



September 30, 2019

Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Water Resources Officer
CIRNAC
P.O. Box 100
Iqaluit, NU X0A 0H0

RE: Water Licence 2AM-MRY1325 Monthly SNP Report – August 2019

The following is the monthly report for August 2019 as required under Part I, Item 21 of the Type 'A' Water Licence 2AM-MRY1325 (the Licence). Part I, Item 21 of the above referenced Water Licence states:

"The Licensee shall submit to the Board, within thirty (30) days following the month being reported, a Monthly Monitoring Report. The Report shall include:

- a. All data and information required by this Part and generated by the Monitoring Program in the tables of Schedule I;*
- b. An assessment of data to identify areas of non-compliance with regulated discharge parameters referred to in Part F"*

Monitoring Program

During the month of August 2019, water samples were collected as part of the Water Licence Monitoring Program.

Table 1 presents a list of samples/monitoring required under the Licence and the details concerning which water quality samples were collected along with sample date/laboratory identification number as appropriate. Analytical water quality testing results received are presented in Table 2. Volumes consumed for domestic and industrial water purposes and the volumes of effluent discharged at the Mary River Mine Site and Milne Port are presented in the attached Table 3.

Monitoring Program Results

A) Water Sampling and Analysis Results

Table 2 provides the analytical results related to the Monitoring Program sampling requirements for August 2019. During August 2019, ponded water was identified at Deposit 1 in the vicinity of the original location for MS-MRY-09. This water was managed as per the Surface Water and Aquatic Ecosystem Management Plan and transferred to the Waste Rock Stockpile Pond (MS-08), and discharged following treatment. There were no exceedences of the site specific daily grab or monthly average samples.

B) Flow and Volume Measurements

Table 3 provides a breakdown of volume measurements as required by Part I, Item 9 of the Licence for August 2019. There were no exceedences of the source specific daily volume withdrawal limits.

We trust that the information provided in this monthly report is acceptable and should you have any questions regarding this report please contact myself or Shawn Stevens (ext. 6016).

Regards,

Connor Devereaux
Environmental Superintendent

Reviewed by:

Christopher Murray
Environmental & Regulatory Compliance Manager

Attach: Tables 1, 2, and 3

Cc: Jeremy Fraser, Justin Hack (CIRNA); Megan Lord-Hoyle, Lou Kamermans, Timothy Ray Sewell, Shawn Stevens, Sylvain Proulx, Francois Gaudrau (Baffinland); Jared Ottenhof, Chris Spencer (QIA)

Table 1: Monitoring Program Water Sampling Summary for August 2019

Monitoring Program Station	Sampling Date	Lab ID#	Comment
Milne Port			
MP-01 (Sewage Treatment Facility)	2019-08-05	L2323369-1	Volume reported daily during discharge
MP-01A (Polishing Waste Stabilization Pond)	2019-08-08	L2325882-1	Volume reported daily during discharge
MP-01B (Sewage Treatment Facility)	2019-08-08	L2325882-1	Volume reported daily during discharge
MP-MRY-3 (Freshwater Intake from Km 32 Lake - Winter)	N/A	N/A	No flow.
MP-MRY-04 (RBC at Exploration Camp)	N/A	N/A	No flow.
MP-03 (Bulk Fuel Storage Facility Stormwater)	2019-08-06	L2324693-1	Volume reported daily during discharge
MP-04 (Landfarm Facility & Snow Containment Facility)	N/A	N/A	No flow.
MP-05 (Ore Stockpile Sedimentation Pond (East))	2019-08-07	L2324889-1	Volume reported daily during discharge
MP-06 (Ore Stockpile Sedimentation Pond (West))	2019-08-13	L2329025-1	Volume reported daily during discharge
MP-MRY-12 (Bulk Sample Stockpile Area Seepage)	N/A	N/A	No flow.
MP-C-A (Downstream of Construction Area)	N/A	N/A	No flow.
MP-C-B (Downstream of Construction Area)	2019-08-05 2019-08-11 2019-08-18 2019-08-25	L2324618-5 L2328230-1 L2333397-4 L2335484-1	
MP-C-B02 (Field Blank of MP-C-B)	2019-08-11	L2328230-3	
MP-C-B01 (Downstream of Construction Area)	2019-08-05 2019-08-11 2019-08-18 2019-08-25	L2324618-4 L2328230-2 L2333397-2 L2335484-2	
MP-C-B0102 (Field Blank of MP-C-B)	2019-08-05	L2324618-3	
MP-C-B0103 (Travel Blank of MP-C-B)	2019-08-18	L2333397-3	
MP-C-D (Downstream of Construction Area)	N/A	N/A	No flow.
MP-C-E (Downstream of Construction Area)	N/A	N/A	No flow.

Monitoring Program Station	Sampling Date	Lab ID#	Comment
MP-C-F (Downstream of Construction Area)	N/A	N/A	No flow.
MP-C-H (Downstream of Construction Area)	2019-08-05 2019-08-11 2019-08-18 2019-08-25	L2324618-1 L2328230-5 L2333397-5 L2335484-5	
MP-C-H03 (Travel Blank of MP-C-H)	2019-08-05	L2324618-2	
MP-Q1-01 (Downstream of Q1 Quarry)	N/A	N/A	No flow.
MP-Q1-02 (Downstream of Q1 Quarry)	2019-08-12 2019-08-18 2019-08-25	L2328230-6 L2333397-1 L2335484-3	
MP-Q1-0201 (Field Duplicate of MP-Q1-02)	2019-08-25	L2335484-4	
Mary River Mine Site			
MS-01 (Sewage Treatment Facility)	2019-08-05	L2322707-1	Discharge volume reported daily
MS-01B (Sewage Treatment Facility)	2019-08-05	L2322712-1	Discharge volume reported daily
MS-MRY-1 (Freshwater Intake Camp Lake)	N/A	N/A	No flow.
MS-MRY-04a	N/A	N/A	No flow.
MS-MRY-04b	N/A	N/A	No flow.
MS-MRY-04c	N/A	N/A	No flow.
MS-03 (Milne Site Bulk Fuel Storage Facility Stormwater)	N/A	N/A	No flow.
MS-06 (Ore Stockpile Pond Stormwater)	2019-08-29	L2338795-1	Discharge volume reported daily.
MS-08 (Mine Waste Rock Stockpile pond)	2019-08-05	L2322602-1	Discharge volume reported daily
MS-0801 (Field Duplicate of MS-08)	2019-08-05	L2322602-2	
MS-MRY-6 (Exploration Camp Bladder Farm Stormwater)	N/A	N/A	No flow.
MS-MRY-09 (Bulk Sample Pit)	2019-08-06 2019-08-11 2019-08-18 2019-08-25	L2323293-14 L2328316-11 L2333390-1 L2335474-13	
MS-MRY-0903 (Travel Blank of MS-MRY-09)	2019-08-18	L2333390-2	
MS-MRY-10 (Weathered Ore Bulk Sample Stockpile)	N/A	N/A	No flow.
MS-MRY-11 (Processing Bulk Sample Stockpile)	N/A	N/A	No flow.

Monitoring Program Station	Sampling Date	Lab ID#	Comment
MS-MRY-13A (Downstream Non-Hazardous Landfill)	N/A	N/A	No flow.
MS-MRY-13B (Downstream Non-Hazardous Landfill)	2019-08-06 2019-08-11 2019-08-18 2019-08-25	L2323293-13 L2328316-15 L2333390-3 L2335474-3	
MS-C-A (Downstream of Construction and Borrow Areas)	2019-08-05 2019-08-11 2019-08-18 2019-08-25	L2323293-7 L2328316-7 L2333390-12 L2335474-6	
MS-C-B (Downstream of Construction and Borrow Areas)	2019-08-05 2019-08-11 2019-08-18 2019-08-25	L2323293-8 L2328316-8 L2333390-13 L2335474-7	
MS-C-C (Downstream of Construction and Borrow Areas)	2019-08-05 2019-08-11 2019-08-18 2019-08-25	L2323293-6 L2328316-6 L2333390-11 L2335474-10	
MS-C-D (Downstream of Construction and Borrow Areas)	2019-08-05 2019-08-11 2019-08-18 2019-08-25	L2323293-4 L2328316-5 L2333390-10 L2335474-9	
MS-C-D01 (Field Duplicate of MS-C-D)	2019-08-05	L2323293-5	
MS-C-E (Downstream of Construction and Borrow Areas)	2019-08-05 2019-08-11 2019-08-18 2019-08-25	L2323293-3 L2328316-4 L2333390-9 L2335474-8	
MS-C-E03 (Travel Blank of MS-C-E)	N/A	N/A	
MS-C-F (Downstream of Construction and Borrow Areas)	2019-08-18 2019-08-25	L2333390-7 L2335474-4	
MS-C-F01 (Field Duplicate of MS-C-F)	2019-08-18 2019-08-25	L2333390-8 L2335474-5	
MS-C-G (Downstream of Construction and Borrow Areas)	2019-08-05 2019-08-11 2019-08-18 2019-08-25	L2323293-11 L2328316-1 L2333390-4 L2335474-1	
MS-C-G01 (Field Duplicate of MS-C-G)	08/11/2019	L2328316-2	
MS-C-H (Downstream of Construction and Borrow Areas)	2019-08-05 2019-08-11 2019-08-18 2019-08-25	L2323293-12 L2328316-3 L2333390-5 L2335474-2	
MS-C-H01 (Field Duplicate of MS-C-H)	2019-08-18	L2333390-6	
MQ-C-A (Downstream of QMR2 Quarry)	2019-08-05 2019-08-11 2019-08-18 2019-08-25	L2323293-15 L2328316-13 L2333390-16 L2335474-11	
MQ-C-A01 (Field Duplicate of MQ-C-A)	2019-08-25	L2335474-12	
MQ-C-A03 (Travel Blank of MQ-C-A)	2019-08-11	L2328316-14	

Monitoring Program Station	Sampling Date	Lab ID#	Comment
MQ-C-B (Downstream of QMR2 Quarry)	2019-08-05 2019-08-11 2019-08-18 2019-08-25	L2323293-2 L2328316-16 L2333390-14 L2335474-16	
MQ-C-D (Downstream of QMR2 Quarry)	2019-08-05 2019-08-11 2019-08-18 2019-08-25	L2323293-1 L2328316-12 L2333390-15 L2335474-15	
TR-BP-01 (KM97 Borrow Pit)	2019-08-20 2019-08-27 2019-08-31	L2332433-1 L2337046-1 L2339824-1	Water actively pumped from KM97 Borrow Source (dewatering)
Steensby Port			
Steensby Exploration Camp is presently not active.	N/A	N/A	

TABLE 2.1 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MP-01

Analyte	Sample ID			MP-01
	ALS Laboratory Sample ID			L2323369-1
	Sample Date & Time			8/5/2019 11:00:00 AM
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
pH	pH units	0.1	6.0 - 9.5	7.22
Total Suspended Solids	mg/L	2	<120	8.8
Alkalinity, Total (as CaCO ₃)	mg/L	10	-	78
Ammonia, Total (as N)	mg/L	0.02	-	0.11
Total Kjeldahl Nitrogen	mg/L	0.15	-	1.88
Phosphorus, Total	mg/L	0.003	-	10.3
Fecal Coliforms	CFU/100mL	0	10,000	4
BOD	mg/L	2	100	<2.0
COD	mg/L	10	-	74
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 5: Effluent Quality Discharge Limits for Sewage Treatment Facilities to the Ocean

TABLE 2.2 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MP-01A

Analyte	Sample ID			MP-01A
	ALS Laboratory Sample ID			L2325882-1
	Sample Date & Time			8/8/2019 2:00:00 PM
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
pH	pH units	0.1	6.0 - 9.5	7.57
Total Suspended Solids	mg/L	2	<120	13.6
Alkalinity, Total (as CaCO ₃)	mg/L	10	-	245
Ammonia, Total (as N)	mg/L	0.02	-	5.21
Total Kjeldahl Nitrogen	mg/L	0.15	-	9.51
Phosphorus, Total	mg/L	0.003	-	0.256
Fecal Coliforms	CFU/100mL	0	10,000	23
BOD	mg/L	2	100	3.8
COD	mg/L	10	-	117
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0
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 5: Effluent Quality Discharge Limits for Sewage Treatment Facilities to the Ocean

TABLE 2.3 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MP-01B

Analyte	Sample ID			MP-01B
	ALS Laboratory Sample ID			L2323361-1
	Sample Date & Time			8/5/2019 14:30
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
pH	pH units	0.1	6.0 - 9.5	7.39
Total Suspended Solids	mg/L	2	<120	<2.0
Alkalinity, Total (as CaCO ₃)	mg/L	10	-	66
Ammonia, Total (as N)	mg/L	0.02	-	0.123
Total Kjeldahl Nitrogen	mg/L	0.15	-	1.87
Phosphorus, Total	mg/L	0.003	-	9.14
Fecal Coliforms	CFU/100mL	0	10,000	0
BOD	mg/L	2	100	<2.0
COD	mg/L	10	-	49
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 5: Effluent Quality Discharge Limits for Sewage Treatment Facilities to the Ocean

TABLE 2.4 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MP-03

Analyte	Sample ID			MP-03
	ALS Laboratory Sample ID			L2324693-1
	Sample Date & Time			8/6/2019 10:45:00 AM
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
pH	pH units	0.1	6.0 - 9.5	8.23
Total Suspended Solids	mg/L	2	-	3.6
Total Dissolved Solids	mg/L	20	-	396
Turbidity	NTU	0.1	-	2.85
Ammonia, Total (as N)	mg/L	0.01	-	0.016
Phosphorus, Total	mg/L	0.003	-	0.0098
Arsenic (As)-Total	mg/L	0.0001	-	0.00039
Copper (Cu)-Total	mg/L	0.001	-	0.0015
Lead (Pb)-Total	mg/L	0.00005	0.001	0.00018
Nickel (Ni)-Total	mg/L	0.0005	-	<0.00050
Zinc (Zn)-Total	mg/L	0.003	-	0.007
Oil and Grease, Total	mg/L	2	15	<2.0
Benzene	ug/L	0.5	370	<0.50
Ethylbenzene	ug/L	0.5	90	<0.50
Toluene	ug/L	0.5	2	<0.50
o-Xylene	ug/L	0.5	-	<0.50
m+p-Xylenes	ug/L	1	-	<1.0
Xylenes (Total)	ug/L	1.1	-	<1.1
F1 (C6-C10)	ug/L	100	-	<100
F1-BTEX	ug/L	100	-	<100
F2 (C10-C16)	ug/L	100	-	<100
F3 (C16-C34)	ug/L	250	-	<250
F4 (C34-C50)	ug/L	250	-	<250
Total Hydrocarbons (C6-C50)	ug/L	380	-	<380

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 5: Effluent Quality Discharge Limits for Sewage Treatment Facilities to the Ocean

TABLE 2.5 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MP-05

Analyte	Sample ID			MP-05
	ALS Laboratory Sample ID			L2324889-1
	Sample Date & Time			8/7/2019 2:55:00 PM
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
Hardness (as CaCO ₃)	mg/L	10	-	555
pH	pH units	0.1	6.0 - 9.5	8.34
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0
Total Dissolved Solids	mg/L	20	-	990
Turbidity	NTU	0.1	-	4.81
Alkalinity, Total (as CaCO ₃)	mg/L	10	-	173
Ammonia, Total (as N)	mg/L	0.02	-	0.152
Chloride (Cl)	mg/L	0.5	-	228
Fluoride (F)	mg/L	0.02	-	0.205
Nitrate (as N)	mg/L	0.02	-	5.86
Total Kjeldahl Nitrogen	mg/L	0.15	-	0.71
Phosphorus, Total	mg/L	0.003	-	0.0058
Sulfate (SO ₄)	mg/L	0.3	-	248
Dissolved Organic Carbon	mg/L	1	-	4.26
Total Organic Carbon	mg/L	1	-	5
Aluminum (Al)-Total	mg/L	0.01	-	0.0567
Arsenic (As)-Total	mg/L	0.0001	0.5	0.00022
Cadmium (Cd)-Total	mg/L	0.00001	-	<0.0000050
Calcium (Ca)-Total	mg/L	0.5	-	105
Copper (Cu)-Total	mg/L	0.001	0.3	0.0017
Iron (Fe)-Total	mg/L	0.05	-	0.087
Lead (Pb)-Total	mg/L	0.0001	0.2	0.000183
Magnesium (Mg)-Total	mg/L	0.05	-	73.7
Manganese (Mn)-Total	mg/L	0.0005	-	0.0941
Mercury (Hg)-Total	mg/L	0.00001	-	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.00005	-	0.00358
Nickel (Ni)-Total	mg/L	0.0005	0.5	0.00151
Potassium (K)-Total	mg/L	0.05	-	10.8
Selenium (Se)-Total	mg/L	0.00005	-	0.000451
Sodium (Na)-Total	mg/L	0.5	-	84.2
Thallium (Tl)-Total	mg/L	0.00001	-	0.000017
Uranium (U)-Total	mg/L	0.00001	-	0.0292
Zinc (Zn)-Total	mg/L	0.003	0.5	0.0091
Aluminum (Al)-Dissolved	mg/L	0.005	-	0.0148
Arsenic (As)-Dissolved	mg/L	0.0001	-	0.00022
Cadmium (Cd)-Dissolved	mg/L	0.00001	-	<0.000010
Calcium (Ca)-Dissolved	mg/L	0.05	-	105
Copper (Cu)-Dissolved	mg/L	0.0002	-	0.0015
Iron (Fe)-Dissolved	mg/L	0.01	-	0.014
Lead (Pb)-Dissolved	mg/L	0.00005	-	0.000068
Magnesium (Mg)-Dissolved	mg/L	0.05	-	71
Manganese (Mn)-Dissolved	mg/L	0.0005	-	0.0812
Mercury (Hg)-Dissolved	mg/L	0.00001	-	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.00005	-	0.0036
Nickel (Ni)-Dissolved	mg/L	0.0005	-	0.0012
Potassium (K)-Dissolved	mg/L	0.05	-	10.4
Selenium (Se)-Dissolved	mg/L	0.00005	-	0.000495
Sodium (Na)-Dissolved	mg/L	0.5	-	79.2
Thallium (Tl)-Dissolved	mg/L	0.00001	-	0.000017
Uranium (U)-Dissolved	mg/L	0.00001	-	0.0297
Zinc (Zn)-Dissolved	mg/L	0.001	-	0.0076
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 2.6 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MP-06

Analyte	Sample ID			MP-06
	ALS Laboratory Sample ID			L2329025-1
	Sample Date & Time			8/13/2019 1:15:00 PM
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
Hardness (as CaCO ₃)	mg/L	10	-	575
pH	pH units	0.1	6.0 - 9.5	8.25
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0
Total Dissolved Solids	mg/L	20	-	1040
Turbidity	NTU	0.1	-	1.97
Alkalinity, Total (as CaCO ₃)	mg/L	10	-	113
Ammonia, Total (as N)	mg/L	0.02	-	0.075
Chloride (Cl)	mg/L	0.5	-	198
Fluoride (F)	mg/L	0.02	-	0.166
Nitrate (as N)	mg/L	0.02	-	3.81
Total Kjeldahl Nitrogen	mg/L	0.15	-	0.76
Phosphorus, Total	mg/L	0.003	-	0.0053
Sulfate (SO ₄)	mg/L	0.3	-	343
Dissolved Organic Carbon	mg/L	1	-	4.64
Total Organic Carbon	mg/L	1	-	3.99
Aluminum (Al)-Total	mg/L	0.01	-	0.0411
Arsenic (As)-Total	mg/L	0.0001	0.5	0.00019
Cadmium (Cd)-Total	mg/L	0.00001	-	<0.0000050
Calcium (Ca)-Total	mg/L	0.5	-	91.9
Copper (Cu)-Total	mg/L	0.001	0.3	<0.0010
Iron (Fe)-Total	mg/L	0.05	-	0.063
Lead (Pb)-Total	mg/L	0.0001	0.2	0.000089
Magnesium (Mg)-Total	mg/L	0.05	-	90.1
Manganese (Mn)-Total	mg/L	0.0005	-	0.12
Mercury (Hg)-Total	mg/L	0.00001	-	<0.0000050
Molybdenum (Mo)-Total	mg/L	0.00005	-	0.00405
Nickel (Ni)-Total	mg/L	0.0005	0.5	0.00123
Potassium (K)-Total	mg/L	0.05	-	10.5
Selenium (Se)-Total	mg/L	0.00005	-	0.000772
Sodium (Na)-Total	mg/L	0.5	-	78.7
Thallium (Tl)-Total	mg/L	0.00001	-	0.00002
Uranium (U)-Total	mg/L	0.00001	-	0.0268
Zinc (Zn)-Total	mg/L	0.003	0.5	0.003
Aluminum (Al)-Dissolved	mg/L	0.005	-	0.0121
Arsenic (As)-Dissolved	mg/L	0.0001	-	0.00017
Cadmium (Cd)-Dissolved	mg/L	0.00001	-	<0.000010
Calcium (Ca)-Dissolved	mg/L	0.05	-	87.6
Copper (Cu)-Dissolved	mg/L	0.0002	-	0.00084
Iron (Fe)-Dissolved	mg/L	0.01	-	<0.010
Lead (Pb)-Dissolved	mg/L	0.00005	-	<0.000050
Magnesium (Mg)-Dissolved	mg/L	0.05	-	86.7
Manganese (Mn)-Dissolved	mg/L	0.0005	-	0.0743
Mercury (Hg)-Dissolved	mg/L	0.00001	-	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	0.00005	-	0.00414
Nickel (Ni)-Dissolved	mg/L	0.0005	-	0.00101
Potassium (K)-Dissolved	mg/L	0.05	-	10.3
Selenium (Se)-Dissolved	mg/L	0.00005	-	0.000872
Sodium (Na)-Dissolved	mg/L	0.5	-	76.2
Thallium (Tl)-Dissolved	mg/L	0.00001	-	0.000018
Uranium (U)-Dissolved	mg/L	0.00001	-	0.0258
Zinc (Zn)-Dissolved	mg/L	0.001	-	0.0018
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 2.7 -WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MP-C-B

Analyte	Sample ID			MP-C-B	MP-C-B	MP-C-B02	MP-C-B
	ALS Laboratory Sample ID			L2324618-5	L2328230-1	L2328230-3	L2333397-4
	Sample Date & Time			8/5/2019 6:15:00 PM	8/11/2019 9:40:00 AM	8/11/2019 9:40:00 AM	8/18/2019 12:55:00 PM
	QA/QC Sample Type			N/A	N/A	Field Blank	N/A
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	3	-	772	-	-	821
pH	pH units	0.1	6.0 - 9.5	8.31	8.24	5.68	8.24
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	3.3	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	470	569	14	547
Turbidity	NTU	0.1	-	1.09	1.73	0.22	1.6
Ammonia, Total (as N)	mg/L	0.02	-	0.146	-	-	0.231
Nitrate (as N)	mg/L	0.02	-	5.54	-	-	5.09
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-	-	<2.0

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.8 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MP-C-B01

Analyte	Sample ID			MP-C-B01	MP-C-B0102	MP-C-B01	MP-C-B01
	ALS Laboratory Sample ID			L2324618-4	L2324618-3	L2328230-2	L2333397-2
	Sample Date & Time			8/5/2019 2:30:00 PM	8/5/2019 2:30:00 PM	8/11/2019 10:00:00 AM	8/18/2019 12:35:00 PM
	QA/QC Sample Type			N/A	Field Blank	N/A	N/A
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	3	-	1750	<3.0	-	1860
pH	pH units	0.1	6.0 - 9.5	7.91	5.59	7.7	7.57
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0	3.1	<2.0
Total Dissolved Solids	mg/L	10	-	1230	<10	1450	1440
Turbidity	NTU	0.1	-	0.77	<0.10	0.23	0.22
Ammonia, Total (as N)	mg/L	0.02	-	1.5	<0.010	-	0.235
Nitrate (as N)	mg/L	0.02	-	6.19	<0.020	-	7.14
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	<2.0	-	<2.0

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.8 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MP-C-B01

Analyte	Sample ID			MP-C-B0103	MP-C-B01
	ALS Laboratory Sample ID			L2333397-3	L2335484-2
	Sample Date & Time			8/18/2019 12:35:00 PM	8/25/2019 12:15:00 PM
	QA/QC Sample Type			Travel Blank	N/A
	Units	LOR	Water Licence Criteria ¹		
Conductivity	umhos/cm	3	-	<3.0	-
pH	pH units	0.1	6.0 - 9.5	5.64	7.88
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	11	1250
Turbidity	NTU	0.1	-	0.11	0.74
Ammonia, Total (as N)	mg/L	0.02	-	<0.010	-
Nitrate (as N)	mg/L	0.02	-	<0.020	-
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.9 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MP-C-H

Analyte	Sample ID			MP-C-H	MP-C-H03	MP-C-H
	ALS Laboratory Sample ID			L2324618-1	L2324618-2	L2328230-5
	Sample Date & Time			8/5/2019 10:20:00 AM	8/5/2019 10:20:00 AM	8/11/2019 4:15:00 PM
	QA/QC Sample Type			N/A	Travel Blank	N/A
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	3	-	364	<3.0	-
pH	pH units	0.1	6.0 - 9.5	8.15	5.78	8.31
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	218	<10	205
Turbidity	NTU	0.1	-	0.4	0.17	0.23
Ammonia, Total (as N)	mg/L	0.02	-	0.038	0.016	-
Nitrate (as N)	mg/L	0.02	-	0.379	<0.020	-
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	<2.0	-

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.9 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MP-C-H

Analyte	Sample ID			MP-C-H	MP-C-H
	ALS Laboratory Sample ID			L2333397-5	L2335484-5
	Sample Date & Time			8/18/2019 1:40:00 PM	8/25/2019 3:30:00 PM
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
Conductivity	umhos/cm	3	-	403	-
pH	pH units	0.1	6.0 - 9.5	8.28	8.3
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	248	227
Turbidity	NTU	0.1	-	0.34	0.42
Ammonia, Total (as N)	mg/L	0.02	-	0.018	-
Nitrate (as N)	mg/L	0.02	-	0.144	-
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.10 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MP-Q1-02

Analyte	Sample ID			MP-Q1-02	MP-Q1-02	MP-Q1-02
	ALS Laboratory Sample ID			L2328230-6	L2333397-1	L2335484-3
	Sample Date & Time			8/12/2019 2:25:00 PM	8/18/2019 11:10:00 AM	8/25/2019 1:15:00 PM
	QA/QC Sample Type			N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	3	-	524	495	-
pH	pH units	0.1	6.0 - 9.5	8.14	8.05	8.13
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	3.1	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	325	299	257
Turbidity	NTU	0.1	-	3.6	2.01	2.24
Ammonia, Total (as N)	mg/L	0.02	-	1.18	1.32	-
Nitrate (as N)	mg/L	0.02	-	4.22	3.02	-
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	<2.0	-
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 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.10 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MP-Q1-02

Analyte	Sample ID			MP-Q1-0201
	ALS Laboratory Sample ID			L2335484-4
	Sample Date & Time			8/25/2019 1:15:00 PM
	QA/QC Sample Type			Field Duplicate
	Units	LOR	Water Licence Criteria ¹	
Conductivity	umhos/cm	3	-	-
pH	pH units	0.1	6.0 - 9.5	8.14
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0
Total Dissolved Solids	mg/L	10	-	282
Turbidity	NTU	0.1	-	2.37
Ammonia, Total (as N)	mg/L	0.02	-	-
Nitrate (as N)	mg/L	0.02	-	-
Oil and Grease, Total	mg/L	2	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 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.11 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - TR-BP-01

Analyte	Sample ID			TR-BP-01	TR-BP-01	TR-BP-01
	ALS Laboratory Sample ID			L2332433-1	L2337046-1	L2339824-1
	Sample Date & Time			8/20/2019 15:05:00 PM	8/27/2019 10:10:00 AM	8/31/2019 5:15:00 PM
	QA/QC Sample Type			N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	3	-	836	-	832
pH	pH units	0.1	6.0 - 9.5	7.98	7.96	8.03
Total Suspended Solids	mg/L	2	<120	4.8	<2.0	<2.0
Total Dissolved Soilds	mg/L	10	-	526	738	596
Turbidity	mg/L	0.02	-	2.19	2.59	2.99
Ammonia, Total (N)	mg/L	0.15	-	0.026	-	0.015
Nitrate (N)	mg/L	0.003	-	6.68	-	6.21
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-	<2.0
Acute Lethality	-	-	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

TABLE 2.12 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-01

Analyte	Sample ID			MS-01
	ALS Laboratory Sample ID			L2322707-1
	Sample Date & Time			8/5/2019 3:00:00 PM
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
pH	pH units	0.1	6.0 - 9.5	7.62
Total Suspended Solids	mg/L	2	35	10.8
Alkalinity, Total (as CaCO ₃)	mg/L	10	-	70
Ammonia, Total (as N)	mg/L	0.02	4	0.101
Total Kjeldahl Nitrogen	mg/L	0.15	-	2.06
Phosphorus, Total	mg/L	0.003	4	0.90
Fecal Coliforms	CFU/100mL	0	1,000	3
BOD	mg/L	2	30	<2.0
COD	mg/L	10	-	46
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 4: Effluent Quality Discharge Limits for Sewage Treatment Facilities to Freshwater Receiving Environment

TABLE 2.13 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-01B

Analyte	Sample ID			MS-01B
	ALS Laboratory Sample ID			L2322712-1
	Sample Date & Time			8/5/2019 2:30:00 PM
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
pH	pH units	0.1	6.0 - 9.5	8.24
Total Suspended Solids	mg/L	2	35	8.4
Alkalinity, Total (as CaCO ₃)	mg/L	10	-	231
Ammonia, Total (as N)	mg/L	0.02	4	0.027
Total Kjeldahl Nitrogen	mg/L	0.15	-	<0.15
Phosphorus, Total	mg/L	0.003	4	0.996
Fecal Coliforms	CFU/100mL	0	1,000	8
BOD	mg/L	2	30	<2.0
COD	mg/L	10	-	43
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 4: Effluent Quality Discharge Limits for Sewage Treatment Facilities to Freshwater Receiving Environment

TABLE 2.14 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-06

Analyte	Sample ID			MS-06
	ALS Laboratory Sample ID			L2338795-1
	Sample Date & Time			8/29/2019 5:30:00 PM
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteri ¹	
Conductivity	umhos/cm	3	6.0 - 9.5	2220
Hardness (as CaCO3)	mg/L	10	-	1430
pH	pH units	0.1	-	7.01
Total Suspended Solids	mg/L	2	15	4.7
Total Dissolved Solids	mg/L	10	-	1960
Turbidity	NTU	0.1	-	6.43
Acidity (as CaCO3)	mg/L	2	-	35
Alkalinity, Total (as CaCO3)	mg/L	10	-	<10
Ammonia, Total (as N)	mg/L	0.02	-	2.72
Chloride (Cl)	mg/L	0.5	-	26.9
Fluoride (F)	mg/L	0.02	-	<0.10
Nitrate (as N)	mg/L	0.02	-	10.2
Total Kjeldahl Nitrogen	mg/L	0.15	-	3.06
Phosphorus, Total	mg/L	0.003	-	<0.0030
Sulfate (SO4)	mg/L	0.3	-	1390
Cyanide, Total	mg/L	0.002	-	<20
Dissolved Organic Carbon	mg/L	1	-	0.59
Total Organic Carbon	mg/L	1	-	1.65
Aluminum (Al)-Total	mg/L	0.01	-	<0.050
Antimony (Sb)-Total	mg/L	0.0001	-	<0.0010
Arsenic (As)-Total	mg/L	0.0001	0.5	<0.0010
Barium (Ba)-Total	mg/L	0.0001	-	0.0213
Beryllium (Be)-Total	mg/L	0.0001	-	<0.0010
Bismuth (Bi)-Tota	mg/L	0.00005	-	<0.00050
Boron (B)-Tota	mg/L	0.01	-	<0.10
Cadmium (Cd)-Tota	mg/L	0.00001	-	0.000339
Calcium (Ca)-Tota	mg/L	0.5	-	106
Cesium (Cs)-Tota	mg/L	0.00001	-	<0.00010
Chromium (Cr)-Tota	mg/L	0.0005	-	<0.0050
Cobalt (Co)-Total	mg/L	0.0001	0.3	0.0895
Copper (Cu)-Tota	mg/L	0.001	-	<0.010
Iron (Fe)-Total	mg/L	0.05	-	0.14
Lead (Pb)-Tota	mg/L	0.0001	0.2	<0.00050
Lithium (Li)-Tota	mg/L	0.001	-	0.057
Magnesium (Mg)-Total	mg/L	0.05	-	280
Manganese (Mn)-Total	mg/L	0.0005	-	14.1
Mercury (Hg)-Total	mg/L	0.00001	-	<0.0000050
Molybdenum (Mo)-Tota	mg/L	0.00005	-	<0.00050
Nickel (Ni)-Total	mg/L	0.0005	0.5	0.0969
Phosphorus (P)-Tota	mg/L	0.05	-	<0.50
Potassium (K)-Tota	mg/L	0.05	-	11.7
Rubidium (Rb)-Tota	mg/L	0.0002	-	0.0155
Selenium (Se)-Total	mg/L	0.00005	-	0.00223
Silicon (Si)-Total	mg/L	0.1	-	2.2
Silver (Ag)-Total	mg/L	0.00005	-	<0.00050
Sodium (Na)-Total	mg/L	0.5	-	6.91
Strontium (Sr)-Total	mg/L	0.001	-	0.198
Sulfur (S)-Total	mg/L	0.5	-	471
Tellurium (Te)-Total	mg/L	0.0002	-	<0.0020
Thallium (Tl)-Total	mg/L	0.00001	-	0.00015
Thorium (Th)-Total	mg/L	0.0001	-	<0.0010
Tin (Sn)-Total	mg/L	0.0001	-	<0.0010
Titanium (Ti)-Total	mg/L	0.0008	-	<0.0030
Tungsten (W)-Total	mg/L	0.0001	-	<0.0010
Uranium (U)-Total	mg/L	0.00001	-	0.00012
Vanadium (V)-Total	mg/L	0.0005	-	<0.0050
Zinc (Zn)-Total	mg/L	0.003	0.5	<0.030
Zirconium (Zr)-Total	mg/L	0.0003	-	<0.0020
Aluminum (Al)-Dissolved	mg/L	0.005	-	<0.050
Antimony (Sb)-Dissolved	mg/L	0.0001	-	<0.0010
Arsenic (As)-Dissolved	mg/L	0.0001	-	<0.0010
Barium (Ba)-Dissolvec	mg/L	0.0001	-	0.0245
Beryllium (Be)-Dissolved	mg/L	0.0001	-	<0.0010
Bismuth (Bi)-Dissolvec	mg/L	0.00005	-	<0.00050
Boron (B)-Dissolvec	mg/L	0.01	-	<0.10
Cadmium (Cd)-Dissolvec	mg/L	0.00001	-	0.000367
Calcium (Ca)-Dissolvec	mg/L	0.05	-	105
Cesium (Cs)-Dissolvec	mg/L	0.00001	-	<0.00010
Chromium (Cr)-Dissolvec	mg/L	0.0005	-	<0.0050
Cobalt (Co)-Dissolvec	mg/L	0.0001	-	0.0881
Copper (Cu)-Dissolvec	mg/L	0.0002	-	<0.0020
Iron (Fe)-Dissolved	mg/L	0.01	-	<0.10
Lead (Pb)-Dissolvec	mg/L	0.00005	-	<0.00050
Lithium (Li)-Dissolvec	mg/L	0.001	-	0.061
Magnesium (Mg)-Dissolved	mg/L	0.05	-	283
Manganese (Mn)-Dissolved	mg/L	0.0005	-	14.1
Mercury (Hg)-Dissolved	mg/L	0.00001	-	<0.0000050
Molybdenum (Mo)-Dissolvec	mg/L	0.00005	-	<0.00050
Nickel (Ni)-Dissolved	mg/L	0.0005	-	0.0965
Phosphorus (P)-Dissolvec	mg/L	0.05	-	<0.50
Potassium (K)-Dissolvec	mg/L	0.05	-	11.7
Rubidium (Rb)-Dissolvec	mg/L	0.0002	-	0.0159
Selenium (Se)-Dissolved	mg/L	0.00005	-	0.00256
Silicon (Si)-Dissolved	mg/L	0.05	-	2.2
Silver (Ag)-Dissolved	mg/L	0.00005	-	<0.00050
Sodium (Na)-Dissolvec	mg/L	0.5	-	7.08
Strontium (Sr)-Dissolved	mg/L	0.001	-	0.201
Sulfur (S)-Dissolved	mg/L	0.5	-	475
Tellurium (Te)-Dissolved	mg/L	0.0002	-	<0.0020
Thallium (Tl)-Dissolved	mg/L	0.00001	-	0.00015
Thorium (Th)-Dissolvec	mg/L	0.0001	-	<0.0010
Tin (Sn)-Dissolved	mg/L	0.0001	-	<0.0010
Titanium (Ti)-Dissolved	mg/L	0.0003	-	<0.0030
Tungsten (W)-Dissolved	mg/L	0.0001	-	<0.0010
Uranium (U)-Dissolvec	mg/L	0.00001	-	0.00013
Vanadium (V)-Dissolved	mg/L	0.0005	-	<0.0050
Zinc (Zn)-Dissolved	mg/L	0.001	-	0.02
Zirconium (Zr)-Dissolved	mg/L	0.0003	-	<0.0020
Ra-226	Bq/L	0.0048	-	0.013
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 2.15 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-08

Analyte	Sample ID			MS-08	MS-0801
	ALS Laboratory Sample ID			L2322602-1	L2322602-2
	Sample Date & Time			8/5/2019 4:50:00 PM	8/5/2019 4:50:00 PM
	QA/QC Sample Type			N/A	Field Duplicate
	Units	LOR	Water Licence Criteria ¹		
Conductivity	umhos/crr	3	-	6620	6610
Hardness (as CaCO3)	mg/L	10	-	5570	5530
pH	pH units	0.1	6.0-9.5	8.07	8.13
Total Suspended Solids	mg/L	2	15	6.8	6.4
Total Dissolved Solids	mg/L	20	-	7990	7940
Turbidity	NTU	0.1	-	8.2	8.35
Acidity (as CaCO3)	mg/L	2	-	6.2	5.1
Alkalinity, Total (as CaCO3)	mg/L	10	-	10	10
Ammonia, Total (as N)	mg/L	0.1	-	8.65	9.14
Chloride (Cl)	mg/L	0.5	-	20.1	20
Fluoride (F)	mg/L	0.02	-	0.12	0.15
Nitrate (as N)	mg/L	0.02	-	27.9	27.6
Total Kjeldahl Nitrogen	mg/L	0.15	-	8.73	8.21
Phosphorus, Total	mg/L	0.03	-	<0.0030	<0.0030
Sulfate (SO4)	mg/L	0.3	-	5470	5400
Cyanide, Total	mg/L	0.002	-	0.0366	0.024
Dissolved Organic Carbon	mg/L	0.5	-	3.22	3.37
Total Organic Carbon	mg/L	0.5	-	3.54	3.87
Aluminum (Al)-Total	mg/L	0.05	-	<0.050	0.193
Antimony (Sb)-Total	mg/L	0.001	-	<0.0010	<0.0010
Arsenic (As)-Total	mg/L	0.001	0.5	<0.0010	<0.0010
Barium (Ba)-Total	mg/L	0.001	-	0.0307	0.0265
Beryllium (Be)-Total	mg/L	0.001	-	<0.0010	<0.0010
Bismuth (Bi)-Tota	mg/L	0.0005	-	<0.00050	<0.00050
Boron (B)-Tota	mg/L	0.1	-	<0.10	<0.10
Cadmium (Cd)-Tota	mg/L	0.00005	-	<0.000050	<0.000050
Calcium (Ca)-Tota	mg/L	0.5	-	662	529
Cesium (Cs)-Tota	mg/L	0.0001	-	0.00013	0.00011
Chromium (Cr)-Tota	mg/L	0.005	-	<0.0050	<0.0050
Cobalt (Co)-Total	mg/L	0.001	-	0.0157	0.0129
Copper (Cu)-Tota	mg/L	0.01	0.3	<0.010	<0.010
Iron (Fe)-Total	mg/L	0.1	-	1.98	1.68
Lead (Pb)-Tota	mg/L	0.0005	0.2	<0.00050	0.00068
Lithium (Li)-Tota	mg/L	0.01	-	0.094	0.074
Magnesium (Mg)-Total	mg/L	0.05	-	1030	792
Manganese (Mn)-Total	mg/L	0.005	-	16.3	12.6
Mercury (Hg)-Total	mg/L	0.00001	-	<0.0000050	<0.0000050
Molybdenum (Mo)-Tota	mg/L	0.0005	-	0.00059	0.00056
Nickel (Ni)-Total	mg/L	0.005	0.5	0.0139	0.0131
Phosphorus (P)-Tota	mg/L	0.5	-	<0.50	<0.50
Potassium (K)-Tota	mg/L	0.5	-	7.98	6.59
Rubidium (Rb)-Tota	mg/L	0.002	-	0.0152	0.0122
Selenium (Se)-Total	mg/L	0.0005	-	0.00852	0.00613
Silicon (Si)-Total	mg/L	1	-	<1.0	<1.0
Silver (Ag)-Total	mg/L	0.0005	-	<0.00050	<0.00050
Sodium (Na)-Total	mg/L	0.5	-	6.97	10.3
Strontium (Sr)-Total	mg/L	0.01	-	1.25	1
Sulfur (S)-Total	mg/L	5	-	1980	1510
Tellurium (Te)-Total	mg/L	0.002	-	<0.0020	<0.0020
Thallium (Tl)-Total	mg/L	0.0001	-	0.00012	<0.00010
Thorium (Th)-Total	mg/L	0.001	-	<0.0010	<0.0010
Tin (Sn)-Total	mg/L	0.001	-	<0.0010	0.0014
Titanium (Ti)-Total	mg/L	0.003	-	<0.0030	<0.0030
Tungsten (W)-Total	mg/L	0.001	-	<0.0010	<0.0010
Uranium (U)-Total	mg/L	0.0001	-	0.0003	0.00047
Vanadium (V)-Total	mg/L	0.005	-	<0.0050	<0.0050
Zinc (Zn)-Total	mg/L	0.03	0.5	<0.030	0.06
Zirconium (Zr)-Total	mg/L	0.003	-	<0.0020	<0.0020
Aluminum (Al)-Dissolved	mg/L	0.05	-	<0.050	<0.050
Antimony (Sb)-Dissolved	mg/L	0.001	-	<0.0010	<0.0010
Arsenic (As)-Dissolved	mg/L	0.001	-	<0.0010	<0.0010
Barium (Ba)-Dissolvec	mg/L	0.001	-	0.0295	0.0289
Beryllium (Be)-Dissolved	mg/L	0.001	-	<0.0010	<0.0010
Bismuth (Bi)-Dissolvec	mg/L	0.0005	-	<0.00050	<0.00050
Boron (B)-Dissolvec	mg/L	0.1	-	<0.10	<0.10
Cadmium (Cd)-Dissolvec	mg/L	0.00005	-	<0.000050	<0.000050
Calcium (Ca)-Dissolvec	mg/L	0.5	-	652	656
Cesium (Cs)-Dissolvec	mg/L	0.0001	-	0.00013	0.00014
Chromium (Cr)-Dissolvec	mg/L	0.005	-	<0.0050	<0.0050
Cobalt (Co)-Dissolvec	mg/L	0.001	-	0.0143	0.0143
Copper (Cu)-Dissolvec	mg/L	0.002	-	0.0061	0.0061
Iron (Fe)-Dissolved	mg/L	0.1	-	<0.10	<0.10
Lead (Pb)-Dissolvec	mg/L	0.0005	-	<0.00050	<0.00050
Lithium (Li)-Dissolvec	mg/L	0.01	-	0.087	0.087
Magnesium (Mg)-Dissolved	mg/L	0.05	-	956	944
Manganese (Mn)-Dissolved	mg/L	0.005	-	16	15.7
Mercury (Hg)-Dissolved	mg/L	0.00001	-	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolvec	mg/L	0.0005	-	0.00054	0.00057
Nickel (Ni)-Dissolved	mg/L	0.005	-	0.0121	0.0123
Phosphorus (P)-Dissolvec	mg/L	0.5	-	<0.50	<0.50
Potassium (K)-Dissolvec	mg/L	0.5	-	7.85	7.81
Rubidium (Rb)-Dissolvec	mg/L	0.002	-	0.0145	0.0144
Selenium (Se)-Dissolved	mg/L	0.0005	-	0.00812	0.00853
Silicon (Si)-Dissolved	mg/L	0.5	-	0.67	0.68
Silver (Ag)-Dissolved	mg/L	0.0005	-	<0.00050	<0.00050
Sodium (Na)-Dissolved	mg/L	0.5	-	6.3	6.3
Strontium (Sr)-Dissolved	mg/L	0.01	-	1.27	1.3
Sulfur (S)-Dissolved	mg/L	5	-	1820	1830
Tellurium (Te)-Dissolved	mg/L	0.002	-	<0.0020	<0.0020
Thallium (Tl)-Dissolved	mg/L	0.0001	-	0.00012	0.00012
Thorium (Th)-Dissolvec	mg/L	0.001	-	<0.0010	<0.0010
Tin (Sn)-Dissolved	mg/L	0.001	-	<0.0010	<0.0010
Titanium (Ti)-Dissolved	mg/L	0.003	-	<0.0030	<0.0030
Tungsten (W)-Dissolved	mg/L	0.001	-	<0.0010	<0.0010
Uranium (U)-Dissolvec	mg/L	0.0001	-	0.00033	0.00035
Vanadium (V)-Dissolved	mg/L	0.005	-	<0.0050	<0.0050
Zinc (Zn)-Dissolved	mg/L	0.01	-	<0.010	<0.010
Zirconium (Zr)-Dissolved	mg/L	0.003	-	<0.0020	<0.0020
Ra-226	Bq/L	0.0044	-	0.091	0.076
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 2.16 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-MRY-09

Analyte	Sample ID			MS-MRY-9	MS-MRY-09
	ALS Laboratory Sample ID			L2323293-14	L2328316-11
	Sample Date & Time			8/6/2019 12:35:00 PM	8/11/2019 2:15:00 PM
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
Hardness	mg/L	0.05	-	73.7	-
pH	pH units	0.1	6.0 - 9.5	8.10	8.06
Total Suspended Solids	mg/L	2	15	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	98	86
Turbidity	NTU	0.1	-	0.35	0.47
Alkalinity, Total (as CaCO3)	mg/L	10	-	71	-
Ammonia, Total (as N)	mg/L	0.02	-	<0.010	-
Chloride (Cl)	mg/L	0.02	-	1.14	-
Fluoride (F)	mg/L	10	-	<0.020	-
Nitrate (as N)	mg/L	0.01	-	0.055	-
Total Kjeldahl Nitrogen	mg/L	0.5	-	<0.15	-
Phosphorus, Total	mg/L	0.02	-	0.0032	-
Sulfate (SO4)	mg/L	0.02	-	4.19	-
Dissolved Organic Carbon	mg/L	0.5	-	1.95	-
Total Organic Carbon	mg/L	0.5	-	2.09	-
Aluminum (Al)-Total	mg/L	0.005	-	0.0176	-
Arsenic (As)-Total	mg/L	1E-04	0.5	<0.00010	-
Cadmium (Cd)-Total	mg/L	5E-06	-	<0.0000050	-
Calcium (Ca)-Total	mg/L	0.05	-	13.80	-
Copper (Cu)-Total	mg/L	0.001	0.3	0.0024	-
Iron (Fe)-Total	mg/L	0.01	-	<0.050	-
Lead (Pb)-Total	mg/L	5E-05	0.2	<0.000050	-
Magnesium (Mg)-Total	mg/L	0.005	-	8.93	-
Manganese (Mn)-Total	mg/L	5E-04	-	0.00069	-
Mercury (Hg)-Total	mg/L	1E-05	-	<0.0000050	-
Molybdenum (Mo)-Total	mg/L	5E-05	-	0.001030	-
Nickel (Ni)-Total	mg/L	5E-04	0.5	<0.00050	-
Potassium (K)-Total	mg/L	0.05	-	2.23	-
Selenium (Se)-Total	mg/L	5E-05	-	0.000072	-
Sodium (Na)-Total	mg/L	0.05	-	0.623	-
Thallium (Tl)-Total	mg/L	1E-05	-	0.000015	-
Uranium (U)-Total	mg/L	1E-05	-	0.00391	-
Zinc (Zn)-Total	mg/L	0.003	0.5	<0.0030	-
Aluminum (Al)-Dissolved	mg/L	0.005	-	0.0088	-
Arsenic (As)-Dissolved	mg/L	1E-04	-	<0.00010	-
Cadmium (Cd)-Dissolved	mg/L	1E-05	-	<0.000010	-
Calcium (Ca)-Dissolved	mg/L	0.05	-	14.50	-
Copper (Cu)-Dissolved	mg/L	2E-04	-	0.00235	-
Iron (Fe)-Dissolved	mg/L	0.01	-	<0.010	-
Lead (Pb)-Dissolved	mg/L	5E-05	-	<0.000050	-
Magnesium (Mg)-Dissolved	mg/L	0.05	-	9.12	-
Manganese (Mn)-Dissolved	mg/L	5E-04	-	0.00065	-
Mercury (Hg)-Dissolved	mg/L	1E-05	-	<0.0000050	-
Molybdenum (Mo)-Dissolved	mg/L	5E-05	-	0.001090	-
Nickel (Ni)-Dissolved	mg/L	5E-04	-	<0.00050	-
Potassium (K)-Dissolved	mg/L	0.05	-	2.19	-
Selenium (Se)-Dissolved	mg/L	5E-05	-	<0.000050	-
Sodium (Na)-Dissolved	mg/L	0.5	-	0.61	-
Thallium (Tl)-Dissolved	mg/L	1E-05	-	0.000015	-
Uranium (U)-Dissolved	mg/L	1E-05	-	0.003560	-
Zinc (Zn)-Dissolved	mg/L	0.001	-	<0.0010	-
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 2.16 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-MRY-09

Analyte	Sample ID			MS-MRY-09	MS-MRY-0903
	ALS Laboratory Sample ID			L2333390-1	L2333390-2
	Sample Date & Time			8/18/2019 12:05:00 PM	8/18/2019 12:05:00 PM
	QA/QC Sample Type			N/A	Travel Blank
	Units	LOR	Water Licence Criteria ¹		
Hardness	mg/L	0.05	-	81.5	<0.50
pH	pH units	0.1	6.0 - 9.5	8.04	5.49
Total Suspended Solids	mg/L	2	15	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	99	<10
Turbidity	NTU	0.1	-	0.19	<0.10
Alkalinity, Total (as CaCO3)	mg/L	10	-	80	<10
Ammonia, Total (as N)	mg/L	0.02	-	<0.010	<0.010
Chloride (Cl)	mg/L	0.02	-	1.87	<0.50
Fluoride (F)	mg/L	10	-	<0.020	<0.020
Nitrate (as N)	mg/L	0.01	-	0.093	<0.020
Total Kjeldahl Nitrogen	mg/L	0.5	-	0.22	<0.15
Phosphorus, Total	mg/L	0.02	-	0.0075	<0.0030
Sulfate (SO4)	mg/L	0.02	-	7.35	<0.30
Dissolved Organic Carbon	mg/L	0.5	-	1.72	<0.50
Total Organic Carbon	mg/L	0.5	-	2.11	0.53
Aluminum (Al)-Total	mg/L	0.005	-	0.0154	<0.0050
Arsenic (As)-Total	mg/L	1E-04	0.5	<0.00010	<0.00010
Cadmium (Cd)-Total	mg/L	5E-06	-	<0.0000050	<0.0000050
Calcium (Ca)-Total	mg/L	0.05	-	15.7	<0.50
Copper (Cu)-Total	mg/L	0.001	0.3	0.0022	<0.0010
Iron (Fe)-Total	mg/L	0.01	-	<0.050	<0.050
Lead (Pb)-Total	mg/L	5E-05	0.2	<0.000050	<0.000050
Magnesium (Mg)-Total	mg/L	0.005	-	10.1	<0.050
Manganese (Mn)-Total	mg/L	5E-04	-	0.00089	<0.00050
Mercury (Hg)-Total	mg/L	1E-05	-	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L	5E-05	-	0.00142	<0.000050
Nickel (Ni)-Total	mg/L	5E-04	0.5	<0.00050	<0.00050
Potassium (K)-Total	mg/L	0.05	-	2.57	<0.050
Selenium (Se)-Total	mg/L	5E-05	-	0.000112	<0.000050
Sodium (Na)-Total	mg/L	0.05	-	0.735	<0.050
Thallium (Tl)-Total	mg/L	1E-05	-	0.000015	<0.000010
Uranium (U)-Total	mg/L	1E-05	-	0.00647	<0.000010
Zinc (Zn)-Total	mg/L	0.003	0.5	<0.0030	<0.0030
Aluminum (Al)-Dissolved	mg/L	0.005	-	0.0077	<0.0050
Arsenic (As)-Dissolved	mg/L	1E-04	-	<0.00010	<0.00010
Cadmium (Cd)-Dissolved	mg/L	1E-05	-	<0.000010	<0.000010
Calcium (Ca)-Dissolved	mg/L	0.05	-	15.9	<0.050
Copper (Cu)-Dissolved	mg/L	2E-04	-	0.00213	<0.00020
Iron (Fe)-Dissolved	mg/L	0.01	-	<0.010	<0.010
Lead (Pb)-Dissolved	mg/L	5E-05	-	<0.000050	<0.000050
Magnesium (Mg)-Dissolved	mg/L	0.05	-	10.1	<0.050
Manganese (Mn)-Dissolved	mg/L	5E-04	-	0.00069	<0.00050
Mercury (Hg)-Dissolved	mg/L	1E-05	-	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L	5E-05	-	0.00137	<0.000050
Nickel (Ni)-Dissolved	mg/L	5E-04	-	<0.00050	<0.00050
Potassium (K)-Dissolved	mg/L	0.05	-	2.56	<0.050
Selenium (Se)-Dissolved	mg/L	5E-05	-	0.000114	<0.000050
Sodium (Na)-Dissolved	mg/L	0.5	-	0.75	<0.50
Thallium (Tl)-Dissolved	mg/L	1E-05	-	0.000013	<0.000010
Uranium (U)-Dissolved	mg/L	1E-05	-	0.00613	<0.000010
Zinc (Zn)-Dissolved	mg/L	0.001	-	<0.0010	<0.0010
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 2.16 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-MRY-09

Analyte	Sample ID			MS-MRY-9
	ALS Laboratory Sample ID			L2335474-13
	Sample Date & Time			8/25/2019 2:05:00 PM
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
Hardness	mg/L	0.05	-	-
pH	pH units	0.1	6.0 - 9.5	8.13
Total Suspended Solids	mg/L	2	15	<2.0
Total Dissolved Solids	mg/L	10	-	97
Turbidity	NTU	0.1	-	0.23
Alkalinity, Total (as CaCO3)	mg/L	10	-	-
Ammonia, Total (as N)	mg/L	0.02	-	-
Chloride (Cl)	mg/L	0.02	-	-
Fluoride (F)	mg/L	10	-	-
Nitrate (as N)	mg/L	0.01	-	-
Total Kjeldahl Nitrogen	mg/L	0.5	-	-
Phosphorus, Total	mg/L	0.02	-	-
Sulfate (SO4)	mg/L	0.02	-	-
Dissolved Organic Carbon	mg/L	0.5	-	-
Total Organic Carbon	mg/L	0.5	-	-
Aluminum (Al)-Total	mg/L	0.005	-	-
Arsenic (As)-Total	mg/L	1E-04	0.5	-
Cadmium (Cd)-Total	mg/L	5E-06	-	-
Calcium (Ca)-Total	mg/L	0.05	-	-
Copper (Cu)-Total	mg/L	0.001	0.3	-
Iron (Fe)-Total	mg/L	0.01	-	-
Lead (Pb)-Total	mg/L	5E-05	0.2	-
Magnesium (Mg)-Total	mg/L	0.005	-	-
Manganese (Mn)-Total	mg/L	5E-04	-	-
Mercury (Hg)-Total	mg/L	1E-05	-	-
Molybdenum (Mo)-Total	mg/L	5E-05	-	-
Nickel (Ni)-Total	mg/L	5E-04	0.5	-
Potassium (K)-Total	mg/L	0.05	-	-
Selenium (Se)-Total	mg/L	5E-05	-	-
Sodium (Na)-Total	mg/L	0.05	-	-
Thallium (Tl)-Total	mg/L	1E-05	-	-
Uranium (U)-Total	mg/L	1E-05	-	-
Zinc (Zn)-Total	mg/L	0.003	0.5	-
Aluminum (Al)-Dissolved	mg/L	0.005	-	-
Arsenic (As)-Dissolved	mg/L	1E-04	-	-
Cadmium (Cd)-Dissolved	mg/L	1E-05	-	-
Calcium (Ca)-Dissolved	mg/L	0.05	-	-
Copper (Cu)-Dissolved	mg/L	2E-04	-	-
Iron (Fe)-Dissolved	mg/L	0.01	-	-
Lead (Pb)-Dissolved	mg/L	5E-05	-	-
Magnesium (Mg)-Dissolved	mg/L	0.05	-	-
Manganese (Mn)-Dissolved	mg/L	5E-04	-	-
Mercury (Hg)-Dissolved	mg/L	1E-05	-	-
Molybdenum (Mo)-Dissolved	mg/L	5E-05	-	-
Nickel (Ni)-Dissolved	mg/L	5E-04	-	-
Potassium (K)-Dissolved	mg/L	0.05	-	-
Selenium (Se)-Dissolved	mg/L	5E-05	-	-
Sodium (Na)-Dissolved	mg/L	0.5	-	-
Thallium (Tl)-Dissolved	mg/L	1E-05	-	-
Uranium (U)-Dissolved	mg/L	1E-05	-	-
Zinc (Zn)-Dissolved	mg/L	0.001	-	-
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 2.17 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-MRY-13B

Analyte	Sample ID			MS-MRY-13B	MS-MRY-13B
	ALS Laboratory Sample ID			L2323293-13	L2328316-15
	Sample Date & Time			8/6/2019 9:25:00 AM	8/11/2019 4:10:00 PM
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
Conductivity	umhos/cm	3	-	1300	-
pH	pH units	0.1	6.0 - 9.5	8.11	8.16
Total Suspended Solids	mg/L	2	15	<2.0	<2.0
Total Dissolved Soilds	mg/L	10	-	838	1260
Turbidity	NTU	0.1	-	0.51	0.3
Alkalinity, Total (as CaCO3)	mg/L	10		147	-
Dissolved Organic Carbon	mg/L	0.005	-	4.52	-
Total Organic Carbon	mg/L	0.0001	-	4.75	-
Aluminum (Al)-Total	mg/L	0.0001	-	0.0093	-
Antimony (Sb)-Total	mg/L	0.0002	-	<0.00010	-
Arsenic (As)-Total	mg/L	0.0001	0.5	0.0001600	-
Barium (Ba)-Total	mg/L	0.00005	-	0.1	-
Beryllium (Be)-Total	mg/L	0.01	-	<0.00010	-
Bismuth (Bi)-Total	mg/L	0.00001	-	<0.000050	-
Boron (B)-Total	mg/L	0.5	-	0.1920	-
Cadmium (Cd)-Total	mg/L	0.0005	-	0.000	-
Calcium (Ca)-Total	mg/L	0.0001	-	142	-
Chromium (Cr)-Total	mg/L	0.001	-	0.0006	-
Cobalt (Co)-Total	mg/L	0.05	-	<0.00010	-
Copper (Cu)-Total	mg/L	0.00005	0.3	0.00150	-
Iron (Fe)-Total	mg/L	0.001	-	0.029	-
Lead (Pb)-Total	mg/L	0.05	0.2	<0.000050	-
Lithium (Li)-Total	mg/L	0.0005	-	0.04440	-
Magnesium (Mg)-Total	mg/L	0.00001	-	54.70	-
Manganese (Mn)-Total	mg/L	0.00005	-	0.000980	-
Mercury (Hg)-Total	mg/L	0.0005	-	<0.0000050	-
Molybdenum (Mo)-Total	mg/L	0.05	-	0.000236	-
Nickel (Ni)-Total	mg/L	0.00005	0.5	0.00883	-
Potassium (K)-Total	mg/L	0.1	-	3.0500	-
Selenium (Se)-Total	mg/L	0.00005	-	0.000076	-
Silicon (Si)-Total	mg/L	0.5	-	4.74	-
Silver (Ag)-Total	mg/L	0.001	-	<0.000050	-
Sodium (Na)-Total	mg/L	0.00001	-	26.3	-
Strontium (Sr)-Total	mg/L	0.0001	-	0.18900	-
Thallium (Tl)-Total	mg/L	0.0003	-	0.000018	-
Tin (Sn)-Total	mg/L	0.0001	-	<0.00010	-
Titanium (Ti)-Total	mg/L	0.00001	-	0.00031	-
Tungsten (W)-Total	mg/L	0.0005	-	<0.00010	-
Uranium (U)-Total	mg/L	0.003	-	0.0035	-
Vanadium (V)-Total	mg/L	0.0003	-	<0.00050	-
Zinc (Zn)-Total	mg/L	2	0.5	<0.0030	-
Zirconium (Zr)-Total	mg/L	0.001	-	<0.00030	-
Oil and Grease, Total	ug/L	100	No Visible Sheen	<2.0	-
Phenols (4AAP)	ug/L	250	-	<0.0010	-
F1 (C6-C10)	ug/L	100	-	<100	-
F2 (C10-C16)	ug/L	100	-	<100	-
F3 (C16-C34)	ug/L	250	-	<250	-
F4 (C34-C50)	ug/L	250	-	<250	-
Total Hydrocarbons (C6-C50)	ug/L	380	-	<380	-

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 7: Effluent Quality Discharge Limits for the Landfill Facilities

TABLE 2.17 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-MRY-13B

Analyte	Sample ID			MS-MRY-13B	MS-MRY-13B
	ALS Laboratory Sample ID			L2333390-3	L2335474-3
	Sample Date & Time			8/18/2019 10:10:00 AM	8/25/2019 10:20:00 AM
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
Conductivity	umhos/cm	3	-	1410	-
pH	pH units	0.1	6.0 - 9.5	8.03	8
Total Suspended Solids	mg/L	2	15	<2.0	<2.0
Total Dissolved Soilds	mg/L	10	-	1050	1180
Turbidity	NTU	0.1	-	-	0
Alkalinity, Total (as CaCO3)	mg/L	10		160	-
Dissolved Organic Carbon	mg/L	0.005	-	4.50	-
Total Organic Carbon	mg/L	0.0001	-	4.53	-
Aluminum (Al)-Total	mg/L	0.0001	-	<0.0050	-
Antimony (Sb)-Total	mg/L	0.0002	-	<0.00010	-
Arsenic (As)-Total	mg/L	0.0001	0.5	0.00016	-
Barium (Ba)-Total	mg/L	0.00005	-	0.104	-
Beryllium (Be)-Total	mg/L	0.01	-	<0.00010	-
Bismuth (Bi)-Total	mg/L	0.00001	-	<0.000050	-
Boron (B)-Total	mg/L	0.5	-	0.335	-
Cadmium (Cd)-Total	mg/L	0.0005	-	0.0000110	-
Calcium (Ca)-Total	mg/L	0.0001	-	147	-
Chromium (Cr)-Total	mg/L	0.001	-	<0.00050	-
Cobalt (Co)-Total	mg/L	0.05	-	0.00010	-
Copper (Cu)-Total	mg/L	0.00005	0.3	0.0012	-
Iron (Fe)-Total	mg/L	0.001	-	0.026	-
Lead (Pb)-Total	mg/L	0.05	0.2	<0.000050	-
Lithium (Li)-Total	mg/L	0.0005	-	0.0559	-
Magnesium (Mg)-Total	mg/L	0.00001	-	52.9	-
Manganese (Mn)-Total	mg/L	0.00005	-	0.00136	-
Mercury (Hg)-Total	mg/L	0.0005	-	<0.0000050	-
Molybdenum (Mo)-Total	mg/L	0.05	-	0.000295	-
Nickel (Ni)-Total	mg/L	0.00005	0.5	0.00852	-
Potassium (K)-Total	mg/L	0.1	-	3.17	-
Selenium (Se)-Total	mg/L	0.00005	-	0.000087	-
Silicon (Si)-Total	mg/L	0.5	-	4.67	-
Silver (Ag)-Total	mg/L	0.001	-	<0.000050	-
Sodium (Na)-Total	mg/L	0.00001	-	28.1	-
Strontium (Sr)-Total	mg/L	0.0001	-	0.208	-
Thallium (Tl)-Total	mg/L	0.0003	-	0.000020	-
Tin (Sn)-Total	mg/L	0.0001	-	<0.00010	-
Titanium (Ti)-Total	mg/L	0.00001	-	<0.00030	-
Tungsten (W)-Total	mg/L	0.0005	-	<0.00010	-
Uranium (U)-Total	mg/L	0.003	-	0.00555	-
Vanadium (V)-Total	mg/L	0.0003	-	<0.00050	-
Zinc (Zn)-Total	mg/L	2	0.5	<0.0030	-
Zirconium (Zr)-Total	mg/L	0.001	-	<0.00030	-
Oil and Grease, Total	ug/L	100	No Visible Sheen	<2.0	-
Phenols (4AAP)	ug/L	250	-	<0.0010	-
F1 (C6-C10)	ug/L	100	-	<100	-
F2 (C10-C16)	ug/L	100	-	<100	-
F3 (C16-C34)	ug/L	250	-	<250	-
F4 (C34-C50)	ug/L	250	-	<250	-
Total Hydrocarbons (C6-C50)	ug/L	380	-	<380	-

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 7: Effluent Quality Discharge Limits for the Landfill Facilities

TABLE 2.18 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-A

Analyte	Sample ID			MS-C-A	MS-C-A	MS-C-A
	ALS Laboratory Sample ID			L2323293-7	L2328316-7	L2333390-12
	Sample Date & Time			8/5/2019 12:35:00 PM	8/11/2019 10:15:00 AM	8/18/2019 3:30:00 PM
	QA/QC Sample Type			N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	3	-	199	-	223
pH	pH units	0.1	6.0 - 9.5	7.91	7.99	7.97
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	109	156	136
Turbidity	NTU	0.1	-	0.54	0.29	0.32
Ammonia, Total (as N)	mg/L	0.02	-	<0.010	-	<0.010
Nitrate (as N)	mg/L	0.02	-	0.159	-	0.209
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-	<2.0

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.18 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-A

Analyte	Sample ID			MS-C-A
	ALS Laboratory Sample ID			L2335474-6
	Sample Date & Time			8/25/2019 11:25:00 AM
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
Conductivity	umhos/cm	3	-	-
pH	pH units	0.1	6.0 - 9.5	7.97
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0
Total Dissolved Solids	mg/L	10	-	126
Turbidity	NTU	0.1	-	0.4
Ammonia, Total (as N)	mg/L	0.02	-	-
Nitrate (as N)	mg/L	0.02	-	-
Oil and Grease, Total	mg/L	2	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: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.19 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-B

Analyte	Sample ID			MS-C-B	MS-C-B	MS-C-B
	ALS Laboratory Sample ID			L2323293-8	L2328316-8	L2333390-13
	Sample Date & Time			8/5/2019 12:50:00 PM	8/11/2019 10:40:00 AM	8/18/2019 4:00:00 PM
	QA/QC Sample Type			N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	3	-	203	-	233
pH	pH units	0.1	6.0 - 9.5	7.87	7.94	7.89
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	107	129	135
Turbidity	NTU	0.1	-	0.35	0.34	0.4
Ammonia, Total (as N)	mg/L	0.02	-	<0.010	-	<0.010
Nitrate (as N)	mg/L	0.02	-	0.185	-	0.278
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-	-

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.19 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-B

Analyte	Sample ID			MS-C-B
	ALS Laboratory Sample ID			L2335474-7
	Sample Date & Time			8/25/2019 11:50:00 AM
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
Conductivity	umhos/cm	3	-	-
pH	pH units	0.1	6.0 - 9.5	7.83
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0
Total Dissolved Solids	mg/L	10	-	136
Turbidity	NTU	0.1	-	0.5
Ammonia, Total (as N)	mg/L	0.02	-	-
Nitrate (as N)	mg/L	0.02	-	-
Oil and Grease, Total	mg/L	2	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: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.20 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-C

Analyte	Sample ID			MS-C-C	MS-C-C	MS-C-C
	ALS Laboratory Sample ID			L2323293-6	L2328316-6	L2333390-11
	Sample Date & Time			8/5/2019 10:55:00 AM	8/11/2019 9:55:00 AM	8/18/2019 14:50:00 PM
	QA/QC Sample Type			N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	3	-	1190	-	1280
pH	pH units	0.1	6.0 - 9.5	7.91	8.02	8.05
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	840	991	960
Turbidity	NTU	0.1	-	0.66	0.37	0.37
Ammonia, Total (as N)	mg/L	0.02	-	<0.010	-	<0.010
Nitrate (as N)	mg/L	0.02	-	11.7	-	14.4
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-	<2.0

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.20 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-C

Analyte	Sample ID			MS-C-C
	ALS Laboratory Sample ID			L2335474-10
	Sample Date & Time			8/25/2019 12:55:00 PM
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
Conductivity	umhos/cm	3	-	-
pH	pH units	0.1	6.0 - 9.5	8.03
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0
Total Dissolved Solids	mg/L	10	-	952
Turbidity	NTU	0.1	-	0.2
Ammonia, Total (as N)	mg/L	0.02	-	-
Nitrate (as N)	mg/L	0.02	-	-
Oil and Grease, Total	mg/L	2	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: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.21 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-D

Analyte	Sample ID			MS-C-D	MS-C-D01	MS-C-D	MS-C-D
	ALS Laboratory Sample ID			L2323293-4	L2323293-5	L2328316-5	L2333390-10
	Sample Date & Time			8/5/2019 10:25:00 AM	8/5/2019 10:25:00 AM	8/11/2019 9:40:00 AM	8/18/2019 2:30:00 PM
	QA/QC Sample Type			N/A	Field Duplicate	N/A	N/A
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	3	-	1130	1130	-	1150
pH	pH units	0.1	6.0 - 9.5	8.26	8.26	8.3	8.34
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	780	785	890	856
Turbidity	NTU	0.1	-	1.29	1.37	2.05	1.41
Ammonia, Total (as N)	mg/L	0.02	-	0.018	0.012	-	<0.010
Nitrate (as N)	mg/L	0.02	-	9.6	9.57	-	9.49
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	2.1	-	<2.0

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.21 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-D

Analyte	Sample ID			MS-C-D
	ALS Laboratory Sample ID			L2335474-9
	Sample Date & Time			8/25/2019 12:40:00 PM
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
Conductivity	umhos/cm	3	-	-
pH	pH units	0.1	6.0 - 9.5	8.34
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	4.1
Total Dissolved Solids	mg/L	10	-	822
Turbidity	NTU	0.1	-	6.71
Ammonia, Total (as N)	mg/L	0.02	-	-
Nitrate (as N)	mg/L	0.02	-	-
Oil and Grease, Total	mg/L	2	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: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.22 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-E

Analyte	Sample ID			MS-C-E	MS-C-E	MS-C-E
	ALS Laboratory Sample ID			L2323293-3	L2328316-4	L2333390-9
	Sample Date & Time			8/5/2019 9:55:00 AM	8/11/2019 9:25:00 AM	8/18/2019 2:00:00 PM
	QA/QC Sample Type			N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	3	-	1190	-	1270
pH	pH units	0.1	6.0 - 9.5	7.98	8.08	8.07
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	888	1020	999
Turbidity	NTU	0.1	-	1.57	0.43	0.32
Ammonia, Total (as N)	mg/L	0.02	-	<0.010	-	<0.010
Nitrate (as N)	mg/L	0.02	-	7.15	-	8.95
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-	<2.0

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.22 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-E

Analyte	Sample ID			MS-C-E
	ALS Laboratory Sample ID			L2335474-8
	Sample Date & Time			8/25/2019 12:30:00 PM
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
Conductivity	umhos/cm	3	-	-
pH	pH units	0.1	6.0 - 9.5	8.04
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0
Total Dissolved Solids	mg/L	10	-	908
Turbidity	NTU	0.1	-	1.1
Ammonia, Total (as N)	mg/L	0.02	-	-
Nitrate (as N)	mg/L	0.02	-	-
Oil and Grease, Total	mg/L	2	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: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.23 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-F

Analyte	Sample ID			MS-C-F	MS-C-F01	MS-C-F
	ALS Laboratory Sample ID			L2323293-9	L2323293-10	L2328316-9
	Sample Date & Time			8/5/2019 1:25:00 PM	8/5/2019 1:25:00 PM	8/11/2019 11:10:00 AM
	QA/QC Sample Type			N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	3	-	205	206	-
pH	pH units	0.1	6.0 - 9.5	8.11	8.10	8.13
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0	2.7
Total Dissolved Solids	mg/L	10	-	117	122	121
Turbidity	NTU	0.1	-	0.85	1.06	2
Ammonia, Total (as N)	mg/L	0.02	-	<0.010	0.027	-
Nitrate (as N)	mg/L	0.02	-	0.181	0.180	-
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	<2.0	-

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.23 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-F

Analyte	Sample ID			MS-C-F	MS-C-F01	MS-C-F
	ALS Laboratory Sample ID			L2333390-7	L2333390-8	L2335474-4
	Sample Date & Time			8/18/2019 12:30:00 PM	8/18/2019 12:30:00 PM	8/25/2019 11:00:00 AM
	QA/QC Sample Type			N/A	Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	3	-	246	246	-
pH	pH units	0.1	6.0 - 9.5	8.09	8.09	8.2
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0	2
Total Dissolved Solids	mg/L	10	-	151	151	158
Turbidity	NTU	0.1	-	0.7	0.72	1.2
Ammonia, Total (as N)	mg/L	0.02	-	<0.010	<0.010	-
Nitrate (as N)	mg/L	0.02	-	0.263	0.259	-
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	<2.0	-

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.23 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-F

Analyte	Sample ID			MS-C-F01
	ALS Laboratory Sample ID			L2335474-5
	Sample Date & Time			8/25/2019 11:00:00 AM
	QA/QC Sample Type			Field Duplicate
	Units	LOR	Water Licence Criteria ¹	
Conductivity	umhos/cm	3	-	-
pH	pH units	0.1	6.0 - 9.5	8.19
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0
Total Dissolved Solids	mg/L	10	-	145
Turbidity	NTU	0.1	-	1.46
Ammonia, Total (as N)	mg/L	0.02	-	-
Nitrate (as N)	mg/L	0.02	-	-
Oil and Grease, Total	mg/L	2	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: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.24 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-G

Analyte	Sample ID			MS-C-G	MS-C-G
	ALS Laboratory Sample ID			L2323293-11	L2328316-1
	Sample Date & Time			8/5/2019 14:20	08/11/2019 8:15:00 AM
	QA/QC Sample Type			N/A	N/A
	Units	LOR	Water Licence Criteria ¹		
Conductivity	umhos/cm	3	-	283	-
pH	pH units	0.1	6.0 - 9.5	7.79	7.82
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	163	234
Turbidity	NTU	0.1	-	0.17	0.13
Ammonia, Total (as N)	mg/L	0.02	-	1.81	-
Nitrate (as N)	mg/L	0.02	-	10.8	-
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.24 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-G

Analyte	Sample ID			MS-C-G01	MS-C-G
	ALS Laboratory Sample ID			L2328316-2	L2333390-4
	Sample Date & Time			08/11/2019 8:15:00 AM	08/18/2019 11:20:00 AM
	QA/QC Sample Type			Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹		
Conductivity	umhos/cm	3	-	-	317
pH	pH units	0.1	6.0 - 9.5	7.85	7.73
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	225	210
Turbidity	NTU	0.1	-	0.19	0.30
Ammonia, Total (as N)	mg/L	0.02	-	-	2.06
Nitrate (as N)	mg/L	0.02	-	-	12.5
Oil and Grease, Total	mg/L	2	No Visible Sheen	-	<2.0

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.25 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-H

Analyte	Sample ID			MS-C-H	MS-C-H	MS-C-H
	ALS Laboratory Sample ID			L2323293-12	L2328316-3	L2333390-5
	Sample Date & Time			8/6/2019 2:50:00 PM	8/11/2019 8:45:00 AM	8/18/2019 11:55:00 AM
	QA/QC Sample Type			N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	3	-	250	-	266
pH	pH units	0.1	6.0 - 9.5	8.27	8.2	8.27
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	131	181	152
Turbidity	NTU	0.1	-	0.27	0.44	0.6
Ammonia, Total (as N)	mg/L	0.02	-	0.012	-	<0.010
Nitrate (as N)	mg/L	0.02	-	<0.020	-	<0.020
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-	<2.0

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.25 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MS-C-H

Analyte	Sample ID			MS-C-H01	MS-C-H
	ALS Laboratory Sample ID			L2333390-6	L2335474-2
	Sample Date & Time			8/18/2019 11:55:00 AM	8/25/2019 9:45:00 AM
	QA/QC Sample Type			Field Duplicate	N/A
	Units	LOR	Water Licence Criteria ¹		
Conductivity	umhos/cm	3	-	265	-
pH	pH units	0.1	6.0 - 9.5	8.24	8.29
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	170	147
Turbidity	NTU	0.1	-	0.46	0.51
Ammonia, Total (as N)	mg/L	0.02	-	<0.010	-
Nitrate (as N)	mg/L	0.02	-	<0.020	-
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.26 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MQ-C-A

Analyte	Sample ID			MQ-C-A	MQ-C-A	MQ-C-A03
	ALS Laboratory Sample ID			L2323293-15	L2328316-13	L2328316-14
	Sample Date & Time			8/6/2019 2:35:00 PM	8/11/2019 3:15:00 PM	8/11/2019 3:15:00 PM
	QA/QC Sample Type			N/A	N/A	Travel Blank
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	3	-	312	-	-
pH	pH units	0.1	6.0 - 9.5	8.27	8.29	5.74
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	181	184	<10
Turbidity	NTU	0.1	-	0.27	0.29	0.48
Ammonia, Total (as N)	mg/L	0.02	-	<0.010	-	-
Nitrate (as N)	mg/L	0.02	-	<0.020	-	-
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-	-
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 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.26 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MQ-C-A

Analyte	Sample ID			MQ-C-A	MQ-C-A	MQ-C-A01
	ALS Laboratory Sample ID			L2333390-16	L2335474-11	L2335474-12
	Sample Date & Time			8/18/2019 6:00:00 PM	8/25/2019 2:05:00 PM	8/25/2019 2:05:00 PM
	QA/QC Sample Type			N/A	N/A	Field Duplicate
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	3	-	356	-	-
pH	pH units	0.1	6.0 - 9.5	8.19	8.23	8.22
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	199	209	208
Turbidity	NTU	0.1	-	0.29	0.28	0.21
Ammonia, Total (as N)	mg/L	0.02	-	<0.010	-	-
Nitrate (as N)	mg/L	0.02	-	<0.020	-	-
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-	-
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 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.27 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MQ-C-B

Analyte	Sample ID			MQ-C-B	MQ-C-B	MQ-C-B
	ALS Laboratory Sample ID			L2323293-2	L2328316-16	L2333390-14
	Sample Date & Time			8/5/2019 9:25:00 AM	8/11/2019 4:45:00 PM	8/18/2019 4:50:00 PM
	QA/QC Sample Type			N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹			
Conductivity	umhos/cm	3	-	432	-	555
pH	pH units	0.1	6.0 - 9.5	8.20	8.39	8.3
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	3.6	<2.0	<2.0
Total Dissolved Solids	mg/L	10	-	241	321	329
Turbidity	NTU	0.1	-	1.97	1.33	1.73
Ammonia, Total (as N)	mg/L	0.02	-	0.6	-	0.678
Nitrate (as N)	mg/L	0.02	-	6.0	-	8.08
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-	<2.0

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.27 - WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION - MQ-C-B

Analyte	Sample ID			MQ-C-B
	ALS Laboratory Sample ID			L2335474-16
	Sample Date & Time			8/25/2019 2:45:00 PM
	QA/QC Sample Type			N/A
	Units	LOR	Water Licence Criteria ¹	
Conductivity	umhos/cm	3	-	-
pH	pH units	0.1	6.0 - 9.5	8.34
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	2.4
Total Dissolved Solids	mg/L	10	-	269
Turbidity	NTU	0.1	-	3.13
Ammonia, Total (as N)	mg/L	0.02	-	-
Nitrate (as N)	mg/L	0.02	-	-
Oil and Grease, Total	mg/L	2	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: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

TABLE 2.28 - 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
	ALS Laboratory Sample ID			L2323293-1	L2328316-12	L2333390-15	L2335474-15
	Sample Date & Time			8/5/2019 8:55:00 AM	8/11/2019 3:30:00 PM	8/18/2019 5:30:00 PM	8/25/2019 2:20:00 PM
	QA/QC Sample Type			N/A	N/A	N/A	N/A
	Units	LOR	Water Licence Criteria ¹				
Conductivity	umhos/cm	3	-	390	-	427	-
pH	pH units	0.1	6.0 - 9.5	8.11	8.25	8.29	8.22
Total Suspended Solids	mg/L	2	Grab 30 and Average 15	<2.0	2.1	<2.0	2.4
Total Dissolved Solids	mg/L	10	-	162	243	253	251
Turbidity	NTU	0.1	-	3.03	2.43	2.38	4.3
Ammonia, Total (as N)	mg/L	0.02	-	0.271	-	0.202	-
Nitrate (as N)	mg/L	0.02	-	4.56	-	4.91	-
Oil and Grease, Total	mg/L	2	No Visible Sheen	<2.0	-	<2.0	-

Notes:

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

¹Type A Water Licence (2AM-MRY1325 - Amend. 1) - Table 11: Effluent Quality Discharge Limits for Contact Water during the Operations Phase and the Early Revenue Phase of the Project

Table 3: Flow and Volume Measurements-Part I Item 11 - August 2019

DATE	Camp Lake Freshwater for Domestic Use - Daily Water (m³) MS-MRY-1	Camp Lake Freshwater for Industrial Use - Daily Water (m³) MS- MRY-1	Treated Sewage Effluent (m³) from MS-01 to Discharge Location #1	Treated Sewage Effluent (m³) from MS-01B to Discharge Location #1	Sewage Sludge Removed (m³) from Mine Site WWTPs to Incinerator	Sewage Sludge Removed (m³) from Mine Site WWTP to PWSP at Mine Site	Km 32 Lake Milne Port Camp Daily Water (m³) MP-MRY-3	Km 32 Lake Milne Port Camp Fresh Water Use for Industrial Purposes (m³) MP-MRY-3	Treated Sewage Effluent (m³) from MP-01 to Milne Port	Treated Sewage Effluent (m³) from MP-01B to Milne Port	Sewage Sludge Removed (m³) from Milne Port WWTP to PWSP at Mine Site	Sewage Sludge Removed (m³) from Milne Port WWTP to Incinerator	Sewage Sludge Removed (m³) from Lift Stations to PWSP at Milne Port	Sewage Sludge Removed (m³) from Milne Port WWTP to PWSP at Milne Port	Treated Sewage Effluent (m3) from PWSP MP-01a to Milne Port	Effluent Discharge (m³) from Mine Site Crusher Pad Sedimentation Pond (MS-06)	Effluent Discharge (m³) from Mine Site Waste Rock Stockpile Pond (MS-08)	Effluent Discharge (m³) from Milne Port Ore Stockpile Sedimentation Pond (East) to Milne Port (MP-05)	Effluent Discharge (m³) from Milne Port Ore Stockpile Sedimentation Pond (West) to Milne Port (MP-06)	Water Use for Dust Suppression from Authorized Sources	Effluent Discharge (m³) from Milne Port Bulk Fuel Tank farm Facility to Milne Port (MP-03)
1-Aug-19	136.8	6.8	59.0	135.4	1.9	0.0	121.8	4.0	59.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1372.6	0.0	0.0	287.7	0.0
2-Aug-19	152.3	18.7	61.0	154.1	1.9	0.0	117.8	3.7	55.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	1931.0	0.0	0.0	319.8	0.0
3-Aug-19	137.8	53.6	49.0	134.5	1.9	0.0	109.5	0.0	55.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	2802.8	0.0	0.0	696.2	0.0
4-Aug-19	160.6	16.3	39.0	131.5	1.7	0.0	120.5	5.7	55.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	980.6	0.0	0.0	825.3	0.0
5-Aug-19	152.3	24.4	42.0	124.0	1.9	0.0	124.8	0.0	58.0	32.9	0.0	0.8	0.0	3.0	0.0	0.0	454.2	0.0	0.0	50.1	0.0
6-Aug-19	141.3	0.0	45.0	137.9	1.8	0.0	124.8	0.0	58.0	44.4	0.0	0.8	0.0	0.0	0.0	0.0	1078.8	0.0	0.0	590.5	559.8
7-Aug-19	152.2	56.6	44.0	146.8	1.4	0.0	112.1	0.0	62.0	38.7	0.0	0.6	0.0	3.0	0.0	0.0	1170.9	100.1	0.0	655.8	373.2
8-Aug-19	129.8	25.4	41.0	132.3	0.6	6.4	112.1	0.0	62.0	41.4	0.0	0.0	0.0	3.0	10.1	0.0	1234.6	120.1	0.0	847.9	332.0
9-Aug-19	134.9	43.1	44.0	98.9	0.8	7.6	122.1	3.7	59.0	41.8	0.0	0.7	0.0	0.0	52.7	0.0	1758.9	290.1	0.0	787.4	147.8
10-Aug-19	90.9	23.5	47.0	87.7	0.9	0.0	129.8	0.0	63.0	41.5	0.0	0.7	0.0	0.0	53.8	0.0	2114.2	74.8	0.0	863.1	53.8
11-Aug-19	160.4	17.7	43.0	91.8	0.6	11.4	112.1	0.0	62.0	0.0	41.9	0.8	0.0	0.0	54.9	0.0	864.4	0.0	0.0	1090.2	24.0
12-Aug-19	181.1	6.4	38.0	95.7	0.9	0.0	112.1	0.0	62.0	0.0	41.0	0.8	0.0	0.0	60.4	0.0	1325.4	536.1	0.0	1122.0	60.0
13-Aug-19	130.2	49.7	39.0	123.8	0.8	11.4	115.1	0.0	65.0	0.0	41.5	0.6	0.0	0.0	44.2	0.0	1484.6	0.0	86.9	743.5	0.0
14-Aug-19	148.6	39.1	46.0	140.5	1.1	0.0	112.6	2.5	65.0	0.0	55.3	0.0	0.0	0.0	43.2	0.0	1582.7	0.0	404.4	545.1	0.0
15-Aug-19	177.7	33.7	54.0	158.6	1.6	0.0	131.8	0.0	65.0	0.0	36.1	0.0	0.0	0.0	51.9	0.0	0.0	75.9	11.5	772.2	0.0
16-Aug-19	158.5	16.3	44.0	151.1	2.0	0.0	114.4	1.7	66.0	0.0	44.1	0.0	0.0	0.0	50.3	0.0	0.0	711.5	0.0	439.1	0.0
17-Aug-19	140.4	22.4	42.0	146.6	2.0	0.0	111.1	2.0	63.0	39.5	0.0	0.0	0.0	0.0	41.0	0.0	109.6	355.2	0.0	212.0	0.0
18-Aug-19	178.8	17.9	41.0	167.4	1.9	0.0	104.1	0.0	54.0	46.9	0.0	0.0	0.0	0.0	27.8	0.0	596.8	131.4	0.0	212.0	0.0
19-Aug-19	143.5	22.8	40.0	117.3	1.6	0.0	125.9	5.9	65.0	40.8	0.0	0.3	0.0	0.0	24.0	0.0	0.0	0.0	0.0	266.5	0.0
20-Aug-19	178.8	0.0	39.0	142.6	1.7	0.0	128.0	2.8	64.0	28.7	0.0	0.3	0.0	0.0	49.3	0.0	0.0	0.0	0.0	757.1	0.0
21-Aug-19	180.6	40.7	45.0	141.9	1.7	0.0	175.9	4.2	64.0	54.3	0.0	0.3	0.0	0.0	31.6	0.0	391.2	0.0	0.0	938.8	0.0
22-Aug-19	160.4	52.1	50.0	130.7	1.6	0.0	178.9	0.0	62.0	67.3	0.0	0.3	0.0	0.0	37.0	0.0	844.3	0.0	0.0	189.3	0.0
23-Aug-19	150.1	13.0	37.0	103.8	1.4	0.0	133.0	2.2	60.0	39.0	0.0	0.3	0.0	0.0	0.0	0.0	531.0	0.0	0.0	23.5	0.0
24-Aug-19	131.1	0.0	36.0	117.9	1.3	0.0	156.0	6.2	62.0	42.5	0.0	0.3	0.0	3.0	0.0	0.0	624.1	536.1	0.0	0.0	0.0
25-Aug-19	149.6	0.0	42.0	135.1	1.9	0.0	141.6	9.4	55.0	42.8	0.0	0.0	9.9	4.0	0.0	0.0	703.3	0.0	0.0	0.0	0.0
26-Aug-19	145.8	32.6	40.0	111.6	1.9	0.0	145.5	0.0	62.0	49.1	0.0	0.0	7.1	2.5	0.0	0.0	1253.0	0.0	0.0	0.0	0.0
27-Aug-19	166.5	6.7	37.0	113.2	1.9	0.0	155.2	4.0	59.0	49.9	0.0	0.3	0.0	0.0	0.0	0.0	1217.3	75.9	0.0	0.0	0.0
28-Aug-19	136.3	0.0	29.0	126.2	1.9	0.0	136.3	6.0	63.0	49.9	0.0	0.3	0.0	0.0	0.0	0.0	452.0	711.5	0.0	4.2	0.0
29-Aug-19	168.9	0.0	36.0	112.6	1.9	0.0	229.0	0.0	62.0	48.9	0.0	0.3	0.0	0.0	0.0	13.3	421.1	355.2	0.0	0.0	0.0
30-Aug-19	159.1	0.0	35.0	123.1	1.9	0.0	65.4	6.0	63.0	52.0	0.0	0.3	0.0	0.0	0.0	131.7	1452.3	131.4	0.0	0.0	0.0
31-Aug-19	167.7	52.1	29.0	116.8	2.2	0.0	112.0	0.0	62.0	40.3	0.0	0.3	0.0	0.0	0.0	208.0	1168.6	292.9	0.0	0.0	0.0
Total	4702.8	691.6	1313.0	3951.4	48.8	36.7	3991.1	70.0	1891.0	932.4	259.9	12.0	17.0	18.5	632.3	353.0	29920.1	4498.2	502.8	13239.2	1550.6

Notes:

WWTP - Waste Water Treatment Plant
PWSP - Polishing Waste Stabilization Pond