021-07-31_1340
	ALS Laboratory Sample ID				L2610075-36	L2614284-35	L2614284-36	L2621359-36	L2621359-37
	Sample Date & Time				2021-07-05 11:00	2021-07-13 12:45	2021-07-13 12:55	2021-07-31 13:30	2021-07-31 13:40
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria					
pH	pH units	0.1	6.0 - 9.5	-	8.14	8.13	8.11	8.33	8.35
Total Suspended Solids	mg/L	2	30	See note ¹	<1.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	96	96	84	135	137
Turbidity	NTU	0.1	-	-	0.51	0.69	0.62	0.69	0.26

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.19: Surface Water Quality Results CV-001

Analyte	Sample ID				CV-001-DS_2021-05-26_1430	CV-001-US_2021-05-26_1440	CV-001-DS_2021-05-31_1135	CV-001-US_2021-05-31_1140	CV-001-DS_2021-06-08_1330	CV-001-US_2021-06-08_1335	CV-001-DS_2021-06-13_1130	CV-001-US_2021-06-13_1135
	ALS Laboratory Sample ID				L2594754-4	L2594754-5	L2597794-4	L2597794-5	L2602352-3	L2602352-4	L2603802-3	L2603802-4
	Sample Date & Time				2021-05-26 14:30	2021-05-26 14:40	2021-05-31 11:35	2021-05-31 11:40	2021-06-08 13:30	2021-06-08 13:35	2021-06-13 11:30	2021-06-13 11:35
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria								
pH	pH units	0.1	6.0 - 9.5	-	7.46	7.32	7.18	7.09	7.47	7.36	7.77	7.79
Total Suspended Solids	mg/L	2	30	See note ¹	169	29.1	4.5	2.7	11.8	5.1	1.9	<1.0
Total Dissolved Solids	mg/L	10	-	-	60	63	45	50	39	33	40	43
Turbidity	NTU	0.1	-	-	169	39.9	7.20	6.15	5.57	2.84	1.51	1.36

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.19: Surface Water Quality Results CV-001

Analyte	Sample ID				CV-001-DS_2021-06-20_1140	CV-001-US_2021-06-20_1145	CV-001-DS_2021-06-27_1055	CV-001-DS02_2021-06-27_1055	CV-001-US_2021-06-27_1105	CV-001-DS_2021-07-05_1125	CV-001-US_2021-07-05_1135
	ALS Laboratory Sample ID				L2605811-3	L2605811-4	L2608262-3	L2608262-4	L2608262-5	L2610075-37	L2610075-38
	Sample Date & Time				2021-06-20 11:40	2021-06-20 11:45	2021-06-27 10:55	2021-06-27 10:55	2021-06-27 11:05	2021-07-05 11:25	2021-07-05 11:35
	QA/QC Sample Type				N/A	N/A	N/A	Field Blank	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	7.65	7.72	7.61	5.75	7.71	7.66	7.77
Total Suspended Solids	mg/L	2	30	See note ¹	1.8	<2.0	<2.0	<2.0	<2.0	<1.0	1.3
Total Dissolved Solids	mg/L	10	-	-	56	58	92	25	90	77	69
Turbidity	NTU	0.1	-	-	1.76	1.76	1.84	<0.10	1.48	2.23	1.46

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.19: Surface Water Quality Results CV-001

Analyte	Sample ID				CV-001-DS_2021-07-13_1315	CV-001-US_2021-07-13_1325	CV-001-DS_2021-07-31_1355	CV-001-US_2021-07-31_1405	CV-001-DS_2021-08-17_1400	CV-001-DS01_2021-08-17_1400	CV-001-US_2021-08-17_1410
	ALS Laboratory Sample ID				L2614284-37	L2614284-38	L2621359-38	L2621359-39	L2628935-22	L2628935-23	L2628935-24
	Sample Date & Time				2021-07-05 13:15	2021-07-05 13:25	2021-07-31 13:55	2021-07-31 14:05	2021-08-17 14:00	2021-08-17 14:00	2021-08-17 14:10
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	7.75	7.80	7.74	7.86	7.87	7.89	7.97
Total Suspended Solids	mg/L	2	30	See note ¹	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	74	70	87	79	90	87	82
Turbidity	NTU	0.1	-	-	2.20	1.42	1.96	1.58	1.59	1.57	1.44

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.20: Surface Water Quality Results CV-223

Analyte	Sample ID				CV-223-DS_2021-05-31_1105	CV-223-DS01_2021-05-31_1105	CV-223-US_2021-05-31_1115	CV-223-DS_2021-06-08_1240	CV-223-US_2021-06-08_1255	CV-223-DS_2021-06-13_1045	CV-223-US_2021-06-13_1050
	ALS Laboratory Sample ID				L2597794-1	L2597794-2	L2597794-3	L2602352-1	L2602352-2	L2603802-1	L2603802-2
	Sample Date & Time				2021-05-31 11:05	2021-05-31 11:05	2021-05-31 11:15	2021-06-08 12:40	2021-06-08 12:55	2021-06-13 10:45	2021-06-13 10:50
	QA/QC Sample Type				N/A	Field Duplicate	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	7.58	7.55	7.55	7.46	7.22	7.45	7.45
Total Suspended Solids	mg/L	2	30	See note ¹	2.8	2.7	<2.0	49.4	8.3	13.5	5.4
Total Dissolved Solids	mg/L	10	-	-	55	54	55	81	60	26	18
Turbidity	NTU	0.1	-	-	12.0	12.4	9.57	80.3	3.38	3.07	1.36

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.20: Surface Water Quality Results CV-223

Analyte	Sample ID				CV-223-DS_2021-06-20_1110	CV-223-US_2021-06-20_1115	CV-223-DS_2021-06-27_1030	CV-223-US_2021-06-27_1035	CV-223-DS_2021-07-05_1220	CV-223-US_2021-07-05_1230	CV-223-DS_2021-07-13_1340
	ALS Laboratory Sample ID				L2605811-1	L2605811-2	L2608262-1	L2608262-2	L2610075-39	L2610075-40	L2614284-39
	Sample Date & Time				2021-06-20 11:10	2021-06-20 11:15	2021-06-27 10:30	2021-06-27 10:35	2021-07-05 12:20	2021-07-05 12:30	2021-07-13 13:40
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria							
pH	pH units	0.1	6.0 - 9.5	-	7.38	7.37	7.30	7.34	7.94	7.92	7.80
Total Suspended Solids	mg/L	2	30	See note ¹	<2.0	4.9	5.0	<2.0	<1.0	1.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	18	20	39	38	30	44	27
Turbidity	NTU	0.1	-	-	0.83	1.24	1.10	1.01	0.52	0.59	0.84

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 7.10.20: Surface Water Quality Results CV-223

Analyte	Sample ID				CV-223-US_2021-07-13_1350	CV-223-DS_2021-07-31_1415	CV-223-US_2021-07-31_1425	CV-223-DS_2021-08-17_1420	CV-223-US_2021-08-17_1430
	ALS Laboratory Sample ID				L2614284-40	L2621359-40	L2621359-41	L2628935-25	L2628935-26
	Sample Date & Time				2021-07-13 13:50	2021-07-31 14:15	2021-07-31 14:25	2021-08-17 14:20	2021-08-17 14:30
	QA/QC Sample Type				N/A	N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹	Screening Criteria					
pH	pH units	0.1	6.0 - 9.5	-	7.77	8.14	8.10	8.25	8.26
Total Suspended Solids	mg/L	2	30	See note ¹	<2.0	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	-	28	67	45	84	74
Turbidity	NTU	0.1	-	-	0.85	0.39	0.38	0.49	0.36

Notes:
Bold highlight indicate results that were greater than the applicable water quality screening criteria.

¹ When upstream TSS concentrations are less than 250 mg/L, a potential Project related change is defined as a greater than 50 mg/L increase in the downstream concentration. Where concentrations are greater than 250 mg/L in the upstream sample, a potential Project related change is defined as a greater than 20% increase in the downstream sample.

Reference: Roads Management Plan (BAF-PH1-830-P16-0023).

Table 8.1: Reclamation Works Related to Project Operations on Inuit-Owned and Crown Lands - 2021

Property Section	Land Type / Parcel ID	Reclamation Objective	Reclamation Principle	Description of Reclamation Works	Regulatory Authority	Impact on Financial Security
Project-Wide	Inuit-Owned Lands - Surface and Subsurface (PI-16, PI-17,P1-19) Crown Lands (Tote Road - KM 59 to 63)	- Remaining area will be safe for humans and the receiving environment - Aesthetic conditions of the project areas are similar to surrounding natural conditions	Progressive Reclamation	Demobilization and backhaul of equipment and supplies not required for near term activities, including the current inventory of hazardous waste and other materials by means of sealifts from Milne Port.	QIA CIRNAC	No change in financial security held by the QIA or the Crown (CIRNAC). Annual demobilization and backhaul of wastes, materials and equipment not required by the Project for near term activities is taken into account during the Annual Security Review process.
Tote Road	Inuit-Owned Lands - Surface (PI-16)	- Drainage pathways for surface runoff are physically stable to limit risk to humans and receiving environment - Mine areas are physically stable for use by humans and receiving environment - Area facilitates the desired wildlife movement - Natural revegetation is promoted - Aesthetic conditions of the project areas are similar to surrounding natural conditions	Progressive Reclamation	Continued implementation of the reclamation plan for the historical Km 97 borrow areas detailed in the Project's Borrow Source Management Plan – KM 97 (BAF-PH1-830-P16-0032).	QIA	No impact on financial security held by the QIA. Reclamation works at the historical Km 97 borrow areas is ongoing.
Tote Road	Inuit-Owned Lands - Surface (PI-16, PI-17, PI-19)	- Drainage pathways for surface runoff are physically stable to limit risk to humans and receiving environment - Mine areas are physically stable for use by humans and receiving environment - Area facilitates the desired wildlife movement - Natural revegetation is promoted - Aesthetic conditions of the project areas are similar to surrounding natural conditions	Progressive Reclamation	Implementation of the action plan to address historical borrow sources within the Tote Road corridor. Work in 2021 included bulk fill and grading of borrow sources along the Tote Road.	QIA	No current impact on financial security held by the QIA. Reclamation works at the historical Tote Road borrow areas initiated in 2019 and will be ongoing through 2022.
Milne Port	Inuit-Owned Lands - Surface (PI-19)	- Chemically stable disturbed areas to limit risk impact to humans and receiving environment- Surface runoff and seepage water quality is safe for humans and receiving environment	Progressive Reclamation	On-going management of hydrocarbon impacted soils at the Milne Port Landfarm Facility generated from historical decommissioning efforts and ongoing operations.	QIA	No impact on financial security held by the QIA. Continued remediation and treatment of soils held within the Landfarm Facility anticipated during 2022.

Table 8.2: Mary River Project Total Closure and Reclamation Security Summary - 2021 ^b

Authorization	Liability	Securities Held on 1 Jan 2021 (Actual) (\$)	Adjustment for 2021 (Actual) ^c (\$)	Securities Held on 31 Dec 2021 (Actual) (\$)
Type 'A' Water Licence 2AM-MRY1325	IOL ^b	113,371,000	7,628,500	120,999,500
	Crown	1,591,000	1,197,000	2,788,000
Subtotal Type 'A' Water Licence		114,962,000	8,825,500	123,787,500
Type 'B' Water Licence 2BE-MRY1421	IOL ^b			
	Crown	1,250,000	-	1,250,000
Subtotal Type 'B' Water Licence		1,250,000	-	1,250,000
GRAND TOTAL		116,212,000	8,825,500	125,037,500

Notes:

^a Totals rounded to nearest '000 in CAD.

^b All security relating to Inuit-Owned Land (IOL) held by Qikiqtani Inuit Association (QIA) under Commercial Lease No. Q13C301.

^c Total adjustments for 2021 include the 2021 Annual Security Review.

Table 9.1: Management and Monitoring Plan Updates - 2021

Reference No.	Management Plan	Current Revision	Updated since 2020 QIA and NWB Annual Report for Operations?
BAF-PH1-300-P16-0002	Snow Management Plan	31-Mar-2022	Yes
BAF-PH1-310-P16-0001	Milne Inlet Marine Facility Security Plan	18-Jul-2017	No
BAF-PH1-340-P16-0004	Waste Rock Facility QAQC Monitoring Plan	31-Dec-2019	No
BAF-PH1-830-P16-0001	Sampling Program - QAQC Plan	31-Mar-2022	Yes
BAF-PH1-830-P16-0002	Air Quality and Noise Abatement Management Plan	30-Apr-2021	Yes
BAF-PH1-830-P16-0004	Borrow Pit and Quarry Management Plan	20-Mar-2014	No
BAF-PH1-830-P16-0006	Cultural Heritage Resource Protection Plan	07-Mar-2016	No
BAF-PH1-830-P16-0008	Environmental Protection Plan	30-Apr-2021	Yes
BAF-PH1-830-P16-0010	Fresh Water Supply, Sewage, and Wastewater Management Plan	31-Mar-2022	Yes
BAF-PH1-830-P16-0011	Hazardous Materials and Hazardous Waste Management Plan	31-Mar-2022	Yes
BAF-PH1-830-P16-0012	Interim Closure and Reclamation Plan	19-Oct-2018	No
BAF-PH1-830-P16-0013	Oil Pollution Emergency Plan - Milne Inlet (OPEP)	11-May-2021	Yes
BAF-PH1-830-P16-0023	Roads Management Plan	31-Mar-2019	No
BAF-PH1-830-P16-0024	Shipping and Marine Wildlife Management Plan	15-Jul-2020	No
BAF-PH1-830-P16-0026	Surface Water and Aquatic Ecosystem Management Plan	31-Mar-2021	Yes
BAF-PH1-830-P16-0027	Terrestrial Environment Mitigation and Monitoring Plan	14-Mar-2016	No
BAF-PH1-830-P16-0028	Waste Management Plan	31-Mar-2020	No
BAF-PH1-830-P16-0029	Phase 1 Waste Rock Management Plan	16-Jun-2020	No
BAF-PH1-830-P16-0031	Life-of-Mine Waste Rock Management Plan	30-Apr-2014	No
BAF-PH1-830-P16-0036	Spill Contingency Plan	31-Jan-2021	No
BAF-PH1-830-P16-0037	Exploration Spill Contingency Plan	17-Jun-2014	No
BAF-PH1-830-P16-0038	Exploration Closure and Reclamation Plan	02-Jul-2014	No
BAF-PH1-830-P16-0039	Aquatic Effects Monitoring Plan	31-Mar-2022	Yes
BAF-PH1-830-P16-0042	Spill at Sea Response Plan (SSRP)	15-Aug-2015	No
BAF-PH1-830-P16-0046	Marine Environmental Effects Monitoring Plan	17-Mar-2016	No
BAF-PH1-830-P16-0047	MDMER Emergency Response Plan	16-Dec-2020	No
BAF-PH1-830-P16-0048	Milne Inlet Tote Road Quarry Borrow Source Plan	07-Mar-2019	No
BAF-PH1-830-P16-0050	Ballast Water Management Plan	31-Mar-2019	No
BAF-PH1-830-P16-0056	Diesel E2 Plan - Milne Port	22-Feb-2020	No
BAF-PH1-830-P16-0057	Diesel E2 Plan - Mary River	22-Feb-2020	No
BAF-PH1-830-P16-0058	Oil Pollution Prevention Plan	11-May-2021	Yes
BAF-PH1-840-P16-0001	Crisis Management Plan	09-Feb-2016	No
BAF-PH1-840-P16-0002	Emergency Response Plan	08-Dec-2020	No
Site Specific Quarry Management Plans			
BAF-PH1-830-P16-0030	Borrow Source Management Plan - KM 2	25-Oct-2014	No
BAF-PH1-830-P16-0032	Borrow Source Management Plan - KM 97	25-Oct-2014	No
BAF-PH1-830-P16-0035	KM104 Borrow Source Management Plan	20-Mar-2014	No
BAF-PH1-830-P16-0017	Q1 Quarry Management Plan	28-Jul-2017	No
BAF-PH1-830-P16-0053	Q5 Quarry Management Plan	15-Dec-2020	No
BAF-PH1-830-P16-0040	QMR2 Quarry Management Plan	30-July-2021	Yes

Table 9.2: Sample Results from 2021 Waste Rock Facility QA/QC Sample Program - 2021

SAMPLE ID	Sulfur (%) by X-Ray Diffraction ¹	Carbon (%) by LECO ²	Sulfur (%) by LECO ²	Paste pH	Sampling Location (UTM NAD83 Zone 17W)		Waste Deposition Area
					Easting	Northing	
WRD21-2234	0.11	NA	NA	8.40	563135	7915673	NAG
WRD21-2342	0.02	NA	NA	8.90	563132	7915819	NAG
WRD21-2396	0.01	NA	NA	9.10	563044	7915589	NAG
WRD21-2324	0.004	NA	NA	8.50	563239	7916521	NAG
WRD21-2288	0.16	NA	NA	9.40	562998	7915706	NAG
WRD21-2378	0.04	NA	NA	8.40	563326	7916004	NAG
WRD21-2270	0.01	NA	NA	8.30	563352	7915735	NAG
WRD21-2252	0.003	NA	NA	9.20	562962	7915775	NAG
WRD21-2306	<0.003	NA	NA	9.10	563295	7915703	NAG
WRD21-2360	0.003	NA	NA	8.90	563281	7916412	NAG
WRD21-11	0.004	NA	NA	8.60	563188	7916571	NAG
WRD21-12	0.07	NA	NA	9.10	563115	7916654	NAG

Notes:

¹ Measured by XRF (X-Ray Diffraction) in % and by Direct Combustion and Infrared Absorption with LECO instrument.

² Measured in % by Direct Combustion and Infrared Absorption with LECO instrument. "NA" Due to Instrument down during time of sample analysis.

Table 12.1: Public Meetings and Events - 2021

Engagement Date	Group	Location	Description
01-Jan-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
05-Jan-21	Public Radio Show - Clyde Radio	Radio Show	BIM Public Phone-in Radio Show with Public Q&A Session- Update on Phase 2 Review Process and Project Benefits to Hamlet of Clyde River
05-Jan-21	Hamlet of Clyde River and Nangmautaq Hunters and Trappers Association (Clyde River)	Clyde River	Joint Meeting with Hamlet Council and HTO - Update on Phase 2 Review Process and Project Benefits to Hamlet of Clyde River
05-Jan-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
06-Jan-21	Public Radio Show - Igloolik	Radio Show	2021-01-06 - Igloolik - Radio Station - Phase 2 Review Process and Community Direct Benefits - Phone In Show
07-Jan-21	Igloolik Working Group	Igloolik	Meeting with the Igloolik Mary River Working Group - Update on Phase 2 Review Process and Project Benefits to Hamlet of Igloolik
08-Jan-21	Qikiqtani Inuit Association	Teleconference	Inuit Certainty Agreement (ICA) Work Plan Management
08-Jan-21	Qikiqtani Inuit Association	Teleconference	ICA Project Scope Change Procedure Review
08-Jan-21	Qikiqtani Inuit Association	Teleconference	Q-STEP Meeting
11-Jan-21	Qikiqtani Inuit Association	Reply to Letter	Employment Committee
13-Jan-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
15-Jan-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
21-Jan-21	Nunavut Water Board, Qikiqtani Inuit Association, Crown Indigenous Relations and Northern Affairs Canada	Teleconference	2021 Annual Security Review Teleconference
22-Jan-21	Qikiqtani Inuit Association	Teleconference	Reclamation Securities
22-Jan-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
22-Jan-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
27-Jan-21	Nunavut Public Health	Teleconference	Ongoing consultation regarding COVID-19 with the Public Health Authorities and Nunavut Government.
27-Jan-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
29-Jan-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
31-Jan-21	Nunavut Public Health	Teleconference	Ongoing consultation regarding COVID-19 with the Public Health Authorities and Nunavut Government.
02-Feb-21	Qikiqtani Inuit Association	Teleconference	Contracting Committee Meeting
03-Feb-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
05-Feb-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
08-Feb-21	Qikiqtani Inuit Association	Teleconference	Reclamation Securities Work Plan Development
10-Feb-21	Qikiqtani Inuit Association	Teleconference	CRLU Working Group
12-Feb-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
12-Feb-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
13-Feb-21	Nunavut Public Health	Teleconference	Ongoing consultation regarding COVID-19 with the Public Health Authorities and Nunavut Government.
16-Feb-21	Nunavut Public Health	Teleconference	Ongoing consultation regarding COVID-19 with the Public Health Authorities and Nunavut Government.
17-Feb-21	Government of Nunavut - Deputy Minister and Minister of Economic Development & Transport	Minister's office - Iqaluit	Phase 2 Project Proposal, Phase 2 Review Process
17-Feb-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
18-Feb-21	Mittimatalik Hunters and Trappers Organization	Teleconference	Milne Inlet Freshwater Fish Monitoring Program
18-Feb-21	Qikiqtani Inuit Association, ESDC, Kakivak, GN Family Services	Teleconference	Project Advisory Committee Meeting - Q-STEP
19-Feb-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
19-Feb-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
22-Feb-21	Qikiqtani Inuit Association	Iqaluit	Phase 2 Project Proposal, Phase 2 Review Process
23-Feb-21	Qikiqtani Inuit Association	Teleconference	Joint Executive Committee Meeting
24-Feb-21	Qikiqtani Inuit Association	Teleconference	CRLU Working Group
25-Feb-21	Qikiqtani Inuit Association	Teleconference	ICRP Adaptive Management integration
26-Feb-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
26-Feb-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
01-Mar-21	Fisheries and Oceans Canada	Teleconference	Ore Dock Fisheries Act Authorization
04-Mar-21	Hamlet of Pond Inlet	Pond Inlet	Phase 2 Project Proposal, Phase 2 Review Process

Table 12.1: Public Meetings and Events - 2021

Engagement Date	Group	Location	Description
05-Mar-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
05-Mar-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
08-Mar-21	Office of the Premier of Nunavut	Iqaluit	Phase 2 Project Proposal, Phase 2 Review Process
09-Mar-21	Qikiqtani Inuit Association	Iqaluit	Phase 2 Project Proposal, Phase 2 Review Process
09-Mar-21	Hamlet of Pond Inlet	Teleconference	Phase 2 Project Proposal, Phase 2 Review Process
09-Mar-21	Qikiqtani Inuit Association	Teleconference	Employment Committee
10-Mar-21	Environment and Climate Change Canada	Teleconference	Phase 2 Project Proposal, Phase 2 Review Process
10-Mar-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
11-Mar-21	Fisheries and Oceans Canada	Teleconference	Freshwater (Railway) Fisheries Act Authorization
12-Mar-21	Qikiqtani Inuit Association	Teleconference	Contracting Committee Meeting
12-Mar-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
12-Mar-21	Mayor - Hamlet of Pond Inlet	Teleconference	Phase 2 Project Proposal, Phase 2 Review Process
12-Mar-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
15-Mar-21	North Baffin MLAs	Iqaluit	Phase 2 Project Proposal, Phase 2 Review Process
18-Mar-21	Qikiqtani Inuit Association	Teleconference	Type B Water License Renewal review
19-Mar-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
19-Mar-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
22-Mar-21	Hamlet Council of Sanirajak	Sanirajak	Phase 2 Project Proposal, Phase 2 Review Process
22-Mar-21	Hamlet of Sanirajak	Sanirajak	Public Town Hall
22-Mar-21	Sanirajak Baffinland Employees	Sanirajak	Sanirajak Employee Town Hall
24-Mar-21	Qikiqtani Inuit Association	Teleconference	CRLU Working Group
25-Mar-21	Hamlet Council of Igloolik	Igloolik	Phase 2 Project Proposal, Phase 2 Review Process
25-Mar-21	Hamlet of Igloolik	Igloolik	Public Town Hall
25-Mar-21	Igloolik Working Group	Igloolik	Phase 2 Project Proposal, Phase 2 Review Process
26-Mar-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
29-Mar-21	Hamlet Council of Clyde River	Clyde River	Phase 2 Project Proposal, Phase 2 Review Process
29-Mar-21	Hamlet of Clyde River	Clyde River	Public Town Hall
29-Mar-21	Clyde River Baffinland Employees	Clyde River	Clyde River Employee Town Hall
30-Mar-21	Hamlet of Pond Inlet	Pond Inlet	Phase 2 Project Proposal, Phase 2 Review Process
30-Mar-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
31-Mar-21	Hamlet Council of Arctic Bay	Arctic Bay	Phase 2 Project Proposal, Phase 2 Review Process
31-Mar-21	Ikajutit Hunters and Trappers Organization (Arctic Bay)	Arctic Bay	Phase 2 Project Proposal, Phase 2 Review Process
31-Mar-21	Arctic Bay Baffinland Employees	Arctic Bay	Arctic Bay Employee Town Hall
31-Mar-21	Fisheries and Oceans Canada	Teleconference	Phase 2 Project Proposal, Phase 2 Review Process
31-Mar-21	Qikiqtani Inuit Association	Teleconference	Joint Executive Committee Meeting
01-Apr-21	Nunavut Public Health	Teleconference	Ongoing consultation regarding COVID-19 with the Public Health Authorities and Nunavut Government.
01-Apr-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
02-Apr-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
04-Apr-21	Nunavut Public Health	Teleconference	Ongoing consultation regarding COVID-19 with the Public Health Authorities and Nunavut Government.
06-Apr-21	Hamlet Council and Iviq Hunters and Trappers Organization (Grise Fiord)	Grise Fiord	Phase 2 Project Proposal, Phase 2 Review Process
07-Apr-21	Hamlet Council of Pond Inlet	Pond Inlet	Phase 2 Project Proposal, Phase 2 Review Process
07-Apr-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
09-Apr-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
09-Apr-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
16-Apr-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
23-Apr-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
23-Apr-21	Qikiqtani Inuit Association	Teleconference	Contracting Committee Meeting

Table 12.1: Public Meetings and Events - 2021

Engagement Date	Group	Location	Description
23-Apr-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
27-Apr-21	Qikiqtani Inuit Association	Teleconference	ICA and IIBA Guide Review
28-Apr-21	Qikiqtani Inuit Association	Teleconference	Employment Committee
30-Apr-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
30-Apr-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
07-May-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
10-May-21	Government of Nunavut - Economic Development and Transportation	Teleconference	Socio-Economic Closure Planning
11-May-21	Qikiqtani Inuit Association	Phone call	ICA implementation
12-May-21	Public Radio Show - Igloolik	Radio Show	Ege Bay Project 2021 Exploration Update
13-May-21	Public Radio Show - Sanirajak	Radio Show	Ege Bay Project 2021 Exploration Update
13-May-21	Marine Environment Working Group (MEWG)	Teleconference	MEWG Meeting: 2020 Marine Mammal Preliminary Results Memo and Seal Aerial Survey Design
14-May-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
14-May-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
20-May-21	Hall Beach Hunters and Trapper Association (HBHTA)	Phone call	Discussion regarding VHF radio repeaters
25-May-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
26-May-21	World Wildlife Fund	Teleconference	Third-party (Stratos) External Engagement - Baffinland's latest draft of the Climate Change Strategy
26-May-21	Qikiqtani Inuit Association	Teleconference	Employment Committee
27-May-21	Northern Project Management Office (NPMO)	Phone call	ESPOO Convention
28-May-21	Hamlet of Pond Inlet and Mittimatalik Hunters and Trappers Organization	Teleconference	2020 Shipping Season Wrap Up and 2021 Pre Shipping Season Meeting
28-May-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
28-May-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting
28-May-21	Qikiqtani Inuit Association	Teleconference	ICA implementation
31-May-21	Hamlet Council of Sanirajak	Teleconference	Ege Bay 2021 Exploration Update
01-Jun-21	Mary River Socio-Economic Monitoring Working Group Meeting (MRSEMWG)	Teleconference	Annual MRSEWG Meeting
02-Jun-21	Public Radio Show - Pond Inlet	Radio Show	2020 Shipping Season Wrap Up and 2021 Pre Shipping Season Meeting
04-Jun-21	Hamlet of Grise Fiord & HTO	Grise Fiord	Mary River Project Update
07-Jun-21	Public Radio Show - Clyde River	Radio Show	Mary River Project Update
08-Jun-21	Public Radio Show - Sanirajak	Radio Show	Mary River Project Update
09-Jun-21	Public Radio Show - Clyde River	Radio Show	Mary River Project Update
10-Jun-21	Qikiqtani Inuit Association	Teleconference	Contracting Committee Meeting
11-Jun-21	Community Radio Show - Clyde River	Radio Show	Mary River Project Update
11-Jun-21	Qikiqtani Inuit Association	Teleconference	Dust Audit Discussion- overview of draft audit plan, Update to QIA dust Investigation on site
14-Jun-21	Public Radio Show - Igloolik	Radio Show	Mary River Project Update
14-Jun-21	Public Radio Show - Pond Inlet	Radio Show	Employment and Training Information Session with Baffinland and QIA
17-Jun-21	Public Radio Show - Arctic Bay	Radio Show	Employment and Training Information Session with Baffinland and QIA
17-Jun-21	Qikiqtani Inuit Association	Teleconference	Third-party (Stratos) External Engagement - Baffinland's latest draft of the Climate Change Strategy
17-Jun-21	Natural Resources Canada	Teleconference	Third-party (Stratos) External Engagement - Baffinland's latest draft of the Climate Change Strategy
21-Jun-21	Government of Nunavut	Teleconference	Third-party (Stratos) External Engagement - Baffinland's latest draft of the Climate Change Strategy
22-Jun-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
22-Jun-21	Environment and Climate Change Canada - Canadian Centre for Climate Services	Teleconference	Third-party (Stratos) External Engagement - Baffinland's latest draft of the Climate Change Strategy
23-Jun-21	Legislative Assembly of Nunavut	Videoconference	Standing Committee on Legislation- Bill 55
23-Jun-21	Public Radio Show - Clyde River	Radio Show	Employment and Training Information Session with Baffinland and QIA
24-Jun-21	Legislative Assembly of Nunavut	Videoconference	Standing Committee on Legislation- Bill 55
25-Jun-21	Public Radio Show - Igloolik	Radio Show	Employment and Training Information Session with Baffinland and QIA

Table 12.1: Public Meetings and Events - 2021

Engagement Date	Group	Location	Description
28-Jun-21	Public Radio Show - Sanirajak	Radio Show	Employment and Training Information Session with Baffinland and QIA
28-Jun-21	Nunavut Tunngavik Incorporated	Teleconference	Third-party (Stratos) External Engagement - Baffinland's latest draft of the Climate Change Strategy
29-Jun-21	Qikiqtani Inuit Association	Teleconference	Phase 2 Baffinland Office Centre Commitments, IIBA Baffinland Inuit Training Centre Project
29-Jun-21	Marine Environment Working Group (MEWG)	Teleconference	MEWG Meeting: 2021 Marine Environment Monitoring Program Overview
30-Jun-21	Mayor of Pond Inlet (and Hamlet Technical Advisor)	Teleconference	• Drinking Water Memo • Mary River Dust Audit • 2021 Narwhal Mitigation and Monitoring
30-Jun-21	Terrestrial Environment Working Group (TEWG)	Teleconference	TEWG Meeting: 2021 Terrestrial Environment Monitoring Program Overview
02-Jul-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-Step Meeting via Zoom
04-Jul-21	Hamlet of Pond Inlet & Mittimatalik Hunters and Trappers Organization (MHTO)	Pond Inlet	Meeting with Hamlet & MHTO
04-Jul-21	Residents of Pond Inlet	Pond Inlet	Pond Inlet Town Hall
04-Jul-21	Pond Inlet Baffinland Employees	Pond Inlet	Pond Inlet Employee Town Hall
05-Jul-21	Environment and Climate Change Canada	Teleconference	MDMER Sampling Schedule
06-Jul-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
06-Jul-21	Acting Mayor of Igloolik	Teleconference	Mary River Dust Audit Update
06-Jul-21	Nunavut Public Health	Teleconference	General COVID-19 Updates
07-Jul-21	Mayor of Pond Inlet and Hamlet Council	Teleconference	Shipping Season Mitigations
08-Jul-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting via Zoom
12-Jul-21	Pond Inlet Baffinland Employees	Pond Inlet	Pond Inlet Employee Town Hall
13-Jul-21	Arctic Bay Baffinland Employees	Arctic Bay	Arctic Bay Employee Town Hall
14-Jul-21	Sanirajak Baffinland Employees	Sanirajak	Sanirajak Employee Town Hall
15-Jul-21	Igloolik Baffinland Employees	Igloolik	Igloolik Employee Town Hall
16-Jul-21	Clyde River Baffinland Employees	Clyde River	Clyde River Employee Town Hall
16-Jul-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting via Zoom
19-Jul-21	Public Radio Show - Sanirajak	Radio Show	Mary River Project Update
20-Jul-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
21-Jul-21	Mayor of Pond Inlet (and Hamlet Technical Advisor)	Teleconference	2021 Shipping Season Update
22-Jul-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-Step Meeting via Zoom
23-Jul-21	Hamlet of Sanirajak Chief Administrative Officer	Sanirajak Hamlet Office	Return to work plan, Phase 2, Community Engagement Planning
23-Jul-21	Hall Beach Hunters and Trapper Association (HBHTA; Sanirajak)	Sanirajak (HBHTA Office)	Discussion regarding VHF radio repeaters including updates on land use applications, Nunavut Planning Commission screening
23-Jul-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-Step Meeting via Zoom
24-Jul-21	Meeting with Sanirajak Hamlet Councillors	Sanirajak Baffinland Office	Updates on Repeater Tower Project, Phase 2, and COVID-19 at the Mary River Project
24-Jul-21	Public Question and Answer Session	Sanirajak (Co-op Store)	Baffinland staff Q&A session at the Sanirajak Co-op Store
26-Jul-21	Qikiqtani Inuit Association, Crown Indigenous Relations and Northern Affairs Canada, Nunavut Water Board	Teleconference	Water License Modification Request No. 13
26-Jul-21	Sanirajak Hamlet Council	Sanirajak (Hamlet Chambers)	Return to work plan, Repeater Tower Project, Community Sponsorships, Phase 2, Community Engagement Planning
28-Jul-21	Government of Nunavut - Economic Development & Transport	Teleconference	2020 NIRB Annual Report Comments
28-Jul-21	Hamlet of Pond Inlet Executive Council	Pond Inlet (Hamlet Chambers)	Update on 2021 Shipping Season, Phase 2, Community Engagement Planning
28-Jul-21	Qikiqtani Inuit Association	Teleconference	July Employment Committee Meeting
29-Jul-21	Mittimatalik Hunters and Trappers Organization	Pond Inlet	Tasiuqtiit Working Group, IIBA Harvesters Enabling Program, Future engagement opportunities
29-Jul-21	Mr. David Qamaniq, MLA for Tununig	Pond Inlet (MLA Office)	Engagement Planning, Human Resources Concerns, Inuit Hiring, Monitoring Programs
29-Jul-21	Mayor of Pond Inlet	Pond Inlet (Hamlet Office)	Discussion of existing Bylot Island repeater issues (channel 26) and new Bruce Head repeater station installation
30-Jul-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-Step Meeting via Zoom
03-Aug-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management

Table 12.1: Public Meetings and Events - 2021

Engagement Date	Group	Location	Description
04-Aug-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-Step Meeting via Zoom
05-Aug-21	Qikiqtani Inuit Association	Zoom Video Meeting	Kick Off Meeting- MiHR LMA and SEAT SOW
05-Aug-21	Qulliq Energy Corporation	Teleconference	Third-party (Stratos) External Engagement - Baffinland's latest draft of the Climate Change Strategy
06-Aug-21	Government of Nunavut - Regional Biologist	Teleconference	Monitoring Program Permit Review
10-Aug-21	Nunavut Public Health	Teleconference	General COVID-19 Updates
11-Aug-21	Mayor of Pond Inlet	Pond Inlet	Phase 2, Community Engagement Planning
11-Aug-21	Minister of Northern Affairs Canada	Pond Inlet	Phase 2, Existing Project, Inuit Employment, Education and Training
11-Aug-21	Transport Canada	Teleconference	Call to discuss site visit
11-Aug-21	Nunavut Public Health	Teleconference	General COVID-19 Updates
12-Aug-21	Qikiqtani Inuit Association	Zoom Video Meeting	EC Meeting - Annual Work Plan
13-Aug-21	Environment and Climate Change Canada	Teleconference	Disposal at Sea Sampling Plan (Permit Consultation)
13-Aug-21	Nunavut Public Health	Teleconference	General COVID-19 Updates
17-Aug-21	Nunavut Public Health	Teleconference	General COVID-19 Updates
19-Aug-21	Qikiqtani Inuit Association	Teleconference	August Employment Committee Meeting
20-Aug-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-Step Meeting via Zoom
22-Aug-21	Residents of Clyde River	Clyde River	Clyde River Recruitment Tour
23-Aug-21	Nunavut Public Health	Teleconference	General Update Meeting
24-Aug-21	Pond Inlet Executive Council	Pond Inlet (Hamlet Chambers)	Update on Phase 2, Phase 2 Commitment List
25-Aug-21	Residents of Sanirajak	Sanirajak	Sanirajak Recruitment Tour
26-Aug-21	Mittimatalik Hunters and Trappers Organization	Pond Inlet	Project Certificate Conditions related to underwater sounds monitoring (underwater recorders), Mary River Project Dust Audit Update, Future engagements related to Phase 2 leading up to November 1, 2021
27-Aug-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-Step Meeting via Zoom
30-Aug-21	Residents of Pond Inlet	Pond Inlet	Pond Inlet Recruitment Tour
03-Sep-21	Qikiqtani Inuit Association	Teleconference	Q-STEP Weekly Meeting - Community Based Training
09-Sep-21	Clyde River Mayor and Hamlet Council	Clyde River	Phase 2 Update
09-Sep-21	Public Radio Show - Clyde Radio	Clyde River	Update on Phase 2, ICA, and NIRB review process
09-Sep-21	Ilisarivik Society	Clyde River	Inuit benefits discussion
09-Sep-21	Qikiqtani Inuit Association	Zoom Video Meeting	EC Meeting - Annual Work Plan
10-Sep-21	Qikiqtani Inuit Association	Teleconference	Q-STEP Weekly Meeting - Community Based Training
10-Sep-21	Ittaq Heritage and Health Centre	Clyde River	Community Donations Tour
10-Sep-21	Pond Inlet Residents	Pond Inlet	Shipping Season Mitigations
14-Sep-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
16-Sep-21	Qikiqtani Inuit Association	Teleconference	Contracting Committee Meeting
17-Sep-21	Qikiqtani Inuit Association	Teleconference	Q-STEP Weekly Meeting - Community Based Training
21-Sep-21	Mittimatalik Hunters and Trappers Organization	Pond Inlet	Phase 2 Updates, Tote Road Use, Future Engagement Planning
21-Sep-21	Qikiqtani Inuit Association	Ottawa	EC Workshop - Management and Advanced Skills Training Opportunities
21-Sep-21	Qikiqtani Inuit Association	Ottawa	EC Workshop - Skill Classification Training Opportunities
21-Sep-21	Qikiqtani Inuit Association	Ottawa	EC Workshop - Management and Advanced Skills Training Opportunities & Skill Classification Training Opportunities
22-Sep-21	Hamlet of Arctic Bay	Arctic Bay	Introductory meeting with new Hamlet Chief Administrative Officer
22-Sep-21	Hamlet of Arctic Bay and Ikajutit Hunters and Trappers Association (Arctic Bay)	Arctic Bay	Phase 2 Update
22-Sep-21	Hamlet of Arctic Bay	Arctic Bay	Community Donations Tour
23-Sep-21	Pond Inlet Search and Rescue Committee	Pond Inlet	Search and Rescue Coordination
23-Sep-21	Hamlet of Pond Inlet Executive Council	Pond Inlet	Phase 2 Updates and new Phase 2 Commitments
23-Sep-21	Public Radio Show - Pond Inlet	Radio Show	Acoustic Monitoring Program and Devices
23-Sep-21	Hamlet of Pond Inlet	Pond Inlet	Community Donations Tour
23-Sep-21	Qikiqtani Inuit Association Community Director	Pond Inlet	Phase 2 Updates and new Phase 2 Commitments
23-Sep-21	Qikiqtani Inuit Association	Ottawa	EC Workshop - Career Development Template Mock Trial
23-Sep-21	Qikiqtani Inuit Association	Ottawa	September Employment Committee Meeting

Table 12.1: Public Meetings and Events - 2021

Engagement Date	Group	Location	Description
23-Sep-21	Qikiqtani Inuit Association	Ottawa	EC Workshop - Career Development Template Mock Trial & September EC Meeting
24-Sep-21	Qikiqtani Inuit Association	Teleconference	Q-STEP Weekly Meeting - Community Based Training
28-Sep-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
29-Sep-21	Qikiqtani Inuit Association	Teleconference	ICA and Measurable Objectives
29-Sep-21	Qikiqtani Inuit Association	Teleconference	Follow-up on Measurable Objectives Submissions
01-Oct-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-Step Meeting via Zoom
01-Oct-21	Fisheries and Oceans Canada	Teleconference	Ore Dock Fisheries Act Authorization
02-Oct-21	Hall Beach Hunters and Trappers Association (Sanirajak)	Teleconference	Third-party (Stratos) External Engagement - Baffinland's latest draft of the Climate Change Strategy
04-Oct-21	Hamlet of Resolute Bay	Resolute Bay	Resolute Bay Hamlet and Recruitment
04-Oct-21	SmartIce	Teleconference	Third-party (Stratos) External Engagement - Baffinland's latest draft of the Climate Change Strategy
05-Oct-21	Hamlet of Resolute Bay	Resolute Bay	Phase 2 Update, Recruitment, Employment and Training Information
05-Oct-21	North Baffin Community Economic Development Officers	Teleconference	Call with Clyde River, Arctic Bay, and Pond Inlet to discuss updated closure plans for the Mary River Project
06-Oct-21	Hamlet of Grise Fiord	Grise Fiord	Phase 2 Update, Recruitment, Employment and Training Information
06-Oct-21	Arctic Bay Community Economic Development Officer	Teleconference	Follow-up call with Arctic Bay and Baffinland on closure plans for the Mary River Project
06-Oct-21	Hamlet of Grise Fiord	Grise Fiord	Grise Fiord Hamlet and Recruitment
06-Oct-21	Hamlet of Clyde River	Teleconference	Third-party (Stratos) External Engagement - Baffinland's latest draft of the Climate Change Strategy
08-Oct-21	Ikajutit Hunters and Trappers Organization (Arctic Bay)	Teleconference	Third-party (Stratos) External Engagement - Baffinland's latest draft of the Climate Change Strategy
08-Oct-21	Pond Inlet Residents	Teleconference	Third-party (Stratos) External Engagement - Baffinland's latest draft of the Climate Change Strategy
12-Oct-21	Qikiqtani Inuit Association	Teleconference	ICA Work Plan Management
12-Oct-21	City of Iqaluit Mayor and Council	Iqaluit	Phase 2 Update
13-Oct-21	Mary River Socio-Economic Monitoring Working Group Meeting (MRSEMWG)	Teleconference	Updated Closure Planning, 2021 Inuit Employee Survey, Follow-up to 2020 Monitoring Report
15-Oct-21	Qikiqtani Inuit Association	Zoom Video Meeting	Q-STEP Meeting via Zoom
19-Oct-21	Mayor and Deputy Mayor Hamlet of Sanirajak		Meeting to discuss Phase 2 Review Process
19-Oct-21	Mayor Hamlet of Igloolik		Meeting to discuss Phase 2 Review Process
21-Oct-21	Pond Inlet Hamlet Council		Meeting to discuss Phase 2 Review Process
21-Oct-21	Hamlet of Clyde River		Meeting to discuss Phase 2 Review Process
22-Oct-21	Qikiqtani Inuit Association	Teleconference	Q-STEP Weekly Meeting - Community Based Training
24-Oct-21	North Baffin Youth - Towards a Bright Future for Youth in North Baffin	Pond Inlet	Youth forum organized by Baffinland
25-Oct-21	Qikiqtani Inuit Association	Teleconference	October Employment Committee Meeting
26-Oct-21	City of Iqaluit Mayor and Council	Iqaluit Chambers	Meeting to discuss Phase 2 Review Process
28-Oct-21	Baffinland Inuit Employee Meeting with Mayor Hamlet of Pond Inlet	Pond Inlet	Baffinland employees discussed Phase 2 with the Mayor of Pond Inlet
28-Oct-21	Qikiqtani Inuit Association	Zoom Video Meeting	Meeting to discuss Phase 2 Review Process
29-Oct-21	Hamlet Council of Igloolik		Meeting to discuss Phase 2 Review Process
29-Oct-21	Qikiqtani Inuit Association	Teleconference	Q-STEP Weekly Meeting - Community Based Training
05-Nov-21	Qikiqtani Inuit Association	Teleconference	Q-STEP Weekly Meeting - Community Based Training
09-Nov-21	Qikiqtani Inuit Association	Teleconference	Contracting Committee Meeting
09-Nov-21	Crown Indigenous Relations and Indigenous Affairs	Teleconference	Phase 2 Water Licence Amendment
09-Nov-21	Pond Inlet resident	Teleconference	Third-party (Stratos) External Engagement - Baffinland's latest draft of the Climate Change Strategy
10-Nov-21	Qikiqtani Inuit Association	Teleconference	Joint Executive Committee Meeting
10-Nov-21	Environment and Climate Change Canada (ECCC)	Teleconference	Phase 2 Water Licence Amendment
10-Nov-21	Qikiqtani Inuit Association	Teleconference	November Employment Committee Meeting

Table 12.1: Public Meetings and Events - 2021

Engagement Date	Group	Location	Description
12-Nov-21	Nunavut Water Board, Crown Indigenous Relations and Indigenous Affairs, Fisheries and Oceans Canada, Environment and Climate Change Canada	Iqaluit	Technical Meeting on the Phase 2 Proposal Water Licence Amendment
12-Nov-21	Qikiqtani Inuit Association	Teleconference	Q-STEP Weekly Meeting - Community Based Training
19-Nov-21	Qikiqtani Inuit Association	Teleconference	Q-STEP Weekly Meeting - Community Based Training
24-Nov-21	Government of Nunavut - Economic Development and Transportation	Iqaluit	Meeting to discuss Phase 2 Review Process
25-Nov-21	Iglolik Hamlet Council	Zoom Video Meeting	Meeting to discuss Phase 2 Review Process
26-Nov-21	Iglolik Working Group	Zoom Video Meeting	Meeting to discuss Phase 2 Review Process
29-Nov-21	Public Radio Show - Pond Inlet	Radio Show	BIM Public Phone-in Radio Show with Public Q&A Session - General history of the Nunavut Agreement, the Mary River Project and proposed Phase 2
29-Nov-21	Pond Inlet Residents	Pond Inlet	Meeting to discuss Phase 2
29-Nov-21	Mayor of Pond Inlet	Pond Inlet	Meeting to discuss Phase 2 Review Process
30-Nov-21	Nasivvik High School Visit	Pond Inlet	General History of the Nunavut Agreement, the Mary River Project and proposed Phase 2
02-Dec-21	Mayor Hamlet of Pond Inlet	Iqaluit	Meeting to discuss Phase 2 Review Process
02-Dec-21	Mayor Hamlet of Pond Inlet	Iqaluit	Meeting to discuss Phase 2 Review Process
03-Dec-21	Government of Nunavut - Economic Development and Transportation	Iqaluit	Meeting to discuss Phase 2 Review Process
03-Dec-21	Qikiqtani Inuit Association	Teleconference	Q-STEP Weekly Meeting - Community Based Training
08-Dec-21	Iglolik Working Group	Zoom Video Meeting	Meeting to discuss Phase 2 Review Process
10-Dec-21	Qikiqtani Inuit Association	Teleconference	December Employment Committee Meeting
10-Dec-21	Qikiqtani Inuit Association	Teleconference	Q-STEP Weekly Meeting - Community Based Training
13-Dec-21	Meeting with community resident	Pond Inlet	General Phase 2 meeting with future MHTO Chairperson
13-Dec-21	Public Radio Show - Pond Inlet	Radio Show	BIM Public Phone-in Radio Show with Public Q&A Session - General history of the Mary River Project and proposed Phase 2; gas vouchers and food vouchers, questions about Steensby, marine mammals and shipping, benefits
13-Dec-21	Meeting with Community residents/Mittimatalik Hunters and Trappers Organization	Pond Inlet	Community and direct benefits
14-Dec-21	Qikiqtani Inuit Association	Ottawa	Meeting to discuss Phase 2 Review Process
14-Dec-21	Qikiqtani Inuit Association	Teleconference	Phase 2 Water Licence Amendment

Table 12.2: Site Visits to the Mary River Project - 2021

Date	Agency
July 17 to 19, 2021	QIA - Regulatory Inspection
September 16 and 17, 2021	CIRNAC - Water Licence Inspection
September 28 to October 2, 2021	QIA Environmental Audit
October 17 to 20, 2021	QIA - Regulatory Inspection

Notes:

QIA - Qikiqtani Inuit Association.

NIRB - Nunavut Impact Review Board.

CIRNAC - Crown Indigenous Relations Northern Affairs Canada.